

EGU General Assembly 2011
Programme Group Programme
HS – Hydrological Sciences

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Sunday, 03 April

SC6/HS11.2 – Short-course on field instrumentation in research catchments (external) (co-organized) – Orals

Convener: Markus Weiler | Co-Conveners: Günter Blöschl, Theresa Blume, Alexander Eder, Martine Broer

Room: extern

Chairperson: n.n.

09:00–18:00

Monday, 04 April

BG1.5 – Remote Sensing in the Biogeosciences (co-listed) – Orals

Convener: Frank Veroustraete | Co-Conveners: Willem Verstraeten, Klaus Scipal, Wolfgang Wagner, Inge Jonckheere

Room: 24

Chairperson: Dr. Frank Veroustraete/ Dr. Inge Jonckheere

- 13:30–13:45 EGU2011-8376
Jouni Jussila and Uwe Rascher
Developments of Hyperspectral Remote Sensing Systems for Vegetation Research
- 13:45–14:00 EGU2011-1299
Vasileios Kalogirou, Paolo Ferrazzoli, Leila Guerriero, and Andrea Della Vecchia
Coupling the Tor Vergata microwave scattering model with a plant architectural model
- 14:00–14:15 EGU2011-9160
Stefan Kraft, Bernardo Carnicero Dominguez, Matthias Drusch, Jean-Loup Bezy, Roland Meynart, Luis Guanter, Luis Alonso, and Jose Moreno
Remote Sensing of Vegetation Fluorescence from Space within the ESA Earth Explorer Programme
- 14:15–14:30 EGU2011-11332
Gabriel Hmimina, Eric Dufrêne, Nicolas Delpierre, and Kamel Soudani
Tower-Based Photochemical Reflectance Index measurements to assess ecophysiological responses in a mature deciduous forest.
- 14:30–14:45 EGU2011-1437
Malcolm Davidson, **Dirk Schuettemeyer**, Remo Bianchi, and Klaus Scipal
Campaigns in Support of ESA'S Earth Candidate Mission Concept BIOMASS
- 14:45–15:00 EGU2011-6011
Jasper Van doninck, Jan Peters, Bernard De Baets, Eva M. De Clercq, Els Ducheyne, and Niko E.C. Verhoest
Topographic normalization of thermal infrared data
- Chairperson: Dr. Willem Verstraeten/ Dr. Wolfgang Wagner
- 15:30–15:45 EGU2011-173
Bernard Pinty, Jean-Luc Widlowski, Ioannis Andredakis, Michel Verstraete, Olivier Arino, Marco Clerici, Thomas Kaminski, and Malcolm Taberner
Snowy backgrounds enhance the absorption of visible light in forest canopies
- 15:45–16:00 EGU2011-6710
Peter Caccetta, John Raison, Robert Waterworth, and Gary Richards
Linking remote-sensing, ground observations and ecosystem models for improved GHG accounting in land systems
- 16:00–16:15 EGU2011-10704
Iryna Khlystova, Andreas Richter, Folkard Wittrock, Heinrich Bovensmann, John P. Burrows, Silvia Kloster, and Martin Schultz
Emission Ratios from satellite measurements
- 16:15–16:30 EGU2011-11534
Eva Boegh and the NEU_C4 Team
Mapping leaf nitrogen and leaf area index in European landscapes using high spatial resolution satellite data and the REGularized canopy reFLECTance (REGFLEC) model
- 16:30–16:45 EGU2011-8685
Sanna Kaasalainen, Teemu Hakala, Juha Suomalainen, and Eetu Puttonen
Active hyperspectral LiDAR for the study of vegetation
- 16:45–17:00 EGU2011-5684
Pasi Raumonen, **Mikko Kaasalainen**, Sanna Kaasalainen, and Harri Kaartinen
Approximation of volume and branch size distribution of trees from laser scanner data

BG1.5 – Remote Sensing in the Biogeosciences (co-listed) – Posters

Convener: Frank Veroustraete | Co-Conveners: Willem Verstraeten, Klaus Scipal, Wolfgang Wagner, Inge Jonckheere

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Dr. Klaus Scipal

- BG20 EGU2011-11663
Klaus Scipal and the BIOMASS Mission Advisory Group Team
Measuring biomass from space - ESA'S BIOMASS Earth Explorer mission candidate

- BG21 EGU2011-12531
Temilola Fatoyinbo, Rafael Rincon, Guoqing Sun, and K. Jon Ranson
 EcoSAR: a P-band Interferometric Synthetic Aperture Radar for Forest structure and biomass measurements
- BG22 EGU2011-3288
Patrick Chazette, Kamel Soudani, Philippe Royer, Joseph Sanak, Melody Lardier, Tristan Allouis, Marc Bouvier, and Sylvie Durrieu
 Forest canopy attributes derived from airborne lidar above the Barbeau/Fontainebleau forest
- BG23 EGU2011-8801
Brenner Silva, Lukas Lehnert, Andreas Fries, and Jörg Bendix
 Monitoring vegetation growth in an experimental plot using balloon-air-photography
- BG24 EGU2011-6244
 Dimitry Van der Zande, **Willem W. Verstraeten**, and Pol Coppin
 A 3D model of the light interception in heterogeneous forest canopies
- BG25 EGU2011-13990
 Ali Reza Khavaninzadeh, **Frank Veroustraete**, Karen Wuyts, Fatima Kardel, and Roeland Samson
 Dorsiventral leaf reflectance properties of *Carpinus betulus* L.: An indicator of urban habitat quality
- BG26 EGU2011-6184
Willem Verstraeten, Miguel Barrios, Piet Maes, Jan Clement, Jean-Marie Aerts, Marc Van Ranst, and Pol Coppin
 Relating the satellite derived EVI and meteorology with the incidence of Lyme Disease in Belgium
- BG27 EGU2011-6115
 Miguel Barrios, **Willem W. Verstraeten**, Piet Maes, Jan Clement, Jean-Marie Aerts, Marc Van Ranst, and Pol Coppin
 Spatio-temporal patterns of Nephropathia epidemica and Lyme disease incidence in Belgium
- BG28 EGU2011-10677
Karol Szymankiewicz, Jaroslaw Zawadzki, and Karol Przedziecki
 Forest type inventory using MODIS and MERIS remote sensing images. Study case: Janowskie forest
- BG29 EGU2011-7566
Angela Harris and Jaduandan Dash
 A new approach for estimating northern peatland gross primary productivity using a satellite sensor derived chlorophyll index
- BG30 EGU2011-9455
Karsten Kotte and Fabian Löw
 Rapid change detection and salt classification as a promising tool to estimate emission of naturally produced organohalogens from saline ecosystems
- BG31 EGU2011-1729
Amani Al Abri and Ray N. Merton
 use of Hyperspectral imagery for mapping and monitoring coral reefs of Galapagos Island, Ecuador
- BG32 EGU2011-763
Alireza Sadeghi, Tilman Dinter, Marco Vountas, and Astrid Bracher
 Remote sensing of coccolithophore blooms in selected oceanic regions using PhytoDOAS method applied to hyper-spectral satellite data
- BG33 EGU2011-7369
Meiting Hou, Shunqian Zhang, Xiaodong Yan, and Qingtao Qing
 Remote sensing detection of droughts and impact assessment based on temperature vegetation dryness index: A case study in Sichuan province, China
- BG34 EGU2011-13684
Frank Veroustraete, Willem W. Verstraeten, Qin Li, Chen Xi, Anming Bao, Qinghan Dong, Tie Liu, and Patrick Willems
 Soil Moisture Content Retrieval based on Apparent Thermal Inertia for the Xinjiang province in China
- BG35 EGU2011-128
Armi May Torrechilla-Guzman
 Use of Geospatial Technologies in the Assessment of Coral Reefs and Abalone Distribution in Sagay Marine Reserve, Central Philippines
- BG36 EGU2011-13303
Tiziana Simoniello, Maria Lanfredi, Rosa Coppola, Vito Imbrenda, and Maria Macchiato
 Estimation of persistence properties of vegetation activity trends at regional scale
- BG37 EGU2011-9251
Daniel Doktor, Arlena Brosinsky, Angela Lausch, and Ines Merbach
 Comparison of imaging and non-imaging hyperspectral sensors observing vegetation in the laboratory
- BG38 EGU2011-7407
Inge Jonckheere, Danae Maniatis, and Danilo Mollicone
 Misrepresenting REDD+ to promote specific technological RS options

(co-listed) – Orals

Convener: Samuel Abiven | Co-Conveners: Michael W. I. Schmidt, Thorsten Dittmar

Room: 23

Chairperson: Samuel Abiven

13:30–14:00 EGU2011-5784

Timothy Eglinton, Valier Galy, Bernhard Peucker-Ehrenbrink, Nicholas Drenzek, Angela Dickens, Xiaojuan Feng, Enno Schefuss, Britta Voss, Daniel Montlucon, and Ying Wu
The origin and evolution of organic matter signatures carried by rivers to the oceans

14:00–14:15 EGU2011-1151

Christian Schurig, Rienk Smittenberg, Jürgen Berger, Peter Fittkau, Anja Miltner, and Matthias Kästner
SOM genesis - microbial biomass fragments could be a significant source in newly exposed ecosystems

14:15–14:30 EGU2011-13801

Nimisha Singh, Samuel Abiven, Margaret S. Torn, and Michael W.I. Schmidt
The uncertain future of pyrogenic carbon in terrestrial system

14:30–14:45 EGU2011-3675

Barros Nieves, César Pérez-Cruzado, Josefa Salgado, and Agustín Merino
Monitoring changes in OM in afforested soils by calorespirometry, thermal analysis and NMR

14:45–15:00 EGU2011-8233

Xiaojuan Feng, Jorien E. Vonk, Örjan Gustafsson, Valier Galy, Daniel B. Montlucon, and Timothy I. Eglinton
Fate of lignin in large river systems across different latitudes - Perspectives from compound-specific radiocarbon analysis

Chairperson: Thorsten Dittmar

15:30–16:00 EGU2011-13657

Gerhard J. Herndl and Thomas Reinthaler
Refractory deep-ocean dissolved organic matter: Enigmas and inconsistencies about its formation and transformation?

16:00–16:15 EGU2011-2445

Thorsten Dittmar, Jiyoung Paeng, Jutta Niggemann, and Aron Stubbins
Millennium-scale stabilization of marine dissolved organic matter through thermogenesis

16:15–16:30 EGU2011-12611

Yves Gelin, Karine Lalonde, Alfonso Mucci, and Alexandre Ouellet
The Rusty Sink: Iron Promotes the Preservation of Organic Matter in Sediments

16:30–16:45 EGU2011-13891

Williams T. Cooper, Malek M. Tfaily, Rasha Hamdan, J. Elizabeth Corbett, and Jeffery P. Chanton
Reactive and Refractory Components of Organic Matter in Peat Soils and their Relation to Climate Change

16:45–17:00 EGU2011-10663

Norbert Hertkorn and Philippe Schmitt-Kopplin
Natural Organic Matter and our Current Capacity to Depict Molecular Dissimilarity

BG1.6/OS3.7/SSS4.6 – Stabilization of organic matter in soils, sediments and marine dissolved organic matter
(co-listed) – Posters

Convener: Samuel Abiven | Co-Conveners: Michael W. I. Schmidt, Thorsten Dittmar

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Thorsten Dittmar, Michael W.I. Schmidt, Samuel Abiven

BG39 EGU2011-7060

Bjorn Erhagen, Ulrik Ilstedt, and Mats B Nilsson
Temperature response (Q₁₀) of heterotrophic CO₂ production in response to varying simple carbon sources and microbial metabolic status

BG40 EGU2011-9361

Irina Perminova, Alexander Volikov, Sergey Ponomarenko, Vladimir Kholodov, Elena Lasareva, and Kirk Hatfield
Design of surface-active humic substances capable for stabilization of soil aggregates

BG41 EGU2011-972

Carlos Rezende, Alex Mazurec, and Plinio Camargo
Carbon and Nitrogen Elemental and Isotopic Composition in Atlantic Forest Soils Submitted to Different Land Uses

- BG42 EGU2011-307
Muhammad Ibrahim, Anwar-ul Hassan, Muhammad Arshad, Sami Ullah, Muhammad Yamin, Sang-Keun Ha, and Keung-Hwa Han
Tillage and organic materials affects soil organic carbon under wheat-rice cropping system in Typic calciargids soils
- BG43 EGU2011-6194
Sarah De Baets, Kristof Van Oost, Karen Baumann, Veerle Vanacker, and Cornelia Rumpel
Lignin signature in response to land abandonment and erosion of dry luvisols in SE Spain
- BG44 EGU2011-422
Bernardo Maestrini, Nimisha Singh, Samuel Abiven, Margaret Torn, Jeffrey Bird, and Michael W I Schmidt
Pyrogenic carbon losses and related priming effect on soil organic matter in a forest topsoil
- BG45 EGU2011-719
Nimisha Singh, Eoin Brodie, Samuel Abiven, Bernardo Maestrini, Jeffery A Bird, Margaret Torn, and Michael W.I. Schmidt
Effect of pyrogenic carbon addition on microbial community structure in forest topsoil
- BG46 EGU2011-13802
Samuel Abiven, Nimisha Singh, and Bernardo Maestrini
Priming effect of pyrogenic carbon on soil organic matter and soil litter: facts, paradoxes and gaps in knowledge.
- BG47 EGU2011-725
Maximilian P.W. Schneider, Johannes Lehmann, and Michael W.I. Schmidt
Charcoal molecular marker quantity and pattern do not change over a century in a tropical climate
- BG48 EGU2011-4914
Stephanie Kloss, Franz Zehetner, Alex Dellantonio, Bernhard Wimmer, Raad Hamid, Volker Liedtke, Franz Ottner, Martin Gerzabek, and **Gerhard Soja**
Biochar for carbon sequestration in soil - Effect of feedstock and pyrolysis conditions on physical and chemical biochar characteristics
- BG49 EGU2011-10834
Guillermo Rein
Very Long-Term Sequestration of Solid-Phase Carbon: Geoengineering Facilities for Biochar Storage
- BG50 EGU2011-2161
Isabelle Basile-Doelsch, Pierre Bonnard, Thomas Delhay, Perrine Chaurrand, Christian Domneci, Daniel Borschneck, and Philippe Dussouillez
Exploring nanoSIMS technique for soil organic matter stabilization issues
- BG51 EGU2011-1029
Huiyu Zhao, Stephane Mounier, Roland Redon, and Cedric Garnier
Characterization of Dissolved Organic Matter 3D-Fluorescence Quenching treated by PARAFAC
- BG52 EGU2011-10940
Nadler Nahindy Simon, Pierre Benoit, Edith Parlanti, Jean-Philippe Croué, and Abbad Chabbi
Adsorption on subsoil horizons of dissolved organic matter (DOM) in agrosystems: inputs of fluorescence spectroscopy
- BG53 EGU2011-778
Malak Tfaily, Jane Corbet, Jeff Chanton, and William Cooper
DOM in Northern Peatlands: Correlating Bulk Spectroscopic Properties with Molecular Composition
- BG54 EGU2011-9338
Jutta Niggemann, Thorsten Dittmar, and Gunnar Gerdt
Assigning reactivities to individual molecules in marine dissolved organic matter
- BG55 EGU2011-2787
Zhuo Yi Zhu, Jing Zhang, Liang Shao, and Ying Wu
Particulate organic matter in the northwest East China Sea—implications from amino acids enantiomers
- BG56 EGU2011-8708
Steffi Rothhardt, Reinhard Gaupp, and Gerd Gleixner
Microbial alteration of organic coatings on sand grains

GM8.3 – Coastal zone geomorphologic interactions: natural versus human-induced driving factors (co-listed) – Orals

Convener: Margarita Stancheva | Co-Conveners: Andreas Baas, Giorgio Anfuso, Hannes Tönisson

Room: 21

Chairperson: Margarita Stancheva and Andreas Baas

- 15:30–15:45 EGU2011-4789
Edward J. Anthony
The geomorphology of Mediterranean Coasts: Imbrication of natural and human-induced driving forces over the last five thousand years

- 15:45–16:00 EGU2011-581
Daria Ryabchuk, Igor Leont'ev, Alexander Sergeev, and Elena Nesterova
 Genesis and morphology of sand spits of the Eastern Gulf of Finland and their development under natural and anthropogenic impact
- 16:00–16:15 EGU2011-3329
 Dafydd Lloyd Jones and **Joni Thomas Backstrom**
 Regional Modelling of Hydrodynamic Changes as a Result of Cumulative Marine Aggregate Dredging, South Coast, UK
- 16:15–16:30 EGU2011-4227
Derek Jackson and Andrew Cooper
 Coastal dune fields in Ireland: rapid regional response to climatic change
- 16:30–16:45 EGU2011-3504
Manuel Garcin, Marissa Yates, Goneri Le Cozannet, Patrice Walker, and Vincent Donato
 Sea level rise and coastal morphological changes on tropical islands: examples from New Caledonia and French Polynesia (SW Pacific)
- 16:45–17:00 EGU2011-13209
Robert Young
 Are there any natural beaches remaining in the United States?

GM8.3 – Coastal zone geomorphologic interactions: natural versus human-induced driving factors (co-listed) –

Posters

Convener: Margarita Stancheva | Co-Conveners: Andreas Baas, Giorgio Anfuso, Hannes Tönisson

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Hannes Tönisson

- A192 EGU2011-3446
Goneri Le Cozannet, Anny Cazenave, David Salas Y Mélia, Guy Wöppelmann, Vincent Donato, Patrice Walker, Philippe Rogel, Manuel Garcin, and Marissa Yates
 Sea level rise implications on shoreline changes: expectations from a retrospective analysis
- A193 EGU2011-4154
Neki Frasher, Alfred Frasher, Niko Pano, and Salvatore Bushati
 Outlook on seawaters dynamics and geological factors of development of Albanian Adriatic coastline
- A194 EGU2011-4891
Mark Horwitz and Ping Wang
 Barrier Island Response to Hurricane Ivan: Santa Rosa Island, Florida, USA
- A195 EGU2011-7630
Andrew Cooper and Derek Jackson
 Barrier island migration over bedrock and implications for climate change adaptation.
- A196 EGU2011-6573
 Kwang Hee Choi, **Sae Rom Han**, Pil Mo Jung, Yoon Mi Kim, Jae Ho Lee, Jung Hyo Lee, Young Kyu Shin, and Min Hwan Suh
 Responses of coastal dunes to the tropical cyclone along the west coast of Korea
- A197 EGU2011-7666
Andrew Cooper and Derek Jackson
 Ireland's only two barrier islands: human and natural genesis.
- A198 EGU2011-6099
Tae Soo Chang, Dong Geun Yoo, and Eunil Lee
 Multi time-scale morphologic responses of a mid-channel tidal bar to anthropogenic impacts and natural processes: its application to shipping hazard assessment
- A199 EGU2011-12782
Cheng-Hwa Lu and Shyh-Jeng Chyi
 The model for the development of shore platform in Penghu Islands, Taiwan
- A200 EGU2011-6619
Goesta Hoffmann
 Forcing factors of coastal change: case study Sultanate of Oman (Arabian Peninsula)
- A201 EGU2011-4933
Tiffany M. Roberts and Ping Wang
 Factors Influencing the Performance of Several Beach Nourishment Projects: Pinellas County, Florida, USA
- A202 EGU2011-5975
Carmen Maria Roskopf, Pietro Patrizio, and Emanuela Iannantuono
 Recent shoreline evolution and erosion trends of the Molise coast (southern Italy) and their possible relation to natural and human-induced driving factors

- A203 EGU2011-968
Mohamed Moncef Serbaji and Khaled Medhioub
Integrated coastal zone management of Sfax region including the Kerkennah island (Tunisia)
- A204 EGU2011-6873
Hannes Tõnisson, Kaarel Orviku, and Are Kont
Coastal zone management and changing character of shore processes - a story about Kiipsaare lighthouse.
- A205 EGU2011-4883
Atanas Palazov, Margarita Stancheva, Adrian Stanica, Gheorghe Viorel Ungureanu, Hristo Stanchev, Florin Dutu, and Georgi Parlichev
Inventory of port/coastal defence structures along the Bulgarian-Romanian part of the Western Black Sea coast
- A206 EGU2011-4200
Pauline Letortu, Stéphane Costa, Jean-Michel Cador, Romain Le Gendre, and Hervé Quéno
To the determination of triggering factors of chalk cliff collapses in Upper Normandy
- A207 EGU2011-7783
Xianrong Ding, Xiaoping Ge, Qing Li, Yanyan Kang, and Tingting Zhang
Comparison of the Coastal Landforms along Jiangsu Province of China with Inland Desert Landforms
- A208 EGU2011-9949
bora rojay and lütfi süzen
Shift of the Büyük Menderes River and the evolution of the delta plain, Western Anatolia, Turkey.
- A209 EGU2011-13600
José Pinho, Helena Granja, **Luisa Bastos**, José Gonçalves, Renato Henriques, Ana Bio, Eduardo Loureiro, and Américo Magalhães
Coastal zone geomorphologic interactions: natural versus human-induced driving factors

HS1.5 – Innovative techniques and unintended use of measurement equipment – Posters

Convener: Rolf Hut | Co-Conveners: Theresa Blume, John Selker, Willem Luxemburg

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A223 EGU2011-11384
Petrus J. van Oevelen
The New GEWEX Imperatives and Earth Observation of the Energy and Water Cycle
- A224 EGU2011-2185
Heiko Apel, Sergiy Vorogushyn, Knut Günther, Heiko Thoss, and Benjamin Creutzfeldt
Mobile and efficient monitoring of floodplain inundation
- A225 EGU2011-1754
Marie-claire ten Veldhuis
Use of call centre data for urban flood monitoring
- A226 EGU2011-2118
Koen Hilgersom and Willem Luxemburg
The rising air bubble technique for streamflow measurement
- A227 EGU2011-9547
Eelco van der Pal, Nick van de Giesen, and **Rolf Hut**
Measuring air temperature without shading by using virtual sensors of zero surface area
- A228 EGU2011-1775
Nick van de Giesen, Fabian Baerenbold, Daniel Nadeau, Eric Pardyjak, and Marc Parlange
ZyTemp TN9: A cost effective longwave radiometer
- A229 EGU2011-10096
Rolf Hut
Scanning dynamic water surfaces using a Kinect game console controller as a sensor
- A230 EGU2011-10215
Wouter Berghuijs, Bart van Osnabrugge, Hyo Mee Duerinck, **Rolf Hut**, Stijn de Jong, and Nick van de Giesen
Field test of low cost Disdrometer in Tropical environment
- A231 EGU2011-2066
Stijn de Jong, Nick van de Giesen, and Rolf Hut
Simple flowmeter to measure roof drainage
- A232 EGU2011-2411
Willem Luxemburg, Tanja Euser, and **Miriam Gerrits**
Actual Evaporation Measurement with a Glass Fiber Optic Cable
- A233 EGU2011-10075
Jop Jansen, Nick van de Giesen, Susan Steele-Dunne, John Selker, and Scott Tyler
Distributed Temperature Sensing as a tool for measuring Soil Moisture and Soil Heat Flux

- A234 EGU2011-13177
Remko Uijlenhoet, Hidde Leijnse, Aart Overeem, Jean-Martial Cohard, and Marielle Gosset
Optical and microwave links as path-average rain gauges
- A235 EGU2011-6846
Jelmer Nijp, Klaas Metselaar, and Juul Limpens
A method to determine the saturated hydraulic conductivity in living peat moss (*Sphagnum*) layers
- A236 EGU2011-3414
Mike Schwank, Oliver Bens, Oliver Henneberg, Michael Böhm, and Hans-Gerd Löhmannsröben
A field scale laser-tomography spectrometer for mapping trace-gases
- A237 EGU2011-5522
Thierry Barth, Georges-Marie Saulnier, and Emmanuel Malet
An innovative sensor to cartography the Snow covering using simple terrestrial photography
- A238 EGU2011-6925
Pavel Zlabek, Vaclav Bystricky, and Petr Lechner
Volumetric measurement technique for higher flow discharges
- A239 EGU2011-9533
Claire Goulsbra, John Lindsay, and Martin Evans
The use of electrical resistance sensors to monitor hydrological connectivity at high resolutions
- A240 EGU2011-12366
Thomas Nehls, Yong-Nam Rim, and Gerd Wessolek
Measuring Run-Off Dynamics from Pavements using the Weighable Tipping Bucket

HS2.1 – Hydrologic Similarity at the Catchment Scale – Orals

Convener: Stacey Archfield | Co-Conveners: Thorsten Wagener, Attilio Castellarin, Doerthe Tetzlaff, Richard Vogel

Room: 38

Chairperson: Stacey Archfield and Thorsten Wagener

- 13:30–13:45 EGU2011-3935
Julia Jones and Kendra Hatcher
Hydrologic similarity among headwater basin responses to climate change based on six decades of studies at long-term ecological research (LTER) sites in the United States
- 13:45–14:00 EGU2011-5205
Kelsey Jencso and Brian McGlynn
Hierarchical Controls on Runoff Generation: Topographic Hydrologic Connectivity, Vegetation and Geology
- 14:00–14:15 EGU2011-13991
Vazken Andréassian, Charles Perrin, and Ludovic Oudin
From catchment similarity to hydrological similarity: a review of the difficulties hindering the regionalization of hydrological models
- 14:15–14:30 EGU2011-275
Genevieve Ali, Doerthe Tetzlaff, Jeff McDonnell, Rene Capell, and Chris Soulsby
Are physiographic and hydrological similarity indices as equivalent as we think? Insights from a Scottish wide data set
- 14:30–14:45 EGU2011-10783
Murugesu Sivapalan, Lei Cheng, Evan Cooper-Smith, Mary Yaeger, Yoshiyuki Yokoo, Ruijie Zeng, and Xiao Zhang
Flow Duration Curve and Hydrologic Similarity: Exploration of Climate and Landscape Controls across Continental United States
- 14:45–15:00 EGU2011-10242
Fabrizio Fenicia, Dmitri Kavetski, Hubert H.G. Savenije, Martyn P. Clark, and Laurent Pfister
Fix or Flex? Hypothesis testing with a flexible approach for conceptual model development

HS2.1 – Hydrologic Similarity at the Catchment Scale – Posters

Convener: Stacey Archfield | Co-Conveners: Thorsten Wagener, Attilio Castellarin, Doerthe Tetzlaff, Richard Vogel

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Stacey Archfield and Attilio Castellarin

- A241 EGU2011-352
Scott McGrane, Doerthe Tetzlaff, Richard Essery, and Chris Soulsby
Using hydroclimatic indices to define catchment similarities and differences in large scale catchments in NE Scotland

- A242 EGU2011-2706
Susana Almeida, Nataliya Bulygina, Keith Sawicz, Neil McIntyre, Thorsten Wagener, and Wouter Buytaert
A Bayesian Framework for PUB
- A243 EGU2011-3059
Markus Wallner, Uwe Haberlandt, and Jörg Dietrich
Evaluation of Different Calibration Strategies in Combination with Different Optimization Algorithms for a Semi-Distributed Hydrological Model
- A244 EGU2011-3779
Sopan Patil and **Marc Stieglitz**
Spatial variability based streamflow predictions across United States: Role of climate and topography in predictability at ungauged basins
- A245 EGU2011-4844
Stanislav Fran?iškovi?-Bilinski, Vlado Cuculi?, Halka Bilinski, **Philipp Stadler**, and Hermann Häusler
Comparison of waters and sediments of Kupa River and Rječina River rising under the same mountain range, but belonging to two distant watersheds (North-western Croatia)
- A246 EGU2011-5283
Ross Woods
A Strategy for Selecting Similarity Indices across Diverse Hydrological Regimes
- A247 EGU2011-5914
Shailesh Kumar Singh, Luis Samaniego, Rohini Kumar, Andras Bardossy, and Ross Woods
Selection of the appropriate variables for regionalization in mesoscale basins
- A248 EGU2011-5980
Youri Rothfuss and Ludovic Oudin
Predicting Base Flow Index of ungaged catchments using Self Organizing Maps to derive similarity
- A249 EGU2011-6929
Rita Ley and Markus C. Casper
Discussion of non-systematic behaviour in catchment response
- A250 EGU2011-6969
Thomas Skaugen
Modelling discharge dynamics from information derived from maps
- A251 EGU2011-8485
Ida Westerberg, Lebing Gong, Jan Seibert, Keith Beven, Alvaro Semedo, and Sven Halldin
Regionalisation of flow-duration curves for calibration of a Central American water-balance model
- A252 EGU2011-9635
Anna Bergstrom, John Mallard, Brian McGlynn, and Timothy Covino
Watershed and stream network geometry: Implications for water and solute fluxes from watersheds
- A253 EGU2011-9749
Andreas Güntner, Benjamin Creutzfeldt, Susanna Werth, Yeshewa Hundecha, and Hartmut Wziontek
Using time-variable gravity data and hydrological models to assess the similarity of water storage variations at different scales
- A254 EGU2011-9946
Attilio Castellarin, Simone Castiglioni, Alberto Montanari, Jon Olav Skøien, Gregor Laaha, and Günter Blöschl
Spatially smooth estimation of low-flows: Canonical-Kriging and Top-Kriging
- A255 EGU2011-12373
Anna Nestorowicz, Kazimierz Banasik, Leszek Hejduk, Anna Sikorska, and Jacek G?adecki
Estimation of flow duration curve for a small ungauged catchment with ecologically valuable valley.
- A256 EGU2011-13259
Mitja Brilly, **Anja Horvat**, Andrej Vidmar, and Mojca Šraj
Analysis of Water regime of the Mura River by homogenized discharge data
- A257 EGU2011-13361
Armand Crabit, François Colin, and Roger Moussa
How to identify hydrologic similarity/dissimilarity between small ungauged catchments? Contribution of a soft hydrological monitoring coupled with a Top-Down modelling approach
- A258 EGU2011-13992
Richard Silberstein and Santosh Aryal
Cross catchment transfer of model parameters - is it realistic?

HS2.2 – Observational hydrology: Recent developments in distributed sensing techniques and experimental catchments – Orals

Convener: Heye Bogena | Co-Conveners: Markus Weiler, Laurent Pfister

Room: 38

Chairperson: Heye Bogena

- 08:30–08:45 EGU2011-3873
Harald Kunstmann, Christian Chwala, Wei Qiu, Susanne Hipp, Uwe Siart, Jörg Seltmann, Martin Pohl, Pinhas Alpert, Hagit Messer, and Alexander Bradt
 Line Integrated Precipitation Quantification by Microwave Attenuation in Alpine Terrain
- 08:45–09:00 EGU2011-4586
Stefan Krause, Theresa Blume, David Hannah, Lisa Angermann, Joerg Lewandowski, Emma Naden, Nigel Cassidy, and Andrew Binley
 Combining active and passive heat tracing technologies for identifying aquifer-river exchange flow patterns at multiple scales
- 09:00–09:15 EGU2011-5931
Susan Steele-Dunne, Jop Jansen, Christine Hatch, Lucas Williamson, Nick van de Giesen, Scott Tyler, and John Selker
 Soil Moisture Monitoring using Distributed Temperature Sensing
- 09:15–09:30 EGU2011-7266
Pilar Llorens, Jérôme Latron, Carles Rubio, Núria Martínez-Carreras, Javier García-Pintado, Pablo García-Estríngana, and Francesc Gallart
 Plot scale dynamics of soil moisture in a Mediterranean mountain area
- 09:30–09:45 EGU2011-9529
Claire Goulsbra and Martin Evans
 Evidence for the occurrence of infiltration excess overland flow in an eroded peatland catchment and implications for connectivity in a changing climate
- 09:45–10:00 EGU2011-13329
Remko Uijlenhoet, Pieter Hazenberg, Hidde Leijnse, and Aart Overeem
 Combined use of radar, raingauges and a microwave link to reconstruct an extreme rainfall event over the Hupsel Brook experimental catchment

HS2.2 – Observational hydrology: Recent developments in distributed sensing techniques and experimental catchments – Posters

Convener: Heye Bogena | Co-Conveners: Markus Weiler, Laurent Pfister

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Laurent Pfister

- A259 EGU2011-1622
Nikolaus J. Kuhn, Elizabeth K. Armstrong, and Goswin Heckrath
 Interrill erosion of carbon and phosphorus from conventionally and organically farmed Devon silt soils
- A260 EGU2011-2207
Ulrike Rosenbaum, Heye Bogena, Michael Herbst, Sander Huisman, Tim Peterson, Andrew Western, and Harry Vereecken
 Seasonal and event scale dynamics of spatial soil moisture patterns at the small catchment scale
- A261 EGU2011-3150
Xiaobo Ni, Daji Huang, Jianfang Chen, and Dingyong Zeng
 A Buoy System for Monitoring Hypoxia off Changjiang Estuary in China
- A262 EGU2011-3268
Ute Wollschläger, Peter Dietrich, Steffen Zacharias and the UFZ TERENO Team
 The TERENO Harz/Central German Lowland Observatory: Overview of the intensive hydrological research sites
- A263 EGU2011-4116
 Alena Kulasova, Keith Beven, and **Sarka Blazkova**
 Possibilities of saturated areas observation
- A264 EGU2011-5565
Mojca Sraj, Judita Jordan, and Mitja Brilly
 Infiltration measurements with MDI infiltrometer
- A265 EGU2011-5899
James C. Bathurst, Haydn Johnson, and Samantha J. Raven
 Hydrological impact of mature coniferous plantation at two spatial scales in an upland peat catchment, Irthing headwaters, northern England
- A266 EGU2011-6340
Martijn Westhoff, Thom Bogaard, and Hubert Savenije
 Unravelling dynamic first order stream behaviour by applying stepwise modelling approach and high resolution stream temperature observations
- A267 EGU2011-7537
 Bruno Samain, Bram Ferket, Willem Defloor, and **Valentijn Pauwels**
 Estimation of catchment averaged sensible heat fluxes using a Large Aperture Scintillometer

- A268 EGU2011-8091
Roland Barthel, David Bendel, and András Bárdossy
Classification and hydrogeological similarity in regional scale groundwater assessment and regionalization
- A269 EGU2011-8632
Carlos Andres Rivera Villarreyes, Heye Bogen, Gabriele Baroni, Daniel Metzen, and Sascha E. Oswald
Cosmic-Ray Neutrons for Estimation of Areal Mean Soil Moisture in Agricultural and Forest Sites
- A270 EGU2011-9379
Kazimierz Banasik and Andrzej Byczkowski
Estimating the annual maximum discharges of low probability for two small rivers in lowland Poland with various hydrological records
- A271 EGU2011-10264
Theophile Mande, Natalie Ceperley, Guillermo Barrenetxea, Alexandre Repetti, Dial Niang, Hama Yacouba, and Marc B Parlange
Rainfall-Runoff Processes in a Mixed Sudanian Savanna Agriculture Catchment: Use of a distributed sensor network
- A272 EGU2011-10988
Maja Koprivšek, Mitja Brilly, and Mihael Jožef Toman
Measuring velocity profiles above different substrates on the Glinscica stream
- A273 EGU2011-11030
Christian Mohr, Anton Huber, and Axel Bronstert
The effect of large scale clear cutting on infiltration conditions in experimental upland catchments in the Chilean Coastal Range, Bío-Bío Region
- A274 EGU2011-11824
Nicola Mantese, Daniele Penna, Alberto Gobbi, and Marco Borga
Spatial and temporal variability of piezometric response at the small catchment scale
- A275 EGU2011-12043
Thomas Graeff, Axel Bronstert, Theresa Blume, Till Francke, and Erwin Zehe
Investigation of hydrological threshold and hysteresis processes on two heterogeneous field sites in the Eastern Ore Mountains, Germany
- A276 EGU2011-12334
Karthikeyan Matheswaran, Morten Blemmer, Paul Thorn, Julie Mortensen, Dan Rosbjerg, and Eva Boegh
Reach scale Distributed Temperature Sensing (DTS) and instream temperature modelling of a Danish experimental river basin in Sjælland, Denmark

HS2.3 – Observational hydrology: Recent development in isotope and other tracer methods – Orals

Convener: Christine Stumpp | Co-Conveners: Markus Weiler

Room: 38

Chairperson: Christine Stumpp, Markus Weiler

- 10:30–10:45 EGU2011-5301
Brian McGlynn and Timothy Covino
Tracer additions for quantifying stream nitrogen uptake kinetics from ambient to saturation: The physical, biological, and spatio-temporal dynamics of nutrient retention
- 10:45–11:00 EGU2011-11495
Roman Teisserenc, Désirée El Azzi, Issam Moussa, Frédéric Brunet, Luc Lambs, Maritxu Guiesse, and Jean-Luc Probst
Elemental and isotopic composition of River water during a flood event in agricultural watershed: Insight into pathways of water and sources of terrestrial derived matter.
- 11:00–11:15 EGU2011-6173
Michael Rode, Uwe Kiwel, Steffen Zacharias, Stephan Weise, and Rajesh Shrestha
New online water quality monitoring techniques for improved hydrological and water quality modelling
- 11:15–11:30 EGU2011-11172
Jay Frentress, Núria Martínez-Carreras, Laurent Pfister, and Jeff McDonnell
Some Like it Hot: Combining infrared imagery and classic isotopic and geochemical tracers to differentiate sources of streamflow in a small headwater stream (Luxembourg, Europe).
- 11:30–11:45 EGU2011-3056
Ingo Heidebuechel and Peter Troch
Determination of the Catchment Master Transit Time Distribution With Stable Water Isotopes
- 11:45–12:00 EGU2011-13447
Christoph Külls, Robin Weber, Ofer Dahan, Julian Klaus, and Markus Weiler
Fast measurement of stable isotope profiles in the unsaturated zone - from equilibrium to flow

HS2.3 – Observational hydrology: Recent development in isotope and other tracer methods – Posters

Convener: Christine Stumpp | Co-Conveners: Markus Weiler

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Christine Stumpp, Markus Weiler

- A277 EGU2011-2338
Yu-Shao Lai and Hsueh-yu Lu
Rare Earth Elements as Hydrologic Tracers in water from Tatun Volcanoes, Taiwan
- A278 EGU2011-5956
Yu-Ching Liu, Chen-Feng You, Kuo-Fang Huang, Ruo-Mei Wang, Chuan-Hsiung Chung, and Hou-Chun Liu
Distribution of Boron Isotopes in a Mountainous River Catchment, Southern Taiwan
- A279 EGU2011-5941
Tian-Yue Kuo, Chen-Feng You, Kuo-Fang Huang, Ruo-Mei Wang, Chuan-Hsiung Chung, and Hou-Chun Liu
Source and re-distribution of zinc isotopes in river catchments, Southern Taiwan
- A280 EGU2011-248
Harald Hofmann and Ian Cartwright
Detection of spatially variable groundwater inflow in rivers with geochemical tracers: Using major ion chemistry and Radon ^{222}Rn as possible tracer: An example from the Avon and Mitchell rivers, southeast Australia.
- A281 EGU2011-1538
Uwe Morgenstern, Micheal K Stewart, and Roland Stenger
Dating of Streamwater Using Tritium in a Post Nuclear Bomb Pulse World: Continuous Variation of Mean Transit Time With Streamflow
- A282 EGU2011-9812
Benny Selle, Marc Schwientek, Holger Lange, and Gunnar Lischeid
Instationary travel times under stationary conditions - tracer experiments in a small headwater catchment at Gårdsjön, Sweden
- A283 EGU2011-5420
Markus Hrachowitz, Huub H.G. Savenije, Thom A. Bogaard, Chris Soulsby, and Doerthe Tetzlaff
Which information can tracers give on catchment internal processes when used with conceptual models?
- A284 EGU2011-480
Christian Birkel, Chris Soulsby, Doerthe Tetzlaff, Sarah Dunn, and Luigi Spezia
After the flood: high-frequency sampling reveals the influence of antecedent conditions and diurnal cycles on stream isotope dynamics
- A285 EGU2011-12255
Núria Martínez-Carreras, Jay Frentress, Jean François Iffly, Jeffery McDonnell, Dasa Hlúbiková, Luc Ector, Stefan Uhlenbrook, Lucien Hoffmann, and Laurent Pfister
Using diatoms for determining the hydrological connectivity between upland, riparian and aquatic zones: application to the Weierbach catchment (Luxembourg)
- A286 EGU2011-12354
Thibaut Blondel, Christophe Emblanch, Yves Duda, Brigitte Pépin-Donat, Christian Lombard, Jérôme Poulenard, Yves Perrette, Stéphane Gaffet, and Yves Travi
Spatial and temporal hydrogeological tracing methods from Dissolved Organic Matter (DOM) for karstic hydrosystems. Joint use of fluorescence and Electronic Paramagnetic Resonance (EPR) signals.
- A287 EGU2011-4832
Philipp Stadler, Albrecht Leis, Hermann Stadler, and Hermann Häusler
The use of environmental isotopes for event monitoring at an overthrust karst aquifer in the Dinarides, north-western Croatia.
- A288 EGU2011-7868
Alberto Gobbi, Daniele Penna, Nicola Mantese, and Marco Borga
Analysis of catchment response to rainfall and snowmelt by means of isotopic, geochemical and hydrometric data
- A289 EGU2011-7382
Gerhard Markart, Gerhard Bieber, Alexander Roemer, Anna Ita, Birgit Jochum, Klaus Klebinder, Bernhard Kohl, Bernadette Sotier, Monika Strassser, and Klaus Suntinger
Assessment of bandwidths of shallow interflow velocities in alpine catchments
- A290 EGU2011-10434
Koen Beerten and Dirk Mallants
Testing the use of unsaturated zones as archives of past infiltration: application to the Campine area, Northern Belgium
- A291 EGU2011-1700
Matthias H. Mueller and Christine Alewell
Investigating land use effects on soil hydrology in alpine ecosystems by stable isotopes
- A292 EGU2011-9071
Christine Stumpp, Willibald Stichler, Matthias Kandolf, and Jirka Simunek
Investigating water flow and solute transport heterogeneities in cultivated soils using water isotopes

- A293 EGU2011-13539
Katharina Gimbel, Christoph Külls, and Markus Weiler
 The role of plants in site and catchment isotope response

HS2.12 – Mountain hydrology: Observations, processes and models – Orals

Convener: Daniel Viviroli | Co-Conveners: Carmen de Jong, Paola Allamano

Room: 36

Chairperson: Daniel Viviroli, Carmen de Jong

- 08:30–08:45 EGU2011-2618
Walter Immerzeel and Marc Bierkens
 Quantifying the Water Tower of the Third Pole: State of the Art and Research Challenges
- 08:45–09:00 EGU2011-10325
Adina Racoviteanu, Guleid Artan, Mandira Shrestha, Samjwal Bajracharya, Pradeep Mool, Giriraj Amarnath, Molly Brown, Shahid Habib, Maria Tzortziou, and Hua Ouyang
 HIMALA: Understanding the contribution of glacier and snowmelt in the Himalaya using a spatially-distributed energy balance model and remotely sensed data
- 09:00–09:15 EGU2011-4495
Hendrik Wulf, Bodo Bookhagen, and Dirk Scherler
 Differentiating rainfall, snow and glacial melt in the Sutlej Valley (western Himalaya) by distributed hydrological modeling
- 09:15–09:30 EGU2011-3047
Bettina Schächli, Peter Molnar, and Paolo Burlando
 Precipitation gradients along hillslopes estimated from rain gauge transects
- 09:30–09:45 EGU2011-7799
Matei Domnița, Augustin Ionuț Crăciun, Ionel Haidu, and Okke Batelaan
 GIS Methodology for determination of the flash flood hydrograph in small scale mountainous catchments
- 09:45–10:00 EGU2011-5458
Iris Stewart, Darren Ficklin, and Edwin Maurer
 How will projected climate change impact stream temperature and water quality in the Sierra Nevada (CA)?

COFFEE BREAK

Chairperson: Carmen de Jong, Paola Allamano

- 10:30–10:45 EGU2011-8601
Matthias Huss
 Present and future contribution of glaciers to runoff from macroscale drainage basins in Europe
- 10:45–11:00 EGU2011-5838
Arnout van Soesbergen
 Modelling climate change impacts on water resources of dams
- 11:00–11:15 EGU2011-13155
Alberto Pistocchi and Attilio Castellarin
 An analysis of change in alpine annual maximum discharges: implications for the selection of design discharges
- 11:15–11:30 EGU2011-2959
Ulrich Strasser, Andreas Gobiet, Johann Stötter, Hannes Kleindienst, Friedrich Zimmermann, Karl Steininger, and Franz Prettenhaler
 CC-Snow: an interdisciplinary project to investigate climate change effects on future snow conditions and winter tourism in Tyrol and Styria (Austria)
- 11:30–11:45 EGU2011-7054
Robert Steiger
 The impact of climate change on water demand of snowmaking
- 11:45–12:00 EGU2011-11760
Cécile Picouet and Frédéric Gottardi
 Snow accumulation submodel: how to estimate the phase of precipitations and the snow correction factor?

HS2.12 – Mountain hydrology: Observations, processes and models – Posters

Convener: Daniel Viviroli | Co-Conveners: Carmen de Jong, Paola Allamano

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Daniel Viviroli, Carmen de Jong, Paola Allamano

- A294 EGU2011-349
Svetlana Mazukhina, Vladimir Masloboev, Konstantin Chudnenko, Valerii Bychinsky, Anton Svetlov, and Sergey Muravyev
Interaction of surface and subsurface waters in the system “water-rock-atmosphere-carbon
- A295 EGU2011-1369
Roland Koeck and Eduard Hochbichler
Soil moisture dynamics in the montane beech-fir-spruce forest belt within karstic headwaters
- A296 EGU2011-2253
Chiang Wei, Ping-Shih Yang, and Pei-Ling Tian
Evaluating the ecohydrology of microhabitat in an experimental watershed of Central Taiwan
- A298 EGU2011-4131
Frank Herrmann, Georg Berthold, Johann-Gerhard Fritsche, Florian Jenn, Ralf Kunkel, Hans-Jürgen Voigt, and Frank Wendland
Large-scale conceptual modelling of groundwater piezometric surfaces in low mountain range landscapes of Central Europe
- A299 EGU2011-5574
Thierry Barth, Georges-Marie Saulnier, and Emmanuel Malet
Monitoring hydrometeorology in mountain catchment, the example of the Vorz (Belledonne, France)
- A300 EGU2011-6738
Abdallah Alaoui, Matthias Müller, Christine Alewell, Susanne Lager, and Rolf Weingartner
Impact of land use changes on soil hydrology in the Ursern Valley, Switzerland
- A301 EGU2011-7247
Pablo Garcia-Estringana, Jérôme Latron, Pilar Llorens, and Francesc Gallart
Spatial and Temporal dynamics of soil moisture in a Mediterranean mountain area
- A302 EGU2011-7409
Jérôme Latron, **Pilar Llorens**, Pablo García-Estríngana, and Francesc Gallart
Looking at hydrological variability in a Mediterranean mountain area to infer potential effects of climate change on water resources
- A303 EGU2011-7634
Giuseppe Formetta, Silvia Franceschi, Andrea Antonello, Ricardo Mantilla, and Riccardo Rigon
The JGrass-NewAge System for Forecasting and Managing the Hydrological Budgets at the Basin Scale
- A304 EGU2011-8592
Anna Kuentz, Thibault Mathevet, Christian Perret, and Vazken Andreassian
Uncertainty estimation of historical streamflow records of mountainous watersheds
- A305 EGU2011-9241
Gertraud Meißl, Clemens Geitner, Romed Ruggenthaler, Alexandra Mätzler, Markus Tusch, and Erwin Meyer
Influence of soil characteristics and earthworm activity on the hydrologic response of Alpine pasture sites to precipitation events
- A306 EGU2011-9813
Doris Duethmann, Janek Zimmer, Sergiy Vorogushyn, Andreas Güntner, and Abror Gafurov
Evaluation of the precipitation input for hydrological modeling of a mountainous catchment in Kyrgyzstan
- A307 EGU2011-9817
Michael Kuhn
Monthly mean vertical gradients of precipitation, temperature and glacier mass balance adjusted to measured runoff from high alpine basins
- A308 EGU2011-9911
Armando Molina, Gerard Govers, and Veerle Vanacker
Restoration of hydrological services through exotic plantations and natural revegetation on abandoned badlands
- A309 EGU2011-10100
Christina Delaney and Klaus Katzensteiner
Modelling leaf area carrying capacity for site adapted sustainable forest management in the Northern Limestone Alps
- A310 EGU2011-10117
Paul Dobesberger, Antonia Zeidler, and Georg Wohlfahrt
Calibration and Comparison of three SVAT ($\text{S}_{\text{surface}}\text{-V}_{\text{vegetation}}\text{-A}_{\text{atmosphere}}\text{-T}_{\text{ransfer}}$) models.
- A311 EGU2011-10154
Romed Ruggenthaler, Gertraud Meißl, Clemens Geitner, and Friedrich Schöberl
Determination of the influence of soil moisture on infiltration capacity

- A312 EGU2011-10847
Laura Anna Boscarello, Giovanni Ravazzani, and Marco Mancini
 Assessing the impact of climate change on the flow regime of the Rhone river basin using a distributed hydrological model: first results
- A313 EGU2011-11430
Martina Kauzlaric, Bruno Schädler, and Rolf Weingartner
 Distributed water balance modelling in a highly complex mountain catchment in the Swiss Alps: identifying the relevant parameter set
- A314 EGU2011-11751
Lukas Jacka, Jirka Pavlasek, and Pavel Pech
 Estimated values of the saturated hydraulic conductivity of podzolic soils in the central part of the Šumava National Park - comparison of methods
- A315 EGU2011-11976
Florian Kobierska, Tobias Jonas, Jan Magnusson, Massimiliano Zappa, Mathias Bavay, Thomas Bosshard, and Stefano Bernasconi
 Climate change effects on snow melt and discharge of a partly glacierized watershed in Central Switzerland
- A316 EGU2011-12368
Cara Tobin, Bettina Schaeffli, Ludovico Nicotina, Marc B. Parlange, and Andrea Rinaldo
 The impact of temperature distributions and snowmelt rates on runoff production; a case study in the Swiss Alps
- A317 EGU2011-13548
Rory Cowie and Mark Williams
 Use of isotopic and geochemical tracers to identify source waters, flow paths, and residence times of headwater catchments in Boulder Creek Watershed, Colorado

HS2.13 – Mountain Hydrology: Monitoring and modeling of snow – Orals

Convener: Juraj Parajka | Co-Conveners: Michael Lehning, David Gustafsson

Room: 36

Chairperson: J. Parajka

- 13:30–13:45 EGU2011-4305
Martyn Clark
 Representing Spatial Variability of Snow Water Equivalent in Hydrological and Land-surface Models: A Review
- 13:45–14:00 EGU2011-7806
Kari Luojus, Jouni Pulliainen, Matias Takala, Juha Lemmetyinen, Mwaba Kangwa, Tuomo Smolander, Juho Vehviläinen, Chris Derksen, Sari Metsämäki, and Bojan Bojkov
 Investigating Snow Accumulation on Northern Hemisphere Using Globsnow Snow Water Equivalent Data
- 14:00–14:15 EGU2011-11475
Mathias Bavay, Thomas Grünwald, Jan Magnusson, and Michael Lehning
 Modeling the climate change impact on snow and runoff in the alpine space
- 14:15–14:30 EGU2011-1362
Thomas Nester and Robert Kirnbauer
 Evaluating the snow component of a runoff forecasting model
- 14:30–14:45 EGU2011-823
Gokcen Uysal, Aynur Sensoy, Ali Arda Sorman, and Ali Unal Sorman
 Forecasting Daily Discharge in the Upper Euphrates Basin Using Snowmelt Runoff Model with Estimated Snow Depletion Curves
- 14:45–15:00 EGU2011-13673
Noah Molotch, Ernesto Trujillo, and Keith Musselman
 Vegetation-snowpack feedbacks from plot to regional scales
- Chairperson: M. Lehning
- 15:30–15:45 EGU2011-10169
Johannes Schöber, Stefan Achleitner, Katrin Schneider, Rudolf Sailer, Friedrich Schöberl, Johann Stötter, and Robert Kirnbauer
 The potential of airborne laser scanning driven snow depth observations for modelling snow cover, snow water equivalent and runoff in high alpine catchments
- 15:45–16:00 EGU2011-5585
Thierry Barth, Georges-Marie Saulnier, and Emmanuel Malet
 Modelling the snow from high spatial and temporal temperatures and snow cover maps
- 16:00–16:15 EGU2011-4045
Michael Warscher, Thomas Marke, Florian Hanzer, Ulrich Strasser, Harald Kunstmann, Bernhard Hynek, Marc Olefs, Wolfgang Schöner, Rudolf Sailer, and Johann Stötter
 A terrain-based parameterization for the effect of wind-induced snow redistribution in Alpine terrain

- 16:15–16:30 EGU2011-12164
Hendrik Huwald, Chad W. Higgins, Holly J. Oldroyd, Steven A. Drake, Anne W. Nolin, and Marc B. Parlange
 Turbulence-induced pressure fluctuations in snow and their effect on heat and moisture transport
- 16:30–16:45 EGU2011-5543
Rebecca Mott, Mathias Bavay, and Michael Lehning
 Typical errors when calculating snow ablation in mountains
- 16:45–17:00 EGU2011-7846
Gro Lilbaek and John Pomeroy
 Compositional Change of Meltwater Infiltrating Frozen Ground

HS2.13 – Mountain Hydrology: Monitoring and modeling of snow – Posters

Convener: Juraj Parajka | Co-Conveners: Michael Lehning, David Gustafsson

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: D. Gustafsson

- A318 EGU2011-2156
Kay Helfricht, Bernd Seiser, Ulrich Strasser, Michael Kuhn, Rudolf Sailer, Johann Stötter, Eric Veulliet, and Helmut Schönlaub
 Modelling of snow- and icemelt contribution to Alpine streamflow at different scales in the Ötztal Alps (Tirol, Austria): the alpS MUSICALS project
- A319 EGU2011-2916
Florian Ortner, Philipp Schajer, Florian Hanzer, Thomas Marke, and Ulrich Strasser
 Snow cover trends in Tyrol and Styria (Austria) over the last decades
- A320 EGU2011-2940
Florian Hanzer, Ulrich Strasser, Thomas Marke, Michael Warscher, Bernhard Hynek, Marc Olefs, and Wolfgang Schöner
 Latest developments of the Alpine snow cover model AMUNDSEN: new modules, projects and perspectives
- A321 EGU2011-4900
Marily Xigaki
 Mapping and Monitoring Snow cover and its changes over a 40 years period for the White Mountains of Crete, Greece
- A322 EGU2011-10273
Stefan Pohl, Leo Stoeckl, Jakob Garvelmann, and Markus Weiler
 Detailed Spatial and Temporal Observations of Snow Covers in Mountainous Watersheds Using Numerous Low-Cost Standalone Sensors
- A323 EGU2011-11653
Mathias Bavay and Thomas Egger
 MeteIO: A Meteorological Data Pre-Processing Library for Numerical Models
- A324 EGU2011-12048
Matthias Rieckh, Andreas Kellerer-Pirklbauer, and Michael Avian
 Evaluation of spatial variability of snow cover duration in a small alpine catchment using automatic photography and terrain-based modeling
- A325 EGU2011-12097
Raphael Mutzner, Hendrik Huwald, Sian R. Williams, Anne W. Nolin, and Marc B. Parlange
 Fiber-optic distributed temperature sensing of alpine snow packs
- A326 EGU2011-7887
Ali Arda Sorman and Egemen Yamankurt
 Modified Satellite Products on Snow Covered Area in Upper Euphrates Basin, Turkey
- A327 EGU2011-7951
Antonio Reppucci, Xavier Banque, Laura Moreno, Maria Jose Escorihuela, Miquel Aran, David Velasco, and F. Javier Busto
 Characterization of Snow Pack Over Pyrenees Using Remote Sensed Data for Runoff Modeling
- A328 EGU2011-11818
Frederic Gottardi and Cécile Picouet
 Using MODIS snow cover data to detect the best model hypotheses for snow-dominated watershed
- A329 EGU2011-12396
Miriam Carpintero García, Vanessa Piña Bueno, Javier Herrero Lantarón, Cristina Aguilar Porro, and María José Polo Gómez
 Estimation of the snow cover by application of a two-layered model of accumulation and snowmelt in the Sierra Nevada Natural Park (Spain)
- A330 EGU2011-13648
Jannes Stolte, Geoffrie Kramer, and Helen French
 Snowmelt driven spring discharge: measuring and modeling results for a small catchment in Norway

HS3.1 – Geostatistics for space-time analysis of hydrological events – Orals

Convener: Gerald A Corzo P | Co-Conveners: Mikhail Kanevski, Geraldine Wong

Room: 39

Chairperson: Gerald A. Corzo

- 08:30–08:45 EGU2011-9218
Ingelin Steinsland, Brian J Reich, and Veronica J Berrocal
 Spatial predictive distribution for precipitation based on numerical weather predictions (NWP) and quantile regression
- 08:45–09:00 EGU2011-11522
Gregor Laaha and Günter Blöschl
 Geostatistics on river networks - a review
- 09:00–09:15 EGU2011-6780
Lukas Gudmundsson, Lena M. Tallaksen, Kerstin Stahl, and Anne K. Fleig
 Low-frequency runoff dynamics: catchment vs climate controls
- 09:15–09:30 EGU2011-1271
Vasily Demyanov and Mike Christie
 Uncertainty quantification in inverse spatial-temporal problems of porous media flow modelling
- 09:30–09:45 EGU2011-13979
Andrew Metcalfe
 Review of spatial stochastic models for rainfall
- 09:45–10:00 EGU2011-9359
Mikhail Kanevski
 Spatio-Temporal Data Analysis Using Geostatistics and Machine Learning

HS3.1 – Geostatistics for space-time analysis of hydrological events – Posters

Convener: Gerald A Corzo P | Co-Conveners: Mikhail Kanevski, Geraldine Wong

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Geraldine Wong

- A331 EGU2011-3829
María Pia Jiménez-Torres and Alexandra Paz Jacquin
 Geostatistical interpolation of precipitation data over an Andean catchment in Central Chile
- A332 EGU2011-5203
I-Chun Lien, Yih-Chi Tan, and Hsien-Tsung Lin
 The Groundwater monitoring network design in different layers : A case study of Taiwan Aquifer System
- A333 EGU2011-5700
Alexey Dudinov, Alexander Glushkov, Nikolay Serbov, and Andrey Svinarenko
 Multi-Fractal Modelling the Hydrological Systems (On Example Of Danube River): Spectral Hierarchy And Self-Scaling
- A334 EGU2011-7305
Jean Golay and Mikhail Kanevski
 Environmental Monitoring Networks: Analysis and Quantification of Clustering
- A335 EGU2011-10511
Ageel Bushara, Riccardo Rigon, and Christa D. Peters-Lidard
 Spatial soil moisture patterns at basin scale using geostatistics
- A336 EGU2011-13783
Gerald Corzo Perez, Lameck Fiwa, Kenneth Wiyo, Dirk Raes, Eline Vanuytrecht, Sam Geerts, and Henny van Lanen
 Comparison of spatio-temporal patterns of droughts in Malawi and el Niño Oscillation index
- A337 EGU2011-5054
Jianting Chu
 The Spatial-Temporal Pattern of Extreme Rainfall over Haihe River Basin, China: 1958 - 2008
- A338 EGU2011-6605
Jakub Langhammer and Zuzana Rettichova
 Application of regression trees and cluster analysis for identification of connections between modifications to streams and geomorphologic consequences of floods
- A339 EGU2011-4719
Emmanouil Varouchakis and Dionisis Hristopulos
 Stochastic space-time modelling of groundwater level variations in a Mediterranean basin
- A340 EGU2011-7874
Elena Savelyeva
 Modeling Groundwater Levels with Space-Time Geostatistics

- A341 EGU2011-10012
Attilio Castellarin
Spatially smooth regional estimation of flow-duration curves using a 3D Canonical Kriging
- A342 EGU2011-12072
Stian Solvang Johansen
Modeling uncertainty in observed precipitation using a meta-Gaussian model and conditional simulation
- A343 EGU2011-12207
Paola Allamano, Elisa Bartolini, Pierluigi Claps, Francesco Laio, and Stefania Scarsoglio
Spatial interpolation of extreme-precipitation with intermittent records
- A344 EGU2011-12444
Stacey Archfield, Richard Vogel, Riddhi Singh, and Thorsten Wagener
Estimation of daily streamflow time series at ungauged basins using the map correlation method
- A345 EGU2011-13165
Lars Marklund, Tom Gleeson, Leslie Smith, and Andrew H. Manning
The water table at continental scales
- A346 EGU2011-145
András Bárdossy and **Takayuki Sugimoto**
Non-Gaussian Hydrological Simulation using Copula Based Autoregressive Model

HS3.2 – Hydroinformatics: computational intelligence and systems analysis – Orals

Convener: Robert J. Abrahart | Co-Conveners: Elena Toth, Dimitri Solomatine, Linda See

Room: 39

Chairperson: Dr Linda See

- 10:30–10:45 EGU2011-163
Gift Dumedah and Paulin Coulibaly
Evolutionary hydrologic data assimilation using in-situ soil moisture
- 10:45–11:00 EGU2011-1839
Valentijn Pauwels and Gabrielle De Lannoy
Multivariate calibration of a water and energy balance model in the spectral domain
- 11:00–11:15 EGU2011-3751
Vladimir Moya Quiroga, Ioana Popescu, and **Dimitri Solomatine**
Experiments with cloud and cluster computing in uncertainty analysis of models
- 11:15–11:30 EGU2011-4842
Luit Jan Slooten, Maarten Willem Saaltink, Albert Nardi, Luis manuel de Vries, and Jesus Carrera
Varying mathematical model formulations in space and time: a generalized approach.
- 11:30–11:45 EGU2011-8105
Steven Weijis and Nick van de Giesen
"Zipping" hydrological timeseries: An information-theoretical view on data compression as philosophy of science
- 11:45–12:00 EGU2011-9736
Robert J. Abrahart
The pros and cons of different strategies to avoid overfitting: revisiting neural network suspended sediment modelling of two small watersheds in Puerto Rico

LUNCH BREAK

Chairperson: Dr Elena Toth

- 13:30–13:45 EGU2011-1794
Audrey Bornancin-Plantier, Anne Johannet, Pierre Roussel-Ragot, and Gérard Dreyfus
Flash Flood Forecasting using Neural Networks without Rainfall Forecasts: Model Selection and Generalization capability
- 13:45–14:00 EGU2011-4579
Angelo Doglioni, Daniele Biagio Laucelli, Luigi Berardi, Orazio Giustolisi, and Vincenzo Simeone
How to transfer research efforts on data-driven modeling to technicians? The case of ANNs-MOGA
- 14:00–14:15 EGU2011-9030
Andrea Castelletti, **Stefano Galelli**, Marcello Restelli, and Rodolfo Soncini-Sessa
A data-driven Dynamic Emulation Modelling approach for the management of large, distributed water resources systems
- 14:15–14:30 EGU2011-10109
Niels Schuetze, Michael de Paly, Claudius Bürger, and Peter Bayer
Computationally efficient stochastic optimization of deficit irrigation systems

14:30–14:45 EGU2011-11390

Luka Stravs, Stasa Vosnjak, and Mitja Brilly

Modeling the flow rate increase due to snow-melt in the Sava River Basin

14:45–15:00 EGU2011-12921

Roman Neruda, Jan Srejbber, and Martin Neruda

Neuroevolution modelling of flood wave predictors for Smeda river

HS3.2 – Hydroinformatics: computational intelligence and systems analysis – Posters

Convener: Robert J. Abrahart | Co-Conveners: Elena Toth, Dimitri Solomatine, Linda See

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Prof Dimitri Solomatine

A347 EGU2011-992

Jaime Andrés Moreno Miranda, Efraín Antonio Domínguez Calle, and Valentina Ivánofna Shveikina

A stochastic modeling approach to investigate a possible hydrological strengthening mechanism of climate change

A348 EGU2011-3322

Gianluca Martelloni, Samuele Segoni, Filippo Catani, and Riccardo Fanti

Snow melt modeling calibrated through simplex flexible algorithm: application to rainfall thresholds for landslides forecasting

A349 EGU2011-3889

Alexandra Paz Jacquin

Uncertainty analysis of a snowmelt runoff model using a possibility theory based method and the GLUE methodology

A350 EGU2011-4037

Dusan Zagar, Milena Horvat, David Kocman, Paolo Dario, and Barbara Mazzolai

Data acquisition in coastal areas: use of floating robots and numerical models

A351 EGU2011-4292

Biswa Bhattacharya and Nzeyimana Pontien

Flood forecasting in Ruvubu River Basin using TRMM data

A352 EGU2011-4361

Ayrat Giniyatullin, Dmitry Tyugin, Oxana Kurkina, and Andrey Kurkin

GIS for Studying Internal Gravity Waves

A353 EGU2011-4490

Elena Toth and Robert J. Abrahart

More than just a passing fad: Looking at patterns of growth in artificial neural network streamflow-related publications up to 2010

A354 EGU2011-4497

Elena Toth

Influence of snow accumulation and melting processes in Apennine watersheds using ANN streamflow forecasting models

A355 EGU2011-4623

Luigi Berardi, Daniele, B. Laucelli, Angelo Doglioni, Vincenzo Simeone, and Orazio Giustolisi

How to transfer research efforts on data-driven modeling to technicians? The case of EPR

A356 EGU2011-4790

Federico Montesino Pouzols

Predictive modeling of global and regional runoff to the Baltic Sea using machine learning methods

A357 EGU2011-6128

Luis Bastidas, **Saket Pande**, Sandjai Bhulai, and Mac McKee

Parameter dependent convergence bounds for a class of conceptual hydrologic models

A358 EGU2011-6685

Changwon Choi, Hye Jin Kim, Jaeung Yi, MyungSu Yu, and Dong Hoon Lee

Optimal Reservoir Operation Using Goal Programming for Flood Control

A359 EGU2011-7904

Peter Schade, Rob Knapen, Stanislav Vaneček, Jesper Groos, Stef Hummel, Gennadii Donchyts, Adrian Harper, Jan Gregersen, Peter Gijssbers, and Andrea Antonella

OpenMI 2, an extended open standard for integrating models and tools

A360 EGU2011-8429

Abhijit Badwe and Vladan Babovic

Leakage Management in Water Distribution Networks - An Approach based on Bayesian Networks

A361 EGU2011-8492

Vladan Babovic, Karri Rama Rao, Wang Xuan, Sang Keat Ooi, and Abhijit Badwe

Efficient Data Assimilation for Accurate Forecasting of Sea-Level Anomalies and Residual Currents using the Singapore Regional Model

- A362 EGU2011-8809
Lorenzo Campo and Andrea Cassioli
 Mapping of cost functions for the calibration of a lumped hydrological model and comparison of different minimization algorithms
- A363 EGU2011-9794
Wisseem Kharroubi, Eric Masson, Olivier Blanpain, and Sami Lallahem
 ANN modelling for flood warning in the Eure's river (France)
- A364 EGU2011-10535
Milan Cisty, Zbynek Bajtek, and Juraj Bezak
 Support vector machine based model for water content in soil interpolation
- A365 EGU2011-11882
Biswa Bhattacharya, Thijs van Kessel, and Dimitri Solomatine
 Combining numerical models and computational intelligence techniques in sedimentation prediction
- A366 EGU2011-13871
Felipe Ardila Camelo, Jaime Andrés Moreno M., and Nelson Obregón Neira
 An efficient method to recover mathematical operators supported on genetic programming using average mutual information -AMI-

HS5.1 – Assessment and management of water resources in tropical and dryland countries – Orals

Convener: Wouter Buytaert | Co-Conveners: Jens Liebe, Jan Friesen, Ralf Ludwig

Room: 38

Chairperson: n.n.

- 15:30–15:45 EGU2011-13163
Micha Werner, Jan Vekade, and Yasir Abbas Mohamed
 Flood forecasting in developing countries: Challenges and Sustainability
- 15:45–16:00 EGU2011-6725
 Jingwei Wu, **Mohsin Hafeez**, Kaleem Ullah, Rai Niaz, and Habib-Ullah Bodhla
 A Groundwater Model for Canal and Ground Water Management to Enhance Crop Production in Indus River System of Pakistan
- 16:00–16:15 EGU2011-485
Christian Birkel, Chris Soulsby, and Doerthe Tetzlaff
 Assessing the impacts of payment schemes for ecosystem services on the hydrology of a Costa Rican headwater catchment - A modelling approach.
- 16:15–16:30 EGU2011-1021
Solomon Gebreyohannis Gebrehiwot, Kevin Bishop, Annemieke Gärdenas, Jan Siebert, and Per-Erik Mellander
 Detection of hydrological changes in Blue Nile Basin, Ethiopia: a modeling approach
- 16:30–16:45 EGU2011-6709
Francesco Viola, Dario Pumo, Leonardo V. Noto, and Goffredo La Loggia
 EHSM: a new conceptual model for daily streamflow simulation under ecohydrological framework
- 16:45–17:00 EGU2011-5644
Jacques Lemoalle, Jean-Claude Bader, Marc Leblanc, and Ahmed Sedick
 Lake Chad (Africa): hydrological modelling and management options for inter-basin transfers.

HS6.8 – Soil moisture applications based on SMOS data – Orals

Convener: Susanne Mecklenburg | Co-Conveners: Jean-Pierre Wigneron, Yann Kerr, Matthias Drusch

Room: 39

Chairperson: Drusch

- 15:30–15:45 EGU2011-9506
Yann Kerr, Jean-Pierre Wigneron, Paolo Ferrazzoli, Philippe Richaume, Arnaud Mialon, Claire Gruhier, Elsa Jacquette, Delphine Leroux, Philippe Waldteufel, and Ahmad Al Bitar
 SMOS : most significant results obtained over land
- 15:45–16:00 EGU2011-13312
Silvia Juglea, Yann Kerr, Arnaud Mialon, Claire Gruhier, Jean - Pierre Wigneron, Ernesto Lopez-Baeza, Philippe Richaume, and Steven Delwart
 Comparison of simulated and real SMOS data over the Valencia Anchor Station
- 16:00–16:15 EGU2011-11692
Paolo Ferrazzoli, Rachid Rahmoune, Yann Kerr, and Philippe Richaume
 Analysis of SMOS signatures over forests and application of L2 algorithm

- 16:15–16:30 EGU2011-3092
Carsten Montzka, Harrie-Jan Hendricks Franssen, Matthias Drusch, Hamid Moradkhani, Lutz Weihermueller, Diego Fernandez-Prieto, Heye Bogena, Jan Vanderborght, and Harry Vereecken
 A Synthetic 1D Data Assimilation Experiment for SMOS Radiative Transfer Parameter Estimation
- 16:30–16:45 EGU2011-1979
Florian Schlenz, Johanna Dall'Amico, Alexander Löw, and Wolfram Mauser
 SMOS validation results in the Upper Danube catchment
- 16:45–17:00 EGU2011-920
Marco Carrera, Stephane Belair, and Bernard Bilodeau
 Assimilation of SMOS Brightness Temperatures at the Meteorological Service of Canada

HS7.1/AS4.8/NH1.10/NP3.9 – Precipitation: from measurement to modelling and application in catchment hydrology (co-organized) – Orals

Convener: Remko Uijlenhoet | Co-Conveners: Alin Andrei Carsteanu, Chris Onof, Alexis Berne, Paolo Burlando, Tim Bellerby, Roberto Deidda, Giovanna Grossi, Andreas Langousis

Room: 33

Chairperson: Remko Uijlenhoet and Tim Bellerby

- 08:30–08:45 EGU2011-804
Auguste Gires, Ioulia Tchiguirinskaia, Daniel Schertzer, Christian Onof, Cedo Maksimovic, Nuno Simoes, and Shaun Lovejoy
 Quantifying the uncertainty on urban runoff associated to unmeasured small-scale rainfall variability: a comparison of two cases study
- 08:45–09:00 EGU2011-2805
Geoff Pegram, Xavi Lloret, and Daniel Sempere-Torres
 Separating signal and noise in radar-rainfall fields to generate meaningful ensembles
- 09:00–09:15 EGU2011-3138
Juan Duan, Neil McIntyre, and Christian Onof
 Statistical modelling of rainfall for drought risk assessment in southeast England
- 09:15–09:30 EGU2011-10368
Andr s B rdossy and Geoffrey Pegram
 Rainfall interpolation and simulation in hilly and mountainous regions using spatial copulas
- 09:30–09:45 EGU2011-13396
Jean-Marie Lepioufle and Kolbj rn Engeland
 Spatial and temporal block conditioned rainfall simulation; an application using an hourly punctual raingauges network and an instantaneous 1km²-pixel estimated precipitation from weather radar
- 09:45–10:00 EGU2011-13006
Jose Luis Salinas and Rafael Garcia Bartual
 Analysis and stochastic modelling of extreme rainfall events. Application in the spanish mediterranean region

COFFEE BREAK

Chairperson: Tim Bellerby and Remko Uijlenhoet

- 10:30–10:45 EGU2011-11093
Jose D Fuentes, Marcia S. DeLonge, Paul A. Kucera, Everette Joseph, and Seydi Ababacar Ndiaye
 Attributes of West African convective storms during 2006
- 10:45–11:00 EGU2011-6140
Sander Vandenbergh, Willem Jan Vanhaute, Karolien Scheerlinck, Christian Onof, Bernard De Baets, and Niko Verhoest
 How to improve the calibration of Bartlett-Lewis stochastic point rainfall models in order to better simulate extreme rainfall events?
- 11:00–11:15 EGU2011-5153
Seth Westra, Ashish Sharma, and Rajeshwar Mehrotra
 Continuous rainfall simulation: A regionalised non-parametric approach
- 11:15–11:30 EGU2011-5947
Robert Krier, Patrick Matgen, Klaus G rger, Laurent Pfister, Lucien Hoffmann, Stefan Uhlenbrook, Hubert Savenije, and James Kirchner
 Semi-distributed rainfall rates inferred from discharge observation networks
- 11:30–11:45 EGU2011-13384
Aart Overeem, Hidde Leijnse, and Remko Uijlenhoet
 Measuring urban rainfall using microwave links

11:45–12:00 EGU2011-11266

Carlo de Michele and Massimiliano Ignaccolo

Statistical collapse of stratiform and convective drop diameter distributions at the ground

HS7.1/AS4.8/NH1.10/NP3.9 – Precipitation: from measurement to modelling and application in catchment hydrology (co-organized) – Posters

Convener: Remko Uijlenhoet | Co-Conveners: Alin Andrei Carsteanu, Chris Onof, Alexis Berne, Paolo Burlando, Tim Bellerby, Roberto Deidda, Giovanna Grossi, Andreas Langousis

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Remko Uijlenhoet and Tim Bellerby

A367 EGU2011-374

Roberto Moncho

A generalization of the log-logistic distribution for the probability of daily precipitation

A368 EGU2011-1927

Renji Remesan, Tim Bellerby, Asnor Ishak, and Dawei Han

Uncertainties in hydrological prediction using input ensembles from different cumulus parameterization schemes (CPSs)

A369 EGU2011-2214

Brandon Parkes

Improvements in early flood forecasting using a 1-hour gridded precipitation dataset to drive a hydrological model. A case study of the summer floods in the Upper Severn, UK

A370 EGU2011-2548

Christopher Skinner, Helen Greatrex, Tim Bellerby, and David Grimes

Impact of Rainfall Estimation Uncertainty on Hydrological Modelling of the Senegal River Basin

A371 EGU2011-2747

Daniel Lindsey

An Objective Probabilistic Prediction Product for Severe Hail Using Satellite Observations

A372 EGU2011-3044

Hannes Müller and Uwe Haberlandt

Effect of different temporal rainfall disaggregation methods on derived flood frequency analysis

A373 EGU2011-5993

Ioannis Sideris, Marco Gabella, Urs Germann, Rebekka Erdin, and Christoph Frei

Real-time radar-raingauge spatiotemporal combination in Switzerland.

A374 EGU2011-6123

Marielle Gosset and Julien Viarre

evaluation of satellite rainfall products used for hydrological applications in West Africa

A375 EGU2011-6143

Max Kigobe, Ann van Griensven, Yunqing Xuan, **Giuliano Di Baldassarre**, Neil Mc Intyre, and Howard Wheeler

Stochastic Rainfall Modelling in the Upper Nile

A376 EGU2011-6428

Mojca Sraj and Urska Bajc

Calculations and analyses of systematic errors in precipitation measurements

A377 EGU2011-7737

Maurizio Savina and Paolo Burlando

Precipitation field driven weather radar conversion

A378 EGU2011-7761

Ageel Bushara, Mekonnen Gebremichael, Thomas Over, Riccardo Rigon, and Christa D. Peters-Lidard

Utility of remotely-sensed precipitation products for hydrological simulations at basin scale

A379 EGU2011-9165

Francesco Lo Conti, Kuo-lin Hsu, Soroosh Sorooshian, and Leonardo V. Noto

Evaluation and comparison of satellite precipitation estimates with reference to a local area

A380 EGU2011-9438

Limin Wu, John Schaake, Julie Demargne, James Brown, and Robert Hartman

Using the GFS Ensemble Mean to Generate Medium-range Precipitation Ensemble Forecasts for Hydrologic Ensemble Prediction

A381 EGU2011-10423

Martinus van den Berg, Bernard de Baets, and Niko Verhoest

Copula-based downscaling of rainfall

A382 EGU2011-10791

Fabrizio Fenicia, Laurent Pfister, Patrick Matgen, and Lucien Hoffmann

Estimating rainfall with microwave links. Insight from an experimental setup in Luxembourg-City

- A383 EGU2011-6217
Dionysia Panagoulia and Chrys Caroni
Modelling maximum monthly precipitation in temporal climate evolution
- A384 EGU2011-7379
Muhammad Rehan Anis and Michael Rode
An improved method for the temporal disaggregation of rainfall at a finer time scale
- A385 EGU2011-7861
Klaus Haslinger, Barbara Chimani, and Reinhard Boehm
Solid and Liquid Precipitation in major river catchments originating in the European Alps
- A386 EGU2011-8798
David Ian Francis Grimes, Helen Greatrex, and Tim Wheeler
Ensemble approach to disaggregation of seasonal rainfall forecasts in the context of crop yield prediction.
Case study: maize yield in Ethiopia.
- A387 EGU2011-9816
Marcus Malsy, Tim aus der Beek, and Martina Flörke
Sensitivity of water availability in Central Asia with respect to various climate datasets in particular the input parameter precipitation
- A388 EGU2011-11378
Reinhard Teschl, Walter L. Randeu, and Franz Teschl
Investigating the variability of precipitation in a mountainous catchment using data-driven approaches
- A389 EGU2011-12743
Sadegh Ghazanfari, Aa Alizadeh, Aa Farid, and Mm Bannayan
Comparison the PERSIANN model with interpolation methods to estimate daily precipitation (A case study: North-Khorasan, Iran)
- A390 EGU2011-12834
Li-Pen Wang, Christian Onof, and Cedo Maksimovic
An improved discrete cascade method for sub-daily rainfall modelling
- A391 EGU2011-13482
Yisak Abdella, Kolbjørn Engeland, Jean-Marie Lepioufle, and Knut Alfredsen
Distributed modelling of catchment hydrology using radar derived precipitation
- A392 EGU2011-13640
Maurice Schmeits and Kees Kok
A comparison between raw ensemble output, (modified) Bayesian model averaging and extended logistic regression using ECMWF ensemble precipitation reforecasts
- A393 EGU2011-12262
Nan Yu, Pieter Hazenberg, Guy Delrieu, Brice Boudevillain, and Remko Uijlenhoet
The parameterization of the general raindrop size distribution by the gamma probability density function

HS7.3/CL3.7/NP1.4 – Climate, water and health (co-organized) – Orals

Convener: Andreas Langousis | Co-Conveners: Alexander Kolovos, Alin Andrei Carsteanu

Room: 33

Chairperson: A. Langousis and A. Carsteanu

- 13:30–13:45 EGU2011-7940
Oleksandr Kit, Matthias Luedeke, Diana Reckien, and Martin Budde
Assessment of vulnerability of urban slums to extreme precipitation events using remote sensing data in Hyderabad/India
- 13:45–14:00 EGU2011-5145
Olga Khabarova
People and environment: how and why we react to weather and space weather changes.
- 14:00–14:15 EGU2011-5058
Enrico Bertuzzo, Lorenzo Mari, Lorenzo Righetto, Renato Casagrandi, Marino Gatto, Ignacio Rodriguez-Iturbe, and Andrea Rinaldo
A spatially distributed model for the future evolution of the current Haiti cholera outbreak
- 14:15–14:30 EGU2011-6981
Evangelos Rozos and Christos Makropoulos
Ensuring water availability with complete urban water modelling
- 14:30–15:00 EGU2011-8918
Shafiqul Islam and Elfatih Eltahir
Hydroepidemiology: A synthesis of hydrological and epidemiological understanding for better intervention of water related diseases

HS7.3/CL3.7/NP1.4 – Climate, water and health (co-organized) – Posters

Convener: Andreas Langousis | Co-Conveners: Alexander Kolovos, Alin Andrei Carsteanu

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: A. Carsteanu and A. Langousis

- A394 EGU2011-117
Andrey Guber, Yakov Pachepsky, and Daniel Shelton
Microbial water quality in streams as affected by high flow events
- A395 EGU2011-4691
Antarpreet Jutla, Ali Akanda, and Shafiqul Islam
Hydroepidemiology of Cholera: Predicting Outbreaks using Satellite Derived Global Cholera Index
- A396 EGU2011-5542
Cheng Yu She, Bing Mu Hsu, Shih Wei Huang, Po Min Kao, Shao Yu Liao, and Jung Sheng Chen
Evaluation of Cryptosporidium Inactivity in Difference Concentration of Chlorination
- A397 EGU2011-5499
Hsiang Yu Hsiao, Bing Mu Hsu, Kuan Hao Huang, Shih Wei Huang, Po Min Kao, Hung Jen Wang, Kuo Chih Tseng, Ming Jen Su, and Jung Sheng Chen
Detection and Identification of Salmonella spp. in a Taiwan Watershed by Molecular Technology
- A398 EGU2011-13200
Annemieke Gärdenäs, **Solomon Gebreyohannis Gebrehiwot**, Per-Erik Mellander, Jan Seibert, Kevin Bishop, and Woldeamlak Bewket
The potential impact of climate change on water balances of five catchments within the Blue Nile Basin for different scenarios of land-use
- A399 EGU2011-5148
Hatim Sharif
The Relationship between Climate and Influenza at Monthly Timescale
- A400 EGU2011-5483
Hsiu Feng Tsai, Bing Mu Hsu, Shih Wei Huang, Po Min Kao, Cheng Yu She, Jung Sheng Chen, and Liang Chen
Detection and Identification of Acanthamoeba in Taiwan aquatic Environment
- A401 EGU2011-4364
Ali S Akanda, Antarpreet Jutla, Elfatih Eltahir, and Shafiqul Islam
Hydroepidemiology of Cholera Transmission in Bangladesh: A Spatially Explicit and Seasonally Varying Cholera Prevalence Model
- A402 EGU2011-9478
Philippe Larroudé
Climate change and indicator of vulnerability with a 2DH model on four French beaches
- A403 EGU2011-4507
Lorenzo Mari, Enrico Bertuzzo, Lorenzo Righetto, Renato Casagrandi, Marino Gatto, Ignacio Rodriguez-Iturbe, and Andrea Rinaldo
Hydrological transport, human mobility and cholera epidemics: a spatially explicit modeling approach
- A404 EGU2011-6679
Adrian Tompkins, Francesca Di Giuseppe, Rachel Lowe, Franco Molteni, Andrew Morse, Claudio Piani, and Frederic Vitart
Using ECMWF precipitation and temperature forecasts to predict vector-borne disease in the QWeCI project
- A405 EGU2011-8467
Tabea Lissner, Dominik Reusser, Eva Kirschenmann, Anne Holsten, and Jürgen Kropp
Exploring the consequences of changes in water resource availability on human health and well-being
- A406 EGU2011-7062
Kuan Hao Huang, Bing Mu Hsu, Shih Wei Huang, Po Min Kao, Hung Jen Wang, Hsiang Yu Hsiao, Kuo Chih Tseng, Ming Jen Su, and Jung Sheng Chen
Seasonal distribution of Salmonella in stream water in Taiwan
- A407 EGU2011-9571
Bellie Sivakumar and Ashish Sharma
Impacts of global climate change on water resources: assessment, challenges, and remedies

HS7.5/NP6.7 – Hydroclimatic stochastics (co-organized) – Orals

Convener: Demetris Koutsoyiannis | Co-Conveners: Alin Andrei Carsteanu, Salvatore Grimaldi

Room: 33

Chairperson: Salvatore Grimaldi

15:30–16:00 EGU2011-55

Robin Thomas Clarke

A critique of some aspects of statistical usage in hydroclimate research.

- 16:00–16:15 EGU2011-12711
Klaus Fraedrich
A minimalist model of terminal lakes
- 16:15–16:30 EGU2011-12891
Susana Barbosa
Aggregation and stochastic features of high-frequency hydroclimatic time series
- 16:30–16:45 EGU2011-854
Federico Lombardo, Elena Volpi, and Demetris Koutsoyiannis
Theoretical and empirical comparison of stochastic disaggregation and downscaling approaches for rainfall time series
- 16:45–17:00 EGU2011-3454
Dimosthenis Tsaknias, Dimitris Bouziotas, Antonis Christofides, Andreas Efstratiadis, and Demetris Koutsoyiannis
Statistical comparison of observed temperature and rainfall extremes with climate model outputs
- 17:00–17:15 EGU2011-11557
Simon-Michael Papalexiou and Demetris Koutsoyiannis
A worldwide probabilistic analysis of rainfall at multiple timescales based on entropy maximization

HS7.5/NP6.7 – Hydroclimatic stochasticity (co-organized) – Posters

Convener: Demetris Koutsoyiannis | Co-Conveners: Alin Andrei Carsteanu, Salvatore Grimaldi

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Alin Carsteanu

- A408 EGU2011-290
Yannis Diallynas, Stefanos Kozanis, and Demetris Koutsoyiannis
A computer system for the stochastic disaggregation of monthly into daily hydrological time series as part of a three-level multivariate scheme
- A409 EGU2011-6884
Simon-Michael Papalexiou and Demetris Koutsoyiannis
Entropy maximization, p-moments and power-type distributions in nature
- A410 EGU2011-739
Panayiotis Dimitriadis, Demetris Koutsoyiannis, Christian Onof, and Katerina Tzouka
Multidimensional Hurst-Kolmogorov process for modelling temperature and rainfall fields
- A411 EGU2011-1489
Demetris Koutsoyiannis, Stefanos Kozanis, and **Hristos Tyrallis**
A general Monte Carlo method for the construction of confidence intervals for a function of probability distribution parameters
- A412 EGU2011-1981
Satoshi Watanabe, Taikan Oki, and Shinjiro Kanae
Evaluations of bias-correction methods for monthly temperature and precipitation data by multiple GCM outputs
- A413 EGU2011-5330
Yuan-Chien Lin, Hwa-Lung Yu, Tsang-Jung Chang, and Yih-Chi Tan
Modeling of space-time typhoon tracks in the vicinity of Taiwan by generalized linear model
- A414 EGU2011-5346
Po-Lin Lin, Hwa-Lung Yu, and Bellie Sivakumar
Investigating space-time patterns of rainfall in I-Lan (Taiwan) by hierarchical clustering and correlation dimension methods
- A415 EGU2011-8266
Sarann Ly, Eléonore Beckers, Catherine Charles, and Aurore Degré
Effects of different spatial interpolators on the estimate of extreme precipitation
- A416 EGU2011-9226
Anna Kuentz, Federico Garavaglia, Emmanuel Paquet, and Rémy Garçon
Stochastic generation of peak-to-volume ratio. Application to SCHADEX method for design flood estimation.
- A417 EGU2011-10126
Ferdinand Beck and András Bárdossy
NiedSim-Klima: Generating Rainfall Time-Series of High Temporal Resolution under Future Climate Conditions
- A418 EGU2011-11632
Dirk Schlöbinger, Maria Magdalena Eder, Marieke Frassl, Karsten Rinke, and Andras Bardossy
A Vector-Autoregressive "co-shiftable" Weathergenerator for Hydrodynamic Modeling of Lakes
- A419 EGU2011-14074
Irai A. Berdeja-Sotelo, **Alin A. Carsteanu**, Jorge J. Castro, Khalidou M. Ba, and Carlos Diaz-Delgado
Qualitative statistics of rainfall in Mexico City

HS8.1.1 – Subsurface flow, solute transport, and energy processes: Concepts, modelling, and observations – Orals

Convener: Wolfgang Durner | Co-Conveners: Steffen Birk

Room: 34

Chairperson: Durner

- 08:30–08:45 EGU2011-3540
Martina Schneider and Kai-Uwe Goss
Prediction of the water retention curve in dry soils
- 08:45–09:00 EGU2011-3656
Benedikt Scharnagl, Jasper Vrugt, Harry Vereecken, and Michael Herbst
Bayesian inverse modeling of soil water dynamics at the field scale: using prior information on soil hydraulic properties
- 09:00–09:15 EGU2011-1280
Efstathios Diamantopoulos, Sascha C. Iden, and Wolfgang Durner
Inverse modeling of dynamic non-equilibrium in water flow with an effective dual continuum approach
- 09:15–09:30 EGU2011-5551
John Koestel, Julien Moeys, and Nick Jarvis
How well are breakthrough-curve shape-measures determined by the available data?
- 09:30–09:45 EGU2011-8386
Francisco M. Domínguez Luque and María José Polo Gómez
Non-linear effects of solute transfer from soil to runoff modeling on surface flow solute dispersion
- 09:45–10:00 EGU2011-11847
Yves Méheust, Jérémy Bouquain, Laure Michel, Jean de Bremond d'Ars, and Philippe Davy
Solute transport in a plane horizontal fracture: influence of density contrasts and fracture-matrix exchange

COFFEE BREAK

Chairperson: Birk

- 10:30–10:45 EGU2011-11892
Eric Zechner, Ali Zidane, Anis Younes, and Huggenberger Peter
Simulation of high-contrast density-driven transport at field scale
- 10:45–11:00 EGU2011-8380
Steffen Birk and Thomas Reimann
Representation of turbulent groundwater flow in continuum models
- 11:00–11:15 EGU2011-11963
Peter Bayer, Alessandro Comunian, Julien Straubhaar, Peter Huggenberger, and Philippe Renard
High-resolution reconstruction of three-dimensional sedimentary aquifer analog: the Herten case study
- 11:15–11:30 EGU2011-4244
Leticia Rodriguez, Luis Vives, Andrea Gomez, and Stela Dalta Santos Cota
Groundwater flow model of the transboundary Guaraní Aquifer System
- 11:30–11:45 EGU2011-8155
Juris Sennikovs, Janis Virbulis, and Uldis Bethers
Mathematical model of the Baltic artesian basin
- 11:45–11:57 **Intro to poster session**

HS8.1.1 – Subsurface flow, solute transport, and energy processes: Concepts, modelling, and observations – Posters

Convener: Wolfgang Durner | Co-Conveners: Steffen Birk

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Durner

- A420 EGU2011-7414
Jana Votrubova, Michal Dohnal, Miroslav Tesar, and Tomas Vogel
Study of heat transport in structured soil under grass cover: dual-continuum approach
- A421 EGU2011-2116
Gabriele Antolini, Fausto Tomei, and Marco Bittelli
Testing of a coupled soil water and heat model under a vegetated surface in Emilia-Romagna (Italy)

- A422 EGU2011-8921
Alessandro Comegna, Antonio Coppola, Vincenzo Comegna, Gerardo Severino, Angelo Sommella, and Cosimo Vitale
Soil water status as a stochastic process: analysis of field spatial variability
- A423 EGU2011-13044
Michel Bechtold, Jan Vanderborght, Olaf Ippisch, and Harry Vereecken
Efficient random walk particle tracking algorithm for modeling advection-dispersion transport in highly heterogeneous porous media
- A424 EGU2011-7341
Jaromir Dusek, Jan Brezina, Michal Dohnal, Tomas Vogel, and Vladimira Jelinkova
Benchmark modeling with parallelized three-dimensional numerical code for water flow and solute transport in a porous medium
- A425 EGU2011-1732
Chien-Wen Lin, Jui-Sheng Chen, and Juan-Tse Chen
Analytical solution to two-dimensional advection-dispersion equation in cylindrical coordinates subject to finite exit boundary
- A426 EGU2011-1862
Ching-Ping Liang and Jui-Sheng Chen
Effect of radial boundary on two-dimensional advective-dispersive transport in geological system with a circular source
- A427 EGU2011-1858
Jui-Sheng Chen, Chen-Wuing Liu, and Ke-Kang Kao
Appraisal on Applicable Condition for Vertical Dipole Flow Tracer Test in Determining the Longitudinal Dispersion Coefficient
- A428 EGU2011-12372
Stefano Basirico^{*}, Alberto Villa, Paolo Frattini, Giovanni Battista Crosta, and Alberto Godio
Electromagnetic flowmeter applications for aquifer hydraulic characterization
- A429 EGU2011-1829
Chuen-Fa Ni, Yi-Ru Huang, Chi-Ping Lin, I-Hsien Li, and Wi-Ci Li
Stochastic inversion of hydraulic tests for highly permeable unconfined aquifers - model development and application to an aquifer in the middle reach of the Wu River in central Taiwan
- A430 EGU2011-2397
Yi-Ju Huang and Chuen-Fa Ni
Three-dimensional inversion of field-scale pumping test data for a layered sandy loam aquifer
- A431 EGU2011-2862
Keng-Hsin Lai and Jui-Sheng Chen
Effect of Permeability Anisotropy on Morphological Evolution a Chemical Dissolution Front in a Fluid-Saturated Porous Medium
- A432 EGU2011-1648
Cheng-Shin Jang and Sheng-Wei Wang
Applying a technique of sequential indicator simulation and multivariate integration to evaluate groundwater quality used in aquacultural fishponds
- A433 EGU2011-4352
Woei-Keong Kuan, Guangqiu Jin, Pei Xin, Clare Robinson, Badin Gibbes, and Ling Li
Physical and numerical modelling of tidal influence on saltwater intrusion in an unconfined coastal aquifer
- A434 EGU2011-13309
Susanne Stadler, **Hartmut Holländer**, Takeshi Hayashi, Mike Mottl, and Exp313 Science Party
Understanding the origin and distribution of salt and fresh water in the New Jersey shallow shelf
- A435 EGU2011-3977
Wei-Ci Li and Chuen-Fa Ni
Quantify the Influence of the Ocean Current on the Submarine Groundwater Discharge

HS8.1.2 – Hydrogeophysics in subsurface hydrology – Orals

Convener: Harry Vereecken | Co-Conveners: Ugur Yaramanci, Ty P. A. Ferre

Room: 34

Chairperson: h.vereecken

- 13:30–13:45 EGU2011-1134
Marie Scholer, James Irving, Majken Looms, Lars Nielsen, and Klaus Holliger
Comparison of soil hydraulic parameters estimated from time-lapse GPR data under natural loading and forced infiltration conditions
- 13:45–14:00 EGU2011-2522
Cho Miltin Mboh, Johan A. Huisman, Egon Zimmermann, and Harry Vereecken
Estimating subsurface hydraulic properties from streaming potential signals obtained under variably saturated flow conditions

- 14:00–14:15 EGU2011-4781
Alessandro Brovelli and Giorgio Cassiani
 Constitutive models for the joint estimation of electrical conductivity and permittivity of variably-saturated soils
- 14:15–14:30 EGU2011-7530
Jochen Kamm and Niklas Juhojuntti
 Joint inversion of refraction seismics and geoelectrics with layered models
- 14:30–14:45 EGU2011-11607
Sébastien Lambot and Frédéric André
 Full-waveform modelling of near-field GPR data to reconstruct planar layered media: the problem solved
- 14:45–15:00 EGU2011-4779
Giorgio Cassiani, Matteo Rossi, Giulio Vignoli, Rita Deiana, and Andrew M. Binley
 Advances in borehole GPR data interpretation for hydrological purposes
- Chairperson: Ugur Yaramanci
- 15:30–15:45 EGU2011-2519
Caroline Dorn, Niklas Linde, Tanguy Le Borgne, Olivier Bour, and Ludovic Baron
 Time-lapse GPR reflection imaging of saline tracer movement in a fractured crystalline aquifer, Brittany, France
- 15:45–16:00 EGU2011-8215
Anja Klotzsche, Jan van der Kruk, Giovanni A. Meles, Joseph Doetsch, Niklas Linde, Hansruedi Maurer, Alan G. Green, and Harry Vereecken
 High resolution imaging of the saturated and unsaturated zone of a gravel aquifer using full-waveform borehole GPR inversion
- 16:00–16:15 EGU2011-2672
Alexandre Pryet, Noémi d'Ozouville, James Ramm, David Fauchet, Sophie Violette, Benoit Deffontaines, and Esben Auken
 Hydrogeological framework of San Cristóbal Island (Galápagos, Ecuador) inferred from airborne TEM and field investigations
- 16:15–16:30 EGU2011-9782
Joseph Doetsch, Niklas Linde, Tobias Vogt, Andrew Binley, Ilaria Coscia, and Alan Green
 Imaging of groundwater flow paths in an active river channel using 3D ERT monitoring of a salt tracer injection
- 16:30–16:45 EGU2011-8139
Murugan Ramasamy, Rajesh Rajendran, and Elango Lakshmanan
 Electrical Resistivity Survey to assess the geological conditions in a Proposed Uranium tailings pond
- 16:45–17:00 EGU2011-8808
Ty Ferre
 Emphasizing Collaboration in Hydrogeophysics

HS8.1.2 – Hydrogeophysics in subsurface hydrology – Posters

Convener: Harry Vereecken | Co-Conveners: Ugur Yaramanci, Ty P. A. Ferre

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Ty Ferre

- A436 EGU2011-3082
Paolo Ruggeri, Erwan Gloaguen, and Klaus Holliger
 A non-linear Bayesian approach for upscaling local-scale permeability measurements based on local- and regional-scale hydrogeophysical data
- A437 EGU2011-6448
Derode Benoit, Cappa Frédéric, Guglielmi Yves, Gaffet Stéphane, and Monfret Tony
 Seismicity and hydromechanical behavior of a fractured porous rock under a high pressure fluid injection.
- A438 EGU2011-7171
Jehyun Shin, Seho Hwang, Joongmoo Byun, and Kyung-Seok Ko
 Using Geophysical Well Logging and Borehole Temperature Monitoring to Understand Seawater Intrusion in a Heterogeneous Basalt Aquifer in Jeju Volcanic Island, Korea
- A439 EGU2011-7347
Sadam Al-Hazaimay, Johan A. Huisman, Egon Zimmermann, Andreas Kemna, and Harry Vereecken
 Using electrical anisotropy for sub-scale structural characterization of sediments: an experimental validation study
- A440 EGU2011-7997
Annika Steuer, Barbara Liss, Thomas Burschil, Helga Wiederhold, and Reinhard Kirsch
 Hydrogeophysical investigations on the North Sea island Föhr using airborne and ground-based transient electromagnetics

- A441 EGU2011-8775
Andrew Hinnell, Lutz Weihermüller, Ty Ferre, Harry Vereecken, and Andreas Pohlmeier
Determination of soil hydraulic properties by coupled inversion of laboratory nuclear magnetic resonance.
- A442 EGU2011-10197
Seho Hwang, Inhwa Park, Tae-Jong Lee, and Yoonho Song
Geophysical well logs to evaluate the subsurface structure and groundwater flow from deep boreholes, Seokmodo, Korea
- A443 EGU2011-10358
Alberto Godio, Alessandro Arato, Diego Franco, Stefano Basiricò, Giovanni Battista Crosta, Paolo Frattini, Alberto Villa, and Georgios Tsofilas
Hydrogeophysical characterisation of a complex aquifer in calcareous and gypsum formations
- A444 EGU2011-10770
Eléonore Beckers, Angélique Léonard, Jöran Beekkerk van Ruth, Christian Roisin, and Aurore Degré
Impact of thresholding techniques on X-ray soil microtomogram analyses
- A445 EGU2011-11141
Oliver Mohnke, Benjamin Ahrenholz, and **Norbert Klitzsch**
Joint numerical microscale simulations of multi-phase flow and NMR relaxation behaviour in porous media
- A446 EGU2011-11571
Khan Zaib Jadoon, Sébastien Lambot, Lutz Weihermüller, Marin Dimitrov, Jan van der Kruk, and Harry Vereecken
Monitoring snow cover melting, shallow freezing and thawing processes using off-ground ground-penetrating radar
- A447 EGU2011-12237
Behzad Ghanbarian-Alavijeh and **Allen Hunt**
Estimating Specific Surface Area from Particle-Size Distribution: A Fractal Approach
- A448 EGU2011-12440
Rachel Cassidy, Jean-Christophe Comte, Janka Nitsche, Katarina Pilatova, Raymond Flynn, and Ulrich Offerdinger
Towards conceptual models of flow and transport for Irish hard-rock aquifers: a multidisciplinary approach.
- A449 EGU2011-8658
Phuong Tran, M. Mohammad Reza Mahmoudzadeh, and Sébastien Lambot
Frequency dependence of soil permittivity and conductivity estimated by ground-penetrating radar full-waveform inversion

NH3.1/HS8.1.6 – Mechanisms and processes of landslides induced by water (co-organized) – Orals

Convener: Hiroshi Fukuoka | Co-Conveners: Paolo Frattini, Giovanni Crosta, Nejan Huvaj

Room: 1

Chairperson: n.n.

- 08:30–08:45 EGU2011-1226
Ogbonnaya Igwe, Wilfred Mode, Okechukwu Nnebedum, Ikenna Okonkwo, Ikenna Okwara, and Innocent Mbakwe
Rock fall-Debris avalanche at Imiande-Ukusu Itulygh, Kwande LGA, Benue State, Nigeria
- 08:45–09:00 EGU2011-129
Trufat Hailemariam Gugsu and Jean Friedrich Schneider
Assessment of Road Cut Slope Instability in the Landslide Prone Ethiopian Highlands
- 09:00–09:15 EGU2011-14198
Dwikorita Karnawati, Hiroshi Fukuoka, Wahyu Wilopo, and Teuku Fathani
Mechanism of combined earthquake and rain induced landslide in weathered volcanic slopes in Tandikat Area, West Sumatera, Indonesia
- 09:15–09:30 EGU2011-12121
Michael Krautblatter and Daniel Funk
Why thawing permafrost rocks become unstable
- 09:30–09:45 EGU2011-12154
Asmae Khaldoun, **Yves Méheust**, Peder Møller, Abdoulaye Fall, Gerard Wegdam, Bert de Leeuw, Jon Fossum, and Daniel Bonn
Landslides of clayey soils: a dramatic avalanche behavior
- 09:45–10:00 EGU2011-6312
Roland Kaitna, Marisa C. Palucis, Bereket Yohannes, Kimberly M. Hill, and William E. Dietrich
Effect of fines and grain size distribution on pore fluid pressure and velocity profiles in large scale experimental debris flow

NH3.1/HS8.1.6 – Mechanisms and processes of landslides induced by water (co-organized) – Posters

Convener: Hiroshi Fukuoka | Co-Conveners: Paolo Frattini, Giovanni Crosta, Nejan Huvaj

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY415 EGU2011-1478
Tetsuya Kubota
The impact of increasing rainfall on landslide slope stability in Kyushu district, Japan
- XY416 EGU2011-2076
Keh-Jian Shou, Li-Yuan Fei, Mein-Ming Chen, Cheng-Yueh Wei, and Chia-Yu Hong
Sedimentation and Landslides in Gao-Ping Hsi Catchment after the 2009 Typhoon Morakot in Taiwan
- XY417 EGU2011-2337
Byung-Gon Chae and Kyu-Bo Park
Analysis of rainfall infiltration velocity of unsaturated soil and its relationship with safety factor changes of an infinite slope
- XY418 EGU2011-3064
Michelle Bollschweiler and Markus Stoffel
Hydro-meteorological conditions responsible for the triggering of past debris flows - a reconstruction dating back to 1864
- XY419 EGU2011-4345
Shinya Nakamura and Sho Kimura
Estimation of Average Shear Strengths along the Slip Surface of Rainfall induced Mudstone Landslides
- XY420 EGU2011-4458
Yuto Eguchi, Shinya Nakamura, Sho Kimura, and Shriwantha Buddhi Vithna
Recovered strength of landslide soils and its relationship with re-consolidation time
- XY421 EGU2011-5835
Dr. Vit Vilimek and Dr. Jan Klimes
Analysis of triggering factors of composite landslide near Rampac Grande, Peru
- XY422 EGU2011-5863
Grigorios Anagnostopoulos, Stefan Carpentier, Markus Konz, Ria Fischer, and Paolo Burlando
The role of subsurface topography and its implications on the water regime in the Urseren Valley, Switzerland
- XY423 EGU2011-6073
Atitkagna Dok and Hiroshi Fukuoka
Study of the Tertiary Creep Mechanism by Ring Shear Apparatus for Predicting Initiation Time of Rainfall-Induced Landslides
- XY424 EGU2011-6724
Jean-Baptiste Charlier, Catherine Bertrand, Stéphane Binet, and Jacques Mudry
Use of continuous measurements of dissolved organic matter fluorescence in groundwater to characterize fast infiltration through an unstable fractured hillslope (Valabres, France)
- XY425 EGU2011-6946
Matthias Müllegger, Christian Scheidl, Michael Chiari, and Dirk Proske
Physical modelling of debris flows in a small scale
- XY426 EGU2011-6961
Hiroshi Fukuoka, Atitkagna Dok, Ogbonnaya Igwe, and Atsuya Tsukui
Sliding surface liquefaction and rapid and long runout shallow disrupted slides under extreme weather condition
- XY427 EGU2011-7450
Amin Askarinejad, Patrick Bischof, Francesca Casini, Cornelia Brönnimann, and Sarah M. Springman
Modelling the interaction of the bedrock and slope in terms of drainage and exfiltration
- XY428 EGU2011-7734
Sasiwimol Nawawitphisit, Dave N. Petley, and Nick J. Rosser
An Investigation of Landslide Mechanisms in a Coastal Glacial Till
- XY429 EGU2011-8849
Filomena Canora, Roberta Pellicani, and Giuseppe Spilotro
Water - soil interactions and landslides in blue marine clays of Southern Italy
- XY430 EGU2011-10968
Shriwantha Buddhi Vithana, Shinya Nakamura, and Sho Kimura
Shear Strength of Landslide Soils of Different Geological Origins
- XY431 EGU2011-11296
Irina Gvozdeva, Oleg Zerkal, and Evgeny Samarin
Landslide Hazard Assessment in Geyser Valley
- XY432 EGU2011-12656
Kuo-Lung Wang, David Petley, and Meei-Ling Lin
The applicability of landslide potential mapping in heavy rainfall event with mechanical approach
- XY433 EGU2011-14111
Nejan Huvaj
Shallow landslides in unsaturated soils triggered by rainfall: A parametric study

HS8.1.7 – Fate and Transport of Biocolloids in Environmental Systems – Posters

Convener: Constantinos Chrysikopoulos | Co-Conveners: Robert Anders, Varvara Sygouni, Ioannis D. Manariotis, Apostolos Vantarakis

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Constantinos V. Chrysikopoulos

- A450 EGU2011-99
Costantino Masciopinto, Rosanna La Mantia, and Constantinos Chrysikopoulos
Groundwater pollution by antibiotic-resistant strains released in surface waters
- A451 EGU2011-2856
Gang Wang and Dani Or
Hydration induced motility and diffusion constraints enhance diversity of microbial communities growing on rough surfaces
- A452 EGU2011-4382
Azadeh Safadoust, Ali Akbar Mahboubi, Bahram Gharabaghi, Mohammad Reza Mosaddeghi, Paul Voroney, Adrian Unc, and Gholamabbas Sayyad
Bacterial transport and filtration rates as influenced by soil texture and flow conditions
- A453 EGU2011-4670
Yan Jin
Comparing Retention and Transport of a Human Pathogenic Virus and a Surrogate Bacteriophage in Porous Media
- A454 EGU2011-8416
Eugene Skouras, Christakis Paraskeva, and Vasilis Burganos
Dynamics of Transport and Deposition of BioColloids in Granular Porous Media
- A455 EGU2011-9514
Kirk Hatfield
Spatial Correlation and Stochastic Simulation of Water, Uranium, and Biocolloid Fluxes in Natural Zones of U(VI) Bioreduction at the Rifle Integrated Field-Scale Subsurface Research Challenge (IFRC) Site
- A456 EGU2011-10568
Apostolos Vantarakis
Impact on the quality of life and health of residents living close to a wastewater treatment plant due to airborne biocolloids
- A457 EGU2011-10601
Apostolos Vantarakis
Detection of multiple viral biocolloids in the sewage of an urban wastewater treatment plant by molecular techniques
- A458 EGU2011-1003
Vasiliki I. Syngouna and **Constantinos V. Chrysikopoulos**
Transport and retention of biocolloids in water saturated porous media: effect of water velocity and grain size
- A459 EGU2011-1004
Vasiliki I. Syngouna and **Constantinos V. Chrysikopoulos**
Determination of experimental and theoretical collision efficiencies for biocolloids migrating in water saturated columns packed with sand
- A460 EGU2011-2243
Song-Bae Kim, **Jeong-Ann Park**, Chang-Gu Lee, and Jae-Hyeon Kim
Interaction of bacteriophage MS2 with Mg-Fe layered double hydroxides in synthetic groundwater
- A461 EGU2011-12455
Gholamreza Sadeghi, Jack F. Schijven, Thilo Behrends, Amir Raoof, S. Majid Hassanizadeh, and Jan Gerritse
Transport of bacteriophage PRD1 through saturated clean sand columns as a function of Calcium concentration
- A462 EGU2011-1038
Ioanna A. Vasiliadou, Dimitris Papoulis, Constantinos V. Chrysikopoulos, Dionisios Panagiotaras, Eleni Karakosta, Michael Fardis, and Georgios Papavassiliou
A combined ATR-FTIR and NMR study of Pseudomonas putida sorption onto different kaolinite minerals
- A463 EGU2011-13722
Tiziana Tosco and Rajandrea Sethi
Transport in porous media of iron-based bioslurries for groundwater remediation
- A464 EGU2011-10659
Vasileios E. Katzourakis and Constantinos V. Chrysikopoulos
Mathematical modeling of biocolloid transport in an experimental pilot-scale aquifer

- A465 EGU2011-4968
Hrissi Karapanagioti
 Modeling the effect of the presence of microorganisms on the mass transfer of phenanthrene from an aqueous solution to a sediment
- A466 EGU2011-5918
Stavroula Sfaelou, John Vakros, Ioannis Manariotis, and Hrissi Karapanagioti
 The interaction of activated sludge microorganisms with polymer biocarriers
- A467 EGU2011-11157
Ioannis D. Manariotis, Hrissi K. Karapanagioti, and Constantinos V. Chrysikopoulos
 Degradation of PAHs and biocolloids by High Frequency Ultrasound

NH1.2/AS4.7/HS12.6 – Hydrometeorological modeling and Earth observations under extremes: issues of scale, dependence and robust frameworks for collective risk assessment (co-organized) – Orals

Conveners: Andras Bardossy, Douglas Cripe | Co-Conveners: Antonio Parodi, Efi Foufoula, Murugesu Sivapalan, Boyko Dodov, Giorgio Boni, Roberto Rudari

Room: 10

Chairperson: Andras Bardossy

- 08:30–08:45 EGU2011-2216
Alberto Viglione, Günter Blöschl, Murugesu Sivapalan, and Bruce Rhoads
 Estimation of flood peak frequencies at river confluences
- 08:45–09:00 EGU2011-12649
Witold F. Krajewski, Ricardo Mantilla, Luciana K. Cuhna, and James A. Smith
 Multi-scale Analysis of Extreme Flooding in Iowa, USA
- 09:00–09:15 EGU2011-14026
Cecilia Svensson, Caroline Keef, and Jonathan A. Tawn
 Spatial dependence in floods and extreme precipitation
- 09:15–09:30 EGU2011-13430
Ioulia Tchiguirinskaia, Daniel Schertzer, Tuan Hoang, and Shaun Lovejoy
 Multifractal Extremes and Adaptation of Water Management to Climate Change
- 09:30–09:45 EGU2011-6344
Florian Pappenberger
 Forecast (in)consistency in a hydro-meteorological chain: Curse or blessing?
- 09:45–10:00 EGU2011-7242
Jun She
 Tropical storm forecast verification using a mesoscale NWP model HIRLAM

COFFEE BREAK

Chairperson: Douglas Cripe

- 10:30–10:45 EGU2011-9940
Geraldine Wong and Lena M Tallaksen
 A comparison of spatial and temporal methodologies for the analysis of European drought
- 10:45–11:00 EGU2011-12751
Giorgio Boni and the OPERA Team
 Operational flood risk monitoring and prediction systems: the experience of the OPERA project of the Italian Space Agency
- 11:00–11:15 EGU2011-14037
Stella Hubert, Guenter Strunz, Michael Nyenhuis, and Stephanie Göbel
 Earth Observation contributions to Disaster Management of Floods - Status quo, gaps and ways forward
- 11:15–11:30 EGU2011-4313
John Mejia, Darko Koracin, and Benjamin Hatchett
 Impact of variable horizontal resolution of the regional WRF climate model and biases in the global climate models on precipitation simulated over the western U.S.
- 11:30–11:45 EGU2011-11980
Guillaume Thirel, Peter Salamon, Peter Burek, Milan Kalas, Vera Thiemi, and Jutta Thielen
 Use of satellite based observations in Continental Flood Alert System in Europe and Africa
- 11:45–12:00 EGU2011-11754
Nazzareno Pierdicca, Luca Pulvirenti, Marco Chini, Leila Guerriero, and Laura Candela
 Spaceborne Radar For Mapping Floods: A Pre-Operational Approach Integrating Models And Ancillary Data Applied To COSMO-SkyMed Images

NH1.2/AS4.7/HS12.6 – Hydrometeorological modeling and Earth observations under extremes: issues of scale, dependence and robust frameworks for collective risk assessment (co-organized) – Posters

Conveners: Andras Bardossy, Douglas Cripe | Co-Conveners: Antonio Parodi, Efi Foufoula, Murugesu Sivapalan, Boyko Dodov, Giorgio Boni, Roberto Rudari

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY360 EGU2011-6019
Tatiana Ghizzoni, Giorgio Roth, and **Roberto Rudari**
Information entropy concepts for collective flooding hazard model selection
- XY361 EGU2011-2478
Nicol Pereckova and Zdenek Macka
Applications of hydromorphological monitoring in the assessment of channel network in the urban and suburban environment - an example from the City of Brno, Czech Republic
- XY362 EGU2011-6688
Elke Hertig and Jucundus Jacobeit
Assessment of extreme events in the Mediterranean area
- XY363 EGU2011-9025
Sandra G. García Galiano, Juan D. Giraldo Osorio, and Claudia N. Tetay Botía
Assessing the spatial-temporal patterns of frequency and severity of extreme rainy events under a changing climate: case study of the Segura River Basin (Spain)
- XY364 EGU2011-9822
Albert Comellas, Maria-Carmen Llasat, Luca Molini, Antonio Parodi, Franco Siccardi, and Jordi Cunillera
Predictability and predictive ability of severe rainfall events over Catalonia for year 2008
- XY365 EGU2011-10052
Nicola Rebora, Luca Molini, Roberto Rudari, and Fabio Castelli
An ensemble approach for spatial interpolation of precipitation fields
- XY366 EGU2011-10533
Alessandro Bonazzi, Stephen Cusack, Stephen Jewson, and Christos Mitas
European Wind Storms: an extreme value analysis of joint wind gust measured by anemometers across major cities.
- XY368 EGU2011-10451
William Collins, Fuyu Li, Michael Wehner, David Williamson, and Jerry Olson
Response of precipitation extremes to global warming in an aqua-planet climate model: Towards robust projection from regional to global scales
- XY369 EGU2011-2549
Sergio Rosim, Eymar Silva Sampaio Lopes, João Ricardo de Freitas Oliveira, Camilo Daleles Rennó, Alexandre Copertino Jardim, and Eric Silva Abreu
Combining TerraHidro and SISMA DEN Open Source Systems to Warn Extreme Natural Disasters
- XY370 EGU2011-5905
Ioannis Tsanis, Ioannis Daliakopoulos, Kostas Seiradakis, and Aristeidis Koutroulis
Improving flood risk assessment using a satellite stereo-pair high resolution DEM
- XY371 EGU2011-8994
pedro chambel-leitao, António Araujo, António Tabasco Cabezas, and Ramiro Neves
Merging Hydrologic models and EO data for reliable information on Water - MyWater
- XY372 EGU2011-10637
Fabio Castelli, Lorenzo Campo, Francesca Caparrini, and Roberto Rudari
Impact of LST-Based Soil Moisture Index on an Operational Flood Forecasting System
- XY373 EGU2011-11512
Mehmet Coskun and Luis Samaniego
Trend analysis of Meteorological data in Germany
- XY374 EGU2011-11491
Giorgio Boni and the The OPERA Team
Assessment of impact of storms at large scale: the potential of coupling modelling and remote sensing observations.
- XY375 EGU2011-11644
Mariapia Faruolo, Irina Coviello, Teodosio Lacava, Nicola Pergola, and Valerio Tramutoli
A multi-sensor RST based approach for flooded areas detection and monitoring: the November 2010 Veneto region flood.
- XY376 EGU2011-13323
Stephan Seeling and Hugo Hellebrand
Assessing the long-term ecohydrology evolution of a meso-scale catchment in central Europe employing a combination of different monitoring techniques

XY377 EGU2011-14046

Simone Gabellani, Silvestro Francesco, Fabio Delogu, Giorgio Boni, and Roberto Rudari
A Fully Distributed Model for Water Management and Flood Forecasting exploiting Satellite Observations

SSS2.6/HS12.12/NP3.12 – Sediment dynamics, models and scaling (co-organized) – Orals

Convener: Mike Kirkby | Co-Conveners: Ana Maria Tarquis, Yves Le Bissonnais, Nikolaus J. Kuhn, Anthony Parsons, Klaudia Oleschko, Anne Gobin, Jose A. A.Gomez, Saskia Keesstra, Manuel Seeger, Marcel Van der Perk

Room: 9

Chairperson: Mike Kirkby

13:30–13:45 EGU2011-9467

Klaudia Oleschko, Eusebio Ventura, Genaro Armendáriz, Ana Maria Tarquis, and Edith Perrier
Topological invariance and spatial scaling of surface roughness in two highly eroded zones of Mexico: a comparative study

13:45–14:00 EGU2011-688

Diana Vieira, Jacob Keizer, João Nunes, Isabel Fernandes, Silvia Faria, Raquel Ferreira, Elisabete Pedrosa, Maria Varela, and Luísa Pereira
Runoff and erosion at the micro-plot and slope scale in a small burnt catchment, central Portugal

14:00–14:15 EGU2011-3632

Magalie Delmas, Olivier Cerdan, and Jean-Marie Mouchel
Origin of river sediment exports: Taking into account hillslopes characteristics and spatial variability

14:15–14:30 EGU2011-10829

Alemayehu Muluneh and Ólafur Arnalds
Synthesis of Research on Land Use and Land Cover Dynamics in the Ethiopian Highlands

14:30–14:45 EGU2011-11239

Irene Marzloff, Johannes B. Ries, and Jean Poesen
Short-term vs. medium-term monitoring for detecting gully-erosion variability in a Mediterranean environment: Addressing the time-scale problem in gully dynamics

14:45–15:00 EGU2011-4580

Gianbattista Bussi and Félix Francés
Calibration of TETIS-SED model by using check dams sedimentation volumes with different temporal resolutions. Application to a Mediterranean medium size basin (Rambla del Poyo, Spain).

Chairperson: Saskia Keesstra

15:30–15:45 EGU2011-13170

Joris de Vente, Jean Poesen, Matthias Vanmaercke, and Gert Verstraeten
Predicting soil erosion and sediment yield at the catchment scale: scale issues, modelling and understanding

15:45–16:00 EGU2011-669

Léonard Bernard-Jannin, Didier Orange, Pham Dinh Rinh, Thierry Henry des Tureaux, Mathieu Laissus, Pascal Jouquet, and Tran Duc Toan
The contribution of erosion in a small cultivated hilly catchment of North Vietnam due to an exceptional rainfall event

16:00–16:15 EGU2011-4542

alessio radice and elisa giorgetti
On sediment transport modelling in mountain environments

16:15–16:30 EGU2011-12269

A.N. Thanos Papanicolaou and **Dimitrios Dermisis**
Investigating the effects of land management practices on upland erosion using a state-of-the-art laser scanner technique

16:30–16:45 EGU2011-7386

Victor Jetten, **BV Rajesh Shruthi**, and Norman Kerle
Object-based gully feature extraction using high spatial resolution imagery

16:45–17:00 EGU2011-7673

Jesús Rodríguez González, Pablo J. Zarco-Tejada, and José Alfonso Gómez
Inversion of the Hapke model with diurnal multispectral reflectance data for assessing soil surface roughness

SSS2.6/HS12.12/NP3.12 – Sediment dynamics, models and scaling (co-organized) – Posters

Convener: Mike Kirkby | Co-Conveners: Ana Maria Tarquis, Yves Le Bissonnais, Nikolaus J. Kuhn, Anthony Parsons, Klaudia Oleschko, Anne Gobin, Jose A. A.Gomez, Saskia Keesstra, Manuel Seeger, Marcel Van der Perk

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: AnaMaria Tarquis

- Z58 EGU2011-1016
Lionel Mabit
Sediment dynamics assessed at catchment scale using nuclear techniques with the support of Geographical Information Systems
- Z59 EGU2011-1031
Achim A. Beylich
Mass transfers, sediment budgets and relief development in four drainage basins in Iceland, Swedish Lapland and Finnish Lapland
- Z60 EGU2011-1397
Achim A. Beylich, Susan Liermann, and Katja Laute
Spatio-temporal variability of chemical and mechanical denudation in glacier-fed mountain catchments in Nordfjord, western Norway
- Z61 EGU2011-2518
Seifeddine Jomaa, D. Andrew Barry, Alessandro Brovelli, B. C. Peter Heng, Graham C. Sander, Jean-Yves Parlange, and Calvin W. Rose
Effect of stone cover on rainfall-driven soil erosion with negligible surface roughness
- Z62 EGU2011-3805
Marie-Alice Harel, Emmanuel Mouche, Jérémy Patin, and Emmanuel Ledoux
A 1D runoff-runon model : scale and connectivity
- Z63 EGU2011-10261
Saskia Keesstra, Arnaud Temme, Lea Wittenberg, and Noam Greenbaum
Testing LAPSUS-D, a daily sediment delivery model, in a meso-scale Mediterranean catchment: a case study in Israel.
- Z64 EGU2011-10332
Diana Arévalo, Ramón Bienes, Marta Ruiz-Colmenero, and María José Marqués
Comparison of soil erosion models (USLE, RUSLE) and a new adapted model in a basin of central Spain
- Z65 EGU2011-10870
Manuel López-Vicente, Ana Navas, Javier Machín, and Leticia Gaspar
Spatial scale dependency of runoff and sediment connectivity in small sub-catchments in the Spanish Pyrenees
- Z66 EGU2011-12810
Muhammad Anggri Setiawan, Volker Wichmann, Johann Stötter, and Junun Sartohadi
Development of Modified MMF (Morgan-Morgan-Finney) soil erosion model for various spatial and temporal scales
- Z67 EGU2011-636
Annelies Voogt, Saskia Keesstra, and Manuel Seeger
Concepts of catchment-scale sediment connectivity for physically-based and dynamic modeling
- Z68 EGU2011-1591
Els Verachtert, Miet Van Den Eeckhaut, Jean Poesen, Gerard Govers, and Jozef Deckers
Susceptibility models for pipe collapse in loess-derived soils in a temperate humid climate
- Z69 EGU2011-2285
Willem Maetens, Jean Poesen, and Matthias Vanmaercke
Inter-annual variation of runoff and soil loss in Europe and the Mediterranean in relation to land use and climate.
- Z70 EGU2011-3649
Juan Francisco Sanchez-Moreno, Victor Jetten, and Chris Mannaerts
Influence of the map complexity of saturated hydraulic conductivity on runoff and soil erosion modeling. A case study in Ribeira Seca, Santiago Island, Cape Verde.
- Z71 EGU2011-5044
Matthias Vanmaercke, Jean Poesen, Willem Maetens, Joris de Vente, and Gert Verstraeten
The importance of Sediment Yield as a Desertification Indicator
- Z72 EGU2011-9135
Alona Armstrong, John Quinton, and Barbara Maher
Tracing sediment by enhancing soil magnetic properties
- Z73 EGU2011-9718
Giancarlo Dalla Fontana, Simone Calligaro, Federico Cazorzi, and Paolo Tarolli
Automatic recognition of road and pathway induced slope instabilities by high resolution topography
- Z74 EGU2011-12787
Patricia Sande, José Manuel Mirás Avalos, and **Antonio Paz González**
Description of suspended sediments and three phosphorus forms concentrations at the outlet of an agroforestry catchment by multifractal parameters
- Z75 EGU2011-14076
Anne Gobin and Philippe Van de Vreken
Impacts of crop growth dynamics on soil erosion at the regional scale

- Z76 EGU2011-3351
Claudio Bosco, Daniele De Rigo, Olivier Dewitte, and Luca Montanarella
 Towards a Reproducible Pan-European Soil Erosion Risk Assessment - RUSLE
- Z77 EGU2011-4706
Ronald Pöppel, Thomas Glade, and Margreth Keiler
 The role of humans as (dis)connectors in small fluvial systems: sedimentological effects and their implications

NP3.7 – Geophysical Downscaling Methods (co-listed) – Posters

Convener: Tobias Sauter | Co-Conveners: Victor Venema, Douglas Maraun, Erika Coppola

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 13:30–15:00

Chairperson: Tobias Sauter

- XY524 EGU2011-1174
amadou Idrissa bokoye
 Assessment of the influence of the calibration period choice on empirical statistical downscaling modeling
- XY525 EGU2011-4753
Pascal Horton, Michel Jaboyedoff, and Charles Obled
 The Analogs method in the framework of severe rainfall forecasting in the Swiss Alps
- XY526 EGU2011-4806
Jiri Miksovsky, Petr Stepanek, Ales Farda, and Michal Belda
 Inter-variable relationships in the outputs of dynamical and statistical downscaling models
- XY527 EGU2011-5500
 Alexandru Dumitrescu, **Aristita Busuioc**, Baci Madalina, Sorin Cheval, and Liana Cazacioc
 ENSEMBLE RCM performance in reproducing temperature and precipitation regime in Romania. Application for Banat and Oltenia Plains.
- XY528 EGU2011-7632
Douglas Maraun
 How robust is bias correction under climate change? Assessing the direct approach for temperature and precipitation in a pseudo reality ?
- XY529 EGU2011-7699
Douglas Maraun, Fredrik Wetterhall, Martin Widmann, Sven Kotlarski, and Erika Coppola
 VALUE - A European wide network for the validation and development of downscaling methods
- XY530 EGU2011-8659
Anahita Amiri Farahani, Douglas Maraun, and Juerg Luterbacher
 Large-scale atmospheric circulation characteristics and their relations to local daily precipitation extremes in Hesse, central Germany
- XY531 EGU2011-8668
Bruno Emanuela, Portoghese Ivan, Guyennon Nicolas, Iacobellis Vito, and Vurro Michele
 Stochastic rainfall scenarios for hydrological impact studies
- XY532 EGU2011-9208
Aristita Busuioc, Alexandru Dumitrescu, Madalina Baci, Liana Cazacioc, and Sorin Cheval
 Estimation of changes in monthly temperature and precipitation over the Banat and Oltenia Plains in Romania. Comparison between statistical and dynamical downscaling techniques
- XY533 EGU2011-9216
Marlis Hofer, Ben Marzeion, and Thomas Mölg
 Skill assessment of reanalysis data for local-scale, daily air temperature on a tropical, glaciated mountain range (Peru)
- XY534 EGU2011-9536
Martin Dubrovsky, Martin Hirschi, and Christoph Spirig
 HOWGH: an hourly weather generator for pests modeling in present and future climates
- XY535 EGU2011-10037
Laura Mariotti, Erika Coppola, M.Bamba Sylla, Filippo Giorgi, and Claudio Piani
 Regional climate model simulation of projected 21st century climate change over an all-Africa domain: Comparison analysis of nested and driving model results.
- XY536 EGU2011-10522
Claudio Piani and Jan Haerter
 Grid point bias correction of climate models: remaining problems and suggested solutions.
- XY537 EGU2011-10693
 Rabea Haas and **Kai Born**
 Probabilistic Downscaling of Precipitation Data in a Subtropical Mountain Area: A two-step approach

- XY538 EGU2011-11796
Christoph Matulla, Claudia Springer, Emma Watson, Sebastian Wagner, Wolfgang Schöner, and Reinhold Steinacker
 Downscaled GCM projections of winter and summer mass balance for Central European glaciers (2000-2100) from ensemble simulations with ECHAM5- MPIOM
- XY539 EGU2011-11961
Marco Turco, Pere Quintana Seguí, Maria-Carmen Llasat, Sixto Herrera, and José Manuel Gutiérrez
 The analog method as a MOS-like downscaling for ENSEMBLES RCM-precipitation: application over Spain
- XY540 EGU2011-12218
Michaela Bray, Dawei Han, and Roger Falconer
 Comparative Study of Meso-Scale Numerical Weather Models for Water System Analysis
- XY541 EGU2011-13501
Douglas Maraun and the Review Team
 Precipitation Downscaling under Climate Change
- XY542 EGU2011-13807
 Cui Chen, Jan Haerter, Stefan Hagemann, and **Claudio Piani**
 A comparative study of uncertainty, originating from bias correction and other sources, in scenario discharge time series

TS2.3/EMRP14 – Fracturing, sealing and fluid flow in reservoirs and fault zones (co-listed) – Orals

Convener: Daniel Koehn | Co-Conveners: Aisling Soden, Laurent Geoffroy, Thomas Wagner, Einat Aharonov, Klaus Gessner, Francois Renard, Heather Moir, Heijn van Gent, Gianreto Manatschal, Ullrich Glasmacher

Room: 28

Chairperson: Daniel Koehn

- 08:30–08:45 EGU2011-7773
Yves Gueguen, Jérôme Fortin, and Audrey Ougier-Simonin
 Permeability of cracked rocks
- 08:45–09:00 EGU2011-6654
Stephen Miller and Boris Galvan
 Modeling the dynamical interaction between fracture development, stress transfer, fluid flow, and chemical precipitation
- 09:00–09:15 EGU2011-5672
Filiz Af?ar, Sonja Leonie Philipp, and Hildegard Westphal
 Fracture propagation and reservoir permeability in limestone-marl alternations of the Jurassic Blue Lias Formation (Bristol Channel Basin, UK)- a multidisciplinary approach
- 09:15–09:30 EGU2011-2417
Heather Moir, Rebecca Lunn, and Zoe Shipton
 Modelling Fault Damage Zone Evolution: Effect of heterogeneity.
- 09:30–09:45 EGU2011-889
Nicolas Beaudoin, Nicolas Bellahsen, Laurent Emmanuel, and Olivier Lacombe
 Paleofluid flow and basement-cored folding: Combined geochemical and microstructural studies at Sheep Mountain Anticline (Wyoming, USA)
- 09:45–10:00 EGU2011-3603
Janos L. Urai, Werner Kraus, Steffen Abe, Max Arndt, Simon Virgo, Marc Holland, Rainer Telle, and Thorsten Tonnesen
 How good is the glue? An experimental and numerical investigation of the mechanics of crack seal processes in vein networks.

COFFEE BREAK

Chairperson: Thomas Wagner

- 10:30–10:45 EGU2011-12970
Renaud Toussaint, Marcus Ebner, Daniel Koehn, Einat Aharonov, Maor Kaduri, Alexandra Rolland, Michael Heap, Philip Meredith, Jean Schmittbuhl, and Patrick Baud
 Stylolites in carbonate rocks: morphologies and their effect on rock permeability.
- 10:45–11:00 EGU2011-4236
Leehee Laronne Ben-Itzhak, Amir Sagy, and Einat Aharonov
 Large scale field measurements of stylolites: stylolite lateral extent and roughness
- 11:00–11:15 EGU2011-4558
Einat Aharonov, Renaud Toussaint, and Leehee Laronne Ben-Itzhak
 Upper bound on stylolite roughness as indicator for the duration and amount of dissolution

- 11:15–11:30 EGU2011-13519
Michael Kettermann, Sohrab Noorsalehi-Garakani, **Heijn van Gent**, Stefen Abe, and Janos Urai
Modeling of dilatant fractures in homogenous, cohesive material and in the presence of preexisting fractures
- 11:30–11:45 EGU2011-10102
Olivier Lengliné, Jean Schmittbuhl, Jean Elkhoury, Jean-Paul Ampuero, Renaud Toussaint, and Knut Jorgen Maloy
Up-scaling of the fracture energy in heterogeneous media during brittle creep experiments
- 11:45–12:00 EGU2011-8637
Andrea Rustichelli, Emanuele Tondi, Fabrizio Agosta, Chiara Invernizzi, and Maurizio Giorgioni
Depositional and diagenetic factors affecting the development of bed-parallel structures in Oligo-Miocene ramp carbonates (Maiella Mountain, central Italy)

LUNCH BREAK

Chairperson: Heijn van Gent

- 13:30–13:45 EGU2011-3615
francois cornet
Forced Fluid flow in extensional domains
- 13:45–14:00 EGU2011-7995
Suzanne Picazo, Gianreto Manatschal, and Mathilde Cannat
Exhumed mantle along an Ocean Continent Transition : the exemple of the Totalp ophiolite in SE Switzerland.
- 14:00–14:15 EGU2011-1813
Fabrizio Balsamo, Hilario Bezerra, Fabrizio Storti, and Marcela Veira
Influence of faulting on iron oxide concretion and Liesegang band patterns in poorly lithified sandstones of the Barreiras formation, NE Brazil: inferences for fluid flow in clastic reservoirs
- 14:15–14:30 EGU2011-3655
Max Arndt, Simon Virgo, Zoé Sobisch, Marc Holland, and Janos L. Urai
Field observations and interpretation of remote sensing data from an exhumed high pressure carbonate reservoir, Jebel Shams, Oman Mountains
- 14:30–14:45 EGU2011-11729
Aisling Soden and Zoe Shipton
Subsurface fault zone architecture controlled by host rock heterogeneity
- 14:45–15:00 EGU2011-8572
Enrique Gomez-Rivas, Paul D. Bons, Philipp Blum, Daniel Koehn, and Thomas Wagner
Numerical simulation of dynamic crustal-scale fluid flow

TS2.3/EMRP14 – Fracturing, sealing and fluid flow in reservoirs and fault zones (co-listed) – Posters

Convener: Daniel Koehn | Co-Conveners: Aisling Soden, Laurent Geoffroy, Thomas Wagner, Einat Aharonov, Klaus Gessner, Francois Renard, Heather Moir, Heijn van Gent, Gianreto Manatschal, Ullrich Glasmacher

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Daniel Koehn

- XL313 EGU2011-1285
Inna Balanyuk, Anatoly Dmitrievsky, Sergey Shapovalov, Olga Chaikina, and Tatiana Akivis
Role of Fluids in Spreading Zones of Sakhalin Island and Formation of Hydrocarbons
- XL314 EGU2011-4273
Zoltán Komoróczy, Heijn van Gent, and Janos L. Urai
Distribution of sub-seismic deformation near faults - Implications for Tight Gas production
- XL315 EGU2011-1286
Inna Balanyuk, Anatoly Dmitrievsky, Sergey Shapovalov, Olga Chaikina, and Tatiana Akivis2
Fluid Dynamics Model of the Formation of Giant Gas and Gas Condensate Deposits
- XL316 EGU2011-1915
Lespinasse Marc, Petrov Vladislav, Cuney Michel, and Shukin Serguei
Microfissuring, host rock heterogeneities and SNF storage potential at the Krasnokamensk area, NE Transbaikalia
- XL317 EGU2011-3573
Simon Virgo, Max Arndt, Paul Stenhouse, Stephen F. Cox, Christoph Hilgers, and Janos L. Urai
Evolution of a crack-seal calcite vein network in limestone : a high resolution structural, microstructural and geochemical study from the Jebel Akhdar high pressure cell, Oman Mountains

- XL318 EGU2011-3612
Ben Laurich, Max Arndt, Simon Virgo, Alexander Raith, Patrick Wüstefeld, Sebastian Thronberens, and Janos L. Urai
 Insights in dynamics of high-pressure cells based on high-resolution outcrop panoramas: A geometry database for calcite vein networks in the Oman Mountains.
- XL319 EGU2011-3617
Christine Souque, Rob J. Knipe, Philip Jones, and John Lorenz
 Fracture corridors and fault interaction in a context of polyphase deformation - Example from the Chalks of the Isle of Thanet Anticline, Kent, England
- XL320 EGU2011-4663
Masakazu Niwa, Hideki Kurosawa, and Tsuneari Ishimaru
 Spatial distribution and characteristics of fracture zones in heterogeneous lithologies and long-term, multiple, fault re-activations
- XL321 EGU2011-5083
Caroline Mehl and Isabelle Cojan
 Geometrical 3D characterisation of sand injections in a fracture network and onset dynamics, Bevens South East France
- XL322 EGU2011-5626
Jens-Oliver Schwarz and Frieder Enzmann
 Impact of fracture geometry on fluid flow
- XL323 EGU2011-5699
Jens-Oliver Schwarz and Daniel Koehn
 Geometry of and fluid flow in bedding parallel crack-seal veins
- XL324 EGU2011-5813
Achille Marsala and Thomas Wagner
 Fluid chemistry of metamorphic quartz vein systems, Rhenish Massif (Germany)
- XL325 EGU2011-6207
Conny Zeeb, Paul D. Bons, Enrique Gomez-Rivas, Lena Stark, David Grabowski, and Philipp Blum
 Uncertainty analysis for the characterisation of the discontinuity networks
- XL326 EGU2011-6473
Daniel Koehn, Jens-Oliver Schwarz, and Renaud Toussaint
 Compaction history, burial depth and tectonics derived from stylolites in the Oman mountains
- XL327 EGU2011-6820
Irfan Ghani and Daniel Koehn
 Hydrofracture Formation
- XL328 EGU2011-7030
Herbert Wallner and Harro Schmeling
 Progress in Melt Induced Weakening Concept Driving Rift Induced Delamination
- XL329 EGU2011-7241
Aurore Franco, Catherine Dorbath, Laurent Geoffroy, Kristjan Agustsson, Cecile Doubre, and Olafur Flovenz
 Local earthquake tomography of a geothermal area in Reykjanes Peninsula (Iceland): Influence of nature, location and migration of crustal fluids on the seismicity.
- XL330 EGU2011-7930
Zvi Karcz, Ovunc Mutlu, Rich Albert, and Jim DeGraff
 The Formation and Propagation of Stylo-Fractures
- XL331 EGU2011-8406
Yves Missenard, Muriel Rocher, Lisa Casteleyn, Philippe Robion, Alexis Grare, Audrey Bertrand, Pierre Vergely, Antonio Benedicto, Marc Edward Cushing, and Isabelle Techer
 Sealing capacity of clays in multilayer systems: a field study of fracture-fluid flow relationships (Blue Clay formation, Maltese Islands)
- XL332 EGU2011-8926
Jean-Marc Daniel, Mickael Barbier, Khalid Amrouch, Jean-Paul Callot, Youri Hamon, and Olivier Lacombe
 Impact of fracturing stratigraphy on paleo-hydrodynamics, the Madison Formation case study (Bighorn Basin, Wyoming, USA).
- XL333 EGU2011-10095
Christoph Tuitz, Ulrike Exner, Bernhard Grasemann, and Alexander Preh
 Fault related cracking of pebbles in unconsolidated sediments (SE Vienna Basin, Austria)
- XL334 EGU2011-10208
Vincent Roche, Catherine Homberg, and Muriel Rocher
 Control of sub-horizontal faults on normal fault growth and architecture
- XL335 EGU2011-11977
Cynthia Garibaldi and Laurent Geoffroy
 Fluid circulation within a volcanotectonic system inferred from numerical hydrothermal modelling: application to the Ghoubbet-Asal Rift (Djibouti, East Africa).

XL336 EGU2011-12193

Kumar Ankit, Denis Pilipenko, Julia Kundin, and Heike Emmerich
Modelling Mineral Vein Dynamics - A Phase Field Approach

XL337 EGU2011-12429

Resi Veeningen, Bernhard Grasemann, Kurt Decker, A. Hugh N. Rice, and Ralf Bischoff
Fracture formation in a crystalline basement hydrocarbon reservoir in Yemen

Tuesday, 05 April

ESSI7 – Earth System Modeling: Strategies and Software (co-listed) – Posters

Convener: Reinhard Budich | Co-Conveners: Dan Lunt

Hall XL | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: n.n.

- XL159 EGU2011-3358
Sven Kralisch, Peter Krause, and Christian Fischer
JAMS - a Software Framework for Integrated Environmental Modelling
- XL160 EGU2011-5803
Paolo Mazzetti, Stefano Nativi, Mattia Santoro, and Gary Geller
The GEO Model Web Initiative for Environmental Model Access Interoperability
- XL161 EGU2011-9753
Oliver Schmitz, Derek Karssenbergh, Kor de Jong, and Jean-Luc de Kok
Constructing integrated models: a scheduler to execute coupled components
- XL162 EGU2011-8459
Sarah Callaghan, Mark Morgan, Eric Guilyardi, Sophie Valcke, Charlotte Pascoe, Bryan Lawrence and the METAFOR Project Team
Supporting the climate community by providing common metadata for climate modelling digital repositories: the METAFOR project.
- XL163 EGU2011-10324
Alessandro Spinuso, Luca Trani, Malcolm Atkinson, and Michelle Galea
Infrastructure for Data-Intensive Seismology: Cross-correlation of distributed seismic traces through the ADMIRE framework
- XL164 EGU2011-11152
Raffaele Guarino and Mirko Albani
LTDP/FIRST Earth Science User Requirements
- XL165 EGU2011-8307
Lars Hoffmann, Paul Gibbon, Ole Kirner, and Stefan Versick
Simulation Laboratories for Climate Sciences and Environmental Research
- XL166 EGU2011-9128
Arnaud Caubel, Yann Meurdesoif, Alexis Canevet, Marie-Alice Foujols, Olivier Marti, Sebastien Masson, and Sophie Valcke
Parallel optimization of IPSL climate model
- XL167 EGU2011-12320
Claudio Schifani, Rudy Rossetto, and Iacopo Borsi
Open Source GIS tools for Water Resources Management
- XL168 EGU2011-6341
Thomas Jung, Sergey Danilov, Kerstin Fieg, Wolfgang Hiller, Jens Schroeter, Dmitry Sidorenko, and Qiang Wang
Towards a coupled climate model with a finite-element sea ice-ocean representation
- XL169 EGU2011-7726
Jon Hill and the Applied Modelling and Computation Group Team
Fluidity - an open-source, next-generation, fluid dynamics framework

HS1.3 – The Future of Water Cycle Observing Systems (by Invitation only) – Orals

Convener: Bob Su | Co-Conveners: Eric Wood, Valentijn Pauwels, Peter J. van Oevelen

Room: 33

Chairperson: n.n.

- 15:30–16:00 EGU2011-12689
Dennis Lettenmaier, Doug Alsdorf, Sylvain Biancamaria, Nelly Mognard, and Ernesto Rodriguez
Implications of swath altimetry missions for hydrologic science and applications
- 16:00–16:30 EGU2011-7557
Jean-Noël Thépaut and Peter Bauer
Assimilation and modeling of the hydrological cycle in the ECMWF forecasting system: Future observational requirements
- 16:30–17:00 EGU2011-6599
Petrus J. van Oevelen
The GEWEX Regional Hydroclimate Projects, an Overview and Outlook.

HS1.3 – The Future of Water Cycle Observing Systems (by Invitation only) – Posters

Convener: Bob Su | Co-Conveners: Eric Wood, Valentijn Pauwels, Peter J. van Oevelen

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

A167 EGU2011-13697

Yann Kerr, Bernard Rougé, Guy Lesthievant, François Cabot, Eric Anterrieu, and Olivier Merlin

The New generation OF SMOS satellite and Synergisms with SMAP

HS1.4 – EO for Water Cycle Science – Orals

Convener: Diego Fernández Prieto | Co-Conveners: Bob Su, Wolfgang Wagner, Peter van Oevelen, Susanne Mecklenburg, Tommaso Parrinello

Room: 33

Chairperson: Diego Fernández Prieto

08:30–08:45 EGU2011-11897

Douglas Alsdorf, C.k. Shum, Hyongki Lee, Srinivas Battadpur, Stephane Calmant, Jianbin Duan, Zhenwei Huang, Jinwoo Kim, Kuo-hsin Tseng, and kostas Andreadis
Flood Monitoring from Space

08:45–09:00 EGU2011-10916

Wouter Dorigo, Richard de Jeu, Yi Liu, Robert Parinussa, Wolfgang Wagner, Bob Su, and Diego Fernandez-Prieto

The WACMOS multi-mission soil moisture product: 30 years of soil moisture in support of climate change studies

09:00–09:15 EGU2011-8457

Raghuveer Vinukollu and **Eric Wood**

Global Scale Evapotranspiration: Comparison and Sensitivity Analysis of three Retrieval Algorithms

09:15–09:30 EGU2011-4426

Jimenez Carlos and the LandFlux Team

Global inter-comparison of land surface heat flux estimates

09:30–09:45 EGU2011-1303

Katja Hungershoefer, Marc Schroeder, Martin Stengel, Theo Steenbergen, and Nadine Schneider
ESA WACMOS multi satellite water vapour products

09:45–10:00 EGU2011-3367

Rob Roebeling, Erwin Wolters, and Hidde Leijnse

Triple-collocation of precipitation retrievals from SEVIRI with gridded rain gauge data and weather radar observations over Europe

HS1.4 – EO for Water Cycle Science – Posters

Convener: Diego Fernández Prieto | Co-Conveners: Bob Su, Wolfgang Wagner, Peter van Oevelen, Susanne Mecklenburg, Tommaso Parrinello

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Bob Su

A168 EGU2011-3247

Belen Marti-Cardona and Josep Dolz-Ripolles

Simple, ancillary data driven SAR speckle filtering: making SAR images handy for Doñana wetlands water cycles monitoring

A169 EGU2011-6498

Marcela Doubkova, Albert van Dijk, Günter Blöschl, Daniel Sabel, and Wolfgang Wagner

The AWRA modelled soil moisture estimates to evaluate the C-band SAR soil moisture retrieval error

A170 EGU2011-12991

Rene Preusker, Philip Köhler, and Rasmus Lindstrot

The utilization of (A)ATSR(2)'s thermal infrared channels for the remote sensing of columnar atmospheric water vapor.

A171 EGU2011-12730

Joris Timmermans, Christiaan van der Tol, Zhongbo Su, Marcel van Helvoirt, and Lichun Wang

Validation of SEBS high resolution evapotranspiration estimations using ground measurements over Europe

A172 EGU2011-11667

Heidi Mittelbach, Irene Lehner, and Sonia I. Seneviratne

Comparison of measurement accuracy of different soil moisture sensors in the field and implications for validation of remote sensing products

- A173 EGU2011-3683
Vinca Rosmorduc, Jerome Benveniste, Emilie Bronner, and Sander Niemeijer
Basic Radar Altimetry Toolbox: tools and tutorial to use radar altimetry for hydrology
- A174 EGU2011-8881
Bob Su, Diego Fernandez and the WACMOS Team
Earth Observation Water Cycle Multi-Mission Observation Strategy (WACMOS) - An overview
- A175 EGU2011-12340
Paolo Ferrazzoli, Mercedes Salvia, Haydee Karszenbaum, Francisco Grings, and Pablo Perna
Flood investigation in Parana river using active and passive microwave signatures
- A176 EGU2011-1276
Nadine Schneider, Marc Schröder, Theo Steenbergen, Rasmus Lindstrot, Rene Preusker, Martin Stengel, and Katja Hungershöfer
ESA DUE GlobVapour water vapour products: retrieval methods and validation
- A177 EGU2011-9524
Yann Kerr, Claire Gruhier, Delphine Leroux, Silvia Juglea, and Arnaud Mialon
A multisensor approach to Remote sensing and related intercalibration techniques
- A178 EGU2011-3628
Susanne Mecklenburg and Matthias Drusch
ESA's Soil Moisture and Ocean Salinity Mission - Mission overview and first results
- A179 EGU2011-921
Frédéric Frappart, **Guillaume Ramillien**, Inga Bergman, Marc Leblanc, Sarah Tweed, and David Garcia
Water mass variations from Independent Component Analysis (ICA) of GRACE Level-2 monthly GRACE solutions
- A180 EGU2011-6398
Hervé Yesou and the Xijun Lai (2) Team
Eleven years, 2000-2010, of monitoring of water resource over the Yangtze middle reaches exploiting ENVISAT, MODIS, Beijing 1 time series conjointly with altimetric data and field measurements
- A181 EGU2011-11065
Thierry Pellarin, Arona Diedhiou, Theo Vischel, Claire Gruhier, and Jean-Claude Bergès
Improving satellite rainfall products using soil moisture measurements in west Africa
- A182 EGU2011-11647
Joris Timmermans, Christiaan van der Tol, Anne Verhoef, Wout Verhoef, Zhongbo Su, Marcel van Helvoirt, and Lichun Wang
Evaluation of the SEBS parameterizations over tall vegetation using SCOPE estimated turbulent fluxes
- A183 EGU2011-12846
Marco Mancini, Jiren Li, Chiara Corbari, Jinfeng Xin, Jianli Zhang, Xingnan Zhang, Xiaoxiang Zhang, and Bob Su
Assessing hydrologic water balance using different satellite data

HS2.9 – Hydrological change: Regional hydrological behaviour under transient climate and land use conditions – Orals

Convener: Harald Kunstmann | Co-Conveners: Stefan Hagemann, Axel Bronstert, Alexander Georgiadi, Mohsin Hafeez

Room: 36

Chairperson: Harald Kunstmann, Alexander Georgiadi

- 08:30–08:45 EGU2011-13370
Ralf Merz, Juraj Parajka, Jose Luis Salinas, and Günter Blöschl
A complementary approach to estimate future runoff changes in Austria
- 08:45–09:00 EGU2011-6667
Pere Quintana Seguí, Florence Habets, and Eric Martin
Comparison of past and future, high and low extremes of precipitation and river flow for the Mediterranean as projected using different statistical downscaling methods
- 09:00–09:15 EGU2011-9715
Alexander Georgiadi, Irina Milyukova, and Ekaterina Kashutina
Response of Lena basin river runoff to recent and projected global climate warming
- 09:15–09:30 EGU2011-11375
Kerstin Stahl, Lena M. Tallaksen, Jamie Hannaford, and Henny A.J. van Lanen
Observed runoff trends across Europe - a benchmark for land surface and global hydrological model simulations
- 09:30–09:45 EGU2011-6994
Luke Omondi Olang
Effects of land cover change scenarios on storm runoff generation in the Nyando River Basin, Kenya
- 09:45–10:00 EGU2011-1068
Lu Wang, Paolo Reggiani, Pieter Van Gelder, and Han Vrijling
GCMs simulative ability on climatic and extreme hydrologic conditions over Chinese Huai River Basin

COFFEE BREAK

Chairperson: Stefan Hagemann, Mohsin Hafeez

- 10:30–10:45 EGU2011-10665
Joshua Larsen, Grégoire Mariethoz, Martin Andersen, and Bryce Kelly
 Long term water quality trends in Australia's largest river basin
- 10:45–11:00 EGU2011-11072
Deniz Bozkurt and Omer Lutfi Sen
 Hydrological response of past and future climate changes in the Euphrates-Tigris Basin
- 11:00–11:15 EGU2011-8008
Borbala Galos, Csaba Matyas, and Daniela Jacob
 Can afforestation help to reduce the drought severity?
- 11:15–11:30 EGU2011-12329
Abubakr Salih and Heiner Körnich
 Climatic consequences of water harvesting in southern Sudan
- 11:30–11:45 EGU2011-5858
Jef Dams, Juliette Dujardin, and Okke Batelaan
 Assessing the impact of historical land cover changes on the water balance, comparing a pixel and sub-pixel approach
- 11:45–12:00 EGU2011-14138
Nicola Gedney and Graham Weedon
 Understanding the principle drivers of hydrological change in the 20th Century

HS2.9 – Hydrological change: Regional hydrological behaviour under transient climate and land use conditions –

Posters

Convener: Harald Kunstmann | Co-Conveners: Stefan Hagemann, Axel Bronstert, Alexander Georgiadi, Mohsin Hafeez

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Axel Bronstert, Harald Kunstmann

- A184 EGU2011-694
Carla Ferreira, Daniel Soares, Tammo Steenhuis, António Ferreira, Rory Walsh, and Celeste Coelho
 Urban impact on hydrological processes: methodology and first results of a small Mediterranean catchment
- A185 EGU2011-2010
Ate Visser, Joop Kroes, Michelle Van Vliet, Stephen Blenkinsop, and Hans Peter Broers
 Climate change impacts on the hydrology of a small lowland catchment and the leaching of a heavy metal contamination
- A186 EGU2011-2370
Sangdan Kim and Doo Kee Kang
 Effects of Climate Change on Indicators of Eco-hydrologic Alternation in Nakdong River Basin
- A187 EGU2011-3161
Bertrand Leterme and Dirk Mallants
 Long-term groundwater recharge: sensitivity to climate and land use changes
- A188 EGU2011-3780
Luis Gustavo de Goncalves and Joao Gerd Zell de Mattos
 A South America Land Surface Hydrological Reanalysis
- A189 EGU2011-6228
Aslan Belli and Haberlandt Uwe
 A stochastic precipitation model conditioned on circulation patterns
- A190 EGU2011-6700
Pere Quintana Seguí, Marco Turco, and María del Carmen Llasat
 Implementation of a distributed model for the simulation of the past, present and future water balance of the NE Iberian Peninsula
- A191 EGU2011-6712
Malgorzata Kepinska-Kasprzak, Piotr Struzik, Danuta Limanowka, and Przemyslaw Mager
 Conventional and remote sensing techniques for determination of conditions for vegetation development - Climatic Water Balance vs. satellite derived vegetation status
- A192 EGU2011-6904
Vaclav Sipek and Sona Nemeckova
 The assessment of the influence of different natural conditions on the particular processes of the hydrological cycle within a river basin

- A193 EGU2011-10592
Harald Kling, Martin Fuchs, and Maria Paulin
Ensemble modelling of runoff conditions in the upper Danube basin under climate scenarios
- A194 EGU2011-9966
Monica Piras, Giuseppe Mascaro, Roberto Deidda, and Enrique Vivoni
Sensitivity of the hydrological response in a Mediterranean catchment to different climate
- A195 EGU2011-12271
Simone Fatichi, Enrica Caporali, and Valeriy Ivanov
Using a weather generator and GCM realizations to produce an ensemble of hourly future climate time series
- A196 EGU2011-12086
Cui Chen, Fulco Ludwig, and Stefan Hagemann
Assessment of the impact of climate change on the global water cycle using multiple climate and hydrological models
- A197 EGU2011-11628
Utia Suarma, Johann Stötter, and Junun Sartohadi
Land Use Change Impact on the Hydrological Response in Code Catchment, Yogyakarta Province, Indonesia
- A198 EGU2011-11486
Petra Souvent, Barbara Cencur Curk, and Branka Bracic Zeleznik
Groundwater Quality as a Variable in Time and Space
- A199 EGU2011-10650
Munira Mohammad and **András Bárdossy**
A Water Balances Study of Klang River Valley for hydrological applications
- A200 EGU2011-11323
Bano Mehdi, Ralf Ludwig, and Bernhard Lehner
Future agricultural land use scenarios in the Altmühl watershed
- A201 EGU2011-10858
Sven Wagner, Peter Berg, Doris Dühmann, Joachim Liebert, Irena Ott, and **Harald Kunstmann**
High resolution regional climate simulations for hydrological impact studies in Germany
- A202 EGU2011-10615
Petra Souvent, Miso Andjelov, Tina Zajc, and Barbara Cencur Curk
Groundwater availability in the alluvial aquifer of Mura valley, Slovenia
- A203 EGU2011-2912
Hua Chen, Shen Tian, Chong-Yu Xu, and Shenglian Guo
Comparison of statistical downscaling methods and their performance in driving hydrological models in climate change study
- A204 EGU2011-8666
Maxime Souvignet, Hartmut Gaese, and Jürgen Heinrich
Future Water Availability in the Central Andes under the Climate Change Hypothesis
- A205 EGU2011-7055
Junting Guo, Zhiqiang Zhang, Shengping Wang, Peter Strauss, Alexander Eder, and Yin Tang
Response of streamflow to climate variability and land use/cover changes in a watershed in Northern China
- A206 EGU2011-7290
Shengping Wang, Zhiqiang Zhang, Peter Strauss, Junting Guo, Alexander Eder, and Yin Tang
Watershed hydrological impacts of climate variability and land use change by using an eco-hydrological approach combined with differential elasticity-based analysis
- A207 EGU2011-5958
Pavel Ondr, **Jakub Brom**, Jana Moravcova, Monika Koupilova, Tomas Pavlicek, and Renata Duffkova
The impact of selected meteorological components on discharge in the small agricultural catchment
- A208 EGU2011-5663
Jean-Philippe Vidal, Birgitte von Christierson, and Steven D. Wade
Using probabilistic climate information for UK water resource planning
- A209 EGU2011-9287
Huu Hoang Tran and Konrad Miegel
Operation of Dautieng reservoir for adaption on climate change - a case study in Vietnam
- A210 EGU2011-9106
Saskia van Pelt, Bart van den Hurk, Adri Buishand, and Jules Beersma
Improving the probability distribution of the change in extreme river flows due to climate change
- A211 EGU2011-10349
Anders Wörman
Change of runoff time scales during 20th Century due to landuse
- A212 EGU2011-14148
Richard Silberstein
Projected change in streamflow in southern Western Australia and changes in hydrologic regime under projected climate change - is this non-stationarity?

- A213 EGU2011-7068
Peteris Bethers, Juris Sennikovs, and Andrejs Timuhins
Skill assessment of regional climate models: T/P correlations impacts on hydrological modeling
- A214 EGU2011-10160
Gerald Corzo P, M.H.J. van Huijgevoort, and H.A.J. van Lanen
Analysis of 21st century droughts from multiple global hydrological and land surface models
- A215 EGU2011-10406
Andrea Soncini, Daniele Bocchiola, Andrea Castelletti, and Enrico Weber
Lake reservoir management under transient climate change in the Italian Alps
- A216 EGU2011-14139
Richard Turcotte, Simon Ricard, Dominic Roussel, Rémy Bourdillon, Blaise Gauvin-St-Denis, Diane Chaumont, and Jean-François Cyr
Hydrological impact of climate change on tributaries of the St. Lawrence River including uncertainty analysis
- A217 EGU2011-1137
Johanna Trümper and Jochen Schanze
Model concept for the projection of water related land-use parameters
- A218 EGU2011-266
Laura Kruitbos, Doerthe Tetzlaff, Chris Soulsby, Jim Buttle, Sean Carey, Rick Cunjak, Hjalmar Laudon, Jeff McDonnell, Kevin McGuire, Jan Seibert, and Jamie Shanley
Hydrological functioning and ecological response across northern catchments within the North-Watch program
- A219 EGU2011-6542
Alice Aubert, Philippe Mérot, Chantal Gascuel-Oudou, and Gérard Gruau
Climatic factors controlling the variations of chloride and nitrate concentrations in agricultural headwater catchments: preliminary results

HS2.10 – Hydrological change: Ecological development, landscape evolution and hydrological response – Orals
Convener: Hartmut Holländer | Co-Conveners: António Ferreira, Susanne Winter, Thomas Maurer, Susanne Stadler, Artemi Cerdà

Room: 36

Chairperson: Hartmut Holländer

- 13:30–14:00 EGU2011-13963
Tammo Steenhuis, Carla S. Ferreira, Seifu A. Tilahun, Birara C. Tarekegn, Muhammad Elkamil, Zach M. Easton, and António D. Ferreira
Environmental tipping points in landscape interventions
- 14:00–14:15 EGU2011-5755
Wolfgang Schaaf, Detlef Biemelt, Anton Fischer, and Werner Gerwin
Chicken Creek after five years: what changed?
- 14:15–14:30 EGU2011-4686
Anna Schneider, Horst H. Gerke, Thomas Maurer, Rossen Nenov, and Stefan Seifert
Quantification of initial sediment redistribution in an artificially-created catchment using a time series of digital elevation models
- 14:30–14:45 EGU2011-9627
Philip Noske, Gary Sheridan, and Patrick Lane
Fire and the influence of aspect on hydrological change in two small forest catchments, SE Australia
- 14:45–15:00 EGU2011-8138
Rens van Beek, Rik Feiken, Theo van Asch, and Marc Bierkens
Impact of climate variation and human activity on hydrological response: a millennium-scale model study for a highland Mediterranean catchment

HS2.10 – Hydrological change: Ecological development, landscape evolution and hydrological response – Posters
Convener: Hartmut Holländer | Co-Conveners: António Ferreira, Susanne Winter, Thomas Maurer, Susanne Stadler, Artemi Cerdà

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: António Dinis Ferreira

- A220 EGU2011-945
Philip Hunke, Eva Nora Müller, and Peter Zeilhofer
Interaction of vegetation dynamics with water and nutrient cycling: Ecohydrological analysis of heavily modified agricultural fields in the Cerrado of Mato Grosso, Brazil
- A221 EGU2011-3739
Sheila Palmer, Mark Crowther, and Chapman Pippa
Evidence for abiotic DOC losses in a peatland stream

- A222 EGU2011-4126
Alena Kulasova, **Sarka Blazkova**, and Keith Beven
Runoff generation research in an area with land use and ecological change
- A223 EGU2011-4208
Helene Rieckh, Jean F. Schneider, Willibald Loiskandl, and Horst H. Gerke
Relationship between land cover change and the appearance of water logging and salinisation
- A224 EGU2011-5100
Joseph Holden and Richard Grayson
Changes in storm hydrographs associated with long-term peatland vegetation change
- A225 EGU2011-6784
Mana Gharun, Tarryn Turnbull, and Mark Adams
Water Use Dynamics in Disturbed Australian Montane Forests
- A226 EGU2011-7771
Anne Gaedeke and Ina Umlauf
Comparison of different approaches of spatial discretization for modelling the natural discharge in a subcatchment of the river Spree (125 km²) in Lusatia (Germany)
- A227 EGU2011-11752
Edinson Pacheco, Joaquim Farguell, and Xavier Úbeda
Hydrological dynamics in a Mediterranean coastal drainage basin: the river Daró (2004-2010)
- A228 EGU2011-11803
Thomas Maurer, Anna Schneider, Uwe Buczko, and Horst H. Gerke
Modeling the structural heterogeneity of an artificial hydrological catchment.
- A229 EGU2011-11804
Edinson Pacheco, Luis Outeiro, Alejandro Miguel, Joaquim Farguell, and Xavier Úbeda
Runoff and sediment production in a Mediterranean basin with two different land uses (2005-2009)
- A230 EGU2011-11893
Tim Allott, Martin Evans, Clive Agnew, Jim Freer, Clare Brown, and Rachael Maskill
The impacts of peatland restoration on runoff generation and downstream flood risk in the UK uplands: a comparative study of headwater catchments in the Peak District National Park
- A231 EGU2011-4269
Mikołaj Piniewski, Jarosław Chormański, Lars Gottschalk, and Irina Krasovskaia
Exploring changing environment in wetland national park Kampinos, Poland
- A232 EGU2011-4342
Robert Gilkes and Nattaporn Prakongkep
A drying climate is acidifying podosols and groundwater in SW Australia.
- A233 EGU2011-8555
Nicole Jackisch and Markus Weiler
Quantifying hydrological processes in an experimental watershed in an ecologically planned neighbourhood
- A234 EGU2011-8759
Agustin Brena, Markus Weiler, and Kerstin Stahl
Predicting evapotranspiration change in a successional forest without eddy covariance measurements
- A235 EGU2011-8988
Jana Chmielewski and Vera Luthardt
Responses of different mire types on temporal climatic shifts and land-use parameters
- A236 EGU2011-11379
Greg O'Donnell, John Ewen, Enda O'Connell, and Josie Geris
Adjoint distributed catchment modelling for flood impact of rural land use and management change
- A237 EGU2011-12741
Helen Roe, Timothy Patterson, and Graeme Swindles
Tracking catchment disturbance using lake thecamoebians (testate amoebae): case studies from the Greater Toronto Area, Ontario, Canada
- A238 EGU2011-13583
António Ferreira, Rick Shakesby, Celeste Coelho, Carla Ferreira, Célio Bento, Tanya Esteves, and Manuela Carreiras
The impact of fire on the spatial and temporal distribution of hydrologic and geomorphologic processes at slope and catchments scales.

HS2.11/NH1.14 – Hydrological extremes: from droughts to floods (co-organized) – Orals

Convener: Alberto Viglione | Co-Conveners: Jan Szolgay, Lena M. Tallaksen, Gregor Laaha

Room: 36

Chairperson: Hege Hisdal

15:30–15:45 EGU2011-8123

Simon Parry, Christel Prudhomme, and Jamie Hannaford

How well do large-scale models reproduce hydrological extremes in Europe?

- 15:45–16:00 EGU2011-4188
Claire Lang and Didier François
From flood to low flow: analysis of recession processes
- 16:00–16:15 EGU2011-11649
Peter Molnar, Samuel Peter, and Paolo Burlando
Power law tails in streamflow extremes: effect of precipitation and basin properties
- 16:15–16:30 EGU2011-5762
Rodrigo Rojas, Davide Bavera, and Luc Feyen
On the value of bias correction to improve pan-European hydrological simulation of extreme events
- 16:30–16:45 EGU2011-8418
Shaochun Huang, Fred F. Hattermann, Valentina Krysanova, and Axel Bronstert
Projections of hydrological extremes under climate change in Germany by combining three RCMs with a regional hydrological model
- 16:45–17:00 EGU2011-4134
Sarka Blazkova and Keith Beven
Floods and droughts in continuous simulation with uncertainty

HS4.1/NH1.11 – Flash floods: observations, modeling, forecasting and risk management (co-organized) – Orals

Convener: Marco Borga | Co-Conveners: Jan Szolgay, Giuseppe T. Aronica, Günter Blöschl, Eric Gaume

Room: 38

Chairperson: Marco Borga

- 13:30–13:45 EGU2011-7927
Pierre Javelle, Bruno Janet, Patrick Fourmigué, Olivier Payraastre, Jean Pansu, Philippe Lefort, Lorenzo Marchi, Guy Delrieu, Eric Gaume and the HYMEX-TTO2D Team
Results of the post-event survey conducted after the extreme flash flood occurred in the Var region (South of France) in June 2010
- 13:45–14:00 EGU2011-3458
Paul Smith, Keith Beven, Arthur Marchandise, Luca Panziera, Florian Pappenberger, Massimiliano Zappa, and Kaethi Liechti
Forecasting river levels during flash floods using Data Based Mechanistic models, online data assimilation and meteorological forecasts
- 14:00–14:15 EGU2011-9878
Jan Schwanbeck and Rolf Weingartner
A statistical model derived from a physical-based model for assisting local decision makers in potential flood situations in small, flash-flood-prone mountain catchments.
- 14:15–14:30 EGU2011-10604
James Smith, Mary Lynn Baeck, **Gabriele Villarini**, Daniel Wright, June Yeung, and Witold Krajewski
Extreme Flood Response and Spatial Extremes: Analyses of the June 2008 Flooding in Iowa
- 14:30–14:45 EGU2011-5841
Virginia Ruiz-Villanueva, Davide Zoccatelli, Lorenzo Marchi, and Eric Gaume
Hydrology and hydraulics of an extreme flash flood in South-West Germany: the 2nd June 2008 event on the Starzel river
- 14:45–15:00 EGU2011-7740
Claudia Brauer, Ryan Teuling, Aart Overeem, Ype van der Velde, Pieter Hazenberg, Piet Warmerdam, and Remko Uijlenhoet
Soil buffer limits flash flood response to extraordinary rainfall in a Dutch lowland catchment

HS4.1/NH1.11 – Flash floods: observations, modeling, forecasting and risk management (co-organized) – Posters

Convener: Marco Borga | Co-Conveners: Jan Szolgay, Giuseppe T. Aronica, Günter Blöschl, Eric Gaume

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A239 EGU2011-2077
Elena Galiouna, Andreas Efstratiadis, Nikos Mamassis, and Kostas Aristeidou
Investigation of extreme flows in Cyprus: empirical formulas and regionalization approaches for peak flow estimation
- A240 EGU2011-4293
Giuseppe T. Aronica, Paolo Tarolli, Daniele Penna, and Marco Borga
Analysis of shallow landsliding triggered by extreme precipitation: the October 1, 2009 event in Giampilieri (Sicily)

- A241 EGU2011-4384
Noriyuki Kawano
Flood disaster monitoring in the north-eastern Australia with ALOS/PALSAR observation
- A242 EGU2011-5082
Lukas Brodsky, Radka Kodesova, Katerina Spazierova, Jirka Simunek, and Miroslav Sejna
FLOREO - a system for flash flood monitoring and forecasting in the Czech Republic
- A243 EGU2011-5745
Jean-Philippe Naulin, Eric Gaume, and Olivier Payrastre
Distributed hydrological now-casting for the management of the road network in the Gard Department (France)
- A244 EGU2011-5817
Ioannis Daliakopoulos and **Ioannis Tsanis**
Uncertainty in precipitation field estimations from radar and raingauge measurements
- A245 EGU2011-6761
Dimitri Defrance, Pierre Javelle, Patrick Arnaud, Vazken Andreassian, Emmanuel Moreau, and Patrice Meriaux
Flash flood warning methods: how to evaluate them? An application in the French Southern Alps using the AIGA warning method and different rainfall input data.
- A246 EGU2011-6924
Anja Horvat, Andrej Vidmar, Mitja Brilly, and Maja Koprivšek
Retention Area Consideration At Hydrological Modelling
- A247 EGU2011-13049
Enrique Ortiz and Felix Francés
Flash flood risk assessment following the European Water Framework Directive. The case of Marina Alta and Marina Baja (Alicante, Spain).
- A248 EGU2011-10642
Juraj Parajka, **Silvia Kohnová**, Ralf Merz, Ján Szolgay, Günter Blöschl, and Kamila Hlavčová
Seasonal characteristics of precipitation and runoff in Slovakia and Austria
- A249 EGU2011-10700
Davide Zoccatelli, Francesco Marra, and Francesco Zanon
Impact of storm motion and its interaction with the drainage basin properties on selected extreme flash floods in the Mediterranean area
- A250 EGU2011-10722
Ladislav Gaal, Guenter Blöschl, **Jan Szolgay**, Beata Karabova, Peter Valent, and Juraj Parajka
Regional analysis of peak-volume relationships of floods in Austria - time scales and correlations
- A251 EGU2011-10727
Francesco Marra, Francesco Zanon, Daniele Penna, Nicola Mantese, Davide Zoccatelli, Marco Cavalli, and Lorenzo Marchi
Hydrometeorological and hydrological analysis for the Nov 1, 2010 flood event in North-eastern Italy
- A252 EGU2011-11232
Nicola Berni, Claudia Pandolfo, Marco Stelluti, and Luca Brocca
Operational flash-flood forecasting system for the Upper-Medium Tiber River (central Italy)
- A253 EGU2011-12200
Athanasios Loukas, Giuseppe Aronica, Giuseppina Brigandì, Lampros Vasiliades, and George Papaioannou
Probabilistic forecasting of antecedent soil moisture conditions as flash flood precursor variables
- A254 EGU2011-12234
Paolo Tarolli, Efthymios I. Nikolopoulos, Emmanouil Anagnostou, Enrique R. Vivoni, and Anastasios Papadopoulos
The effect of high resolution topography information on complex terrain flash-flood response modeling
- A255 EGU2011-12451
Efthymios Nikolopoulos, Marco Borga, Emmanouil Anagnostou, Enrique Vivoni, and Anastasios Papadopoulos
Identifying essential space-time information requirements for flood modelling of a mountainous mid-size basin
- A256 EGU2011-13066
Nathalie Morey, Giuseppe Tito Aronica, Gabriele Leoni, and Claudio Puglisi
Post-event debris flow volume measurement using GIS techniques and LIDAR data
- A257 EGU2011-5
ESPOSITO Christophe, CHAVE Sylvain, BALLAIS Jean-Louis, and DELORME Virginie
Hydrogeomorphological mapping and comparison with the spatial extent of exceptional floods in the Mediterranean area: Flash flood in Aude (1999), Gard (2002) and Var (2010) Department (France)
- A258 EGU2011-5889
Francesco Marra and **Virginia Ruiz-Villanueva**
Radar rainfall estimation for flash floods and debris flows analysis: application of the mountain reference technique at C-band frequency

HS4.5 – Drought and water scarcity: hydrological monitoring, modeling and forecasting – Orals

Convener: Elena Toth | Co-Conveners: Athanasios Loukas, Giuseppe T. Aronica

Room: 38

Chairperson: n.n.

- 15:30–15:45 EGU2011-6350
Jürgen Vogt, Paulo Barbosa, Barbara Hofer, and Andrew Singleton
 Developing a European Drought Observatory for Monitoring, Assessing and Forecasting Droughts Across the European Continent
- 15:45–16:00 EGU2011-13968
Brunella Bonaccorso, Giuseppe Rossi, David J. Peres, and Antonino Cancelliere
 Probabilistic analysis of drought characteristics and related return periods at European level
- 16:00–16:15 EGU2011-3028
Mike Kirkby, Francesc Gallart, and Thomas Kjeldsen
 Regional estimates of water scarcity and river habitat s for southern Europe
- 16:15–16:30 EGU2011-9293
 Vijendra Boken, Giuseppe Mendicino, and **Alfonso Senatore**
 Estimating an Evaporative Drought Index (EDI) for southern Italy using satellite and ground-based temperature data
- 16:30–16:45 EGU2011-539
Claudia Teutschbein and Jan Seibert
 RCM-based Potential Evaporation Estimates and their Importance for Low-flow Simulations under Changing Climate Conditions
- 16:45–17:00 EGU2011-13860
Carmen de Jong, Bruno Maiolini, Nektarios Chrysoulakis, and Amin Shaban
 Water Scarcity and Droughts in Mediterranean Mountains: Regional Examples from a Global Change Perspective
- 17:00–17:15 EGU2011-13862
Mauro Del Longo, Carlo Cacciamani, Silvano Pecora, and Enrica Zenoni
 Drought forecasting and mitigation in Emilia Romagna Region, Italy.

HS4.5 – Drought and water scarcity: hydrological monitoring, modeling and forecasting – Posters

Convener: Elena Toth | Co-Conveners: Athanasios Loukas, Giuseppe T. Aronica

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A259 EGU2011-1856
 Rogier Westerhoff and **Albrecht Weerts**
 FP7 GLOWASIS - A new collaborative project aimed at pre-validation of a GMES Global Water Scarcity Information Service
- A260 EGU2011-7468
Christopher Hain, Martha Anderson, Xiwu Zhan, and John Mecikalski
 Intercomparison of an ET-based Drought Index Derived from Geostationary Satellite Data with Standard Drought Indicators
- A261 EGU2011-6934
Khodayar Abdollahi, Okke Batelaan, Ghatreh Ghatreh, seyed Javad Sadatinejad, and seyed Hasan Alaviniya
 Relevance comparison of meteorological drought indices for hydrological flow in Armand River basin, Iran
- A262 EGU2011-11922
 Lampros Vasiliades and **Athanasios Loukas**
 An early warning drought system for operational drought management
- A263 EGU2011-5105
Giuseppe T. Aronica, Athanasios Loukas, and Lampros Vasiliades
 Predicting daily streamflow with uncertainty using parsimonious rainfall-runoff models finalised to water resources management in a Cypriot catchment
- A264 EGU2011-5952
Stéphanie Singla, Eric Martin, Jean-Pierre Céron, Fabienne Regimbeau, and Jean-Philippe Vidal
 Predictability of soil moisture and river discharge over France for the Spring season
- A265 EGU2011-8910
Sandra G. Garcia Galiano, Juan Diego Giraldo Osorio, Claudia N. Tetay Botía, Mario A. Urrea Mallebrera, and Adolfo Mérida Abril
 Understanding the impacts on runoff of the spatial pattern of hydrometeorological variables in a changing climate: case study of the Segura River Basin (Spain)

- A266 EGU2011-12311
Juergen Komma and Christian Kopeinig
Water Scarcity - Development of an Early Warning system in Carinthia
- A267 EGU2011-10673
Elena Montosi, Juraj Parajka, Alberto Montanari, and Günter Blöschl
Regional hydrological simulation as a tool to manage drought vulnerability.
- A268 EGU2011-4487
Elena Toth
Rainfall-runoff modeling for forecasting the inflows to a drought-affected water supply reservoir: data reconciliation and regional parameterisation
- A269 EGU2011-8277
Gayane Grigoryan, Markus Casper, Jürgen Gauer, Philipp Reiter, and Marcus Herbst
Approach for estimating the impact of climate change on water availability, within the forestry management of Rhineland-Palatinate, Germany
- A270 EGU2011-11921
Zohra Lilichabaane, Ines Oueslati, Marouen Shabou, Amri Rim, Mehrez Zribi, Diego Glafassi, Kaitlyn Rathwell, and Holger Hoff
Drought adaptation scenarios to improve the water resource management and increase the food security in the Merguellil watershed.
- A271 EGU2011-2224
Jie-Lun Chiang and **Chiang Wei**
Drought Prediction Using Artificial Neural Network

HS5.1 – Assessment and management of water resources in tropical and dryland countries – Orals

Convener: Wouter Buytaert | Co-Conveners: Jens Liebe, Jan Friesen, Ralf Ludwig

Room: 38

Chairperson: n.n.

- 08:30–08:45 EGU2011-257
Paul D. Wagner, Shamita Kumar, Peter Fiener, and Karl Schneider
Assessment of water resources in a monsoon-driven environment - Experience from the Western Ghats, India
- 08:45–09:00 EGU2011-8846
Sathish Sadhasivam and Elango Lakshmanan
Study of impact of seawater in an unconfined coastal aquifer, south of Chennai, India.
- 09:00–09:15 EGU2011-13406
Sibylle Hassler and Helmut Elsenbeer
Is soil permeability a good predictor for overland flow occurrence?
- 09:15–09:30 EGU2011-10222
Ángela Vivó Aguado, Andreas Hartmann, Jens Lange, and Rafael L. García Bartual
Assessment of spring water resources of the Faria Catchment, West Bank
- 09:30–09:45 EGU2011-12922
Seyed Kazmi and Maurits Ertsen
Potential estimation of groundwater recharge using pesticides as tracer
- 09:45–10:00 EGU2011-13036
Nelson Fernandes, Patricia Mota, Sarah Lawall, Christiane Pinto, and Ligia Araújo
The Effects of Land Use and Soil Cover Changes on Soil Hydrology in Southeastern Brazil

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2011-1752
Nick van de Giesen, Jens Liebe, and Gerlinde Jung
Local adaptation to climate change in the Volta Basin, West Africa
- 10:45–11:00 EGU2011-4551
Marijn van der Velde, Marc Overmars, Michael Obersteiner, and Brent E. Clothier
Integrated water resources management in Small Island Developing States: managing ENSO climate variability, agricultural intensification and economic development
- 11:00–11:15 EGU2011-250
Nodir Djanibekov, Klaus Froberg, and Utkur Djanibekov
Analysis of future water demand for food consumption in drylands of Central Asia: The case of Uzbekistan

- 11:15–11:30 EGU2011-7453
Celine Dondeynaz, Cesar Carmona-Moreno, Andrea Leone, and Daoyi Chen
 Inter-relationships among water, governance, human development variables in developing countries: a database coherence analysis
- 11:30–11:45 EGU2011-11855
Jens Liebe, Lineu Rodrigues, and Nick van de Giesen
 Assessment of depth, area, and volume characteristics of small water bodies
- 11:45–12:00 EGU2011-9776
Sebastian Kloss, Niels Schütze, Sabine Walser, and Jens Grundmann
 Comparison of Different Model-Based Deficit Irrigation Strategies to Maximize Water Productivity of Corn

HS5.1 – Assessment and management of water resources in tropical and dryland countries – Posters

Convener: Wouter Buytaert | Co-Conveners: Jens Liebe, Jan Friesen, Ralf Ludwig

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A272 EGU2011-205
Dasapta Erwin Irawan, Deny Juanda Puradimaja, Sudarto Notosiswoyo, and Prihadi Sumintadiredja
 Characterization of tropical volcanic hydrogeology based on temperature and electrical conductivity analysis: Mt. Ciremai, West Java, Indonesia
- A273 EGU2011-446
Bouazzama Bassou
 Simulation of silage maize growth and development under water stress with the PILOTE and CropSyst Models
- A274 EGU2011-456
Rasha Gamie and Florimond De Smedt
 Spatial Variability of Soil Hydraulic Conductivity in New Valley, Egypt.
- A275 EGU2011-1022
Solomon Gebreyohannis Gebrehiwot, Annemieke Gärdenas, Kevin Bishop, Woldeamlak Bewket, Jan Siebert, and Ulrik Ilstedt
 Hydrological changes over half century in the Blue Nile Basin, Ethiopia: A statistical approach
- A276 EGU2011-4249
Nathalie Dörfliger and the ANR Grain d'sel project Team
 Contribution of EM airborne geophysics to characterize seawater intrusion within a Plio-Quaternary coastal Mediterranean aquifer in order of improving management and early warning systems
- A277 EGU2011-5791
Laura Cattaneo, Mauro Giudici, Bruno Petrucci, and Alfredo Lozej
 Modeling groundwater resources in an alluvial aquifer of Somaliland
- A278 EGU2011-6317
Kang-Yuan pao and Yih Chi Tan
 Analysis of the safe yield of the groundwater in southern Taiwan after typhoon Morakot
- A279 EGU2011-6366
Tamir Grodek, Jens Lange, Judith Lekach, and Samar Husary
 Limited runoff response in Mountainous Middle Eastern cities
- A280 EGU2011-6866
Luke O. Olang
 Simulation of runoff process within the humid foot-slope catchments of Mt. Kenya: an assessment of two infiltration approaches for rainfall-runoff modelling
- A281 EGU2011-9185
Despina Kalisperi, Maria Kouli, Nikos Lydakis-Simantiris, and Pantelis Soupios
 Assessment of Groundwater Resources in the North-Central coast of Crete, Greece using Geochemical Methods and GIS as a tool
- A282 EGU2011-9363
Vsevolod Yutsis, Konstantin Krivosheya, Anatoliy Kotsarenko, Dirk Masuch Oesterreich, and Hector de Leon Gomez
 Hidrogeological balance of Cerro Prieto dam (NE Mexico) and sub-bottom infiltration: geophysical study
- A284 EGU2011-9803
Dieter F. Ihrig, Michael Licht, and Andreas Vach
 Exploitation of Water from Air Moisture
- A285 EGU2011-10200
Hidayat Hidayat, Ton Hoitink, Maximiliano Sassi, Bart Vermeulen, Paul Torfs, and Remko Uijlenhoet
 Added value of H-ADCP data in rainfall-runoff models driven by satellite rainfall input in a tropical basin

- A286 EGU2011-10370
Agnes A. Kouame, Marj Tonini, Marc-Henri Derron, Michel Jaboyedoff, Nathalie Cherve, and Hans-Ruedi Pfeifer
 Study of risks associated with the migration of toxic pollutants in groundwater in the humid tropical zone: The case of Abidjan District (Côte d'Ivoire)
- A287 EGU2011-10385
Dolorinda Daniele, Mercé Corbella, Angela Vallejos, and Antonio Pulido-Bosch
 Assessment of salinity and water-rock interaction in complex aquifers: the case of Aguadulce Unit (SE, Spain).
- A288 EGU2011-10902
Jorge Luis Peña Arancibia, Albert I.J.M. Van Dijk, Juan-Pablo Guerschman, Mark Mulligan, and Leendert A. Bruijnzeel
 Hydrological response to deforestation in a large tropical basin in Queensland, Australia
- A289 EGU2011-11042
Wouter Buytaert, Selene Baez, and Claudia Veliz
 Towards a virtual observatory for ecosystem services and poverty alleviation
- A290 EGU2011-12483
maria Pool, Jesus Carrera, and Emilia Bocanegra
 Improving sustainable water resources management in coastal aquifers using stochastic inverse modelling and optimization techniques, incorporating satellite imagery as secondary information.
- A291 EGU2011-12518
Lai Ting Pak, Marc Voltz, François Colin, and Philippe Cattan
 Modelling the contribution of surface and groundwater flows to runoff in a volcanic tropical catchment in the French West Indies
- A292 EGU2011-13225
Raquel Gómez-Beas, Antonio Moñino, Cristina Aguilar, and María José Polo
 Application of a management tool based on uncertainty analysis to a reservoir in a Mediterranean watershed: Cost analysis.
- A293 EGU2011-13475
Andreas Kallioras, Ioannis Giougis, Fotios Pliakas, Christoph Schuth, and Randolph Rausch
 Overexploitation of coastal groundwater resources in Northern Greece

HS5.3 – Stakeholder participation in hydrology – Orals

Convener: Tobias Krueger | Co-Conveners: Gemma Carr, Andrea Castelletti, Alexey Voinov

Room: 39

Chairperson: The conveners

- 15:30–15:45 EGU2011-6568
Stuart Lane
 Co-producing knowledge in hydrological science: new forms of public participation in flood risk management
- 15:45–16:00 EGU2011-1451
Alex Inman and Laurence Smith
 The Economic Value of Participation for Water Resource Management
- 16:00–16:15 EGU2011-10135
Florian Wimmer, Ilona Bärlund, George Cojocaru, Paula Harrison, Ian Holman, and Martina Flörke
 Integration of a simplified water resources model into an interactive platform to assess climate change impacts in Europe
- 16:15–16:30 EGU2011-8927
Raffaele Giordano, Marcela Brugnach, and Michele Vurro
 Fuzzy Cognitive Map for ambiguity and conflict analysis in drought management
- 16:30–16:45 EGU2011-6649
Christopher (Kit) Macleod
 Spanning policy, operational and research boundaries for catchment managing
- 16:45–17:00 EGU2011-9673
Jan Sendzimir
 The Stalled Transition In The Upper Tisza River Basin: The Dynamics Of Linked Action Situations

HS5.3 – Stakeholder participation in hydrology – Posters

Convener: Tobias Krueger | Co-Conveners: Gemma Carr, Andrea Castelletti, Alexey Voinov

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: The conveners

- A294 EGU2011-3443
Gemma Carr, Daniel Pete Loucks, and Guenter Bloeschl
Stakeholder participation in water resource management: Categorisation and evaluation of approaches
- A295 EGU2011-3580
Jörg Krywkow
Planning participatory processes in water resources management
- A296 EGU2011-11716
Elizabeth Oughton and David Passmore
Stakeholder participation in hydrology: what you want may not be what you get
- A297 EGU2011-13974
Alexey Voinov and Erica Gaddis
Which Model and Why?
- A298 EGU2011-1330
Tobias Krueger, Trevor Page, Klaus Hubacek, and Kevin Hiscock
Stakeholders and experts: a wide perspective on expertise in hydrological modelling
- A299 EGU2011-1331
Tobias Krueger, Alex Inman, Laurence Smith, and Kevin Hiscock
Stakeholder co-production of models in catchment management for water quality
- A300 EGU2011-2654
Janina Onigkeit, Joseph Alcamo, and Barbara Luebkert-Alcamo
The Story- and Simulation approach: Scenario development as a method to integrate practical and scientific knowledge for long-term water planning
- A301 EGU2011-7689
Ilona Bärlund, Martina Flörke, Kasper Kok, and Minna Kaljonen
Bridging the gap between qualitative and quantitative: scenario development in a participatory process
- A302 EGU2011-5776
Ivan Vrana and Pavel Kovar
Stakeholder Group Consensus based on Multi-aspect Hydrology Decision Making
- A303 EGU2011-10166
Rodolfo Soncini-Sessa, Paola Mani, Marco Micotti, and Valentina Sachero
Improving stakeholders participation in the water management process using fuzzy logic and semantic classes.
- A304 EGU2011-1152
Cathal Buckley
An analysis of the subjective opinion of farmer stakeholders to implementation of the EU Nitrates Directive in the Republic of Ireland.
- A305 EGU2011-153
Muhammad Mehmood Ul Hassan
Why Participatory Irrigation Reforms Fail? An interpretation through key governance concepts
- A306 EGU2011-1448
Laurence Smith, Hadrian Cook, David Benson, Alex Inman, and Andrew Jordan
Surveying Community Based Catchment Management Groups in England and Wales
- A307 EGU2011-1274
David Benson, Andrew Jordan, Hadrian Cook, Alex Inman, and Laurence Smith
A comparative analysis of collaborative watershed partnerships: are they swimming or are they sinking?

HS5.5 – Drought, Water Scarcity and Food Security: Forecasting, warning and natural resources management – Orals

Convener: Micha Werner | Co-Conveners: Ana Iglesias, Jan Cools, Jochen Froebrich

Room: 39

Chairperson: n.n.

- 13:30–13:45 EGU2011-1574
Donald Wilhite
Improving Drought Preparedness in the United States: Are We Making Progress in Breaking the Hydro-illogical Cycle?
- 13:45–14:00 EGU2011-9205
William Pozzi, Douglas Cripe, Richard Heim, Michael J. Brewer, Justin Sheffield, Stefan Niemeyer, Benjamin Lloyd-Hughes, Leliana Nunez, Blair Trewin, Wolfgang Wagner and the W. Pozzi Team
Group on Earth Observation (GEO) Global Drought Monitor
- 14:00–14:15 EGU2011-9910
Paulo Barbosa, **Stephanie Horion**, Blaz Kurnik, and Juergen Vogt
Drought hazard mapping in Africa: preliminary results
- 14:15–14:30 EGU2011-11225
Wouter Buytaert, Francisco Cuesta, and Bert De Bièvre
Climate Change versus Demographic Change: Impacts on Future Water Resources

14:30–14:45 EGU2011-12507

Erik Querner, Jochen Froebrich, and Sjaak Conijn

Water scarcity and distribution in sub-Saharan Africa; Impact of local spatio-temporal variability in meteorological data on estimating stream flow at basin scale

14:45–15:00 EGU2011-13350

Sonia Quiroga, Luis Garrote, Zaira Fernández-Haddad, and Ana Iglesias

Valuing drought information for irrigation farmers: potential development of a hydrological risk insurance in Spain

HS5.5 – Drought, Water Scarcity and Food Security: Forecasting, warning and natural resources management –

Posters

Convener: Micha Werner | Co-Conveners: Ana Iglesias, Jan Cools, Jochen Froebrich

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

A308 EGU2011-5756

Brian Irvine and Mike Kirkby

Modelling the regional application of land management strategies in areas of present and future water scarcity

A309 EGU2011-6281

Wen Wang, Dui Huang, and Xiao-Gang Wang

Drought monitoring using water deficit index for Huaihe River Basin, China

A310 EGU2011-2267

Giuseppe Rossi, Enrica Caporali, and Luis Garrote

Definition of risk indicators for reservoirs management optimization

A311 EGU2011-3711

Jeremy Schlickenrieder, Agustin Diz, Ana Iglesias, and Luis Garrote

Prioritising drought mitigation measures in Mediterranean under climate change

A312 EGU2011-3723

Ana Iglesias and **Sonia Quiroga**

Vulnerability of Moldovan agriculture to drought: adaptation strategies in view of changes in climate and society

A313 EGU2011-4035

Marijn van der Velde and Michael Obersteiner

Drought, heat, irrigation, water use, crop yield loss and adaptation: a spatial assessment of the 2003 heat wave in France

A314 EGU2011-7641

Stefan Liersch, Hagen Koch, and Fred F. Hattermann

Vulnerability of agricultural production in the Inner Niger Delta to water resources management under climate variability and change

A315 EGU2011-9134

Modathir Zaroug and Elfatih Eltahir

Use of Regional Climate Models to Study the Connections of ENSO and the Nile droughts

A316 EGU2011-9242

Valentina Mereu, Carla Cesaraccio, Martin Dubrovsky, Gianluca Carboni, Pierpaolo Duce, and Donatella Spano

Impacts of Climate Change on Durum Wheat Production in Sardinia (Italy)

A317 EGU2011-9510

Valentina Mereu, Noemi Mancosu, Simone Mereu, Richard Snyder, and Donatella Spano

A more sustainable way for agricultural water use

A318 EGU2011-12522

Ines Oueslati, Zohra Lili Chabaane, Marouen Shabou, Amri Rim, Mehrez Zribi, Diego Glafassi, Kaitlyn Rathwell, and Holger Hoff

Drought adaptation scenarios to improve the water resource management and increase the food security in the Merguellil watershed.

A319 EGU2011-12564

Herco Jansen, Girma Moges, and Jochen Froebrich

REGIONAL ASSESSMENT OF WATER HARVESTING POTENTIAL FOR DROUGHT MITIGATION AND ADAPTATION; A case in the Central Rift Valley, Ethiopia

A320 EGU2011-12744

Adriadna Chavez, Beatriz Lama, Luis Garrote, Francisco Martín-Carrasco, and Ana Iglesias

Characterization of performance of water resources systems under climate change scenarios

A321 EGU2011-13826

Alberto Agnetti, Carlo de Michele, Valentina Pavan, Silvano Pecora, Renata Vezzoli, and Enrica Zenoni

Using meteorological seasonal ensemble in water resource management in Emilia-Romagna Region, Italy

HS5.7 – Computational methods for management and optimization of water resources systems – Posters

Convener: Niels Schuetze | Co-Conveners: Claudius Bürger, Peter Bayer, Michael de Paly, Thomas Wöhling

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A322 EGU2011-876
Francesca Pianosi, Andrea Castelletti, Stefano Galelli, Marcello Restelli, and Rodolfo Soncini-Sessa
Reinforcement Learning for Multi-Objective Water System Management
- A323 EGU2011-2647
Joshua Kollat and **Patrick Reed**
Many-Objective Groundwater Monitoring Network Design using Bias-Aware Ensemble Kalman Filtering, Evolutionary Optimization, and Visual Analytics
- A324 EGU2011-3001
Annette Kirstine Hansen, Henrik Madsen, Peter Bauer-Gottwein, and Dan Rosbjerg
Multi-objective optimization of the management of a waterworks using an integrated well field model
- A325 EGU2011-12050
Claudius Bürger, Peter Bayer, Michael De Paly, and Niels Schuetze
Importance sampling algorithms for water resources management
- A326 EGU2011-9178
Jens Grundmann, Marco Brettschneider, and Gerd H. Schmitz
Multicriteria optimisation of the management for a coupled groundwater-agriculture hydrosystem
- A327 EGU2011-9015
Sandra Paola Bianucci, Álvaro Sordo, Juan Ignacio Pérez, Luis Mediero, Luis Garrote, and Jaime García-Palacios
Probabilistic Calibration of a Reservoir Optimization Model for Flood Control
- A328 EGU2011-8338
Luciano Raso, Dirk Schwanenberg, and Peter Jules van Overloop
Tree-Based Model Predictive Control for Operational Management of Open-Water Systems
- A329 EGU2011-7072
Jochen Hohenrainer and Anna-Dorothea Ebner von Eschenbach
BEWASYS Rhein-Oder - a tool for modelling the management of the federal waterways between Rhine and Oder
- A330 EGU2011-5239
Gerald A Corzo P, **Jie Wen**, Hong Li, CongJiao Zhang, and Oscar Hernandez Murcia
An analysis of multi-reservoir operation using multi-objective optimization algorithms
- A331 EGU2011-4520
Pan Liu, Shenglian Guo, and Qian Guo
Dynamic Flood Control Water Level Control for the Three Gorges Reservoir
- A332 EGU2011-5253
Jungwei Chen, Kuanwei Chen, Sunzone Lee, and Chenghaw Lee
Estimation of suitable groundwater safe yield under the unusually constraints of environmental conditions in Changhua area, Taiwan
- A333 EGU2011-1391
Kazi Rahman, Anthony Lehmann, and Emmanuel Castella
Distributed hydrological modeling in a mountainous snow dominated watershed with scarcity of hydropower data.
- A334 EGU2011-5276
Jing-Yi Chiew, Wan-Yu Lien, and Ching-Pin Tung
Coupled Water and Energy Balance Models for Green Roof Systems
- A335 EGU2011-8760
Antonis Christofides, **Stefanos Kozanis**, George Karavokiros, Yiannis Markonis, and Andreas Efstratiadis
Enhydrys: A free database system for the storage and management of hydrological and meteorological data

HS6.1 – The Third Pole Environment - Observation and modelling of hydrometeorological processes in high elevation areas – Orals

Convener: Yaoming Ma | Co-Conveners: Peter van Oevelen, Bob Su, Prof. Fan Zhang

Room: 39

Chairperson: Yaoming Ma, Bob Su, Zhang Fan

- 10:30–10:45 EGU2011-10806
Kun Yang, Xiaofeng Guo, Wei Yang, Long Zhao, Shenghai Li, Meilin Zhu, and Tandong Yao
Surface radiation, energy, and mass balance on a valley glacier, Southeast Tibet: Observation and analysis

- 10:45–11:00 EGU2011-13476
Massimo Menenti, Jerome Colin, Li Jia, Yaoming Ma, Thomas Foken, Jose Antonio Sobrino, Jiemin Wang, Xueshun Shen, and Kenichi Ueno
 Observation and modeling of land surface state and convective activity over the Qinghai - Tibet Plateau
- 11:00–11:15 EGU2011-4341
Lide Tian, Tandong Yao, and Wusheng Yu
 Tracing the hydrological cycle by water stable isotopes on the Tibetan plateau
- 11:15–11:30 EGU2011-4650
 Tobias Biermann, Wolfgang Babel, Tobias Gerken, Yingying Chen, Yaoming Ma, Kun Yang, Hans-Friedrich Graf, and **Thomas Foken**
 Energy and matter exchange in the convective boundary layer above the Tibetan Plateau at Nam Co Lake
- 11:30–11:45 EGU2011-2810
Lin Zhao, Ren Li, and Yongjian Ding
 Study on soil thermal regime over Qinghai-Tibet Plateau and its adjacent regions in last 30 years
- 11:45–12:00 EGU2011-10489
Arun B. Shrestha and Hua Ouyang
 Hydrological Modelling: An essential tool to understand the impact of climate change on glaciers and water availability in the Indus Basin

HS6.1 – The Third Pole Environment - Observation and modelling of hydrometeorological processes in high elevation areas – Posters

Convener: Yaoming Ma | Co-Conveners: Peter van Oevelen, Bob Su, Prof. Fan Zhang

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Yaoming Ma, Bob Su, Zhang Fan

- A336 EGU2011-1836
Maheswor Shrestha, Lei Wang, Toshio Koike, Yongkang Xue, and Yukiko Hirabayashi
 Simulation of the spatial distribution of snow cover in the Dudhkoshi region of Nepal Himalaya, one of the regions of Third Pole Environment (TPE)
- A337 EGU2011-2627
Tobias Gerken, Wolfgang Babel, Tobias Biermann, Alex Hoffmann, Michael Herzog, Yaoming Ma, Thomas Foken, and Hans-F. Graf
 Surface-Atmosphere interactions: Modelling the development of local circulations and generation of convection at Nam Co Lake
- A338 EGU2011-2880
Zeyong Hu and Lijiao Xu
 Recent climate change under the influence of human activities in the northern Tibetan Plateau
- A339 EGU2011-3982
Yaoming Ma, Zeyong Hu, Lide Tian, Fan Zhang, Anmin Duan, Kun Yang, Yili Zhang, and Yongping Yang
 Study on the Tibet Plateau climate system change and mechanism of its impact on East Asia
- A340 EGU2011-4433
Keqin Duan
 Precipitation variability on the Tibetan plateau in the past 600-year
- A341 EGU2011-6857
 Vu Phan Hien, **Roderik Lindenbergh**, and Massimo Menenti
 Understanding ICESat derived lake level changes of about 150 Tibetan lakes between 2003 and 2009
- A342 EGU2011-7459
Peter Krause, Sophie Biskop, and Jörg Helmschrot
 Statistical climate data analysis and ensemble modeling to assess climate-driven changes in hydrological dynamics in the Nam Co basin, Tibet, China
- A343 EGU2011-9067
Bob Su, Patricia de Rosnay, Jun Wen, and Lichun Wang
 Ability of the ECMWF model in simulating and analysis of root zone soil moisture on the Tibetan plateau
- A344 EGU2011-10455
Hua Ouyang and Arun Shrestha
 A Regional Framework for Transboundary Hydrometeorological Monitoring of Major River Basins in the Himalayan Region
- A345 EGU2011-13901
Libo Zhou, Han Zou, Shupo Ma, and Peng Li
 Observed Impact of the South Asian Summer Monsoon on the Local Atmospheric Properties in the Himalayas

HS6.3 – Assimilation of remote sensing data for distributed land surface modeling – Posters

Convener: Valentijn Pauwels | Co-Conveners: Eric Wood, Wade Crow, Susan Steele-Dunne

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A346 EGU2011-270
Xueliang Cai, Qin Liu, Weiping Hao, and Prasad Thenkabail
An ideal crop spectral signature data bank of China using MODIS and Ground truth data
- A347 EGU2011-1722
Olivier Merlin, Christoph Rudiger, Philippe Richaume, Elsa Jacquette, Arnaud Mialon, Ahmad Al Bitar, Jeffrey Walker, and Yann Kerr
Can evaporation-based disaggregation techniques of surface soil moisture observations help improve the validation strategies of SMOS data?
- A348 EGU2011-2660
Rolf Reichle, Randal Koster, Gabrielle De Lannoy, Barton Forman, Qing Liu, Sarith Mahanama, and Ally Toure
Enhancing global land surface hydrology estimates from the NASA MERRA reanalysis using precipitation observations and model parameter adjustments
- A349 EGU2011-2677
Bart Forman, Rolf Reichle, and Matt Rodell
Towards Improved Snow Water Equivalent Estimation Via GRACE Assimilation
- A350 EGU2011-4712
Sujay Kumar, Rolf Reichle, Michael Shaw, Gabrielle De Lannoy, Christa Peters-Lidard, Dorothy Hall, James Foster, and George Riggs
Global assimilation of multi-sensor snow observations for improved characterization of snow processes
- A351 EGU2011-7238
Christoph Paulik, Vahid Naeimi, Annett Bartsch, Stefan Schlaffer, Wolfgang Wagner, Kirsten Elger, and Birgit Heim
Surface status information from scatterometer data for improved climate modelling at high latitudes
- A352 EGU2011-7935
Giuseppe Satalino, Francesco Mattia, Anna Balenzano, Antonella Belmonte, and Donato Impedovo
Multi-temporal COSMO-SkyMed data for landcover classification
- A353 EGU2011-8700
Ahmad Al Bitar, Yann Kerr, Olivier Merlin, Philippe Richaume, Alok K. Sahoo, and Eric F. Wood
Validation of SMOS Soil Moisture over SCAN/SNOTEL Network
- A354 EGU2011-8769
Jonas Chirouze, Gilles Boulet, Lionel Jarlan, Vincent Rivalland, Jaime Garatuza Payan, Christopher Watts, Julio César Rodriguez, Jamal Ezzahar, Salah Er-raki, and Ghani Chehbouni
Instantaneous evaporation from contextual and single pixel energy balance models driven by Remote Sensing data in an irrigated semi-arid land: comparison with flux measurements and a distributed SVAT model.
- A355 EGU2011-9950
Alexander Gelfan, Eugene Muzylev, Alexander Uspensky, and Zoya Startseva
Satellite Data Oriented Land Surface Model for Cold Regions: development and application for simulation of water and heat balance components in a vast agricultural terrain
- A356 EGU2011-10072
Alexander Gelfan, Eugene Muzylev, Alexander Uspensky, Zoya Startseva, Elena Volkova, Alexander Kukharsky, Peter Romanov, and Michael Alexandrovich
Utilization of multispectral satellite data on land surface and snow characteristics for modeling water and heat balance components in a vast agricultural terrain

HS6.4 – Catchment hydrology and remote sensing: parameter retrieval and integration with models – Orals

Convener: Guy J.-P. Schumann | Co-Conveners: Florian Pappenberger, Patrick Matgen, Giuliano Di Baldassarre

Room: 39

Chairperson: Guy Schumann

- 08:30–08:45 EGU2011-3375
Nguyen Viet Dung, Bruno Merz, András Bárdossy, Tang Duc Thang, and **Heiko Apel**
Multi-objective automatic calibration of hydrodynamic models utilizing inundation maps and gauging data
- 08:45–09:00 EGU2011-8625
Nadine Tholey, Hervé Yesou, Stephanie Battiston, Stephen Clandillon, Bernard Allenbach, Samir Belabbes, Carlos Uribe, Mathilde Caspard, Myldred Montabond, Paul De Fraipont and the Hervé Yesou (1) Team
Exploitation of middle to very high resolution SAR data for emergency flood mapping and monitoring: 2010 gained experience from the Pakistan, Central China, Poland and North Eastern France floods event.

- 09:00–09:15 EGU2011-2786
Dai Yamazaki, Doug Alsdorf, Shinjiro Kanae, and Taikan Oki
 Improvement of streamflow prediction skill in large catchments: the effect of floodplain parameterization using a spaceborne DEM
- 09:15–09:30 EGU2011-12345
Juergen Komma, Günter Blöschl, Stefan Hasenauer, and Wolfgang Wagner
 A comparison of in-situ, ASCAT and model estimates of soil moisture
- 09:30–09:45 EGU2011-10501
Tomasz Berezowski, Jaroslaw Chormanski, and Okke Batelaan
 Assimilation of snow cover data in a distributed rainfall-runoff model
- 09:45–10:00 EGU2011-12802
Chiara Corbari and Marco Mancini
 Meteorological variables from satellite images as input to a hydrological model

HS6.4 – Catchment hydrology and remote sensing: parameter retrieval and integration with models – Posters

Convener: Guy J.-P. Schumann | Co-Conveners: Florian Pappenberger, Patrick Matgen, Giuliano Di Baldassarre

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Giuliano Di Baldassarre

- A357 EGU2011-572
Abdollah Asadzadeh Jarihani and John Nikolaus Callow
 Development and calibration of hydraulic models using GIS and remotely sensed data
- A358 EGU2011-1089
Alka Singh, Florian Seitz, Christian Schwadke, Michael Schmidt, and Andreas Güntner
 Changing hydrology of the Aral Sea: Results from satellite altimetry, GRACE satellite gravimetry and hydrological modeling
- A359 EGU2011-3022
Sven Borchardt and Martin H. Trauth
 Estimation of actual evapotranspiration using remote sensing data for lake-balance modeling in the Suguta Valley, northern Kenya Rift
- A360 EGU2011-3072
Sylvia Vetter, David Schaffrath, and Christian Bernhofer
 Spatial Simulation of evapotranspiration of semi-arid Inner Mongolian grassland based on MODIS and eddy covariance data
- A361 EGU2011-5170
Konstantinos Andreadis, Matthew Mersel, Laurence Smith, Michael Durand, and Doug Alsdorf
 Hydraulic Geometry Constraints for the Assimilation of SWOT Satellite Observations
- A362 EGU2011-5371
Kevin Fleming, Joseph Awange, Addisu Hunehaw, Oli Baur, Bernhard Heck, and Ehsan Forootan
 Monitoring the waters of the Nile Basin from space
- A363 EGU2011-5694
Giuliano Di Baldassarre, Guy Schumann, Dimitri Solomatine, Yan Kun, and Paul Bates
 Can we map floodplains globally?
- A364 EGU2011-6433
Mohsin Hafeez, Umair Rabbani, and Yann Chemin
 A New Remote Sensing Based ET Algorithm for Estimation of Crop Water Use in Australia
- A365 EGU2011-6719
Nikola Zlatanovi?, Irina Milovanovi?, and Jelena ?otri?
 Comparison of automated watershed characteristics extraction using SRTM DEM data vs. traditional methods.
- A366 EGU2011-9746
Lia Ramos Fernández and Félix Francés García
 Usefulness of rainfall estimated by remote sensing in hydrologic modeling applied to river basin Júcar in Spain
- A367 EGU2011-10235
Jeffrey Neal, Guy Schumann, Paul Bates, and David Mason
 Estimating river discharge and identifying model errors during the UK summer 2007 flooding using remote sensing and data assimilation
- A368 EGU2011-10351
Michael Vetter, Christine Gschöpf, Bernhard Höfle, Markus Hollaus, Werner Mücke, Norbert Pfeifer, Günter Blöschl, and Wolfgang Wagner
 Manning's n determination using vertical vegetation structure based on dense airborne laser scanning data
- A369 EGU2011-10996
 Ron Abileah, Stefano Vignudelli, and **Andrea Scozzari**
 On Combining Landsat Imagery and Radar Altimetry To Estimate Reservoirs Water Volume: Case-Study of Lake Nasser (Egypt)

- A370 EGU2011-12660
Luz Adriana Cuartas, Laura De Simone Borma, Daniel Andrés Rodríguez, Antonio Donato Nobre, Maria Cecília Prado, José Lázaro Siqueira Jr., and Javier Tomasella
 Distributed Macro-scale Hydrological Modeling in Rainforest Catchments in Amazonia using the HAND Model
- A371 EGU2011-12828
Andrea Gioia, Anna Balenzano, Vito Gigante, Vito Iacobellis, Salvatore Manfreda, Francesco Mattia, and Giovanni Satalino
 Use of land cover and vegetation indexes from remote sensing data in the hydrological water balance modelling

HS6.5 – High-resolution remote sensing in hydrology – Posters

Conveners: Niko Verhoest, Annett Bartsch, Ralf Ludwig

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Niko Verhoest

- A372 EGU2011-293
Michael Mett and Markus Aufleger
 Correlation of space observed morphologic changes with ground based discharge measurements - Case study Al-Batinah plain (Sultanate of Oman)
- A373 EGU2011-405
Claude Flener, Anttoni Jaakkola, Juha Hyyppä, and Petteri Alho
 Very high resolution bathymetric modelling from low altitude UAV-based imagery
- A374 EGU2011-607
Jennifer Sobiech, Wolfgang Dierking, Annett Bartsch, Julia Boike, and Birgit Heim
 Derivation of soil moisture in an arctic tundra landscape with SAR - suitability of different wavelengths and spatial resolutions
- A375 EGU2011-903
Yann Dribault, Karem Chokmani, and Monique Bernier
 Monitoring seasonal dynamic of surface hydrology in minerotrophic peatlands using high resolution satellite imagery
- A376 EGU2011-1657
Alessio Furini, Alberto Pellegrielli, and Paolo Russo
 DEM generation from high resolution satellite stereopairs for hydraulic hazard analysis
- A377 EGU2011-4783
Adam Podlaha
 Digital Terrain Model Development for the purposes of Flood Modelling in Norway
- A378 EGU2011-5774
Juliette Dujardin, Okke Batelaan, Frank Canters, Simon Boel, Christian Anibas, and Jan Bronders
 Improving surface-subsurface water budgeting using high resolution satellite imagery applied on a brownfield
- A379 EGU2011-7626
Md Aktaruzzaman and Theo Schmitt
 High resolution remote sensing to support modelling of urban flooding.
- A380 EGU2011-10009
 Luca Pasolli, Claudia Notarnicola, **Marc Zebisch**, Lorenzo Bruzzone, Stefano Della Chiesa, Giacomo Bertoldi, Georg Niedrist, and Ulrike Tappeiner
 Exploitation of polarimetric RADARSAT2 images for spatial and temporal estimation of soil moisture in an alpine catchment
- A381 EGU2011-10799
Laura Giustarini, Patrick Matgen, Renaud Hostache, Schumann Guy, Paul D. Bates, and David C. Mason
 A change detection approach to flood detection in urban areas using TerraSAR-X
- A382 EGU2011-11635
Christine Lion, Jean-François Créaux, Florent Lyard, Roger Fjortoft, and Stéphane Calmant
 Assimilation of simulated SWOT data
- A383 EGU2011-12118
Bram te Brake, Martine van der Ploeg, Gerrit de Rooij, and Ramon Hanssen
 Interferometric phase analysis from clay areas for soil water storage change estimation

HS6.7 – SMOS Data Exploitation: Beyond soil moisture and ocean salinity – Posters

Convener: Susanne Mecklenburg | Co-Conveners: Lars Kaleschke, Jouni Pulliainen, Matthias Drusch

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A384 EGU2011-4975
Lars Kaleschke, Xiangshan Tian-Kunze, and Nina Maaß
 Sea ice thickness temporal evolution during the Arctic freeze-up as seen by SMOS
- A385 EGU2011-8409
 Alok Sahoo, **Eric Wood**, Justin Sheffield, Ming Pan, Ahmad Albitar, Delphine Leroux, and Yann Kerr
 A strategy for global drought monitoring using SMOS soil moisture observations
- A386 EGU2011-6102
Nina Maass, Lars Kaleschke, Xiangshan Tian-Kunze, and Marko Mäkynen
 Sea ice thickness retrieval in the Baltic Sea using SMOS
- A387 EGU2011-10248
Joaquin Muñoz-Sabater, Patricia de Rosnay, Mohamed Dahoui, and Matthias Drusch
 Monitoring SMOS data at ECMWF
- A388 EGU2011-12623
Kimmo Rautiainen, Jouni Pulliainen, Juha Lemmetyinen, Juho Vehviläinen, and Anna Kontu
 Boreal Soil Measurements Using L-band Radiometers, SMOS and ELBARA-II
- A389 EGU2011-14099
Roger Oliva, Rita Castro, Jose Barbosa, Yann Kerr, Manuel Martin-Neira, and Elena Daganzo
 Dealing with Radio Frequency Interference in SMOS Data

HS6.8 – Soil moisture applications based on SMOS data – Posters

Convener: Susanne Mecklenburg | Co-Conveners: Jean-Pierre Wigneron, Yann Kerr, Matthias Drusch

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Drusch

- A390 EGU2011-1980
Florian Schlenz, Joachim Fallmann, Timo Gebhardt, Alexander Löw, and Wolfram Mauser
 L-band radiometer experiment in the SMOS test site Upper Danube
- A391 EGU2011-2988
William Lahoz, Tove Svendby, and Håvar Sollund
 Data assimilation of SMOS data: making sense of soil moisture observations
- A392 EGU2011-6806
Patrick Matgen, Luca Brocca, Teodosio Lacava, Sonia Heitz, Laura Giustarini, Florisa Melone, Tommaso Moramarco, Nicola Pergola, Laurent Pfister, and Valerio Tramutoli
 On the value of SMOS MIRAS-derived volumetric soil moisture for hydrological monitoring and prediction applications: a field evaluation over Luxembourg and Central Italy
- A393 EGU2011-9319
Tracy Rowlandson, Brian Hornbuckle, Jason Patton, and Lisa Bramer
 Investigating Differences in SMOS Morning and Evening Measurements
- A394 EGU2011-3108
Xiangshan Tian-Kunze, Lars Kaleschke, and Nina Maass
 Detection and mitigation of RFI influence within SMOS application for high latitudes
- A395 EGU2011-10553
Maciej Miernecki, Jan Slominski, Borys Dabrowski, Wojciech Marczewski, and Ewa Slominska
 RFI in SMOS data over Poland
- A396 EGU2011-13230
Ernesto Lopez-Baeza and the SMOS@VAS Team
 First Evaluations of SMOS Observations and Level 2 Land Products Over the Valencia Anchor Station Site
- A397 EGU2011-13404
Ernesto Lopez-Baeza, Alejandro Buil Martinez, Virgilio Gomez Rubio, Francesc Fabra, Estel Cardellach, and Antonio Rius
 Relationship Between the GNSS Signals and Soil Moisture During the SMOS Validation Rehearsal Campaign in 2008
- A398 EGU2011-13338
Ernesto Lopez-Baeza, M. Amparo Coll, and Diego S. Intrigliolo
 Applicability of TVDI (Temperature Vegetation Dryness Index) to the Assessment of Soil Moisture Spatial Variability in the Valencia Anchor Station in the Framework of SMOS Validation Activities

HS7.4/AS4.9/CL3.4 – Hydrological change versus climate change (co-organized) – Orals

Convener: Tim Cohn | Co-Conveners: Harry Lins, Manfred Mudelsee, Demetris Koutsoyiannis

Room: 33

Chairperson: Tim Cohn

- 10:30–10:45 EGU2011-56
Robin Thomas Clarke
Is The Significance of Hydroclimate Trends Over-Estimated? A Case Study from the Brazilian Amazon.
- 10:45–11:00 EGU2011-5634
Giuliano Di Baldassarre, Alberto Montanari, Harry Lins, Demetris Koutsoyiannis, Luigia Brandimarte, and Günter Blöschl
Increasing flood risk in Africa: a climate signal?
- 11:00–11:15 EGU2011-9577
Christopher de Freitas, Manuel Helbig, and Andreas Matzarakis
Methods for assessing the sensitivity of water resources of atolls in the greater tropical Pacific region to climate change
- 11:15–11:30 EGU2011-6299
Yunfei Fu, Tianyi Li, and Peng Liu
Climatology of storm top in summer Asia observed by TRMM PR and VIRS
- 11:30–11:45 EGU2011-868
Josefina Arraut, Carlos Nobre, Henrique Barbosa, and Jose Marengo
Aerial Rivers, Subtropical Rainfall and soil Evaporation
- 11:45–12:00 EGU2011-7440
Antonis Christofides and Demetris Koutsoyiannis
Causality in climate and hydrology

LUNCH BREAK

Chairperson: Manfred Mudelsee

- 13:30–13:45 EGU2011-537
Claudia Teutschbein and Jan Seibert
Evaluation of Bias-Correction Procedures for Adjusting RCM Simulations for Hydrological Impact Studies at the Catchment Scale
- 13:45–14:00 EGU2011-9214
Rasmussen Roy and the NCAR Team
High-resolution simulation of seasonal snowfall over the Colorado Headwaters region and some impacts of climate change
- 14:00–14:15 EGU2011-9434
Taotao Qian, Aiguo Dai, Kevin E. Trenberth, and Jialin Lin
Hydroclimatic Trends in the Mississippi River Basin from 1948 to 2004
- 14:15–14:30 EGU2011-5379
Jung-Eun Kim and Song-You Hong
Changes in the precipitation mechanism under global warming - global hotspots
- 14:30–14:45 EGU2011-6160
Reinhard Schiemann, Rebekka Erdin, Marco Willi, Christoph Frei, Marc Berenguer, and Daniel Sempere-Torres
Geostatistical radar-raingauge combination with nonparametric correlograms: methodological considerations and application in Switzerland
- 14:45–15:00 EGU2011-10492
Heike Huebener
Tripwires between climatological and hydrological research

HS7.4/AS4.9/CL3.4 – Hydrological change versus climate change (co-organized) – Posters

Convener: Tim Cohn | Co-Conveners: Harry Lins, Manfred Mudelsee, Demetris Koutsoyiannis

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Harry Lins

- A399 EGU2011-1336
Marco Antonellini, Eric Masson, Pauline Nella Mollema, and Abdel Khattabi
Water Budget Changes under the A1b Climate Change Scenario for the Tahadart Watershed, Tangiers, Morocco.
- A400 EGU2011-1561
Maddalen Mendizabal, Roberto Moncho, and Peter Torp
Assessing the impact of Climate Change on flood events in the north of Iberian Peninsula (Basque Country Region)

- A401 EGU2011-2176
adeline bichet, martin wild, doris folini, and christoph schär
Global precipitation response to changing climate forcings since 1870
- A402 EGU2011-4800
YuWen Chen, ChihChao Ho, and LiangCheng Chang
Applying Conditional Weather Generation Downscaling Model on Long-Term Rainfall Synthesis on a Basin Scale
- A403 EGU2011-5560
Pao-Shan Yu, Jau-Ming Chen, Tao-Chang Yang, Cheng-Chin Liu, and Yu-Chen Lin
Estimating Probable Maximum Precipitation by Considering Co-movement of Typhoon and Southwesterly Flow
- A404 EGU2011-7510
Dunia Gonzalez Zeas, Luis Garrote, and Ana Iglesias
Comparison of methods for downscaling runoff from regional climate models in Spanish basins
- A405 EGU2011-11940
Rita Nogherotto, Vanda Grubišić and the NCAR Team
Drying Ratio of the Colorado Mountains under Climate Change Conditions
- A406 EGU2011-12954
Pierre-Antoine Versini, Marc Berenguer, Romeo Ballinas-González, and Daniel Sempere-Torres
Hydrological validation of historical precipitation reconstruction
- A407 EGU2011-1444
Simon-Michael Papalexiou, Haris Adraktas-Rentis, Athina Drosou, Eva Kallitsi, Ioannis Kyprianou, Vasilis Mathios, Eva Steirou, Maria-Anna Vasilaki, Menelaos Xirouchakis, and Demetris Koutsoyiannis
Long-term properties of annual maximum daily rainfall worldwide
- A408 EGU2011-13700
Yannis Markonis and Demetris Koutsoyiannis
Hurst-Kolmogorov dynamics in long climatic proxy records
- A409 EGU2011-1439
Dimitris Bouziotas, Georgios Deskos, Nikos Mastrantonas, Dimosthenis Tsaknias, Grigoris Vangelidis, Simon-Michael Papalexiou, and Demetris Koutsoyiannis
Long-term properties of annual maximum daily river discharge worldwide
- A410 EGU2011-1235
Richard Phillips, Salima Baraka-Lokmane, Martin Smith, David Pope, Jon Caplin, Niall Burnside, Gary Bilota, and David Nash
The Impact of Climate Change on Aquifer Recharge and Groundwater Quality in the Patcham Catchment, England
- A411 EGU2011-8600
Chih-Chao Ho, Yu-Wen Chen, and Liang-Cheng Chang
Statistical Downscaling Based on Conditional Weather Generation for Storm Hyetograph
- A412 EGU2011-1902
Renji Remesan, Tim Bellerby, and Lynne Frostick
Effects of GCM uncertainty on climate change impacts on regional hydrology of the river Derwent catchment
- A413 EGU2011-1949
Hannes Müller Schmied, Heike Hoffmann-Dobrev, and Petra Döll
Effect of precipitation downscaling for modeled discharge using a global hydrological model
- A414 EGU2011-2325
Ileana Mares, Constantin Mares, Antoaneta Stanciu, and Mihaela Mihailescu
On the climate models performances to simulate the main predictors that influence the discharges in the Danube middle and lower basin
- A415 EGU2011-3272
Stephan Thober and Luis Samaniego
Weather Generators: Reviewing the State of the Art
- A416 EGU2011-3777
Thomas Schönthaler, Ben Marzeion, Martin Großhauser, and Georg Kaser
Estimating the Impact of Precipitation and Temperature Variability on the Contribution Potential of Glaciers to Water Availability: A Budget Approach
- A417 EGU2011-5220
Yu-Chi Wang and Po-Shan Yu
Impact of climate change on water resources over a basin scale in northern Taiwan
- A418 EGU2011-7147
Morten Andreas Dahl Larsen, Karsten Høgh Jensen, Jens Christian Refsgaard, Jens Hesselbjerg Christensen, and Michael Butts
Preparing for a coupled climate-hydrological model: The influence of domain characteristics on the HIRHAM regional climate model

- A419 EGU2011-7781
Maik Renner and **Christian Bernhofer**
Variability of the annual cycle of streamflow records throughout Central Europe
- A420 EGU2011-9851
Bjorn H. Samset, Maria M. Kvalevåg, and Gunnar Myhre
Hydrological sensitivity to radiative forcing and global temperature change in the CESM model
- A421 EGU2011-12216
Miguel Lagos and Ximena Vargas Mesa
Variation of statistical PMP under climate Change Projections: A first approach using ECHAM 5 GCM model results in two Chilean Regions
- A422 EGU2011-14147
Jorge J. Castro, Luis G Escandon-Alcazar, and Alin A. Carsteanu
Temporal climate-scale changes: global versus local artificially-induced perturbations - the interplay between atmospheric pollution and precipitation in Mexico City

HS8.3.2 – Monitoring and modelling for transfer processes in the soil-plant-atmosphere continuum – Orals

Convener: Nunzio Romano | Co-Conveners: Rafael Angulo-Jaramillo, Christopher (Kit) Macleod

Room: 34

Chairperson: Nunzio Romano

- 08:30–08:45 EGU2011-12394
Keir Soderberg, Lixin Wang, Stephen Good, and Kelly Caylor
Measurement of soil water vapor isotopes for evapotranspiration partitioning
- 08:45–09:00 EGU2011-6345
Anatoly Zeiliger and Olga Ermolaeva
Seasonal Patterns of Temporal Persistence of Water Content Profile of the Dark Shestnut Soil Profile
- 09:00–09:15 EGU2011-12526
Meritxell Gran, Jesús Carrera, Maarten W. Saaltink, Manuel Ordoñez, and María Rey
The El Cabril cover: design, monitoring system and modelling
- 09:15–09:30 EGU2011-2380
Gerd Wessolek, Klaus Bohne, Steffen Trinks, and Wim Duijnsveld
Hydro-pedotransfer functions to predict annual capillary rise and actual evapotranspiration for grassland
- 09:30–09:45 EGU2011-10301
Mathieu Javaux, Xavier Draye, Valentin Couvreur, Harry Vereecken, and Jan Vanderborght
How relevant are hydrological 1D models for predicting root water uptake processes?
- 09:45–10:00 EGU2011-5172
Todd Scanlon
A new approach to unraveling the contributions to soil moisture dynamics arising from the distinct processes of soil evaporation and plant transpiration

COFFEE BREAK

Chairperson: Rafael Angulo-Jaramillo

- 10:30–10:45 EGU2011-5595
Sabine Attinger and Anke Hildebrandt
A critique on combining the water stress function with root density distributions to find vertical water uptake profiles in SVAT models
- 10:45–11:00 EGU2011-5196
Valeriy Y. Ivanov, Lingli He, Gil Bohrer, Christoph S. Vogel, and Mahta Moghaddam
Upscaling tree-scale canopy and soil water heterogeneity for a temperate deciduous forest of Northern Michigan
- 11:00–11:15 EGU2011-12788
Nicola Montaldo, Roberto Corona, and John D. Albertson
Soil Water Balance and Vegetation Dynamics in two Contrasting Water-limited Mediterranean Ecosystems on Sardinia, Italy
- 11:15–11:30 EGU2011-2688
Pilar Fuente Tomai, Alexandre Pryet, Christian Dominguez, Cedric Chaumont, Sophie Violette, and Noémi d'Ozouville
Water budget of vegetation in montane cloud forests: a case-study in Santa Cruz Island, Galápagos
- 11:30–11:45 EGU2011-6097
Anne Verhoef and Andrés Fernández Kusanovi
Prediction of soil moisture content from soil temperatures

11:45–12:00 EGU2011-6520

Raquel García González, Anne Verhoef, and Pier Luigi Vidale

Incorporation of water vapour flux in the JULES Land Surface Model: implications for key soil variables and land surface fluxes

HS8.3.2 – Monitoring and modelling for transfer processes in the soil-plant-atmosphere continuum – Posters

Convener: Nunzio Romano | Co-Conveners: Rafael Angulo-Jaramillo, Christopher (Kit) Macleod

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Kit Macleod, Rafael Angulo-Jaramillo, Nunzio Romano

A423 EGU2011-7482

Gabriele Baroni, Carlos Andres Rivera Villarreyes, and Sascha Oswald

A stochastic approach for hydrological models to bridge the gap between modelling and monitoring activities.

A424 EGU2011-1956

Steven Evett, Robert Schwartz, Nazar Ibragimov, Naem Mazahreh, and Nedat Katbeh-Bader

Local and profile soil water content monitoring: A comparison of methods in terms of apparent and actual spatial variation

A425 EGU2011-2690

Teodor Rusu, David Weindorf, Beatrix Haggard, Paula Ioana Moraru, Horea Căcovean, Ileana Bogdan, and Mara Lucia Soptorean

Soil Moisture and Temperature Monitoring for Sustainable Land and Water Management in Transylvanian Plain, Romania

A426 EGU2011-1990

Robert Schwartz, Steven Evett, and Alan Schlegel

Monitoring Near Surface Soil Water and Associated Dynamics of Infiltration and Evaporation Fluxes

A427 EGU2011-8805

Angelica Durigon, Quirijn de Jong van Lier, and Klaas Metselaar

Infrared temperature to assess plant transpiration reduction

A428 EGU2011-8348

Vladimir Klipa, Martina Sobotkova, and Michal Snehota

Evaluation of TDR water content measurements in large undisturbed soil sample

A429 EGU2011-207

José Vicente, David Moret-Fernández, Borja Latorre, César González-Cebollada, and Francisco Lera

TDR-Lab V.1.0: New TDR software for water content and electrical conductivity measurements

A430 EGU2011-3457

Laure Beff, Thomas Günther, and Mathieu Javaux

Comparison of soil water content distribution measured by TDR and ERT

A431 EGU2011-2899

Alessandra Vinci, Lorenzo Vergni, and Francesca Todisco

Evapotranspiration of alfalfa: comparison between eddy covariance measurements and the FAO-56 approach estimates in Central Italy

A432 EGU2011-4321

xia zhang

Improvement and Validation of A Soil-Atmosphere Model for Simulation of Bare Soil Surface Energy Balance in Semiarid Area

A433 EGU2011-10110

Antonio Celso Dantas Antonino, Willames de Albuquerque Soares, José Romualdo de Sousa Lima, Carlos Alberto Brayner de Oliveira Lira, Eduardo Soares Souza, Suzana Maria Gico Lima Montenegro, and Michel Vauclin

Simulation of water and energy fluxes in a cowpea cultivated field in Northeast Brazil

A434 EGU2011-12335

Sebastian Gayler, Sebastian Bittner, Eckart Priesack, Joachim Ingwersen, and Thilo Streck

Impact of different degrees of detail in models of root water uptake on simulated seasonal patterns of evapotranspiration and soil moisture

A435 EGU2011-4333

Manoj Shukla, Sanjit Deb, and John Mexal

Assessment of Water Fluxes in the Root Zone of a Flood-irrigated Mature Pecan Orchard in Arid Southern New Mexico

A436 EGU2011-3526

Laurent Lassabatere, **Rafael Angulo-Jaramillo**, Deniz Yilmaz, Pierre-Emmanuel Peyneau, Paolo Nasta, and Jirka Simunek

Analytical evaluation of 1D cumulative infiltration with regards to soil hydraulic properties

- A437 EGU2011-5342
Michal Dohnal, Tomas Vogel, Miroslav Tesar, Jana Votrubova, and Martin Sanda
 Young and full-grown spruce tree soil-plant-atmosphere systems studied by sap flow measurement methods
- A438 EGU2011-8616
Sebastian Bittner, Daniel Ritter, and Eckart Priesack
 Using terrestrial laser scanner data to obtain the hydraulic architecture of plants
- A439 EGU2011-8941
Rabi Mohtar, Yousra Hamby, Majdi Abou Najm, and Julie Jesiek
 Assessing Isotropy of Shrinkage in Soils
- A440 EGU2011-11216
Jens Altmann, Marjo Palviainen, Boris Jansen, and Karsten Kalbitz
 Molecular differences of root and needle decomposition
- A441 EGU2011-8933
 Paolo Nasta, Joseph Pollacco, Bynayak Mohanty, and **Nunzio Romano**
 Uncertainty related to the estimation of saturated hydraulic conductivity from parameters of soil water retention function

HS8.3.7 – Unsaturated zone flow and transport processes: from science to soil and water management – Orals

Convener: Marnik Vanclooster | Co-Conveners: Stefano Ferraris, Aaldrik Tiktak, Jay Jabro, Dieuwke Schotanus

Room: 34

Chairperson: Marnik VANCLOOSTER

- 13:30–13:45 EGU2011-8565
Markus Wehrer and Kai Uwe Totsche
 Release and transport of hydrophobic contaminants from aged multicomponent NAPL in the subsurface - jump up and run or sit back and relax?
- 13:45–14:00 EGU2011-4676
Chi Chin Yang, Po Chia Chen, and Wei Cheng Lo
 An Experimental Study on the Influence of Fluid Saturation on the Attenuation Coefficient of the First Dilatational Wave in Standard Sand Saturated by an Oil-Water Mixture
- 14:00–14:15 EGU2011-8713
Salsabil Marzougui, Gerhard Schäfer, Solenn Cotel, and Olivier Razakarisoa
 Experimental study of the influence of vapor density and pressure gradient on the vapor flux of Trichloroethylene in the unsaturated zone
- 14:15–14:30 EGU2011-8153
Amir Raoof and Majid Hassanizadeh
 Dispersivity under partially-saturated conditions; pore-scale processes
- 14:30–14:45 EGU2011-12031
Fabien Decung, Valérie Guérin, Mohamed Krimissa, and Boris Chevrier
 Soil Transfer Parameters Estimation: Comparison of Field Infiltration Methods
- 14:45–15:00 EGU2011-7475
Erwin Zehe and Julian Klaus
 Equifinality and structure control on bromide and pesticide leaching at tile drained hillslopes: a model study based on a comprehensive field data set
- Chairperson: Marnik VANCLOOSTER
- 15:30–15:45 EGU2011-90
Yakov Pachepsky, Feng Pan, Diederik Jacques, Andrey Guber, and Martinus van Genuchten
 Ensemble Kalman filtering to perform data assimilation with soil water content probes and pedotransfer functions in modeling water flow in variably saturated soils
- 15:45–16:00 EGU2011-478
Ofer Dahan and Yaara Rimon
 Characterization of Flow and Transport in Deep Vadose Zone - Implication from Direct Observations
- 16:00–16:15 EGU2011-2735
Simon Perreault, Karem Chokmani, Michel Nolin, and Gaétan Bourgeois
 Validation and sensitivity analyses of a soil temperature and moisture model under pedoclimatic conditions of southern Quebec (Canada)
- 16:15–16:30 EGU2011-6163
Mats Larsbo
 An episodic transit time model for quantification of preferential solute transport
- 16:30–16:45 EGU2011-7418
Julian Klaus, Erwin Zehe, Martin Elsner, Christoph Külls, Dorothee Schneider, Sibylle Steinbeiss, and Stephanie West
 Tile drained hillslopes as natural lysimeters - linking rapid transport and re-mobilisation of different pesticides with isotope signatures during controlled irrigation experiments

16:45–17:00 EGU2011-11261

Pieter le Roux, Johan Van Tol, Malcolm Hensley, and Simon Lorentz
Soil indicators of hillslope hydrology

HS8.3.7 – Unsaturated zone flow and transport processes: from science to soil and water management – Posters

Convener: Marnik Vanclooster | Co-Conveners: Stefano Ferraris, Aldrik Tiktak, Jay Jabro, Dieuwke Schotanus

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Dieuwke Schotanus

A442 EGU2011-332

Abdel-monem Amer

Water sorptivity as applied to predict the hydraulic conductivity and capillary-sorption potential of water in soils

A443 EGU2011-1876

Eugenia Gimeno-García, Vicente Andreu, Juan Antonio Pascual-Aguilar, and José Luis Rubio

Rainfall-runoff response and temporal soil moisture dynamics in a Mediterranean forest soil

A444 EGU2011-2635

Jay Jabro, Robert Evans, and William Iversen

Efficacy of Passive Capillary Samplers for Estimating Soil Water Drainage in the Vadose Zone

A445 EGU2011-3172

Julien Farlin, Tom Gallé, Michael Bayerle, Hassanya El Khabbaz, Christian Braun, Denis Pittois, and Ulrich Leopold

Assessment of the spatial distribution of pesticide soil residues as a mean to constrain and upscale pesticide leaching predictions

A446 EGU2011-3501

François Wiaux, Boubacar Billo Bah, Bas van Wesemael, and Marnik Vanclooster

Impact of field scale variability of soil organic carbon in pesticide leaching modelling (case study of the Molinee catchment, Belgium)

A447 EGU2011-4387

Golayeh Yousefi, Ali Akbar Mahboubi, Mohammad Reza Mosaddeghi, and Azadeh Safadoust

Bromide and Lithium transport through intact soil columns influenced by crop management

A448 EGU2011-4572

Javier Rodrigo-Illarri, Francisco Segura-Sobrino, and Juan Manuel Pérez-Furió

Soil remediation of the Avenida de Francia Urban Planning Area in Valencia (Spain)

A449 EGU2011-5238

Chiu-Shia Fen

Comparison of modeling approaches for assessing density-driven and gravitation-induced gas transport in porous media

A450 EGU2011-5934

Saska Mc Grath and Barbara ?en?ur Curk

Hydraulic and transport properties of a coarse grained unsaturated zone in an urban environment

A451 EGU2011-6070

 Alice Alonso, **Mohamed Sbaa**, and Marnik Vanclooster

Assessing water quality and pollution origin of the Bou-Areg aquifer (north east Morocco)

A452 EGU2011-6149

Alice Alonso, Samuel Mattern, Eric Laloy, Christian Roisin, Mathieu Javaux, Marnik Vanclooster, and Charles Bielders

Soil functioning indicators (INFOSOL): a methodological approach for developing and assessing dynamic soil functions within the soil protection strategy context

A453 EGU2011-6311

 Marnik Vanclooster and **Mohamed Hossein Mohammadi**

Predicting the soil moisture characteristic curve from particle size distribution with a simple physical model

A454 EGU2011-8035

Marco Hümann, Christoph Müller, Gebhard Schöler, Raimund Schneider, and Sören Thiele-Bruhn

Identification of runoff generation processes - Impact of different forest types on soil-water interrelations

A455 EGU2011-8314

Maïmouna Ibrahim, Guillaume Favreau, Jean Luc Seidel, Mathieu Le Coz, and Boureima Ousmane

Impact of land conversion from fallow to rain-fed and irrigated crop fields on aquifer recharge in semiarid Niger

A456 EGU2011-8888

Sana Ounaïes, Gerhard Schäfer, Raphaël di Chiara Roupert, Michèle Trémolières, and Stéphane Defraeye
Numerical studies of the influence of soil heterogeneities on water flow in the unsaturated zone of the Erstein polder site

A457 EGU2011-9275

Branka Bracic Zeleznik, Vesna Zupanc, and Marina Pintar

Lysimeter Klece: Water balance calculation from two types of lysimeter

- A458 EGU2011-9945
Steffen Heberle, Lena Flecken, Jens S. Buchner, and Kurt Roth
Solute dispersion in unsaturated porous media - a high-resolution lab experiment
- A459 EGU2011-10559
Anne Gaffron, Markus Hirsch, and Holger Weiss
Soil column tomography - Combined geoelectrical and hydrochemical investigations in laboratory scale to characterize tropical soils in their potential for artificial groundwater recharge
- A460 EGU2011-11002
László Pásztor, Zsófia Bakacsi, József Szabó, Annamária Laborczi, and László Kuti
Elaboration of a 3D, regional scale, spatial dataset for the support of modeling water regime in the unsaturated zone
- A461 EGU2011-11059
Corinne Loisy and Adrian Cerepi
Monitoring of water and heat transfer in the vadose zone of a carbonate reservoir formation (Upper Oligocene of Aquitaine Basin, France)
- A462 EGU2011-11759
Luc Bonten, Bertjan Groenenberg, Henning Meesenburg, and Wim de Vries
Use of advanced geochemical models in vadose zone reactive transport modeling
- A463 EGU2011-12524
Gro Eggen, Helen Kristine French, Toon Leijnse, and Esther Bloom
Importance of unsaturated zone parameters for chemical transport
- A464 EGU2011-13436
Andreas Kallioras, Abidur Khan, Mustefa Reshid, Pierre Todoroff, Heike Pfletschiger, Christoph Schuth, Randolph Rausch, and Mohammed Al-Saud
Investigation of groundwater recharge through unsaturated zone studies in arid regions
- A465 EGU2011-13103
Stefano Ferraris, Patrizia Savi, and Ivan Maio
Complex Permittivity Determination from Measured Scattering Parameters of TEM Waveguide

SC5/HS11.1 – [Short Course] How to write (and publish) a scientific paper in hydrology (co-organized) – Orals

Convener: Francesco Laio | Co-Conveners: Stefania Tamea

Room: 39

Chairperson: n.n.

17:30–19:00

SSS2.3/GM3.7/HS12.11 – Practical application of geomorphology, hydrology and erosion research in agricultural and forest areas. Discovering and implementing frameworks for translating research into sustainable management (co-organized) – Orals

Convener: Jose Gomez | Co-Conveners: Peter Hairsine, Cyril Ciesiolka, Gil eshel, Encarnación Taguas, Seth Dabney

Room: 9

Chairperson: Josè A. Gomez

- 15:30–15:45 EGU2011-693
Mourad Arabi and Eric Roose
Agricultural intensification and fight erosion by Water and soil fertility management" (G.C.E.S.) in Algeria
- 15:45–16:00 EGU2011-7620
Verena Butzen, Manuel Seeger, Markus Casper, Stefan Wirtz, and Johannes B. Ries
Investigation of the spatial distribution of runoff generation and soil erosion processes by means of experimental methods and field mapping
- 16:00–16:15 EGU2011-13104
Gil Eshel, Dafna DiSegni, Eran Raveh, Marcelo Sternberg, Alex Furman, Ahamed Nasse, Yonatan Avrums, Yoel Drishpoun, and Roey Egozi
A multi-disciplinary approach for promoting soil conservation in modern Industrialized Agriculture
- 16:15–16:30 EGU2011-13535
Rory Walsh
The orientation of past, current and future catchment and slope erosion research in Sabah (Malaysian Borneo) to the design and implementation of more sustainable land management strategies
- 16:30–16:45 EGU2011-4693
Encarnación V. Taguas, Juan V. Giráldez, José L. Ayuso, Rafael Pérez, Carlos Castillo, and José A. Gómez
Preliminary assesment and cost analysis of incentives for gully control in agricultural areas of Andalusia (Southern Spain)

16:45–17:00 EGU2011-13268

Joris de Vente, Albert Solé-Benet, Jorge López, and Carolina Boix-Fayos

Sustainable Land Management in SE-Spain: effective and feasible measures to reduce soil and water loss for agriculture

SSS2.3/GM3.7/HS12.11 – Practical application of geomorphology, hydrology and erosion research in agricultural and forest areas. Discovering and implementing frameworks for translating research into sustainable management (co-organized) – Posters

Convener: Jose Gomez | Co-Conveners: Peter Hairsine, Cyril Ciesiolka, Gil eshel, Encarnación Taguas, Seth Dabney

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Josè A. Gomez

Z36 EGU2011-7848

Jesús Rodríguez González, José Alfonso Gómez, and Pablo J. Zarco-Tejada

Assessing soil surface roughness using reflectance band indices obtained with an airborne multispectral sensor at very high spatial resolution

Z37 EGU2011-4078

Azam Jafarisirizi, Shamsollah Ayoubi, and Hossein Khademi

Relationship between geomorphic surfaces and the establishment of pistachio gardens in Zarand region, southeastern Iran

Z38 EGU2011-6447

Patricia Ayuso-Ruiz, **Jose Luis Ayuso**, Encarnación Taguas, Amanda García-Marín, and Rafael Ayuso-Muñoz

Estimation of the mean annual erosivity in the region Eastern Andalusia (Spain) through the maximum annual precipitation values of 24 hours and daily duration.

Z39 EGU2011-12858

Rafael Pérez, Pedro Merino, Encarnación V. Taguas, Juan V. Giráldez, and José A. Gómez

Preliminary development of a drone for the qualitative evaluation of the grass cover and gullies in agricultural lands

Z40 EGU2011-7431

Gema Guzmán, Rosemarie Hoesl, Peter Strauss, and José A. Gómez

A rainfall simulation experiment to evaluate two sediment tracers in a furrow-shoulders system

Z41 EGU2011-12821

Rafael Pérez, Luis Galisteo, Encarnación V. Taguas, Juan V. Giráldez, and José A. Gómez

Portable laser topographic profiler for the evaluation of gully volumes

Z42 EGU2011-9711

Gema Guzman, Juan Carlos Cañasveras, Hakim Boulal, Helena Gómez-McPherson, H, Vidal Barrón, and Jose A. Gómez

Soil redistribution after rainfall events in a furrow-shoulder system at field scale using iron oxides as sediment tracers

Z44 EGU2011-10460

Laura Marqués, Ramón Bienes, and Marta Ruiz-Colmenero

Studying relation between plants and soil: use of vegetation covers in a vineyard to improve soil physical properties

Z45 EGU2011-14003

Giussepe Bombino, Pietro Denisi, Vincenzo Tambourino, **Demetrio Zema**, and Santo Zimbone

HYDROLOGICAL EFFECTS OF DIFFERENT SOIL MANAGEMENT PRACTICES IN MEDITERRANEAN CONDITIONS

Z46 EGU2011-6273

Feliciano Licciardello, Encarnación V. Taguas, Mark Nearing, Salvatore Barbagallo, and José A. Gómez

Evaluation of the WEPP model in olive orchards under different soil managements in a vertic soil under Mediterranean type of climate

Z47 EGU2011-6513

Encarnación V. Taguas, Rafael Pérez, Jose Luis Ayuso, and Jose A. Gómez

Analysis of the runoff and soil loss temporal variability in a small experimental olive orchard catchment in Southern Spain

ML16 – John Dalton Medal Lecture by Peter A. Troch (co-listed) – Orals

Convener: Alberto Montanari

Room: 33

Chairperson: Alberto Montanari

18:30–19:30 EGU2011-14184

Peter A. Troch

On the evolution of catchment hydrology and the hydrology of catchment evolution (John Dalton Medal Lecture)

SSS2.5 – Soil and irrigation sustainability practices (co-listed) – Orals

Convener: Leonor Rodríguez-Sinobas | Co-Conveners: José Manuel Rato Nunes, Giuseppe Provenzano, Rafael Muñoz-Carpena, Ana Maria Tarquis

Room: 9

Chairperson: Giuseppe Provenzano

08:30–08:45 EGU2011-13816

Antonio Santiago, Juan Pablo Cárdenas, Juan Carlos Losada, Rosa Maria Benito, Ana Maria Tarquis, and Francisco Borondo
Community Structure in Soil Porous System

08:45–09:00 EGU2011-1762

Nick van de Giesen, Jop Jansen, Philip Stive, Scott Tyler, Susan Steele-Dunne, and Lucas Williamson
Distributed Sensing of Soil Heat Flux

09:00–09:15 EGU2011-13158

María Gil-Rodríguez, Leonor Rodríguez-Sinobas, Javier Benítez-Buelga, Raúl Sánchez-Calvo, Luis Juana-Sirgado, Guillermo Castañón-Lion, and Francisco Laguna-Viñuelas
Use of DFOT Heat Pulse Method For Wetting Pattern Determination in Drip Irrigation Emitters

09:15–09:30 EGU2011-2911

Gerard Arbat, Albert Roselló, Francesc Domingo Olivé, Jaume Puig-Bargués, Elena González Llinàs, Miquel Duran-Ros, Joan Pujol, and Francisco Ramírez de Cartagena
Soil water and nitrate distribution under drip and furrow irrigation regimes for corn

09:30–09:45 EGU2011-3819

María Fátima Moreno Pérez and **José Roldán Cañas**
The role of irrigation indicators in best irrigation water management practices

09:45–10:00 EGU2011-2268

Giuseppe Provenzano, Carmelo Agnese, Mario Minacapilli, and **Giovanni Rallo**
Modelling olive orchard response to water stress and definition of critical thresholds of soil water status

SSS2.5 – Soil and irrigation sustainability practices (co-listed) – Posters

Convener: Leonor Rodríguez-Sinobas | Co-Conveners: José Manuel Rato Nunes, Giuseppe Provenzano, Rafael Muñoz-Carpena, Ana Maria Tarquis

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: María Gil Rodríguez

Z48 EGU2011-1434

Gerard Arbat, Jaume Puig-Bargués, Miquel Duran-Ros, Javier Barragán, and Francisco Ramírez de Cartagena
Soil wetting patterns under surface drip irrigation for different soil conditions

Z49 EGU2011-10538

Giuseppe Provenzano, Carmelo Agnese, Carmelo Cammalleri, Giuseppe Ciralo, Mario Minacapilli, and Giovanni Rallo
Partitioning ET measurements for sparse vegetation: application to an olive orchard

Z50 EGU2011-2443

Issifou Adam, Didier Michot, Yajji Guéro, Boubacar Soubega, Issaka Moussa, Gilles Dutin, and Christian Walter
In situ spatiotemporal monitoring of saline vertic paddy soils from niger by subsurface geophysics during a desalinization experiment

Z51 EGU2011-1788

M. Carmen Cartagena, Augusto Arce, A. Maria Tarquis, Francisco Ribas, M Jesús Cabello, and **M. Teresa Castellanos**
Methodology to assess economic and environmental impacts of Nitrogen in fertirrigation systems.

Z52 EGU2011-11920

Helene Rieckh and Margarita Himmelbauer
Subsurface drip irrigation and soil amendment: experiments and modeling of water storage, movement and uptake

- Z53 EGU2011-64
Manuel Esteban Peillon Mesa, Ana Maria Tarquis Alfonso, José Luis García Fernández, and **Raúl Sánchez Calvo**
The use of wind pumps for irrigating greenhouse tomato crops: a case study in Cuba
- Z54 EGU2011-935
Najme Yazdanpanah, Majid Mahmoodabadi, and Ali Neshat
Dynamics of macroelements (nitrogen, phosphorus and potassium) in ameliorating process of a saline- sodic soil
- Z55 EGU2011-6181
Patricia Almendros, Jose luis Gabriel, and **Miguel Quemada**
Replacing bare fallow with cover crops in an irrigated cropping system: soil salinity and salt leaching
- Z56 EGU2011-13244
Marcos Lado and Meni Ben-Hur
Increasing soil surface roughness by means of tillage to reduce runoff generation in irrigated soils
- Z57 EGU2011-3093
Kim Mosse, Antonio Patti, Tim Cavagnaro, Evan Christen, Kerri Steenwerth, Sanjai Parikh, and Maya Buelow
An evaluation of winery wastewater application to vineyard soils.
- Z58 EGU2011-8216
francesc ferrer, francisco fonseca, and Josep M Villar
Soil water content at field capacity (FC): estimation of a reliable value in the field
- Z59 EGU2011-5386
Javier Benitez Buelga, Leonor Rodriguez-Sinobas, and Rodrigo Morillo
Determination of suitable irrigation lengths and intervals using capacitance humidity sensors for a sandy soil
- Z60 EGU2011-11044
Anatoly Zeiliger and Olga Ermolaeva
Concept of non-uniform irrigation technology for complex soil cover within irrigated field
- Z61 EGU2011-14004
Idelfonso Pla Sentís
Modelling soil salinization processes for sustainable irrigation management
- Z62 EGU2011-5662
Oussama mounzer, Francisco Pedrero, Francisco Perez, Rosalia Alcobendas, Jose Maria Bayona, Pedro Nortes, Emilio Nicolas, and Juan Jose Alacron
Sustainable use of reclaimed water for irrigation of mandarin trees

Wednesday, 06 April

EMRP10/TS2.10 – The transport properties of geomaterials: Theory, modelling, measurement, application and integration (co-listed) – Orals

Convener: Matthew Jackson | Co-Conveners: Harald Milsch, Jérôme Fortin

Room: 42

Chairperson: Matthew Jackson and Jerome Fortin

13:30–13:45 EGU2011-4557

Alexis Maineult, Fernand Lopes, Jean-Jacques Sibilla, Lucille Trevez, and Maria Zamora
Laboratory measurements of self-potential signals induced by displacements of saline fronts

13:45–14:00 EGU2011-8907

Emmanuel David, Jerome Fortin, Alexandre Schubnel, Yves Gueguen, and Robert W. Zimmerman
Frequency, pressure, and pore fluid dependence of elastic wavespeeds: new laboratory measurements on Fontainebleau sandstone

14:00–14:15 EGU2011-3263

Marie Violay, Benoit Gibert, Pierre Azais, Philippe Adrien Pezard, Gérard Lods, and Olafur Flovenz
Laboratory measurements of basalt electrical conductivity on saturated samples at upper crust conditions: a new electrical HT, HP cell.

14:15–14:30 EGU2011-1958

Aliaksei Pazdniakou and **Pierre Adler**
Multiphase flow, deformation and wave propagation in porous media

14:30–14:45 EGU2011-2608

Guido Blöcher, Thomas Reinsch, and Harald Milsch
Evaluation of poro-elastic responses of porous media by the use of fibre optic sensors.

14:45–15:00 EGU2011-13168

Marieke Rempe, Thomas Mitchell, Joerg Renner, Stuart Nippres, Yehuda Ben-Zion, Thomas Rockwell, Steven Smith, and Giulio Di Toro
Investigating the Damage Pattern of Fault Zone Rocks by In-Situ Seismic Field Measurements and Laboratory Experiments

Chairperson: Harald Milsch and Matthew Jackson

15:30–15:45 EGU2011-2191

Brian Berkowitz
On the use of effective parameters to describe transport phenomena in geomaterials

15:45–16:00 EGU2011-8516

Siavash Ghabezloo and Ahmad Pouya
Numerical evaluation of the equivalent permeability of randomly cracked porous media

16:00–16:15 EGU2011-1454

Adeline Pons, David Christian, Jérôme Fortin, Sergei Stanchits, and Jean-Marie Mengus
X-ray imaging during capillary imbibition: a study on how compaction bands impact fluid flow in Bentheim sandstone

16:15–16:30 EGU2011-1733

Susanne Hemes, Guillaume Desbois, Janos L. Urai, Mieke de Craen, Miroslav Honty, and Stéphane Brassinnes
New technique for pore-space investigations of clay materials: A case study on Boom Clay - reference host formation for geological disposal of radioactive waste in Belgium.

16:30–16:45 EGU2011-6083

Manav Tyagi, Thomas Gimmi, and Sergey Churakov
Modeling clay micro-structures and computation of their effective diffusion coefficients

16:45–17:00 EGU2011-9052

Julia Schneider, Peter Flemings, Ruarri Day-Stirrat, and John Germaine
Insights into pore-scale controls on mudstone permeability and compressibility through resedimentation experiments

EMRP10/TS2.10 – The transport properties of geomaterials: Theory, modelling, measurement, application and integration (co-listed) – Posters

Convener: Matthew Jackson | Co-Conveners: Harald Milsch, Jérôme Fortin

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Jerome Fortin, Harald Milsch and Matthew Jackson

- A14 EGU2011-1963
Mathilde Adelinet, Mickaele Le Ravalec, Catherine Dorbath, Jérôme Fortin, and Yves Guéguen
Microstructure and fluid state in an Icelandic geothermal reservoir from inversion of tomography data
- A15 EGU2011-10316
Maria Kuteynikova and Beatriz Quintal
Numerical modeling of wave-induced fluid flow in 3D patchy saturated media
- A16 EGU2011-2875
Wen-Jie Wu and **Jia-Jyun Dong**
Estimating the porosity-depth relation of sedimentary rocks from an effective stress/ stress history-dependent porosity model
- A17 EGU2011-6035
Thomas Reinsch, Guido Blöcher, Harald Milsch, Kort Bremer, Elfed Lewis, Gabriel Leen, and Steffen Lochmann
In-situ pore pressure determination - application of a fibre optic sensor for the determination of rock physical properties
- A19 EGU2011-2485
Harald Milsch, Mike Priegnitz, and Guido Blöcher
Changes in rock physical properties of gypsum samples dehydrated in air
- A20 EGU2011-5460
Florian Füsseis, Christoph Schrank, Ali Karrech, Ghassen Moalla, Stefan Revets, and Klaus Regenauer-Lieb
Gypsum dehydration as a pore pressure diffusion process - insights from time-series Synchrotron X-ray microtomography, thermodynamic analysis and finite element modelling
- A21 EGU2011-5435
Ju-Won Oh, Hyun-Key Jung, and Dong-Joo Min
Negative apparent resistivity based on physical modeling
- A22 EGU2011-12316
Jan Volkmann, **Norbert Klitzsch**, and Oliver Mohnke
Impedance Spectroscopy for assessing the wetting conditions of reservoir rocks
- A23 EGU2011-3970
Jan Vinogradov, Matthew Jackson, and Adrian Butler
Measurements of spontaneous potential in chalk with application to aquifer characterization in the southern UK
- A24 EGU2011-11753
Eli Leinov and Matthew Jackson
Experimental measurements of electrochemical coupling potentials in NaCl-brine saturated sandstone cores
- A25 EGU2011-4765
Jon Saunders and Matthew Jackson
Inversion of downhole streaming potentials to determine water front position
- A26 EGU2011-5924
Matthew Jackson, Eli Leinov, Murtaza Gulamali, and Jan Vinogradov
Water saturation dependence of streaming potential coupling coefficient and excess charge density in sandstones during drainage and imbibition
- A27 EGU2011-247
Sofia Lopes and Maxim Lebedev
Reservoir rock fluid imbibition experiments: complex study using X-ray computer tomography and ultrasonic techniques
- A28 EGU2011-8327
Alban Souche and Marcin Dabrowski
Rayleigh-Bénard convection in porous media: benchmark of FEM models
- A29 EGU2011-10393
Danica Fidiriková
Application of Hot-ball sensor for investigation of water diffusion in sandstone and marble
- A30 EGU2011-12480
Hauke Marquardt, Katharina Marquardt, and Sergio Speziale
Ion Cutting of Large Samples for Brillouin Scattering: Elastic Anisotropy of Antigorite at High-Pressures
- A31 EGU2011-12603
Vladimir Greif, Martin Brcek, Jan Vlcko, Tatiana Durmekova, and Ivana Simkova
Model of the thermo-mechanical behavior of the Pravcicka brana sandstone rock arch (Czech Republic) and Perun's rock at Spis Castle (Slovakia).

EOS04 – Contemporary Education in a Changing World (co-listed) – Orals

Convener: Ana Maria Tarquis | Co-Conveners: Edith Perrier, Ruth Falconer, Rosa Benito, Encarnación Taguas, Anne Gobin, Rosa María González-Tirados, EVA VIDAL VÁZQUEZ, Mauro Messerotti, Jose Carlos Gonzalez-Hidalgo

Room: 29

Chairperson: Jose Manuel Antón

- 13:30–13:45 EGU2011-5131
Rosa Maria González-Tirados and Silvia Medina
Experimental Learning Styles: Results in Engineering and Architecture
- 13:45–14:00 EGU2011-10281
John Isaacs, Ruth Falconer, Daniel Gilmour, and David Blackwood
Visualisation & Modelling for Stakeholder Education in Sustainable Water Treatment
- 14:00–14:15 EGU2011-5079
Leonor Rodriguez-Sinobas and Raul Sanchez Calvo
Encouraging the learning of hydraulic engineering subjects: methodological proposals and evaluation of preliminary results
- 14:15–14:30 EGU2011-13764
Janos Mika and Ilona Pajtók-Tari
Ideas and practices for education of and by climate change
- 14:30–14:45 EGU2011-6911
Rosa M. Benito, Juan C. Losada, Francisco J. Arranz, and Luis Seidel
Interactive methodology based in e-learning to help the engineering students to understand concepts and practices
- 14:45–15:00 EGU2011-2615
Martine Rutten
A POGIL-based approach to teaching engineering Hydrology
- Chairperson: Encarnación Taguas
- 15:30–15:45 EGU2011-2878
Michael Mayer
Improvement of sustainability in learning using a forum-based blended learning competition approach
- 15:45–16:00 EGU2011-11447
Jose María Del Alamo, Felix Cuadrado, Pedro Malagón, José Ignacio Fernandez Malagón, Rubén Trapero Burgos, and Rosa M. González-Tirados
Tutors of Final Project Degree Profile Analysis in Telecommunications
- 16:00–16:15 EGU2011-13206
Mauro Messerotti, Anna Gregorio, Alessandro Cuttin, Mario Fragiaco, Sergio Carrato, and The AtmoCube Development Team
AtmoCube: a nanosatellite project as an effective educational framework
- 16:15–16:30 EGU2011-9250
Jorge Paz-Ferreiro and Eva Vidal Vázquez
Geostatistics in Soil Sciences, Agronomy and Environmental Sciences
- 16:30–16:45 EGU2011-12129
Jenny Gilford, Ruth Falconer, Rebecca Wade, and Kenneth Scott-Brown
Promoting Interest in Soil Sustainability Issues Using Interactive Virtual Environments
- 16:45–17:00 EGU2011-13240
Cristina Aguilar, Encarnación Taguas, and María José Polo
Integration of ICT tools in an Engineering Postgraduate Master Program

EOS04 – Contemporary Education in a Changing World (co-listed) – Posters

Convenor: Ana María Tarquis | Co-Convenors: Edith Perrier, Ruth Falconer, Rosa Benito, Encarnación Taguas, Anne Gobin, Rosa María González-Tirados, EVA VIDAL VÁZQUEZ, Mauro Messerotti, Jose Carlos Gonzalez-Hidalgo

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Rosa Maria Gonzalez-Tirados

- XL1 EGU2011-1626
Kakha Nadiradze and Nana Phirosmnashvili
Climate Change, Agriculture and Food Crisis and correlations
- XL2 EGU2011-9320
Heather Short
Positive feedbacks: using simple systems diagrams, the Himalayas, and ice core oxygen isotope data to introduce first-year college students to the complexities of Earth's climate system
- XL3 EGU2011-13412
hossien sharifan
Investigation of Equations for Actual ET in Salinity Conditions(wet Climate)
- XL4 EGU2011-9832
María Angeles Mendiola and **Pedro Luis Aguado**
Implementation of one course in the Open Course Ware from of Polytechnic University of Madrid, Spain. (OCW-UPM)

- XL5 EGU2011-13306
M Dolores Redel Macías, Ramón Lara Raya, and **Encarnación Taguas**
Collaborative learning in electronic engineering
- XL6 EGU2011-13234
Gabriel Gascó, José Manuel Fidalgo, and Ana Méndez
Advances in the organic waste management: Links between research, society and education
- XL7 EGU2011-13325
hossien sharifan
Teaching Actual Evaluation of Tomato by Epan In Wet Climate
- XL8 EGU2011-13198
hossien sharifan
Evaluation of Salinity effect on Water Temperature In Wet Climate
- XL9 EGU2011-11509
Augusto Arce, Ana Maria Tarquis, Javier Caniego, Jesus Vazquez, Augusto Serrano, and Maria Carmen Cartagena
New Titles Implementation in the Framework of European Higher Education Area at E.T.S. Ingenieros Agrónomos of Madrid: Education Planning
- XL10 EGU2011-13763
Janos Mika, Ildiko Dobi, and Anett Ivady
Circulation conditions of strong heat island in Budapest, with applications in weather forecasting and climate impact studies
- XL11 EGU2011-12077
Jose M Anton, Juan B Grau, Ana M Tarquis, Rubén Moratiel, Silvia Medina, Fabregat Joaquin, Sánchez Elena, and Andina Diego
Survey and brain storming studies about machines, constructions, human and environmental risk consideration in the careers of the Universidad Politécnica de Madrid
- XL12 EGU2011-4651
Emilio Camacho, Sergio Castro, Alfonso García-Ferrer, Rosa Gallardo, Blanca Pizarro, and **Encarnación V. Taguas**
Inter-generational experiences for encouraging the students of the first course of Agronomist and Forestry Engineering degrees
- XL13 EGU2011-6090
Eva Vidal Vázquez and **Jorge Paz-Ferreiro**
The role of soil classification in basic soil science disciplines
- XL14 EGU2011-11931
Eva Vidal Vázquez, **Rafael Montanari**, and Jorge Paz-Ferreiro
Darwin's contribution to Soil Biology
- XL15 EGU2011-13612
María José Polo, Marta Egüen, and Cristina Aguilar
Content structure and program development in “Transport and mixing in fluid flow
- XL16 EGU2011-13815
Emilio Camacho, Sergio Castro, Alfonso García-Ferrer, Rosa Gallardo, Blanca Pizarro, and Encarnación Taguas
Exploring the "employability expectations"

ERE1.7 – Geothermal Energy (co-listed) – Orals

Convener: Jan-Diederik van Wees | Co-Conveners: Philipp Blum, Guido Blöcher, Peter Bayer, Philippe Calcagno, Christoph Clauser

Room: 11

Chairperson: n.n.

- 08:30–08:45 EGU2011-11024
Sierd Cloetingh, Jan-Diederik van Wees, and Fred Beekman
Lithosphere Tectonics and Enhanced Geothermal Systems Exploration in Europe
- 08:45–09:00 EGU2011-13054
Damien Bonté, Jan Diederik Van Wees, Laurent Guillou-Frottier, Vincent Bouchot, and Olivier Serrano
New temperatures for the Paris Basin — results from tectonic-Heat Flow modelling
- 09:00–09:15 EGU2011-10079
Valiya Hamza and Carlos Alexandrino
Improved assessment of Deep Crustal Thermal Field based on Joint Inversion of Heat Flow, Elevation, Geoid Anomaly data sets

- 09:15–09:30 EGU2011-8557
Luca Guglielmetti, Giuseppe Mandrone, Eva Schill, Adele Manzella, Serena Botteghi, Carlo Ungarelli, Yassine Abdelfettah, and Cesare Comina
 Passive geophysical methods for geothermal exploration in the External Crystalline Argentera Massif of the Western Italian Alps: Gravity and Magnetotelluric
- 09:30–09:45 EGU2011-6758
Javid Safarov, Martin Stephan, Esmira Mammadova, Hannes Schmidt, Jürgen Nocke, Astan Shahverdiyev, and Egon Hassel
 Thermophysical Properties of Geothermal Energy Resources of Germany and Azerbaijan
- 09:45–10:00 EGU2011-8684
Darius Mottaghy, Renate Pechinig, Renate Taug, Jens Kröger, Claudia Thomsen, Fabian Hese, and Thomas Liebsch-Dörschner
 Geothermal 3-D modeling Hamburg and surrounding areas: Temperature prediction and reservoir simulation

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2011-999
Sebastian Homuth, Annette E. Götz, and Ingo Sass
 Outcrop analogue studies for reservoir characterization and prediction of deep geothermal systems in the Molasse Basin, Germany
- 10:45–11:00 EGU2011-5759
 Carlino Stefano, Somma Renato, **De Natale Giuseppe**, and Troise Claudia
 The geothermal potential of Campanian volcanoes: evaluation and opportunities.
- 11:00–11:15 EGU2011-3661
Philippe Calcagno, Vincent Bouchot, Isabelle Thinon, and Bernard Bourguin
 The Bouillante 3D Structural Model (French West Indies): a Tool for Geothermal Exploration Combining Onshore and Offshore Geological Knowledge
- 11:15–11:30 EGU2011-9291
Sakalima Sikaneta, Benoît Valley, and Keith Evans
 Stress heterogeneity in fractured crystalline rock masses at the EGS sites of Soultz and Basel
- 11:30–11:45 EGU2011-13905
Mauro Cacace, Guido Blöcher, Björn Lewerenz, Magdalena Scheck-Wenderoth, and Ernst Huenges
 3D modeling of fractured geological system - technique and numerical results
- 11:45–12:00 EGU2011-2514
Yvonne Cherubini, Mauro Cacace, and Magdalena Scheck-Wenderoth
 Assessment of the impact of faults on the coupled fluid and heat transport in a geothermal site (Groß Schönebeck, NE-German Basin): First results from 3D finite element simulations

LUNCH BREAK

Chairperson: n.n.

- 13:30–13:45 EGU2011-2511
Günter Zimmermann, Andreas Reinicke, Guido Blöcher, Inga Moeck, Grzegorz Kwiatak, Wulf Brandt, Ali Saadat, and Ernst Huenges
 Concepts for Rock Specific Hydraulic Fracturing and Matrix Acidizing to Enhance a Geothermal System
- 13:45–14:00 EGU2011-7823
Arnold Blaisonneau, Mariane Peter, and Sylvie Gentier
 Experimental study of the fracture permeability evolution due to brine/rock interactions
- 14:00–14:15 EGU2011-11608
J. Ole Kaven, Stephen H. Hickman, and Nicholas C. Davatzes
 Micro-seismicity and hydrologic compartmentalization in the Coso geothermal reservoir, Inyo County, California
- 14:15–14:30 EGU2011-5268
Daisuke Oka, Yasuhiro Fujimitsu, Jun Nishijima, Yoichi Fukuda, and Makoto Taniguchi
 Geothermal Reservoir Monitoring by the Repeat Gravity Measurement at the Takigami Geothermal Field, Japan -Application of Hybrid Gravity Measurement using Absolute and Relative Gravimeters-

- 14:30–14:45 EGU2011-8142
Eva Schill, Philip Klingler, and Karl-Heinz Schädle
 Increase of productivity in the Riehen geothermal system (Switzerland): Tracer test and reservoir model
- 14:45–15:00 EGU2011-490
Samuel Scott, Ingvi Gunnarsson, Andri Stefánsson, and Stefán Arnórsson
 Geochemical Investigations of the Hellisheiði Geothermal Field, SW-Iceland
 Chairperson: n.n.
- 15:30–15:45 EGU2011-5752
Giordano Montegrossi
 Investigation of Calcite precipitation in geothermal reservoir
- 15:45–16:00 EGU2011-8407
Fiorenza Deon, Simona Regenspurg, and Günter Zimmermann
 Interaction of ceramic proppants with geothermal brine: an experimental study of their reactivity
- 16:00–16:15 EGU2011-12612
 Mashal Alawi, Stephanie Lerm, Markus Wolfgramm, Andrea Seibt, and **Hilke Wuerdemann**
 Diversity of sulfate-reducing bacteria in a plant using deep geothermal energy
- 16:15–16:30 EGU2011-9541
Mikael Philippe, Michel Bernier, Dominique Marchio, and Hervé Lesueur
 Experimental validation of a serpentine horizontal ground heat exchanger model
- 16:30–16:45 EGU2011-5409
Byoung Ohan Shim and Hyoung Chan Kim
 Evaluation of the ground thermal conductivity and the borehole thermal resistance from thermal response tests in Korea
- 16:45–17:00 EGU2011-12750
Grant Ferguson
 Assessing Risk in Open-Loop Heat Pump Systems

ERE1.7 – Geothermal Energy (co-listed) – Posters

Convener: Jan-Diederik van Wees | Co-Conveners: Philipp Blum, Guido Blöcher, Peter Bayer, Philippe Calcagno, Christoph Clauser

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XL171 EGU2011-776
Thomas Reinsch, Jan Henningses, and Ragnar Ásmundsson
 Distributed temperature sensing behind casing within a hot geothermal well - Results from a flow test in well HE-53, SW Iceland
- XL172 EGU2011-1041
Kun Sang Lee
 Thermohydraulic Modeling on the Continuous Operation of Standing Column Wells under Regional Groundwater Flow
- XL173 EGU2011-1190
 Kristian Bär, Marita Felder, **Annette E. Götz**, Nicolaas Molenaar, and Ingo Sass
 The Rotliegend Reservoir System of the northern Upper Rhine Graben (Germany): From Pores to Production
- XL174 EGU2011-1395
Christian Vogt, Gabriele Marquart, Katja Iwanowski-Strahser, Juliane Arnold, Daniel Gnjezda, Darius Mottaghy, Renate Pechnig, and Christoph Clauser
 An Integrated Assessment of Geothermal Reservoir Simulation - A Case Study
- XL175 EGU2011-1865
 Fabien Magri, **Johannes Birner**, Toygar Akar, Ünsal Gemici, and Asaf Pekdeger
 Geothermal springs associated with buoyant-driven fluid flow in the faults of the Seferihisar-Balçova system, Western Anatolia, Turkey - results from 3D simulations.
- XL176 EGU2011-2173
Jozsef Hecht-Méndez, Nelson Molina-Giraldo, Lorena Bello-Rujana, Peter Bayer, and Philipp Blum
 Comparison of numerical and analytical modelling concepts for simulation of shallow open geothermal systems
- XL177 EGU2011-2446
Nina S. C. Simon, Magnus Loberg, Yuri Y. Podladchikov, and Ritske S. Huismans
 Is enhanced heat and tracer transfer by intermittent porous flow an important process in deep geothermal systems?
- XL178 EGU2011-2487
Sonja L. Philipp, Steven Parchwitz, and Annette E. Götz
 Geothermal Potential of the Upper Muschelkalk in Northeastern Germany

- XL179 EGU2011-3083
Björn Onno Kaiser, Mauro Cacace, Magdalena Scheck-Wenderoth, and Björn Lewerenz
 The role of different heat drivers within the Northeast German Basin - Results from 3D numerical modelling of the coupled fluid and heat transfer
- XL180 EGU2011-3307
Laura Wasch and Tim Tambach
 Geochemical modeling of reactions occurring during geothermal heat exploitation using PHREEQC
- XL181 EGU2011-3553
Haffen Sébastien, Geraud Yves, Diraison Marc, and Dezayes Chrystel
 Petrophysical characteristics of sandstones dating from the Buntsandstein in the Upper Rhine Graben: case of the borehole EPS1 (Soultz-Sous-Forêts, France)
- XL182 EGU2011-5097
Sana`a Al-Zyoud, Wolfram Rühaak, and Ingo Sass
 Utilization of a basaltic aquifer for cooling purposes in Harrat Al-Shaam, Jordan - a feasibility study
- XL183 EGU2011-5839
Renate Pechnig, Juliane Arnold, and Darius Mottaghy
 Methods to derive statistically proved input parameter for geothermal models: Examples from sedimentary basins and crystalline basement rocks.
- XL184 EGU2011-6230
Dorothea Reyer, Johanna F. Bauer, and Sonja L. Philipp
 Influence of fault zones on fracture systems in sedimentary geothermal reservoir rocks in the North German Basin
- XL185 EGU2011-6361
Johanna F. Bauer and Sonja L. Philipp
 How structural geology can contribute to geothermal exploration: a case study from Germany
- XL186 EGU2011-6405
 Norihiro Watanabe, Wenqing Wang, **Haibing Shao**, Joshua Taron, and Olaf Kolditz
 Application of an extended finite element method for modeling fully coupled hydromechanical processes in discrete fracture-rock matrix systems
- XL187 EGU2011-7088
Hannah Pomella, Hugo Ortner, Marcel Schulz, Michael Zerlauth, and Bernhard Fügenschuh
 Deep geothermal potential in an orogenic wedge: examples from western Austria
- XL188 EGU2011-7585
Stephanie Lerm, Mashal Alawi, Rona Miethling-Graff, Andrea Seibt, Markus Wolfgramm, Kerstin Rauppach, and Hilke Würdemann
 Microbiological monitoring on two geothermally used aquifers in the North German Basin
- XL189 EGU2011-8147
Roman Zorn, Hagen Steger, Anja Grunert, Oliver Mielenz, Thomas Kölb, and Lena Eggeling
 A vertical cylindrical collector system for the indirect energetic use of groundwater
- XL190 EGU2011-8587
Luca Guglielmetti, Cesare Comina, and Giuseppe Mandrone
 Experimental modelling of thermal flow in saturated and unsaturated conditions and geophysical controls.
- XL191 EGU2011-8597
Luca Guglielmetti, Cesare Comina, and Giuseppe Mandrone
 ULTRASONIC Ultrasonic test in geothermal heat exchangers (bhe) to monitor grout integrity against migration of contaminants into ground water system. TEST IN GEOTHERMAL HEAT EXCHANGERS (BHE) TO MONITOR GROUT INTEGRITY AGAINST MIGRATION OF CONTAMINANTS INTO
- XL192 EGU2011-8709
Volker Wittig and Rolf Bracke
 Innovative Hydraulic DTH Drilling Technology based on Coiled Tubing for deep, hard rock Geothermal Drilling
- XL193 EGU2011-8838
Gabriele Marquart, Christian Vogt, Volker Rath, and Christian Kosack
 Permeability Estimation from Tracer Circulation Tests using the Ensemble Kalman Filter - the Soultz-sous-Forêts case
- XL194 EGU2011-8904
Alan G. Jones, Mark Muller, Stephen Daly, Alistair Allen, Roisin Goodman, Taly Hunter-Williams, Monica Lee, and Derek Reay
 IRETherm: A New Project to Develop a Strategic and Holistic Understanding of Ireland's Geothermal Energy Potential
- XL195 EGU2011-9754
Markus Proell
 Method for layer dependent evaluation of the ground heat conductivity
- XL196 EGU2011-9795
Anke Westphal, Stephanie Lerm, Mashal Alawi, Andrea Seibt, Markus Wolfgramm, and Hilke Würdemann
 Microbial induced mineral precipitation and corrosion in geothermal plants

- XL197 EGU2011-10054
Barbara Hahne, Rüdiger Thomas and the gebo Geosystem Team
Combined geoscientific investigations of geothermal reservoir characteristics in Lower Saxony, Germany
- XL198 EGU2011-10308
Anton Reshetnikov, Makky Jaya, Stefan Buske, Joern Kummerow, and Serge Shapiro
Characterisation of a geothermal reservoir using microseismic data
- XL199 EGU2011-10400
Makky Jaya, Harald Milsch, David Bruhn, Serge Shapiro, and Liney Kristinsdóttir
Compressional wave velocities and attenuation of saturated geothermal rocks during a liquid-steam phase transition
- XL200 EGU2011-10717
Eva Wegerer, Lorenz Scheucher, Godfrid Wessely, Gregor Götzl, and Rudolf Ramberger
Analyses of the thermal parameters of Calcalpine basement rocks of the Vienna Basin for a hydrothermal reservoir assessment
- XL201 EGU2011-10790
Ingrid Stober and Kurt Bucher
Depth- and Pressure dependent Permeability in the Upper Continental Crust - Data from the Urach 3 Geothermal Well
- XL202 EGU2011-11035
Katja Iwanowski-Strahser, Juliane Arnold, Christian Vogt, Eva Szalaiová, and Wolfgang Rabbel
Seismic assessment of the geothermal potential of North German Basin sediments - From seismic to a geothermal model
- XL203 EGU2011-11037
Eva Szalaiova, Gabriele Marquart, Christian Kosack, Renate Pechnig, Katja Iwanowski-Strahser, Christoph Clauser, and Wolfgang Rabbel
From seismic to a geothermal model. Seismic assessment of geothermal potential of the Continental Deep Drillhole (KTB) site, Germany
- XL204 EGU2011-11128
Davide Maritan and Alessandro Trevisan
Layout selection in shallow geothermal systems; some case studies in Italy
- XL205 EGU2011-11244
Christian Kosack, Volker Rath, and Darius Mottaghy
Parameter Estimation of the Geothermal Reservoir at Soultz-sous-Forêts
- XL206 EGU2011-11288
Yves Géraud, Joachim place, Edouard Le Garzic, Marc Diraison, and Martin Stanek
Petrophysical properties of fault zones in granite body, implication for deep geothermal reservoir behaviour.
- XL207 EGU2011-11537
Henning Francke
Model of two-phase flow in the brine circuit of a geothermal power plant
- XL208 EGU2011-11672
Peter Bayer, Dominik Saner, Philipp Blum, and Ronnie Juraske
Environmental impacts from geothermal heat pump systems: A cradle-to-grave analysis
- XL209 EGU2011-11783
Amélie Neuville, Renaud Toussaint, and Jean Schmittbuhl
Anisotropy and scaling of the hydro-thermal behavior in a rough fracture
- XL210 EGU2011-11831
Ke Zhu, **Peter Bayer**, Klaus-Dieter Balke, Steffen Rehner, Grant Ferguson, and Philipp Blum
Urban heat islands in the subsurface
- XL211 EGU2011-11919
Christoforos G. Koutitas and Stamatia K. Arvanitidou
A computational tool for a first-cut engineering analysis in coastal aquifers management
- XL212 EGU2011-13007
Annarita Mangiacapra, Monica Piochi, Angela Mormone, Maria Giulia Di Giuseppe, Claudia Troise, and Giuseppe De Natale
New physical, textural and mineralogical data on rock samples cored in 1981-1985 geothermal deep wells at Campi Flegrei caldera
- XL213 EGU2011-13288
Jan-Diederik van Wees, Damien Bonte, hanneke Verweij, and Leslie Kramers
High resolution tectonic temperature models for EGS and direct heat in sedimentary basins: a case study of the Netherlands
- XL214 EGU2011-13324
Jan-Diederik Van Wees, leslie Kramers, Alexander Kronimus, Maarten Pluymaekers, and Harmen Mijnlief
ThermoGIS: An Integrated Web-Based Information System for Geothermal Exploration and Governmental Decision Support for Mature Oil and Gas Basins

- XL215 EGU2011-13347
Jan-Diederik van Wees, Martha Faneca-sanchez, Leslie Kramers, and Alexander Kronimus
 Subsurface spatial planning for aquifer production under subsurface uncertainty: using best practices from oil and gas industry
- XL216 EGU2011-13773
Giovanni Ruggieri, Adele Manzella, Giordano Montegrossi, and Luigi Dallai
 Relation between resistivity variations and mineralogical composition of the lithological units in the Travale geothermal area (Southern Tuscany, Italy)

HS1.1 – Perspectives for the Future of Hydrology in a Changing Environment. Memorial Session in Honour of Professor Jim Dooge (invited speakers only) – Orals

Convener: Alberto Montanari | Co-Conveners: Gerrit H. de Rooij, Murugesu Sivapalan

Room: 33

Chairperson: n.n.

- 08:30–09:00 EGU2011-4853
Tissa Illangasekare, Kate Smits, Toshi Sakaki, and Abdullah Cihan
 Soil Moisture Processes in the Shallow Subsurface Near Land/Atmospheric Interface- Challenges and New Research Approaches
- 09:00–09:30 EGU2011-1679
Michael Roderick, Fubao Sun, Wee-Ho Lim, and Graham Farquhar
 Robust responses of the terrestrial component of the hydrological cycle to global warming
- 09:30–10:00 EGU2011-12131
Suresh Rao, Nandita Basu, and Sally Thompson
 Do Anthropogenic Impacts Reduce Catchment Complexity?

COFFEE BREAK

Chairperson: A. Montanari - G. de Rooij

- 10:30–11:00 EGU2011-1078
George Kuczera
 Making Sense of Uncertainty in Hydrologic Modelling
- 11:00–12:00 **Memorial Session in honour of Prof. Jim Dooge. Talks by Prof. Philip O'Kane, Prof. Ezio Todini, Dr. Arne Richer, Prof. Michael Bruen, Prof. Hubert H.G. Savenije**

HS1.6 – Metrics and the Use of Data in Hydrology to support Model Structure Improvement – Orals

Convener: Uwe Ehret | Co-Conveners: Erwin Zehe, Hoshin Gupta, Dominik E. Reusser, Vazken Andréassian, Roger Moussa, Charles Perrin, Jens Christian Refsgaard, Martyn Clark, Jasper Vrugt, Dmitri Kavetski, Fabrizio Fenicia, Jake Peters

Room: 33

Chairperson: n.n.

- 13:30–13:45 EGU2011-4436
Thorsten Wagener
 Utilizing signatures of hydrologic function in hydrological model identification and evaluation
- 13:45–14:00 EGU2011-3474
Hans-Joerg Vogel, Steffen Schlueter, and Ulrich Weller
 Implicit and explicit representations of structures and processes
- 14:00–14:15 EGU2011-10582
Andràs Bàrdossy, Shailesh Kumar Singh, and Melinda Kiss
 The frequency of unusual hydrological events, a measure of hydrometeorological complexity
- 14:15–14:30 EGU2011-88
Feng Pan, Yakov Pachepsky, and Robert Hill
 Information theory-based metrics applied to hydrologic time series
- 14:30–14:45 EGU2011-9897
Bettina Schaefli and Dmitri Kavetski
 Model calibration in the spectral domain: opportunities for model development and confusion
- 14:45–15:00 EGU2011-6872
Stanislaus Schymanski
 Optimality theory: a path to calibration-free models?

Chairperson: n.n.

- 15:30–15:45 EGU2011-9739
John Pomeroy, Tom Brown, Pablo Dornes, Xing Fang, Kevin Shook, Robert Armstrong, Chris DeBeer, Chad Ellis, and Matthew MacDonald
 Can parameterising models using physical understanding from research basins banish hydromythology and improve hydrological prediction?
- 15:45–16:00 EGU2011-8834
Hoshin Gupta
 Reconciling Theory with Observations & The Problem of Sufficient Statistics
- 16:00–16:15 EGU2011-2396
Dominik E. Reusser and Erwin Zehe
 Inferring model structural deficits by analyzing temporal dynamics of model performance and parameter sensitivity
- 16:15–16:30 EGU2011-413
Tobias Krueger, Jim Freer, John Quinton, and Christopher Macleod
 Using spatial flux measurements to diagnose model structural errors under data uncertainty
- 16:30–16:45 EGU2011-357
René Capell, Doerthe Tetzlaff, Chris Soulsby, and Adrian Hartley
 Evaluating the structure of hydrological models using hydrodynamics, tracers and landscape organisation
- 16:45–17:00 EGU2011-13197
Jim Freer and Norman Peters
 Meteorological and Hydrological Processes Controlling Stormflow at the Panola Mountain Research Watershed, Georgia
- 17:00–17:15 EGU2011-4175
Dmitri Kavetski, Fabrizio Fenicia, and Martyn P. Clark
 The perils of poor numerics in catchment hydrology: On the interplay between temporal data aggregation, time stepping schemes, objective functions and hydrological model reliability

HS1.6 – Metrics and the Use of Data in Hydrology to support Model Structure Improvement – Posters

Convener: Uwe Ehret | Co-Conveners: Erwin Zehe, Hoshin Gupta, Dominik E. Reusser, Vazken Andréassian, Roger Moussa, Charles Perrin, Jens Christian Refsgaard, Martyn Clark, Jasper Vrugt, Dmitri Kavetski, Fabrizio Fenicia, Jake Peters

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Dominik Reusser, Erwin Zehe, Uwe Ehret

- A178 EGU2011-746
Elena Montosi, Juraj Parajka, Alberto Montanari, and Günter Blöschl
 Spatial variability of the parameters of a distributed rainfall-runoff model.
- A179 EGU2011-805
Laura Lombardi, Elena Toth, Attilio Castellarin, and Alberto Montanari
 On the value of multiobjective optimisation for profiting from soft information in ungauged basins
- A180 EGU2011-1062
Urooj Khan, Narendra Tuteja, and Ashish Sharma
 Evaluation of Hydrologic Response Units by soil moisture simulations, in-situ observations and high resolution aerial photographs
- A181 EGU2011-1715
Uwe Ehret
 Series Distance - A new metric to compare hydrographs in accordance with intuition
- A182 EGU2011-1852
Andreas Efstratiadis
 New insights on model evaluation inspired by the stochastic simulation paradigm
- A183 EGU2011-1966
Steffen Schlüter and Hans-Jörg Vogel
 Stochastic reconstruction of structural connectivity and hydrological response in random heterogeneous media
- A184 EGU2011-4067
Maura Rianna, Evangelos Rozos, Andreas Efstratiadis, and Francesco Napolitano
 Assessing different levels of model complexity for the Liri-Garigliano catchment simulation
- A185 EGU2011-4784
Rafael Rosolem, W. James Shuttleworth, Hoshin Gupta, Luis Gustavo de Goncalves, Xubin Zeng, and Natalia Restrepo-Coupe
 Land Surface Modeling Parameter Sensitivity Analysis and Estimation in the Amazon Basin
- A186 EGU2011-5249
Barry Croke
 The impact of knowledge of uncertainty on model calibration

- A187 EGU2011-5391
Kerrie Tomkins and Quanxi Shao
Using empirical data from streamflow gauges to quantify uncertainty
- A188 EGU2011-6471
Dominik E. Reusser and Erwin Zehe
Typology of hydrological metrics based on synthetic errors for single peak events
- A189 EGU2011-6616
Francesc Gallart, Narcís Prat and the MIRAGE Hydrology Team
Flow status versus flow discharge data for characterizing regimes of temporary streams
- A190 EGU2011-6832
Thomas Wöhling, Luis Samaniego, and Rohini Kumar
Evaluation of Different Performance Criteria for Calibrating Conceptual Hydrological Models
- A191 EGU2011-7249
Shervan Gharari, Fabrizio Fenicia, Markus Hrachowitz, and Huub H.G. Savenije
Hydrological Land Classification Based on Landscape Units
- A192 EGU2011-8538
Dave Milledge, Stuart Lane, Sim Reaney, and Louise Heathwaite
Can a static metric for hydrologic connectivity improve predictions of instream water quantity and quality?
- A193 EGU2011-8569
Mark Honti, Christian Stamm, and Peter Reichert
Structural improvement of a simple rainfall-runoff model based on time-variable parameters
- A194 EGU2011-9224
Olga Semenova
Using fixed process-oriented model structures as a starting point for hydrological research
- A195 EGU2011-9486
José Pedro Matos, Théodora Cohen Liechti, Maria Manuela Portela, and Anton Schleiss
On the spatial and temporal scales of a semi-distributed hydrological model of the Zambezi River basin
- A196 EGU2011-10675
Mark Thyer, Benjamin Renard, Dmitri Kavetski, George Kuczera, and Martyn Clark
Improving hydrological model predictions by incorporating rating curve uncertainty
- A197 EGU2011-10769
Fabrizio Fenicia, Dmitri Kavetski, Hubert H.G. Savenije, Gerrit Schoups, Jim Freer, Martyn P. Clark, Ilaria Clemenzi, and Laurent Pfister
Towards an improved synthesis of experimental fieldwork and mathematical modelling in hydrology: An application of the flexible model approach at the catchment scale
- A198 EGU2011-11499
Carole Delenne, Vincent Guinot, Bernard Cappelaere, and Blaise Delmotte
Weak-formed based objective functions in hydrology. Application to a 1D transport/degradation model
- A199 EGU2011-11572
Roger Moussa, Colin François, Rabotin Michael, Hallema Dennis, and Crabit Armand
Invariant morphometric properties of headwater subcatchments
- A200 EGU2011-12018
Hartmut Holländer and the SFB/TRR38 C2 Team
Impact of modeler's attitude in catchment modeling: stage from priori prediction to calibration
- A201 EGU2011-12760
Stijn Van Hoey, Piet Seuntjens, Johannes van der Kwast, Jean-Luc de Kok, Guy Engelen, and Ingmar Nopens
Balancing the model structure and spatial scheme using model sensitivity analysis and parameter identifiability
- A202 EGU2011-12761
Sjur Kolberg, Kolbjørn Engeland, and Ingelin Steinsland
Likelihood under autocorrelated residuals using effective sample size
- A203 EGU2011-13445
Christian Salles, **Marie-George Tournoud**, Damien Evrat, Claire Rodier, Audrey Caro, Patrice Got, Chrystelle Bancon-Montigny, and Bernadette Picot
Robustness and applicability of metrics for characterizing first flush effect during floods in temporary streams

HS2.11/NH1.14 – Hydrological extremes: from droughts to floods (co-organized) – Orals

Convener: Alberto Viglione | Co-Conveners: Jan Szolgay, Lena M. Tallaksen, Gregor Laaha

Room: 36

Chairperson: Alberto Viglione

- 08:30–09:00 EGU2011-10327
Thomas Kjeldsen
COST Action ES0901: European procedures for flood frequency estimation (FloodFreq)

- 09:00–09:15 EGU2011-5736
Olivier Payraastre, Eric Gaume, and Hervé Andrieu
 Usefulness of historical information for flood frequency analyses: developments based on a case study and a Bayesian MCMC approach
- 09:15–09:30 EGU2011-4613
Magdalena Rogger, Jürgen Komma, Ralf Merz, Alberto Viglione, Robert Kirnbauer, and Günter Blöschl
 Step changes in the flood frequency curve - process controls
- 09:30–09:45 EGU2011-10517
Björn Guse, Attilio Castellarin, and Bruno Merz
 Improving flood frequency analysis by integration of empirical and probabilistic regional envelope curves
- 09:45–10:00 EGU2011-1142
Yoann Aubert, Arnaud Patrick, and Pierre Ribstein
 A regional method for the prediction of flood hazards in France

COFFEE BREAK

Chairperson: Gregor Laaha

- 10:30–11:00 EGU2011-9912
Lena M. Tallaksen and Henny A.J. van Lanen
 Droughts in Europe under current and future climate - initial results of the EU-funded WATCH project
- 11:00–11:15 EGU2011-6260
Gonzalo Sapriza, Jorge Jodar, and Jesus Carrera
 Hydrogeological drought characterization in semi-arid zones
- 11:15–11:30 EGU2011-3855
Luis Samaniego, Rohini Kumar, Matthias Zink, and Sabine Attinger
 Retrospective drought analysis over Germany during the last 60 yrs
- 11:30–11:45 EGU2011-12547
Anne Fleig, Lena Tallaksen, and Paul James
 Understanding trends and changes in European streamflow and drought: circulation vs precipitation and temperature changes
- 11:45–12:00 EGU2011-3199
Nadia Kitova, Jean-Philippe Vidal, Jean-Michel Soubeyroux, Eric Martin, and Christian Pagé
 Meteorological, agricultural and hydrological drought projections over France for the 21st century

HS2.11/NH1.14 – Hydrological extremes: from droughts to floods (co-organized) – Posters

Convener: Alberto Viglione | Co-Conveners: Jan Szolgay, Lena M. Tallaksen, Gregor Laaha

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Alberto Viglione

- A204 EGU2011-1298
Giuseppina Monacelli and Maria Carmela Galluccio
 Developing Tools for Hydrological Extremes Warning Systems
- A205 EGU2011-1904
Anne Van Loon, Olda Rakovec, and Henny Van Lanen
 Processes behind multi-year droughts in catchments with seasonal climate and storage
- A206 EGU2011-2584
Lisa Stewart, Dave Morris, David Jones, and Harry Gibson
 Progress in generalising a new model of rainfall depth-duration-frequency for the UK
- A207 EGU2011-3118
Marjolein van Huijgevoort, Gerald Corzo Perez, and Henny van Lanen
 Multi-model analysis of global droughts in the second part of the 20th century
- A208 EGU2011-3658
Elfride Lindner and Masato Kobiyama
 Proposal of Tank Moisture Index to predict floods and droughts in Peixe River watershed, Brazil
- A209 EGU2011-4530
Sven Kotlarski, Stefan Hagemann, Ralf Podzun, and Daniela Jacob
 The Elbe Flooding 2002 as seen by an extended regional climate model
- A210 EGU2011-4861
Ali S Akanda, Dinesh Prashar, and Shafiqul Islam
 Too Much Water, or Too Little Water? Droughts and Floods in the Ganges-Brahmaputra-Meghna Basin

- A211 EGU2011-5060
Dusan Trninic
Contribution to the low streamflow hydrological analysis of the Sava River in Croatia
- A212 EGU2011-5496
Mihael Brenčič and Andrej Gosar
Unexpected drying of the river bed after floods and weak earthquakes - case of the River Iška in the central Slovenia
- A213 EGU2011-6337
Rohini Kumar, Luis Samaniego, and Matthias Zink
Investigation on extreme runoff characteristics in major German river basins
- A214 EGU2011-6778
Arnaud Verstraete, Sebastien Gailliez, Eleonore Beckers, and **Aurore Degre**
Statistical analysis of low-flow based on short time series. The case of Wallonia
- A215 EGU2011-6987
Dagmar Stojkiová
Utilization of the local minimum method for assessment of groundwater runoff development and drought occurrence in Topla and Ondava River catchments, Eastern Slovakia
- A216 EGU2011-7696
Ageel Bushara, Mekonnen Gebremichael, Riccardo Rigon, and Tagreed Abdelrahim
Time series analysis of 44 years of daily-observed flows of the Nile River
- A217 EGU2011-8198
Mehmet C. Demirel and Martijn J. Booij
Low flow forecasting with a lead time of 14 days for navigation and energy supply in the Rhine River
- A218 EGU2011-9866
Benjamin Renard and the EXTRAFL0 project Team
Comparing frequency analysis approaches: a data-based methodological framework.
- A219 EGU2011-12163
Giuseppe Rossi and Enrica Caporali
Regional statistical analysis of rivers low flow
- A220 EGU2011-13097
Gregor Laaha, Eric Sauquet, Hege Hisdal, Charles N. Kroll, Henny van Lanen, Lena M. Tallaksen, and Ross Woods
UNESCO-FRIEND's contribution to the PUB Benchmark Assessment Report on low flow estimation
- A221 EGU2011-13474
Chiara Bocci, Enrica Caporali, and Alessandra Petrucci
Understanding rainfall extreme values in Tuscany (Italy)
- A222 EGU2011-2114
Rudolf Brázdil, Ladislava Ježníková, Hubert Valášek, Marek Havlíček, Petr Dobrovolný, Eva Soukalová, Tomáš Řehánek, and Hana Skokanová
Fluctuations of floods of the River Morava (Czech Republic) in A.D. 1691-2009: interactions of natural and anthropogenic factors
- A223 EGU2011-4349
Chandra Kiran B Krishnamurthy, Christina Karamperidou, **Francesco Cioffi**, and Upmanu Lall
Space-time structure of extreme precipitation in Europe over the last century: a climate perspective.
- A224 EGU2011-5037
Cristina Andrade, João A. Santos, Joaquim G. Pinto, and João Corte-Real
The hydrological impacts and large-scale atmospheric dynamics of the 2009-10 wet winter in Portugal
- A225 EGU2011-6079
Barbara Kerek, Laszlo Kuti, and Tamas Muller
Agrogeological effects of drought vulnerability
- A226 EGU2011-6771
Pierre Brigode, Pietro Bernardara, Emmanuel Paquet, Joël Gailhard, Pierre Ribstein, and Ralf Merz
Complete application of the SCHADEX method on an Austrian catchment: extreme flood estimation on the Kamp river
- A227 EGU2011-6948
Miriam Fendekova, Marian Fendek, and Milos Gregor
Base flow drought index
- A228 EGU2011-6960
Andrej Machlica, Oliver Horvat, Milos Gregor, and Miriam Fendekova
Comparison of base flow estimation using two hydrological models and some hydrological programs in the terms of groundwater drought assessment
- A229 EGU2011-7972
Wai Kwok Wong, Stein Beldring, Torill Engen-Skaugen, Ingjerd Haddeland, and Hege Hisdal
Climate change effects on summer droughts in Norway

- A230 EGU2011-9722
Hironori Inomata, Kuniyoshi Takeuchi, and Kazuhiko Fukami
Comparison of MRI-AGCM precipitation outputs with observed precipitation as a basis for the prediction of future extreme precipitation in Asian region
- A231 EGU2011-9814
Lev Kuchment and Alexander Gelfan
Coupling of probabilistic and deterministic approaches for assessment of extreme flood risk
- A232 EGU2011-10410
Wojciech Jakubowski
Application of 3-dimensional copula in the estimation of low flow extremes
- A233 EGU2011-10417
Tamara Tokarczyk and Wiwiana Szalińska
The concept of the operational drought hazard assessment scheme
- A234 EGU2011-10994
Nathalie Bertrand and Jan Polcher
Droughts in the Twentieth Century: Spatial and temporal patterns of Soil moisture variations at large surface scheme
- A235 EGU2011-12071
Clorinda Cortis, Montaldo Nicola, Saba Andrea, and Albertson John D
On the estimation of the design flood of the Rio Mogoro dam in Sardinia
- A236 EGU2011-13481
Jesús López and Félix Francés
Possible influence of large-scale climate indices on the variability of maximum streamflow in rivers of Peninsular Spain
- A237 EGU2011-563
Kwok Pan Chun, Howard S Wheeler, and Christian J Onof
Non-stationary extreme rainfall estimation for the UK
- A238 EGU2011-4151
Thierry Leviandier
A probabilistic definition of a characteristic duration of floods relevant for the transformation of rainfall distribution to flood distribution
- A239 EGU2011-5842
Chi Cong Nguyen, Eric Gaume, and Olivier Payrastre
Incorporation of information on extreme floods in regional flood frequency analyses: some methodological reflections.
- A240 EGU2011-6147
Laszlo Kuti and **Barbara Kerek**
The effect of aridity on the soil-parent material-groundwater system in the Danube-Tisza Interfluve
- A241 EGU2011-8038
Ignazio Giuntoli, Benjamin Renard, and Antoine Bard
Low flow trends in France: analysis of 236 undisturbed catchments over 40 years
- A242 EGU2011-11182
Jan Kocum, Bohumír Janský, Julius Šesák, and Jakub Šurda
Potential reduction of hydrological extremes in headwaters: case study of upper Vltava River basin, Czechia
- A243 EGU2011-12117
Francesco Laio
Linear estimation of design values

HS2.19 – Linking hydrology to hydraulic engineering in a changing environment (co-sponsored by IAHR) – Orals

Convener: Attilio Castellarin | Co-Conveners: Roberto Ranzi, Sergiy Vorogushyn

Room: 39

Chairperson: n.n.

- 15:30–15:45 EGU2011-869
Alessio Domeneghetti
Calibration of numerical hydraulic model: effects of rating-curve uncertainty
- 15:45–16:00 EGU2011-12988
Giovanni Corato, Tommaso Moramarco, and Tullio Tucciarelli
River discharge estimation using water section hydrographs and 1D shallow water modeling
- 16:00–16:15 EGU2011-8430
Henrik Madsen and Maria A. Sunyer
Statistical downscaling of climate model projections for design and adaptation of water infrastructure

- 16:15–16:30 EGU2011-13642
Pedro Arévalo Rey, Enrique Ortiz, Vicente Guna, Félix Francés, Juan Auñón, Ramiro Martínez, and Diego Irles
 Coupling hydrologic and hydraulic models to determine the response of rural-urban environments in an endorheic area
- 16:30–16:45 EGU2011-10212
 Maurizio Mazzoleni, Baldassare Bacchi, Stefano Barontini, Giuliano Di Baldassarre, and **Roberto Ranzi**
 Uncertainty in flood hazard mapping for piping-induced levee breaches in the Po river
- 16:45–17:00 EGU2011-6883
Jens Bender, Christoph Mudersbach, and Jürgen Jensen
 Synthetic Hydrograph Generator for Reservoirs: Potential and Limitations

HS2.19 – Linking hydrology to hydraulic engineering in a changing environment (co-sponsored by IAHR) – Posters

Convener: Attilio Castellarin | Co-Conveners: Roberto Ranzi, Sergiy Vorogushyn

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Sergiy Vorogushyn

- A244 EGU2011-8375
Alvaro Sordo, Paola Bianucci, Juan Ignacio Pérez, Jaime García-Palacios, Victor Cuevas, and Luis Garrote
 Evaluation/Optimization of reservoir operation rules for flood management using an integrated hydrologic-hydraulic framework
- A245 EGU2011-8454
 Attilio Castellarin, **Alberto Viglione**, Magdalena Rogger, Ralf Merz, and Günter Blöschl
 Extreme rainstorms: testing regional envelope curves against stochastically generated events
- A246 EGU2011-8532
Nicole Jackisch and Markus Weiler
 Comparing design assumptions with actual observations for a rain water infiltration system in a residential neighbourhood
- A247 EGU2011-8829
Baptiste Francois, Benoit Hingray, Frédéric Hendrikx, and Jean-Dominique Creutin
 The value of storage water: a climatological signature for global change impact studies
- A248 EGU2011-12151
Roberto Ranzi and Le Van Chin
 Water resources assessment for the Day river basin (Vietnam) under development and climate change scenarios
- A249 EGU2011-13023
Manish Gupta, Kenneth Williams, Elena Berman, and Mark Conrad
 Hydrological Tracer Studies at a DOE IFRC Site in Rifle, Colorado
- A250 EGU2011-13708
Sebastian Meyer and Heidi Kreibich
 Risk analysis for high groundwater levels focussed on residential buildings in Dresden, Germany
- A251 EGU2011-13769
Giuliano Di Baldassarre, Guy Schumann, and Paul Bates
 Evaluation of uncertain inundation models using uncertain SAR observations of floods
- A252 EGU2011-14005
Davide Poggi, Luca Ridolfi, and Gabriel Katul
 A model for hydraulic resistance to assess the impact of vegetation on flood routing mechanics
- A253 EGU2011-6841
Hidayat Hidayat, Ton Hoitink, Bart Vermeulen, Maximiliano Sassi, and Paul Torfs
 Rating curve fails to model discharge in a backwater affected river reach
- A254 EGU2011-7112
Luis Cea, Jeronimo Puertas, Marta Garrido, Ignacio Fraga, and Manuel Alvarez
 Hydrologic forecasting of extreme rainfall events using hydraulic models at different spatial scales
- A255 EGU2011-11742
Stefania Camici, Angelica Tarpanelli, Luca Brocca, Florisa Melone, Tommaso Moramarco, and Marco Franchini
 Flood frequency estimation for ungauged basins through A spatially distributed continuous simulation approach

HS2.20 – Floodplain processes and inundation modelling – Orals

Convener: Giuliano Di Baldassarre | Co-Conveners: Roger Moussa

Room: 38

Chairperson: Giuliano Di Baldassarre

- 13:30–13:45 EGU2011-2553
Guy J.-P. Schumann, Kerry Willcocks, Niko Verhoest, Hilde Vernieuwe, Patrick Matgen, and Paul D Bates
 How fuzziness increases information content
- 13:45–14:00 EGU2011-10033
Christine Gschöpf, Michael Vetter, Wolfgang Wagner, and Günter Blöschl
 Parameterising and validating hydrodynamic models of floodplains from airborne laser scanning data
- 14:00–14:15 EGU2011-10762
Laura Giustarini, Patrick Matgen, Renaud Hostache, Mara Montanari, Douglas Plaza, Valentijn R.N. Pauwels, Gabrielle J.M. De Lannoy, Laurent Pfister, Lucien Hoffmann, and Hubert H.G. Savenije
 Linking SAR-derived water level data to flood models: proof of concept
- 14:15–14:30 EGU2011-2112
Nguyen Nghia Hung, Andreas Güntner, Bruno Merz, and Heiko Apel
 Sediment dynamics in the floodplains of the Mekong Delta
- 14:30–14:45 EGU2011-8065
Jeffrey Neal, Paul Bates, Ignacio Villanueva, and Nigel Wright
 Benchmarking three two-dimensional hydraulic models within a single code
- 14:45–15:00 EGU2011-11590
Angelica Tarpanelli, Silvia Barbetta, Luca Brocca, Florisa Melone, and Tommaso Moramarco
 Improving hydraulic modelling using remote sensing-derived flood extent data

HS2.20 – Floodplain processes and inundation modelling – Posters

Convener: Giuliano Di Baldassarre | Co-Conveners: Roger Moussa

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Roger Moussa

- A256 EGU2011-11624
Guy J.-P. Schumann and Jeffrey C. Neal
 Capturing flood events with SAR satellites is all about being lucky or is it?
- A257 EGU2011-13236
Micha Werner and Abebe Angassa Besha
 Flood hazard assessment in data poor areas - is the limited data available reliable?
- A258 EGU2011-4622
Alessandro Masoero, Pierluigi Claps, Nathalie Asselman, and Giuliano Di Baldassarre
 The River Po flood inundation of 1951: reconstruction and analysis
- A259 EGU2011-5487
Marcela Doubkova, Catherine Ticehurst, Ben Gouweleeuw, Albert van Dijk, Steffan Schlaffer, and Wolfgang Wagner
 Can ASAR GM data be used to improve water balance estimation in areas receiving surface water inflows?
- A260 EGU2011-9854
Attilio Castellarin, Alessio Domeneghetti, and Armando Brath
 Flood risk mitigation strategies for the Po river: a quasi-2D hydraulic model for a large-scale analysis
- A261 EGU2011-10589
 Mitja Brilly and **Andrej Vidmar**
 Extreme Flood flow measurement of the Sava River
- A262 EGU2011-10975
Francesco Dottori and Ezio Todini
 Developments of a flood inundation model based on the cellular automata approach: testing different methods to improve model performance
- A263 EGU2011-11414
Giuliano Di Baldassarre, Attilio Castellarin, and Philip Padi
 Floodplain mapping in Africa: large scale analysis of flood data
- A264 EGU2011-6957
 Lenka Weyskrabová, **Tomáš Dostál**, Petr Valenta, Jana Valentová, Petr Koudelka, and Václav David
 Floodplains as Part of Flood Prevention and Conservation System
- A265 EGU2011-4152
Chiriloaei Francisca Anca and Radoane Maria
 Channel changes of Moldova River in relation with system sediment - water changes, in the last century
- A266 EGU2011-10654
Azadeh Ramesh, Thomas Glade, Gabriel Parodi, and Dinand Alkema
 Dyke failure scenarios in Ubaye River, France using hydraulic modeling

- A267 EGU2011-8052
Nicola Pasquale, Umberto Villero, Andreas Wombacher, **Paolo Perona**, and Paolo Burlando
Non-invasive calibration technique of a 2D hydrodynamic model based on pattern recognition and digital mapping

HS2.21/NP3.13 – Scaling, subgrid models, downscaling and parameterization (co-organized) – Orals

Convener: Marc Parlange | Co-Conveners: Charles Meneveau, Isabel de Lima

Room: 36

Chairperson: Marc Parlange

- 13:30–13:45 EGU2011-6589
Bernard Geurts
Regularization modeling of buoyancy driven turbulent flow
- 13:45–14:00 EGU2011-4577
Silvia Simoni, Simone Padoan, Amilcare Porporato, Martin Vetterli, Guillermo Barrenetxea, and Marc Brendan Parlange
Sensitivity of streamflow components to spatial variability of meteorological forcing in high alpine watershed: application of a wireless sensor network
- 14:00–14:15 EGU2011-5528
Alessandra Marzadri, Daniele Tonina, and **Alberto Bellin**
A semi-analytical three-dimensional process-based model for hyporheic dissolved oxygen and nitrogen dynamics in gravel bed rivers
- 14:15–14:30 EGU2011-7594
Andrea Rinaldo, Enrico Bertuzzo, Lorenzo Mari, Lorenzo Righetto, Marino Gatto, Renato Casagrandi, and Ignacio Rodriguez-Iturbe
Reactive transport on multiscale networks: controls and drivers of large-scale cholera outbreaks
- 14:30–14:45 EGU2011-9100
Paolo D'Odorico, Yufei He, Stephan DeWekker, Scott L. Collins, William T. Pockman, Marcy Litvak, and Jose D. Fuentes
Scale dependence in the feedbacks between woody plant encroachment and microclimate in desert grasslands
- 14:45–15:00 EGU2011-9262
Jing Huang, Elie Bou-Zeid, and Jean-Christophe Golaz
Parameterization of the stable ABL in climate models: understanding the effects of stability, model resolution, and the need for excessively high turbulent diffusivities

HS2.21/NP3.13 – Scaling, subgrid models, downscaling and parameterization (co-organized) – Posters

Convener: Marc Parlange | Co-Conveners: Charles Meneveau, Isabel de Lima

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Isabel de Lima

- A268 EGU2011-13960
Marc Parlange, Chad Higgins, Martin Froidevaux, Hendrik Huwald, and Valentin Simeonov
Active remote sensing of the atmospheric boundary layer surface layer measurements over complex terrain: Seedorf Swiss Campaign
- A269 EGU2011-5525
Rebecca Mott, Michael Schirmer, and Michael Lehning
Scaling behaviour of wind and snow depths in an Alpine catchment
- A270 EGU2011-14086
Heather Holmes, Michael Schatzmann, and Bernd Leitl
Quality assurance methods for models used in wind energy assessment
- A271 EGU2011-13959
Marc Diebold, Chad Higgins, Charles Meneveau, Andreas Bechmann, and Marc Parlange
Large Eddy Simulation of flow over hills: comparison with wind tunnel and field observations
- A272 EGU2011-14082
Valerio Iungo, Wei Zhang, Corey Markfort, and Fernando Porte-Agel
Wind tunnel study of multiple wake interactions in wind farms with different layouts
- A273 EGU2011-12457
Mahdi Abkar and Fernando Porté-Agel
Large-eddy simulation of turbulent flow past a rough-to-smooth surface transition: the effect of surface boundary conditions

- A274 EGU2011-12235
Hao Lu and Fernando Porte-Agel
A modulated gradient model for passive scalar transport in large-eddy simulations of neutral atmospheric boundary layer
- A275 EGU2011-5887
Daniel Nadeau, Eric Pardyjak, Chad Higgins, Hendrik Huwald, Fabian Baerenbold, Eulalie Sauthier, and Marc Parlange
Thermal circulation patterns and turbulent fluxes along steep mountain slopes
- A276 EGU2011-8064
Jiannong Fang, Marc Diebold, Chad Higgins, and Marc Parlange
Towards oscillation-free implementation of the immersed boundary method with spectral-like methods for direct and large-eddy simulation
- A277 EGU2011-10607
Chad Higgins, Martin Froidevaux, Valentin Simeonov, Gabriel Katul, and Marc Parlange
Field Measurements of spatial and temporal turbulence statistics: testing ergodicity with a Raman Lidar.
- A278 EGU2011-14058
Martin Froidevaux, Chad Higgins, Valentine Simeonov, and Marc Parlange
Simple atmospheric turbulence analysis made possible by a high resolution Raman Lidar
- A279 EGU2011-13882
Nikki Vercauteren, Hendrik Huwald, Elie Bou-Zeid, John S. Selker, Ulrich Lemmin, Marc B. Parlange, and Ivan Lunati
Evolution of Superficial Lake Water Temperature Profile Under Diurnal Radiative Forcing
- A280 EGU2011-9566
Elie Bou-Zeid and Stimit Shah
Large eddy simulation of statically stable atmospheric boundary layers: the effect of stability on SGS modeling
- A281 EGU2011-12749
Miguel Barrios and Félix Francés
Parameterization of subgrid heterogeneities for hydrologic modelling
- A282 EGU2011-13956
Isabel de Lima
Scaling analysis tools applied to high-resolution rainfall time series
- A283 EGU2011-11380
Boris Orlowsky and Sonia I. Seneviratne
Estimating the spatial representativeness of stations over Europe

HS5.4 – Advances in Modeling of Coupled Hydrologic-Socioeconomic Systems – Orals

Convener: Greg Characklis | Co-Conveners: Julien Harou, Saket Pande, Wolfgang Kinzelbach, Manuel Pulido-Velazquez, Amaury Tilmant, Jay Lund

Room: 39

Chairperson: Greg Characklis

- 08:30–08:45 EGU2011-12770
Eduardo Álvarez-Mendiola, Manuel Pulido-Velázquez, **Joaquín Andreu-Álvarez**, and Salvador Peña-Haro
Design of an efficient water pricing policy integrating resource opportunity costs at the river basin scale. Contribution to the EU Water Framework Directive.
- 08:45–09:00 EGU2011-13283
Julien Harou, Silvia Padula, and Evgenii Matrosov
Capacity expansion of supply-demand water resource systems under different regulatory drivers
- 09:00–09:15 EGU2011-6370
Saket Pande, Bart van den Boom, Hubert Savenije, and Ashvin Gosain
A parsimonious hydroeconomic modeling approach for data scarce dryland areas with application to western India
- 09:15–09:30 EGU2011-1462
Jordan Kern and Gregory Characklis
Influence of De-Regulated Electricity Markets on Hydropower Generation and Downstream Flow Regime
- 09:30–09:45 EGU2011-10911
Amaury Tilmant, Wolfgang Kinzelbach, and Quentin Goor
The cost of non-cooperation in river basin management: the cases of the Nile and the Zambezi basins
- 09:45–10:00 EGU2011-2289
Joseph Kasprzyk, Patrick Reed, Gregory Characklis, and Brian Kirsch
Many-Objective de Novo Water Supply Portfolio Planning Under Deep Uncertainty

HS5.4 – Advances in Modeling of Coupled Hydrologic-Socioeconomic Systems – Posters

Convener: Greg Characklis | Co-Conveners: Julien Harou, Saket Pande, Wolfgang Kinzelbach, Manuel Pulido-Velazquez, Amaury Tilmant, Jay Lund

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Greg Characklis

- A284 EGU2011-1908
Paolo Perona and David J. Dürrenmatt
An inverse technique to estimate the parameters of riparian marginal benefit functions
- A285 EGU2011-1993
Consuelo Varela-Ortega, Irene Blanco-Gutiérrez, Christopher H. Swartz, and Thomas E. Downing
Adaptive Response of Water and Human Systems to Water and Agricultural Policies under Climate Uncertainties
- A286 EGU2011-2435
Jennifer Koch, Martina Flörke, Rüdiger Schaldach, Tim aus der Beek, Ellen Kynast, and Christina Kölking
Effects of socioeconomic development on land use and irrigation requirements
- A287 EGU2011-3823
Harrison Zeff and Greg Characklis
Improving Water Utility Financial Stability in the Face of Extreme Weather
- A288 EGU2011-5067
Irene Blanco-Gutiérrez, Consuelo Varela-Ortega, and David R. Purkey
Balancing competing water demands in intensively-irrigated regions: A hydro-economic analysis of cross-scale interactions between natural and socio-economic systems
- A289 EGU2011-5757
Rolf Kappel, Haitao Li, Wolfgang Kinzelbach, Wenpeng Li, and Xingunag Dong
Water policies for sustainable agriculture in the Yanqi Basin, China.
- A290 EGU2011-6387
Fabrizio Mari, Eva Iglesias Martinez, and Stefano Casadei
An example of integration between an economic and a hydrologic model in the framework of water resource management problems
- A291 EGU2011-6915
Hypatia Nassopoulos, Patrice Dumas, and Stéphane Hallegatte
Assessment of operating rule modification for adaptation to climate change at the regional level: An application of the generic tool on the Mediterranean basin
- A292 EGU2011-7446
Jos Timmermans, Jan Kwakkel, Nick van de Giesen, and Wil Thissen
Blue limits of the Blue Planet: an exploratory analysis of safe operating spaces for human water use under deep uncertainty
- A293 EGU2011-7743
Shafiqul Islam and Lawrence Susskind
Water Diplomacy: Managing the science, policy, and politics of water networks through negotiation
- A294 EGU2011-8049
Ingo Heinz and Amani Alfarra
The integration of economics in the WEAP Water Evaluation and Planning System
- A295 EGU2011-8480
Andrea Castelletti, Paolo Tesini, Amaury Tilmant, and Enrico Weber
Re-operating a system of multiple reservoirs to reconcile intersectoral competition for water: The Kafue River Basin in Zambia
- A296 EGU2011-9039
Niels Riegels, Valerie Sturm, Roar Jensen, Charalampos Doulgeris, Flemming Møller, and Peter Bauer-Gottwein
Using hydro-economic modeling to investigate trade-offs between ecological and economic water management objectives
- A297 EGU2011-12705
Mahyar Naseri Moghaddam, Kamran Davari, Bijan Ghahreman, Seyyed Majid Hashemi Nia, Ali Farid, and Sadegh Ghazanfari
Hydrological investigation of Shahid-Yaqoobi dam: A successful design?
- A298 EGU2011-8252
Ximing Cai, Jianshi Zhao, and Tongtiegang Zhao
Economics on reservoir operation
- A299 EGU2011-11574
Carlos Llopis-Albert, **Salvador Peña-Haro**, and Manuel Pulido-Velázquez
Stochastic hydro-economic modelling for groundwater nitrate pollution control under uncertainty. Application to El Salobral-Los Llanos case study, Spain

HS5.6 – Water quality modeling: from research tools to information systems for stakeholders and managers – Orals

Convener: Nicolas Flipo | Co-Conveners: Laurent Martin

Room: 39

Chairperson: Nicolas Flipo & Laurent Martin

10:30–10:40 Introduction

10:40–10:55 EGU2011-12047

Jean-François Delière, Etienne Everbecq, Aline Grard, Tayeb Bourouag, Caroline Blockx, and Pol Magermans

PEGASE A model dedicated to Surface Water Quality Assessment that help stakeholders for implementing the WFD

10:55–11:00 Extension for solicited speakers

11:00–11:15 EGU2011-8522

Michel Poulin, Nicolas Flipo, and Sébastien Legruel

The River Seine ecosystem and the Greater Paris : modeling to manage a high environmental pressure

11:15–11:30 EGU2011-8819

Annie Fiandrino and the OMEGA-Thau Team

Escherichia coli Maximum Allowable Daily Loads (MADL): an environmental management tool to improve the microbiological quality of the Thau lagoon water (France)

11:30–11:45 EGU2011-8158

Vincent Chanudet, Violaine Fabre, Frédéric Guérin, Dominique Serça, Chandrashekhar Deshmukh, and Stéphane Descoux

From science to management: the case of the Nam Theun 2 Reservoir model

11:45–12:00 EGU2011-3334

Vincent Faure, Christel Pinazo, Marion Fraysse, and Ivane Pairaud

3D coupled physical-biogeochemical modelling of the Bay of Marseille: role of the physical forcing on the modulation of natural and anthropogenic nutrient inputs

HS5.6 – Water quality modeling: from research tools to information systems for stakeholders and managers – Posters

Convener: Nicolas Flipo | Co-Conveners: Laurent Martin

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Nicolas Flipo & Laurent Martin

A300 EGU2011-2670

Emma Gouze, Laurent Martin, Nathalie Durand, Jean-Michel Hervouet, Chi-Tuan Pham, Emile Razafindrakoto, and Agnès Bourret

In situ continuous real-time monitoring and 3D modelling of hydrodynamics and eutrophication in the Berre Lagoon (France)

A301 EGU2011-12544

Edwige Polus, Nicolas Flipo, Chantal de Fouquet, and Michel Poulin

Combining geostatistics and process-based water quality model to improve estimation along a stream network. Example of dissolved oxygen in the Seine River from the Greater Paris to its estuary.

A302 EGU2011-12441

Nicolas Jeannée, Annie Fiandrino, Valérie Derolez, and Ophélie Serais

Combined use of physically based models and geostatistics to understand microbial contamination in the Thau lagoon (France)

A303 EGU2011-13483

Guillaume Bernard and Philippe Picon

Restoration of seagrass meadows in the Berre lagoon needs scientific understanding of local hydro-sedimentary processes

A304 EGU2011-9129

Nathalie Lalande, Flavie Cernesson, Stéphane Dray, Marie-George Tournoud, Thierry Tormos, and Pascal Kosuth

How summarize ecological status for an operational model Pressures/States ?

A305 EGU2011-11949

Bruno J. Lemaire, Brigitte Vinçon-Leite, Emna Sellami, Briac Le Vu, Sophie Potin, Dimitri Couturier, Jean-François Humbert, Catherine Quiblier, Catherine Freissinet, Michel Calzas and the Proliphyc_Grangent Team

A simplified model for a warning system of harmful algal blooms in lakes, application to Grangent reservoir (France)

A306 EGU2011-10485

Dolorinda Daniele, Antonio Pulido-Bosch, and Angela Vallejos

Assessment of complex aquifers using GIS tools: an evolution overview of the Campo de Dalias (SE Spain)

- A307 EGU2011-2055
Alicja Sobantka, Helmut Rechberger, and Mathias Zessner
The extended statistical entropy analysis: a quantitative evaluation tool to support decision making; case study: wastewater treatment plants
- A308 EGU2011-2064
Alicja Sobantka, Helmut Rechberger, Stefan Lindtner, and Mathias Zessner
Extended statistical entropy analysis for improving benchmarking of wastewater treatment plants
- A309 EGU2011-2651
Karen Lin and Ching-Pin Tung
Modeling of the On Site Gravel Contact Oxidation Process
- A310 EGU2011-11918
Tatyana Lyubimova, Anatoly Lepikhin, Yanina Parshakova, Alexey Tiunov, Vladimir Konovalov, and Natalya Shumilova
Numerical simulation of density stratification in the solution of the problem of selective water intake from reservoirs
- A311 EGU2011-5829
Carsten Lorz, Fabio Bakker, Christine Fürst, Henrique Llacer Roig, and Franz Makeschin
Letsmap do Brasil - a web-based planning support tool for sediment management in river basins of Western Central Brazil
- A312 EGU2011-12109
Talita Silva, Brigitte Vinçon-Leite, Bruno J. Lemaire, Briac Le Vu, Catherine Quiblier, François Prévot, Catherine Freissinet, Michel Calzas, Yves Dégrés, and Bruno Tassin
Water quality in urban lakes: From continuous monitoring to forecasting. Application to cyanobacteria dynamics in Lake Enghien (France).
- A313 EGU2011-12467
Nicolas Jeannée, Rayna Charlatchka, Jean-Louis Bouchet, Claire Faucheux, and Eve Delahaye
Geostatistical modeling of sediments quality upstream river dams

HS6.2 – Remote sensing of soil moisture – Orals

Convener: Patricia de Rosnay | Co-Conveners: Wolfgang Wagner, Alexander Loew, Niko Verhoest

Room: 34

Chairperson: Joaquin Muñoz Sabater

- 08:30–08:45 EGU2011-9460
Yann Kerr, Philippe Richaume, Philippe Waldteufel, François Cabot, Arnaud Mialon, Elsa Jacquette, Ahmad AlBitar, Ali Mahmoodi, Steven Delwart, and Susanne Mecklenburg
SMOS : One year in orbit - First results
- 08:45–09:00 EGU2011-8283
Claire Gruhier, Thierry Pellarin, Richard de Jeu, Patricia de Rosnay, and Yann Kerr
SMOS Soil Moisture product evaluation over West Africa
- 09:00–09:15 EGU2011-6475
Clément Albergel, Elena Zakharova, Jean-Christophe Calvet, Mehrez Zribi, Mickael Parde, Jean-Pierre Wigneron, Nathalie Novello, Yann Kerr, and Arnaud Mialon
A first assessment of the SMOS data in southwestern France using in situ and airborne soil moisture estimates: the CAROLS airborne campaign
- 09:15–09:30 EGU2011-8146
Vahid Naeimi, Wolfgang Wagner, Christoph Paulik, Richard Kidd, Roselyne Lacaze, and Hassan Makhmara
Toward an operational production of ASCAT Soil Water Index (SWI) for the GMES Land Monitoring Service
- 09:30–09:45 EGU2011-3178
Sebastian Hahn and Wolfgang Wagner
Characterisation of Calibration-Related Errors of the Initial METOP ASCAT Soil Moisture Product

COFFEE BREAK

Chairperson: Wolfgang Wagner

- 10:30–10:45 EGU2011-449
Stefan Hasenauer, Wolfgang Wagner, Barbara Zeiner, Alexander Jann, Patricia de Rosnay, and Clément Albergel
H-SAF soil moisture products based on METOP-ASCAT scatterometer data

- 10:45–11:00 EGU2011-7721
Luca Brocca, Florisa Melone, Tommaso Moramarco, Patrick Matgen, and Wolfgang Wagner
 Reliable validation of soil moisture estimates from ASCAT and AMSR-E sensors through four different approaches
- 11:00–11:15 EGU2011-8256
Ming Pan, Alok Sahoo, and Eric Wood
 Soil Moisture Retrieval Using Multi-Channel Passive Microwave Measurements through Improved Radiative Transfer Modeling
- 11:15–11:30 EGU2011-6765
Patricia de Rosnay, Joaquin Muñoz Sabater, Clément Albergel, Gianpaolo Balsamo, Klaus Scipal, and Matthias Drusch
 Use of satellite data for soil moisture analysis at ECMWF
- 11:30–11:45 EGU2011-7210
Jimenez Carlos, Aires Filipe, Prigent Catherine, Clark Douglas, Blyth Eleanor, and Kolassa Jana
 Joint analysis of global soil moisture modeled fields and related satellite observations
- 11:45–12:00 EGU2011-94
Lu Dong and Ralf Ludwig
 Retrieving surface soil moisture by a multi-angle and multi-sensor approach using active radar imagery for field-scale studies in a semi-arid environment
- 12:00–12:15 EGU2011-10894
 Hans Lievens, Sonia Heitz, Julien Minet, Sebastien Lambot, Marnik Vanclooster, Patrick Matgen, Lucien Hoffmann, and **Niko E. C. Verhoest**
 On the potential of high-resolution C-band SAR for mapping within-field soil moisture variability

HS6.2 – Remote sensing of soil moisture – Posters

Convener: Patricia de Rosnay | Co-Conveners: Wolfgang Wagner, Alexander Loew, Niko Verhoest

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Niko Verhoest

- A314 EGU2011-919
Sandy Peischl, Jeffrey Walker, Dongryeol Ryu, and Yann Kerr
 Towards soil moisture retrieval using multi-incidence angle observations
- A315 EGU2011-3577
Mohammad Reza Mahmoudzadeh Ardekani, Bas van Wesemael, Khan Zaib Jadoon, and Sébastien Lambot
 Evaluating of direct ground wave (DGW) method and ground surface-waveform inversion of proximal penetrating radar for mapping shallow soil moisture in the field scale
- A316 EGU2011-6481
Jasper Van doninck, Jan Peters, Bernard De Baets, Eva M. De Clercq, Els Ducheyne, and Niko E.C. Verhoest
 Soil moisture estimation from multitemporal ENVISAT ASAR Wide Swath images in mountainous terrain
- A317 EGU2011-7284
Boguslaw Usowicz, Wojciech Marczewski, Jerzy Lipiec, Mateusz Iwo Lukowski, Marzena Zawadzka, and Jerzy Bogdan Usowicz
 Spatial modelling of dielectric permittivity of soil
- A318 EGU2011-8875
 Alexander Loew and **Florian Schlenz**
 A dynamic approach for evaluating coarse scale satellite soil moisture products
- A319 EGU2011-10494
Ageel Bushara, Riccardo Rigon, Thomas Over, Mekonnen Gebremichael, and Christa D. Peters-Lidard
 Estimates of near-surface soil moistures during SGP97 and SGP99: ESTAR passive microwave radiometer and GEOTop model results
- A320 EGU2011-13393
Chris Zweck, Marek Zreda, and Darin Desilets
 Empirical confirmation of the sub-kilometer footprint of cosmic-ray soil moisture probes
- A321 EGU2011-12838
Giuseppe Satalino, Anna Balenzano, Valentijn Pauwels, and Francesco Mattia
 Use of dense temporal series of C-band SAR data for soil moisture retrieval over agricultural sites
- A322 EGU2011-9497
Alicia Joseph, Rogier van der Velde, Peggy O'Neill, Bhaskar Choudhury, Roger Lang, and Timothy Gish
 Effects of corn on c- and l-band radar backscatter: a correction method for soil moisture retrieval

- A323 EGU2011-11175
Thierry Pellarin, Claire Gruhier, Aaron Boone, Truong Tran, and Manuela Grippa
 Satellite-based root-zone soil moisture estimates in West Africa: Evaluation of various satellite products using model outputs and ground observations
- A324 EGU2011-11125
Christopher Hain, Wade Crow, Martha Anderson, John Mecikalski, and Thomas Holmes
 Developing a Dual Assimilation Approach for Thermal Infrared and Passive Microwave Soil Moisture Retrievals
- A325 EGU2011-7674
 Sekhar Muddu, **Sat Kumar Tomer**, Soumya Bandyopadhyay, Eric Mougin, MS Mohan Kumar, and Jean-Jacques Braun
 Modelling the uncertainty in the surface soil moisture retrieved from ASAR data using Copula
- A326 EGU2011-7816
Giuseppe Satalino, Francesco Mattia, Anna Balenzano, Rocco Panciera, and Jeffrey Walker
 Use of multi-temporal series of COSMO-SkyMed and PALSAR SAR data for landcover classification and soil moisture retrieval over agricultural sites
- A327 EGU2011-858
Sarah Abelen, Florian Seitz, Michael Schmidt, and Andreas Guentner
 An inter-comparison of soil moisture variations detected by satellite remote sensing, satellite gravimetry, and hydrological modeling
- A328 EGU2011-9928
Giuseppe Mascaro, Enrique Vivoni, and Roberto Deidda
 Statistical Disaggregation of Coarse Soil Moisture Estimates Across Different Landscapes and Climatic Regions
- A329 EGU2011-6167
Patrick Klenk, Yanfang Qin, Kefa Zhou, Jiebin Zhang, and Kurt Roth
 Towards reliable large scale soil water content estimation: GPR for measuring soil moisture in the Urumqi region
- A330 EGU2011-12895
Marek Zreda, Chris Zweck, and Darin Desilets
 COSMOS rover: measuring soil moisture using a mobile cosmic-ray probe

HS8.1.3 – Combining modelling and measuring to improve understanding of subsurface flow and transport systems

– Orals

Convener: Sander Huisman | Co-Conveners: Harry Vereecken, Jasper Vrugt, Ty P. A. Ferre

Room: 36

Chairperson: Sander Huisman

- 15:30–15:45 EGU2011-2078
Thomas Graf and Clemens Cremer
 Numerical Generation of Dense Plume Fingers in Saturated Homogeneous Porous Media
- 15:45–16:00 EGU2011-5579
Henrike Schelle, Sascha C. Iden, Johann Fank, and Wolfgang Durner
 Inverse modelling of water flow in lysimeters
- 16:00–16:15 EGU2011-6138
Max Köhne, Thomas Wöhling, Valérie Pot, and Jirka Šim?nek
 Inverse coupled simulation of soil water flow and surface runoff
- 16:15–16:30 EGU2011-4191
Philip Brunner, John Doherty, and Craig Simmons
 How useful are head observations for constraining vadose zone models?
- 16:30–16:45 EGU2011-5479
Benjamin Mirus, John Nimmo, and Keith Loague
 The role of unsaturated hydraulic-property estimation in modelling coupled surface-subsurface flow processes
- 16:45–17:00 EGU2011-4209
Jessica Davies, Keith Beven, Allan Rodhe, and Lars Nyberg
 Application of a Multiple Interacting Pathways model to a shallow hillslope hydrological tracing experiment at Gårdsjön, Sweden.
- 17:00–17:15 EGU2011-7582
Wolfgang Nowak, Yoram Rubin, and Felipe P. J. de Barros
 Optimizing field investigation strategies to answer research hypotheses

HS8.1.3 – Combining modelling and measuring to improve understanding of subsurface flow and transport systems

– Posters

Convener: Sander Huisman | Co-Conveners: Harry Vereecken, Jasper Vrugt, Ty P. A. Ferre

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Sander Huisman

- A331 EGU2011-6445
Roberto Greco and **Andrea Guida**
TDR water content profiles measurements in artificial and natural slopes covered with pyroclastic soils
- A332 EGU2011-12228
Francesco Ciocca, Marc B. Parlange, Nick Van de Giesen, and Ivan Lunati
Distributed Soil Moisture Profiles Using Heated Optical Fiber
- A333 EGU2011-10669
Martin Wolf, Johannes Kulenkampff, Frieder Enzmann, Marion Gründig, Michael Richter, and Johanna Lippmann-Pipke
Combined 3D high-resolution PET and CT measurements with lattice Boltzmann simulations of fluid flow in heterogeneous material
- A334 EGU2011-3250
Daniel Erdal and Insa Neuweiler
Estimation of effective parameters for unsaturated flow in heterogeneous porous media
- A335 EGU2011-12713
Esther Bloem, Maarten de Gee, and Ger H. de Rooij
A single parameterization for spatial and temporal spreading of solute plumes percolating in soils as observed by multi-compartment samplers
- A336 EGU2011-5280
Jessica Briseño and Graciela S. Herrera
Sensitivity analysis of state and parameter estimates obtained using a space-time ensemble Kalman filter for groundwater transport models
- A337 EGU2011-6653
Mitja Janža
Incorporating aquifer heterogeneity into groundwater flow model, Ljubljana polje aquifer case study
- A338 EGU2011-4051
Luca Carniato, Gerrit Schoups, Piet Seuntjens, and Leen Bastiaens
Calibration of a subsurface reactive transport model to assess long-term efficiency of a Permeable Reactive Barrier
- A339 EGU2011-7522
Jonas Koch, Wolfgang Nowak, and Andras Bardossy
Identification and simulation of contaminant source architecture
- A340 EGU2011-11978
Ole Klein, Olaf Ippisch, Olaf Cirpka, and Peter Bastian
Geostatistical Inversion Under Transient Flow Conditions in Heterogeneous Porous Media
- A341 EGU2011-7612
Andreas Geiges
A reverse engineering approach to optimal design of site investigation schemes and monitoring networks
- A342 EGU2011-8678
Mike Spence, Wayne Jones, and Matthew Lahvis
GWSDAT (GroundWater Spatiotemporal Data Analysis Tool)
- A343 EGU2011-11709
Koen Verbist, **Wim M. Cornelis**, Rob McLaren, and Donald Gabriels
Developing a framework for efficient runoff harvesting using a high resolution measurement-modelling approach
- A344 EGU2011-13105
Marianne Ruidisch, Sebastian Arnhold, Janine Kettering, Peng Zhao, and Bernd Huwe
Effects of ridge cultivation on soil water dynamics during monsoon season in South Korea: An inverse modelling approach and parameter optimization
- A345 EGU2011-9321
Gleb Batrak, Stanislav Semenov, Stanislav Seleznev, and Irina Galitskaya
Use of long-term monitoring data of groundwater's level for numerical range forecasts of hydro-geological conditions change under the influence of economic activities

HS8.1.5 – Groundwater recharge: Processes and Quantification – Orals

Convener: Ulf Mohrlök | Co-Conveners: Mike Kirkby, Mark Bakker, Murugesu Sivapalan, Ty P. A. Ferre

Room: 39

Chairperson: Ulf Mohrlök

- 13:30–13:45 EGU2011-7555
Erwin Zehe and Theresa Blume
Groundwater recharge and land surface/vadose zone hydrology - is there a connection?
- 13:45–14:00 EGU2011-911
Andreas Hartmann, Jens Lange, Markus Weiler, Youval Arbel, and Noam Greenbaum
Modeling the variability of karstic recharge - a multi-objective approach
- 14:00–14:15 EGU2011-1549
Hossein Hashemi, Ronny Berndtsson, and Mazda Kompani-Zare
Modeling Groundwater Recharge in a System for Flash Flood Water Harvesting
- 14:15–14:30 EGU2011-3188
Mark Cuthbert
An improved time series approach for estimating groundwater recharge from groundwater level fluctuations
- 14:30–14:45 EGU2011-65
Ian Jolly and the Ian Jolly Team
Recharge and discharge estimation in data poor areas of Australia
- 14:45–15:00 EGU2011-3931
Ciaran Harman, Suresh Rao, Nandita Basu, Gavan McGrath, Praveen Kumar, and Murugesu Sivapalan
Climate, soil and vegetation controls on the temporal variability of recharge and solute delivery to groundwater

HS8.1.5 – Groundwater recharge: Processes and Quantification – Posters

Convener: Ulf Mohrlök | Co-Conveners: Mike Kirkby, Mark Bakker, Murugesu Sivapalan, Ty P. A. Ferre

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Mark Bakker

- A346 EGU2011-14134
Ty P. A. Ferré, Becky A. Witte, Michel Bechtold, Paul Brooks, Kathleen Lohse, and Andrew Hinnell
Evaluating Hydraulic Responses of Soils to Cyclic Infiltration
- A347 EGU2011-8018
Roland Barthel, Jie Zhang, Jan van Heyden, and David Bendel
Combination of soil-water balance models and water table fluctuation methods for improvement and validation of recharge calculations
- A348 EGU2011-6206
Ulf Mohrlök
Estimating groundwater recharge by accounting for storage and residence times in unsaturated zone with spatially variable properties
- A349 EGU2011-3814
Gustavo Ferreira, Marta Marizza, and **Leticia Rodriguez**
Estimating groundwater levels from a simple water balance and evapotranspiration calculated with remotely sensed data
- A350 EGU2011-2890
Heike Pfletschinger, Irina Engelhardt, and Christoph Schüth
Vadose zone water fluxes under arid conditions - bench-scale soil column experiments and 1D-modeling
- A351 EGU2011-12726
Thomas Müller, Khalid Al-Mashaikhi, and Gerhard Strauch
Using a large scale groundwater model to quantify water resources availability in an arid aquifer system
- A352 EGU2011-6783
Olaf Ippisch, Markus Blatt, and Peter Bastian
Massive parallel simulation of large scale subsurface flow
- A353 EGU2011-3159
Bertrand Leterme and Dirk Mallants
Estimation of future groundwater recharge using climatic analogues and HYDRUS-1D
- A354 EGU2011-5368
Jungwei Chen, Kuanwei Chen, Sunzone Lee, and Chenghaw Lee
Evaluation the river seepage and groundwater drawdown under pumping near riverbank
- A355 EGU2011-12150
Neil Coles, Carlos Ocampo, and Todd Stokes
Surface water-groundwater interactions: a major contributor to secondary salinity development in semi-arid areas of south-western Australia?
- A356 EGU2011-14024
Richard P. Silberstein, John D. Byrne, Warrick R. Dawes, and Natalie F. Smart
Can aquifer recharge be increased by more frequent burning of forest cover?

- A357 EGU2011-11745
Chiara Calligaris, **Luca Zini**, Francesco Treu, Daniela Iervolino, Federica Lippi, and Franco Cucchi
Resurgence belt discharge as indirect indicator of withdrawal magnitude and sustainability.
- A358 EGU2011-2683
Christian Dominguez, **Alexandre Pryet**, Pilar Fuente-Tomai, Sophie Violette, Marcos Villacís, and Noémi d'Ozouville
Fog interception and redistribution of rainfall by vegetation as controlling factors of recharge rates: a case-study in Galápagos Islands
- A359 EGU2011-5451
Benjamin Mirus, Kim Perkins, and John Nimmo
A source-responsive approach for modelling rapid groundwater recharge via unsaturated-zone preferential flow
- A360 EGU2011-9159
Tobias Geyer, Joanna Doummar, Sebastian Schmidt, Thomas Reimann, and Martin Sauter
Location of the rapid recharge area in karst catchments by the combined analysis of spring responses and artificial tracer tests

HS8.2.9 – Sedimentary basins as active fluid circulation systems – Orals

Convener: David Hindle | Co-Conveners: Sabine Attinger, Piotr Krzywiec

Room: 34

Chairperson: David Hindle

- 15:30–15:45 EGU2011-3005
Jonas Kley and the INFLUINS Team
INFLUINS: Investigating fluid flow between surface and deep levels of sedimentary basins: The Thuringian Basin as a geolaboratory
- 15:45–16:00 EGU2011-4310
David Hindle and Heidrun Kopp
Coupled fluid flow and deformation in sedimentary basins over geological timescales: A numerical modelling approach for accretionary prisms.
- 16:00–16:15 EGU2011-6279
Sophie Violette, Julio Gonçalves, Anne Jost, Raffaella Vivona, Camille Contoux and the 3D-PBM Team
3D-Paris basin Modelling: How past geological history explains its present day hydrodynamics
- 16:15–16:30 EGU2011-6504
Elco Luijendijk, Paul Andriessen, Mark Person, Ronald van Balen, and Marlies ter Voorde
Tracing a fossil hydrothermal system using thermochronology and numerical modeling
- 16:30–16:45 EGU2011-11966
Denis Bureau, Joe Cartwright, and Regis Mourgues
Exploitation of mechanical weaknesses by sandstone intrusions
- 16:45–17:00 EGU2011-1408
Klaus Hebig, Narimitsu Ito, Traugott Scheytt, and Atsunao Marui
Parameter determination in a deep coastal sedimentary basin by single-well ("push-pull") tests

HS8.2.9 – Sedimentary basins as active fluid circulation systems – Posters

Convener: David Hindle | Co-Conveners: Sabine Attinger, Piotr Krzywiec

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A362 EGU2011-5070
Alraune Zech, Bjoern Zehner, Thomas Fischer, Olaf Kolditz, and Sabine Attinger
Modelling of thermohaline circulation in sedimentary basins
- A363 EGU2011-7151
Ronny Stolz, Andreas Chwala, Viatcheslav Zakosarenko, Marco Schulz, Matthias Schmelz, Sven Linzen, Hans-Georg Meyer, Matthias Meyer, and Nikolai Bondarenko
SQUID based instrument for investigation of magnetic structures
- A364 EGU2011-9392
Arkadiusz K. Wieczorek and Kai U. Totsche
Atomic Force Microscopy as a tool to characterize groundwater colloids
- A365 EGU2011-10283
Pierre Durst, **Eline Malcuit**, Philippe Negrel, and Emmanuelle Petelet-Giraud
Impact of sedimentologic and structural evolution of the Aquitaine Basin on actual water quality. Eocene sand aquifer, south western France.

- A366 EGU2011-12819
Norbert Kasch, Jens Köster, Robert van Geldern, Markus Wehrer, and **Jonas Kley**
Burial, exhumation and fluid flow in a Buntsandstein aquifer, central Germany
- A367 EGU2011-12853
Alexander Malz, **Stephan Donndorf**, and Jonas Kley
Late Cretaceous inversion tectonics in the Thuringian Basin (Germany) - The Finne Fault Zone as an example of a differentially inverted graben system
- A368 EGU2011-13383
Maria Brey, Juraj Majzlan, and **Michael Abratis**
Mineralizing fluids related to barite-fluorite fissure mineralizations at the southern edge of the Thuringian Basin, Germany
- A369 EGU2011-13743
Bjoern Zehner
Extending Gocad to improve the modelling - simulation - visualization workflow.
- A370 EGU2011-13819
Daniel Beyer, Cindy Kunkel, Ulrike Hilse, Michaela Aehnelt, Dieter Pudlo, Thomas Voigt, and Reinhard Gaupp
Reservoir properties and fluid circulation in Buntsandstein aquifer sandstones of the Thuringian Basin in Central Germany
- A371 EGU2011-13821
Ulrike Hilse, Dieter Pudlo, and Reinhard Gaupp
Element mobilization and mineral (re-)precipitation in sedimentary rocks from Central Germany on a microscopic scale
- A372 EGU2011-13839
Thomas Fischer, Björn Zehner, Alraune Zech, Sabine Attinger, and Olaf Kolditz
A vertically integrated 2D groundwater model of the Thuringian basin.

HS8.3.1 – Soil-plant interactions from the rhizosphere to field scale – Orals

Convener: Mathieu Javaux | Co-Conveners: Jan Vanderborght, Martine van der Ploeg, Nadia Ursino

Room: 38

Chairperson: Martine van der Ploeg

- 15:30–15:45 EGU2011-11191
Yangmin X Kim, Mohsen Zarebanadkouki, Doris Vetterlein, Ernst Steudle, and Andrea Carminati
Measurements of water transport across soil and root using a root pressure probe and a pressure chamber
- 15:45–16:00 EGU2011-13530
Markus Berli, Siul A. Ruiz, Jazmin E. Aravena, Lilly Bolduc, Teamrat A. Ghezzehei, Daniel P. Cook, Manoj Menon, Scott W. Tyler, and Michael H. Young
Simulating rhizosphere structure alterations using finite element calculations
- 16:00–16:15 EGU2011-6104
Youri Rothfuss, Thierry Bariac, Jean-Louis Durand, Philippe Biron, Patricia Richard, and Zacharia Boujamlaoui
Use of water stable isotopes (^{18}O) for Hydraulic Lift characterization
- 16:15–16:30 EGU2011-10749
Pieter Janssens, Jan Diels, Jan Vanderborght, Frank Elsen, Annemie Elsen, Tom Deckers, and Hilde Vandendriessche
Assessment of the root distribution and root water uptake pattern of a pear tree
- 16:30–16:45 EGU2011-1976
Quirijn de Jong van Lier, Angelica Durigon, Marcos Alex dos Santos, Jos C. van Dam, and Klaas Metselaar
Root water uptake modeling compared to field experiments in Brazil
- 16:45–17:00 EGU2011-9765
Valentin Cuvreur and Mathieu Javaux
Bottom-up design of a root water uptake model to simulate water dynamics at the field scale
- 17:00–17:15 EGU2011-6690
Valeria Volpe, John Albertson, Gabriel Katul, and Marco Marani
Plant adaptation in saline environments and effects on root water uptake

HS8.3.1 – Soil-plant interactions from the rhizosphere to field scale – Posters

Convener: Mathieu Javaux | Co-Conveners: Jan Vanderborght, Martine van der Ploeg, Nadia Ursino

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Mathieu Javaux

- A373 EGU2011-13717
Abbas Dara, Andrea Carminati, Ahmad B. Moradi, Sascha Oswald, and Peter Vontobel
Dynamics of Root Responses to Water Heterogeneity in Soil Using Neutron Radiography
- A374 EGU2011-1810
José Carlos Casagrande, Rodolfo Martins Bonilha, Marcio Roberto Soares, Debora Sabonaro Zunkeller, Rose Mary Reis-Duarte, and Maria Leonor R. C. Lopes Assad
Root System Distribution and Soil Sampling in Restinga Forest Ecosystem
- A375 EGU2011-1860
Sarah Garre, Loïc Pagès, Mathieu Javaux, Jan Vanderborght, and Harry Vereecken
Parameterizing the Root System Development of Summer Barley using Minirhizotron Data
- A376 EGU2011-3121
Véronique Chaplain, Pauline Défossez, Ghislaine Delarue, Guy Richard, Daniel Tessier, and Jean Roger-Estrade
Effects of grassland on bulk density of soil and mechanical resistance
- A377 EGU2011-11652
Peter Hartmann and Klaus von Wilpert
Identification of soil properties affecting fine root distributions in forest soils
- A378 EGU2011-5065
Eckart Priesack, **Sebastian Bittner**, and Michael Janott
Applications of a new model of water flow in soil-plant systems
- A379 EGU2011-7980
Mohsen Zarebanadkouki, Andrea Carminati, Ahmad Moradi, Hans-Jörg Vogel, Abbas Dara, Hanna Esser, Stefan Hartmann, and Nikolay Kardjilov
Root water uptake and root permeability measured by heavy water injection and neutron radiography
- A380 EGU2011-12506
Martine van der Ploeg, Onno Calf, and Nicole van Dam
The influence of genotype on the water stress response of Bittersweet
- A381 EGU2011-12630
Laura-Roxana Stingaciu, Mathieu Javaux, Andreas Pohlmeier, Valentin Couvreur, Jan Vanderborght, and Harry Vereecken
Modeling root water uptake with R-SWMS using magnetic resonance imaging experiments
- A382 EGU2011-8653
Martin Šanda, Tomáš Haase, and Jan Wild
Combined thermal and soil moisture TDT standalone unit.
- A383 EGU2011-11257
Arlène Besson, **Maud Seger**, Guillaume Giot, Bernard Nicoullaud, and Isabelle Cousin
Compaction effect on the availability of water stocks for crops
- A384 EGU2011-12065
Christina M. Schreiber, Bo Zeng, Stephan Blossfeld, Uwe Rascher, Vicky M. Temperton, Marian Kazda, Ulrich Schurr, and Arnd J. Kuhn
Rhizosphere reactions of flooding-exposed plants from Three Gorges Reservoir (TGR) area, P.R. China, monitored by means of a low-invasive and high resolving approach
- A385 EGU2011-6536
Andrea Schnepf, Daniel Leitner, Jakob Santner, Markus Puschenreiter, Walter Wenzel, and Tiina Roose
Modelling phosphate uptake by a growing oilseed rape root system as influenced by root exudation
- A386 EGU2011-6774
Martina Gocke, Wu Liang, Uta Beyersdorf, Michael Sommer, and Yakov Kuzyakov
Silicon uptake by wheat and rice: Effects of Si pools and pH
- A387 EGU2011-10143
Natalie Schröder, Mathieu Javaux, Bernhard Steffen, Bernd Körfgen, Jan Vanderborght, and Harry Vereecken
Impact of 3-D root uptake on solute transport: a numerical study
- A388 EGU2011-6751
Martina Gocke and Yakov Kuzyakov
Pedogenic carbonate recrystallization rates and periods are regulated by temperature-dependent rhizosphere processes: Relevance for paleoenvironmental applications
- A389 EGU2011-4171
José Carlos Casagrande, Rodolfo Martins Bonilha, Marcio Roberto Soares, Débora Sabonaro Zunkeller, Rose Mary Reis-Duarte, and Maria Leonor R. C. Lopes Assad
Soil Fertility Management for Restinga Forest
- A390 EGU2011-12881
Joachim Ingwersen and Thilo Streck
Root water uptake compensation in land surface modelling

Convener: Hubert H.G. Savenije | Co-Conveners: Andreas Baas, Andrea Rinaldo, Marco Toffolon, Liviu Giosan, Stefan Constantinescu, Carles Ibañez

Room: 38

Chairperson: n.n.

- 08:30–08:45 EGU2011-4867
Ping Wang, Tiffany M. Roberts, and Mark H. Horwitz
 Deposition of Deepwater Horizon oil spill on Florida and Alabama beaches: At the surface and beneath
- 08:45–09:00 EGU2011-8101
David Kelly, Nicholas Dodd, and Michiel Knaapen
 Modelling Tsunami Hydro- Morphodynamics For Real World Applications
- 09:00–09:15 EGU2011-1616
Thorsten Albers and Nicole von Lieberman
 Limits of sediment transport formulas in the Wadden Sea - Comparison of measured and computed transport rates
- 09:15–09:30 EGU2011-7627
Andrea D'Alpaos, Simon Marius Mudd, and Luca Carniello
 Analytical solutions for salt-marsh equilibrium states and transient dynamics
- 09:30–09:45 EGU2011-6644
Luana Stefanon, Luca Carniello, Andrea D'Alpaos, and Stefano Lanzoni
 Laboratory observations on tidal network growth and development
- 09:45–10:00 EGU2011-13210
Fantina Madricardo, Jaroslaw Tegowski, and Sandra Donnici
 A multidisciplinary approach for tidal palaeochannel reconstruction: a case study from the lagoon of Venice

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2011-7081
Albert Kettner, Fei Xing, Andrew Ashton, Mark Hannon, Carles Ibañez, and Liviu Giosan
 Unraveling the impact of humans versus climate on the morphological evolution of the Ebro Delta, Spain.
- 10:45–11:00 EGU2011-8495
Gilles Erkens, Kim Cohen, and Hans Middelkoop
 Quantification of the impact of pre-historic land use on suspended sediment accumulation in the Rhine delta
- 11:00–11:15 EGU2011-4564
Liviu Giosan
 Are Old World Deltas Human Constructs?
- 11:15–11:30 EGU2011-1760
Carles Ibañez, Liviu Giosan, Enrique Reyes, and John W. Day
 The Response of Deltas to Sea Level Rise under Natural- and Human-impacted Conditions
- 11:30–11:45 EGU2011-5250
Paul Liu
 Fates of River-Derived Sediments to the Sea: Longshore vs cross-shelf transport
- 11:45–12:00 EGU2011-5305
Andrew Ashton, Liviu Giosan, Albert Kettner, Eric Hutton, and Carles Ibanez
 Influence of wave angle distribution and sediment supply variation on plan-view delta morphology: application to the Ebro Delta, Spain

HS10.1/GM8.1 – Coasts, Estuaries and Deltas (co-organized) – Posters

Convener: Hubert H.G. Savenije | Co-Conveners: Andreas Baas, Andrea Rinaldo, Marco Toffolon, Liviu Giosan, Stefan Constantinescu, Carles Ibañez

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: n.n.

- A391 EGU2011-6464
Kwang Hee Choi, Yeong Bae Seong, Pil Mo Jung, and Su Yong Lee
 Pleistocene origin of the shore platforms defined by cosmogenic ¹⁰Be exposure dating, west coast of Korea

- A392 EGU2011-3176
Antonio Jabaloy Sánchez, Francisco José Lobo, Antonio Azor, Patricia Bárcenas, Luis Miguel Fernández-Salas, Víctor Díaz del Río, José Vicente Pérez-Peña, and Mercedes Vázquez-Vílchez
 Holocene coastline changes in the Guadalfeo River deltaic system of SE Spain
- A393 EGU2011-3392
Sukran Acikel, Mehmet Ekmekci, Levent Tezcan, Turker Kurttas, and Deniz Ozbek
 Conceptualization of a Brackish Coastal Karst System: Implications For Resilience of a Groundwater Dependent Wetland
- A394 EGU2011-3293
Elena Brambilla, Frédéric Bouchette, Georgios Sylaios, Nicolas Robin, and Raphael Certain
 Net Seaward sEdiment Transport during Storms (NESTS) at the beach of Sète, NW Mediterranean Sea
- A395 EGU2011-4953
Philippe Larroudé, Mehdi Daoui, Nicolas Robin, and Raphaël Certain
 Comparison of sediment transport formulae 2DH simulation of several storms on a sandy beach
- A396 EGU2011-5335
Andrew Ashton and Alejandra Ortiz
 Overwash controls of basic barrier response to sea-level rise and the potential for transgressive instabilities
- A397 EGU2011-6659
Oleg Andrejev, Alexander Sokolov, Tarmo Soomere, and Kai Myrberg
 Construction of environmentally friendly fairways based on properties of Lagrangian surface transport
- A398 EGU2011-12551
Mohamed Maanan, Agnès Baltzer, and Marc Robin
 Coastal sediment budget and shoreline changes for the Noirmoutier Island (France)
- A399 EGU2011-13848
Iris Möller, Jasmin Mantilla-Contreras, Tom Spencer, and Adrian Hayes
 Wave-vegetation interactions within Baltic coastal reed beds
- A400 EGU2011-9759
David Hill, Sierd de Vries, Matthieu de Schipper, and Marcel Stive
 Remote sensing of coastal waves using stereo imaging
- A401 EGU2011-7731
Ying Zhang and Huan Li
 A New Method Exploration on the Measurements of the Sand Ridges Changes in Exposed Radial Sand Ridges Area by means of Remote
- A402 EGU2011-1697
Cristina Da Lio, Andrea D'Alpaos, and Marco Marani
 Biomorphological modeling of tidal landscapes: the role of physical and biological processes in determining equilibrium states and transient dynamics
- A403 EGU2011-13255
Marco Marani, Andrea D'Alpaos, Marco Santalucia, and Stefano Lanzoni
 Marsh margin retreat due to wind waves
- A404 EGU2011-2195
Christian Ferrarin, Franco Arena, Miro Gaži?, Giuliano Lorenzetti, Isac Mancero-Mosquera, Giulia Manfé, Georg Umgieser, and Luca Zaggia
 Hydrodynamic circulation and sediment transport along the Venice Lagoon littoral
- A405 EGU2011-12197
Chiara De Capitani di Vimercate, Nicoletta Tambroni, and Giovanni Seminara
 Is tidal flat hydrodynamics dominantly dissipative?
- A406 EGU2011-2667
Axel Winterscheid
 Analysis of the near-bed morphological processes in a sediment trap in the Tidal Elbe near Hamburg
- A407 EGU2011-6027
Nicolette D. Volp, Guus S. Stelling, and Bram C. van Prooijen
 Accounting for a High Resolution Bathymetry in Shallow Water Simulations on a Coarse Grid
- A408 EGU2011-3070
Jacqueline Isabella Gisen and Hubert H.G. Savenije
 Salt Intrusion in Malaysian Estuaries
- A409 EGU2011-4049
Huayang Cai, Hubert H.G. Savenije, Qingshu Yang, Suying Ou, and Yaping Lei
 The influence of recent change in river discharge and bathymetry on tidal wave propagation in the Modaomen estuary, China
- A410 EGU2011-4052
Huayang Cai, Hubert H.G. Savenije, and Marco Toffolon
 Exploring linear and nonlinear solutions to the tidal hydraulic equations
- A411 EGU2011-10155
 Hou Wen-Shang, **Teng Te-Hui**, Hsieh Hwey-Lian, Chen Chang-Po, and Huang Shou-Chung
 Performance of energy-saving water exchange device used in tidal wetland to improve water quality

- A412 EGU2011-10313
Aurelia Caldararu, Gabriel Murariu, Lucian P. Georgescu, and Catalina Iticescu
The interaction between taxa metrics and environmental variables, as indicator of aquatic ecosystem state
- A413 EGU2011-12989
Maximiliano Sassi and Ton Hoitink
Towards an extension of the hydraulic geometry concept to include tidal networks
- A414 EGU2011-9386
Toru Tamura, Mark Bateman, Yoshiki Saito, Van Lap Nguyen, Thi Kim Oanh Ta, Minh Dao Le, Dan Matsumoto, and Shota Yamashita
Constraining centennial to decadal changes of a deltaic coastline over the last millennia, Mekong River delta, Vietnam
- A415 EGU2011-12914
Mikhail Lychagin, Nikolay Kasimov, and Anna Kuryakova
Environmental Geochemistry of the Volga Delta
- A416 EGU2011-11057
albert Rovira and Carles Ibáñez
Sediment Budget of the Lowermost Ebro River Basin (Catalonia, Spain)
- A417 EGU2011-12339
Alfred Vespremeanu-Stroe, Stefan Constantinescu, Luminita Preoteasa, Florin Tatui, and Liviu Giosan
Present-day changes of Sf. Gheorghe (Danube) arm mouth long-term evolution pattern
- A418 EGU2011-6794
Stefan Constantinescu, Alfred Vespremeanu-Stroe, Ionut Ovejanu, Florin Filip, and Liviu Giosan
Natural and far-field anthropogenic effects on the evolution of Sf. Gheorghe mouth
- A419 EGU2011-4898
Florin Filip, Stefan Constantinescu, and Liviu Giosan
On the evolution of Chilia distributary in Danube delta

HS10.4 – Agriculture and water resources from the hydrological point of view – Orals

Convener: Daniel Kurtzman | Co-Conveners: Natalie Ceperley, Jan Vanderborght, Ofer Dahan

Room: 34

Chairperson: Daniel Kurtzman

- 13:30–13:45 EGU2011-4535
Shmuel Assouline
Effects of long-term irrigation with treated wastewater on the hydraulic properties of a clayey soil
- 13:45–14:00 EGU2011-14112
Ivan Bevilacqua, Luca Salvai, Davide Canone, Maurizio Previati, and Stefano Ferraris
Evaluation of stem-flow effect on soil moisture distribution by an infiltration model: a method for sprinkler irrigation efficiency estimation improvement
- 14:00–14:15 EGU2011-585
Shahar Baram, Shai Arnon, Zeev Ronen, Daniel Kurtzman, and Ofer Dahan
Water Flow and Pollutant Transport Through Clay Vadose Zone Underlying Dairy Farm Waste Lagoons
- 14:15–14:30 EGU2011-3197
Ning Li, Wolfgang Kinzelbach, Haitao Li, Wenpeng Li, and Xinguang Dong
A distributed integrated flow and salt transport model of Yanqi Basin, Xinjiang, China
- 14:30–14:45 EGU2011-9126
Aaldrik Tiktak, Jos Boesten, Rob Hendriks, and Ton van der Linden
Leaching of Plant Protection Products to field ditches in the Netherlands
- 14:45–15:00 EGU2011-2218
Dieter Gerten, Jens Heinke, Holger Hoff, and Marianela Fader
Will there be enough water for global food production? Results from an indicator-based model assessment

HS10.4 – Agriculture and water resources from the hydrological point of view – Posters

Convener: Daniel Kurtzman | Co-Conveners: Natalie Ceperley, Jan Vanderborght, Ofer Dahan

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Ofer Dahan

- A420 EGU2011-4016
David Dunkerley
Interception processes and rates on vegetation in a major urban area: metropolitan Melbourne, Australia.

- A421 EGU2011-4747
Daniel Kurtzman, Roi Shapira, Tuvia Turkeltub, Avshalom Babad, and Ofer Dahan
Vadose-zone profiles under cultivated land overlaying the Israeli coastal aquifer
- A422 EGU2011-5519
Katrin Schneider, Martina Starke, Anna Klipstein, Benedikt Hahn, Lutz Breuer, and Hans-Georg Frede
Irrigation management and water use efficiency in cotton and wheat production - a case study from Ferghana Valley, Uzbekistan
- A423 EGU2011-5596
Yuejun Zheng, Haitao Li, Wenpeng Li, Xinguang Dong, and Wolfgang Kinzelbach
Water resources management using artificial groundwater recharge to replace shallow surface water reservoirs: An example from Xinjiang China
- A424 EGU2011-6900
Carlos Andres Rivera Villarreyes, Gabriele Baroni, and Sascha E. Oswald
Measurements of Cosmic-Ray Neutrons for Hydrology at the Catchment Scale: Soil Moisture and Snow
- A425 EGU2011-10065
Rudy Rossetto, Paolo Basile, Emilia Cavallaro, Stefano Menichetti, Chiara Pistocchi, Tiziana Sabbatini, Nicola Silvestri, and Enrico Bonari
Reclaimed peatland for agriculture: implications for water and farming management in Mediterranean areas
- A426 EGU2011-10255
Aurelia Caldararu, Gabriel Murariu, Lucian P. Georgescu, and Catalina Iticescu
Nitrates Directive, key tool in protecting water ecosystems against agricultural pressures
- A427 EGU2011-10321
Vincent Thieu, Gilles Billen, Josette Garnier, Christiane Lancelot, and Nathalie Gypens
Nitrogen cycling from rivers to ocean in a hypothetical scenario of integrated agriculture
- A428 EGU2011-12092
Guido Wyseure, Ma Mojid, Sk Biswas, and Abmz Zahid
The implications of (re-)use of waste-water for irrigation in Bangladesh
- A429 EGU2011-12668
Tuvia Turkeltaub, Daniel Kurtzman, Naftali Lazarovitch, and Ofer Dahan
Monitoring and modeling flow and transport through vadose zones underlying various land uses
- A430 EGU2011-12719
Eva Contreras Arribas and María José Polo Gómez
Influence of reservoirs and land use on the river contribution: case study of the Guadalquivir stuary.
- A431 EGU2011-12890
Avshalom Babad, Naftali Lazarovitch, Daniel Kurtzman, and Ofer Dahan
Influence of intensive agriculture in greenhouse on ground water quality
- A432 EGU2011-13252
José Miguel Sánchez-Pérez, Sabine Sauvage, Hélène Benquet, Caroline Casademont, Jean-Luc Probst, Georges Merlina, Eric Pinelli, and Séverine Jean
Dynamic of dissolved and particulate elements during flood events in a large intensive agricultural catchment
- A433 EGU2011-13360
Itsasne Cerro, Arantxa Goicolea, Estilita Ruiz, Sabine Sauvage, Jose Miguel Sanchez-Pérez, and Iñaki Antiguada
Dynamic of pesticides during flood events in an intensive agricultural catchment dominated by an alluvial aquifer.

HS10.5 – Hydropower production operations: abiotic and biotic effects, release management and mitigation/restoration options – Posters

Convener: Annunziato Siviglia | Co-Conveners: Knut Alfredsen, Christopher Robinson, Maria Cristina Bruno

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: A. Siviglia and M.C. Bruno

- A434 EGU2011-2753
Annunziato Siviglia, Marco Zanol, Alberto Bellin, and Guido Zolezzi
Effects of hydropeaking on the riparian aquifer
- A435 EGU2011-8304
Martin Schmid, Matteo Bonalumi, Daniel F. McGinnis, and Alfred Wüest
Simulation of the impacts of projected pumped-storage operations on temperature and turbidity in the two affected lakes
- A436 EGU2011-10852
Paolo Vezza, Piotr Parasiewicz, Michele Spairani, and Claudio Comoglio
Meso-scale habitat models for the mitigation of hydro-power impacts in high gradient streams

- A437 EGU2011-13264
Alois Lashofer, Werner Hawle, Michael Pucher, Tim Cassidy, and Bernhard Pelikan
Mitigation opportunities for obstructed river reaches by combining RES-E and WFD objectives
- A438 EGU2011-13696
Maria Cristina Bruno, Bruno Maiolini, Elisa Varolo, Mauro Carolli, Martino Salvaro, Elisabeth Slomp, and Guido Zolezzi
Assessing floodplain restoration potential through the re-use of hydropower peaking waves into nearby agricultural ditch networks
- A439 EGU2011-14092
Angela Boggero, Marzia Ciampittiello, Irene Guarneri, Claudia Dresti, and Helmi Saidi
First results about the impacts of human structures on hydromorphology, chemistry and macroinvertebrate assemblages in River Tresa (North-western Italy)
- A440 EGU2011-14095
Claudia Dresti, Marzia Ciampittiello, and Houli Saidi
The Hydroelectric Power in mountain rivers: evaluation of the optimal flow rate
- A441 EGU2011-7100
Otto Moog and Ilse Stubauer
Benthic invertebrates as ecological indicators of impounded rivers
- A442 EGU2011-10547
Bruno Maiolini, Maria Cristina Bruno, Luana Silveri, Mauro Carolli, and Elisa Varolo
Effects on the benthic community of hydropower-induced flow regime alteration
- A443 EGU2011-12017
Theodore Kennedy, Robert Hall, Wyatt Cross, Colden Baxter, Emma Rosi-Marshall, Kathrine Behn, and Theodore Melis
Artificial floods from Glen Canyon Dam benefit the tailwater rainbow trout population due to changes in the invertebrate prey base
- A444 EGU2011-13335
Robert Hall, Robert Payn, Geoff Poole, and Ted Kennedy
Calculating riverine ecosystem metabolism under unsteady flow from hydropower generation.
- A445 EGU2011-5445
Theodore Melis, Theodore Kennedy, Josh Korman, and Carl Walters
Experimental Flows from Glen Canyon Dam Reveal Surprises for Adaptive Resource Management of the Colorado River in Grand Canyon, USA

GM4.2/GMPV52/HS12.2/SSS2.15 – Erosion and Terrestrial Carbon Cycling (co-organized) – Orals

Convener: Nikolaus J. Kuhn | Co-Conveners: Martin Evans, Timothy Quine, Kristof Van Oost

Room: 21

Chairperson: Niklaus Kuhn

- 10:30–11:00 EGU2011-9652
Asmeret Asefaw Berhe, Margaret S. Torn, Jennifer W. Harden, Sarah D. Burton, Markus Kleber, and John Harte
Stabilization Mechanisms of Soil Organic Matter in Eroding Watersheds: Implications for Erosion induced Terrestrial Carbon Sequestration
- 11:00–11:15 EGU2011-2037
Jianhui Zhang, Shijun Ni, and Zhengan Su
Dual roles of tillage erosion in lateral SOC movement in the landscape
- 11:15–11:30 EGU2011-10747
Xiang Wang, Erik Cammeraat, Zhengang Wang, Gerard Govers, and Karsten Kalbitz
Stability of organic matter in soils of the Belgium Loess Belt upon erosion and deposition
- 11:30–11:45 EGU2011-12061
Shailaja Vinjili, Ruth Robinson, and Richard Bates
Investigating Peatland Hydrology and Stratigraphy using Geophysical techniques
- 11:45–12:00 EGU2011-644
Elisabet Nadeu, Asmeret A. Berhe, Joris de Vente, and Carolina Boix-Fayos
Soil organic carbon replacement and deposition in a highly eroding Mediterranean catchment

GM4.2/GMPV52/HS12.2/SSS2.15 – Erosion and Terrestrial Carbon Cycling (co-organized) – Posters

Convener: Nikolaus J. Kuhn | Co-Conveners: Martin Evans, Timothy Quine, Kristof Van Oost

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Martin Evans

- A129 EGU2011-3181
Martin Evans, **Fred Worrall**, and Gareth Clay
Interpreting carbon loss from surface recession in peatland gully systems
- A130 EGU2011-9660
Asmeret Asefaw Berhe, Jennifer W. Harden, Margaret S. Torn, and John Harte
Lateral distribution of soil nitrogen in a naturally eroding zero-order watershed
- A131 EGU2011-7079
Sebastian Dötterl, **Kristof Van Oost**, and Johan Six
Soil organic carbon pool composition in eroding landscapes and the link to topography
- A132 EGU2011-9546
Claire Goulsbra, Martin Evans, and Tim Allott
Oxidation of POC in floodplain environments, evidence from eroding blanket peatlands
- A133 EGU2011-11478
Laura Quijano-Gaudes, **Leticia Gaspar**, and Ana Navas
Soil organic carbon fractions in uncultivated and tilled profiles of mountain Mediterranean agroecosystems.
- A134 EGU2011-13426
Yaxian Hu and Wolfgang Fister
Soil organic carbon erosion from two silty loam soils - a laboratory rainfall experiment
- A135 EGU2011-13456
Wolfgang Fister and Johannes B. Ries
Wind erosion of soil organic carbon from arable land in Aragón, Spain
- A136 EGU2011-13834
Richard Jones, Phillip Owens, and **Katrina Caley**
Paleolimnological records of Holocene carbon cycling: a late-glacial - Holocene record from Boswell Lake, British Columbia
- A137 EGU2011-13836
Elisabeth Armstrong
Crusting and interrill C erosion: event characteristic and sediment C enrichment on silts and loams
- A138 EGU2011-13837
Holly Croft and **Karen Anderson**
New approaches of monitoring spatio-temporal soil organic carbon dynamics in agricultural systems
- A139 EGU2011-13840
Nikolaus J. Kuhn
A full emission balance for soil organic matter erosion
- A140 EGU2011-13925
Martin Evans, Fred Worrall, Steve Daniels, and Richard Pawson
Particulate carbon loss from eroding and restored peatlands at the plot and catchment scale
- A141 EGU2011-13928
Wolfgang Schwanghart and Thomas Jarmer
Spatial patterns of topsoil organic carbon in semi-arid areas - examples from SE Spain and Israel
- A142 EGU2011-13930
Erik Cammeraat, Michiel Moerland, and Joachim Hill
Spatial distribution of soil erosion and soil organic carbon in a semi-arid environment derived from hyperspectral images
- A143 EGU2011-13972
Kristof van Oost, Peter Fiener, Gerard Govers, and Zhi Wang
A spatially explicit and multi-class model to simulate sediment and SOC redistribution

NH1.6/HS12.8 – ICT-based hydrometeorology science and natural disaster societal impact assessment (co-organized) – Orals

Convener: Antonio Parodi | Co-Conveners: Andrea Clematis, George Craig, Dieter Kranzmueller, Nicola Rebora, Michael Schiffrs

Room: 10

Chairperson: Dieter Kranzmueller

- 13:30–13:45 EGU2011-13730
Steven Newhouse
European E-Infrastructure to Support Environmental Science
- 13:45–14:00 EGU2011-2138
Stefano Nativi
Earth Sciences Multi-disciplinary Interoperability role in Distributed Research Infrastructures
- 14:00–14:15 EGU2011-8641
Antonio Plaza
High Performance Computing in Complex Environments: Applications to Hyperspectral Remote Sensing Data Analysis

- 14:15–14:30 EGU2011-8272
Philip Kershaw, Rachana Ananthakrishnan, Luca Cinquini, Estanislao Gonzalez, Dennis Heimbigner, and Bryan Lawrence
 Access Control Architecture for the Earth System Grid Federation: Building an Infrastructure of Secured Data Access Services for the Climate Science Research Community
- 14:30–14:45 EGU2011-13780
Jim Freer and the EVOp Team
 An Environmental Virtual Observatory pilot (EVOp) for integrated catchment science - A framework for demonstrating national scale modelling of hydrology and biogeochemistry
- 14:45–15:00 EGU2011-2136
Quillon Harpham, Geoff Pearce, Gordon Glasgow, and Adrian Harper
 Fluid Earth - A Platform for Integrated Modelling Using the OpenMI Standard
- Chairperson: Antonio Parodi
- 15:30–15:45 EGU2011-8914
Albrecht Weerts and Peter Gijssbers
 Uptake of new technologies by operational hydrologic forecasting agencies
- 15:45–16:00 EGU2011-5312
Jeffery S. Horsburgh, David G. Tarboton, David R. Maidment, Ilya Zaslavsky, Daniel P. Ames, Jonathan L. Goodall, and Richard P. Hooper
 Advancing A Services Oriented Architecture for Sharing Hydrologic Data
- 16:00–16:15 EGU2011-8853
Efi Foufoula-Georgiou, Paola Passalacqua, William E. Dietrich, and Dino Bellugi
 Digital Earth: Advancing hydro-geomorphology and hazard prediction
- 16:15–16:30 EGU2011-13606
v. Chandrasekar and Masayuki Maki
 Development of Distributed Sensing Infrastructure and Flood Monitoring Systems
- 16:30–16:45 EGU2011-13752
Tiziana Paccagnella, David Richardson, Douglas Schuster, Roger Swinbank, Zoltan Toth, and Steven Worley
 TIGGE, TIGGE LAM and the GIFS
- 16:45–17:00 EGU2011-12350
Mathias Rotach, Marco Arpagaus, Manfred Doringner, Christoph Hegg, Andrea Montani, and Roberto Ranzi
 Uncertainty propagation for flood forecasting in the Alps: Different views and impacts from MAP D-PHASE

NH1.6/HS12.8 – ICT-based hydrometeorology science and natural disaster societal impact assessment (co-organized) – Posters

Convener: Antonio Parodi | Co-Conveners: Andrea Clematis, George Craig, Dieter Kranzmueller, Nicola Rebora, Michael Schiffrers

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Nicola Rebora

- XY284 EGU2011-13738
Nanette Lomarda
 Impact of weather on society: How to improve the utility of a weather forecast
- XY285 EGU2011-9309
Ole Einar Tveito, Christoph Frei and the EUMETGRID Team
 EUMETGRID - harmonized gridded climate data for Europe.
- XY286 EGU2011-13080
Carmen de Jong
 Linking ICT and Society in Early Warning and Adaptation to Hydrological Extremes in Mountains
- XY287 EGU2011-3341
Arnold Tafferner and Caroline Forster
 WxFUSION
- XY288 EGU2011-13788
Evelyne Richard, Simon Fresnay, and Dominique Lambert
 Sensitivity of precipitation forecasts to uncertainties in model physical parametrisation
- XY289 EGU2011-8580
Luis Garrote, Luis Mediero, Adriadna Chávez, Aitor Atencia, and María Carmen Llasat
 Probabilistic simulation and data assimilation with deterministic rainfall-runoff models

- XY290 EGU2011-13806
Daniele D'Agostino and Frank Seinstra
High Performance Isosurface Extraction Implementations for Hydrometeorological Data Visualization
- XY291 EGU2011-13782
Luca Ferraris, Paola Pagliara, Angela Corina, Alessandro Burastero, Paolo Campanella, Marina Morando, Nicola Rebora, and Cosimo Versace
Dewetra, an ICT-based system for multi-risk forecasting, monitoring and prevention
- XY292 EGU2011-2002
Carlos López-Vázquez
Experiments on the asymptotic behavior for some geometric data conflation algorithms
- XY293 EGU2011-2685
João Santos, Solange Leite, Marcelo Fragoso, João Sousa, Margarida Reis, Sandra Correia, and Raiden
Project participants
Lightning activity in Portugal: RAIDEN project overview
- XY294 EGU2011-13733
Tatiana Bedrina, Alfonso Quarati, Andrea Clematis, Antonio Parodi, and Roberto Rudari
Using of mashup technology for Hydro-Meteorological Research.
- XY295 EGU2011-13791
Antonella Galizia and Carmen Coteló Queijo
Exploiting the FinisTerae supercomputer to improve the characterization of spatio-temporal predictability of severe weather events
- XY296 EGU2011-13784
Antonio Parodi, Dieter Kranzlmüller, Andrea Clematis, Michael Schiffers, Nicola Rebora, George Craig, Marina Morando, Eva Trasforini, Daniele D'Agostino and the DRIHMS Team
DRIHMS (Distributed Research Infrastructure for Hydro-Meteorology Study) project
- XY297 EGU2011-13330
Danut Mihon, Teodor Stefanut, Victor Bacu, Denisa Rodila, and **Dorian Gorgan**
Grid Based Environment Oriented Tools and Applications
- XY298 EGU2011-14053
James Barsby
Insight Publishers and ICT-based hydrometeorology science

NP2.3/AS4.20/CL4.6/GM2.7/HS12.9 – Modelling and Understanding Geophysical Systems as Complex Networks (co-organized) – Orals

Convener: Reik Donner | Co-Conveners: Jürgen Kurths, Wolfgang Schwanghart, Tobias Heckmann

Room: 13

Chairperson: n.n.

- 13:30–14:00 EGU2011-5364
Efi Foufoula, Ilya Zaliapin, Stefano Zanardo, Michael Ghil, Mary Power, and Bill Dietrich
Dynamic River Networks (DRNs): a new conceptual framework for modeling spatially explicit and temporally dynamic fluxes connecting channels and landscapes
- 14:00–14:15 EGU2011-13541
A. Surjalal Sharma, Julia Cline, Aram Vartanyan, and Samuel Wascher
The magnetosphere as a multiscale complex network
- 14:15–14:30 EGU2011-2459
Norbert Marwan, Jonathan F. Donges, Friedrich-Wilhelm Gerstengarbe, Peter C. Werner, and Jürgen Kurths
Graph-theoretical analysis of regional climate variability
- 14:30–14:45 EGU2011-12674
Cristina Masoller, Marcelo Barreiro, and Arturo Marti
Inferring long memory processes in the climate network via nonlinear time series analysis
- 14:45–15:00 EGU2011-9579
Milan Palus, David Hartman, Martin Vejmelka, and Dagmar Novotna
(Tele)Connectivity in climate variability at different spatial/temporal scales in relation to solar and geomagnetic activity

NP2.3/AS4.20/CL4.6/GM2.7/HS12.9 – Modelling and Understanding Geophysical Systems as Complex Networks (co-organized) – Posters

Convener: Reik Donner | Co-Conveners: Jürgen Kurths, Wolfgang Schwanghart, Tobias Heckmann

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY435 EGU2011-12579
Tobias Heckmann and Wolfgang Schwanghart
Graph theory as a tool for the analysis of cascading systems in geomorphology
- XY436 EGU2011-11986
Wolfgang Schwanghart
Assessing the potential of time-slicing in numerical models of landscape evolution
- XY437 EGU2011-13884
Jobst Heitzig, Jonathan F. Donges, and Jürgen Kurths
Agglomerative clustering of climate networks by representation optimization
- XY438 EGU2011-11598
Jakob Runge, Jonathan Donges, and Jürgen Kurths
Climate Networks with Conditioned Links
- XY439 EGU2011-2105
Jonathan Donges, Hanna C.H. Schultz, Norbert Marwan, Yong Zou, and Jürgen Kurths
Coupled climate networks for analysing the terrestrial atmosphere's vertical dynamical structure
- XY440 EGU2011-4528
Kira Rehfeld, Norbert Marwan, Jonathan F. Donges, and Jürgen Kurths
Linear and nonlinear similarity measures for networks from irregularly sampled data
- XY441 EGU2011-12883
Reik Donner, Jonathan F. Donges, Martin H. Trauth, Norbert Marwan, and Jürgen Kurths
Large-scale transitions in Plio-Pleistocene African dust flux dynamics identified by recurrence network analysis
- XY442 EGU2011-11852
Reik Donner, Jobst Heitzig, Jonathan F. Donges, Yong Zou, Norbert Marwan, and Jürgen Kurths
The Geometry of Chaotic Dynamics - A Complex Network Perspective
- XY443 EGU2011-1749
Naoya Fujiwara and Jürgen Kurths
Parameter estimation of nonlinear dynamical systems using synchronization
- XY444 EGU2011-9725
ham ghaffari, Farzine Nasser, and Robert Paul Young
Topological Spatio-Temporal Complexity Analysis of an Evolvable Rough Fracture
- XY445 EGU2011-4661
Florin Caldararu
How Does Earth Maintain the Stability of its Rotation Motion?: An Irreversible Thermodynamics Approach
- XY446 EGU2011-5501
Ye Pu
Parallel Applications Infrastructure for the ESM

SSS2.11/HS12.14 – Linking preferential flow and structures across scales: pore to pedon to landscape (co-organized)

– Posters

Convener: Horst H. Gerke | Co-Conveners: Antonio Coppola, Nick Jarvis, Miroslav Kutilek

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Horst H. Gerke, Antonio Coppola

- Z77 EGU2011-8246
Tomas Vogel, Michal Dohnal, Jaromir Dusek, and Jana Votrubova
Dual-continuum modeling of flow and transport processes in a shallow hillslope soil
- Z78 EGU2011-10689
Antonio Coppola, Horst Gerke, Vincenzo Comegna, Alessandro Comegna, and Angelo Basile
Modelling of preferential water flow through an unsaturated expansive soils
- Z79 EGU2011-8974
Antonio Coppola, Alessandro Comegna, Vincenzo Comegna, Giovanna Dragonetti, Miles Dyck, Nicola Lamaddalena, Mohamed Kassab, and Angelo Basile
Identifying solute transport scale in an unsaturated stony soil by spectral analysis and scale dependence of transport variance
- Z80 EGU2011-789
Kirill Gerke and Roy Sidle
Visualization of subsurface preferential paths and biomat flows on forested hillslopes: experimental study
- Z81 EGU2011-793
Kirill Gerke, Roy Sidle, and Gennadiy Fedotov
Quantification of fluorescent staining tracer in soil profiles: calibration and influence of adsorption
- Z82 EGU2011-4625
Annika Badorreck and Horst H. Gerke
Visualization of soil structure modifications and infiltration patterns by ground-dwelling beetle larvae and moss vegetation

- Z83 EGU2011-9097
Donghao Ma, Claude Doussan, Arnaud Chapelet, Francois Charron, and Albert Olioso
Monitoring soil to groundwater preferential flow during border irrigation using time-lapse ERT
- Z84 EGU2011-3006
Alexander Eder and Peter Strauss
Influence of slurry application technique on P and N loading of drainage tiles
- Z85 EGU2011-4980
Mélanie Weynants and Mathieu Javaux
Land cover impact on close to saturation hydraulic properties of silt loam soils
- Z86 EGU2011-1590
Els Verachtert, Miet Van Den Eeckhaut, Jean Poesen, and Jozef Deckers
Impact of soil characteristics and land use on piping erosion - a case study from Belgium.
- Z87 EGU2011-8955
Alessandro Comegna, Antonio Coppola, Vincenzo Comegna, Gerardo Severino, and Angelo Sommella
Assesing spatial variability of selected soil hydraulic properties using analysis of internal drainage experiments
- Z88 EGU2011-3124
Miroslav Fer and Radka Kodeosva
Estimating hydraulic properties of the soil aggregates and their clay coatings from water retention and cumulative capillary rise data
- Z89 EGU2011-6355
Detlef Biemelt and Horst H. Gerke
Hysteretic soil water retention functions from field time series for initial development phases of an artificially-constructed hydrological catchment

Thursday, 07 April

BG5.1 – Integration of Environmental, Socio-Economic and Climatic Change Studies in Northern Eurasia (co-listed) – Orals

Convener: Pavel Groisman | Co-Conveners: Amber Soja, Alexey V. Eliseev, Chaba Mátyás

Room: 23

Chairperson: n.n.

- 08:30–08:45 EGU2011-5341
Evgeny Gordov, Vasily Bogomolov, Elena Genina, Igor Okladnikov, Tamara Shulgina, and Alexander Titov
 Characteristics of on-going changes of Siberia climate
- 08:45–09:00 EGU2011-12740
Eric Wood, Tara Troy, Ming Pan, Michael Rawlins, and Xiaogang Shi
 Documenting the uncertainty of the terrestrial water cycle across NESSPI and its effect on trend and attribution studies
- 09:00–09:15 EGU2011-4422
Olga Zolina, Clemens Simmer, and Sergey Gulev
 Extreme precipitation characteristics over Eurasian continent: uncertainties of estimation and climate variability
- 09:15–09:30 EGU2011-12523
Terry Callaghan, Stef Bokhorst, Ross Brown, Pavel Y. Groisman, Cecilia Johansson, Margareta Johansson, Niklas Labba, Vladimir Radionov, and Jan Åge Riseth
 Winter snow melt events in the Eurasian Arctic: consequences analysed from scientific and indigenous knowledge
- 09:30–09:45 EGU2011-3882
Reginald Muskett and Vladimir Romanovsky
 Permafrost Ecosystem Changes Across Eurasia and North America Using Multi-Satellite Measurements
- 09:45–10:00 EGU2011-9665
Vladimir Alexeev
 Tundra fires and sea ice in the Arctic

COFFEE BREAK

Chairperson: Csaba Mátyás, Alexey Eliseev

- 10:30–10:45 EGU2011-9564
Dennis Lettenmaier, Ted Bohn, Shamil Maksyutov, and Qianlai Zhuang
 Understanding the interaction of carbon and water budgets in the Eurasian Arctic
- 10:45–11:00 EGU2011-1515
Alexey V. Eliseev
 Uncertainty of climate and carbon cycle changes in North Eurasia due to uncertainty in values of terrestrial biota governing parameters
- 11:00–11:15 EGU2011-13014
Qianlai Zhuang, Jerry Melillo, David Kicklighter, John Reilly, Sergey Paltsev, Andrei Sokolov, Yongxia Cai, Anatoly Shvidenko, Nadejda Tchepakova, Andrey Sirin and the Anna Peregon and Guangsheng Zhou Team
 Changes of land use and land cover, biogeochemistry, and their feedbacks to climate in northern Eurasia
- 11:15–11:30 EGU2011-11686
Anatoly Shvidenko, Dmitry Schepaschenko, and Ian McCallum
 Productivity of Russian forests during recent decades (1960-2010s)
- 11:30–11:45 EGU2011-9646
Nadja Tchepakova, Elena Parfenova, Galina Lysanova, Evgeni Shvetsov, and Amber Soja
 An agroclimatic potential in southern Siberia in a changing climate during the XXI century
- 11:45–12:00 EGU2011-5582
Mikhail Yu. Arshinov and Boris D. Belan
 New particle formation events in the Siberian boreal zone

ESSI8 – Uncertainty in Environmental Data and Models (co-listed) – Orals

Convener: Dan Cornford | Co-Conveners: Stefano Nativi, Edzer Pebesma, Gerard Heuvelink

Room: 19

Chairperson: n.n.

- 13:30–13:45 EGU2011-13514
Sarah Cornell
Social perspectives on environmental risk and uncertainty
- 13:45–14:00 EGU2011-11580
Jon Olav Skøien, Grégoire Dubois, Phuong Truong, Dan Cornford, and Michael Shulz
Uncertainty propagation in assessing ecosystems similarities - an example application using eHabitat
- 14:00–14:15 EGU2011-5932
Kristin Vogel, Carsten Riggelsen, and Frank Scherbaum
Learning Ground Motion Models from Data using Bayesian Networks
- 14:15–14:30 EGU2011-7767
Johan deHaan, Maarten Sneep, and Pepijn Veefkind
Retrieval algorithms for TROPOMI - improving error estimates of retrieved quantities by using Optimal Estimation with explicit a priori data
- 14:30–14:45 EGU2011-1880
Lindsay Collins, Ken Carslaw, Graham Mann, Kirsty Pringle, and Dominick Spracklen
A systematic approach to computer model evaluation, using a global aerosol model
- 14:45–15:00 EGU2011-11001
Wouter Dorigo, Robert Parinussa, Klaus Scipal, Yi Liu, Richard de Jeu, and Wolfgang Wagner
Error characterisation of global active and passive microwave soil moisture data sets
- Chairperson: n.n.
- 15:30–15:45 EGU2011-9677
Heiko Mueller, Qing Liu, Quan Bai, Corne Kloppers, and Andrew Terhorst
Enabling Assessment and Propagation of Information Quality in the South Esk Hydrological Sensor Web
- 15:45–16:00 EGU2011-5384
Lucy Bastin, Matthew Williams, John Paul Gosling, Phuong Truong, Dan Cornford, Gerard Heuvelink, and Frederic Achard
Web Based Expert Elicitation of Uncertainties in Environmental Model Inputs
- 16:00–16:15 EGU2011-8339
Judith Verstegen, Floor van der Hilst, Derek Karssenberg, and André Faaij
Communicating Uncertainty in Spatial Decision Support Systems - a Case Study of Bioenergy-Crop Potentials in Mozambique
- 16:15–16:30 EGU2011-3230
Didier G. Leibovici, Amir Pourabdollah, and Mike Jackson
Meta-propagation of Uncertainties for Scientific Workflow Quality Management in Interoperable Spatial Data Infrastructures
- 16:30–16:45 EGU2011-10149
Siegbert Kunz and Kym Watson
A Spatial Information Infrastructure for linking environmental and health data: the approach to information fusion including uncertainty handling in the EO2HEAVEN project
- 16:45–17:00 EGU2011-5554
Lydia E. Gerharz, Benjamin Proß, Christoph Stasch, and Edzer Pebesma
A Web-based Uncertainty-enabled Information System for Urban Air Quality Assessment

ESSI8 – Uncertainty in Environmental Data and Models (co-listed) – Posters

Convener: Dan Cornford | Co-Conveners: Stefano Nativi, Edzer Pebesma, Gerard Heuvelink

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Dan Cornford

- XL199 EGU2011-769
Euan Macrae, Clare Bond, and Zoe Shipton
Quantification of uncertainty in geoscience interpretation: a statistical analysis of the factors that affect interpretational ability
- XL200 EGU2011-2965
Antonia K. Runge, Frank Scherbaum, and Carsten Riggelsen
Quantification of expert knowledge for PSHA using graphical tools
- XL201 EGU2011-2642
Christopher Moseley, Claus Döring, Bernd Ahrends, and Oleg Panferov
Uncertainties in regional climate scenarios data and their effect on results of impact models in forestry

- XL202 EGU2011-3372
Rachel Lowe, David Stephenson, Trevor Bailey, Tim Jupp, Richard Graham, and Adrian Tompkins
Communicating probabilistic climate-sensitive disease risk forecasts
- XL203 EGU2011-13186
Dan Cornford, Richard Jones, Alexis Boukouvalas, and Remi Barillec
Statistical Issues of Managing Uncertainties in Environmental Models
- XL204 EGU2011-13126
Dan Cornford, Edzer Pebesma, Stefano Nativi, Matthew Williams, Christoph Stasch, Richard Jones, and Lydia Gerharz
Realising the Uncertainty Enabled Model Web
- XL205 EGU2011-4077
Kerry Gallagher, Thomas Bodin, Malcolm Sambridge, Dominik Weiss, Malin Kylander, and David Large
Inference of abrupt changes in noisy data records using Bayesian transdimensional changepoint models
- XL206 EGU2011-5057
Matthias Vanmaercke, Jean Poesen, Faruk Ocakoglu, Mahmood Arabkhedri, and Maria Radoane
How long should we measure to obtain reliable average catchment sediment yields?
- XL207 EGU2011-11108
Mohamar Ouedraogo, **Aurore Degré**, Eléonore Beckers, and Charles Debouche
A methodology to assess the exactness of Stream Network modeling process on agricultural watersheds
- XL208 EGU2011-10893
Philipp Weihs and the actinicflux Team
The influence of the spatial resolution of topographic input data on the accuracy of 3-D UV actinic flux and irradiance calculations
- XL209 EGU2011-7018
Nadine Goris and Hendrik Elbern
Singular vector based uncertainties of initial values and emissions for the ZEPTEP-2 campaign
- XL210 EGU2011-2566
Maurice Cox, Alistair Forbes, Nigel Fox, Peter Harris, Graham Machin, and Michael de Podesta
Metrological issues in producing gridded temperature data sets
- XL211 EGU2011-9630
Greg Timms, Ben Howell, Paulo de Souza, Claire D'Este, Daniel Smith, Ross Atkins, and Chris Sharman
Automated Assessment and Visualisation of Measurement Uncertainties in a Low-Cost Marine Sensor Network
- XL212 EGU2011-7137
Richard Wartenburger, Alexander Stickler, and Stefan Brönnimann
Quality Control of Selected Historical Radiosonde Observations from 1948-1966
- XL213 EGU2011-8871
David Huard and Diane Chaumont
Bayesian uncertainty analysis of climatological changes in IDF curves
- XL214 EGU2011-7428
Nikos Gianniotis, Carsten Riggelsen, and Frank Scherbaum
Ensembles of Ground Motion Models
- XL215 EGU2011-9504
Anja Vrežko and Tomaž Podobnikar
Error Assessment of DEM generated from Contours

GI-11 – Geophysical tomography with high-energy particles: recent developments and applications (co-listed) – Orals

Convener: Dominique Gibert | Co-Conveners: Daniele Carbone, Nolwenn Lesparre, Dr. Jacques Marteau, Hiroyuki Tanaka

Room: 42

Chairperson: Dominique Gibert, Daniele Carbone

- 13:30–13:45 EGU2011-2932
Hiroyuki Tanaka, Tomohisa Uchida, and Manobu Tanaka
Newly Developed Multi-Layered Muon Detection System for the Next Generation of Muon Radiography
- 13:45–14:00 EGU2011-4106
Ryuichi Nishiyama, Akimichi Taketa, and Hiroyuki Tanaka
The development of infra-free and portable muon counting system with Hamamatsu MPPC
- 14:00–14:15 EGU2011-3191
Daigo Shoji, Kei Kurita, and Hiroyuki Tanaka
Application of Neutrino Interaction to Icy Satellite Research
- 14:15–14:30 EGU2011-9169
Daniele Carbone, Dominique Gibert, Nolwenn Lesparre, Jacques Marteau, Michael Diamant, Galichet Emmanuelle, Zuccarello Luciano, and Rapisarda Salvatore
The feasibility of geophysical imaging using cosmic-ray muons. An application to Etna volcano (Italy).

- 14:30–14:45 EGU2011-4515
Nolwenn Lesparre, Dominique Gibert, Jacques Marteau, Bruno Carlus, and Christophe Nussbaum
 Analysis of muon tomography data sets: study of the geological layers above the Mont Terri underground rock laboratory
- 14:45–15:00 EGU2011-4764
Fabio Ambrosino and the MuRay Collaboration Team
 The MU-RAY project: volcanoes radiography with cosmic-ray muons

GI-11 – Geophysical tomography with high-energy particles: recent developments and applications (co-listed) –

Posters

Convener: Dominique Gibert | Co-Conveners: Daniele Carbone, Nolwenn Lesparre, Dr. Jacques Marteau, Hiroyuki Tanaka

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Nolwenn Lesparre, Jacques Marteau, Hiroyuki Tanaka

- A103 EGU2011-5955
Seigo Miyamoto, Nicola D'Ambrosio, Giovanni De Lellis, Mitsuhiro Nakamura, Toshiyuki Nakano, Pasquale Noli, Hiroshi Shimizu, Paolo Strolin, Hiromichi Taketa, and Hiroyuki K. M. Tanaka
 The plan imaging the lava dome structure with cosmic-ray muon at Unzen, Japan
- A104 EGU2011-8977
Akitaka Ariga, Tomoko Ariga, Saverio Braccini, Antonio Ereditato, Francesca Giacoppo, Jiro Kawada, Igor Kreslo, Ciro Pistillo, and Paola Scamporrì
 R&D on nuclear emulsion detectors for muon radiography of large objects
- A105 EGU2011-13758
Akimichi Taketa and Hiroyuki Tanaka
 New radiography method for small scale structure using soft component of air shower
- A106 EGU2011-6494
 Pierre Salin, **Stéphane Gaffet**, Ioannis Giomataris, Denis Calvet, Frédéric Druillol, Rui de Oliveira, and Olivier Pizzirusso
 A telescope for rock mass density imaging based on muon TPC* with Micromegas-bulk detector
- A107 EGU2011-3584
Felix Fehr and the TOMUVOL Team
 Towards Tomographic Imaging of the Puy de Dôme with GRPCs
- A108 EGU2011-3983
Dominique Gibert, Nolwenn Lesparre, Jacques Marteau, Florence Nicollin, Bruno Kergosien, Pascal Rolland, and Olivier Coutant
 Muon tomography and Volcanic Risks in the Lesser Antilles: the Example of the Soufrière of Guadeloupe
- A109 EGU2011-5957
Dr. Jacques Marteau, Bruno Carlus, Dr. Yves Déclais, Pr. Dominique Gibert, Bruno Kergosien, Nolwenn Lesparre, and Florence Nicollin
 Design and Operation of a Field Telescope for Cosmic Ray Geophysical Tomography

GM1.2/SSP3.7 – Teleconnections: Far-field links in sedimentary source-to-sink systems (GSL/GSA Session) (co-listed) – Orals

Convener: Philip Allen | Co-Conveners: Alex Whittaker

Room: 21

Chairperson: n.n.

- 10:30–10:45 EGU2011-13677
Philip Allen, John Armitage, Andrew Carter, Robert Duller, Nikolas Michael, Hugh Sinclair, and Alex Whittaker
 Volume balance model for dispersal of particulate sediment in geological source-to-sink systems
- 10:45–11:00 EGU2011-13935
Silvan Hoth and Nina Kukowski
 Teleconnections in orogenic belts?
- 11:00–11:15 EGU2011-6836
Gareth G. Roberts and Nicky White
 Estimating Uplift Rate Histories From River Profiles: Examples From the Colorado Plateau
- 11:15–11:30 EGU2011-877
Tom Coulthard
 How tectonic inputs are ignored by the drainage basin

- 11:30–11:45 EGU2011-13855
Emilie Pepin, Sébastien Carretier, and Gérard Herail
 Erosional feedback between mountain and foreland: Effects on internal system dynamics and the response to climate change
- 11:45–12:00 EGU2011-12907
Paolo Ballato, Angela Landgraf, Manfred Strecker, Andreas Mulch, Daniel Stockli, Norbert Nowaczyk, Anke Friedrich, Mohammad Ghassemi, and Saeid Tabatabaei
 Stratigraphic architecture of the Miocene foreland basin deposits of the Southern Alborz mountains (N Iran): tectonic versus climatic external forcing

GM1.2/SSP3.7 – Teleconnections: Far-field links in sedimentary source-to-sink systems (GSL/GSA Session) (co-listed) – Posters

Convenor: Philip Allen | Co-Conveners: Alex Whittaker

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Philip Allen

- A110 EGU2011-3449
Alex Whittaker, Robert Duller, Joshua Springett, Rosie Smithells, Amy Whitchurch, and Philip Allen
 Decoding downstream trends in stratigraphic grain-size as a function of tectonic subsidence and sediment supply
- A111 EGU2011-3591
John Armitage, Rob Duller, Tom Dunkley Jones, Alex Whittaker, and Philip Allen
 Climate signals lost and found in the sediment archive
- A112 EGU2011-4467
Nikolas Michael, Maria Mange, Andy Carte, Alex Whittaker, and Philip Allen
 Functioning of a sediment routing system: teleconnection of sediment sources with depositional sinks (Eocene Escanilla Formation), Spanish Pyrenees
- A113 EGU2011-4716
Nynke Keulen and Tjerk Heijboer
 The provenance of garnet: semi-automatic plotting and classification of garnet compositions
- A114 EGU2011-10746
Linda Kirstein, Andrew Carter, and Yue-Gau Chen
 What do changes in sediment flux mean? An example of structural controls from Taiwan
- A115 EGU2011-11693
Stéphane Pochat, Laurent Husson, Jean Van Den Driessche, and Antoine Bézos
 The Strontium curve : endoreism versus exoreism

HS2.5 – Catchment modeling: Towards a multi-disciplinary approach in physically-based hydrologic modeling from the field to the basin scale – Orals

Conveners: Luis Samaniego, Simone Fatichi | Co-Conveners: Pedro Restrepo, Gerrit H. de Rooij, Enrica Caporali, Petrus J. van Oevelen, Wolfgang Wagner, Valeriy Ivanov, Anne Verhoef

Room: 38

Chairperson: Luis Samaniego

- 08:30–08:45 EGU2011-12196
Bram te Brake, Martine van der Poeg, Gerrit de Rooij, and Ramon Hanssen
 Upscaling soil water storage change in clay areas using satellite based radar interferometry
- 08:45–09:00 EGU2011-11935
John Ewen, Enda O'Connell, Greg O'Donnell, and Josie Geris
 Challenges in physically-based distributed catchment modelling for inter-disciplinary work
- 09:00–09:15 EGU2011-3625
David Finger, Ludovic Gaudard, Franco Romerio, Georg Heinrich, Andreas Gobiet, Andreas Bauder, Peter Molnar, and Paolo Burlando
 Comparison of current and future effects of hydropower operations and climatic forcing on runoff in alpine streams
- 09:15–09:30 EGU2011-12352
Stefan Geisen, Markus Ottenbreit, Jörn Geletneky, Annett Peters, and Kai Uwe Totsche
 Integrative modeling of water flow dynamics and nitrogen biogeochemistry in the soil-unsaturated zone-groundwater System
- 09:30–09:45 EGU2011-12620
Ricardo Mantilla, Witold F. Krajewski, and Luciana K. Cuhna
 Multi-step Development and Evaluation of Calibration-free Hydrological Models

- 09:45–10:00 EGU2011-11775
Alberto Montanari and Demetris Koutsoyiannis
 Stochastic physically-based modelling in hydrology: towards a synthesis of different approaches for a new target

COFFEE BREAK

Chairperson: Simone Fatichi

- 10:30–10:45 EGU2011-10152
Giacomo Bertoldi, Stefano Della Chiesa, Georg Niedrist, Verena Hell, Erich Tasser, and Ulrike Tappeiner
 Modelling the water and energy budget in alpine environments at plot and catchment scale
- 10:45–11:00 EGU2011-8817
Cecile Dages, Claudio Paniconi, and Mauro Sulis
 Estimating the hydrological domain validity of a boundary condition-based surface-subsurface flow model using a mass balance sensitivity analysis.
- 11:00–11:15 EGU2011-2373
Miriam Gerrits, Raymond Venneker, Hubert Savenije, and Laurent Pfister
 Energy balance measurements of forest floor interception in the Huewelerbach catchment, Luxembourg
- 11:15–11:30 EGU2011-10099
Ludovico Nicotina, Bettina Schaefli, David G. Tarboton, and Andrea Rinaldo
 Model coupling instead of calibration: what can a catchment model learn from landscape evolution?
- 11:30–11:45 EGU2011-4813
 John Pomeroy, **Olga Semenova**, Lyudmila Lebedeva, and Xing Fang
 Parameterisation by combination of different levels of process-based model physical complexity
- 11:45–12:00 EGU2011-12872
Firas Saleh, Nicolas Flipo, Agnès Ducharne, Florence Habets, Ludovic Oudin, and Emmanuel Ledoux
 Bridging the gap between local scale hydraulic modeling and regional scale hydrological modeling

HS2.5 – Catchment modeling: Towards a multi-disciplinary approach in physically-based hydrologic modeling from the field to the basin scale – Posters

Conveners: Luis Samaniego, Simone Fatichi | Co-Conveners: Pedro Restrepo, Gerrit H. de Rooij, Enrica Caporali, Petrus J. van Oevelen, Wolfgang Wagner, Valeriy Ivanov, Anne Verhoef

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Anne Verhoef

- A233 EGU2011-5520
 Hoori Ajami, **Matthew McCabe**, Simon Stisen, and Jason Evans
 On the performance of integrated hydrologic models in simulating catchment scale land surface fluxes
- A234 EGU2011-7507
Eleni Yeshaneh Ayehu, Günter Blöschl, and Wolfgang Wagner
 Spatio-temporal analysis of soil erosion risk and runoff using AGNPS model in an Ethiopian Catchment
- A235 EGU2011-9717
María Cárdenas Gaudry and Dieter Gutknecht
 Model development based on an ecohydrological catchment unit concept
- A236 EGU2011-8962
Kevin Devito, Carl Mendoza, Rich Petrone, Clara Qualizza, Dennis Gignac, Simon Landäusser, and Uldis Silins
 Interaction of Aspen forest and harvesting with climate and geology on sink-source dynamics: conceptualizing the regional hydrology of a complex low relief terrain, Western Boreal Plain, Canada.
- A237 EGU2011-11559
Ziyad Elias, Mohammed Omer, and Azad Sharif
 Water flow model for the Harrier Basin, Kurdistan of Iraq
- A238 EGU2011-7884
Antonio Francipane, Valeriy Ivanov, Leonardo V. Noto, and Erkan Istanbuluoglu
 tRIBS-Erosion: combining mechanistic approaches for investigating eco-hydro-geomorphic response of river basins to climate change
- A239 EGU2011-10256
 Jens Kiesel, **Nicola Fohrer**, and Britta Schmalz
 Modelling sediment transport on three scales - a case study in the German lowlands

- A240 EGU2011-2229
Gabi Kraller, Michael Warscher, Ulrich Strasser, Harald Kunstmann, and Helmut Franz
 Alpine karst and its influence on the water balance at regional scale. A case study: Modeling the water balance in the Berchtesgaden National Park
- A241 EGU2011-3908
Harald Kunstmann, Hingerl Luitpold, Wagner Sven, Mauder Matthias, and Rigon Riccardo
 High Resolution Joint Water and Energy Balance Observation and Modeling in a Prealpine Environment
- A242 EGU2011-13460
Lyudmila Lebedeva and Olga Semenova
 Comparison of two approaches to simulate soil water dynamics in the permafrost landscapes
- A243 EGU2011-13096
Uli Maier, Hermann Rügner, Benny Selle, Matthias Flegr, and Peter Grathwohl
 Long-term solute transport and geochemical equilibria in a Triassic catchment cross section
- A244 EGU2011-5090
Claudio Paniconi, Mauro Sulis, Matteo Camporese, Stefano Orlandini, and Mario Putti
 Testing a process-based model of groundwater/surface water interactions at the hillslope, subcatchment, and watershed scales
- A245 EGU2011-3606
Haykel Sellami, Isabelle La Jeunesse, Sihem Benabdallah, and Marnik Vanclooster
 Calibration, sensitivity and uncertainty analyses of the spatially distributed hydrological model SWAT for a small Mediterranean watershed
- A246 EGU2011-10276
Benny Selle, Marc Schwientek, Bertram Kuch, and Matthias Flegr
 Localisation of processes governing water quality in mesoscale catchments

HS2.14/NH3.13 – Landslide hydrology: from hillslope hydrology to landslide understanding (co-organized) – Orals

Convener: Thom Bogaard | Co-Conveners: Jean-Philippe Malet, Roberto Greco, Emilia Damiano

Room: 36

Chairperson: n.n.

- 08:30–09:00 EGU2011-4548
Horst H. Gerke
 Modelling of preferential flow in structured soils and along hillslopes
- 09:00–09:15 EGU2011-2415
 Leopold Stadler, Kai Germer, and **Reinhard Hinkelmann**
 Developing model concepts for simulating water infiltration into macroporous soils for understanding triggers for landslides
- 09:15–09:30 EGU2011-8247
Lucio Olivares, Roberto Greco, Andrea Guida, and Emilia Damiano
 Physical and mathematical modelling of infiltration into layered pyroclastic covered slopes
- 09:30–09:45 EGU2011-9906
Vincent Marc, Stéphane Ruy, Olivier Poilleux, Thomas Madre, Michel Daniel, Bruno Jouaud, and Roland Simler
 Flow processes investigation in soft clay shales from tracing experiments at laboratory scale
- 09:45–10:00 EGU2011-13951
Dominika Krzeminska and Thom Bogaard
 On the influence of fissure flow on the landslide activity

COFFEE BREAK

Chairperson: n.n.

- 10:30–11:00 EGU2011-13704
Alessio Ferrari, Jordi Corominas, Lyesse Laloui, and Alberto Ledesma
 Linking hydrogeological and geomechanical landslide modelling
- 11:00–11:15 EGU2011-1396
Okan Avci, Bernd Markert, and Wolfgang Ehlers
 Numerical investigation of landslide scenarios in laboratory and real scale
- 11:15–11:30 EGU2011-5796
Grigorios Anagnostopoulos and Paolo Burlando
 Hydrological Modelling of Slope Stability

11:30–11:45 EGU2011-5707

Elisa Arnone, Leonardo V. Noto, Chiara Lepore, and Rafael L. Bras
A coupled stability and eco-hydrological model to predict shallow landslides

11:45–12:00 EGU2011-9779

Jonas von Ruette, Peter Lehmann, and Dani Or
Catchment scale hydro-mechanical modeling of shallow landslides: dynamics and spatial distribution

HS2.14/NH3.13 – Landslide hydrology: from hillslope hydrology to landslide understanding (co-organized) – Posters

Convener: Thom Bogaard | Co-Conveners: Jean-Philippe Malet, Roberto Greco, Emilia Damiano

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

A247 EGU2011-8524

Cristiano Lanni, Jeff McDonnell, Riccardo Rigon, and Jurriaan Spaaks
The influence of subsurface topography on the triggering of rainfall-induced shallow landslide: a laboratory study

A248 EGU2011-1720

Kai Germer and Jürgen Braun
Laboratory container experiments to observe slope failures under dynamic groundwater situations

A249 EGU2011-10058

Marco Peli, **Stefano Barontini**, Mark Bakker, Thom A. Bogaard, and Roberto Ranzi
Numerical results on perched waters in 1D and sloping 2D gradually layered soils

A250 EGU2011-13321

Sandy Budi Wibowo
Potential indicator for future landslide behavior: duration between time of soil saturation and time of failure

A251 EGU2011-11511

Francesco Ponziani, Nicola Berni, Claudia Pandolfo, Marco Stelluti, Luca Brocca, and Tommaso Moramarco
An integrated approach for an operative early warning system of landslides forecasting based on rainfall thresholds and soil moisture assessment

A252 EGU2011-9284

Davide Luciano De Luca, Giovanna Capparelli, Pasquale Versace, and Daniela Biondi
Hydrological models for early warning of landslides induced by rainfall

A253 EGU2011-4097

Federico Cervi, Vincent Marc, Catherine Bertrand, and Jean Philippe Malet
Hydrogeochemical modelling of clay-rich landslides and anomalies in groundwater compositions: evidences from case studies in the northern Apennines of Italy and South Alps of French

A254 EGU2011-8795

Federico Cervi, Francesco Ronchetti, Alessandro Corsini, Thom Bogaard, and Vincent Marc
Hydrological and chemical characterization of an earth slide-flow

A255 EGU2011-7646

Luzie Schnieders, Martin Kölling, and Horst D. Schulz
What pore water geochemistry can reveal - Identification and Interpretation of the Geologic Record of young slide events

A256 EGU2011-6634

Guénolé Mainsant, Guillaume Chambon, Denis Jongmans, Laurent Baillet, Eric Larose, and Grégory Bièvre
Rheological behaviour of Trièves clay, and applications to landslide dynamics

A257 EGU2011-6971

Amin Askarinejad, Alexander Beck, Francesca Casini, and Sarah M. Springman
Measurement of unsaturated hydraulic conductivity with the instantaneous profile method

A258 EGU2011-7952

Benoît Deffontaines, **Sophie Violette**, Noémi d'Ozouville, Esben Auken, and Kurt Sorensen
Landslides and hydrogeology in a volcanic island revealed from transient electromagnetic data, San Cristobal, Galapagos Archipelago

A259 EGU2011-12491

Urs Böniger, Michael Rumpf, and Jens Tronicke
Refraction seismics to explore subsurface architecture of a creeping alpine hillslope

A260 EGU2011-7526

Steffen Popp-Hofmann, Daniel Altdorff, David Sauer, and Peter Dietrich
Geoelectrical exploration of subsurface structures and processes of the Alpine "Heumöser" hillslope

A261 EGU2011-12343

Marco Walter and Manfred Joswig
Permanent seismic monitoring of fracture processes caused by fast water infiltrations at the Heumoes slope, Austria

- A262 EGU2011-2767
Elias Garcia Urquia and Kennet Axelsson
The Role of Antecedent Rainfall on the Activation of Landslides in Tegucigalpa, Honduras
- A263 EGU2011-3633
Julien Gance, Séverine Bernardie, Rosalie Vandromme, and Gilles Grandjean
Contribution of seismic tomography for taking soil variability into account in landslide stability numerical modelling
- A264 EGU2011-13774
Emilie Garel, **Anne-Laure Cognard-Plancq**, Michel Esteves, Nicolle Mathys, Sébastien Klotz, Dominique Renard, Micheline Debroux, and Vincent Marc
Monitoring water content in highly-clayey soils: calibration, temperature dependence and field use of "WCR" probes.
- A265 EGU2011-10995
Seraina Kauer, Philipp Schneider, Cornelia Brönnimann, Manfred Stähli, and Jan Seibert
Monitoring soil moisture dynamics at a hillslope prone to slide
- A266 EGU2011-7720
Wei Meng, Thom.A. Bogaard, and Rens van Beek
Dynamic effects of vegetation on the long-term stability of slopes: components of evaporation
- A267 EGU2011-6331
Kevin Briggs, Joel Smethurst, William Powrie, and Tony O'Brien
The influence of extreme wet weather on railway embankment hydrology
- A268 EGU2011-13945
Emilie Garel, Vincent Marc, Stéphane Ruy, Jean-Philippe Malet, Anne-Laure Cognard-Plancq, Christophe Emblanch, Sébastien Klotz, and Roland Simler
Analysis of water infiltration in soft clay-shale unstable hillslopes (South French Alps): proposition of a three reservoirs conceptual model.
- A269 EGU2011-12928
Cornelia Broennimann, **Clément Michoud**, Denis Jongmans, Ludovic Baron, Michel Jaboyedoff, Eric Larose, Guenole Mainsant, and Laurent Tacher
Hydrogeological processes on the active Pont Bourquin landslide, Swiss Alps
- A270 EGU2011-3143
Stella Pytharouli and Stathis Stiros
Mandria landslide (Greece): a different approach in the determination of the kinematics of a deep-seated landslide
- A271 EGU2011-9391
Jan Wienhöfer, Falk Lindenmaier, and Erwin Zehe
Hydrology and slope mobility at the Heumöser landslide in the Austrian Alps (Vorarlberg)
- A272 EGU2011-12899
Chadi Abdallah and Nicolas Baghdadi
Monitoring and surveying the catastrophic landslide of Jwaya-Lebanon
- A273 EGU2011-13725
Frank Molkenthin, Vikramjeet Notay, and Reinhard Hinkelmann
Web-Based Information System For Multi-Scale Physical State Variables Applied In Landslide Hydrology

HS2.16 – Water quality at the catchment scale: Advances in measuring and modeling nutrient, sediment, and contaminant fluxes – Orals

Conveners: Michael Rode, James Kirchner | Co-Conveners: Helge Bormann, Nicola Fohrer, Andrew Wade, BERIT ARHEIMER, Chris Soulsby, Doerthe Tetzlaff, Brian Reynolds

Room: 36

Chairperson: James Kirchner

- 13:30–13:45 EGU2011-4220
Keith Beven and Jessica Davies
Data needs for identification of more realistic parameterisations of hillslope hydrology and transport at different scales.
- 13:45–14:00 EGU2011-13307
Nicholas Howden, Magdalena Bieroza, Tim Burt, and Fred Worrall
Nitrate concentrations and fluxes in the River Thames, London UK 1868 to 2008: exploratory analysis of the world's longest water quality time series
- 14:00–14:15 EGU2011-271
Sarah Halliday, Andrew Wade, Colin Neal, Brian Reynolds, Dave Norris, and Richard Skeffington
Long-term low-frequency or short-term high-frequency monitoring: are both necessary?
- 14:15–14:30 EGU2011-4190
Gunnar Lischeid, Florian Köck, Colin Neal, Margaret Neal, Brian Reynolds, and Dave Norris
Catchments as Input Processing Systems: What makes the difference?

- 14:30–14:45 EGU2011-5989
Chris Soulsby and Doerthe Tetzlaff
 “As much as you can, in as many places as you can as often as you can”
- 14:45–15:00 EGU2011-12889
Colin Neal, Brian Reynolds, Philip Rowland, David Norris, and James Kirchner
 High frequency river water quality data: from fragmentary signals to scientific challenge
 Chairperson: Michael Rode
- 15:30–15:45 EGU2011-10957
Per-Erik Mellander, Alice Melland, David Wall, Ger Shortle, and Phil Jordan
 Nutrient impacts and pathways in two high N-risk catchments in Ireland
- 15:45–16:00 EGU2011-3884
Douglas Smith
 In-stream fate and transport of nutrients at multiple spatial and temporal scales
- 16:00–16:15 EGU2011-5000
Nele Van Gaelen, Wim Clymans, Bénédicte Ronchi, Floor Vandevenne, Dries Verheyen, Gerard Govers, Jan Vanderborght, Okke Batelaan, Eric Struyf, and Jan Diels
 Identification of the transport pathways of dissolved organic carbon from soil to surface water.
- 16:15–16:30 EGU2011-2963
Fred Worrall, Tim Burt, Nicholas Howden, and Mick Whelan
 The fluvial flux of dissolved nitrogen from the UK - amounts, controls and prognosis
- 16:30–16:45 EGU2011-9641
Thomas Grabs, Hjalmar Laudon, Kevin H. Bishop, and Jan Seibert
 Prediction of stream water quality in a forested catchment using the topographic riparian flow-concentration integration model (TRIM): A parsimonious modeling concept based on topographic scaling laws
- 16:45–17:00 EGU2011-4339
Ann van Griensven, Girma Yimer, and Linh Hoang
 Improved simulation of groundwater and riparian processes in catchment water quality models

HS4.2 – Hydrological forecasting: application, uncertainty estimation, data assimilation and decision-making – Orals

Conveners: Robert J Moore, Gabor Balint | Co-Conveners: Günter Blöschl, Vadim Kuzmin, Henrik Madsen, Jan Szolgay, Ezio Todini, Albrecht Weerts

Room: 33

Chairperson: Henrik Madsen

- 08:30–08:45 EGU2011-11747
Ulrike Drabek and Dieter Gutknecht
 A mixing model for operational runoff forecasts
- 08:45–09:00 EGU2011-14114
Giuseppe Ricciardi, Laura Casicci, Luigi Fortunato, Silvano Pecora, Nicola Rebora, and Mirella Vergnani
 The Po flood management in Italy: guidelines and methodologies
- 09:00–09:15 EGU2011-8189
Kamila Hlavcova, Jan Szolgay, Silvia Kohnova, and Roman Vyleta
 Estimation of future flood risk for flood warning systems in the Hron and Torysa river basins
- 09:15–09:30 EGU2011-3079
Jan Verkade and Micha Werner
 Estimating the benefits of probabilistic flood warning systems in terms of flood risk
- 09:30–09:45 EGU2011-11675
Luciano Raso and Peter Jules van Overloop
 Model Predictive Control for Operational Water Management: Optimal, Integrated, Anticipatory and Robust to Uncertainty
- 09:45–10:00 EGU2011-5272
Thomas Pagano, Qj Wang, Prasantha Hapuarachchi, Durga Lal Shrestha, and Julia Anticev
 Hydrologic forecasting and uncertainty research in Australia

COFFEE BREAK

Chairperson: Robert J. Moore

- 10:30–10:45 EGU2011-10426
Gabriele Coccia and Ezio Todini
Probabilistic Flood Forecast Within A Time Horizon
- 10:45–11:00 EGU2011-2918
Jan Verkade, Jaap Schellekens, and Chris Leahy
Estimation and visualisation of predictive hydrological uncertainty for Ovens River, Australia
- 11:00–11:15 EGU2011-10800
Lu Li, Chong-Yu Xu, Jun Xia, Kolbjørn Engeland, and Paolo Reggiani
Uncertainty estimates by Bayesian method with different likelihood functions and in hydrological models with varying time scales
- 11:15–11:30 EGU2011-8206
Oldrich Rakovec, Albrecht Weerts, Pieter Hazenberg, Julius Sumihar, Paul Torfs, and Remko Uijlenhoet
Ensemble Kalman filter-based discharge observation sensitivity within a spatially distributed hydrological model
- 11:30–11:45 EGU2011-2153
Simon Seibert and Uwe Ehret
Joint consideration of timing and amplitude uncertainties in hydrological simulation and forecasting
- 11:45–12:00 EGU2011-3781
Nagendra Kayastha, Durga Lal Shrestha, and **Dimitri Solomatine**
Influence of sampling strategies on estimation of hydrological models uncertainty

HS4.2 – Hydrological forecasting: application, uncertainty estimation, data assimilation and decision-making – Posters

Conveners: Robert J Moore, Gabor Balint | Co-Conveners: Günter Blöschl, Vadim Kuzmin, Henrik Madsen, Jan Szolgay, Ezio Todini, Albrecht Weerts

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Gabor Balint

- A274 EGU2011-11883
Jan Szolgay, Michaela Daná?ová, **Peter Šúrek**, and Jana Daneková
Hydrologic flow routing for flow forecasting in Central and East Slovakia
- A275 EGU2011-2762
Ivan Makin, Vadim Kuzmin, and Denis Rumyantsev
An automated system of the NRT background flash flood forecasting
- A276 EGU2011-14113
Gabor Balint, Andras Csik, and Balazs Gauzer
Learning of real time flood forecasting during some extreme events
- A277 EGU2011-11733
Katrin Schneider, Johannes Schöber, Stefan Achleitner, Helmut Schönlaub, Friedrich Schöberl, and Robert Kirnbauer
A flood forecasting system for the river Inn - case studies of successful and failure applications
- A278 EGU2011-4093
Amin Gharebaghi and Nastaran Saberi
Improvement of Snowmelt Runoff Short-term forecast Using Kalman Filtering
- A279 EGU2011-5247
Wen Dar Guo, Hsin Ya Ho, and Wei Sheng Feng
A Rapid Evaluating System for Urban Inundation Assessment
- A280 EGU2011-7527
Christopher Hain, Wade Crow, Martha Anderson, John Mecikalski, and Thomas Holmes
Developing a Dual Assimilation Approach for Thermal Infrared and Passive Microwave Soil Moisture Retrievals
- A281 EGU2011-8280
Mehmet C. Demirel and Martijn J. Booij
Uncertainty analysis of a low flow model for the Rhine River
- A282 EGU2011-13087
Minxue He, Yuqiong Liu, Dong-Jun Seo, Donald Laurine, Haksu Lee, and Julie Demargne
Ensemble-Based Snow Data Assimilation for Improved Operational Streamflow Predictions
- A283 EGU2011-13073
Haksu Lee, Yuqiong Liu, Minxue He, Julie Demargne, and Dong-Jun Seo
Variational assimilation of streamflow into the three-parameter Muskingum routing model for improved operational river flow forecasting
- A284 EGU2011-12803
Kolbjørn Engeland, Ingelin Steinsland, and Sjur Kolberg
A filtering approach for updating a hydrologic forecast model

- A285 EGU2011-1521
Samuela Franceschini and Marco Marani
A Point Estimate Method for the individual and collective assessment of sources of uncertainty in hydrological modelling
- A286 EGU2011-3475
Paul Smith, **Keith Beven**, Arthur Marchandise, and Florian Pappenberger
On assimilating meteorological and hydrological data to improve hydrological forecasts generated using meteorological predictions
- A287 EGU2011-4075
Willem van Verseveld, Hessel Winsemius, and Jaap Schellekens
Climate Knowledge Facility model platform: a system to investigate the effects of climate change on the Dutch water system
- A288 EGU2011-4122
Ming-Hsi Hsu and Chen-Jia Huang
Inundation Model Integrating Radar Rainfall for Real-time Scenario Simulations
- A289 EGU2011-5152
Benedito Silva, Thiago Santana, and Aline Duarte
Improving flow forecasting through stochastic model for estimating the forecast residues
- A290 EGU2011-161
Pouyan Keshtkaran, Touraj Sabzevari, and Ali Torabihaghighi
Regional Flood Frequency Analysis of Fars Rivers in Iran Using New Statistical Distributions (Case Study for Ghareaghaj and Kor Rivers)
- A291 EGU2011-5273
Shu-Han Wu, Wan-Yu Lien, and Ching-Pin Tung
Evaluate Climate Change Impacts on Habitat of Formosan Landlocked Salmon
- A292 EGU2011-263
Selce Can Ayhan, Nurcan Kaya, Erdinc Oksum, Mualla Cengiz Cinku, and Z. Mumtaz Hisarli
New paleomagnetic results of Lower Cretaceous-Middle Eocene rocks from the western Pontides: Implications for the collision of the Pontides and Sakarya Zone

HS4.3/AS4.13/NH1.12 – Towards practical applications in ensemble hydro-meteorological forecasting (including Arne Richter Award for Outstanding Young Scientists Lecture) (co-organized) – Orals

Convener: Maria-Helena Ramos | Co-Conveners: Florian Pappenberger, Jutta Thielen-del Pozo, Albrecht Weerts, Yi HE, Linna Zhao

Room: 33

Chairperson: Jutta Thielen and Helen Yi

- 13:30–13:45 EGU2011-9093
Vincent Fortin, François Anctil, Richard Turcotte, Juan-Alberto Velazquez, and Bruce Davison
Challenges and rewards of multimodel ensemble hydrological forecasting
- 13:45–14:00 EGU2011-12613
Rodrigo Cauduro Dias de Paiva, Walter Collischonn, Marie-Paule Bonnet, Luis Gustavo Gonçalves de Gonçalves, Diogo Costa Buarque, and Carlos André Bulhões Mendes
Use of an ensemble approach to evaluate the importance of initial conditions and atmospheric forcing on hydrological prediction uncertainty in the Amazon River basin
- 14:00–14:15 EGU2011-5397
Durga Lal Shrestha, Thomas Pagano, Qj Wang, and David Robertson
Application of Ensemble Dressing for Hydrological Applications
- 14:15–14:30 EGU2011-7261
Tommaso Diomede, Chiara Marsigli, Andrea Montani, and Tiziana Paccagnella
Comparison of calibration techniques for a limited-area ensemble precipitation forecast using reforecasts
- 14:30–14:45 EGU2011-13889
Masahiro Ryo, Oliver C. Saavedra V., Toshio Koike, and Dang Ngoc Tinh
Development of an early flood warning system based on ensemble method using quantitative precipitation forecasts in Huong River, Vietnam
- 14:45–15:00 EGU2011-373
Sara Liguori, Miguel Rico-Ramirez, Alma Schellart, and Adrian Saul
High-resolution ensemble rainfall forecasts in urban hydrological applications
- Chairperson: Maria-Helena Ramos and Albrecht Weerts
- 15:30–15:45 EGU2011-11937
Jutta Thielen-del Pozo and the EFAS Team
The state of the art of the European Flood Alert System

- 15:45–16:00 EGU2011-7105
Schalk Jan van Andel and Arnold H. Lobbrecht
 Experiences from introducing ensemble hydrological predictions in practice
- 16:00–16:15 EGU2011-2303
François Anctil, Darwin Brochero, and Christian Gagné
 Which optimization criterion leads to the reliable simplification of a hydrological ensemble prediction system with a Backward greedy selection of members?
- 16:15–16:30 EGU2011-13058
 Julie Demargne, **Limin Wu**, Satish Regonda, and James D Brown
 Experimental hydrologic ensemble forecast service in the U.S. National Weather Service
- 16:30–17:00 EGU2011-14192
Florian Pappenberger
 Squaring the Circle: The hydro-meteorological forecast chain (Arne Richter Award for Outstanding Young Scientists Lecture)

HS4.3/AS4.13/NH1.12 – Towards practical applications in ensemble hydro-meteorological forecasting (including Arne Richter Award for Outstanding Young Scientists Lecture) (co-organized) – Posters

Convener: Maria-Helena Ramos | Co-Conveners: Florian Pappenberger, Jutta Thielen-del Pozo, Albrecht Weerts, YI HE, Linna Zhao

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Florian Pappenberger and Linna Zhao

- A293 EGU2011-10303
Florian Pappenberger, Jutta Thielen, Hannah Cloke, and Maria-Helena Ramos
 Recent Advances and case studies in medium range flood forecasting: A follow on review
- A294 EGU2011-12950
Ioanna Zalachori and Maria-Helena Ramos
 Ensemble hydrological forecasting based on weather predictions from the TIGGE database
- A295 EGU2011-11299
Konrad Bogner, Florian Pappenberger, and Jutta Thielen
 Combining hydrological multi-model ensemble forecasts
- A296 EGU2011-13813
Fabrizio Tonelli, Laura Casicci, Andrea Montani, Silvano Pecora, and Mirella Vergnani
 Pre-operational use of a meteorological and hydrological/hydraulic ensemble approach on the Po River
- A297 EGU2011-8623
Matthieu Le Lay, Laetitia Moulin, Pierre Bernard, Thibault Mathevet, Joël Gailhard, and Rémy Garçon
 Operational use of ensemble hydrometeorological forecasts at EDF (French producer of energy)
- A298 EGU2011-13811
Nicola Rebori, Francesco Silvestro, and Luca Ferraris
 Probabilistic discharge forecasting on small and medium size basins: an operational perspective
- A299 EGU2011-3874
Isidora Jankov
 Ensemble Prediction System for Hydrometeorological Testbed (HMT) Application
- A300 EGU2011-3587
Étienne Gaborit, François Anctil, Geneviève Pelletier, and Vincent Fortin
 On the reliability of spatially disaggregated global ensemble rainfall forecasts
- A301 EGU2011-13545
Scott Sinclair and Geoff Pegram
 PyTOPKAPI - an open source hydrological model used to estimate soil moisture in near real time over South Africa for flood potential & drought monitoring and remote sensing model intercomparison
- A302 EGU2011-5518
 Vera Thiemi, **Florian Pappenberger**, Peter Burek, Ad De Roo, and Jutta Thielen
 Evaluation of Precipitation Products for an Operational Pan-African Flood Forecasting System
- A303 EGU2011-3439
Michael Strauch, Christian Bernhofer, Sérgio Koide, Martin Volk, Carsten Lorz, and Franz Makeschin
 Using precipitation data ensemble and Bayesian Model Averaging for uncertainty analysis in hydrologic modeling.
- A304 EGU2011-5267
Prafulla Pokhrel, Quan Jun Wang, and David Robertson
 A Bayesian Joint Probability Post-Processing Tool for Quantifying Uncertainty in Predictions from a Deterministic Water Balance Model

- A305 EGU2011-11762
Guillaume Thirel, Peter Salamon, Peter Burek, Milan Kalas, and Jutta Thielen
Assimilation of the MODIS Snow Cover Area in the LISFLOOD model for the European Flood Alert System (EFAS)
- A306 EGU2011-9773
Benjamin Renard, Maria-Helena Ramos, Mark Thyer, Jerome Le Coz, Flora Branger, Dmitri Kavetski, and George Kuczera
Tracking the role of streamflow uncertainty in hydrological ensemble predictions
- A307 EGU2011-5641
Shailesh Kumar Singh, Einar Örn Hreinsson, **Ross Woods**, Hilary McMillan, and Andras Bardossy
Improving calibration strategy of physically based model by using critical events
- A308 EGU2011-8789
Ioanna Zalachori, Annie Randrianasolo, and **Maria-Helena Ramos**
How much the length of data samples influences forecast verification and post processing of hydrological ensemble predictions?
- A309 EGU2011-10569
Jan Biefernicht, András Bárdossy, and Christian Ebert
Verification of the precipitation forecasts of a limited area model and a regional ensemble prediction model for flood-producing situations in Central Europe.
- A310 EGU2011-6660
Alessandro Ceppi, Giovanni Ravazzani, Alessio Salandin, Davide Rabuffetti, and Marco Mancini
Real-time hydro-meteorological forecasts: re-analysis of some operational case studies
- A311 EGU2011-9797
Lorenzo Alfieri, Jutta Thielen-del Pozo, and Peter Salamon
Improving risk prevention through flash flood ensemble early warning

HS8.2.1 – Stochastic groundwater hydrology – Orals

Convener: Monica Riva | Co-Conveners: Xavier Sanchez-Vila, Alberto Guadagnini, Daniel Fernandez-Garcia

Room: 34

Chairperson: Xavier Sanchez-Vila, Alberto Guadagnini

- 08:30–08:45 EGU2011-1992
Larry Winter, Jeffrey Hyman, and Piotr Smolarkiewicz
An Empirical Equation for Effective Conductivity
- 08:45–09:00 EGU2011-5981
Fulvia Baratelli, Riccardo Bersezio, Mauro Giudici, Laura Cattaneo, Chiara Vassena, Diana dell'Arciprete, and Fabrizio Felletti
Sediments' connectivity and transport properties
- 09:00–09:15 EGU2011-6103
Eduardo Castro, Daniel Fernandez-Garcia, Diogo Bolster, and Jesus Carrera
Visualizing mixing in reconstructed heterogeneous aquifers
- 09:15–09:30 EGU2011-4288
Thierry Mara, Anis Younès, Philippe Ackerer, and Alberto Guadagnini
Emulation and global sensitivity analysis for model calibration in groundwater hydrology
- 09:30–09:45 EGU2011-8953
fabio nobile, lorenzo tamellini, and raul tempone
Polynomial chaos approximations for stochastic subsurface flow models
- 09:45–10:00 EGU2011-9751
Philipp Guthke and András Bárdossy
Variance Reduction Techniques for Monte Carlo Methods in Stochastic Hydrogeology

COFFEE BREAK

Chairperson: Monica Riva, Daniel Fernandez-Garcia

- 10:30–10:45 EGU2011-5252
Jean-Raynald de Dreuz, **Jesús Carrera**, and Marco Dentz
Effective dispersion for 2D highly heterogeneous permeability fields under temporally fluctuating flow conditions
- 10:45–11:00 EGU2011-4098
Marco Panzeri, Emanuela Bianchi Janetti, Monica Riva, and Alberto Guadagnini
Analysis of Inverse Stochastic Moment Equations of Groundwater Flow in Heterogeneous Porous Media

- 11:00–11:15 EGU2011-1571
Allen G. Hunt
 Lack of relevance of diffusion to dispersion and subordinate role of multi-scale heterogeneity
- 11:15–11:30 EGU2011-3332
Daniel W. Meyer, Hamdi A. Tchelepi, and Patrick Jenny
 An Eulerian joint velocity-concentration PDF method for reactive transport in highly heterogeneous porous media
- 11:30–11:45 EGU2011-7822
Rainer Enzenhöfer and Wolfgang Nowak
 Risk management with probabilistic advective-dispersive well vulnerability criteria
- 11:45–12:00 EGU2011-5279
Rajesh Pawar
 Development of a System Model for Performance Assessment of Geologic CO₂ Sequestration Sites

HS8.2.1 – Stochastic groundwater hydrology – Posters

Convener: Monica Riva | Co-Conveners: Xavier Sanchez-Vila, Alberto Guadagnini, Daniel Fernandez-Garcia

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Daniel Fernandez-Garcia, Alberto Guadagnini

- A312 EGU2011-1273
Esam Ismail, Abdalaa Faid, and Erich Niesner
 Integration of Geophysics, Remote Sensing and Hydrogeochemical to Evaluate Groundwater Potential of West Tahta area, Sohag Governorate, Upper Egypt.
- A313 EGU2011-1593
Zargham Mohammadi
 Selection of grid network for groundwater modeling using geostatistical approach
- A314 EGU2011-1516
 Marco D'Oria and **Andrea Zanini**
 Assessment of hydraulic tomography data by means of MCMC geostatistical analysis: a field case
- A315 EGU2011-1728
Raul Perulero Serrano, Monica Riva, and Alberto Guadagnini
 Delineation of geologic facies in heterogeneous aquifers by the Truncated Plurigaussian Method
- A316 EGU2011-2097
Pierre Adler, Valeri Mourzenko, Igor Bogdanov, and Jean-François Thovert
 Three-dimensional numerical simulation of transient compressible flows in fractured formations
- A317 EGU2011-2212
Evangelos Rozos and Demetris Koutsoyiannis
 Parameters estimation using Kalman filter with spring discharge measurements
- A318 EGU2011-2456
Antonio Molinari, Laura Guadagnini, Marco Marcaccio, and Alberto Guadagnini
 Preliminary methodological application for estimating the natural concentrations of hazardous species in two groundwater bodies in Italy
- A319 EGU2011-4144
Sergey Chaynikov, Monica Riva, and Alberto Guadagnini
 Probability density Functions for advective-diffusive transport in heterogeneous porous media
- A320 EGU2011-4718
Rachid Ababou, David Bailly, and Michel Quintard
 Macro-permeability K of highly fissured porous media : inertial and percolation effects
- A321 EGU2011-5573
Daniel Fernandez-Garcia and Xavier Sanchez-Vila
 Optimal reconstruction of reaction rates from particle distributions
- A322 EGU2011-5625
Xavier Sanchez-Vila, Daniel Fernandez-Garcia, and Alberto Guadagnini
 Modeling of bimolecular irreversible reactive transport in column experiments
- A323 EGU2011-5650
Christopher Henri, Daniel Fernandez-Garcia, Diogo Bolster, Xavier Sanchez-Vila, and Daniel Tartakovsky
 A Bayesian Approach to Integrate Real-Time Data into Probabilistic Risk Analysis of Remediation: A Field Application
- A324 EGU2011-5667
Daniele Pedretti, Daniel Fernandez-Garcia, Xavier Sanchez-Vila, Marco Barahona-Palomo, and Diogo Bolster
 Spatio-temporal assessment of soil infiltration capacity through physical-based models and geostatistical inference

- A325 EGU2011-5843
Lorenzo Pessina, Fulvia Baratelli, Riccardo Bersezio, Laura Cattaneo, Emmanuele Cavalli, Fabrizio Felletti, Mauro Giudici, Mauro Mele, and Chiara Vassena
Fine scale 3D integrated study of fluvio-glacial sediments
- A326 EGU2011-6118
Emanuela Bianchi Janetti, Monica Riva, Ishai Dror, Alberto Guadagnini, and Brian Berkowitz
On formal model quality criteria for discriminating competitive metal adsorption isotherms.
- A327 EGU2011-6756
Philipp Leube and Wolfgang Nowak
Temporal Moments revised, or is there a better way for physically-based model reduction in time?
- A328 EGU2011-9592
Leonardo David Donado, **Nadir Bashir Yaver-Orjuela**, and Xavier Sanchez-Vila
Global optimization as an alternative in the solution of the inverse problem of hydraulic tests in fractured media
- A329 EGU2011-10150
Adrian Ngo, Wei Li, Ronnie Schwede, Olaf Cirpka, Peter Bastian, and Olaf Ippisch
Geostatistical Inversion of Coupled Processes in Heterogeneous Porous Media
- A330 EGU2011-11206
Felipe de Barros, Sergey Oladyskhin, and Wolfgang Nowak
An integrative data-adaptive approach for global sensitivity analysis: application to subsurface flow and transport
- A331 EGU2011-11678
Laura Foddis, Gabriele Uras, and Philippe Ackerer
Contaminant point source identification by artificial neural network.
- A332 EGU2011-12294
Diogo Bolster, Felipe de Barros, Xavier Sanchez-Vila, and Wolfgang Nowak
Divide and Conquer: An Approach for Interdisciplinary Risk Assessment and Decision Making under Uncertainty for Groundwater-Related Diseases
- A333 EGU2011-13083
Anna Russian, Marco Dentz, and Jesus Carrera
Large scale behavior of Flow in Heterogeneous Media
- A334 EGU2011-13409
Vittorio Di Federico
Bounds for effective Forchheimer coefficient in randomly heterogeneous porous media

HS8.2.7 – Management, protection, and sustainable use of groundwater in arid, humid or arctic areas under a changing environment – Orals

Convener: Okke Batelaan | Co-Conveners: Joseph Guttman, Makoto Taniguchi, Martin Sauter, Victor Bense, Grant Ferguson

Room: 39

Chairperson: Okke Batelaan

- 13:30–13:45 EGU2011-6681
Sebastian Stoll, Harrie-Jan Hendricks Franssen, Roland Barthel, David Bendel, and Wolfgang Kinzelbach
What can we learn from groundwater level time series about future risks for water resources?
- 13:45–14:00 EGU2011-9322
Christine Rivard, Claudio Paniconi, and Harold Vigneault
Modelling of projected impacts of climate change on groundwater recharge in the Annapolis Valley, Nova Scotia, Canada
- 14:00–14:15 EGU2011-5826
Juliette Dujardin, Pierre Jamin, Okke Batelaan, Frank Canters, Serge Brouyère, and Alain Dassargues
Regional flux-based risk assessment of contaminants in a groundwater body using remote sensing imagery integrated in a modeling procedure
- 14:15–14:30 EGU2011-3386
Wolfram Kloppmann, Ido Negev, Joseph Guttman, Tomer Kraitzer, Catherine Guerrot, Marie Pettenati, Haim Chikurel, Avi Aharoni, Orly Goren, Avihu Burg and the Israeli-French SAT Team
Long term evolution of water supply sources and groundwater flow in a large scale artificial recharge system assessed through multi-isotope tracing
- 14:30–14:45 EGU2011-1861
Ido Negev, Asher Rozenthal, Israel Lidgi, and Joseph Guttman
Salinization mechanism in the Coastal Aquifer near Beer-Tuvia, Israel: reassessment based on updated data from new and existing wells
- 14:45–15:00 EGU2011-1017
Joseph Guttman
Management and utilization of a fresh water body adjacent to saline water bodies in fracture and karstic aquifers in Israel.

HS8.2.7 – Management, protection, and sustainable use of groundwater in arid, humid or arctic areas under a changing environment – Posters

Convener: Okke Batelaan | Co-Conveners: Joseph Guttman, Makoto Taniguchi, Martin Sauter, Victor Bense, Grant Ferguson

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Victor Bense

- A335 EGU2011-83
Sami Hamdan
 Rooftop and Yards Rainwater Harvesting in Gaza Strip
- A336 EGU2011-4888
 Stamatia Arvanitidou, **Christina Karamperidou**, Upmanu Lall, Konstantinos Katsifarakis, and Christoforos Koutitas
 Response of a coastal aquifer to multi-scale sea level and precipitation fluctuations.
- A337 EGU2011-4194
Gunnar Lischeid, Jörg Steidl, and Christoph Merz
 Using functional analysis to differentiate between anthropogenic and natural impacts on groundwater heads using scarce data
- A338 EGU2011-4659
 Wouter Zijl, Mustafa El-Rawy, Getachew Adem Mohammed, Florimond De Smedt, and **Okke Batelaan**
 An R&D Program to Solve the Flux Paradox: Solving Calderón's Problem combined with Kalman Filtering
- A339 EGU2011-5624
Francesco Faccini and Luigi Perasso
 Analysis of the karst drainage system of Cà Freghé Cave (Upper Graveglia Valley karstic area, Ligurian Apennine)
- A340 EGU2011-9552
Adriana Bruggeman and Christos Zoumides
 Can groundwater supply match irrigation water demand in Mediterranean environments?
- A341 EGU2011-11355
Manuel Pulido-Velazquez, Juan Pablo Rivera, Carlos Llopis-Albert, Salvador Peña-Haro, Alberto Garcia-Prats, Juan Manuel Jorques, and David Pulido-Velazquez
 Assessment of impacts of land use and climate changes on groundwater resources
- A342 EGU2011-11480
Georg Houben, Ursula Noell, Christoph Grisseemann, Mebus Geyh, Susanne Stadler, and Stephan Kaufhold
 Exploration and management of an inland fresh water lens in the paraguayan Chaco
- A343 EGU2011-11984
Marta Utratna and Tomasz Okruszko
 Risks assessment for water-dependent habitats protected by Natura 2000
- A344 EGU2011-12439
Mateusz Grygoruk, Tomasz Okruszko, and Okke Batelaan
 Evaluation of water loss in wetlands due to bush encroachment and evapotranspiration changes
- A345 EGU2011-8447
Feng Sun, Haibing Shao, Wenqing Wang, Zhongshan Yang, Zhenfang Huang, and Olaf Kolditz
 Groundwater nitrate contamination modeling and clean-up strategy design: a case study in Nankou site, Beijing

HS8.3.4 – New approaches for low-invasive site characterization towards sustainable remediation – Orals

Convener: Helen K. French | Co-Conveners: Matthias Kaestner, Esther Bloem, Giorgio Cassiani

Room: 39

Chairperson: Helen K. French

- 08:30–08:45 EGU2011-3732
 Martijn van Houten, dr. Rod Eddies, and **dr. Ronald Koomans**
 Development of a geophysical method for quantitative risk assessment Innovative methods for the quantification of industrial by-products in roads
- 08:45–09:00 EGU2011-1523
Mehrdad Bastani, Esther Bloem, Alireza Malehmir, Helen K. French, Laust B. Pedersen, Alberto Godio, Markus Wehrer, and Jochen Kamm
 3D imaging of a contamination zone at Oslo airport from joint interpretation of surface GPR and electrical resistivity data
- 09:00–09:15 EGU2011-3503
Dieuwke Schotanus, Sjoerd van der Zee, Esther Bloem, and Gro Eggen
 Measurement of contaminant fluxes in the soil during snowmelt, at high spatial resolution

- 09:15–09:30 EGU2011-10263
Adrian Flores Orozco, Christoph Oberdörster, Ludwig Zschornack, Carsten Leven, Holger Weiss, and Andreas Kemna
 Delineation of BTEX contamination plume with SIP imaging
- 09:30–09:45 EGU2011-2175
Agung Wahyudi, Mariana Bartzke, Patrick Bogaert, Eberhard Küster, and Rolf Altenburger
 Implementation of probability table for qualitative reconstruction of pollutants plume using biological assay data
- 09:45–10:00 EGU2011-475
Ofer Dahan and Zeev Ronen
 Continuous monitoring of the vadose zone hydraulic and chemical properties as a tool for optimization of remediation strategies

HS8.3.4 – New approaches for low-invasive site characterization towards sustainable remediation – Posters

Convenor: Helen K. French | Co-Conveners: Matthias Kaestner, Esther Bloem, Giorgio Cassiani

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Matthias Kästner

- A346 EGU2011-4795
Giorgio Cassiani and the ModelPROBE Team
 Minimally invasive characterization of a hydrocarbon contaminated site: the Trecate example.
- A347 EGU2011-434
Christian Schurig, Anja Miltner, Ludwig Zschornack, and Matthias Kaestner
 Extending the in situ microcosm approach (BACTRAP®) to field sites without groundwater wells - a new Direct-Push probe
- A348 EGU2011-4527
Valeria Giampaolo, Fernand Lopez, Alexis Maineult, Enzo Rizzo, Mario Votta, and Vincenzo Lapenna
 Self-potential technique in the study of contamination of Trecate (Italy) and Zeitz (Germany) test sites
- A349 EGU2011-13332
 Maria Clementina Caputo, **Lorenzo De Carlo**, Giorgio Cassiani, and Rita Deiana
 Electrical methods for monitoring a site potentially contaminated by landfill leachate
- A350 EGU2011-6105
Helen K. French, Alberto Godio, Sjoerd E.A.T.M. van der Zee, Markus Wehrer, Kai U. Totsche, Laust B. Pedersen, and Guido Greco
 SoilCAM: Soil Contamination, Advanced integrated characterisation and time-lapse Monitoring, an overview
- A351 EGU2011-7950
 Alberto Godio, Andrea Borsic, **Alessandro Arato**, and Luigi Sambuelli
 On the inversion of cross-hole resistivity data
- A352 EGU2011-12664
Esther Bloem, Dieuwke Schotanus, Helen K. French, and Andrew Binley
 Time-lapse electrical resistivity and multi-compartment sampler measurements for monitoring flow and transport at Oslo airport, Gardermoen
- A353 EGU2011-7529
Heidi Lißner, Markus Wehrer, Esther Bloem, and Kai Uwe Totsche
 Soil heterogeneity strongly affects fate and transport of deicing chemicals
- A354 EGU2011-3309
 Robert-Jan Stuut and **Pieter Groenewoud**
 Integration of innovative soil characterisation technologies High Resolution Seismic imaging (HRS) and Rapid Optical Screening Tool (ROST-CPT / Membrane Interface Probe (MIP-CPT))
- A355 EGU2011-5751
Markus Tuller, Grey S. Nearing, Scott B. Jones, and Robert Heinse
 Geophysical Characterization of Inactive Mine Tailings - A First Step for Revegetation
- A356 EGU2011-7230
Wouter Van de Putte
 Enhanced In Situ Soil Analysis (EnISSA) of volatiles and semi-volatile components.
- A357 EGU2011-10651
Idan Katz, Zeev Ronen, Eilon Adar, and Ofer Dahan
 Enhanced in situ Biodegradation of Perchlorate in the Vadose Zone
- A358 EGU2011-11127
Balázs Libisch, Helen French, Thomas Hartnik, Attila Anton, and Borbála Biró
 Laboratory-scale evaluation of selected remediation techniques for propylene glycol-based de-icing fluids
- A359 EGU2011-8999
 Maria Letizia Colarieti, **Giuseppe Toscano**, Rosaria Scelza, Maria Antonietta Rao, and Guido Greco
 Biodegradation of propylene glycol by soil bacteria

HS8.3.5 – Trace gases emissions from soils: Sources, mechanisms and process rates – Orals

Convener: Lutz Weihermueller | Co-Conveners: Yakov Kuzyakov, Marc Lamers, Petra Stolk

Room: 34

Chairperson: Yakov Kuzyakov

13:30–14:00 EGU2011-8025

Peter Dörsch and Umb Nitrogen groupMultiple approaches to understand regulation of N₂O from denitrification: the case of pH

14:00–14:15 EGU2011-14017

Fernando Moyano and Claire Chenu

An Integrated Analysis of Soil Incubation Data: Deriving Soil Type Dependent Moisture-Respiration Relations

14:15–14:30 EGU2011-10780

Paul Murphy, Denis Minogue, Pádraig French, DeJun Li, and Thomas Bolger

Nitrous oxide emissions from temperate grassland soils as affected by seasonal dairy soiled water application and soil type

14:30–14:45 EGU2011-8033

Dennis Imer, Lutz Merbold, Werner Eugster, and Nina Buchmann

Diurnal cycles of carbon dioxide, methane and nitrous oxide fluxes from three Swiss grasslands

14:45–15:00 EGU2011-10478

Matthias Kuhnert, Jagadeesh Yeluripati, Pete Smith, and The NitroEurope TeamSimulating N₂O and NO emissions from European forest and grassland ecosystems using the process based model DailyDaycent

Chairperson: Petra Stolk

15:30–15:45 EGU2011-13644

Markus Reichstein, Miguel Mahecha, Nuno Carvalhais, Gitta Lasslop, Sonia Seneviratne, Holger Lange, Alessandro Cescatti, and Mirco Migliavacca

On the Temperature Sensitivity of Respiration at Ecosystem Level

15:45–16:00 EGU2011-6775

Hanna Silvennoinen, Annelene Pengerud, Christina Biasi, and Peter Dörsch

Denitrification kinetics support high nitrous oxide emissions in West Siberian cryoturbated tundra

16:00–16:15 EGU2011-1654

Frank Hagedorn, Sonja Wipf, and Melissa Martin

Experimental soil warming leads to sustained carbon losses from alpine treeline ecosystems

16:15–16:30 EGU2011-10401

Mats G. Oquist, Mats Nilsson, and Hjalmar Laudon

Export of greenhouse gases across the soil/stream interface in a boreal headwater stream

16:30–16:45 EGU2011-4602

Leonardo Montagnani, **Damiano Zanotelli**, Christian Ceccon, Giovanni Manca, and Massimo Tagliavini

Combining continuous soil respiration and eddy covariance measurements to assess environmental controls on soil respiration and gross primary production

16:45–17:00 EGU2011-11731

Sami Ullah and Tim MooreBiogeochemical Controls on CH₄, N₂O and CO₂ Fluxes from Deciduous and Boreal Forests Soils in Eastern Canada

17:00–17:15 EGU2011-8219

Edzo Veldkamp and Katrin Wolf

Nitrogen availability links soil nitrous oxide and nitric oxide fluxes with forest productivity of a tropical montane forest in southern Ecuador

HS8.3.5 – Trace gases emissions from soils: Sources, mechanisms and process rates – Posters

Convener: Lutz Weihermueller | Co-Conveners: Yakov Kuzyakov, Marc Lamers, Petra Stolk

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Lutz Weihermüller

A360 EGU2011-424

Enrique P. Sánchez-Cañete, Penélope Serrano-Ortiz, Andrew S. Kowalski, Cecilio Oyonarte, and Francisco DomingoSubterranean CO₂ ventilation and its role in net ecosystem exchange with the atmosphere

- A361 EGU2011-754
Anna Gunina
Accumulation of organic carbon, its turnover and CO₂ emissions from soils under three vegetation types: results of a lysimeter study
- A362 EGU2011-394
Qaiser Hussain and Genxing Pan
Ammonia oxidizers (amoA) and denitrifiers (nirK) dynamics in the rhizosphere between hybrid and standard rice cultivars and linkage to N₂O emission
- A363 EGU2011-3257
Donatella Zona, Ivan Janssens, Melanie Verlinden, Laura Broeckx, Joris Cools, and Reinhart Ceulemans
Water table change differently affects CO₂ and N₂O fluxes in a bio-energy poplar plantation
- A364 EGU2011-3594
Petra Stolk, Rob Hendriks, Cor Jacobs, and Eddy Moors
The effect of soil aggregates on peak emissions of N₂O
- A365 EGU2011-3677
Shahid Nadeem and Peter Dörsch
N₂O emissions in boreal cereal production: effect of fertilization rate and autumn versus spring ploughing
- A366 EGU2011-4446
Reinhard Well, Daniel Weymann, and Heinz Flessa
Estimating N₂ fluxes from denitrification using isotopologue signatures of N₂O
- A367 EGU2011-4916
Rosa Inclán, Carla Uribe, Laura Sánchez, Dolores M. Sánchez, Ángeles Clavero, Ana María Fernández, Ramón Morante, Alfredo Blanco, and Robert Jandl
CH₄ and N₂O fluxes in undisturbed and burned *Quercus ilex*, *Quercus pyrenaica* and *Pinus sylvestris* forests in Madrid, Spain
- A368 EGU2011-5545
Pauline Buysse, Bernard Longdoz, Alain Debacq, and Marc Aubinet
Modeling soil heterotrophic respiration with an enzyme-based model: first comparison with field data and suggestions of improvements.
- A369 EGU2011-5996
Alexander Graf, Michael Herbst, Lutz Weihermüller, Johan A. Huisman, Nils Prolingheuer, Ludger Bornemann, and Harry Vereecken
Empirical orthogonal functions in soil CO₂ efflux mapping
- A370 EGU2011-7778
Carlo Cardellini, Giovanni Chiodini, Stefano Caliro, Francesco Frondini, Rosario Avino, Angela Baldini, and Marco Donnini
CO₂ fluxes from Earth degassing in Italy
- A371 EGU2011-8455
Chiara Ferré, Francesco Vaninetti, and Roberto Comolli
Heterotrophic and autotrophic soil respiration in an alpine grassland
- A372 EGU2011-9742
Bogusław Usowicz, Jerzy Lipiec, and Mateusz Iwo Lukowski
Modelling the gas diffusivity in porous media using physical-statistical model
- A373 EGU2011-9904
Mitja Ferlan and Primož Simončič
Towards higher spatial resolution of soil CO₂ efflux measurements: testing new equipment
- A374 EGU2011-10181
Gregor Plestenjak, Nives Ogrinc, Janja Vavpotič, Mitja Ferlan, Klemen Eler, and Dominik Vodnik
Can stable isotopes and radon measurements explain the contribution of geogenic carbon to soil CO₂ efflux of a karst environment?
- A375 EGU2011-10712
Merrit Noormets, Maarika Alaru, Ruth Lauk, Rein Viiralt, Karin Kauer, and Tõnu Tõnutare
A laboratory study of greenhouse gas emissions from organic substrates
- A376 EGU2011-10891
Nils Prolingheuer, Horst Hardelauf, Harry Vereecken, Jens-Arne Subke, and Michael Herbst
Model inversion to improve estimates of autotrophic and heterotrophic soil respiration in winter wheat
- A377 EGU2011-11356
Madeleine Bell, Jagadeesh Yeluripati, Edward Jones, Jo Smith, and Pete Smith
Using the ECOSSE model to simulate soil N and N₂O fluxes from European cropland soils
- A378 EGU2011-12254
Laura M. Cárdenas, **Sonia García-Marco**, Sreenivas Rao-Ravella, Dave Chadwick, Phil J. Hobbs, Andy S. Gregory, and Antonio Vallejo
Use of the Taguchi methodology to rank the importance of factors affecting emissions of N₂O from incubated agricultural soils

- A379 EGU2011-12677
Andrey Sirin, Gennady Suvorov, Mikhail Glagolev, Maxim Chistotin, Irina Kravchenko, Anna Kizilova, and Nikolai Bazhin
 Biogeochemical role and greenhouse gas emissions from hydrological elements of anthropogenically changed peatlands
- A380 EGU2011-12992
Michaela Klinglmüller, Barbara Kitzler, Jannis Bücken, Bernhard Wimmer, Andrea Watzinger, Franz Zehetner, Gerhard Soja, and Sophie Zechmeister-Boltenstern
 Effects of biochar on greenhouse gas fluxes of agricultural soils
- A381 EGU2011-13913
Lutz Weihermüller and Alexander Graf
 Initializing the RothC carbon model: Equilibrium run, physical fractionation, or pedotransferfunctions?
- A382 EGU2011-13917
Stephan Glatzel, Albrecht Jordan, and Gerald Jurasinski
 Fine root biomass of trees as a predictor of soil respiration

HS8.3.6 – The role of interfaces in flow and transport in porous media – Orals

Convener: Peter Lehmann | Co-Conveners: Dani Or, Insa Neuweiler

Room: 39

Chairperson: Insa Neuweiler

- 10:30–10:45 EGU2011-4918
Dani Or, Ebrahim Shahraeeni, Nima Shokri, and Peter Lehmann
 Interfacial processes controlling evaporation rates from porous media
- 10:45–11:00 EGU2011-4233
Prabhakar Sharma and Denis O'Carroll
 Mobilization of Multi-walled Carbon Nanotubes in Partially Saturated Porous Media
- 11:00–11:15 EGU2011-6061
Max Köhne, Hans-Jörg Vogel, and Steffen Schlüter
 Predicting solute transport in structured soil using pore network models
- 11:15–11:30 EGU2011-6009
Helmut Geistlinger and Shirin Samani
 Flow Transition during Buoyancy-Driven Gas Migration: Experiments and Theory
- 11:30–11:45 EGU2011-6446
Michal Snehota, Martina Sobotkova, Peter Vontobel, Jan Hovind, and Milena Cislerova
 Investigating the quasi-steady state flow instabilities by non-invasive methods
- 11:45–12:00 EGU2011-12900
Michel Bechtold, Sabina Haber-Pohlmeier, Jan Vanderborght, Andreas Pohlmeier, Ty P.A. Ferré, and Harry Vereecken
 Deep and near-surface solute redistribution during evaporation leads to high-concentration spots and loops of solute mass fluxes

HS8.3.6 – The role of interfaces in flow and transport in porous media – Posters

Convener: Peter Lehmann | Co-Conveners: Dani Or, Insa Neuweiler

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Peter Lehmann

- A383 EGU2011-7464
Philippe Leroy, Arnault Lassin, and Mohamed Azaroual
 A double-layer model of the surface electrochemical properties of the air/water interface
- A384 EGU2011-12509
Amélie Neuville, Eirik G. Flekkøy, Renaud Toussaint, and Jean Schmittbuhl
 Non-Darcian effects in a rough fracture using lattice-Boltzmann methods
- A385 EGU2011-3767
 Vahid Joeekar-Niasar and **S. Majid Hassanizadeh**
 Interplay between the capillary pressure, saturation and interfacial area: pore-network analysis
- A386 EGU2011-5015
Philippe Beltrame, Edgar Knobloch, Peter Hänggi, and Uwe Thiele
 Pinning and flow regimes of thin liquid layers on a heterogeneous substrate
- A387 EGU2011-4503
Anders Kaestner, Beat Muench, Pavel Trtik, and Les Butler
 Spatio-temporal neutron tomography of dynamic processes

- A388 EGU2011-13417
Grunde Løvoll, Mihailo Jankov, Knut Måløy, **Renaud Toussaint**, Jean Schmittbuhl, Gerhard Schäfer, and Yves Méheust
Viscous fingering and dynamic saturation-pressure curves in two-dimensional porous media
- A389 EGU2011-7985
Peter Lehmann and Dani Or
Characteristic capillary pressures for air- and water-phase continuity
- A390 EGU2011-11871
Insa Neuweiler and Cindi Schütz
Modeling of infiltration fronts in highly heterogeneous fields
- A391 EGU2011-7925
Vladimíra Jelínková, Michal Sněhota, Michal Dohnal, and Milena Císlerová
Effects Caused by Entrapped Air Detected During MRI Infiltration-Outflow Experiment
- A392 EGU2011-13108
Martina Sobotkova, Martin Sanda, and Michal Sněhota
Solute transport in heterogeneous undisturbed soil cores during recurrent ponded infiltration
- A393 EGU2011-12463
Cindi Schütz and Insa Neuweiler
Spatially averaged water content during infiltration in homogeneous and heterogeneous porous media on the larger laboratory scale
- A394 EGU2011-12059
Klaus Mosthaf, Katherina Baber, Holger Class, Bernd Flemisch, and Rainer Helmig
Modeling evaporation influenced by ambient air flow
- A395 EGU2011-5592
Ebrahim Shahraeeni and Dani Or
Evaporation - Condensation Dynamics Affecting Vapor Transport in Partially Saturated Porous Media - Models and Experiments
- A396 EGU2011-2621
Martine Rutten, Nick van de Giesen, and Susan Steele-Dunne
The influence of pressure pumping on heat and vapor transport in the topsoil.
- A397 EGU2011-8539
Jan Vanderborght, Marin Dimitrov, and Harry Vereecken
Effect of soil surface structure on surface temperature of a bare soil.

HS9.3 – Sediment transport monitoring and modeling in rivers – Orals

Convener: Alison D. Reeves | Co-Conveners: Nicolle Mathys, Dieter Rickenmann

Room: 39

Chairperson: Dr Alison Reeves

- 15:30–15:45 EGU2011-17
Eliisa Lotsari, David Wainwright, Geoffrey Corner, Petteri Alho, and Jukka Käyhkö
Dynamic relationship between discharge and river morphology in the braided sub-arctic lower Tana River: 2D-morphology modelling as a tool for river channel change detection
- 15:45–16:00 EGU2011-2284
Markus Promny
Monitoring and Modeling of Sediment Transport Velocities
- 16:00–16:15 EGU2011-5021
Matthias Vanmaercke, Jean Poesen, Gerard Govers, Gert Verstraeten, and Jolina Vanesch
Towards the prediction of pre-anthropocene sediment yields for small catchments in Europe
- 16:15–16:30 EGU2011-9046
Henri Etcheber, **Aldo Sottolichio**, Sabine Schmidt, Gérard Chabaux, Patrice Castaing, and Eric Maneux
Long-term monitoring of water quality and suspended sediment transport in the Gironde fluvial-estuarine system (MAGEST program)
- 16:30–16:45 EGU2011-11402
Maximiliano Sassi and Ton Hoitink
Quantifying suspended sediment discharge in the Mahakam river and tributary channels
- 16:45–17:00 EGU2011-5493
Johannes Schneider, Jens Turowski, and Dieter Rickenmann
Comparing fractional bedload transport equations with field data

HS9.3 – Sediment transport monitoring and modeling in rivers – Posters

Convener: Alison D. Reeves | Co-Conveners: Nicolle Mathys, Dieter Rickenmann

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Dr Dieter Rickenmann

- A398 EGU2011-18
Eliisa Lotsari, Juha Aaltonen, Noora Veijalainen, Petteri Alho, and Jukka Käyhkö
River Kokemäenjoki (SW Finland) in the 21st century - modelling impacts of climate change and isostatic land uplift on discharges and morphology
- A399 EGU2011-1026
José A. López-Tarazón, Ramon J. Batalla, Damià Vericat, and J. Carles Balasch
The hydrosedimentological response to rainfall of a mountainous catchment: the river Isabena
- A400 EGU2011-1368
Michael Nones, Mariateresa Franzoia, and Giampaolo Di Silvio
Computation of sediment transport in rivers: analysis of the sediment rating curves
- A401 EGU2011-2051
Gary Sheridan, Patrick Lane, Christopher Sherwin, and Phillip Noske
Post-fire changes in sediment rating curves in a wet Eucalyptus forest in SE Australia
- A402 EGU2011-3291
Achim A. Beylich, Katja Laute, and Susan Liermann
Analysis of bedload transport in steep mountain streams: Integrating field measurements with flume experiments
- A403 EGU2011-4156
M. Mercedes Taboada-Castro, M. Luz Rodríguez-Blanco, **Laura Palleiro**, and M. Teresa Taboada-Castro
Investigation of sediment yield under different flow conditions: an example in humid temperate environment
- A404 EGU2011-4369
Fabian Friedl and Michael Chiari
An experimental study on bedload transport measurements in a steep flume
- A405 EGU2011-6823
Daniel Buscombe and Daniel Conley
Formula for Motion Threshold per Grain Size for Graded Sediments in Steady Flows
- A406 EGU2011-10463
Annamaria De Vincenzo, Francesco Brancati, and Rosa Viparelli
A Methodological approach for calculating braided gravel bed stream geometry
- A407 EGU2011-10756
Antonio Moñino, Agustín Millares, Javier Herrero, María José Polo, and Miguel Ángel Losada
Measurement of infilling rate in a small reservoir in a Mediterranean semi-arid area
- A408 EGU2011-11350
Julien Duc, Jacques Béchet, Alexandre Loye, Michel Jaboyedoff, Nicolle Mathys, Sébastien Klotz, André Jacomé, Julien Travelletti, and Jean Philippe Malet
Quantification of seasonal erosion processes at the scale of the elementary gully using high resolution terrestrial laser scanner in Draix (south French Alps).
- A409 EGU2011-12099
A.N. Thanos Papanicolaou and Achilleas Tsakiris
Calibration of an Acoustic Sensor (Geophone) for Continuous Bedload Monitoring in Mountainous Streams
- A410 EGU2011-13076
Patrick Meunier, Arnaud Burtin, Morgane Houssais, Pauline Souloumiac, and Francois Metivier
Discharge and sediment transport of a small braiding river inferred from seismic survey.

HS9.8 – Land-water interaction at the river basin scale: ecohydrology approaches to understanding the impact of upstream processes on downstream estuarine and coastal ecosystems – Posters

Convener: Susana Neto | Co-Conveners: Luis Chicharo, Neil Coles, Jeff Camkin

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Susana Neto

- A411 EGU2011-3907
Ahmad Majar, Maan Daoud, Moustafa Alozon, and Hesham Barakat Refaai
Soil Salinity in the Adjacent Territories to the Reservoirs of Euphrates River in Semi-Arid climate Zone of Syria
- A412 EGU2011-5428
Markus Hrachowitz, Chris Soulsby, Christian Imholt, Tetzlaff Doerthe, and Iain Malcolm
Thermal regimes in a large upland salmon river: a simple model to identify the influence of landscape controls and climate change on maximum temperatures.
- A413 EGU2011-6043
Mateja Skerjanec and Natasa Atanasova
Development of knowledge library for integrated watershed modeling

- A414 EGU2011-240
Paul Gillespie, Christopher Cornelisen, and Andrew Fenemor
 Catchment linkages to a New Zealand river plume ecosystem: a mountains to sea integrated catchment management approach
- A415 EGU2011-390
Mark Rivers, Keith Smettem, and Peter Davies
 Estimating future scenarios for farm-watershed nutrient fluxes using dynamic simulation modelling - Can on-farm BMPs really do the job at the watershed scale?
- A416 EGU2011-1848
Dawit Mulatu, Anne van der Veen, Robert Becht, and Desta Bekalo
 Relating People, Land and Environment in Lake Naivasha Watershed, Kenya.
- A417 EGU2011-6136
Goran Volf, Nataša Atanasova, Boris Kompare, and Nevenka Ožani?
 Modelling Nutrient Loads to northern Adriatic
- A418 EGU2011-8412
Pieter Van Oel and Anne Van der Veen
 An agent-based modeling approach for the evaluation of management alternatives in dealing with basin closure in the Naivasha basin, Kenya
- A419 EGU2011-11532
 Zhao-Yin Wang, Shao-Hua Marko Hsu, **Cheng-Chieh Lin**, and Meng-Zen Xu
 Aquatic Community Changes in a River Basin

HS10.3 – Interactions between surface water, groundwater, and the hyporheic zone – Orals

Convener: Jörg Lewandowski | Co-Conveners: Stefan Krause, Fulvio Boano, Jan Fleckenstein, Mark Cuthbert

Room: 38

Chairperson: Fulvio Boano, Stefan Krause

- 13:30–14:00 EGU2011-9349
Aaron Packman
 Heterogeneity in river-groundwater interactions: Causes and effects over multiple scales
- 14:00–14:15 EGU2011-10699
Dylan Irvine, Philip Brunner, Harrie-Jan Hendricks-Franssen, and Craig T. Simmons
 Streambed heterogeneity and stream-aquifer connection: Implications of calibrating effective average parameter values
- 14:15–14:30 EGU2011-3749
Noah Schmadel, Justin Heavilin, Bethany Neilson, and Anders Wörman
 Investigating the Effects of Channel Spatial Variability on Two-Zone Transient Storage Modeling
- 14:30–14:45 EGU2011-12910
John Mallard, Tim Covino, Brian McGlynn, and Anna Bergstrom
 Watershed and stream network structure influences on physical and biological nutrient retention and stream water sources
- 14:45–15:00 EGU2011-9344
Michael Rivett, Mark Cuthbert, and David Simpson
 Measuring and modelling infiltration losses to groundwater resulting from aquifer exploitation for a stream receiving motorway runoff discharges
- Chairperson: Jörg Lewandowski, Mark Cuthbert
- 15:30–16:00 EGU2011-12640
Jud Harvey
 Challenges and Advancements in Linking Hyporheic Flow with Ecological Processes in Streams and Rivers
- 16:00–16:15 EGU2011-10270
Marc Schwientek, Benny Selle, and Karsten Osenbrück
 Understanding the importance of hyporheic processes at the catchment scale
- 16:15–16:30 EGU2011-1296
Stefan Banzhaf, Andreas Krein, and Traugott Scheytt
 Investigations in the hyporheic zone of a low permeable riverbank
- 16:30–16:45 EGU2011-8032
Joakim Riml, Anders Wörman, Uwe Kunkel, and Michael Radke
 Transport and transformation of some common pharmaceuticals in Säva Brook, Sweden
- 16:45–17:00 EGU2011-8779
William Woessner and Antony Berthelote
 Responses of Losing Rivers and Groundwater to a 10 m High Dam Removal, Western Montana, USA
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HS10.3 – Interactions between surface water, groundwater, and the hyporheic zone – Posters

Convener: Jörg Lewandowski | Co-Conveners: Stefan Krause, Fulvio Boano, Jan Fleckenstein, Mark Cuthbert

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Mark Cuthbert, Stefan Krause, Jan H. Fleckenstein

- A420 EGU2011-12588
Timothy Covino, Brian McGlynn, and John Mallard
Hydrologic gains and losses, hydrologic turnover, and stream network controls on streamwater composition
- A421 EGU2011-9791
Marcel Van der Perk, Ellen L. Petticrew, and Philip N. Owens
Variability of hyporheic exchange in an experimental gravel bed
- A422 EGU2011-3303
Steffi Schuchort, Jörg Lewandowski, and Gunnar Nützmann
Hydrological and geochemical characterization of the hyporheic zone of a eutrophic lowland stream impacted by a wastewater treatment plant
- A423 EGU2011-9110
Stefan Krause, John Weatherill, Mathias Munz, Christina Tecklenburg, and Theresa Blume
Hot moments in cold spots - Multi-scale tracing of reactivity hotspots in hyporheic environments
- A424 EGU2011-9838
Michael Rivett, Mark Cuthbert, Rae Mackay, Veronique Durand, Maria-Fernanda Aller, John Tellam, Richard Greswell, and Rachel Roche
Natural attenuation potential of the urban hyporheic zone: observations from research sites on the River Tame, Birmingham, UK
- A425 EGU2011-4242
Jörg Lewandowski, Anke Putschew, David Schwesig, Christiane Neumann, and Michael Radke
Fate of organic micropollutants in the hyporheic zone of eutrophic lowland streams: results of a field study in the Erpe, Germany
- A426 EGU2011-3284
Franziska Pöschke, Jörg Lewandowski, and Gunnar Nützmann
Small-Scale Heterogeneities of Nutrients in a Floodplain's Aquifer
- A427 EGU2011-11249
Francesco Ronchetti, Federico Cervi, Alessandro Corsini, Paolo Mora, Stefano Taddia, and Giuseppe Maragò
The use of Thermal Infrared Imaging to identify low-thermal groundwater inflow in mountain stream.
- A428 EGU2011-12422
Fulvio Boano, Roberto Revelli, and Luca Ridolfi
Role of unsteady flow conditions on the hyporheic exchange induced by bedforms
- A429 EGU2011-4282
Marie Larocque, Stéphanie Pellerin, Michelle Garneau, Pierre Richard, and Martin Roy
Using hydrological modeling, paleoecology and chronology to quantify the resilience of an aquifer-peatland ecohydrological system in southern Quebec (Canada)
- A430 EGU2011-8901
Nico Trauth, Michael Vieweg, Christian Schmidt, and Jan H. Fleckenstein
Integrated field experiments and numerical modelling to evaluate the factors controlling water flow and redox conditions in the hyporheic zone
- A431 EGU2011-3914
Justin Heavilin, Bethany Neilson, Noah Schmadel, and Anders Wörman
Advancing Solutions of the Two-Zone Temperature and Solute Transport Model by Solving A Simplified Temperature Transport Component
- A432 EGU2011-2674
Hans Peter Broers, Ruth Heerdink, and Ate Visser
Simulating regional groundwater transport to surface waters combining stream tube and hydrogeochemical approaches
- A433 EGU2011-6205
Wolfgang Kurtz, Harrie-Jan Hendricks Franssen, and Harry Vereecken
Identification of time-variant river bed properties with the Ensemble Kalman Filter
- A434 EGU2011-866
Claudia Moretto and Dubravka Pokrajac
Mass transport and velocity field within a high permeable porous medium
- A435 EGU2011-13277
Gerald Blasch, Peter Fischer, Tobias Heckmann, Florian Haas, and Bernd Cyffka
Monitoring of soil moisture and groundwater level in a restored river/floodplain interconnection at the embanked Danube between Neuburg and Ingolstadt (Germany)

- A436 EGU2011-8706
Tobias Schuetz, Markus Weiler, and Jens Lange
 The effect of emerging wetland vegetation on solute transport processes
- A437 EGU2011-7595
Karin Meinikmann, Michael Hupfer, and Jörg Lewandowski
 Groundwater as a main input path of nutrients to a lake ecosystem - a case study from Germany

GM7.6/HS12.5 – Sedimentary source-to-sink fluxes and sediment budgets (co-organized) – Orals

Convener: Achim A. Beylich | Co-Conveners: Francesco Brardinoni, Katja Laute, Susan Liermann

Room: 21

Chairperson: Achim A. Beylich, Francesco Brardinoni

- 08:30–08:45 EGU2011-1547
Sara Savi, Kevin Norton, Naki Akçar, Fritz Schlunegger, Vincenzo Picotti, and Francesco Brardinoni
 Sediment transfer in an alpine catchment, assessed by 10Be
- 08:45–09:00 EGU2011-4434
 Carolien Toté, **Gerard Govers**, Stijn Van Kerckhove, Isabel Filiberto, Gert Verstraeten, and Herman Eerens
 Effect of ENSO events on sediment production and transfer in a large coastal basin in northern Peru
- 09:00–09:15 EGU2011-6949
Gerben de Jager, Andrea Forzoni, and Joep Storms
 2DStratSim: an efficient source-to-sink model to calculate sediment volumes and forcing propagation
- 09:15–09:30 EGU2011-7052
Janneke IJmker, Georg Stauch, Kai Hartmann, Bernhard Diekmann, Elisabeth Dietze, Stephan Opitz, Bernd Wünnemann, and Frank Lehmkuhl
 Environmental reconstructions on the NE Tibetan Plateau based on sediment characteristics and multivariate statistics (EMMA)
- 09:30–09:45 EGU2011-7804
Jacob Covault, William Craddock, Brian Romans, and Andrea Fildani
 Terrestrial sediment flux: the importance of timescale of observation and drainage-basin size
- 09:45–10:00 EGU2011-10496
Martin Geilhausen, Jan-Christoph Otto, and Lothar Schrott
 Geomorphic system analysis and paraglacial landform adjustment in two glacier forefields (Pasterze & Obersulzbachkees, Hohe Tauern, Austria)

GM7.6/HS12.5 – Sedimentary source-to-sink fluxes and sediment budgets (co-organized) – Posters

Convener: Achim A. Beylich | Co-Conveners: Francesco Brardinoni, Katja Laute, Susan Liermann

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Katja Laute, Susan Liermann

- A149 EGU2011-182
Katja Laute and Achim A. Beylich
 Holocene hillslope development in paraglacial tributary valleys in Nordfjord, Western Norway
- A150 EGU2011-4231
Gwangsoo Lee, Daechoul Kim, and Hiil Yi
 Depositional history of late Quaternary mud deposits using high resolution seismic profile in the southeastern Yellow Sea
- A151 EGU2011-4874
Susan Liermann and Achim A. Beylich
 Holocene to contemporary fluvial sediment fluxes and budgets of two glacier-fed valley-fjord systems in the Nordfjord area, western Norway
- A152 EGU2011-5913
Ying-Ying Shih, Saulwood Lin, Kuo-Yen Wei, Jiann-Yuh Lou, and Char-Shine Liu
 Climate change and variation in organic carbon deposition since the LGM in the Northeastern South China Sea
- A153 EGU2011-8127
Vincent Balthazar, Veerle Vanacker, Atkilt Girma, and Semunesh Golla
 Regional scale analysis of human and biophysical control of sediment yield variability in the Ethiopian Highlands
- A154 EGU2011-10531
Joachim Götz, Jan-Christoph Otto, and Lothar Schrott
 Quantification and temporal evolution of sediment storage in a Lateglacial inner-alpine basin (Gradenmoos, Schober Mountains, Austria)

- A155 EGU2011-11494
Alexandre Loye, Benoît Mazotti, Eric Bardou, Michel Jaboyedoff, and Benjamin Rudaz
Alpine catchment sediment budget modelling through a quantitative sediment cascade procedure
- A156 EGU2011-13761
Achim A. Beylich and Ulf Molau
Dynamics and Landscape Formation in Cold Environments: The DYNAFLUX / DYNACOLD Network
- A157 EGU2011-13772
Armelle Decaulne, Thorsteinn Sæmundsson, and Olafur Eggertsson
Geomorphological and dendrochronological data comparison to assess the frequency and magnitude of snow-avalanches fluxes in a subpolar maritime environment
- A158 EGU2011-13777
Achim A. Beylich, Katja Laute, and Susan Liermann
Holocene to contemporary source-to-sink fluxes in a valley-fjord system in western Norway: Erdalen and Bødalen site project (SedyMONT-Norway)
- A159 EGU2011-13795
Louise Hansen, Susan Liermann, Katja Laute, and **Achim A. Beylich**
Volume estimation of the Bødalen delta, western Norway - a first outline

TS4.2/GD2.7/GM7.7/HS12.15/SSP3.2 – From Source to Sink: Quantification of mass transfer from mountain ranges to active sedimentary basins (co-organized) – Orals

Convener: Liviu Matenco | Co-Conveners: Paul Andriessen, Bernhard Fügenschuh, Lothar Schrott

Room: 28

Chairperson: Liviu Matenco, Paul Andriessen

- 15:30–15:45 EGU2011-2979
Hilmar von Eynatten
The Role of Provenance Analysis in Quantifying Source-Sink relations
- 15:45–16:00 EGU2011-7077
Andrea Forzoni, Gerben de Jager, and Joep Storms
An integrated source-to-sink model simulating sediment flux through a river system and fluvio-deltaic stratigraphy
- 16:00–16:15 EGU2011-12137
Endre Dombrádi, Frank Horváth, Marco Sacchi, Gábor Bada, and Tamás Tóth
The role of tectonics and erosion in the evolution of topography in the western Pannonian basin
- 16:15–16:30 EGU2011-6492
Marten ter Borgh, Iuliana Vasiliev, Marius Stoica, Slobodan Knežević, Liviu Matenco, Wout Krijgsman, Ljupko Rundic, and Sierd Cloetingh
The age of the isolation and the evolution of the sedimentary infill of the Pannonian basin
- 16:30–16:45 EGU2011-9713
Andrei Briceag and Mihaela Melinte-Dobrinescu
Palaeoenvironmental changes in the Holocene deposits of the Romanian Black Sea inner shelf
- 16:45–17:00 EGU2011-368
Bartosz Goledowski, Søren Bom Nielsen, and Ole Rønø Clausen
Norway and adjacent sedimentary basins during Cenozoic times - sediment fluxes, accumulation rates and mass balance

TS4.2/GD2.7/GM7.7/HS12.15/SSP3.2 – From Source to Sink: Quantification of mass transfer from mountain ranges to active sedimentary basins (co-organized) – Posters

Convener: Liviu Matenco | Co-Conveners: Paul Andriessen, Bernhard Fügenschuh, Lothar Schrott

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Bernhard Fügenschuh, Nicolae Panin

- XL335 EGU2011-13766
Liviu Matenco, Paul Andriessen, Bernhard Fügenschuh, Lothar Schrott and the Source Sink Team
Source to Sink systems: Quantification of mass transfer from mountain ranges to active sedimentary basins in the Danube basin system
- XL336 EGU2011-11006
Mehdi Pasha Karami, Paul Meijer, Anna von der Heydt, Arjan de Leeuw, and Rinus Wortel
Circulation and water properties of the Miocene Mediterranean Sea and Paratethys before and after closure of the Tethys Seaway: a regional ocean model study
- XL337 EGU2011-6831
Nicolae Panin and How Kin Wong
Sedimentation processes and depocentres of the Danube - Black Sea system

- XL338 EGU2011-5822
Ioan Munteanu, Liviu Matenco, Corneliu Dinu, and Sierd Cloetingh
The Miocene-Quaternary evolution of NW part of Black Sea Basin and connection with Dacian Basin
- XL339 EGU2011-5780
Dorina Tambrea, Corneliu Dinu, and Ioan Munteanu
Structural characteristics of Paleogene deposits, in central Romanian Black Sea offshore
- XL340 EGU2011-5861
Alina Floroiu, Marius Stoica, Ioan Munteanu, and Corneliu Dinu
Stratigraphical and paleontological data from Upper Miocene-Pliocene sediments, Romanian Black Sea shelf
- XL341 EGU2011-7395
Michal Kováč, **Rastislav Synak**, Bohuslava Sopková, and Jozef Minár
Upper Miocene and Pliocene history of the northern Danube Basin
- XL342 EGU2011-11146
Juraj Franc, Jan Šafanda, Vladimír Čermák, Oldřich Krejčí, and Paul Andriessen
Heat flow pattern and thermal history of the West Carpathian-Pannonian basins in respect to the uplift and erosion of the adjacent fold-and-thrust belts
- XL343 EGU2011-8367
Judit Petrovski, Balázs Székely, and Gábor Timár
The classification of multiple window-size based sinuosity spectrum - a new evaluation method in river sinuosity calculation
- XL344 EGU2011-3513
Uros Stojadinovic, Liviu Matenco, Paul Andriessen, Marinko Toljic, and Jurgen Foeken
From Mountain Building to Orogenic Collapse: Interferences Between Dinaridic and Carpathian Orogenic Systems
- XL345 EGU2011-12861
Martin Reiser, Bernhard Fügenschuh, and Ralf Schuster
The tectonic evolution of the Biharia nappe system documented by structural and thermochronological data. Apuseni Mountains, Romania.
- XL346 EGU2011-9947
Wolfgang Reiter, Simon Elfert, and Cornelia Spiegel
Plio-Pleistocene denudation history of the Central European Alps revealed through detrital thermochronology
- XL347 EGU2011-369
Vivi Kathrine Pedersen, Søren Bom Nielsen, and Kerry Gallagher
Post-orogenic evolution of the Northeast Greenland Caledonides

ML17 – Henry Darcy Medal Lecture by Ján Szolgay (co-listed) – Orals

Convener: Alberto Montanari

Room: 33

Chairperson: Alberto Montanari

- 18:30–19:30 EGU2011-14187
Jan Szolgay
On the crossroads between science and engineering: transferability and applicability of concepts in flood hydrology (Henry Darcy Medal Lecture)

NP3.7 – Geophysical Downscaling Methods (co-listed) – Orals

Convener: Tobias Sauter | Co-Conveners: Victor Venema, Douglas Maraun, Erika Coppola

Room: 13

Chairperson: Douglas Maraun

- 13:30–13:45 EGU2011-3764
Xavier Beuchat, **Bettina Schaefli**, André Mermoud, and Marc Soutter
Toward a robust method for sub-daily rainfall downscaling from daily data
- 13:45–14:00 EGU2011-8826
Matthieu Lafaysse, Benoit Hingray, Joël Gailhard, and Abdelkader Mezghani
Evaluating the temporal transferability of statistical downscaling models for climate change impact studies.
- 14:00–14:15 EGU2011-11395
Abdelkader Mezghani and Benoit Hingray
Statistical downscaling of precipitation: interest of moisture variables
- 14:15–14:30 EGU2011-7963
Tobias Sauter and Victor Venema
Natural three-dimensional predictor domains for statistical precipitation downscaling

- 14:30–14:45 EGU2011-6410
Simona Barbarino, Daniele Cane, and Christian Ronchi
Regional climate model downscaling with Multimodel SuperEnsemble in the Alpine area and wildfire potential evaluation in the scenario
- 14:45–15:00 EGU2011-1139
Amadou Idrissa BOKOYE
Assessment of the influence of the global climate model (GCM) generation on Empirical Statistical Downscaling outputs: A case study from Canadian GCMs
- 15:00–15:15 EGU2011-11123
Anne Schindler, Douglas Ma, and Jürg Luterbacher
The annual cycle of intensity and frequency of extreme precipitation events across the UK in observations and future projections

Friday, 08 April

BG5.1 – Integration of Environmental, Socio-Economic and Climatic Change Studies in Northern Eurasia (co-listed) – Posters

Convener: Pavel Groisman | Co-Conveners: Amber Soja, Alexey V. Eliseev, Chaba Mátyás

Poster Area BG | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: n.n.

- BG89 EGU2011-12559
Pavel Groisman, Vladimir Kattsov, and Richard Lawford
Northern Eurasia Earth Science Partnership Initiative (NEESPI) in 2010: An Overview of the Current Status
- BG90 EGU2011-12855
David McCabe, **Pavel Groisman** and the "Open Burning and the Arctic" conference (St. Petersburg, Russia, Nov. 2010) Source Apportionment Team
Open Burning and the Arctic: Current Knowledge and Priorities for Future Research
- BG91 EGU2011-2233
Irena Borzenkova, Pavel Groisman, Anna Mescherskaya, Olga Bulygina, and Vyacheslav Razuvaev
Extraordinary Heat Wave over European Russia in Summer 2010: What do the Data say?
- BG92 EGU2011-960
Margarita Syromyatina, Igor Moskalenko, and Kirill Chistyakov
Space-time features of climate changes in the Altai Mountains and alpine landscapes response
- BG93 EGU2011-1586
Alexey V. Eliseev, Maxim M. Arzhanov, and Igor I. Mokhov
Bayesian climate projection for the northern subpolar land based on ensemble of global climate models forced by SRES A1B scenario
- BG94 EGU2011-170
Julia Palamarchuk and Sergiy Ivanov
Regional and local variability of precipitation in Europe
- BG95 EGU2011-1601
Alexander V. Chernokulsky, Mirseid G. Akperov, Olga N. Bulygina, and Igor I. Mokhov
Changes in cloudiness and cyclonic/anticyclonic activity over Russia during last decades from observations and reanalyses data
- BG96 EGU2011-4794
Yury Gurfinkel
Solar activity and cardiovascular pathology
- BG97 EGU2011-11524
Dmitry Schepaschenko, Anatoly Shvidenko, and Lyudmila Mukhortova
Organic carbon in Russian soils: A specified spatially explicit assessment
- BG98 EGU2011-1898
Leonid L. Golubyatnikov
Model estimation of carbon flux from the soil: Russia case study
- BG99 EGU2011-2796
Galina Ivanova, Susan Conard, Anna Bogorodskaja, Valery Ivanov, Natalia Kovaleva, Eugenia Krasnosheikova, Elena Kukavskaya, Pavel Tarasov, and Sergey Zhila
Estimating and Monitoring Effects of Fire Severity on Ecosystem Components of Siberian Scots pine forests
- BG100 EGU2011-13171
Amber Soja, David Westberg, Paul Stackhouse, Jr, Douglas McRae, Ji-Zhong Jin, Anatoly Sukhinin, and Nadezda Tchepakova
Analysis of the Ability of Large-scale Reanalysis Data to Define Siberian Fire Danger in Preparation for Future Fire Weather
- BG101 EGU2011-5161
Brian Stocks and Donald Cahoon Jr.
Reconstructing Post-1979 Forest Fire Activity and Area Burned in Russia: NOAA AVHRR Analysis
- BG102 EGU2011-10479
Nadja Tchepakova, Almuth Arneth, Luca Beletti, Chiara Corradi, Julia Kurbatova, Elena Parfenova, Natalia Vygodskaya, Ernst-Detlef Schulze, and Riccardo Valentini
Energy and water exchange in various ecosystems in central Siberia (from eddy covariance measurements)
- BG103 EGU2011-6931
Mihaela Laurenta Alexandrov, **Razvan Doru Mateescu**, Daniel Pertenatu, and Alina Spinu
The Romanian littoral - coastal geomorphologic changes during the last half of Century (1961-2011); its impact on the coastal development and solutions for protection and rehabilitation

- BG104 EGU2011-11542
Csaba Mátyás
Situation and Needs Regarding Forests and Climate Change Adaptation in Eastern Europe and Central Asia
- BG105 EGU2011-13934
Éva Konkoly-Gyuró, Csaba Mátyás, Géza Kiraly, **Pál Balázs**, and Áron Drüsler
Drivers and effects of long-term land use changes on climate, environment and socioeconomy in Central Europe
- BG106 EGU2011-6740
Maria Artamonova, Alexander Babyakin, **Natalia Efimenko**, Nina Povolotskaya, Igor Polozkov, David Topuriya, Elena Chalaya, Georgii Golitsyn, and Irina Senik
New approaches to the assessment of pathogenicity of weather conditions and aerosol pollution of the atmosphere for resorts
- BG107 EGU2011-4148
Vladimir P. Shevchenko, Oleg S. Pokrovsky, Dina P. Starodymova, Liudmila S. Shirokova, Rinat M. Manassypov, and Natalia S. Zamber
Terricolous lichens as biomonitor of environmental pollution in the Northern Eurasia
- BG108 EGU2011-12179
Irina N. Sokolik, Viatcheslav Tatarskii, Xin Xi, and Igor Shkolnik
Examining interactions between climate, droughts and dust events in Central Asia
- BG109 EGU2011-9653
Boris D. Belan, Pavel N. Antokhin, Viktoriya Arshinova, Sergey B. Belan, Aleksandr V. Fofonov, Georgii A. Ivlev, Tatyana M. Rasskazchikova, and Mikhail Yu. Arshinov
Blocking effect of Ural Mountains on transboundary transport of pollutants from Europe to Northern Asia
- BG110 EGU2011-6067
Mikhail Yu. Arshinov, Denis V. Simonenkov, Boris D. Belan, and Gennadii N. Tolmachev
Spatio-temporal variations of chemical composition of atmospheric aerosols over background region of southern part of Western Siberia
- BG111 EGU2011-5935
Mikhail Yu. Arshinov, Denis V. Simonenkov, Boris D. Belan, Gennadii N Tolmachev, Tatyana M Rasskazchikova, Tatyana K Sklyadneva, and Nina V. Uzhegova
Chemical composition of background aerosols sampled in Siberia

HS1.2/EOS08 – Challenges for Future Hydrology Education in a Changing World (co-organized) – Orals

Convener: Bellie Sivakumar | Co-Conveners: Stefan Uhlenbrook, Eduardo Mendiando, Kevin J. McGuire, Graham Jewitt

Room: 39

Chairperson: Bellie Sivakumar

- 15:30–15:45 EGU2011-4429
Thorsten Wagener, Brian McGlynn, Michael Gooseff, Kevin McGuire, Lucy Marshall, Tom Meixner, Christa Kelleher, and Susan Gregg
Towards a coherent, holistic and evolving approach to hydrology education
- 15:45–16:00 EGU2011-12820
Sally E. Thompson, Ciaran J. Harman, Rina Schumer, Jennifer Wilson, and Murugesu Sivapalan
Hydrologic Science for a Changing World: A Learning Framework Based on Hydrologic Synthesis and Team Science
- 16:00–16:15 EGU2011-5191
Bellie Sivakumar
Hydrology education in a changing world: challenges and future directions
- 16:15–16:30 EGU2011-13851
Stefan Uhlenbrook and Erick de Jong
How to educate hydrologists that are effective in an ever changing world ?
- 16:30–16:45 EGU2011-9010
Jan Seibert
Water is fun! - Experiments and games as part of hydrological learning
- 16:45–17:00 EGU2011-3430
Guenter Bloeschl, Christian Bucher, Gemma Carr, Andreas Farnleitner, Helmut Rechberger, Wolfgang Wagner, and Matthias Zessner
The Vienna Doctoral Programme on Water Resource Systems: Achievements and challenges of an interdisciplinary research and education programme
- 17:00–17:15 EGU2011-10176
Graham Jewitt
Hydrology education and research in developing countries: Lessons from southern Africa

HS1.2/EOS08 – Challenges for Future Hydrology Education in a Changing World (co-organized) – Posters

Convener: Bellie Sivakumar | Co-Conveners: Stefan Uhlenbrook, Eduardo Mendiondo, Kevin J. McGuire, Graham Jewitt

Hall A | Display Time 08:00–17:00

Author in Attendance: 08:30–10:00

Chairperson: Eduardo Mario Mendiondo

A172 EGU2011-7921

Vinayakam Jothiprakash and Bellie Sivakumar

Hydrology Education in India

A173 EGU2011-7170

Eduardo Mario Mendiondo, **Dulce B B Rodrigues**, Irene M C Pimentel, Jose A Marengo, and Pedro F Caballero

Participatory-based Hydrology Education as Adaptation Strategy of Water Resources under Global Changes

HS2.8 – Large scale hydrology: observations and modelling – Orals

Convener: Hannah Cloke | Co-Conveners: David Hannah, Dan Rosbjerg, Chong-yu Xu

Room: 38

Chairperson: Hannah Cloke

08:30–08:45 EGU2011-12897

Arvid Bring and Georgia Destouni

Relevance of hydro-climatic change projection and monitoring for assessment of water cycle changes in the Arctic

08:45–09:00 EGU2011-11147

José Delgado, Bruno Merz, and Heiko Apel

Flood-frequency change in the Mekong river: scenarios for the 21st century

09:00–09:15 EGU2011-8431

Ingjerd Haddeland, Fulco Ludwig, Cui Chen, and Frank Voss

Effects of climate model radiation and humidity estimates on hydrological impact assessments

09:15–09:30 EGU2011-1635

Yoshihide Wada, L.P.H. (Rens) Van Beek, and **Marc F.P. Bierkens**

Modelling global water stress of the recent past: on the relative importance of trends in water demand and climate variability

09:30–09:45 EGU2011-2392

Jean-Pierre Vergnes, Bertrand Decharme, Ramdane Alkama, Hervé Douville, Eric Martin, and Florence Habets

A simple groundwater scheme for global hydrology and climate applications : development and off-line evaluation over France

09:45–10:00 EGU2011-11970

Frank Voss, Stephanie Eisner, Kerstin Verzano, Martina Flörke, Tim aus der Beek, Anja Voss, Christof Schneider, Martina Weiss, Ilona Bärlund, and Joseph Alcamo

The world in 5 minutes - new features of the large scale hydrological model WaterGAP

COFFEE BREAK

Chairperson: Hannah Cloke

10:30–10:45 EGU2011-11988

Lebing Gong, Chongyu Xu, and Georgia Destouni

Parsimonious parameterization of a large-scale hydrological model: validation in worldwide large river basins

10:45–11:00 EGU2011-6364

Lukas Gudmundsson, Lena M. Tallaksen, Thorsten Wagener, Kolbjørn Engeland, and Kerstin Stahl

Comparative Diagnostic Evaluation of eight Large Scale Hydrological Models Across Europe

11:00–11:15 EGU2011-12666

Rodrigo Cauduro Dias de Paiva, Diogo Costa Buarque, Walter Collischonn, Mino Sorribas, Daniel Gustavo Allasia, Carlos André Bulhões Mendes, Carlos Eduardo Moreli Tucci, and Marie-Paule Bonnet

Hydrologic and Hydrodynamic Modelling of the Amazon Basin using TRMM Rainfall Estimates

11:15–11:30 EGU2011-5482

Chris Kidd and Arthur Hou

Global Precipitation Measurements

11:30–11:45 EGU2011-9200

Youlong Xia, Michael Ek, Jesse Meng, Rongqian Yang, Jiarui Dong, and Helin Wei

Development and Application of Land Data Assimilation Systems (LDAS) in NCEP Operations

11:45–12:00 EGU2011-1869

Camille Szczypka, Jean-Christophe Calvet, Clément Albergel, Gianpaolo Balsamo, Souhail Boussetta, Dominique Carrer, Sébastien Lafont, Stéphanie Faroux, Bertrand Decharme, and Catherine Meurey
Monitoring of Mediterranean droughts: verification and use in a land surface model of the new ECMWF ERA-Interim reanalysis

HS2.8 – Large scale hydrology: observations and modelling – Posters

Convener: Hannah Cloke | Co-Conveners: David Hannah, Dan Rosbjerg, Chong-yu Xu

Hall A | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Hannah Cloke

A174 EGU2011-12053

Jamie Hannaford, Gwen Newton, Kerstin Stahl, and Lena Tallaksen

Decadal-scale river flow variability in Europe: evidence from long hydrometric records spanning 1900 - 2004

A175 EGU2011-10737

Elena Szolgayova, Gunter Blöschl, and Christian Bucher

Estimating long term persistence in discharge series on European scale

A176 EGU2011-5164

Rhys Hardwick-Jones, **Seth Westra**, and Ashish Sharma

Observed relationships between extreme sub-daily precipitation, surface temperature, and relative humidity

A177 EGU2011-40

Ruud van der Ent and Hubert Savenije

Length and time scales of atmospheric moisture recycling

A178 EGU2011-215

Revekka Nikoli, Ruud van der Ent, Holger Hoff, and Huub Savenije

Quantifying precipitation sources of large, water stressed basins

A179 EGU2011-2398

Marianela Fader, Dieter Gerten, Jens Heinke, Wolfgang Lucht, Hermann Lotze-Campen, and Wolfgang Cramer

Internal and external green-blue agricultural water footprints of nations and related water and land savings

A180 EGU2011-2530

Hessel Winsemius, Rens Van Beek, Joost Knoop, Lineke Woelders, and Karin De Bruijn

A Model Instrument for Integrated Scenarios of Global Flood Risks

A181 EGU2011-5973

Imtiaz Bashir and Okke Batelaan

Regional scale hydrological modeling: An insight into the water resources of African continent

A182 EGU2011-6416

Simon Munier, Mélanie Becker, Philippe Maisongrande, and Anny Cazenave

Evaluation of groundwater storage variations in various large aquifers using GRACE data

A183 EGU2011-8254

Matthias Zink, Rohini Kumar, and Luis Samaniego

Water balance simulations for major German river basins

A184 EGU2011-9211

Sylvain Biancamaria, Huilin Gao, Theodore Bohn, Venkataramana Sridhar, and Dennis Lettenmaier

Impact of seasonal lake storage variability on the global continental water budget

A185 EGU2011-9595

Augusto Getirana, Aaron Boone, Bertrand Decharme, Dai Yamazaki, and Nelly Mognard

Uncertainties in River Routing Simulations Related to the concentration time of runoff and baseflow in the Amazon basin

A186 EGU2011-12968

Laura Borma, Luz Adriana Cuartas, Maria Cecília R. Prado, José Lázaro de Siqueira Junior, Daniel Andrés Rodrigues, and Javier Tomasella

The Impact of Climate Change on the stream flows of Purus river, Amazonian - Brazil.

A187 EGU2011-10919

Heiko Apel, Sebastian Breitenbach, Nguyen Nghia Hung, and Hanno Meyer

Water in the Mekong Delta - tracing its origin

A188 EGU2011-12572

Diogo Buarque, Rodrigo Paiva, Walter Collischonn, and Carlos André Mendes

Using the HAND Terrain Descriptor to define Hydrological Response Units for Hydrological Modelling in the Amazon

HS2.16 – Water quality at the catchment scale: Advances in measuring and modeling nutrient, sediment, and contaminant fluxes – Orals

Conveners: Michael Rode, James Kirchner | Co-Conveners: Helge Bormann, Nicola Fohrer, Andrew Wade, BERIT ARHEIMER, Chris Soulsby, Doerthe Tetzlaff, Brian Reynolds

Room: 36

Chairperson: Michael Rode

08:30–08:45 EGU2011-3273

Markus Huttunen, Inese Huttunen, and Bertel Vehviläinen

Hydrological and Water Quality Simulation and Real Time Forecasting in Finland: The Watershed Simulation and Forecasting System (SYKE-WSFS-VEMALA)

08:45–09:00 EGU2011-9836

Jean-François Exbrayat, Neil R. Viney, Hans-Georg Frede, and Lutz Breuer

Skill and cost-loss analysis of a probabilistic nutrient ensemble prediction

09:00–09:15 EGU2011-6577

Jason Lessels, Michael Nelson, Thomas Bishop, and Rutger Vervoort

Generalised linear mixed models for predicting the probability of exceeding water quality guidelines

09:15–09:30 EGU2011-13145

Ben Surridge, Clare Deasy, and **John Quinton**

Pollution swapping in wetland systems designed to mitigate diffuse pollution from agricultural land

09:30–09:45 EGU2011-2596

Petra Kuhr, Peter Kreins, Ralf Kunkel, Björn Tetzlaff, and Frank Wendland

Delineation of priority areas for the implementation of agro-environmental nitrogen reduction measures in the Federal State of North Rhine-Westfalia, Germany

09:45–10:00 EGU2011-8262

Manfred Fink, Holm Kipka, Annika Künne, Frank Bäse, Peter Krause, and Wolfgang-Albert Flügel

Estimation of the effect of nitrogen reducing measures in agriculture in Thuringian watersheds

HS2.16 – Water quality at the catchment scale: Advances in measuring and modeling nutrient, sediment, and contaminant fluxes – Posters

Conveners: Michael Rode, James Kirchner | Co-Conveners: Helge Bormann, Nicola Fohrer, Andrew Wade, BERIT ARHEIMER, Chris Soulsby, Doerthe Tetzlaff, Brian Reynolds

Hall A | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: Michael Rode

A189 EGU2011-13217

James Kirchner and Colin Neal

Everything, everywhere, all the time: quantifying the information gained from intensive hydrochemical sampling

A190 EGU2011-2957

Fred Worrall, Nicholas Howden, and Tim Burt

DOC fluxes from the UK - up to 194 monitoring sites over 125 years

A191 EGU2011-10286

Vincent Thieu, Faycal Bouraoui, Bruna Grizzetti, and Alberto Aloe

Past and future trends in nutrient loads into European seas: long term impact of European environmental legislation and relevance of alternatives nutrient mitigation measures

A192 EGU2011-3648

Michael Exner-Kittridge, Matthias Zessner, and Günter Blöschl

Flow pathway separation from stream flow using various water quality parameters in an agricultural catchment in Austria

A193 EGU2011-13301

Faye Outram, Kevin Hiscock, Andrew Lovett, Bob Harris, and Dan McGonigle

Establishing a Demonstration Test Catchment in Eastern England for monitoring diffuse pollution runoff from intensive arable agriculture

A194 EGU2011-8034

Joerg Arnscheidt, **Philip Jordan**, and Rachel Cassidy

Monitoring high resolution nutrient transfers in river catchments

A195 EGU2011-9432

Péter Csáfordi, Zoltán Gribovszki, István Juhász, Péter Kalicz, Balázs Kisfaludi, Mihály Kucsara, Gergely

Markó, József Péterfalvi and the TÁMOP Hydrology, Sopron Team

Monitoring of urbanisation effects on water quality of Rák Stream, Sopron, Hungary

- A196 EGU2011-12657
Marie Archbold, Alison Orr, Joshua Thompson, Ciara Fitzpatrick, Pamela Maher, Rachel Cassidy, Jean Christophe Comte, Janka Nitsche, Katarina Pilatova, Mary Kelly-Quinn and the Groundwater Group (U Offerdinger, R Flynn) Team
 Validation of a catchment conceptual model considering overland flow, interflow, shallow groundwater flow and deep groundwater flow pathways for diffuse contaminant transport and attenuation from land-surface to aquatic receptors
- A197 EGU2011-9153
Rachel Cassidy and Phil Jordan
 High frequency variability in nutrient transfer in surface water dominated catchments
- A198 EGU2011-5722
Stefano Zanardo, Ilya Zaliapin, Efi Foufoula Georgiou, Mary Power, Bill Dietrich, and Michael Ghil
 River network bio-geochemical transport: a new conceptual framework that accounts for landscape connectivity and spatially explicit dynamics
- A199 EGU2011-10446
Iacopo Borsi, Rudy Rossetto, and Claudio Schifani
 Modeling interactions between surface water and the unsaturated/saturated zone
- A200 EGU2011-9352
Leszek Hejduk
 Suspended sediment and phosphorus relations during floods in a small lowland catchment
- A201 EGU2011-7989
Philip Jordan, David Wall, Alice Melland, Per-Erik Mellander, Sarah Mechan, and Ger Shortle
 Explicit space and time definitions of phosphorus transfers in agricultural catchments
- A202 EGU2011-11505
 Katrin Bieger, Georg Hörmann, and **Nicola Fohrer**
 Modelling sediment and phosphorus transport in a data scarce catchment in China using SWAT: Model parameterization and first calibration results
- A203 EGU2011-13316
Itsasne Cerro, Iñaki Antiguada, Estilita Ruiz, Sabine Sauvage, and Jose Miguel Sanchez-Pérez
 Dynamic of suspended sediments and nitrates during flood events in an agricultural catchment dominated by an alluvial aquifer.
- A204 EGU2011-5893
Tsung-Yu Lee, Jr-Chuan Huang, and Shuh-Ji Kao
 The super typhoon Morakot-induced sediment export: Implication for the enhanced denudation in Taiwan
- A205 EGU2011-9066
Benoit Pernet-Coudrier, Weixiao Qi, Michael Berg, Huijuan Liu, and Beat Müller
 Less water and more nutrients: The Haihe River System of the Beijing-Tianjin area (China)
- A206 EGU2011-3417
Vaclav David and Josef Krasa
 Discharge regime assessment for purposes of reservoir sediment trap efficiency estimation
- A207 EGU2011-12943
Judyta Lasek
 Changes in microbial concentrations during summer and winter extreme runoff events in a catchment featuring mixed land use - pilot study
- A208 EGU2011-1568
Mohamad hajiketabi and Mohamad zare
 Multi Aspect Investigation of Nitrate pollution in the Kamfiroz Plain of Fars province, Iran
- A209 EGU2011-13302
Marta Martinkova, Cornelia Hesse, and Valentina Krysanova
 The analysis of nitrogen sources in a meso-scale basin
- A210 EGU2011-5400
Jr-Chuan Huang, Tsung-Yu Lee, Shuh-Ji Kao, and Shih-Chieh Hsu
 The Sensitivity of Nitrate Export in Subtropical Mountainous Catchments
- A211 EGU2011-11068
Alice Melland, Per-Erik Mellander, Phil Jordan, David P Wall, Sarah Mechan, and Ger Shortle
 Testing conceptual models of nitrogen and phosphorus transport risk from agricultural catchments
- A212 EGU2011-5406
Christine Kübeck, Carsten Hansen, Wolfgang van Berk, and Andreas Zervas
 Development of a transfer function based method assessing long-term trends of solute influxes into the groundwater as a tool for quality management
- A213 EGU2011-8129
Frauke Barthold, Christoph Tyralla, Katrin Schneider, Kellie Vaché, Hans-Georg Frede, and Lutz Breuer
 End member mixing analysis (EMMA): Estimating the Value of Large Tracer Sets Versus Small Tracer Sets

- A214 EGU2011-11184
Tammo Steenhuis, Helen Dahlke, Zachary Easton, Steve Lyon, Georgia Destouni, Larry Brown, and Todd Walter
 Dissecting the variable source area - Four dimensional characterization of flow pathways and water mixing processes in VSAs
- A215 EGU2011-7779
Thierry Raimbault, Patrick Durand, and Philippe Leterme
 Development of a generalized methodology to apply a detailed agro-hydrological model to multiple and diverse agricultural catchments.
- A216 EGU2011-10275
Christina Bogner, Holger Lange, Henning Meesenburg, and Michael Hauhs
 Characteristic patterns and processes from non-linear analysis of soil water and streamwater time series in the forested catchment Lange Bramke, Harz Mountains, Germany
- A217 EGU2011-2072
Marcus Schindewolf and Jürgen Schmidt
 Process based simulation of nutrient and pollutant transport into surface waters at regional and catchment scale
- A218 EGU2011-7315
Sanyuan Jiang and Michael Rode
 Integrated modeling of nitrate loss and flowpaths in the mesoscale Bode catchment, Germany
- A219 EGU2011-2262
Matthias Zessner, Adam Kovacs, Gerald Hochedlinger, Christian Schilling, Oliver Gabriel, and Georg Windhofer
 Advanced computation of nutrients flows in river catchments as decision support for development of programs of measures in Austria
- A220 EGU2011-3890
 Douglas Smith and **Elizabeth Pappas**
 New tools to understand nutrient fluxes: Directionality and precipitation normalized loads
- A221 EGU2011-7880
Christoffer Carstens, Vladimir Cvetkovic, and Georgia Destouni
 Groundwater flow partitioning in near-coastal catchments of central Scandinavia
- A222 EGU2011-7892
Gro Lilbaek, Cory Kartz, Gary Kachanoski, Andrea Kalischuk, and Norman Neumann
 Impact of Irrigation on Surface and Groundwater Quality in Southern Alberta
- A223 EGU2011-8622
Dave Milledge, Stuart Lane, Louise Heathwaite, and Sim Reaney
 Inverse modelling of the risk of diffuse pollution in agricultural catchments
- A224 EGU2011-10203
Fohrer Nicola, Quam Dung Lam, and Britta Schmalz
 Spatial and temporal variations of water quality in Northern German lowland catchments - modelling and management strategies
- A225 EGU2011-9859
Jean-François Exbrayat, Neil R. Viney, Hans-Georg Frede, and Lutz Breuer
 Assessing the impact of land management changes on nutrient loads with the Reliability Ensemble Averaging (REA) method
- A226 EGU2011-10481
Björn Guse and Nicola Fohrer
 IMPACT project: catchment modelling as a first step in an integrated model approach to couple abiotic and biotic habitat conditions under consideration of climate change effects
- A227 EGU2011-11271
Bano Mehdi, Ralf Ludwig, and Bernhard Lehner
 Development of agricultural land use scenarios in a southern Bavarian mesoscale catchment for implementation into a hydrological water quality model

HS2.17 – Water quality at the catchment scale: Fate and transport of micropollutants – Orals

Convener: Piet Seuntjens | Co-Conveners: Christian Stamm, Stefan Reichenberger, Jürgen Berlekamp, Tobias Licha, Traugott Scheytt

Room: 36

Chairperson: T. Scheytt

- 10:30–10:45 EGU2011-3377
Olav Hillebrand, Karsten Nödler, Tobias Licha, Tobias Geyer, and Martin Sauter
 Application of caffeine as indicator for the quantification of recharging wastewater in karst systems - A case study

- 10:45–11:00 EGU2011-9821
Victoria Burke, Uwe Duennbier, and Gudrun Massmann
Laboratory experiments on redox-sensitivity of organic trace pollutants in groundwater
- 11:00–11:15 EGU2011-2257
Beate Mueller, Traugott Scheytt, and Martin Asbrand
Quantification of exchange rates between groundwater and surface water applying pharmaceutical compounds - the Nuthegraben case
- 11:15–11:30 EGU2011-5882
Ovadia Iev, Guy Gasser, Michael Rona, and Irena Pankratov
Quantitative evaluation of tracers for quantification of wastewater contamination of potable water sources
- 11:30–11:45 EGU2011-3637
Tobias Doppler, Alfred Lück, Gabriel Popow, Ivo Strahm, Luca Winiger, Marcel Gaj, Heinz Singer, and Christian Stamm
Spatial heterogeneity of herbicide pollution at field and catchment scale
- 11:45–12:00 EGU2011-4553
Elodie Passeport, **Julien Tournabize**, Cédric Chaumont, Franck Paineau, Angeline Guenne, and Yves Coquet
A three-year monitoring of pesticide transfer through a tile-drained catchment.

LUNCH BREAK

Chairperson: S. Reichenberger

- 13:30–13:45 EGU2011-3361
Marie Lefrancq, Sylvain Payraudeau, Gavan McGrath, Caroline Gregoire, and **Christoph Hinz**
Using high resolution rainfall data to identify critical source areas for runoff-related pesticides: luxury or necessity?
- 13:45–14:00 EGU2011-2158
Matthias Gaßmann and Oliver Olsson
Modelling the first flush of pesticides and their transformation products in a Mediterranean catchment
- 14:00–14:15 EGU2011-12448
Desiree El Azzi, Roman Teisserenc, Maritxu Guiresse, Georges Merlina, and Jean-Luc Probst
Pollutant transfer dynamics during a flood event in an agricultural watershed (Save, South West of France)
- 14:15–14:30 EGU2011-2350
Marie-Noelle Pons, Aziz Assaad, and Olivier Potier
Detection of fluorescent whitening agents in mountain streams
- 14:30–14:45 EGU2011-4039
Uwe Kunkel and **Michael Radke**
Attenuation and dynamics of pharmaceuticals in a small German stream
- 14:45–15:00 EGU2011-12844
Ursula McKnight, Jes Rasmussen, Maria Loinaz, Nanna Thomsen, Mikael Emil Olsson, Brian Kronvang, **Poul L. Bjerg**, and Philip J. Binning
Source identification and impact of micropollutants on surface water quality at the catchment-scale

HS2.17 – Water quality at the catchment scale: Fate and transport of micropollutants – Posters

Convener: Piet Seuntjens | Co-Conveners: Christian Stamm, Stefan Reichenberger, Jürgen Berlekamp, Tobias Licha, Traugott Scheytt

Hall A | Display Time 08:00–17:00

Author in Attendance: 15:30–17:00

Chairperson: n.n.

- A228 EGU2011-2626
Tom Gallé, Jeremy Wilkinson, Christian Braun, Viola Huck, and Michael Bayerle
Using GIS to establish an emission type based sampling scheme for xenobiotics with passive samplers in Luxembourg
- A229 EGU2011-2643
Irene Wittmer, Ruth Scheidegger, Christian Stamm, and Hans-Peter Bader
Modelling biocide and pesticide losses in a catchment with mixed land use.
- A230 EGU2011-2648
Irene Wittmer, Ruth Scheidegger, Hans-Peter Bader, Heinz Singer, and **Christian Stamm**
Loss rates of biocides can exceed those of pesticides

- A231 EGU2011-2773
Stefan Reichenberger, Igor Dubus, Mathias Lambeau, Stéphane Tellier, Romain Talva, Daniel Rivals, and Christian Stamm
 Evaluation of the model structure and parameterisation of the FOOT-CRS tool
- A232 EGU2011-3524
Yoar Cabeza, Lucila Candela, Gloria Teijón, and Karim Tamoh
 Presence of Pharmaceuticals, Personal Care Products, and priority substances (2008/105EU) in groundwater (Llobregat delta, Barcelona, Spain)
- A233 EGU2011-3528
 Traugott Scheytt and **Beate Müller**
 Trace compounds in groundwater as indicators for transport processes on the catchment scale
- A234 EGU2011-4966
Carmen Corada Fernández, Joaquín Jiménez Martínez, Lucila Candela, and Eduardo González Mazo
 Presence of synthetic surfactants in groundwater derived by sewage contamination
- A235 EGU2011-5423
Marc Lamers, Maria Anyusheva, Nguyen La, and Thilo Streck
 Pesticide pollution in surface- and groundwater by paddy rice cultivation: A case study from northern Vietnam
- A236 EGU2011-5571
Elena Solyanikova and Denis Sukharev
 Short-Range Forecast Of Pollutants in the Water Basins of Rivers Using Non-Linear Prediction Method
- A237 EGU2011-8259
Sarah-Louise McManus, Karl G. Richards, Jim Grant, Anthony Mannix, and Catherine E. Coxon
 Are physical site characteristics allowing pesticide products to leach to groundwater in Ireland?
- A238 EGU2011-8422
 Uta Ulrich, Cindy Hugenschmidt, and **Nicola Fohrer**
 Environmental behaviour of Metazachlor in a small lowland catchment in Northern Germany
- A239 EGU2011-11827
Luc Bonten, Joop Kroes, Piet Groenendijk, and Bas van der Grift
 Groundwater and surface water contamination from diffusively contaminated soils. A case study: The Keersop catchment in the Kempen area.
- A240 EGU2011-12175
Vit Kodes, Jitka Vejvodova, and Marketa Ackermanova
 Results of national pesticide screening in the Czech Republic
- A241 EGU2011-12481
Desiree El Azzi, Jerome Viers, Dominique Aubert, Anne Probst, Jocelyne Caparros, François Charles, Maritxu Guiesse, Katell Guizien, and Jean-Luc Probst
 Copper transfer dynamics during Mediterranean-type flash-floods (Baillaury River, Southwest of the Mediterranean coast of France)
- A242 EGU2011-12845
Glenda Garcia-Santos, Dominik Scheiben, and Claudia R. Binder
 The weight method: a new screening method for estimating pesticide deposition from knapsack sprayers in developing countries
- A243 EGU2011-13716
Piet Seuntjens, Eilon Adar, Zuansi Cai, Luca Carniati, Peter Engesgaard, Jannick K. Jensen, Bertel Nilsson, Gerrit Schoups, and David Lerner
 Aquarehab: Integration of groundwater remediation technology models in river basin management
- A244 EGU2011-13718
 Ann Van Griensven, Pieter Jan Haest, Geraldine Ducos, **Piet Seuntjens**, Steven Broekx, Paul Campling, and Ludek Blaha
 Aquarehab: The development of a decision support tool to integrate groundwater remediation technologies in river basin management
- A245 EGU2011-3018
Mario Schaffer, Hilmar Börnick, Tobias Licha, Karsten Nödler, and Eckhard Worch
 Column experiments to simulate the transport of the basic beta-blocker atenolol in sandy aquifers under competitive conditions
- A246 EGU2011-5929
Karsten Nödler, Tobias Licha, Steffi Fischer, Bianca Wagner, and Martin Sauter
 A case study on the correlation of micro-contaminants and potassium in the river Leine (Germany)

HS2.18 – Integrated Water Resources Management: linking hydrology and human activities in decision support systems for an uncertain future – Orals

Convener: Christian Stamm | Co-Conveners: Jim Freer, Chantal Gascuel-Odoux, Sarah Dunn, Sekhar MUDDU

Room: 36

Chairperson: Christian Stamm

- 15:30–15:45 EGU2011-4340
Ann van Griensven
How to deal with uncertainties in remotely linked models?
- 15:45–16:00 EGU2011-13907
Penny Johnes
Observational uncertainty in catchment science: the nature of the beast and ways to tame it
- 16:00–16:15 EGU2011-796
Daniela Anghileri, Francesca Pianosi, and Rodolfo Soncini-Sessa
A framework for the quantitative assessment of climate change impacts on the water-related activities at the basin scale
- 16:15–16:30 EGU2011-6038
Sat Kumar Tomer, Sreelash Krishnan Kutty, Muddu Sekhar, Laurent Ruiz, and Chantal Gascuel-Odoux
Coupling agricultural and hydrological models for improved management of groundwater irrigation under climate change
- 16:30–16:45 EGU2011-11763
Marek Gielczewski, Mateusz Stelmazczyk, Mikolaj Piniewski, and Tomasz Okruszko
Stakeholders' participation in the process of water scenarios development. Narew River Basin case study
- 16:45–17:00 EGU2011-7069
Eckhard Störmer, **Andreas Klinke**, and Jörg Balsiger
Tackling complexity and uncertainty of IWRM through water governance. Lessons learnt from approaches from river basin organizations and federal water policy in Switzerland.

HS2.18 – Integrated Water Resources Management: linking hydrology and human activities in decision support systems for an uncertain future – Posters

Convener: Christian Stamm | Co-Conveners: Jim Freer, Chantal Gascuel-Odoux, Sarah Dunn, Sekhar MUDDU

Hall A | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Christian Stamm

- A247 EGU2011-14040
Devraj De Condappa, Sat Kumar Tomer, Sekhar Muddu, Annemarieke De Bruin, Monique Mikhail, and Jennie Barron
Assessing the effects of future agricultural land use changes on the surface and ground water resources in the Jaldhaka sub-basin of Brahmaputra river basin, India.
- A248 EGU2011-13398
Laurent Ruiz, Chantal Gascuel-Odoux, Françoise Vertès, Luc Delaby, Pierre Moreau, Jordy Salmon-Monviola, Patrick Durand, Eric Ramat, Christine Baratte, and Philippe Faverdin
A framework for designing socially and ecologically acceptable innovative scenarios of evolution of farming systems by combining integrated agro-hydrological modelling and a participatory approach
- A249 EGU2011-13872
Chantal Gascuel-Odoux, Tassadit Bouadi, Marie-Odile Cordier, Patrick Durand, Véronique Masson, Pierre Moreau, Eric Ramat, Laurent Ruiz, Jordy Salmon-Monviola, and Muddu Sekhar
Coupling agronomic and hydrological models to test the effect of agricultural activities and their spatio-temporal distribution on water quality
- A250 EGU2011-13705
Carlo Cacciamani, Silvano Pecora, Giuseppe Ricciardi, Roberto Rudari, and **Enrica Zenoni**
Guidelines for drought management in Emilia Romagna Region
- A251 EGU2011-2554
Christian Stamm, Nele Schuwirth, Mark Honti, and Peter Reichert
A comprehensive framework for integrated water quality management
- A252 EGU2011-3806
Akwasi Asamoah
Getting Riparian States to Co-operate in Transboundary Groundwater Management: Challenges and Opportunities to Food and Water Security
- A253 EGU2011-8163
Elga Salvatore, Jan Bronders, Luca Demarchi, Eva M. Ampe, and Okke Batelaan
Development of a spatially distributed hydrological model for urban water management analysis
- A254 EGU2011-1382
Karin Steffens, Julien Moeys, Nicholas J. Jarvis, and Elisabet Lewan
Pesticide leaching under climate change - A regional perspective
- A255 EGU2011-8351
Dennis Collentine, Holger Johnsson, Peter Larsson, Hampus Markensten, and Mats Wallin
Development of cost effective nitrogen management strategies with the FyrisCOST DSS

- A256 EGU2011-5036
Jeroen De Klein and Oscar Van Zanten
Evaluation of emission reduction measures and ecological water quality benefits; the river Dommel case
- A257 EGU2011-8770
Sven Kralisch, Bettina Böhm, Manfred Fink, and Wolfgang-Albert Flügel
ILMS - a Software Platform for Integrated Landscape Management
- A258 EGU2011-6665
Jonathan Smith, Paul Bardos, Richard Boyle, Frank Evans, Nicola Harries, and Brian Bone
Soil and groundwater remediation sustainability appraisal: The SuRF-UK framework and its use in a European regulatory context
- A259 EGU2011-5452
Sylvain Coutu, Luca Rossi, David Andrew Barry, and Nathalie Chèvre
On ranking the hazard of pharmaceuticals for the environment: a methodology accounting for uncertainties and tradeoffs
- A260 EGU2011-466
Zhao lirong
Effects of different water management strategies on soil water-salt movement

HS8.2.3 – Characterizing contaminant fate in the subsurface using physical, chemical, microbial and isotopic tools – Orals

Convener: Martin Elsner | Co-Conveners: Esther Bloem, Christine Stumpp, Michael Radke, Poul L. Bjerg

Room: 34

Chairperson: Martin Elsner, Michael Radke, Christine Stumpp, Esther Bloem, Poul Bjerg

- 15:30–15:45 EGU2011-1572
Elisabetta Ballarini, Sebastian Bauer, Robert Bauer, Christian Griebler, and Christof Beyer
Modelling of biodegradation and isotope fractionation of petroleum hydrocarbon plumes in 2D bench-scale tank experiments
- 15:45–16:00 EGU2011-2512
Patrick Höhener and Xianjing Yu
Stable Carbon and Hydrogen Isotope Fractionation of Dissolved Organic Groundwater Pollutants by Equilibrium Sorption
- 16:00–16:15 EGU2011-5979
Sebastian Huntscha, Diana M. Rodriguez Velosa, and Juliane Hollender
A multi-method approach to understand the fate of organic micropollutants during riverbank filtration
- 16:15–16:30 EGU2011-7834
Julie Chambon, Ida Damgaard, Mette M. Broholm, Daniel Hunkeler, Philip J. Binning, and Poul L. Bjerg
Combining numerical modeling and isotope data to assess reductive dechlorination and diffusion in clay tills
- 16:30–16:45 EGU2011-9473
Rachel Dearden, Michael Rivett, and Gary Wealhall
Relevance of a decades-old TCE DNAPL source zone architecture to its effective remediation
- 16:45–17:00 EGU2011-10005
Alexandre Boisson, Olivier Bour, Tanguy Le Borgne, and Luc Aquilina
Assessing nitrate consumption, nitrous oxide and nitrite production during denitrification using push-pull tests in heterogeneous aquifers

HS8.2.3 – Characterizing contaminant fate in the subsurface using physical, chemical, microbial and isotopic tools – Posters

Convener: Martin Elsner | Co-Conveners: Esther Bloem, Christine Stumpp, Michael Radke, Poul L. Bjerg

Hall A | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Martin Elsner, Michael Radke, Christine Stumpp, Esther Bloem, Poul Bjerg

- A261 EGU2011-246
Soledad Castaneda, Raymond Sucgang, Norman Mendoza, Rosalina Almoneda, and Carlos Primo David
Environmental isotopes and major hydrochemistry for tracing leachate contamination from a municipal landfill in Metro Manila, Philippines
- A262 EGU2011-1597
Irina Galitskaya and Gleb Batrak
The study of physicochemical characteristics of the rocks and assessment of groundwater contamination in the storage sites of mining industries waste products

- A263 EGU2011-1988
Mathias J. M. Römkens
Seepage and Seepage Gradients in an Homogeneous, Isotropic Aquifer with Drains as a Function of Soil Properties and Flow Region Geometry
- A264 EGU2011-3470
Sandro Rinaldi, Sihem Louati, Marie Bergeron, Pierre Yves Galibert, Hocine Bendjoudi, and Ghislain de Marsily
Localization of pollution sources of chlorinated solvents on an alluvial aquifer: coupling hydrogeological modeling and geophysics survey
- A265 EGU2011-6699
Jonathan Smith and David Lerner
A framework for assessing the contaminant sorption and retardation potential of aquifers
- A266 EGU2011-6717
Jae-Ha Yang and Kang-Kun Lee
Source identification and allocation of multiple chlorinated contaminants using the seasonal impacts of rainfall events in an industrial complex, Wonju, Korea
- A267 EGU2011-6748
Jonathan Smith, Claire Perks, and Steven Thornton
A framework for assessing the contaminant attenuation potential of aquifers by iron and manganese-reduction
- A268 EGU2011-7223
Dirk Mallants, **Koen Beerten**, Isabelle Wemaere, Matej Gedeon, Bart Rogiers, and Serge Labat
Integration of major ion chemistry and stable isotope data with hydrogeological modelling to infer groundwater pathways
- A269 EGU2011-8462
Michael Radke and **Michael Maier**
How representative are dissipation kinetics determined by sediment-water tests? A case study with pharmaceuticals
- A270 EGU2011-8595
Mike Spence, Gerard Spinnler, Cristin Bruce, and Dieter Stupp
Comparison of commercially available ¹³C methods for demonstration of enhanced in-situ biodegradation of plume hydrocarbons following oxygen injection
- A271 EGU2011-8972
Tiangoua Kone, Fabrice Golfier, Constantin Oltean, Eric Lefevre, and Michel Bues
Experimental study of coupling between bacterial growth and solute transport in biofilm coated porous media
- A272 EGU2011-12277
Caroline Gauchotte, Simon Davis, Gwen O'Sullivan, and Robert M. Kalin
Site-Specific Stable Carbon Isotope Study of the Oxidation of Methyl tert-Butyl Ether by Potassium Permanganate using an Advanced On-line Position Specific Stable Isotope Analysis System.
- A273 EGU2011-12545
Charline Wiegert, Christoph Aeppli, Henry Holmstrand, Tim Knowles, and Örjan Gustafsson
Compound-Specific Chlorine Isotope Analyses as an Assessment Tool for Contaminated Sites
- A274 EGU2011-13375
Sandra Reinicke, Allan Simonsen, Sebastian R. Sørensen, Jens Aamand, and **Martin Elsner**
Measurements of Pesticide-Specific Natural Isotope Fractionation: A New Approach to Assessing the Fate of Pesticides in the Environment
- A275 EGU2011-13508
Waleed Saeed, Orfan Shouakar-Stash, Jim Barker, Neil Thomson, and Rick McGregor
The effectiveness of persulfate in the remediation of petroleum contaminants in saline environment at elevated groundwater temperature

HS8.2.4/IG21 – Groundwater Dating: Applications and current problems (co-organized) – Orals

Convener: Martin Kralik | Co-Conveners: George Darling, Uwe Morgenstern, Juergen Sueltenfuss

Room: 39

Chairperson: Martin Kralik, George Darling

- 13:30–13:45 EGU2011-2005
Ate Visser, Hans Peter Broers, Roland Purtschert, and Jürgen Sültenfuß
Groundwater travel time distributions of a drinking water well field characterized by ⁸⁵Kr, ³H/³He and ³⁹Ar
- 13:45–14:00 EGU2011-3389
Dan Lapworth, Alan MacDonald, George Darling, and Daren Goody
Using residence time tracers to understand groundwater processes in shallow basement and sedimentary aquifers in Africa, new possibilities and potential limitations

- 14:00–14:15 EGU2011-10343
Eline Malcuit, Philippe Negrel, Christophe Innocent, Emmanuelle Petelet-Giraud, and Pierre Durst
 Dating tools applied to mineralized Eocene groundwater, for a sustainable management of the Entre-deux-Mers drinking water, Aquitaine Basin, South western France.
- 14:15–14:30 EGU2011-9050
Stephanie Zimmermann and Ronald Kozel
 The use of groundwater dating for the characterisation of Swiss groundwater monitoring sites
- 14:30–14:45 EGU2011-12517
Martin Kralik, Franko Humer, George Darling, Jürgen Sültenfuß, and Johannes Grath
 Dating of young groundwater in nine porous aquifers in Alpine Basins by ^{18}O , ^3H , $^3\text{H}/^3\text{He}$, CFC and SF_6
- 14:45–15:00 EGU2011-1537
Uwe Morgenstern and Christopher J Daughney
 Groundwater age for identification of impacts of land-use intensification and natural hydrochemical evolution on groundwater quality

HS8.2.4/IG21 – Groundwater Dating: Applications and current problems (co-organized) – Posters

Convener: Martin Kralik | Co-Conveners: George Darling, Uwe Morgenstern, Juergen Sueltenfuss

Hall A | Display Time 08:00–17:00

Author in Attendance: 15:30–17:00

Chairperson: Uwe Morgenstern, Juergen Sueltenfuss

- A276 EGU2011-1211
Pei-Ying Lin and Louis Loung-Yie Tsai
 Evaluation of groundwater recharge at a well field near Chien-Shih area, Shinchu, Taiwan: combined pumping test and isotopic studies
- A277 EGU2011-4069
Hsin-Fu Yeh, Cheng-Haw Lee, and Kuo-Chin Hsu
 Integrated Approach for Assessing the Characteristic of Groundwater Recharge in Basin Scale
- A278 EGU2011-6551
Elena Pérez and Africa de la Hera
 Isotopical characterization of the hydrodynamic functioning of Ruidera lakes (Spain)
- A279 EGU2011-10416
Maria Rosa Duque and Isabel Malico
 Topography, aquifer depth and temperature anomalies
- A280 EGU2011-14087
Martin Kralik, Franko Humer, Wolfgang Papesch, and Roland Tesch
 Heterogeneous mean transfer-times in an Alpine dolomite-karst massif, Austria: ^{18}O , ^3H , $^3\text{H}/^3\text{He}$, CFC, SF_6 , chloride and dye tracer - investigations
- A281 EGU2011-2007
Ate Visser, Mike Singleton, and Brad Esser
 Towards a mobile Membrane Inlet Mass Spectrometry (MIMS) system for the detection of atmospheric noble gases in groundwater
- A282 EGU2011-2009
Hans Peter Broers and Ate Visser
 Water quality prognosis of a production well field based on monitoring data and groundwater dating
- A283 EGU2011-9786
Thierry Labasque, Luc Aquilina, and Vergnaud Virginie
 intercomparison test of groundwater dating methods: proposition for an international test in French Brittany (France)
- A284 EGU2011-3506
Wolfram Kloppmann, Rajaa Mouloudi, Laurence Gourcy, Susanne Schomburgk, Stephan Urban, Thomas Kärcher, and Wolfgang Müller
 Groundwater dating and geochemical conditions in an artesian, siliciclastic transboundary aquifer, under pristine conditions and after one decade of exploitation using radiocarbon, tritium, SF_6 , CFCs.
- A285 EGU2011-9815
Luc Aquilina, Labasque Thierry, Fourré Elise, Jean-Baptiste Philippe, Le Gal La Salle Corinne, Michelot Jean-Luc, Sumonucci Caroline, Van Meir Nathalie, Bugai Dimitri, and Lancelot Joël
 Groundwater dating in the Chernobyl aquifer

HS8.2.5/TS2.7 – Multidisciplinary Approaches to Fault Zone Hydrogeology (co-organized) – Orals

Convener: Victor Bense | Co-Conveners: Jerry Fairley, Ulrike Exner, Sian Loveless, Zoe Shipton

Room: 34

Chairperson: Jerry Fairley, Victor Bense, Sian Loveless, Ulrike Exner, Zoe Shipton

- 13:30–13:45 EGU2011-4724
Mark Person
 Fault Controlled Hydrothermal Systems of the Great Basin, Nevada
- 13:45–14:00 EGU2011-3063
Brigitta Czauner and Judit Mádl-Sz?nyi
 Integrative characterization of faults' hydraulic role in low-permeability environments
- 14:00–14:15 EGU2011-155
Sian Loveless, Victor Bense, and Jenni Turner
 Faults as preferential flow paths in delta and offshore sediments, Gulf of Corinth, Greece.
- 14:15–14:30 EGU2011-2682
Rebecca Lunn, Stella Pytharouli, Zoe Shipton, James Kirkpatrick, and Aderson Farias do Nascimento
 Microseismicity illuminates open fractures in the shallow crust
- 14:30–14:45 EGU2011-5219
Chung-Hsiang Mu, Yves Guglielmi, Frederic Cappa, Jia-Jyun Dong, Jian-Cheng Lee, and Jacques Angelier
 Quantifying the hydraulic properties variations related to fault propagation into thick alluvial materials overlying an active deformation zone: The Chihshang fault at Chinyuan (Taiwan)
- 14:45–15:00 EGU2011-10193
Maarten Voorn, Alexander Rath, and Ulrike Exner
 3D micro-imaging of fracture networks in a reservoir dolomite using micro-Computed Tomography

HS8.2.5/TS2.7 – Multidisciplinary Approaches to Fault Zone Hydrogeology (co-organized) – Posters

Convener: Victor Bense | Co-Conveners: Jerry Fairley, Ulrike Exner, Sian Loveless, Zoe Shipton

Hall A | Display Time 08:00–17:00

Author in Attendance: 15:30–17:00

Chairperson: n.n.

- A286 EGU2011-509
Johanna Scheidegger, Victor Bense, and Stephen Grasby
 Modelling of Supraglacial Spring Evolution Under Influences of Climate Change
- A287 EGU2011-934
Alistair McCay, Rebecca Lunn, and Zoe Shipton
 The influence of sub-seismic faults and small scale permeable features on cap rock integrity.
- A288 EGU2011-1456
Jasmin Kaiser, Ulrike Exner, Susanne Gier, and Wolfgang Hujer
 Preferred cementation by iron rich dolomite along deformation bands in a hydrocarbon reservoir, Matzen, Austria
- A289 EGU2011-1926
 Fabrizio Storti, **Fabrizio Balsamo**, and Darren R. Gröcke
 Calcite concretions reveal the influence of faulting on a groundwater flow pattern in loose sands
- A290 EGU2011-2281
Alexander Rath, Ulrike Exner, and Marcin Dabrowski
 Calculating permeability from μ CT 3D porosity datasets of deformation bands in a carbonate grainstone
- A291 EGU2011-3984
Özlem Öztekin Okan
 The Hydrogeochemistry of Mineral Waters Located At The Palu Segment Of Eastern Anatolian Fault Zone, Elazig, Eastern Anatolia, Turkey
- A292 EGU2011-4641
Masakazu Niwa, Hideki Kurosawa, Koji Shimada, Tsuneari Ishimaru, and Hideki Kosaka
 Hydrogeological architecture of a fault zone reconstructed through an outcrop survey: mesoscopic and microscopic observations, multipoint hydrogen gas measurements, particle size distribution analyses and chemical analyses of fault rocks
- A293 EGU2011-4728
Julio Fierro-Morales
 Tectonics of Sabana de Bogotá and its relationship with hydrogeology
- A294 EGU2011-5724
Christian Mohr, Anton Huber, Axel Bronstert, and Andrés Iroumé
 Hydrological Response to the Earthquake of 27 February 2010 in small Upland Catchments in the Chilean Coastal Range, Bío-Bío Region
- A295 EGU2011-5783
Emanuelle Frery, Charles Aubourg, Jean-Pierre Gratier, Nadine Ellouz-Zimmerman, and Rudy Swennen
 Paleomagnetic Record of Fault activity - Natural analogue in Utah (USA)

- A296 EGU2011-6650
Stefan Moser, Jürgen Schön, and Gerfried Winkler
 Fault zones and fault domain characterisation along boreholes - using geophysical well logging and packer tests
- A297 EGU2011-10625
Grainne El Mountassir, Heather Moir, and Rebecca J. Lunn
 Microbially induced carbonate precipitation, fracture sealing?
- A298 EGU2011-6843
Michaela Koch, Alexandre Schubnel, Steffen Birk, and Gerfried Winkler
 Architecture and hydraulic properties of a brittle fault core zone - example from the Semmering area (Austria)
- A299 EGU2011-7690
Yannick Kremer, Damien Hay, Kieran Connolly, Zoe Shipton, Rebecca Lunn, and Christopher Wibberley
 Detailed models of fluid flow through the Moab fault: the importance of understanding slip surface permeability
- A300 EGU2011-7938
Victor Bense, Tom Gleeson, and Sian Loveless
 A multidisciplinary perspective on fault zone hydrogeology
- A301 EGU2011-8372
Joachim Place, Edouard Le Garzic, Yves Géraud, Marc Diraison, and Judith Sausse
 Structural analysis of fluid flow paths in fractured granite

HS8.2.6 – Fissured and karstified aquifers – Orals

Convener: Tobias Geyer | Co-Conveners: Steffen Birk, Franci Gabrovsek, Nathalie Dörfliger, Eric Zechner

Room: 34

Chairperson: Geyer / Dörfliger

- 08:30–08:45 EGU2011-2021
Jannes Kordilla, Alexandre Tartakovsky, and Tobias Geyer
 Simulation of small-scale flow phenomena in fractured flow systems using Smoothed Particle Hydrodynamics
- 08:45–09:00 EGU2011-2377
Lukasz Jasinski, Jean-Francois Thovert, Valeri Mourzenko, and Pierre Adler
 Flow, transport and reactions in fractured porous media
- 09:00–09:15 EGU2011-1498
Per-Erik Mellander, David Wall, Phil Jordan, Alice Melland, and Ger Shortle
 Explicit definition of phosphorus source, pathway and delivery in a karst aquifer
- 09:15–09:30 EGU2011-2256
 Valentina Carucci, Barbara Parisse, Marco Petitta, Michele Spizzico, and **Marco Tallini**
 Aqueous geochemical modeling and multivariate statistical approach for in-depth understanding carbonate drainage systems (Gran Sasso fissured aquifer, central Italy)
- 09:30–09:45 EGU2011-6666
Jean-Baptiste Charlier, Catherine Bertrand, Jacques Mudry, and Myriam Euvrard
 Infiltration processes in karst characterized using an event-based rainfall-discharge model coupled with a mixing model of organic carbon transport
- 09:45–10:00 EGU2011-3140
Shih-Meng Hsu, Chien-Chung Ke, Yen-Tu Lin, and Ji-Jao Huang
 Ground-water Exploration in Regolith-bedrock Aquifer: A Case Study in the Basins of Mid-Jhuoshuei River and Beigang River, Central Taiwan

COFFEE BREAK

Chairperson: Birk / Gabrovšek

- 10:30–10:45 EGU2011-10017
Matthew Covington, Andrew Luhmann, Franci Gabrovšek, Martin Saar, and Carol Wicks
 The relative importance of heat exchange mechanisms in karst conduits
- 10:45–11:00 EGU2011-1707
Klepikova Maria, Tanguy Le Borgne, and Olivier Bour
 Single and cross-borehole temperature profiles for estimating fracture zone hydraulic properties
- 11:00–11:15 EGU2011-2494
Thomas Hiller, Georg Kaufmann, Douchko Romanov, Jannis Epting, and Peter Huggenberger
 Karstification beneath the Birs weir in Basel/Switzerland: A 3D modelling approach

- 11:15–11:30 EGU2011-7962
Thomas Wagner, Cyril Mayaud, Stefan Oswald, Thomas Rinder, Albrecht Leis, Hermann Stadler, Ralf Benischke, and Steffen Birk
 Understanding intercatchment flow in a karst aquifer - using the Lurbach system example (Eastern Alps - Austria)
- 11:30–11:45 EGU2011-4072
Joanna Doummar, Tobias Geyer, and Martin Sauter
 Simulation of the hydrological cycle of the karst system Gallusquelle / Swabian Alb with MIKE SHE
- 11:45–12:00 EGU2011-72
Ognjen Bonacci
 Hydrology of the karst spring Jadro (Croatia)

HS8.2.6 – Fissured and karstified aquifers – Posters

Convener: Tobias Geyer | Co-Conveners: Steffen Birk, Franci Gabrovsek, Nathalie Dörfliger, Eric Zechner

Hall A | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Zechner / Geyer / Birk

- A302 EGU2011-1407
 Costantino Masciopinto and **Domenico Palmiotta**
 Can equivalent continuum models simulate flow and pollutant transport in fractured limestone aquifers?
- A303 EGU2011-8069
Cyril Mayaud, Kim Maren Lompe, Thomas Reimann, Ralf Benischke, and Steffen Birk
 A dual approach to compute groundwater flow in karst aquifers using distributive models: example of the Lurbach system (Austria)
- A304 EGU2011-8648
Thomas Reimann, Rudolf Liedl, Tobias Geyer, Martin Sauter, Nathalie Dörfliger, and Jean-Christophe Maréchal
 A non-steady and non-uniform hybrid model for karst aquifer characterization
- A305 EGU2011-12503
Mauro Giudici, Stefano Margiotta, Fiorella Mazzone, Sergio Negri, and Chiara Vassena
 Modeling hydrostratigraphy and groundwater flow of a karst aquifer in a Mediterranean basin (Salento peninsula, Southeastern Italy)
- A306 EGU2011-10038
 Sabrina Deville, **Jean Chery**, Philippe Vernant, Cédric Champollion, and Philippe Collard
 Water flow and seepage in unsaturated zone of karst aquifer: Observations and modeling
- A307 EGU2011-14035
Torsten Lange, Thomas Graf, and Martin Sauter
 Parameter sensitivities for helium-4 accumulation in groundwater due to in-situ production in dual porosity aquifers
- A308 EGU2011-9403
Sebastian Schmidt, Torsten Lange, Tobias Geyer, Joseph Guttman, Deeb Abdelghafour, Omar Zayed, Menachem Weiss, and Martin Sauter
 3D hydrogeological modelling for groundwater catchment delineation in a karst environment
- A309 EGU2011-6412
Nathalie Dörfliger and the Lez Project Team
 Which input of detailed knowledge related to 2D up to 3D geometry of a karst Mediterranean aquifer to set up a conceptual model and to select the appropriate hydrogeological modeling?
- A310 EGU2011-4823
 Hermann Häusler and **Philipp Stadler**
 Hydrogeologic investigations at an overthrust karst aquifer of the Outer Dinarides, Croatia
- A311 EGU2011-8594
Damir Jukic and Vesna Denic-Jukic
 Study of influences of air temperature and relative humidity on discharge from karst spring by means of partial spectral analysis
- A312 EGU2011-2993
Otgonbayar Namkhai, Mehmet Ekmekci, Mustafa Degirmenci, and Levent Tezcan
 Occurrence of PAH Contamination in a Volcanic Rock Aquifer in Relation to Paleoenvironmental Development
- A313 EGU2011-2250
 Valentina Carucci, Antonella Falgiani, Barbara Parisse, Marco Petitta, Sergio Rusi, Michele Spizzico, and **Marco Tallini**
 L'Aquila April 6 2009 earthquake-related hydrochemical changes in the Gran Sasso carbonate aquifer (central Italy)

- A314 EGU2011-9234
Ivo Andrić, Boris Ursić, Vesna Denić-Jukić, and Damir Jukić
 Recession analysis of karst spring discharge: example of the springs of rivers Cetina, Krka and Krčić
- A315 EGU2011-6420
Mladen Garasic
 Some new speleological research in mountain part of Croatian karst
- A316 EGU2011-11009
Christoph Grützner, Christoph Neukum, Iñaki Vadillo, José Benavente, Francisco Carrasco, and Christina Liñán
 New data from the Nerja Cave, Southern Spain - geophysics, borehole camera and CO₂ measurements for karst investigations

HS9.2/GM3.4/SSS2.10 – Erosion and sediment delivery in agricultural landscapes: monitoring, modelling and management (co-organized) – Orals

Convenor: Stéphane Follain | Co-Conveners: Rossano Ciampalini, Peter Fiener, João Pedro Nunes

Room: 39

Chairperson: João Pedro Nunes

- 08:30–08:45 EGU2011-8936
Léonard Bernard-Jannin, Maria Ermitas Rial, Maria Luz Rodríguez-Blanco, José António Rodríguez-Suárez, and João Pedro Nunes
 Runoff generation and soil erosion processes at multiple spatial scales in a Mediterranean mountain catchment
- 08:45–09:00 EGU2011-13794
Lillian Øygarden, Johannes Deelstra, Anne-Grete B. Blankenberg, and Hans Olav Eggestad
 Climate change, erosion and nutrient loss from agricultural dominated catchments in Norway
- 09:00–09:15 EGU2011-5208
Wei Wei and Liding Chen
 Responses of water erosion processes to natural rainfall change in terrestrial ecosystems
- 09:15–09:30 EGU2011-10188
Saskia Keesstra and Arnaud Temme
 Modelling daily sediment delivery in meso-scale catchments: LAPSUS-D: a test for temperate climate.
- 09:30–10:00 EGU2011-6997
Dave Favis-Mortlock and John Boardman
 What more do we know, twenty years later? Updating the potential impacts of future climate change on soil erosion by water on the English South Downs

COFFEE BREAK

Chairperson: Peter Fiener

- 10:30–10:45 EGU2011-1620
Nikolaus J. Kuhn
 Assessing lateral organic Carbon movement in small agricultural catchments
- 10:45–11:00 EGU2011-10435
Rossano Ciampalini, Stéphane Follain, and Yves Le Bissonnais
 LandSoil: a model for the analysis of the impact of erosion on agricultural landscape evolution
- 11:00–11:15 EGU2011-6015
Jana Moravcova, Tomas Pavlicek, Monika Koupilova, Pavel Ondr, Tomas Kvitek, and Jan Vachal
 The comparison between theoretical annual loss of sediments and real sediment loss during the extreme rainfall runoff events
- 11:15–11:30 EGU2011-4700
Ronald Pöppel, Margreth Keiler, Kirsten von Elverfeldt, and Thomas Glade
 The effects of different land use patterns on sedimentological (dis)connectivity in small agricultural catchments
- 11:30–11:45 EGU2011-3917
Douglas Smith and Stanly Livingston
 Reducing hydrological connectivity of depressions to streams in glacial till landscapes
- 11:45–12:00 **Discussion**

HS9.2/GM3.4/SSS2.10 – Erosion and sediment delivery in agricultural landscapes: monitoring, modelling and management (co-organized) – Posters

Convener: Stéphane Follain | Co-Conveners: Rossano Ciampalini, Peter Fiener, João Pedro Nunes

Hall A | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Rossano Ciampalini

- A317 EGU2011-3134
Ondrej Jaksik, Radka Kodesova, Iva Stehlikova, Tereza Zadorova, Ales Kapicka, and Vit Penizek
Spatial soil material redistribution due to soil erosion studied using magnetic susceptibility mapping
- A318 EGU2011-3155
Tereza Zadorova, Ondřej Jakšík, Radka Kodešová, and Vít Penízek
Influence of topography and soil properties on soil aggregates stability
- A319 EGU2011-3541
Hans von Suchodoletz, Marco Herrmann, Marcus Schmidt, and Christoph Zielhofer
Tracking and quantifying recent soil erosion in a semi-arid catchment area at Lanzarote (Canary Islands)
- A320 EGU2011-6732
Legrain Xavier, Colard Francois, Colinet Gilles, Demarcin Pierre, and **Degré Aurore**
Soil redistribution in rural catchment: how fifty years old soil survey can help model improvement
- A321 EGU2011-10113
Susanna Werth, Sandra Werb, Till Francke, and Axel Bronstert
Analysis on underlying connectivity mechanisms of a mesoscale dryland river basin, NE Spain
- A322 EGU2011-10639
Alemayehu Muluneh, Saskia Keesstra, and Leo Stroosnijder
Strategies to adapt to climate change in the Central Rift Valley of Ethiopia: Linking regional drought stress patterns to on-farm water management.
- A323 EGU2011-10954
Annegret Larsen and Hans-Rudolf Bork
Agricultural terraces and their influence on sediment storage, transport and reworking
- A324 EGU2011-12863
João Pedro Nunes, Júlio C. Lima, Léonard Bernard-Jannin, Elsa Sampaio, María Ermitas Rial-Rivas, Madalena Moreira, Jan Jacob Keizer, and João Corte-Real
Estimating the impacts of climate change on soil erosion in Mediterranean watersheds
- A325 EGU2011-4179
María Luz Rodríguez-Blanco, María Mercedes Taboada-Castro, María Teresa Taboada-Castro, João Pedro Nunes, María Ermitas Rial, and Jan Jacob Keizer
Sediment yield response to climate change in an atlantic catchment in NW Spain: preliminary results with the SWAT model
- A326 EGU2011-7599
Nicolas Feltz, Alexandre Maignard, Hélène Cordonnier, Charles Biélders, and Abdel Ilah Mokadem
Mapping erosion at field scale in Wallonia
- A327 EGU2011-8998
Youssef Chahor, Carlos Antoñanzas, Javier Loizu, Javier Casalí, Miguel Angel Campo, and Rafael Giménez
Evaluation of the AnnAGNPS model for predicting runoff in large agricultural watershed in Navarre (Spain)
- A328 EGU2011-11133
Olga Khvostova
Gorky reservoir slope stability assessment
- A329 EGU2011-11163
Nora Kummert, Eléonore Beckers, and **Aurore Degré**
Erosion and rainfall erosivity under climate change: rainfall simulation and soil losses measurement at field scale

HS9.4/GM7.5 – Transfer and storage of sediment and associated substances in river basins: : budgets, pathways, transit times, and ecological feedbacks (co-organized) – Orals

Convener: Marcel Van der Perk | Co-Conveners: Ulrike Scherer, Olivier Cerdan, Saskia Keesstra, Philip Owens, John Quinton, Ellen Petticrew

Room: 38

Chairperson: n.n.

- 13:30–13:45 EGU2011-4574
Liviu Giosan and Peter Clift
Landscape Dynamics in the Indus Basin: From Harappa to the Flood of 2010
- 13:45–14:00 EGU2011-13590
Scott Lamoureux, Maryse Veillette, and John Orwin
Suspended sediment transport, storage and hysteresis characteristics in an Arctic catchment subject to recent permafrost disturbances

- 14:00–14:15 EGU2011-4536
Philip Greenwood, Desmond Walling, and Timothy Quine
 Using caesium-134 and cobalt-60 as tracers to assess the remobilization of recently-deposited overbank-derived sediment on river floodplains over subsequent inundation events
- 14:15–14:30 EGU2011-10252
Philipp Theuring, Abhinand Jha, Gerald Kirchner, Stefan Behrens, and Michael Rode
 Fingerprint analysis of suspended sediment transport in a mesoscale catchment in northern Mongolia
- 14:30–14:45 EGU2011-8694
Jim Bogen
 The sediment budget of Norwegian rivers and the flux of particle bound chemical elements
- 14:45–15:00 EGU2011-11793
Murugesu Sivapalan, Sopan Patil, Marwan Hassan, Sheng Ye, and Ciaran Harman
 Process controls on scaling behavior of sediment delivery: Exploration with a physically based network scale coupled flow and sediment model
- Chairperson: n.n.
- 15:30–15:45 EGU2011-7554
Geraldene Wharton
 The role of macrophytes in the deposition, erodibility, and transport of fine sediments in lowland permeable streams
- 15:45–16:00 EGU2011-10103
Michael Schaeffer, Melanie Hartwig, Philipp Theuring, Michael Rode, and Dietrich Borchardt
 Impact of upland erosion and sediment transport on macroinvertebrate communities: An interdisciplinary pressure-impact study in the Kharaa catchment (Mongolia)
- 16:00–16:15 EGU2011-3327
Tom Liffen, Angela Gurnell, Matthew O'Hare, Judith O'Hare, Natasha Pollen-Bankhead, and Andrew Simon
 River ecosystem engineering by the aquatic macrophyte *Sparganium erectum*: the influence of biomechanical traits on sediment retention and fluvial landform development.
- 16:15–16:30 EGU2011-12211
Núria Martínez-Carreras, Andreas Krein, Francesc Gallart, Jean François Iffly, Lucien Hoffmann, and Laurent Pfister
 Using the diffuse reflectance spectrometry technique to predict nutrient and heavy metal concentration and fluxes of suspended sediment in the Attert River basin (Luxembourg)
- 16:30–16:45 EGU2011-2471
Barry Rawlins
 Controls on the phosphorus content of fine stream bed sediments in agricultural headwater catchments at the landscape-scale
- 16:45–17:00 EGU2011-11477
Gunnel Göransson, David Bendz, and Magnus Larson
 Mass transport of contamination released into surface water by landslide

HS9.4/GM7.5 – Transfer and storage of sediment and associated substances in river basins: : budgets, pathways, transit times, and ecological feedbacks (co-organized) – Posters

Convener: Marcel Van der Perk | Co-Conveners: Ulrike Scherer, Olivier Cerdan, Saskia Keesstra, Philip Owens, John Quinton, Ellen Petticrew

Hall A | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: n.n.

- A330 EGU2011-9369
Toru Tamura, Mark Bateman, Yoshinori Kodama, Yu Saitoh, Kazuaki Watanabe, Naofumi Yamaguchi, and Dan Matsumoto
 Decadal- to centennial-scale fluctuations of East Asian winter monsoon intensity over the last millennium recorded in coastal dune sediment, Japan Sea
- A331 EGU2011-1765
Peter Clift, Andrew Carter, Liviu Giosan, Anwar Alizai, Sam VanLaningham, Geoff Duller, Julie Durcan, and Mark Macklin
 Evolution of the rivers in the western Thar Desert since the LGM traced by U-Pb zircon ages
- A332 EGU2011-2492
Ludmila Kuksina
 Suspended sediment flow features of volcanic territories' rivers

- A333 EGU2011-3610
Olivier Cerdan, Magalie Delmas, Sébastien Salvador-Blanes, Emmanuelle Petelet, Philippe Négrel, and Jean-Marie Mouchel
French rivers export to the sea
- A334 EGU2011-8326
Willemijn Appels and Sjoerd van der Zee
Field measurements of surface runoff in lowland catchments
- A335 EGU2011-3578
Josef Krasa, Tomas Dostal, and Josef Hejzlar
Sediment from agricultural catchments as a source of phosphorus loads
- A336 EGU2011-447
Péter Csáfordi, Péter Kalicz, and Zoltán Gribovszki
Examination of sediment sources in a small forested catchment of Sopron Hills
- A337 EGU2011-4989
Susan Liermann, Achim A. Beylich, and Aurelien van Welden
Contemporary sedimentary processes and suspended sediment transfer in the small Sætrevatnet sub-catchment in Bødalen, western Norway
- A338 EGU2011-1027
José A. López-Tarazón, Ramon J. Batalla, and Damià Vericat
In-channel fine sediment storage in an extremely dynamic mountainous catchment: the river Isabena
- A339 EGU2011-13266
Georg Schuster, Cedomil Josip Jugovic, Franz Steiner, and Robert Koloseus
Implementation of an Artificial Bed Load Retention Structure
- A340 EGU2011-6814
Shih-Chieh Chou, Wen-Hsiao Tseng, Chjeng-Lun Shieh, and Yu-Lin Kao
Experimental Study on the Evolution of the Dam-break
- A341 EGU2011-11825
Rui M.L. Ferreira, Lara M. Ferreira, Ana Margarida Ricardo, and Mário J. Franca
Vertical distribution of dissolved oxygen in gravel-bed streams: impacts of sand transport
- A342 EGU2011-2634
Tom Gallé and Viola Huck
Using river metabolism monitoring to quantify sediment budgets in river stretches
- A343 EGU2011-5343
Katrina Caley and **Philip N. Owens**
Examining the sediment retention function of wetlands in response to forestry activities in British Columbia
- A344 EGU2011-12413
John Rex, Sam Albers, and **Ellen Petticrew**
Capture and retention of marine derived nutrient based flocs in low gradient streams: A flume analogue
- A345 EGU2011-13015
Ellen Petticrew, John Rex, and Sam Albers
Marine-derived organic matter transport in river systems: upstream and downstream salmon nutrient transfers, storage and use.
- A346 EGU2011-12624
Sam Albers and Ellen Petticrew
Sedimentation and salmon: Salmon-mediated floc formation and biofilm sediment trapping ability can drive lotic primary productivity
- A347 EGU2011-8571
Christoph Hauer, Günther Unfer, and Helmut Habersack
Sediment continuum, surplus and deficit - Scopes and Limits for spawning habitat restoration measures
- A348 EGU2011-4769
Ulrike Scherer, Sarah Sagemann, and Stephan Fuchs
Emission via erosion and retention of heavy metals in river basins of Germany
- A349 EGU2011-10371
Marcel van der Perk, Veronica Arribas Arcos, Laura Miguel Ayala, Hans Middelkoop, and Björn Scheepers
Metal inventory of the floodplain of the mining-impacted Geul River, The Netherlands
- A350 EGU2011-9775
Marcel van der Perk, Marloes L.H.M. van Lipzig, Gosro Karimlou, Philip N. Owens, and Ellen L. Petticrew
Transfer of sediment-associated metals downstream of abandoned and active mining sites in the Quesnel River catchment, British Columbia
- A351 EGU2011-3126
John Higson, Michael Singer, L. Allan James, and Subhajit Ghoshal
Evolution of a Toxic Fan: Lessons from the Yuba River, California
- A352 EGU2011-3919
Martha Zwonitzer, Michelle Soupier, and Laura Jarboe
Exploring the relationship between attachment, transport and resistance of E. coli from swine systems

A353 EGU2011-9187

Telse David, Wolf von Tümpling, Peter Krebs, and Dietrich Borchardt
Contribution of stormwater to contaminants in bed sediment

HS10.2/OS2.3 – Lakes and inland seas (co-organized) – Orals

Convener: Peter Zavialov | Co-Conveners: Jana Friedrich, Elena Roget

Room: 33

Chairperson: n.n.

13:30–13:45 EGU2011-13755

Cvetanka Popovska

Tectonic Lakes-Climatic and Anthropogenic Impacts

13:45–14:00 EGU2011-10284

Sebastiano Piccolroaz and **Marco Toffolon**

Modelling climate change impacts on deep water renewal in Lake Baikal

14:00–14:15 EGU2011-134

Kürşad Kadir Eri and M.Namık Çağatay

Late Pleistocene to Holocene water exchanges between the Marmara and Black seas and water level changes: new evidence from high-resolution seismic and core studies

14:15–14:30 EGU2011-7919

Georg Umgieser, Christian Ferrarin, Andrea Cucco, Angel Perez Ruzafa, Francesca De Pascalis, Michol Ghezzi, Debora Bellafiore, and Marco Bajo

A comparison study of 6 Mediterranean lagoons with numerical modeling

14:30–14:45 EGU2011-10459

Fabio Güttler, Simona Niculescu, Francis Gohin, Yannick Lageat, and Ioan Grigora

Comparing turbidity patterns of Danube Delta waters with remote sensing techniques: from deltaic lakes to the western Black Sea coastal zone

Chairperson: J.Friedrich

15:30–15:45 EGU2011-12075

Victor Stepanenko, Andrey Martynov, Klaus D. Joehnk, Marjorie Perroud, Xing Fang, Zack M. Subin, Frank Beyrich, Annika Nordbo, Dmitrii Mironov, and Jussi Huotari

Thermal regime and water-atmosphere interactions of shallow mid-latitude lakes: a case study within the framework of the Lake Model Intercomparison Project

15:45–16:00 EGU2011-4168

Peter Zavialov, Slava Kremenetskiy, Valeriy Peresypkin, Oleg Kopelevich, Ruey-Chy Kao, and Chung-Feng Ding

Submarine Groundwater Discharge in Taiwan Strait

16:00–16:15 EGU2011-8473

Alfred Wüest

Near-sediment oxygen dynamics in lakes

16:15–16:30 EGU2011-460

Areti Gianni and Ierotheos Zacharias

Morphology and anoxia in enclosed seas: Aitoliko lagoon - Greece

16:30–16:45 EGU2011-9848

Elena Debolskaya and Evgeny Yakushev

The mathematical modeling of the Shatura lakes ecological state

16:45–17:00 EGU2011-10590

Noel Urban, Galen McKinley, Cory McDonald, and Val Bennington

Carbon cycling in inland seas: contrasts among the Laurentian Great Lakes

17:00–17:15 EGU2011-319

Jana Friedrich, Sorin Balan, Marian-Trajan Gomoiu, Sebastian Naeher, Dan Secieru, Sara Wilcken, and Oliver Zielinski

Monitoring the Formation of Hypoxia on the North-Western Black Sea Shelf

HS10.2/OS2.3 – Lakes and inland seas (co-organized) – Posters

Convener: Peter Zavialov | Co-Conveners: Jana Friedrich, Elena Roget

Hall A | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: n.n.

- A355 EGU2011-13757
Ivar Murdmaa, Ramiz Aliev, Nikolay Esin, Elena Ivanova, Vyacheslav Krylenko, and V i Rudnev
Rapid sapropel accumulation on the upper continental slope of the NE Black Sea during the past century: a response to the global warming?
- A356 EGU2011-1552
Philipp Schneider and Simon Hook
Global trends in lake surface temperatures observed from space
- A357 EGU2011-4158
Peter Makkaveev and **Peter Zavialov**
Interannual and interdecadal variability of pH in the seas of Russia
- A358 EGU2011-13799
Francesc Forcat, Elena Roget, Lidia Dmitrieva, Marina Shatunova, and Valentina Khan
Evaluation of different errors in lake dynamics due to a poor determination of cloud cover
- A359 EGU2011-382
Alexander Osadchiov and Peter Zavialov
Mzymta river plume dynamics in the eastern part of the Black Sea: observations and modeling
- A360 EGU2011-533
Alexander Izhitsky and Peter Zavialov
Latest Observations of Thermohaline Structure and Circulation of the Dying Aral Sea
- A361 EGU2011-547
Natalia Zhurbas
Effect of river plume on Ekman drift velocity in the sea surface layer (dimensional analysis and numerical simulation)
- A362 EGU2011-13957
Vera Rostovtseva, Dmitriy Khlebnikov, Vadim Pelevin, Boris Konovalov, Peter Zavialov, Alexandre Grabovskiy, Oleg Abramov, and Georgiy Karlsen
Mapping small-scale river plumes in the Black Sea using shipboard spectrophotometry and fluorimetry
- A363 EGU2011-4136
Anthony Kettle and **Richard Back**
Combined Water and Heat Budget to Constrain the Vertical Flow in a Meromictic Lake
- A364 EGU2011-6333
Natalya Demchenko
Development of the seasonal thermally-induced front in the Baltic sea after cold winter 2010
- A365 EGU2011-8514
Anh Dao Le T., Francesca De Pascalis, Georg Umgiesser, and Walter Wildi
Seasonal thermal structure variations of Lake Geneva using 3D finite element modeling
- A366 EGU2011-10796
Maria Magdalena Eder, Dirk Schlabing, Marieke Frassl, Karsten Rinke, and András Bárdossy
Climate sensibility of a large lake - a scenario study using a 3D hydrodynamic model and a statistical weather generator
- A367 EGU2011-10781
Philip Wallhead
Inference using plankton models forced by spline interpolations: a study of algal loss processes in Lake Geneva
- A368 EGU2011-151
Sebastian Naeher, Adrian Gilli, Rienk Smittenberg, and Carsten Schubert
Use of lipid biomarkers to reconstruct past hypoxia and past environmental conditions in two Swiss lakes
- A369 EGU2011-13900
Torben Gentz and Michael Schlüter
High resolution mapping of methane concentrations measured by membrane inlet mass spectrometry around pockmarks in Lake Constance, in the North Sea and in the North Atlantic west of Svalbard
- A370 EGU2011-13636
Chen Yi- Ron and Hou Wen- Shang
The relationship between variations of the fish fauna and water quality of the Feitsui reservoir in Taiwan

HS10.6 – Climate-soil and vegetation interactions in ecological-hydrological processes – Orals

Convener: Keith Smettem | Co-Conveners: Nicola Montaldo, Murugesu Sivapalan, Vito Iacobellis, Salvatore Manfreda, Felix Frances, Gregory Egger

Room: 33

Chairperson: Keith Smettem

- 08:30–08:45 EGU2011-5240
Larry Band and Taehee Hwang
Multi-scale ecosystem controls of catchment water, carbon and nutrient cycling along a continental transect

- 08:45–09:00 EGU2011-12155
Roberto Corona, Clorinda Cortis, Tiffany G Wilson, Alessandro Idda, Nicola Montaldo, and John D Albertson
 Design and testing of a plot scale rainfall simulator in Sardina, Italy for calibration of a distributed hydrologic model
- 09:00–09:15 EGU2011-10967
Simone Fatichi, Valeriy Ivanov, and Enrica Caporali
 Modeling complex snow-vegetation-topography patterns with a physically-based approach
- 09:15–09:30 EGU2011-3831
Renato Prata de Moraes Frasson and Witold F. Krajewski
 Transformation of the rainfall drop-size distribution and diameter-velocity relation by the maize canopy
- 09:30–09:45 EGU2011-8134
Natalie Ceperley, Theophile Mande, Alexandre Repetti, Guillermo Barrenetxea, and Marc B. Parlange
 Water use by *Sclerocarya birrea* Agroforestry Trees in Sudanian Savanna : Application of Wireless Sensor Networks
- 09:45–10:00 EGU2011-11851
Felix Frances, Gregory Egger, Teresa Ferreira, Karoline Angermann, Francisco Martínez-Capel, and Emilio Politti
 Riparian vegetation dynamic modelling using the succession-retrogression concept: the RIPFLOW project

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2011-6060
Nick Jarvis
 Water balance modeling accounting for compensatory root water uptake
- 10:45–11:00 EGU2011-12966
Manoel Cardoso, Gilvan Sampaio, and Carlos Nobre
 Use of hydrological indexes to estimate the potential for deforestation and fires in vegetation models for Amazonia
- 11:00–11:15 EGU2011-10437
Marta Pasquato, Chiara Medici, and Félix Francés
 Application of a conceptual distributed dynamic vegetation model to a semi-arid basin, SE of Spain.
- 11:15–11:30 EGU2011-5438
 Gavan McGrath, Rohan Sadler, **Kevin Flemming**, Paul Tregoning, and Christoph Hinz
 Tropical cyclones and the pulsed eco-hydrological dynamics of Australia's arid zone: As revealed by AVHRR, MODIS and GRACE
- 11:30–11:45 EGU2011-6880
Juul Limpens, Milena Holmgren, Edgar Karofeld, Sjoerd van der Zee, and Frank Berendse
 Non-linear response of ecosystem evapotranspiration to tree density: trees reduce water losses in constructed wetlands
- 11:45–12:00 EGU2011-8765
Gregory Egger, Emilio Politti, and Karoline Angermann
 Evaluating Natural Vegetation Reference For River Restoration Benchmarking

HS10.6 – Climate-soil and vegetation interactions in ecological-hydrological processes – Posters

Convener: Keith Smettem | Co-Conveners: Nicola Montaldo, Murugesu Sivapalan, Vito Iacobellis, Salvatore Manfreda, Felix Frances, Gregory Egger

Hall A | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Felix Frances

- A371 EGU2011-13435
Diana Chavarro-Rincon, Piotr Wolski, Mike Murray-Hudson, and Kelly Caylor
 The role of vegetation dynamics in the small-scale water balance of the Okavango Delta
- A372 EGU2011-700
Carla Ferreira, Daniel Soares, Tamm Steenhuis, Rory Walsh, António Ferreira, and Celeste Coelho
 Spatial and temporal variability of water infiltration: impacts on catchment hydrology
- A373 EGU2011-2184
Ruud Bartholomeus and Jan-Philip Witte
 Drought stress and vegetation characteristics on sites with different slopes and orientations

- A374 EGU2011-3932
Ciaran Harman, Kathleen Lohse, Peter Troch, and Murugesu Sivapalan
Vegetation controls on soil hydraulic properties and and co-evolution in semi-arid hillslopes: fieldwork and modelling
- A375 EGU2011-6453
Dario Pumo, Francesco Viola, Leonardo V. Noto, and Goffredo La Loggia
Modelling flows duration curves in Mediterranean river basins through an ecohydrological approach
- A376 EGU2011-8024
Francesco Viola, Dario Pumo, Leonardo V. Noto, and Goffredo La Loggia
Soil moisture limiting olive orchard evapotranspiration
- A377 EGU2011-8452
Cyril Benhamou, Yannick Hamon, Jean Claude Marie, Philippe Merot, Catherine Grimaldi, and Zahra Thomas
Variability of water status and dynamic at a hillslope scale. A case study.
- A378 EGU2011-13416
Stefania Tamea, Francesco Laio, Luca Ridolfi, and Ignacio Rodriguez-Iturbe
Stochastic description of waterlogging and hydroperiods in wetlands
- A379 EGU2011-9163
Dieter Meire and Peter Troch
Flow-vegetation interaction in an integrated river ecosystem model
- A380 EGU2011-9194
Sandra S?owi?ska, Micha? S?owi?ski, and Mariusz Lamentowicz
Interaction between hydrology, microclimate and biotic factors in small Sphagnum mire in northern Poland
- A381 EGU2011-9196
Zoltán Gribovszki, Péter Kalicz, and József Szilágyi
Subdaily evapotranspiration rate calculation from streamflow summer diurnal signal
- A382 EGU2011-9401
Alex Moody and Ryan Emanuel
Mountain Ecohydrology: Modeling runoff production and streamflow in two distinctly vegetated headwater catchments
- A383 EGU2011-9409
Lena S. Tøfte
Development of biological relevant hydrological indicators, and how to include them in model calibration
- A384 EGU2011-9453
Anna George Hazen, Ryan Emanuel, Kelsey Jencso, and Brian McGlynn
Hillslope Ecohydrology: Vegetation influences on hillslope-stream connectivity in the northern Rocky Mountains, USA
- A385 EGU2011-9612
Kendra Kaiser, Brian L. McGlynn, Ryan E. Emanuel, Fabian Nippgen, and John M. Mallard
Ecohydrology: Disturbance and the intersection of vegetation pattern and landscape structure
- A386 EGU2011-10621
Marieke Oosterwoud, Martine van der Ploeg, and Sjoerd van der Zee
Seasonal variability in discharge from a raised bog affected by surface topography
- A387 EGU2011-11764
Guido Ceccherini and Fabio Castelli
Parsimonious modeling of coupled soil moisture-vegetation dynamics
- A388 EGU2011-13084
Alicia García-Arias, **Félix Francés**, Francisco Martínez-Capel, Rui Rivaes, Patricia Rodríguez-González, Antonio Albuquerque, and Teresa Ferreira
Analysis of the riparian vegetation dynamics through the RIPFLOW model. Disturbed flow scenarios in Mediterranean rivers.
- A389 EGU2011-13274
Andrea Gioia, Salvatore Manfreda, Vito Iacobellis, and Mauro Fiorentino
Performance evaluation of a theoretical model for the description of the water balance and runoff dynamics in Southern Italy river basins
- A390 EGU2011-13399
Laurent Kergoat, Pierre Hiernaux, Ramarohetra Johanna, Grippa Manuela, and Gardelle Julie
Less rain, more water in ponds, from remote sensing evidence to hydrological processes.
- A391 EGU2011-13094
Virginia Garófano-Gómez, Francisco Martínez-Capel, Patricia Rodríguez-González, Rui Rivaes, Antonio Alburquerque, Teresa Ferreira, Gregory Egger, Emilio Politti, Francisco Vallés, and Ignacio Andrés
Analyses of succession-retrogression for dynamic modelling of riparian vegetation in the RIPFLOW project
- A392 EGU2011-995
Min Chen, Garry Willgoose, and Patricia Saco
Intercomparison of two land surface schemes from a hydrological perspective

- A393 EGU2011-2200
Martine Broer, Alexander Eder, Peter Strauss, and Günter Blöschl
 Estimating riparian zone evapotranspiration from streamflow fluctuations
- A394 EGU2011-6591
Peggy Zinke
 Implementation of natural vegetation into 3D hydrodynamic models for flow and sediment transport
- A395 EGU2011-9328
Claudio Meier
 A New Conceptual Model for Establishment of Riparian Trees at the Bar Scale, in Gravel-Bed Rivers
- A396 EGU2011-9439
María Dolores Bejarano, Miguel Marchamalo, Marta González del Tánago, Diego García de Jalón, and Álvaro Sordo
 Responses of Mediterranean riparian guilds to hydrologic alteration

ERE5.1/GMPV32/HS12.1/SSS2.9 – Coupled reactive transport: Codes, applications and trends (co-organized) – Orals

Convener: Georg Kosakowski | Co-Conveners: Josep M. Soler, Peter Alt-Epping

Room: 3

Chairperson: Peter Alt-Epping

- 15:30–15:45 EGU2011-716
Maria Gabriela Davila Ordoñez, Maria Garcia Rios, Josep M. Soler, and Jordi Cama
 Modeling the dissolution of calcite coupled to gypsum precipitation in acid brines
- 15:45–16:00 EGU2011-2202
 Yaniv Edery, Harvey Scher, and **Brian Berkowitz**
 Modeling Dissolution and Precipitation Dynamics During Dedolomitization
- 16:00–16:15 EGU2011-4128
Jennifer Palguta, Colin F. Williams, Steven E. Ingebritsen, Stephen H. Hickman, and Eric Sonnenthal
 An approach for modeling geothermal reservoir behavior using the reactive transport simulator TOUGHREACT
- 16:15–16:30 EGU2011-11479
Caroline de Dieuleveult, Vincent Lagneau, and Juan Hidalgo
 Development of an isotopic fractionation and filiation module in the reactive transport code HYTEC
- 16:30–16:45 EGU2011-721
Andrey Afanasyev
 Simulation of multiphase flows of binary mixtures under sub- and supercritical conditions
- 16:45–17:00 EGU2011-12020
Marco De Lucia, Susanne Stadler, Matthias Rateitzak, and Michael Kühn
 Evaluating uncertainties in geochemical modelling for CO₂ storage: multivariate sensitivity analysis of database entries

ERE5.1/GMPV32/HS12.1/SSS2.9 – Coupled reactive transport: Codes, applications and trends (co-organized) –

Posters

Convener: Georg Kosakowski | Co-Conveners: Josep M. Soler, Peter Alt-Epping

Hall XL | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: n.n.

- XL179 EGU2011-11527
Blaise Delmotte, Carole Delenne, Vincent Guinot, and Elena Gomez
 Calibration and sensitivity analysis of a one-dimensional model of pollutant transport and degradation in maturation ponds.
- XL180 EGU2011-12919
Thomas Gimmi, Olivier X. Leupin, Jost Eikenberg, Martin A. Glaus, Luc R. Van Loon, H. Niklaus Waber, Josep M. Soler, Acacia Naves, Javier Samper, Sarah Dewonck and the rest of the DR Team
 Results and modelling of the 4-year diffusion and retention (DR) experiment in Opalinus Clay in the Mont Terri URL
- XL181 EGU2011-4004
Josep M. Soler, Marja Vuorio, and Aimo Hautajärvi
 Reactive transport modeling of the interaction between water and a cementitious grout in a fracture
- XL182 EGU2011-10034
Alexandre Boisson, Luc Aquilina, and Olivier Bour
 Influence of flow velocity on denitrification in a pore-scale lab experiment

- XL183 EGU2011-2044
Georg Kosakowski and Urs Berner
Influence of a concrete liner on the evolution of the near field of a HLW repository
- XL184 EGU2011-10789
Peter Alt-Epping and Larry W. Diamond
Implications of rock composition, brine composition and pressure/temperature conditions for CO₂ mineral trapping in deep saline aquifers
- XL185 EGU2011-10010
Christoph Egbers and Nicoleta Scurtu
Challenges in the Numerical Modelling of the CO₂-Transport in Pipelines
- XL186 EGU2011-5581
Haibing Shao, Christina M. Haberer, Peter Grathwohl, and Olaf Kolditz
Modeling the oxygen mass transfer across the capillary fringe using a multiphase reactive transport code - numerical model construction and comparison with experimental data
- XL187 EGU2011-13903
Mingliang Xie, Olaf Kolditz, and Helge Moog
A geochemical model for highly saline solutions
- XL189 EGU2011-7457
Dedong Li, Christof Beyer, and Sebastian Bauer
Simulation of fluid-mineral kinetic reactions during CO₂ storage using ChemApp and SUPCRT92 coupled to OpenGeoSys
- XL190 EGU2011-7625
Luis Manuel de Vries, Albert Nardi, Luit Jan Slooten, and Jesus Carrera
Random Walk Particle Tracking for reactive transport modelling
- XL191 EGU2011-11295
Sarah Jane Fowler, **Ferdinand Hingerl**, Thomas Driesner, Georg Kosakowski, Dmitrii Kulik, and Thomas Wagner
Reactive transport simulation by combining a multiphase-capable transport code for unstructured meshes with Gibbs energy minimization and multi-electrolyte solution models
- XL192 EGU2011-13635
Hamidreza M. Nick, Pierre Regnier, Martin Thullner, Stephan Matthai, and Florian Centler
A reactive transport model for complex geological media
- XL193 EGU2011-14156
Rajandrea Sethi and Tiziana Tosco
E-MNM1D: A model for the simulation of shear thinning suspensions of zerovalent iron micro and nanoparticles in porous media
- XL194 EGU2011-2696
Minh Tan Vu and Pierre M Adler
Deposition and/or dissolution in Porous Media
- XL195 EGU2011-3229
Mohamed Hayek, Georg Kosakowski, and Sergey Churakov
Analytical solutions for diffusive transport with heterogeneous reactions and porosity changes
- XL196 EGU2011-6773
alain dimier and elodie jeandel
A phreeqc-Elmer coupling algorithm for T-H-M-C modeling applications

GM7.1/HS12.3 – Interactions of hydraulics, sediment transport and channel morphology (co-organized) – Orals

Convener: manuel nitsche | Co-Conveners: Johannes Schneider, Jens Turowski, Christian Winter, Jesper Bartholdy

Room: 21

Chairperson: Manuel Nitsche

- 08:30–08:45 EGU2011-10577
Andy Large, Andy Russell, Meredith Williams, Stuart Dunning, Matthew Ross, and Qiuhua Liang
IMPACTS OF THE SEPTEMBER 2008 FLOODS IN NORTHEAST ENGLAND ON RIVER MORPHOLOGY & SEDIMENTOLOGY
- 08:45–09:00 EGU2011-1873
Margot Chapuis, Simon Dufour, Mireille Provansal, and Bernard Couvert
Interactions of hydraulics, bedform and particle mobility in a steep and large meandering system (Durance River, South-Eastern France)
- 09:00–09:15 EGU2011-4325
Peter Nelson, Richard McDonald, Jonathan Nelson, and William Dietrich
Numerical experiments on the coevolution of bed surface patchiness and channel morphology

- 09:15–09:30 EGU2011-8108
Jerome Lave and Matthieu Dubille
 Real-time measurements and modelling of bedrock river erosion along two rivers of the Frontal Himalaya
- 09:30–09:45 EGU2011-6871
Fereshteh Bagherimiyab and Ulrich Lemmin
 Effects of bed form structure on particle-turbulence interaction in unsteady suspended sediment-laden laboratory open-channel flows
- 09:45–10:00 EGU2011-4995
Arvind Singh, Kristin Sweeney, Peter Wilcock, and Efi Foufoula-Georgiou
 Effect of migrating bed topography on tracer dynamics

GM7.1/HS12.3 – Interactions of hydraulics, sediment transport and channel morphology (co-organized) – Posters

Convener: manuel nitsche | Co-Conveners: Johannes Schneider, Jens Turowski, Christian Winter, Jesper Bartholdy

Hall A | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: Johannes Schneider

- A133 EGU2011-8047
Henning Baewert, Eric Rascher, Karl-Heinz Schmidt, Martin Bimböse, and David Morche
 Calculation of surface roughness of an alpine river reach using Terrestrial Laser Scanning data
- A134 EGU2011-7165
Sandrine Tacon, Frédéric Liébault, and Hervé Piégay
 LiDAR-derived morphological changes of gravel-bed rivers in the French Prealps
- A135 EGU2011-11368
Maximiliano Sassi, Ton Hoitink, Bart Vermeulen, and Hidayat Hidayat
 Method to estimate river discharge from a horizontally deployed Acoustic Doppler Current Profiler in a tidal river subject to sidewall effects and a mobile bed
- A136 EGU2011-12342
Philipp Gmeiner, Marcel Liedermann, Michael Tritthart, and Helmut Habersack
 Development of a device for direct bed shear stress measurement in a gravel bed river
- A137 EGU2011-12471
 Mariana Morell, Manuel Gallego, Carlos Vionnet, and **Leticia Rodriguez**
 On the projection of ADCP data associated to secondary currents driven by curvature on river bends
- A138 EGU2011-11014
Stuart Dunning, Nigel King, Bruce Carlisle, Danny Donoghue, Jeff Warburton, Andy Russell, and Andy Large
 Unmanned Aerial Vehicle low-level aerial photography of flood induced change - the 2009 Cumbria event
- A139 EGU2011-121
Geraldine Quénéhervé and Michael Märker
 An integrated approach to assess hydrological processes and sediment dynamics in Northern Tanzania
- A140 EGU2011-13529
Andy Large, Andy Russell, Stuart Dunning, Jeff Warburton, and Danny Donoghue
 Controls on reach-scale geomorphological and sedimentary impacts of the November 2009 flood, River Derwent, Cumbria, UK
- A141 EGU2011-8633
 Noam Greenbaum and **Lea Wittenberg**
 Runoff and sediment yield in Nahal Oren Basin, Mt. Carmel Israel - a comparison between pre and post 2010 forest fire (preliminary-results)
- A142 EGU2011-1560
Jonny Moretto, Emanuel Rigon, Lorenzo Picco, Nicola Surian, Luca Mao, Francesco Comiti, and Mario Aristide Lenzi
 Medium and short term channel planform changes and vegetation cover dynamics on a regulated gravel bed river, Brenta River, Italy
- A143 EGU2011-10686
Peter Fischer, Florian Haas, Gerald Blasch, Tobias Heckmann, Barbara Stammel, and Bernd Cyffka
 Efficiency of restoration measures - Interaction between discharge and morphodynamik processes in a semi-natural water course at the Danube between Neuburg and Ingolstadt (Germany)
- A144 EGU2011-4827
Philipp Stadler and Elmar Pröll
 Hydromorphology - Quantifying a creek's naturalness
- A145 EGU2011-462
Pauline Dieras, Herve Piegay, and Jose A. Constantine
 Controls on initial oxbow sedimentation as observed within recently cut-off channels of the Ain River, France

- A146 EGU2011-7326
Hugo Seitz, Lukas Strahlhofer, Johann Aigner, Bettina Mühlburger, Andrea Kreisler, and Helmut Habersack
Temporal Variation of Bedload Transport studied by Integrative and Innovative Bedload Measurement Systems
- A147 EGU2011-14006
Manuel Nitsche, Dieter Rickenmann, Jens M. Turowski, Alexandre Badoux, and James W. Kirchner
Evaluation of bedload transport predictions using different flow resistance equations for large scale roughness in steep mountain streams
- A148 EGU2011-209
Jens Turowski, Alexandre Badoux, and Dieter Rickenmann
Start and end of bedload transport in gravel-bed streams
- A149 EGU2011-13446
Mario Kloesch and Helmut Habersack
Riverbank stability analysis considering the limited longitudinal extent of mass failures
- A150 EGU2011-4331
Gustavo Adolfo Mazza de Almeida and Jose Fernando Rodriguez
Formation and degradation of pool-riffle sequences
- A151 EGU2011-4857
Joseph Wagenbrenner and Peter Robichaud
Evaluating a post-wildfire mitigation treatment using a flume
- A152 EGU2011-1727
Clement Narteau, Deguo Zhang, and Olivier Rozier
Coexistence of bedforms: the star dune paradigm
- A153 EGU2011-12625
Francisco Núñez-González and Juan Pedro Martín-Vide
Hydraulic analysis of propagation direction of antidunes

NH1.3/HS12.7 – Flood risk and uncertainty (co-organized) – Orals

Convener: Giuseppe T. Aronica | Co-Conveners: Heiko Apel, Guy Schumann

Room: 4

Chairperson: H. Apel

- 15:30–15:45 EGU2011-6954
Jim Hall and Lucy Manning
A Bayesian approach to analysing structural uncertainties in flood risk analysis
- 15:45–16:00 EGU2011-423
Daniel Viviroli and Rolf Weingartner
Flood estimation and comprehensive hydrological assessment on basis of process-oriented continuous simulation
- 16:00–16:15 EGU2011-3635
Nicholas Odoni and Stuart Lane
What to do where? Demonstration of synergistic interactions between diffuse landscape scale measures to reduce flood risk.
- 16:15–16:30 EGU2011-3734
Mike Steel, Helen James, Shirley Greenwood, Ian Meadowcroft, and Stefan Laeger
Theory into practice: understanding and communicating uncertainty in flood risk information
- 16:30–16:45 EGU2011-8253
Anita Piliksere, Aigars Valainis, and Juris Sešikovs
A flood risk assessment for Riga city taking account climate changes
- 16:45–17:00 EGU2011-10644
Paul D. Bates, **Giuseppe T. Aronica**, Angela Candela, and Jeff Neal
Can uncertainty in flood hazard estimation be reduced by using high detailed topographic data for floodplain modelling?

NH1.3/HS12.7 – Flood risk and uncertainty (co-organized) – Posters

Convener: Giuseppe T. Aronica | Co-Conveners: Heiko Apel, Guy Schumann

Halls X/Y | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: G. Schumann

- XY201 EGU2011-3360
Nguyen Viet Dung, José Miguel Delgado, Bruno Merz, and Heiko Apel
Changing flood hazard in the Mekong Delta

- XY202 EGU2011-4214
David Leedal, **Keith Beven**, Jeff Neal, Caroline Keef, and Paul Bates
Visualising uncertain flood inundation maps
- XY203 EGU2011-4286
Diana Carolina Fuentes Andino, Sven Halldin, Chong-Yu Xu, and Lars-Christer Lundin
Uncertainty estimation of simulated water levels for the Mitch flood event in Tegucigalpa
- XY204 EGU2011-4448
Kwak Youngjoo, Hasegawa Akira, Inomata Hironori, and Fukami Kazuhiko
Flood Risk Assessment Using Inundation Depth Model and ALOS Images: A Case Study In Kabul River, Pakisatn
- XY205 EGU2011-5123
Dai Yamazaki, Yadu Pokhrel, Hyungjun Kim, Shinjiro Kanae, and Taikan Oki
Impact of climate change on the flood risks in the Mekong River basin: prediction of future flooding extent using a continental-scale hydrodynamics model
- XY206 EGU2011-6574
Juan Antonio Ballesteros, Mauricio Sánchez-Silva, Jose María Bodoque, and Andrés Díez-Herrero
An example of integrated approach to flood risk management: the case of Navaluenga (Central Spain)
- XY207 EGU2011-7008
Michaela Bray, Jia Liu, and Dawei Han
Rainfall forecasting using the Numerical Weather Model WRF and assimilated weather radar data
- XY208 EGU2011-7442
Cecilia Svensson, Thomas R. Kjeldsen, and David A. Jones
Flood frequency estimation using a joint probability method
- XY209 EGU2011-8239
Daniele Pietro Viero, Andrea D'Alpaos, Luca Carniello, Andrea Defina, and Rinaldo Genevois
A fully coupled hydrodynamic and breach formation model to simulate floodplain inundation: the case study of the Muson dei Sassi River (Italy).
- XY210 EGU2011-9417
Yizhong Qu
Challenges and solutions in flood risk assessment
- XY211 EGU2011-10230
Sergiy Vorogushyn, Karl-Erich Lindenschmidt, Heidi Kreibich, Heiko Apel, and Bruno Merz
Detention basin impact on flood risk and systemic effects of dike performance in a complex channel-dike-floodplain system
- XY212 EGU2011-12327
Daniela Brucher, Sergiy Vorogushyn, Julien Lhomme, Ben Gouldby, Heiko Apel, and Bruno Merz
Hydraulic model evaluation for large-scale flood risk assessments
- XY213 EGU2011-13706
Heidi Kreibich and Philipp Bubeck
,Costs of Natural Hazards': Modelling direct economic costs

SSS1.2/HS12.13/NP3.11 – Wind-driven rain and aeolian sediment transport in environmental studies (co-organized) – Orals

Convener: Charles Bielders | Co-Conveners: Jean Louis Rajot, Geert Sterk, João de Lima, Don Gabriels, Gunay Erpul

Room: 9

Chairperson: n.n.

- 15:30–15:45 EGU2011-9922
Carsten Hoffmann, Roger Funk, and Michael Sommer
Assessment of extreme wind erosion from a cropping field in Inner Mongolia
- 15:45–16:00 EGU2011-14090
Feras Youssef, Saskia Visser, Derek Karssenberg, Günay Erpul, and Feras Ziadat
Strategies for Measuring Wind Erosion at the Regional Scale, Observation of Wind Erosion in Khanasser Valley Region, Syria
- 16:00–16:15 EGU2011-10974
Tidjani Adamou Didier, Biielders Charles, Ambouta Karimou, and Tychon Bernard
Dune rehabilitation using a mechanical fixation technique: effect on sediment fluxes and on the quantitative and qualitative recovery of the herbaceous groundcover.
- 16:15–16:30 EGU2011-4913
Gunay Erpul, Donald Gabriels, Darrell Norton, Dennis Flanagan, Chihua Huang, and Saskia Visser
Interactions between raindrop impact and shallow interrill flow under wind-driven rain (WDR)
- 16:30–16:45 EGU2011-2853
Peeyush Khare, Tushar Agarwal, and Sat Ghosh
A novel rain simulator for hydrological and agricultural applications in wind driven monsoonal conditions with a particular reference to India.

16:45–17:00 EGU2011-1793

Hilal Samray, **Gunay Erpul**, and Donald Gabriels

Raindrop impacted shallow overland flow transport under different fall trajectories of wind-driven rain (WDR)

SSS1.2/HS12.13/NP3.11 – Wind-driven rain and aeolian sediment transport in environmental studies (co-organized) –

Posters

Convener: Charles Biolders | Co-Conveners: Jean Louis Rajot, Geert Sterk, João de Lima, Don Gabriels, Gunay Erpul

Hall Z | Display Time 08:00–17:00

Author in Attendance: 08:30–10:00

Chairperson: Joao de Lima

Z49 EGU2011-680

Jorge Isidoro and João de Lima

Evaluation in the laboratory of the influence of storm movement on the hydrologic response of small areas.

Z50 EGU2011-4634

João de Lima, Jorge Isidoro, Vijay Singh, and M. Isabel de Lima

The effect of moving storm acceleration on runoff hydrographs

Z51 EGU2011-8093

Maria Cristina Rulli, Francesco Meneguzzo, and Renzo Rosso

Wind Control of Storm Triggered Shallow Landslides

Z52 EGU2011-4960

Mustafa Basaran, Gunay Erpul, and Oguzhan Uzun

Evaluation of field performances of BEST sediment catchers in sandy loam soils of arid zone of Turkey

Z53 EGU2011-9400

Thomas Iserloh, Wolfgang Fister, Miriam Marzen, Manuel Seeger, and Johannes B. Ries

The influence of wind-driven rain on soil detachment rates on homogenous sandy substrate

Z54 EGU2011-965

Majid Mahmoodabadi, Fatemeh Dehghani, and Hamidreza Azimzadeh

Random and oriented roughness influence on soil erosion rate using wind tunnel experiment

Z55 EGU2011-2939

Charles Biolders, Adamou Didier Tidjani, and Karimou Ambouta

Seasonal dynamics of the parameters determining wind erosion on rangeland in Eastern Niger

Z56 EGU2011-5001

Jean Louis Rajot, Amadou Abdourhamane Touré, Zibo Garba, Béatrice Marticorena, Christophe Petit, and David Sebag

Impact of very low crop residuescover on wind erosion in the Sahel

Z57 EGU2011-5738

Geert Sterk

On-site and off-site impacts of wind erosion in Europe: an overview

SSS2.2/EMRP15/GM10.2/PS7.0 – Modeling the Experiment, Experimenting the Models (co-listed) – Orals

Convener: Manuel Seeger | Co-Conveners: Luigi Colangeli, Javier Martin-Torres, Nikolaus J. Kuhn, Karsten Seiferlin, Markus Casper, Derek W. G. Sears, Ulrike Scherer, Ruth Ziethe, Tobias Heckmann, Sandra Schumacher

Room: 9

Chairperson: Manuel Seeger

08:30–08:45 EGU2011-2476

Mike Kirkby

Modelling overland flow generation on a rough hillslope

08:45–09:00 EGU2011-2012

Afshin Ghahramani and Yoshiharu Ishikawa

Rain splash transport over steep hillslope; modeling of transport

09:00–09:15 EGU2011-629

Stefan Wirtz, Manuel Seeger, and Johannes B. Ries

Experimental validation of basic model assumptions

09:15–09:30 EGU2011-5410

Zhengyao Nie, Gavan McGrath, and **Christoph Hinz**

Rock particle fragmentation, as an alternative to fluvial transport, explains size sorting on arid hillslopes

09:30–09:45 EGU2011-10118

Olivier Dewitte, Claudio Bosco, Miet Van Den Eeckhaut, and Mohamed Daoudi

A statistical approach to predict gully initiation susceptibility with common spatial data

- 09:45–10:00 EGU2011-1025
Aleksey Sidorchuk
 Stochastic theory of soil erosion: the novel approach to modelling and experimentation

COFFEE BREAK

Chairperson: Ulrike Scherer, Luigi Colangeli

- 10:30–10:45 EGU2011-1311
Michael Dietze and Arno Kleber
 Orientation patterns of stone pavements: from field experiments to a physically-based model and towards laboratory experiments
- 10:45–11:00 EGU2011-7977
An Van den Putte, Gerard Govers, Jan Diels, Annemie Leys, Christoph Langhans, and Wim Clymans
 Can rainfall simulation data be used to parameterize a dynamic infiltration model?
- 11:00–11:15 EGU2011-2287
Willem Maetens, Jean Poesen, and Matthias Vanmaercke
 Confrontation of the PESERA map with measured soil loss rates at plot scale
- 11:15–11:30 EGU2011-2938
Jonathan Merrison, Haraldur Gunnlaugsson, Christina Holstein-Rathlou, Svend Knak Jensen, Per Nørnberg, and Keld Rasmussen
 Granular Electrification, Sand Transport and Mineralogy.
- 11:30–11:45 EGU2011-6606
 Gregor Golabek, Tobias Keller, **Taras Gerya**, Paul Tackley, Guizhi Zhu, and James Connolly
 Core and early crust formation on Mars
- 11:45–12:00 EGU2011-8070
Rafael Escibano, Oscar Gálvez, Belén Maté, Miguel A. Moreno, Víctor J. Herrero, and F. Javier Martín-Torres
 Anomalies in the spectra of planetary ice particles

LUNCH BREAK

Chairperson: Javier Martin Torres

- 13:30–13:45 EGU2011-10584
Ha Tran, Jean-Michel Hartmann, and Geoffrey Toon
 Line-mixing effects on spectral shape and consequences for laboratory and atmospheric spectra analyses
- 13:45–14:00 EGU2011-8929
Ludmilla Kolokolova
 Remote Sensing of Aggregated Aerosols Using Photopolarimetry
- 14:00–14:15 EGU2011-13452
Enric Palle
 Earthshine measurements and extrasolar planet spectral retrieval
- 14:15–14:30 EGU2011-10233
Séverine Robert, Arnaud Mahieux, Valérie Wilquet, Rachel Drummond, Ann Carine Vandaele, Jean Vander Auwera, Yuri Borkov, Valery I. Perevalov, Sergei A. Tashkun, and Jean-Loup Bertaux
 Analysis of new Absorption Bands of the Carbon Dioxide Isotopologues in Venus Spectra
- 14:30–14:45 EGU2011-2366
David Jacquemart
 Recent progress in acetylene laboratory measurements for astrophysical applications
- 14:45–15:00 EGU2011-12177
Wladimir Neumann, Doris Breuer, and Tilman Spohn
 The efficiency of magma heat transport in accreting planetesimals

SSS2.2/EMRP15/GM10.2/PS7.0 – Modeling the Experiment, Experimenting the Models (co-listed) – Posters
 Convener: Manuel Seeger | Co-Conveners: Luigi Colangeli, Javier Martin-Torres, Nikolaus J. Kuhn, Karsten Seiferlin, Markus Casper, Derek W. G. Sears, Ulrike Scherer, Ruth Ziethe, Tobias Heckmann, Sandra Schumacher
Hall Z | Display Time 08:00–17:00
 Author in Attendance: 15:30–17:00
 Chairperson: Nikolaus Kuhn

- Z58 EGU2011-8109
Pelin Aklik and Wei Wu
Centrifuge modeling of geotextile reinforced slopes
- Z59 EGU2011-13632
Constance Bornkamp and Jürgen Schmidt
Experimental research and modelling macropore flow in soils
- Z60 EGU2011-870
Tom Coulthard, Greg Hancock, and John Lowry
Modelling soil erosion with a downscaled landscape evolution model
- Z61 EGU2011-1433
Stefan Strohmeier and Andreas Klik
Erosion Plot Monitoring: Impact of different Tillage Systems on average annual Soil Erosion and the Significance of Extreme Rainfall Events
- Z62 EGU2011-1625
Nikolaus J. Kuhn and Elizabeth K. Armstrong
Organic Matter erosion from sandy soils: solving the mass balance
- Z63 EGU2011-4123
Ulrike Scherer, Erwin Zehe, Klaus Traebing, and Kai Gerlinger
Parameterisation of a soil detachment model using rainfall simulation experiments
- Z64 EGU2011-5740
Claude Mügler, Olivier Planchon, Jérémy Patin, Sylvain Weill, Norbert Silvera, Patricia Richard, and Emmanuel Mouche
Modelling of overland flow and tracer transport experiments under simulated rainfall at plot scale
- Z65 EGU2011-7541
Verena Butzen, Manuel Seeger, Markus Casper, and Johannes B. Ries
Parameterization of the process-based soil erosion model LISEM by means of experimental measurements
- Z66 EGU2011-7857
Mazhar Ali, Geert Sterk, and Piet Peters
Influence of hydraulic parameters on sediment transport in shallow flows
- Z67 EGU2011-888
Mazhar Ali, Geert Sterk, Manuel Seeger, and Leo Stroosnijder
Experimental Estimation of Mean Flow Velocity under Overland Flow
- Z68 EGU2011-12811
Lucy Clarke, Timothy Quine, and Andrew Nicholas
Experimental study of flow width dynamics on alluvial fans
- Z69 EGU2011-12945
Marc Biancheri - Astier, Valérie Ciarletti, and Alain Reineix
3D characterization of the deep sub-surface by a bistatic HF GPR operating from the surface
- Z70 EGU2011-4665
María J. García-Algaba, **Encarnación V. Taguas**, Luciano Mateos, and José A. Gómez
Describing and modelling the rainfall-runoff pattern of an olive orchard large catchment in Southern Spain
- Z71 EGU2011-875
Mary Elise Rumpf, Sarah Fagents, Christopher Hamilton, and Ian Crawford
The Search for a Solar Record in Lunar Paleoregoliths through Numerical Modeling and Analogous Experiments
- Z72 EGU2011-2006
Hiroko Nagahara and Kazuhito Ozawa
Phyllosilicate and its role on the evolution of organic materials in the early solar nebula
- Z73 EGU2011-2378
Attila Császár, Csaba Fábri, and Edit Mátyus
Toward a Line List for Methane
- Z74 EGU2011-2728
Jiri Pavlu, Martin Beranek, Jakub Vaverka, Ivana Richterova, Zdenek Nemecek, and Jana Safrankova
Lunar dust simulants (LHT, JSC, MLS) compared in the frame of secondary emission
- Z75 EGU2011-3601
Juris Freimanis
Polarized radiative transfer equation in some special curvilinear coordinate systems
- Z76 EGU2011-13174
Erwan Tréguier, Albrecht Schmidt, Frédéric Schmidt, Alejandro Cardesín, Stéphane Erard, Patrick Martin, Patrick Pinet, Saïd Moussaoui, and Nicolas Dobigeon
Analysis of a collection of planetary hyperspectral images through non-negative source separation
- Z77 EGU2011-4899
Marie-Claire Gazeau, Yves Benilan, Et-Touhami Es-Sebbar, Antoine Jolly, Emmanuel Arzoumanian, Nicolas Fray, and Hervé Cottin
Characterization of continuous vacuum ultraviolet lamps - Implication on the study of methane photolysis at Lyman alpha (121.6 nm)

- Z78 EGU2011-7729
Jeremy Guignard, Misha Bystricky, and Mickael Toplis
Grain Growth in Experimental Forsterite $\pm$ Metal $\pm$ Silicate Melt Systems: Analogues of Chondritic and Achondritic Parent Bodies.
- Z79 EGU2011-9862
Alexander Stiegler and Günter Kargl
A broadband frequency characterisation of Martian analogue dielectric behaviour
- Z80 EGU2011-11540
Olivia Golle, **Caroline Dumoulin**, Ondrej Cadek, and Gael Choblet
A method to compute topography and geoid from viscous convection overlaid by an elastic lithosphere
- Z81 EGU2011-12375
Javier Martin-Torres, Alejandro Soto, Mark Richardson, Ian McEwan, and Javier Gómez-Elvira
Radiative Transfer Calculations for the REMS/Mars Science Laboratory Ground Temperature Sensors
- Z82 EGU2011-12284
Javier Martin-Torres
Calculation of Refraction Indices of Mars and Terrestrial Atmospheres Using Spectroscopic Databases
- Z83 EGU2011-2972
Jonathan Merrison, Line Drube, Haraldur Gunnlaugsson, Christina Holstein-Rathlou, Svend Knak Jensen, Jon Mason, Morten Bo Madsen, Per Nørnberg, and Manish Patel
Research Using the European Mars Simulation Wind Tunnel Facility
- Z84 EGU2011-2727
Jakub Vaverka, Jiri Pavlu, Martin Beranek, Ivana Richterova, Jana Safrankova, and Zdenek Nemecek
Secondary emission from Martian soil simulant

