### Programme Group Programme

**NH – Natural Hazards**

**Monday, 04 April**

<table>
<thead>
<tr>
<th>Organisation</th>
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<tbody>
<tr>
<td>GMPV3</td>
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<tr>
<td>NH1.2/AS4.7/HS12.6</td>
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<td>HS7.1/AS4.8/NH1.10/NP3.9</td>
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<td>NH2.3/AS4.29/GMPV47</td>
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<td>NH2.8/GMPV57</td>
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<td>NH10.4/BG2.18/GM4.4/SSS1.12</td>
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**Tuesday, 05 April**

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**Wednesday, 06 April**

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**Thursday, 07 April**

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Monday, 04 April

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 Tõnisson
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 Tõnisson
Hall A | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Hannes Tõnisson

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 Frasheri, Alfred Frasheri, Niko Pano, and Salvatore Bushati
Outlook on seaways 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
Forcing factors of coastal change: case study Sultanate of Oman (Arabian Peninsula)

Factors Influencing the Performance of Several Beach Nourishment Projects: Pinellas County, Florida, USA

Recent shoreline evolution and erosion trends of the Molise coast (southern Italy) and their possible relation to natural and human-induced driving factors

Mohamed Moncef Serbaji and Khaled Medhioub
Integrated coastal zone management of Sfax region including the Kerkennah island (Tunisia)

Coastal zone management and changing character of shore processes - a story about Kiipsaare lighthouse.

Inventory of port/coastal defence structures along the Bulgarian-Romanian part of the Western Black Sea coast

To the determination of triggering factors of chalk cliff collapses in Upper Normandy

Comparison of the Coastal Landforms along Jiangsu Province of China with Inland Desert Landforms

Shift of the Büyük Menderes River and the evolution of the delta plain, Western Anatolia, Turkey.

Hydrological response to the Toba eruption as recorded in the Quaternary sediments of the Son river, Madhya Pradesh, India: implications for landscape evolution and Middle-Palaeolithic human settlements

Establishing a Sourcing Database for pXRF, XRD, ICP-MS and Petrographic Analyses of Failaka Island Ceramics in the Bronze Age

Magnetite grain-size and sourcing of archaeological obsidians

Modeling the spatial distribution of AD 79 pumice and surge deposits of Somma-Vesuvius within the Sarno River plain (Campania, Italy)

Reconstructing the tephra dispersal pattern from the Bronze Age eruption of Santorini using an advection-diffusion model

Volcanic origin and emplacement of the East Eifel tuff and its distribution as a building material since Roman times
Estimation of deposition temperature of the Pomici di Avellino (Somma-Vesuvius, 3.8 ka BP) products at Afragola village (Naples, Early Bronze Age): understanding the anomalies of TRM carried by potsherds embedded in the PDC deposits

Human adjustments to the 1906 eruption of Vesuvius, Italy

Human colonization and volcanic activity in the Eastern Campania Plain (Italy) between Early Bronze Age and 79 AD.

Volcanic activity and human settlements from 8,000 years ago until the 16th century AD in the western part of the city of Naples (Italy)

The 5th century BC “Ischia Porto Tephra

Volcanoes and Human History: the Lake Albano Maar in Roman History and Mythology

The Plinian 'Pomici di Avellino' eruption of Vesuvius (Italy) and its impact on late Early Bronze Age settlements

Hydrometeorological modeling and Earth observations under extremes: issues of scale, dependence and robust frameworks for collective risk assessment (co-organized) – Orals

Estimation of flood peak frequencies at river confluences

Multi-scale Analysis of Extreme Flooding in Iowa, USA

Spatial dependence in floods and extreme precipitation

Multifractal Extremes and Adaptation of Water Management to Climate Change

Forecast (in)consistency in a hydro-meteorological chain: Curse or blessing?

Tropical storm forecast verification using a mesoscale NWP model HIRLAM

A comparison of spatial and temporal methodologies for the analysis of European drought
10:45–11:00 EGU2011-12751
Giorgio Boni and the 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 Thiemig, 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

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 Jacobite
Assessment of extreme events in the Mediterranean area

XY363 EGU2011-9025
Sandra G. García Galiano, Juan D. Giraldo Osorio, and Claudia N. Tetay Botia
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 Liasat, 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 Dailetes Rennó, Alexandre Copertino Jardim, and Eric Silva Abreu
Combining TerraHidro and SISMADEn 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
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<tr>
<td>Fabio Castelli, Lorenzo Campo, Francesca Caparrini, and Roberto Rudari</td>
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<td>Impact of LST-Based Soil Moisture Index on an Operational Flood Forecasting System</td>
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<td>Mehmet Coskun and Luis Samaniego</td>
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<td>Trend analysis of Meteorological data in Germany</td>
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<tr>
<td>Giorgio Boni and the The OPERA Team</td>
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<td>Assessment of impact of storms at large scale: the potential of coupling modelling and remote sensing observations</td>
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<td>Mariapia Faruolo, Irina Coviello, Teodosio Lacava, Nicola Pergola, and Valerio Tramutoli</td>
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<td>A multi-sensor RST based approach for flooded areas detection and monitoring: the November 2010 Veneto region flood</td>
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<td>Stephan Seeling and Hugo Hellebrand</td>
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<td>Assessing the long-term ecohydrology evolution of a meso-scale catchment in central Europe employing a combination of different monitoring techniques</td>
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<td>Simone Gabellani, Silvestro Francesco, Fabio Delogu, Giorgio Boni, and Roberto Rudari</td>
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<td>A Fully Distributed Model for Water Management and Flood Forecasting exploiting Satellite Observations</td>
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**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**

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<td>Auguste Gires, Ioulia Tchiguirinskaia, Daniel Schertzer, Christian Onof, Cedo Maksimovic, Nuno Simoes, and Schaun Lovejoy</td>
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<td>Quantifying the uncertainty on urban runoff associated to unmeasured small-scale rainfall variability: a comparison of two cases study</td>
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<td>Geoff Pegram, Xavi Liort, and Daniel Sempere-Torres</td>
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<td>Separating signal and noise in radar-rainfall fields to generate meaningful ensembles</td>
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<td>Juan Duan, Neil McIntyre, and Christian Onof</td>
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<td>Statistical modelling of rainfall for drought risk assessment in southeast England</td>
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<td>András Bárdossy and Geoffrey Pegram</td>
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<td>Rainfall interpolation and simulation in hilly and mountainous regions using spatial copulas</td>
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<tr>
<td>Jean-Marie Leploufle and Kolbjørn Engeland</td>
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<td>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</td>
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<tr>
<td>Jose Luis Salinas and Rafael Garcia Bartual</td>
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<tr>
<td>Analysis and stochastical modelling of extreme rainfall events. Application in the spanish mediterranean region</td>
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**COFFEE BREAK**

**Chairperson: Tim Bellerby and Remko Uijlenhoet**

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<th>10:30–10:45</th>
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<tr>
<td>Jose D Fuentes, Marcia S. DeLonge, Paul A. Kucera, Everette Joseph, and Seydi Ababacar Ndiaye</td>
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<td>Attributes of West African convective storms during 2006</td>
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10:45–11:00 EGU2011-6140
Sander Vandenberghe, 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 Görgen, 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 Wheater
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
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

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

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

Martinus van den Berg, Bernard de Baets, and Niko Verhoest
Copula-based downscaling of rainfall

Francesco Lo Conti, Kuo-lin Hsu, Soroosh Sorooshian, and Leonardo V. Noto
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Martinus van den Berg, Bernard de Baets, and Niko Verhoest
Copula-based downscaling of rainfall

Muhammad Rehan Anis and Michael Rode
An improved method for the temporal disaggregation of rainfall at a finer time scale

Klaus Haslinger, Barbara Chimani, and Reinhard Boehm
Solid and Liquid Precipitation in major river catchments originating in the European Alps

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.

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

Reinhard Teschl, Walter L. Randeu, and Franz Teschl
Investigating the variability of precipitation in a mountainous catchment using data-driven approaches

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)

Li-Pen Wang, Christian Onof, and Cedo Maksimovic
An improved discrete cascade method for sub-daily rainfall modelling

Yisak Abdella, Kolbjerrn Engeland, Jean-Marie Lepioufle, and Knut Alfredsen
Distributed modelling of catchment hydrology using radar derived precipitation

Maurice Schmeits and Kees Kok
A comparison between raw ensemble output, (modified) Bayesian model averaging and extended logistic regression using ECMWF ensemble precipitation reforecasts

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

Magnus T Gudmundsson, Armann Hoskuldsso, Gudrun Larsen, Thor Thordarson, Bjorn Oddsson, Thordis Hognadottir, Ingibjorg Jonsdottir, Halldor Björnsson, Nina G Petersen, and Eyjolfur Magnusson
Eyjafjallajökull April-June 2010: An explosive-mixed eruption of unusually long duration
13:45–14:00  EGU2011-12221  
**Sigurlaug Hjaltadottir**, Kristin S Vogfjörd, and Ragnar Slunga  
A Seismological Image of the Eyjafjallajökull Plumbing System during 2009-2010

14:00–14:15  EGU2011-11656  
**Rikke Pedersen**, Freysteinn Sigmundsson, Andrew J. Hooper, Sigrún Hreinsdóttir, Thóra Árnadóttir, Matthew J. Roberts, Páll Einarsson, Erik Sturkell, and Kurt L. Feigl  
Imaging the magmatic plumbing system at Eyjafjallajökull volcano, Iceland, through 18 years of surface deformation observations

14:15–14:30  EGU2011-12589  
**Olgeir Sigmarsson**  
The dynamic magma mixing during the 2010 eruption of Eyjafjallajökull, Iceland.

14:30–14:45  EGU2011-9855  
**Jakob Kloeve Keiding** and Olgeir Sigmarsson  
Geothermobarometry of the 2010 Eyjafjallajökull eruption

14:45–15:00  EGU2011-4184  
**Severine Moune**, Olgeir Sigmarsson, Pierre Schiano, Thorvaldur Thordarson, and Chris Hayward  
Volatlie characterisations of Eyjafjallajökull volcano (Iceland): from the magmatic source at depth to the surface

15:00–15:15  EGU2011-11242  
**Michael Burton**, Giuseppe Salerno, Alessandro La Spina, Andri Stefansson, and Hanna H. Kaasalainen  
Measurements of volcanic gas emissions during the first phase of eruptive activity of Eyjafjallajökull, April 2010

15:15–16:00  EGU2011-14165  
**Ármann Höskuldsson** and the Eyjafjallajökull eruption Team  
Eruption dynamics of the 2010 summit eruption at the Eyjafjallajökull volcano (Iceland): Magma fragmentation, tephra stratigraphy and transport

15:45–16:00  EGU2011-7983  
**Gudrun Nina Petersen**, Pórður Arason, and Halldór Björnsson  
Observed interaction of the Eyjafjallajökull eruption plume and the ambient atmosphere

16:00–16:15  EGU2011-3476  
**Costanza Bonadonna**, Genco Riccardo, Gouhier Mathieu, Pistolesi Marco, Alfano Fabrizio, Cioni Raffaello, Hoskuldsson Armann, Fiona, and Ripepe Maurizio  
Tephra sedimentation during the 2010 Eyjafjallajökull eruption (Iceland) from deposit, radar and satellite observations

16:15–16:30  EGU2011-11112  
Julie Calkins, Claire Nattrass, Ellie Harris, Marie Detienne, Nicola Myers, Leon van den Berg, and **Pierre Delmelle**  
Environmental impacts of ash deposition following the 2010 eruption of Eyjafjallajökull volcano, Iceland

16:30–16:45  EGU2011-2598  
**Claire Horwell**, Peter Baxter, Sarah Hillman, and David Damby  
Respiratory health hazard assessment of ash from the 2010 eruption of Eyjafjallajökull volcano, Iceland.

16:45–17:00  EGU2011-13041  
**Andy Russell**, Rob Duller, Andy Large, Anne-Sophie Mériaux, Matthew Roberts, Stuart Dunning, Qiuhua Liang, Jonathan Carrivick, Fiona Tweed, and Málfríður Ómarsdóttir  
The sedimentary impact of jökulhlaups of contrasting rheology generated by the April 2010, Eyjafjallajökull eruption

**NH2.3/AS4.29/GMPV47 – The 2010 flank and summit eruptions at Eyjafjallajökull volcano (Iceland): History of an eruption from source to the atmosphere (co-organized) – Posters**  
Convener: Thorvaldur Thordarson | Co-Conveners: susan loughlin, Sigrun Hreinsdottir, Halldór Björnsson, Séverine Moune  
Halls X/Y | Display Time 08:00–19:30  
Author in Attendance: 17:30–19:00  
Chairperson: n.n.

17:30–19:00  EGU2011-12212  
**Thorvaldur Thordarson**, Ármann Hóskuldsson, Olgeir Sigmarsson, Magnús Guðmundsson, Eyjólfur Magnússon, and Freysteinn Sigmundsson  
The 20 March to 12 April basaltic Fimmvöðuháls flank eruption at Eyjafjallajökull volcano, Iceland: course of events
Armann Hoskuldsson, Thor Thordarson, Olgeir Sigmarsson, Magnús T Guðmundsson, Guðrún Larsen, Björn Oddsson, Eyjólfrur Magnússon, and Pórdís Hógnadóttir
The Fimmvörðuháls flank eruption 2010 Iceland, complex emplacement of basaltic lava flow onto ice and snow.

Antonio Castro, Rocio Pedreira, and Joan Andújar
Phase equilibria and fractionation of 2010 Eyjafjallajökull flank basaltic eruption

Haraldur Pál Gunnlaugsson, Kristine Albers Olsen, Sigurdur Steinthorsson, and Per Nørnberg
Mössbauer Spectroscopy and Electron Microscope Imaging of Samples from the 2010 Flank Eruption at Eyjafjallajökull

Thorvaldur Thordarson, Chris Hayward, Séverine Moune, Margaret Hartley, Olgeir Sigmarsson, Ármann Hóskuldsson, Magnús T. Guðmundsson, and Freystein Sigmundsson

Andreas Stohl and the Inversion Team
Time- and height-resolved fine ash emissions from the Eyjafjallajökull eruption

Nicola Pergola, Gianluca Arcomano, Carolina Filizzola, Teodosio Lacava, Francesco Marchese, and Valerio Tramutoli
Satellite monitoring of Eyjafjallajökull (Iceland) volcano by means of Robust Satellite Techniques (RST)

Patrick Chazette, Marc Bocquet, Philippe Royer, Victor Winiarek, Jean-Christophe Raut, Philippe Labazuy, Mathieu Gouhier, Melody Lardier, and Jean-Pierre Cariou
Lidar and modelling to study the Eyjafjallajökull ash concentrations

Piet Stammes, Marc Allaart, Arnoud Apituley, Dave Donovan, Marijn de Haïj, Wouter Knap, Deborah Stein Zweers, Gijs Tilstra, Olaf Tuinder, and Daan Vogelezang
Characterization of the Eyjafjallajökull volcanic ash cloud over the Netherlands from remote sensing observations

Ina Mattis, Albert Ansmann, Matthias Tesche, Annett Skupin, Patric Seifert, Dietrich Althausen, Holger Baars, Anja Hiebsch, Jörg Schmidt, and Ulla Wandinger
Temporal development of the Eyjafjallajökull volcanic plume observed over Leipzig by Raman lidar and AERONET sun photometer

Franco Marenco, Kate Turnbull, Ben Johnson, Jim Haywood, Stuart Newman, Alan Vance, James Dorsey, and Martin Gallagher
Airborne observations of volcanic ash in May 2010 from the FAAM research aircraft, using remote sensing and in-situ probes

Fei Gao, Samo Stani?, Klemen Bergant, Tanja Bolte, Franco Coren, Tingyao He, Andrej Hrabar, Ana Mladenovi?, Janja Turši?, and Darko Veberi?
Measurement Campaign of Icelandic Volcanic Ash During its Arrival to Slovenia in April 2010

Christian Rolf, Martina Krämer, and Cornelius Schiller
Ash particles and ice clouds during the Eyjafjalla eruption: Lidar observations and model simulations

Alan Vance, Franco Marenco, Sean Milton, Kate Turnbull, Mike Bush, and Andy Bushell
Stratosphere-Troposphere Exchange Involving the Eyjafjallajökull Volcanic Plume

Roland von Glasow, Alan Vance, Andrew J. S. McGonigle, Alessandro Aiuppa, Jeffrey L. Stith, and Kate Turnbull
Strong ozone loss in atmospheric plume of Eyjafjallajökull

Stefano Corradini, Luca Merucci, Alessandro Piscini, and Simona Scollo
SO2 and ash simultaneous retrievals on 2010 Eyjafjallajökull eruption by using IR multispectral measurements. Insights into explosive volcanic processes.

Robin Campion, Lieven Clarisse, and Alain Bernard
Measuring SO2 emissions of Eyjafjallajökull with the infrared images of ASTER satellite.
**EGU General Assembly 2011**

**XY395**  
EGU2011-7838  
Klaus-Peter Heue and the CARIBIC Volcano Team  
SO2 and BrO observation in the plume of the Eyjafjallajökull volcano 2010: CARIBIC and GOME-2 retrievals

**NH2.8/GMPV57 – Merapi volcano Central Java, Indonesia: dome collapses and centennial 2010 eruption**  
(co-organized)  
Orals

Convener: Philippe Jousset | Co-Conveners: Surono Surono, Marie Boichu, David J. Schneider, Maria Fabrizia Buongiorno

Room: 4  
Chairperson: Surono and Philippe Jousset

08:30–08:45  
EGU2011-4082  
**Birger-G. Luehr**, Ivan Koulakov, Wolfgang Rabbel, Jochen Zschau, Antonius Ratdomopurbo, Kirbani Sri Brotopuspito, Pak Fauzi, and David P. Sahara  
Fluid ascent and magma storage beneath Gunung Merapi

08:45–09:00  
EGU2011-13522  
**Patrick Allard**, Nicole Métrich, and Jean-Christophe Sabroux  
Volatitle and magma supply to standard eruptive activity at Merapi volcano, Indonesia.

09:00–09:15  
EGU2011-5150  
**Supriyati Andreastuti**, Fidel Costa, John Pallister, Sri Sumarti, Sri Subandini, Anjar Heriwaseno, and Yulianto Kurniadi  
Petrology and pre-eruptive conditions of the 2010 Merapi magma

09:15–09:30  
EGU2011-13937  
**Akhmad Solikhin**, Hendra Gunawan, Suroro Surono, and Philippe Jousset  
Volcanic tremor analysis during Merapi 2010 explosion sequences

09:30–09:45  
EGU2011-9618  
**Fred Prata**, Marie Boichu, Simon Carn, Lieven Clarisse, Elizabeth Ebert, Andrew Prata, and Andrew Tupper  
Satellite and ground-based measurements of volcanic emissions during the Merapi 2010 eruption crisis

09:45–10:00  
EGU2011-4721  
**Malte Westerhaus**, Andreas Schenk, and Bernhard Heck  
Quantification of dome growing and mass accumulation by double differential SAR-interferometry - a TanDEM-X application for volcano monitoring

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**COFFEE BREAK**

Chairperson: Fabrizia Buongiorno and Marie Boichu

10:30–11:00  
EGU2011-1182  
**Surono Surono**, Akhmad Solikhin, Agus Budi Santoso, and Subandriyo Subandriyo  
Merapi Crisis 2010: Declaring alert levels based on deformation and seismic data

11:00–11:15  
EGU2011-3809  
**David Schneider**, John Pallister, Julia Griswold, and Rick Wessels  
The 2010 eruption of Merapi Volcano, Indonesia: Use of satellite remote sensing to support crisis response activities

11:15–11:30  
EGU2011-4353  
Christopher Davies and Andrew Tupper  
Darwin VAAC Response to the 2010 Merapi Eruption

11:30–11:45  
EGU2011-4400  
**Franck Lavigne**, Edouard de Bélizal, Noer Cholik, Nur Muhammad Aisyah, Adrien Picquout, and Estuning Tyas Wulan Mei  
Lahar hazards and risks following the 2010 eruption of Merapi volcano, Indonesia

11:45–12:00  
EGU2011-9837  
Athyanto Dharoko, Suratman Worosuprojo, Kirbani Sri Brotopuspito, Sudaryono Sastrosasmito, and **Langgeng Wahyu Santosa**  

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**NH2.8/GMPV57 – Merapi volcano Central Java, Indonesia: dome collapses and centennial 2010 eruption**  
(co-organized)  
Posters

Convener: Philippe Jousset | Co-Conveners: Surono Surono, Marie Boichu, David J. Schneider, Maria Fabrizia Buongiorno

**Halls X/Y | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Surono, Fabrizia Buongiorno, Marie Boichu, Dave Schneider and Philippe Jousset
XY396 EGU2011-10907
Christoph Sens-Schönfelder and Ulrich Wegler
Passive seismological monitoring at Merapi volcano

XY397 EGU2011-13699
Antonius Radnomopurbo
The 2006 Eruption of Mt. Merapi: Seismic, Deformation and Dome Observation

XY398 EGU2011-7741
Philippe Jousset and Agus Budi Santoso
Very-Long Period seismicity associated with magma intrusion of Merapi 2010 eruption

XY399 EGU2011-1146
Agus Budi Santoso, Febri Sadono, Purwoto Purwoto, Sapari Dwiyono, and Philippe Jousset
Seismicity associated with the 2010 eruption of Merapi volcano, Central Java, Indonesia

XY400 EGU2011-12973
Marie Boichu, Hanik Humadai, Yulianto Kurniadi, Fred Prata, Simon Carn, Lieven Clarisse, Philippe Jousset, and Clive Oppenheimer
Comparative evolution of degassing, eruptive activity and seismicity during the 2010 eruption of Merapi

XY401 EGU2011-10314
Valentin Troll, David R. Hilton, Jane P. Chadwick, Ester M. Jolis, Martin Zimmer, Lara S. Blythe, and Frances M. Deegan
Crustal CO2 liberation at Merapi volcano, Indonesia: an earthquake trigger?

XY402 EGU2011-3611
Christian Bignami, Salvatore Stramondo, and Urs Wegmuller
Synthetic Aperture Radar Monitoring of Merapi Volcano 2010 eruption

XY403 EGU2011-10530
Andre Caliyadi Kalia, Hendrik Zwenzner, André Twele, and Sandro Martinis
TerraSAR-X based image analysis for supporting disaster and crisis-management with respect to the 2010 volcanic eruption at Mt. Merapi (Java - Indonesia)

XY404 EGU2011-10830
Gwendolyn Läufer, Sabine Rödelsperger, and Carl Gerstenecker
Continuous deformation monitoring of Merapi using optical and microwave tools

XY405 EGU2011-13702
François Beauducel and Made Agung Nandaka
Pre and co-eruptive deformation field at Merapi volcano from kinematic GPS surveys in the summit area

XY406 EGU2011-2748
Karim Kelfoun
A two-fluid model for block-and-ash flows and ash-cloud surge for the 1994 eruption of Merapi volcano (Indonesia).

XY407 EGU2011-4312
Sylvain Charbonnier, Ralf Gertisser, Jörg Keller, Xavier Quidelleur, Chuck Connor, and Tim Dixon
Re-assessment of the geological evolution and associated hazards of Merapi Volcano

XY408 EGU2011-8075
Goneri Le Cozannet and the Le Cozannet G. Team
Setting up a volcanic hazard and risk knowledge database: risk and hazard mapping, WebGIS mapping and scenario building within the MIAVITA project

XY409 EGU2011-8671
Pierre Thierry, Philippe Jousset, Surono Surono and the MIAVITA's Team
Merapi volcano 2010 crisis: a case study for implementing the FP7 MIAVITA European project

XY410 EGU2011-10269
Antonio Spanu, Sara Barsotti, Augusto Neri, Luca Nannipieri, and M. Fabrizia Buongiorno
A procedure to forecast volcanic ash dispersal: Application to the 2010 Mt. Merapi's eruption

XY411 EGU2011-2552
Claire Horwell, David Damby, and Peter Baxter
A mineralogical and toxicological assessment of the health hazard of ash from the 2010 Merapi eruption

XY412 EGU2011-13464
Mary-Ann del Marmol, Chris. G. Newhall, John Fournelle, and Bruce D. Marsh
Revisiting petrology and geochemistry of Merapi volcano, Central Java, Indonesia.

XY413 EGU2011-14210
Anastassia Y. Borisova, Caroline Martel, Indyo Pratomo, Jean-Paul Toutain, Sophie Gouy, Jean-Philippe M étaxian, and Surono Surono
First Petrologic and Geochemical Data on the 2010 Merapi Eruption (Indonesia)

XY414 EGU2011-10518
Katie Preece, Jenni Barclay, Ralf Gertisser, and Richard Herd
Petrological evidence of magma storage, ascent and extrusion at Merapi volcano, Java, Indonesia

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 Gugsa 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 Fossom, 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 Böllschweiler 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 Buddhithana
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
Atikagnna Dok and Hiroshi Fukuoka
Study of the Tertiary Creep Mechanism by Ring Shear Apparatus for Predicting Initiation Time of Rainfall-Induced Landslides
**NH3.2/GM6.3 – Mechanisms and processes of landslides in seismically- or volcanically-active environments (co-organized) – Orals**
Convener: Randall W. Jibson | Co-Conveners: Vincenzo Del Gaudio, Janusz Wasowski, Chyi-Tyi Lee, Hiroshi Fukuoka
Room: 1
Chairperson: n.n.

10:30–10:45
**EGU2011-6628**
**Georgia Diakogianni**, Anna Fokaefs, and Gerassimos A. Papadopoulos
Landslides in Seismically and Volcanically Active Areas of Greece and Adjacent Regions: A Review

10:45–11:00
**EGU2011-722**
**Xuanmei Fan**, Cees J.van Westen, Tolga Gorum, and Qiang Xu
Spatial Distribution and Casual Factors of Landslide Dams Triggered by the 2008 Wenchuan Earthquake

11:00–11:15
**EGU2011-3493**
**Engielle Mae Paguican**, Alfredo Mahar Francisco Mahar, and Benjamin van Wyk de Vries
One Mother Two DADs: the two fault-related avalanches of Iriga, Philippines

11:15–11:30
**EGU2011-8140**
**Tolga Gorum**, Cees J. van Westen, Emmanuel John M. Carranza, Mark Van der Meijde, Xuanmei Fan, Dai Fuchu, and Qing Xu
The role of rupture dynamics and style of faulting on regional pattern of coseismic landslides

11:30–11:45
**EGU2011-11165**
**Patrick Meunier**, Taro Ushida, and Niels Hovius
What controls the size of earthquake-triggered landslides?

11:45–12:00
**EGU2011-10685**
**Lucile Tatard** and Jean-Robert Grasso
Control of Seismic Slip on Spatial Distribution of Earthquake-Triggered Landslides

**NH3.2/GM6.3 – Mechanisms and processes of landslides in seismically- or volcanically-active environments (co-organized) – Posters**
Convener: Randall W. Jibson | Co-Conveners: Vincenzo Del Gaudio, Janusz Wasowski, Chyi-Tyi Lee, Hiroshi Fukuoka

Programme Group Programme NH 13
XY434  EGU2011-323  
Zoia Kalmetieva and Bolot Moldobekov
On principal reason of landslides occurrence in seismically active environment

XY435  EGU2011-3885  
Keizo Ugai
Mechanism of earthquake-induced landslides considered from geotechnical aspects

XY436  EGU2011-4802  
Teresa Vaz and José Luís Zêzere
Landslides induced by seismic events in Portugal mainland: identification and characterization

XY437  EGU2011-5255  
Chyi-Tyi Lee
Automatic extraction of slope parameters from DEM for seismic topographic amplification study

XY438  EGU2011-5361  
Dragos Armand Stanica and Maria Stanica
Near real-time electromagnetic monitoring system of the seismically-induced landslides in the Subcarpathians area

XY439  EGU2011-5378  
Shibiao Bai, Thomas Glade, Rainer Bell, and Jian Wang
Distribution and susceptibility assessments of landslides triggered by Wenchuan earthquake using rare events logistic regression analyses

XY440  EGU2011-5441  
Qiang Xu and Xiujun Dong
Genetic types of large-scale landslides induced by the Wenchuan earthquake

XY441  EGU2011-5463  
Qiang Xu, Hanxiang Liu, Wei Zou, Xuanmei Fan, and Jianjun Chen
Large-scale shaking table test study of acceleration dynamic responses characteristics of slopes

XY442  EGU2011-5523  
Vincenzo Del Gaudio, Janusz Wasowski, and Chyi-Tyi Lee
Deciphering seismic response of landslide-prone slopes from reconnaissance microtremor measurements with a broad-band velocimeter

XY443  EGU2011-6588  
Kuo-Jen Chang, Rou-Fei Chen, Yu-Chang Chan, and Chih-Yu Kuo
Landslide mechanism, geomorphic change and surface process: evidence from earthquake-triggered Tsaoling avalanche

XY444  EGU2011-8182  
Tolga Gorum and Cees J. van Westen
Regional distribution of landslides induced by the January 2010 Haiti earthquake

XY445  EGU2011-13060  
Jorge Yepes, Martín Rodríguez-Peces, and Rodrigo Del Potro
Morphological evidence of a large collapse on the north-western flank of Gran Canaria (Canary Islands)

XY446  EGU2011-5656  
Weile Li, Chuan Tang, and Ming Chang
Debris flows on 13 August 2010 in the Wenchuan Earthquake disaster area in Qingping town, Mianyuan River Basin, China

XY447  EGU2011-8115  
Darwin Riguer, Tolga Gorum, and Cees van Westen
Characterizing an earthquake induced landslide from two different events in the same area

NH3.3 – Rockfalls, rockslides and rock avalanches – Orals
Convener: Michael Krautblatter | Co-Conveners: Jeffrey Moore, Luuk Dorren, Federico Agliardi, Giovanni Crosta
Room: 1
Chairperson: Michael Krautblatter

13:30–13:45  EGU2011-13787
Christoph Prager, Marc Andre Ostermann, and Christian Zangerl
Time-dependent rock slope weakening processes: evidence from dated landslides in the Eastern Alps

13:45–14:00  EGU2011-2546
Valentin Gischig, Jeffrey R Moore, Keith F Evans, Florian Amann, and Loew Simon
Thermo-mechanical forcing of seasonal rock slope deformation at Randa (Switzerland)
14:00–14:15 EGU2011-1890
Clara Levy, Denis Jongmans, and Laurent Baillet
Analysis of the seismograms recorded on a prone-to-fall rock column (Vercors massif, French Alps)

14:15–14:30 EGU2011-6752
Andreas Schober, Markus Keuschnig, Ingo Hartmeyer, Lothar Schrott, and Jan-Christoph Otto
Mass movements in a high mountain environment, Kitzsteinhorn (3203 m), Hohe Tauern, Austria:
Controlling factors and geotechnical surveys.

14:30–14:45 EGU2011-1612
Diethard Sanders and Gerino Patzelt
Long-term accumulation rates of subaerial scree slopes: implications of numerical ages and field observations.

14:45–15:00 EGU2011-6134
Thierry Oppikofer, Luzia Fischer, Reginald L. Hermanns, Graziella Devoli, Halvor Bunkholt, Andrea Taurisano, and Oianne Eikenæs
Hazard mapping of rockfalls and rock avalanches in Norway - how to prioritise areas?

Chairperson: Jeffrey Moore

15:30–15:45 EGU2011-4202
Shiva P. Pudasaini and Stephen A. Miller
The Hypermobility of Huge Landslides and Avalanches

15:45–16:00 EGU2011-1504
Anja Dufresne
A laboratory approach to the complexities in rock/debris avalanche emplacement introduced by interaction with runout path material

16:00–16:15 EGU2011-3466
Anthony Thornton, Mark Woodhouse, Chris Johnson, Peter Kokelaar, and Nico Gray
Segregation induced fingering instabilities in granular avalanches

16:15–16:30 EGU2011-3472
Denis Mercier, Armelle Decaulne, Etienne Cossart, Thierry Feuillet, Porsteinn Sæmundsson, and Helgi Páll Jónsson
Dating of a rock avalanche in Skagafjörður, Northern Iceland: pieces of evidence of a paraglacial origin

16:30–16:45 EGU2011-4925
Oliver Jancke and Frédéric Berger
Innovative real-size tests for assessing the mechanical resistance of coppice stems against rockfall

16:45–17:00 EGU2011-13273
James Glover, Axel Volkwein, Werner Gerber, and Matthias Denk
Design criteria for rock fall attenuating systems

NH3.3 – Rockfalls, rockslides and rock avalanches – Posters
Convener: Michael Krautblatter | Co-Conveners: Jeffrey Moore, Luuk Dorren, Federico Agliardi, Giovanni Crosta
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: M. Krautblatter, J. Moore, L. Dorren, G. Crosta, F. Agliardi

XY448 EGU2011-1066
Stefano Devoto, Eugenio Castelli, Chiara Boccali, and Fulvio Podda
Rockfall analysis: a case study in the eastern Alps (Italy)

XY449 EGU2011-1671
Battista Matasci, Dario Carrea, Thierry Oppikofer, Michel Jaboyedoff, Andrea Pedazzini, and Greg M. Stock
Toward an accurate detection of Rockfall sources in Yosemite Valley

XY450 EGU2011-2196
Sandra Melzner, Luuk Dorren, Arben Kociu, and Richard Baek
Rockfall susceptibility assessment in the "Upper Moelltal", Carinthia, Austria

XY451 EGU2011-8517
Ludovic Ravanel and Philip Deline
Frequency and volume of rockfalls in permafrost-affected rockwalls in the Mont Blanc massif

XY452 EGU2011-13513
Florian Haas, Tobias Heckmann, and Michael Becht
Measuring of Rockfall on Alpine Rockfaces and the Corresponding Talus Cones Using Terrestrial Laserscanning Data

XY453 EGU2011-13091
Andreas Kellerer-Pirklbauer
Freeze-thaw cycles and frost shattering potential at alpine rockwalls in the Hohe and Niedere Tauern Ranges (Austria) between 2006 and 2010
Andrea Pedrazzini, Kerry Leith, Sarrasin Nicolas, Jeffrey Moore, and Michel Jaboyedoff
Analysis of predisposing factors and slope activity of rockfall prone areas based on terrestrial laser scanner and time laps photography

Daniel Funk and Michael Krautblatter
Frictional behaviour of cohesionless rock joints under frozen conditions - data analysis from laboratory experiments and their implementation in rock mechanical concepts

Jeffrey Moore, Jan Burjanek, Valentin Gischig, Simon Loew, and Donat Faeh
Response of the Randa rock slope instability to small regional earthquakes

Ming-Lang Lin, Chia-Ming Lo, Tsun-Kai Lien, and Wei-Che Lu
Fragmentation and Deposition of Rock Mass with Joint Strength during Rockfall

Tamzin Linnell, Marc-Andre Brideau, and Jonathan Procter
Contrasting the morphology and internal structure of hummocky mounds in two landslide deposits, North Island, New Zealand.

Marie Charrière, Michel Jaboyedoff, Andrea Pedrazzini, Michele Volpi, and Corey Froese
New insights on the Frank Slide's deposit

Paolo Frattini, Crosta Giovanni Battista, and Agliardi Federico
Effect of DEM resolution and roughness in rockfall model restitution and friction coefficients

Lydie Staron, Pierre-Yves Lagrée, and Stéphane Popinet
Continuum modelling of the granular column collapse experiment

Thomas Weinhart, Anthony R Thornton, Onno Bokhove, and Stefan Luding
Closure laws for dry granular avalanche flows

Sebastian Pisi, Michael Krautblatter, Richard Dikau, and Christoph Dittrich
A quantitative and qualitative study on risk perception of multiple rockfall hazards in the Zugspitze Mountains (German/Austrian Alps)

Katharina Kern, Gernot Seier, Gerhard K. Lieb, Ulrich Strasser, Andreas Kellerer-Pirklbauer, and Florian Hanzer
Modelling mass movements to estimate the risk potential for Alpine tourists and infrastructure in the Grossglockner-Pasterze glacier area (Hohe Tauern, Austria)

NH4.4/SM5.6 – Earthquake Risk and Loss Estimates: New Directions (co-organized) – Orals
Convener: Max Wyss | Co-Conveners: Jochen Zschau
Room: 11
Chairperson: Max Wyss, Jochen Zschau
15:30–15:45 EGU2011-1816
Friedemann Wenzel and Vladimir Sokolov
Correlated Ground Motion - Influence on Loss Estimates

15:45–16:00 EGU2011-2556
Massimiliano Pittore, Marc Wieland, Dino Bindi, Stefano Parolai, and Jochen Zschau
Towards a rapid, integrated, multi-scale assessment of earthquake risk: a case study in Central Asia

16:00–16:15 EGU2011-9938
Max Wyss, Goran Trendafiloski, Mikheil Elashvili, Nato Jorjashvili, and Zurab Javakhishvili
The mapping of teleseismic epicenter errors into errors in estimating casualties in real time due to earthquakes worldwide.

16:15–16:30 EGU2011-13204
Mustafa Erdik, Mine Betül Demircioğlu, and Karin Sesetyan
Assessment of Seismic Risk in Turkey

16:30–16:45 EGU2011-1971
Matteo Picozzi
Tailor-made earthquake early warning for buildings

16:45–17:00 EGU2011-12123
Joachim Fischer, Ingmar Eveslage, Jens-Peter Redlich, Anatolij Zubow, Markus Scheidgen, Jochen Zschau, and Claus Milkereit
Extended SOSEWIN-Services
**XY465**  EGU2011-2039  
Gulum Tanircan, **Nino Tsereteli**, Tamaz Chelidze, Otar Varazanashvili, Emili Tsereteli, and Alexander Gvencadze  
Seismic Hazard Assessment for Georgia

**XY466**  EGU2011-2738  
Arif Akhundov, Tahir Mammadli, Etibar Garaveliyev, Qurban Yethirmishli, and Gulum Tanircan  
Seismic Hazard Assessment for Azerbaijan

**XY467**  EGU2011-3424  
Dimcho Solakov, Stela Simeonova, Petia Trifonova, and Irena Alexandrova  
Forecasting scenarios validation - case study for the city of Plovdiv and Ruse

**XY468**  EGU2011-3505  
Licia Faenza and Alberto Michelini  
Regression Analysis of MCS Intensity and ground motion spectral accelerations, SA, in Italy

**XY469**  EGU2011-4934  
James Daniell and Gary Gibson  
A review of all Australian Damaging Earthquakes and their contribution to knowledge of earthquake risk in Australia.

**XY470**  EGU2011-4948  
James Daniell, Bijan Khazai, Aidan Slingsby, and Friedemann Wenzel  
A Country-by-Country Building Inventory and a Building Vulnerability Index for use in different Natural Disaster applications

**XY471**  EGU2011-6816  
Gheorghe Marmureanu, Carmen Ortanza Cioflan, and Alexandru Marmureanu  
Local seismic hazard map (microzonation) of Bucharest by using probabilistic and deterministic approaches, linear and nonlinear methods

**XY472**  EGU2011-8255  
Assaf Klar and Oren Lavan  
Liquefaction risk analysis using disaggregation

**XY473**  EGU2011-12116  
Sara Biolchi, Luca Zini, Paolo Leita, and Petra Malisan  
The Geo-morphotypes Map of the Friuli Venezia Giulia Region (NE Italy): a tool for the evaluation of the local seismic amplification

**XY474**  EGU2011-12514  
Marcello de Michele, Alain Giros, Hervé Yésou, Didier Treinsoutrot, Hélène de Boissezon, Daniel Raucoules, and Claudie Carnecc  
Kal-Haïti: a database for research, risk management and sustainable reconstruction in Haiti.

**G3.2/AS4.19/CL4.9/GD1.6/NH4.8/SM5.7 – Geodesy and natural and induced hazards: Progress during 30 years of the WEGENER initiative (co-organized) – Orals**

**Convener: Susanna Zerbini | Co-Conveners: Robert Reilinger, Mustapha Meghraoui**

**Room: 18**

**Chairperson: S. Zerbini and D. Mencin**

15:30–15:45  EGU2011-9002  
Erricos C. Pavlis  
GGOS Global Geodetic Networks: Their Impact on WEGENER

15:45–16:00  EGU2011-1795  
Chopo Ma  
The IVS and its impact on geodesy and geophysics

16:00–16:15  EGU2011-3569  
Carine Bruyninx, Juliette Legrand, Nicolas Bergeot, and Eric Pettiaux  
Measuring long-term ground deformations using GNSS: Experiences from the EPN

16:15–16:30  EGU2011-5865  
Douglas Cripe  
GEOS: Observe, Share, Inform

16:30–16:45  EGU2011-1974  
Frank Flechtner, Jens Wickert, Srinivas Bettadpur, Byron Tapley, and Mike Watkins  
GRACE: A highly successful satellite mission supporting the goals of the WEGENER project
WEGENER Project After Three Decades: Regional and Global Sea-Level Rise

NH9.3/EOS10 – Natural Hazards Education, Communications and Science-Policy-Practice Interface (co-organized) –
Orals
Convener: Bruce D. Malamud | Co-Conveners: Eric Lindquist, Maria-Carmen Llasat, Giorgio Boni, Juergen Weichselgartner
Room: 2
Chairperson: Bruce Malamud, Eric Lindquist, Maria-Carmen Llasat, Giorgio Boni, Juergen Weichselgartner
15:30–17:00 Poster 2-3’ Summaries and Discussion

NH9.3/EOS10 – Natural Hazards Education, Communications and Science-Policy-Practice Interface (co-organized) –
Posters
Convener: Bruce D. Malamud | Co-Conveners: Eric Lindquist, Maria-Carmen Llasat, Giorgio Boni, Juergen Weichselgartner
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: n.n.

XY475 EGU2011-3401
Benjamin van Wyk de Vries, William Rose, Eliza Calder, and Alessandro Tibaldi
INVOGE: International Geological Masters in Volcanology and Geotechniques: how we communicate to students, researchers and end-users in geosciences

XY476 EGU2011-4250
Ángeles Llinares, José Manuel Marrero, Alicia García, and Ramón Ortiz
Volcanic risk increasing due to the inaction of public institutions. The case of Tenerife, Canary Island. Spain.

XY477 EGU2011-4447
Pauline Texier, Franck Lavigne, Anais Perrillat-Collomb, Floriane Chouraqui, Jake Rom Cayad, and Jean-Christophe Gaillard
Participatory Research as a Research-Practice Interface to Analyze Vulnerability and to Reduce Disaster Risk on Fogo Volcano, Cape Verde

XY478 EGU2011-12101
Susanne Sargeant, David Kerridge, Peter Crichton, and Dominic Crowley
Developing mechanisms to enhance relationships between earthquake scientists and the NGO community for disaster risk reduction

XY479 EGU2011-13267
Marco Giardino and John J. Clague
The geoNatHaz project: enhancing international Earth Science competence in Natural Hazards research by integration of traditional field-based activities a Geomatics techniques

XY480 EGU2011-4828
Karoly Futaki
\textbf{Methodological background of the stakeholder involvement in the frame of Danube FLOODRISK project}

XY481 EGU2011-8057
Steffen Link, Johann Stötter, Frederike Lanz, Rudolf Pollinger, Willigis Gallmetzer, and Piererpaolo Maccioni
Internal communication: Challenges and opportunities in the application of Hazard Zone Planning

XY482 EGU2011-9924
Stefan Kienberger, Peter Zeil, and Diana Maria Contreras Mojica
Science-Policy-Practice Interface from a geospatial perspective - Examples from European and African case studies

XY483 EGU2011-6025
Communication of climate change induced natural hazards with a web platfrom

XY484 EGU2011-10978
Maria-Carmen Llasat, Montserrat Llasat-Botija, and Jaume Guamins
Risk perception and communication in Catalonia

XY485 EGU2011-13902
Davide Miozzo, Marco Altamura, Luca Ferraris, Lucia Musso, and Franco Siccardi
Legal aspects of the communication of risk predictions

XY486 EGU2011-11967
Pierrick Nicolet, Frédéric Berger, Michel Jaboyedoff, Christian Gerber, and David Giorgis
Representation problems of danger and “risk
XY487  EGU2011-9656
Satoko Oki, Kazuki Koketsu, Eiji Kuwabara, and Jiro Tomari
Scientists’ Communication on Disaster Sciences

XY488  EGU2011-4896
Simone Frigerio, Thomas Glade, Jean-Philippe Malet, and Cees van Westen
Geo Web Services and risk communication - the “Mountain Risks

XY489  EGU2011-9960
Micol Todesco, Augusto Neri, Tomaso Ongaro, Elisabetta Tola, and Giulia Rocco
È VIVO! In 3D (It’s alive! In 3D - Virtual eruptions at Vesuvius in 3D): A short video to disseminate results from numerical simulation of pyroclastic flows

XY490  EGU2011-9171
Aidan Slingsby, James Daniell, Jason Dykes, and Jo Wood
Sharing insights on the impact of natural disasters using Twitter

XY491  EGU2011-12055
Catherine O’Riordan, Emilie Lorditch, Chris Nicolini, and Devin Powell
Communicating Natural Hazard Risks to the Public through TV and Internet News Programs

XY492  EGU2011-13057
Lis Mortensen, Mads-Peter J Dahl, Heini Eysturoy, and Bjarni Petersen
Construction of geohazard inventory for public roads on the Faroe Islands

XY493  EGU2011-13909
Alessandro Leto
Access to Water: a goal to foster Sustainable Development and to prevent water related natural disaster

XY494  EGU2011-2694
Emma Bee and Catherine Pennington
Vulnerability to Geological Hazards in the UK: A Spatial Data Perspective

NH9.11 – Natural hazard resilient cities: methods and tools to qualify and quantify – Orals
Convener: damien serre | Co-Conveners: Bruno Barroca
Room: 10
Chairperson: Damien Serre - Bruno Barroca

15:30–15:45  EGU2011-41
Manuela Escarameia and Andrew Tagg
Achieving flood resilience through improvements at building fabric/layout level

15:45–16:00  EGU2011-3622
Adriana Galderisi and Floriana Federica Ferrara
Enhancing urban resilience in face of complex hazardous events: from a conceptual framework toward operational tools

16:00–16:15  EGU2011-10421
Damienne Provitoto
« Resilienary vulnerability » notion: looking in another direction to study vulnerability and resilience of systems in face of risk or disaster.

16:15–16:30  EGU2011-3696
Kristen Schelfaut, Jaroslav Mysiak, Trui Paula Uyttendaele, and Jan Cools
Measuring & Enhancing Flood Resilience

16:30–16:45  EGU2011-6770
Massimo Lanfranco and Elena Rapisardi
Urban Resilience to severe storms. An Italian case-history of local community response to natural disasters.

16:45–17:00  EGU2011-12592
Julian Eleutério, Cyriaque Hattemer, and Anne Rozan
A method to evaluate floods damage and consequences to network infrastructure and associated uncertainty

NH9.11 – Natural hazard resilient cities: methods and tools to qualify and quantify – Posters
Convener: damien serre | Co-Conveners: Bruno Barroca
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Damien Serre - Bruno Barroca

XY495  EGU2011-469
Jean-Paul Arnaud, Marie Toubin, and Damien Serre
Resilis: a research project to improve urban resilience
XY496  EGU2011-990
Heinrich Webler, Peter Geiss, and Cornelia Redeker
Flood Resilient Redevelopment of the Zollhafen Mainz

XY497  EGU2011-1005
Laurence Ringenbach, Damien Serre, and James R. Amdal
Rails to Recovery in a post-Katrina Environment

XY498  EGU2011-7045
Oznur Karaca and Guzin Akin
Soil Information System of Canakkale City Centre (NW Turkey)

XY499  EGU2011-5443
Marzenna Sztohryn, Beata Kowalska, and Ida Stanisławczyk
Early warning system - sea level along the Baltic coast of Poland

XY500  EGU2011-12648
Gabriela Boca, Alexandru Oznun, and Serban Nicolae Vlad
A resilience/vulnerability dialog on NaTech disaster risks

XY501  EGU2011-12978
Bruno Barroca and Damien Serre
Urban design contribution in reducing hydrological risks: The French experience

XY502  EGU2011-7528
Bijan Khazai, Fouad Bendimerad, and Friedemann Wenzel
Resilience Indicators for Mainstreaming Disaster Risk Reduction in the City of Mumbai

XY503  EGU2011-12389
Youssef Diab, Denis Morand, and Damien Serre
A global approach for urban buried sewers management by considering risk assessment

XY504  EGU2011-741
Marie Toubin, Damien Serre, Youssef Diab, and Richard Laganier
Improve urban resilience by a shared diagnostic integrating technical evaluation and governance

XY505  EGU2011-732
Serge Lhomme, Damien Serre, Youssef Diab, and Richard Laganier
Network resiliency assessment integrating network interdependencies

XY506  EGU2011-2903
Mustafa De?irmenci, Levent Tezcan, Mehmet Ekmecki, Eyup Atmaca, Ahmet Alt?n, Otgonbayar Namkhai, Mustafa Yazici, and Ender Batukan
Planning of water supply infrastructure on the basis of sustainable water resources management in Kayseri Metropolitan City, Central Turkey: A plan for the year 2050

XY507  EGU2011-3659
Matthias Kufeld, Nils P. Huber, and Holger Schüttrumpf
A Method for quantitative flood risk assessment in urban areas of developing countries

XY508  EGU2011-4849
Marco Barroca-Paccard and Bruno Barroca
Importance of biodiversity for urban resilience

XY509  EGU2011-6564
Cheng-Yu Ku
Study on the impact of regional rainfall-induced landslide hazard due to global environmental change

XY510  EGU2011-11492
Bruno Barroca and Damien Serre
Identify indicators for assessing urban resilience to flooding

XY511  EGU2011-12248
Bruno Barroca, Serge Lhomme, Frank Chopin, and Damien Serre
Resilience assessment of urban areas protected by dikes

XY512  EGU2011-2613
Nicholas Walliman and Raymond Ogden
Development of a model to estimate individual building vulnerability to floods

NH10.4/BG2.18/GM4.4/SSS1.12 – Mitigating against natural hazards: Biological contribution to sustainable soil bioengineering in a changing world (co-organized) – Orals
Convener: Hans Peter Rauch | Co-Conveners: Freddy Rey, Frank Graf, Federico Preti
Room: 2
Chairperson: Frank Graf, Freddy Rey
10:30–10:45  EGU2011-1874
Amandine Erktan and Freddy Rey
Linking the morphology of Salix tillers barriers to sediment trapping efficiency in marly gully floors
10:45–11:00  EGU2011-4863
**Joshua Wanyama**, Herremans Kristoff, Moses Isabirye, Fredrick Kahimba, Willem Maetens, Didas Kimaro, Jean Poesen, and Seppe Decker
Evaluation of Runoff and Sediment Trapping Effectiveness of Vegetative Filter Strips in the Riparian Zone of Lake Victoria

11:00–11:15  EGU2011-7391
**Gerda Holzapfel** and Philipp Weihs
Influence of soil bioengineering measures on river systems - Shading potential of Salix purpurea

11:15–11:30  EGU2011-9654
**Kathrin Beglinger**, Thomas Sieber, and Frank Graf
Effects of endophytic and mycorrhizal fungi associated with Salix appendiculata on soil aggregate stability

11:30–11:45  EGU2011-2612
**Pierre Raymond**
Soil Bioengineering for Control of Soil Erosion in a Reconstructed Waterway on an Alberta Oil Sands Dump in Canada

11:45–12:00  EGU2011-4817
**Massimiliano Schwarz** and Denis Cohen
Influence of root distribution and compressibility of rooted soil on the triggering mechanism of shallow landslides

**NH10.4/BG2.18/GM4.4/SS1.12 – Mitigating against natural hazards: Biological contribution to sustainable soil bioengineering in a changing world (co-organized) – Posters**
Convener: Hans Peter Rauch | Co-Conveners: Freddy Rey, Frank Graf, Federico Preti
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Federico Preti, Hans Peter Rauch

XY513  EGU2011-2110
**Christian Rickli** and Frank Graf
Durability of timber check dams used for toe protection in view of sustainable slope stabilisation by soil bioengineering

XY514  EGU2011-12041
**Katrin Burri**, Christof Gromke, and **Frank Graf**
Aeolian sediment transport and spatial patterns of sand deposition in vegetation canopies: Observations from wind tunnel experiments using coloured sand

XY515  EGU2011-11381
**Madhu Sudan Acharya** and **Walter Lammeranner**
How to select the appropriate techniques and suitable plant species for soil bioengineering works? - An application example from Nepal

XY516  EGU2011-10576
**Alexander Bast**, Holger Gartner, Frank Graf, Peter Lüscher, Albert Böl, and Wolfgang Wilcke
Towards the development and evaluation of sustainable bioengineering measures on an erosion-prone slope

XY517  EGU2011-10338
**Filippo Giadrossich**, Massimiliano Schwarz, Federico Preti, and Dani Or
Mechanical interactions between neighbouring roots

XY518  EGU2011-10318
**Michael Obrijetan**, Hans Peter Rauch, and Jürgen Suda
Design and development of technical-biological erosion protection systems

XY519  EGU2011-9937
**Gerhard Markart**, Hans Peter Rauch, Florin Florineth, Bernhard Kohl, and Nils Tilch
Analysis of the vegetation cover and the increasing soil erosion in the high montane and the subalpine altitudinal zone of Western Austria

XY520  EGU2011-6524
**Ji-yi Tsai** and Chien-Yen Chen
Utilizing pig urine and limestone application in microbial induced carbonate precipitation as a soil reinforcement technology

XY521  EGU2011-11268
**Walter Lammeranner**, Michael Obrijetan, and Florin Florineth
The impact of dense willow stands (Salix purpurea L.) on the hydrology of heavily compacted soils

XY522  EGU2011-2610
**Pierre Raymond**
Vegetated Riprap Installation Techniques for Streambank Protection, Fish and Wildlife Habitat Creation
Freddy Rey and Sophie Labonne
Resistance and efficiency of bioengineering works made of willow species for sedimentation and erosion control in eroded marly gullies (Francon catchment, Draix, France)

NP4.1 – Time Series Analysis in the Geosciences - Concepts, Methods & Applications (co-listed) – Orals
Convener: Reik Donner | Co-Conveners: Susana Barbosa
Room: 13
Chairperson: Reik Donner, Susana Barbosa

08:30–08:45 EGU2011-291
Diego Rybski, Anne Holsten, and Jürgen P. Kropp
Analyzing the phase statistics of phenological records: fluctuations and correlations with temperature

08:45–09:00 EGU2011-5747
Sylvie Parey
Seasonality and climate change in temperature series of Europe and the United States

09:00–09:15 EGU2011-6382
Sebastian Bathiany, Martin Claussen, and Klaus Fraedrich
On the detectability of Early Warning Signals in a global atmosphere-vegetation model

09:15–09:30 EGU2011-1472
Valerie N. Livina and Timothy Lenton
Tipping points toolbox: novel techniques of time series analysis for studying transitions and bifurcations in climatic records

09:30–09:45 EGU2011-4344
Kira Rehfeld, Norbert Marwan, Jobst Heitzig, and Jürgen Kurths
Kernel-based correlation estimation for irregularly sampled time series

09:45–10:00 EGU2011-13320
George Caminha-Maciel and Marcia Ernesto
Spectral analysis of nonuniformly sampled data series: smoothing and improving resolution of spectral estimates by combining information from multiple series

COFFEE BREAK

Chairperson: Reik Donner, Susana Barbosa

10:30–10:45 EGU2011-6440
Andreas Groth and Michael Ghil
Robust identification of phase synchronization clusters via multivariate singular spectrum analysis

10:45–11:00 EGU2011-4367
Nishant Malik, Yong Zou, Norbert Marwan, and Jürgen Kurths
Employing nonlinear similarities to identify distinct dynamical regimes in short palaeo records

11:00–11:15 EGU2011-8408
Jobst Heitzig and Jakob Runge
Entropy train diagrams for information-based measures of statistical association

11:15–11:30 EGU2011-8056
Jin Chen, Marion Jegem-Kulcsar, Max Moorkamp, and Bjoern Heinicke
Using Empirical Mode Decomposition (EMD) for the processing of marine MT data

11:30–11:45 EGU2011-4493
Mahmoud El Araby, Noelle Odling, and Roger Clark
Borehole water level response to barometric pressure fluctuations as an indicator of semi confined aquifer vulnerability: application to the East Yorkshire Chalk aquifer, UK

11:45–12:00 EGU2011-10331
Sylvain Mangiarotti, Laurent Drapeau, Raphaël Coudret, and Lionel Jarlan
Low-dimensional modeling of the dynamics of rainfed wheat in semi-arid region of Settat (Morocco), from NDVI satellite data

NP4.1 – Time Series Analysis in the Geosciences - Concepts, Methods & Applications (co-listed) – Posters
Convener: Reik Donner | Co-Conveners: Susana Barbosa
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Norbert Marwan
Can high-energy proton events in solar wind be predicted via classification of precursory structures?

Non-extensivity analysis of seismicity occurred within four subduction regions in Mexico.

Local Earthquake Onset Detection Based on Short Time Fourier Transform

19 years of continuous observation of Radon and Thoron emissions: a Time Series Analysis

Scale-based analysis of simultaneous P rays and ? particles time series from subsurface radon

Clustering analysis of air temperature time series over Europe: quantile regression approach

Piecewise continuous trends of time series

Nonparametric quantile regression for assessing the nonstationarity of extreme values in geoscientific time series

Linear and nonlinear spatio-temporal dependences of precipitation and river runoffs in a catchment

Estimation of Mutual Information from Maximum Entropy distributions and its application to geophysical time series

Information-theoretic methods to find possible causalities and relevant time lags between multiple time series

Innate Cycle Correlation.

Modelling and forecasting daily river discharge considering autoregressive heteroscedasticity

Comparing the Palmer Drought Index and the Standardized Precipitation Index for Pannonian Part of Croatia

Selection of a dataset to characterize climate dynamics in Siberia

A data-driven economic filter for mineral resource assessments
Tuesday, 05 April

NH1.4/AS4.4 – Lightning: physics, detection and atmospheric effects (co-organized) – Orals
Convener: Yoav Yair | Co-Conveners: Serge Soula, Colin Price, Hans D. Betz, Yukihiro Takahashi
Room: 10
Chairperson: Hans-Dieter Betz and Yoav Yair

08:30–08:45 EGU2011-1939
Jochen Grandell, Marcel Dobber, and Rolf Stuhlmann
Lightning monitoring from a geostationary orbit: MTG Lightning Imager concept and processing challenges

08:45–09:00 EGU2011-8954
Chonglin Liu and Stan Beckman
Using Total Lightning Data in Severe Storm Prediction: Global Case Study Analysis from North America, Brazil and Australia

09:00–09:15 EGU2011-9170
Colin Price, Keren Mezuman, and Eli Galanti
How many thunderstorms are active at any moment?

09:15–09:30 EGU2011-1734
Themis Chronis, Liliana Velea, Gerasimos Armenis, Georgios Pothriadis, and Antonios Fiamigos
First observations from the Greek HNMS lightning monitoring network

09:30–09:45 EGU2011-12953
Georg Mayr and Ingo Bertram
Lightning in the eastern Alps: Diurnal, seasonal and weather type dependence

09:45–10:00 EGU2011-9175
Barry Lynn, Yoav Yair, Colin Price, and Guy Kelman
A Dynamic Approach to Lightning Prediction for Convection Resolving Mesoscale Models

COFFEE BREAK

Chairperson: Colin Price and Yukihiro Takahashi

10:30–10:45 EGU2011-1443
Torsten Neubert, Olivier Chanrion and the EuroSprite Team
The Electric Potential of a Giant Jet Determined From a Simultaneous Sprite

10:45–11:00 EGU2011-6407
Serge Soula, Oscar van der Velde, Joan Montanya, Patrice Huet, and Christelle Barthe
Gigantic Jets produced by an isolated tropical thunderstorm near Reunion Island

11:00–11:15 EGU2011-4381
Yasuhide Hobara, Masahiko Iwamoto, Kenji Ohta, Takuya Ohtsuyama, and Masashi Hayakawa
TLE producing ionospheric disturbances: Observation and numerical modeling

11:15–11:30 EGU2011-6191
Nikolai Ostgaard, Ragnhild Hansen, Thomas Gjesteland, Brant Carlson, and Andrew Collier
Occurrence frequency and fluence of TGFs

11:30–11:45 EGU2011-3609
Fabio Fuschino, Martino Marisaldi, Claudio Labanti, Marco Tavani, Andrea Argan, Alessio Trois, Guido Barbiellini, Francesco Longo, and Ettore Del Monte
Correlation of AGILE TGFs and global lightning activity across the equatorial belt

11:45–12:00 EGU2011-12203
Brant Carlson, Morris Cohen, Ryan Said, Michael Briggs, Valerie Connaughton, Gerald Fishman, Thomas Gjesteland, and Nikolai Ostgaard
TGF electron beam modeling and constraints on TGF production

NH1.4/AS4.4 – Lightning: physics, detection and atmospheric effects (co-organized) – Posters
Convener: Yoav Yair | Co-Conveners: Serge Soula, Colin Price, Hans D. Betz, Yukihiro Takahashi
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Serge Soula and Yoav Yair
XY463 EGU2011-201
Savka Petrova, Rumjana Mitzeva, and Boryana Markova
Relationship between flash density and rainfall over Bulgaria and Black sea

XY464 EGU2011-13793
Pavlo Kochkin, Vung Nguyen, and Alexander van Deursen
X-ray bursts observation along and perpendicularly to the streamer path

XY465 EGU2011-13549
Yukihiro Takahashi, Mitsuteru Sato, Tetsuya Fukushima, Makoto Watanabe, Yoav Yair, Karen Aplin, and
Georg Fischer
Lightning and thundercloud observation in Jupiter using spacecraft and ground-based telescope

XY466 EGU2011-712
Aglika Savtchenko, Sergei Soula, Oscar van der Velde, Rumjana Mitzeva, and Elisaveta Peneva
Lightning Activity of a Sprite Producing Storm over South East France

XY467 EGU2011-2131
Maja Tešman Prtenjak, Karmen Babš?, Petra Mikuš, and Nataša Strelec Mahovi?
The summer convective activity above Croatia

XY468 EGU2011-11857
Sigalit Shalev, Hadas Saaroni, Yoav Yair, Baruch Ziv, Zippy Erlich, Reuven Aviv, Alexander Agrachov, and
Colin Price
Lightning Characteristics in Israel and the Eastern Mediterranean

XY469 EGU2011-3455
Siri Merete Vaktdal, Nikolai Østgaard, Thomas Gjesteland, Ragnhild Schroder Hansen, Andrew Collier, and
Brant Carlson
TGF dependence on magnetic latitude and solar zenith angle

XY470 EGU2011-5260
Shu Chun Chang, Sung-Ming Huang, Cheng-Ling Kuo, Jung-Kuang Chou, Li-Jou Lee, Yeng-Jung Wu, Alfred
B. Chen, Han-Tzong Su, Rue-Ron Hsu, Lou-Chuang Lee and the NCKU-ISUAL Team
A possible lightning-gigantic jet interaction and mass of elves associated with negative cloud-to-ground
lightning occurred over a very active thunderstorm

XY471 EGU2011-9902
Thomas Farges, Elisabeth Blanc, and Bjørn Gitle Hauge
Infrasound and wideband electric field measurements during Hessdalen Science camp 2010

XY472 EGU2011-5261
Jung Kuang Chou, Cheng-Ling Kuo, Shu-Chun Chang, Li-Jou Lee, Sung-Ming Huang, Yen-Jung Wu, Alfred
B. Chen, Han-Tzong Su, Rue-Ron Hsu, Lou-Chuang Lee and the NCKU ISUAL Team
Radiative emissions of the blue starters, blue jets, and gigantic jets

XY473 EGU2011-9017
Ulrich Finke
Simulating the optical characteristics of lightning as observed from above the cloud

XY474 EGU2011-6556
Veronika Barta, József Bör, and Gabriella Sátori
Classification of sprites observed in Central Europe between 2007 and 2009

XY475 EGU2011-5328
Daiki Tsurushima, Kiyotaka Sakaida, Yukihiro Takahashi, and Noriyasu Honma
Cloud to Ground Lightning distribution over Tokyo metropolitan area observed by Lightning Location System
(LLS)

XY476 EGU2011-6214
David Pisa, Ondrej Santolik, and Michel Parrot
Connection of lightning-related HF signatures measured by the DEMETER satellite with localized field-aligned
currents

XY477 EGU2011-8443
Andrew Collier, Thomas Gjesteland, and Nikolai Østgaard
Terrestrial Gamma-Ray Flash Intensity Distribution

XY478 EGU2011-2829
Yoav Yair, Moshe Ben-Yona, Na’ama Reicher, Keren Mezuman, Avy Lousky, and Colin Price
The spatial and temporal relations between sprites and meteors during the 2009 Geminid shower

XY479 EGU2011-3838
Thomas Marshall, Maribeth Stolzenburg, Sumedhe Karunarathne, and Hans-Dieter Betz
Initial leader extension of lightning flashes

XY480 EGU2011-3848
Marieth Stolzenburg, Thomas Marshall, Lauren Vickers, Sumedhe Karunarathne, Tom Warner, Richard
Orville, Hans Betz, and Robert Gebauer
Time Correlated High-Speed Video and Multi-frequency Electromagnetic Observations of Cloud-to-Ground
Lightning
XY481  EGU2011-1326
Bjørn Gitle Hauge
Optical spectroscopy and radar analysis of transient luminous phenomena in the low atmosphere over
Hessdalen valley NORWAY

XY482  EGU2011-6236
Ondrej Santolík, David Pisa, and Michel Parrot
Field aligned currents triggered in the mid-latitude ionosphere by very intense lightning discharges

XY483  EGU2011-11778
Enrico Arnone, Anne K. Smith, Antti Kero, and Bianca M. Dinelli
Climate-chemistry model sensitivity to sprite-induced chemical perturbations

XY484  EGU2011-9137
Erling Strand
The Hessdalen Phenomena

XY485  EGU2011-3641
Martino Marisaldi, Fabio Fuschino, Claudio Labanti, Marco Tavani, Andrea Argan, Alessio Trois, Guido
Barbiellini, Francesco Longo, and Ettore Del Monte
AGILE Observations of Terrestrial Gamma-Ray Flashes above 20 MeV

XY486  EGU2011-6744
Thomas Gjesteland, Nikolai Østgaard, and Andrew Collier
Constraints on the Emission Cone of Terrestrial Gamma-ray Flashes by Spectral Analysis of Geolocated
Events.

XY487  EGU2011-8740
Baoyou Zhu, Fanchao Lv, and Helin Zhou
Current characteristics of NBE as inferred from narrow bipolar pulse

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 Payrastre, 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 Liechtil
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 Baecck, 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 Hlav?ová
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 Brigandi, Lampros Vasilides, and George Papadopoulos
Probabilistic forecasting of antecedent soil moisture conditions as flash flood precursor variables

A254  EGU2011-12234
Paolo Tarolli, Ethymios 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
Ethymios 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
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)

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

Hydrological extremes: from droughts to floods (co-organized) – Orals

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

Volcanic tsunamis: sedimentary signature and implications for hazard evaluation (Plinius Medal Lecture) (co-organized) – Orals

10:30–11:30 EGU2011-1116
**Raphaël Paris**
Volcanic tsunamis: sedimentary signature and implications for hazard evaluation (Plinius Medal Lecture)

11:30–11:45 EGU2011-43
**Efim Pelinovsky**
Equivalent source of tsunamis from underwater explosions (review)

11:45–12:00 EGU2011-85
James Goff, Catherine Chague-Goff, and **Dale Dominey-Howes**
Tracking the extent of the Kuwae tsunami

LUNCH BREAK

Chairperson: A. Costa, J. Goff

13:30–13:45 EGU2011-1090
**Thomas Giachetti**, Raphaël Paris, Karim Kelfoun, and Francisco José Pérez-Torrado
Numerical modelling of the tsunami triggered by the Güimar debris avalanche, Tenerife (Canary Islands): comparison with field-based data
13:45–14:00 EGU2011-13516  
**James Hunt** and Russell Wynn  
Resolving the landslide mechanism and tsunamigenic potential of catastrophic volcanic island flank collapses: Canary and Madeira Archipelagos

14:00–14:15 EGU2011-10503  
**Alessandro Bonaccorso**, Alessandro Bonforte, Sonia Calvari, Ciro Del Negro, Giuseppe Di Grazia, Gaetana Ganci, Marco Neri, Anna Vicari, and Enzo Boschi  
The initial phases of the 2008-2009 Mt. Etna eruption: a multi-disciplinary approach for hazard assessment

14:15–14:30 EGU2011-10040  
**Augusto Neri** and the Speed project Team  
Probabilistic hazard mapping of the pyroclastic density current hazard from sub-Plinian eruptions at Vesuvius (Italy) using novel methodologies to account for the main sources of uncertainty

14:30–14:45 EGU2011-2750  
**Michael Pavolonis**  
Using Infrared Satellite Measurements to Identify and Track Volcanic Ash Clouds that Exceed Aircraft Exposure Thresholds: Capabilities and Limitations

14:45–15:00 EGU2011-3600  
**Gelsomina Pappalardo** and the EARLINET Team  
4D distribution of the 2010 Eyjafjallajökull ash plume over Europe observed by the European Lidar network EARLINET

Chairperson: A. Folch. C. Bonadonna

15:30–15:45 EGU2011-4347  
**Andrew Tupper**  
Challenges to an improved International Airways Volcano Watch in the moist tropics

15:45–16:00 EGU2011-10619  
**Nina Iren Kristiansen**, Andreas Stohl, Fred Prata, Sabine Eckhardt, Helen Webster, Matthew Hort, Dave Thomson, Stephan Henne, and Petra Seibert  
The 2010 Eyjafjallajökull eruption: Estimations of volcanic ash release and transport modelling using different models

16:00–16:15 EGU2011-11595  
**Claire Witham** and Helen Webster  
Modelling concentrations of volcanic ash encountered by aircraft in past eruptions

16:15–16:30 EGU2011-13676  
**Marianne Guffanti**, Andrew Tupper, Larry Mastin, Herbert Puempel, and Raul Romero  
The Role of International Science in Aviation-Risk Management Following the 2010 Eruption of Eyjafjallajökull, Iceland

16:30–16:45 EGU2011-12113  
**Matthew Hort**, Benjamin Devenish, Helen Webster, and David Thomson  
Validation of the UK Met Office (London VAAC) dispersion model (NAME) for the Eyjafjallajökull eruption

16:45–17:00 EGU2011-6899  
**Andrew Bell**, John Greenhough, Christopher Kilburn, Michael Heap, and Ian Main  
Forecasting volcanic eruptions using Voight's relation

NH2.1/GMPV36 – Understanding and quantifying hazards related to volcanic activity (including Plinius Medal Lecture) (co-organized) – Posters  
Convener: Antonio Costa | Co-Conveners: Costanza Bonadonna, Raphaël Paris, James Goff, Alexander Belousov, Matthew Watson, Arnau Folch  
Halls X/Y | Display Time 08:00–19:30  
Author in Attendance: 17:30–19:00  
Chairperson: A. Costa, M. Watson

XY488 EGU2011-7205  
**Patrick Wassmer**, Christopher Gomez, Raphael Paris, Jean Roger, and Franck Lavigne  
Anisotropy of Magnetic Susceptibility, a promising technique for tsunami deposits deciphering

XY489 EGU2011-13667  
**Raphael Paris**, Nelly Mazzoni, Patrick Wassmer, Franck Lavigne, Budianto Ontowirjo, Alexander Belousov, and Marina Belousova  
Sedimentary signature of the Krakatau 1883 tsunami

XY490 EGU2011-1995  
**José Madeira**, João Mata, Mário Moreira, and Dirk L. Hoffmann  
Deposits of a major Pleistocene tsunami in the Island of Maio (Cape Verde)
Thomas Giachetti, Raphaël Paris, Karim Kelfoun, and Budianto Ontowirjo
Tsunami hazard related to a flank collapse of Anak Krakatau volcano, Sunda Strait, Indonesia

Karim Kelfoun, Thomas Giachetti, Philippe Labazuy, and Raphaël Paris
Landslide-generated tsunamis at Réunion Island and their possible sedimentary record in Mauritius Island

José Madeira, Mercedes Ferrer Gijón, Luis I Gonzalez de Vallejo, César Andrade, Maria da Conceição Freitas, Alejandro Lomoschitz, and Dirk L. Hoffmann
Agate revisited: new data on the Gran Canaria tsunamites

Marina Beloussova and Alexander Belousov
Tsunamigenic volcanic landslides of Kurile-Kamchatka arc

Karim Kelfoun, Soledad Osores, Gloria Pujol, Estela Collini, and Martina Suaya
Evaluation of the FALL3D model using WRF-ARW fields for the 2008 Chaitén eruption

Roberto Sulprizio and Arnau Folch
Far-range Volcanic Ash Hazard from Somma-Vesuvius. Consequences for Civil Aviation over the Central Mediterranean Area

Kuniaki Miyamoto, Yutaka Gonda, Shintaro Yamashita, and Haruka Matsuysoshi
Hazard estimation of the possible pyroclastic flow disasters using numerical simulation related to the 2010 activity at Merapi Volcano, Indonesia

Michael Cooke, Peter Francis, and Roger Saunders
Retrieval of microphysical properties of a volcanic plume using the multispectral satellite instrument SEVIRI: Application to the Eyjafjallajökull eruption in April and May 2010.

Robert Constantinescu, Jean-Claude Thouret, and Laura Sandri
Volcanic hazard assessment for El Misti volcano (South Peru) based on the BET_VH (Bayesian Event Tree for Volcanic Hazard) software (work in process)

Rosanna Bonasia, Lucia Capra, Antonio Costa, and Giovanni Macedonio
Numerical simulation of the tephra fallout deposit of the 1913 Colima eruption, México: implications for hazard assessment

Matteo Picchiani, Marco Chini, Stefano Corradini, Luca Merucci, Pasquale Sellitto, Fabio Del Frate, Salvatore Stramondo, and Alessandro Piscini
Detection and retrieval of volcanic ash from IR spectral data by means of Neural Networks approach

Alessandro Piscini, Stefano Corradini, Francesco Marchese, Luca Merucci, Nicola Pergola, and Valerio Tramutoli
Volcanic ash cloud detected by AVHRR sensor: comparison between two different methodologies for daytime and nighttime measurements

Amy Collison and Jurgen Neuberg
A New Model for Gas Transport and Storage in a Permeable Volcanic Edifice

Arnau Folch, Sara Basart, and Antonio Costa
Modelling and forecasting the Eyjafjallajökull volcanic ash cloud using the FALL3D ash dispersion model

Changwook Lee, Zhong Lu, and Hyungsup Jung
Time Series Surface Deformation Analysis in the Seguam Volcano for Verifying the Refined SBAS Technique

Hélène Monnard, Irene Manzella, Costanza Bonadonna, and Jeremy C. Phillips
Convective Instabilities in Volcanic Plumes

Rose Burden, Jeremy Phillips, and Thea Hincks
Determining Volcanic Plume Height
**Michael Fromm**, Douglas Westphal, James Campbell, René Servranckx, and Pat Kablick

Ash and dust together in the UTLS: April 2010 Eyjafjallajökull volcano eruptions and Taklimakan Desert dust storms

**José Manuel Marrero**, Alicia García, Ángeles Llinares, Ramón Ortiz, and José A. Rodríguez-Losada

New hazard scenarios for Teide Pico-Viejo volcano complex and potential casualty risks.

**David Winker**, Zhaoyan Liu, Ali Omar, and Jason Tackett

Detection and characterization of ash plumes from Eyjafjallajökull with satellite lidar

**Leif Vogel**, Bo Galle, Christoph Kern, Hugo Delgado Granados, Ulrich Platt and the Fiel-Volcan Team

Early in-flight detection of SO2 via Differential Optical Absorption Spectroscopy: A feasible aviation safety measure to prevent potential encounters with volcanic plumes

**Olga Girina**, Alexander Manevich, Sergey Ushakov, Anton Nuzhdaev, Dmitry Melnikov, Olga Konovalova, and Yury Demyanchuk

Explosive Eruptions of Kamchatkan Volcanoes in 2010

**Mohammed Rashad Moufti**

Assessing Volcanic Hazard of a Quaternary Lava Field in the Kingdom of Saudi Arabia

**Costanza Bonadonna**, Folch Arnau, Loughlin Susan, and Puempel Herbert

Future developments in modelling and monitoring of volcanic ash clouds: outcomes from the first IAVCEI-WMO workshop on Ash Dispersal Forecast and Civil Aviation (Geneva, Switzerland, 18-20 October 2010)

**Helen Dacre** and Alan Grant

The prediction and observation of volcanic ash clouds during the Eyjafjallajökull eruption

**Corinna Maerker**, Lars Klüser, Thilo Erbertseder, Julian Meyer-Arnek, Dmytro Martynenko, and Thomas Holzer-Popp

Infrared observation of volcanic ash and estimation of ash emission profiles of the 2010 Eyjafjöll eruption

**Andreas Vogel**, Konradin Weber, Christian Fischer, Günther van Haren, Tobias Pohl, Bernhard Grobety, and Mario Meier

Airborne in-situ measurements of the Eyjafjallojökull ash plume with a small aircraft and optical particle spectrometers over north-western Germany - comparison between the aircraft measurements and the VAAC-model calculations

**Nicolas Bukowiecki** and the Swiss Eyja In-Situ Observation Team

Ground-based and airborne in-situ measurements of the Eyjafjallajökull volcanic aerosol plume in Switzerland in April and May 2010

**Matthias Tesche**, Albert Ansmann, Patric Seifert, Ina Mattis, Silke Groß, Volker Freudenthaler, Arnoud Apituley, Keith Wilson, Ilya Serikov, and Holger Linné

Separation of volcanic ash and sulfate aerosol based on lidar-photometer observations in central Europe after the eruption of the Eyjafjallajökull volcano

**Patric Seifert**, Silke Groß, Albert Ansmann, Volker Freudenthaler, Anja Hiebsch, Jörg Schmidt, Franziska Schnell, Matthias Tesche, Bernd Heinold, and Matthias Wegner

Ice formation in ash-influenced clouds after the Eyjafjallajökull eruption in April 2010

**Julien Vergoz**, Robin S. Matoza, Alexis Le Pichard, Pierre Gaillard, Lars Ceranna, David N. Green, Láslo G. Evers, Emanuele Marchetti, Maurizio Ripepe, and Paola Campus

Telesonic infrasound from Eyjafjallajökull, Iceland: a unique opportunity to understand infrasonic network detection capability of volcanic eruptions
XY516  EGU2011-10353  Sigrún Hreinsdóttir, Thóra Árnadóttir, Freysteinn Sigmundsson, Andrew Hooper, Matthew Roberts, Halldór Geirsson, and Benedikt Öfeigsson
Surface Deformation Prior to and During the 2010 Eyjafjallajökull Eruptions from Spatial and Temporal Variations in GPS Time Series

XY517  EGU2011-13017  Joana Martins, Andrew Hooper, Karsten Spaans, Freysteinn Sigmundsson, and Kurt Feigl
InSAR Time Series analysis of the Eyjafjallajökull eruptions using TerraSAR-X data

XY518  EGU2011-8413  Jon Tarasewicz, Bryndis Brandsdottir, Robert White, Martin Hensch, and Berthgra Thorbjarnardottir
Tracking the seismicity preceding and during the March 2010 Fimmvörðuháls fissure eruption and April 2010 summit eruption of Eyjafjallajökull, Iceland

XY519  EGU2011-13109  Freysteinn Sigmundsson, Kristín Vogfjord, Sigurlaug Hjaltadottir, Bryndis Brandsdottir, Jon Tarasewicz, Bob White, Martin Hensch, Jakob K. Keiding, Olgeir Sigmarsson, and Andy Hooper
Volcano anatomy: Comparing geodetic, seismic, and geochemical constraints on inner structure and magma transport at Eyjafjallajökull volcano

XY520  EGU2011-3686  Haraldur Páll Gunnlaugsson, Sigurdur Steinhorsson, Niels Oskarsson, Morten Bo Madsen, Per Nørnberg, and Jon Merson
Mössbauer Spectroscopy of Samples from the 2010 Eyjafjallajökull Summit Eruption

XY521  EGU2011-12046  Thórvaldur Thorðarson, Chris Hayward, Margaret Hartley, Olgeir Sigmarsson, Ármann Höskuldsson, Hóskuldsson, and Guðrún Larsen
The 14 April - 22 May 2010 summit eruption at Eyjafjallajökull volcano, Iceland: Volatile contents and magma degassing

XY522  EGU2011-12040  Patrick Allard, Mike Burton, Niels Oskarsson, Agnès Michel, and Margherita Polacci
Magmatic gas composition and fluxes during the 2010 Eyjafjallajökull explosive eruption: implications for degassing magma volumes and volatile sources

XY523  EGU2011-7978  Póður Arason, Halldór Björnsson, and Guðrún Nina Petersen
Plume-top altitudes during the Eyjafjallajökull 2010 eruption

XY524  EGU2011-13167  Ingibjörg Jónsdóttir, Guðrún Larsen, Thor Thordarson, Ármann Höskuldsson, Friðrik Höskuldsson, and Ashley Gerard Davies
Tephra dispersal monitoring by satellite images

XY525  EGU2011-9091  John Stevenson, Jennie Gilbert, Ármann Höskuldsson, Antoni Milodowski, Susan Loughlin, and Thorvaldur Thordarson
Morphology of proximal and distal ash grains from the 2010 Eyjafjallajökull summit eruption.

XY526  EGU2011-13213  Chr. Bender Koch, Thomas Bjerring Kristensen, and Merete Bilde
SEM analysis of tephra collected in rain in Copenhagen during the 2010 eruption of Eyjafjallajökull

XY527  EGU2011-5886  Ulrich Schumann, Robert Baumann, Andreas Minikin, Oliver Reitebuch, Thomas Sailer, Hans Schlager, Christian Voigt, and Bernadett Weinzierl
The volcanic ash plume near the Eyjafjallajökull in April/May 2010

XY528  EGU2011-3522  Bergrun Oladottir, Gudrun Larsen, and Olgeir Sigmarsson
The neighbours of the Eyjafjallajökull volcano: Katla, Grímsvötn and Bárðarbunga

XY529  EGU2011-6221  Gudrun Sverrisdottir and the Lahar Team
May 19th rain triggered lahar originating in the Eyjafjallajökull 2010 volcanic ash. Observation, mapping and granulometric study.

XY530  EGU2011-8563  Stuart Dunning, Andy Large, Andy Russell, Anne-Sophie Meriaux, Robert Duller, and Matthew Roberts
The use of repeat Terrestrial Laser Scanning to quantify jokulhaup induced change caused by the 2010 Eyjafjallajökull eruption, Iceland
XY531  EGU2011-13142
Andy Russell, Andy Large, Anne-Sophie Mériaux, Stuart Dunning, Matthew Roberts, Rob Duller, Qiuhua Liang, Jonathan Carrivick, Fiona Tweed, and Málfríður Ómarsdóttir
Impacts and dynamics of volcanically-generated jökulhlaups, Eyjafjallajökull, Iceland

XY532  EGU2011-4161
Robert Duller, Nicholas Warner, Chris McGonigle, and Andrew Russell
Landscape response and development following the catastrophic 1918 jökulhlaup, southern Iceland

XY533  EGU2011-10941
Martin Kirkbride and Andrew Dugmore
Impacts of the Ey2010 tephra fall on Icelandic ice caps: interactions between substrate and glacier surface topography.

XY534  EGU2011-11546
Throstur Thorsteinsson, Thorsteinn Johannsson, and Gudrun Petursdottir
High levels of particulate matter due to ash plume and ash re-suspension following the Eyjafjallajökull eruption

NH3.4 – Advanced methods in landslides research I: remote sensing and geophysics – Orals
Convener: Janusz Wasowski | Co-Conveners: Vincenzo Del Gaudio, Gilles Grandjean, Michel Jaboyedoff
Room: 1
Chairperson: J. Wasowski, M. Jaboyedoff

13:30–13:45  EGU2011-7975
Vincent Balthazar and Veerle Vanacker
Remote sensing techniques for landslide detection, and their efficiency according to different pre-processing levels of high-resolution satellite data

13:45–14:00  EGU2011-8607
Sigrid Roessner, Mahdi Motagh, Robert Behling, Kanayim Teshebaeva, Hans-Ulrich Wetzal, and Hermann Kaufmann
Optical and radar remote sensing for quantitative analysis of landslide activity in Southern Kyrgyzstan, Central Asia

14:00–14:15  EGU2011-8325
Chloé Barboux, Reynald Delaloye, Claude Collet, Tazio Strozzi, and Hugo Raetzo
Slope instabilities monitoring in mountain periglacial environment using DInSAR - Application to the Valais Alps

14:15–14:30  EGU2011-6661
Christian Iasio, Stefan Schneiderbauer, Andrea Tamburini, and Volkmar Mair
A feasibility study on COSMO SkyMed X-Band application for the monitoring of slow landslides: the deep seated gravitational slope deformation (DSGSD) in the area of Corvara in Badia (Dolomites, Italy)

14:30–14:45  EGU2011-6772
Diego Di Martire, Antonio Iodice, Massimo Ramondini, Giuseppe Ruello, and Domenico Calcatera
Combined observations of surface displacements using Differential Interferometry SAR (DInSAR), GPS and traditional monitoring techniques

14:45–15:00  EGU2011-8767
Sabine Roedelsperger, Gwendolyn Läufer, Andreas Eichhorn, Carl Gerstenecker, and Matthias Becker
Continuous monitoring of landslides with ground based SAR: A case study at Steinlehnen, Austria

15:15–16:30  EGU2011-11658
Alexander Daehne, Alessandro Corsini, and Francesco Ronchetti
Correlation image velocimetry applied to multitemporal LiDAR data for automated landslide movement assessment
16:30–16:45 EGU2011-8002
Marco Walter and Manfred Joswig
Resolving deformation-induced fracture processes at the slow-moving Heumoes slope by permanent seismic monitoring

16:45–17:00 EGU2011-10051
Emanuele Forte, Stefano Devoto, Matteo Mantovani, Arianna Mocnik, Alessandro Pasuto, Daniela Piacentini, Michele Pipan, and Mauro Soldati
Integrated remote sensing and geophysical techniques to assess landslide hazard along the north-western coast of the Island of Malta.

NH3.4 – Advanced methods in landslides research I: remote sensing and geophysics – Posters
Conveners: Janusz Wasowski | Co-Conveners: Vincenzo Del Gaudio, Gilles Grandjean, Michel Jaboyedoff
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: V. Del Gaudio, M. Jaboyedoff

XY535 EGU2011-5962
Michele Santangelo, Federica Fiorucci, Mauro Cardinale, Alessandro Cesare Mondini, Paola Reichenbach, Francesca Ardizzone, Kang-tsungh Chang, and Fausto Guzzetti
Comparison of new methods for regional landslide detection and mapping

XY536 EGU2011-11423
Maura Louсадa and the Instituto Superior Técnico Team
A comparative assessment of supervised pixel-based classification methods in the detection of landslide scars

XY537 EGU2011-6786
Daniel Höbling and Petra Füreder
A (semi-)automated object-based approach for landslide detection based on SPOT-5 imagery and digital elevation data

XY538 EGU2011-8887
Namphon Khampilang and Malcolm Whitworth
Landslide risk assessment for the Toktogul region of Kyrgyzstan, Central Asia

XY539 EGU2011-8390
Silvia Bianchini, Francesca Cigna, and Nicola Casagli
Assessing the state of activity and intensity of slow moving landslides by means of RADARSAT Persistent Scatterer Interferometry: Northern Calabria (Italy) case study

XY540 EGU2011-6754
Elena Nikolaeva and Thomas R. Walter
Landslide detected by InSAR and optical images in central Georgia: a tectonic or a man made trigger?

XY541 EGU2011-11139
Janusz Wasowski, Fabio Bovenga, Davide Oscar Nitti, Raffaele Nutricato, Tom Dijkstra, and Xingmin Meng
Detecting very slow ground movements using PS interferometry in the Lanzhou loess area of Gansu Province, China.

XY542 EGU2011-7619
Clément Michoud, Valérie Baumann, Marc-Henri Derron, Michel Jaboyedoff, Tom Rune Lauknes, and Emmanuel Wick
Detection of Large Slope Instabilities using Spaceborne Radar Interferometry along the National Road 7, Mendoza Province, Argentina.

XY543 EGU2011-6261
Misganu Debella-Gilo and Andreas Kääb
Spatially adaptive least squares image matching for monitoring slow-moving landslides

XY544 EGU2011-10302
Julien Travellletti, Jean-Philippe Malet, and Christophe Delacourt
Characterization of the 3D displacement field of landslides from Terrestrial Laser Scanning using 2D cross-correlation technique

XY545 EGU2011-9856
Andre Stumpf, Uwe Niethammer, Sabrina Rothmund, Alexandre Mathieu, Jean-Philippe Malet, Kerle Norman, and Manfred Joswig
Object-oriented analysis of unmanned aerial vehicle (UAV) imagery for mapping and monitoring fissures in landslide bodies

XY546 EGU2011-11657
Alessandro Bonforte, Francesco Calvagna, Massimo Cantarero, Giuseppe Casula, Orazio Consoli, Salvatore Consoli, Mario Marturano, Arianna Pesci, Giuseppe Puglisi, and Benedetto Saraceno
Terrestrial Laser Scanning (TLS) over volcanic areas: experiments on Vesuvius, Stromboli and Vulcano (Italy)
**Off-shore Laser Scanning of coastal cliffs for rockfall hazard assessment by IMU/GNSS coupled Lidar**

Marc-Henri Derron, Dario Carrea, Benoît Fragnol, Céline Longchamp, Clément Michoud, Michel Jaboyedoff, Lars Harald Blikra, Lene Kristensen, and Thierry Oppikofer

**Comparative analysis of landslide kinematics using ground-based optical images and terrestrial laser scanning**

Sabrina Rothmund, Jean-Philippe Malet, and Manfred Joswig

**Rock fall source area detection and volume estimation by using terrestrial laser scanner data**

Marta Guinau, David Garcia-Sellés, and Josep Anton Muñoz

**Crossing of investigation and methods to define the internal geometry of a coastal landslide in Normandy**

Candide Lissak Borges, Olivier Maquaire, Jean-Philippe Malet, Christopher Gomez, and Franck Lavigne

**Seismic- and GBSAR monitoring of a rock-slide**

Stefan Merti, Sabine Rödelsperger, and Stefan Weginger

**Characterization of an unstable mountain slope using 3D active and passive seismic survey, the case of the La Valette landslide.**

Kévin Samyn, Adnand Bitri, Gilles Grandjean, and Audrey Courtois

**Geophysical investigations to characterize slope stability at planned viaduct site in Constantine, Algeria.**

Kerim Martinez and Jose Alfredo Mendoza

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**NH3.7 – Prediction and forecasting of landslides – Orals**

Convener: Filippo Catani | Co-Conveners: Fausto Guzzetti, Nejan Huvaj

**Room: 1**

Chairperson: Filippo Catani

08:30–08:45 EGU2011-685

Aykut Akgün, Zekai Angın, Sabriye Banu Kızılder, and Gökhan Demir

An Assessment of the Rainfall-induced Gundogdu (Rize, Northeastern Turkey) landslides and flooding: A perspective of Geotechnical and Geomorphological characteristics.

08:45–09:00 EGU2011-4690

David J. Peres and Antonino Cancelliere

Rainfall thresholds for debris-flow early warning: application to North-East Sicily area

09:00–09:15 EGU2011-10549

Matteo Berti, Alessandro Corsini, Francesco Ronchetti, Guido Bernardi, Fabrizio Bertocchi, Alberto Rosi, and Franco Zambonelli

Use of Wireless Sensor Networks for landslide monitoring

09:15–09:30 EGU2011-10550

José Mauricio Cepeda, Jean-Philippe Malet, and Alexandre Remaitre

Empirical estimates of precipitation conditions for landslide triggering in France and Norway

09:30–09:45 EGU2011-6084

Séverine Bernardie, Nicolas Desramaout, Jimmy Zurcher, Gilles Grandjean, Bertrand Aunay, and Pierre Belle

Use of a black box model (TEMPO) to predict changes in landslide rate induced by rainfalls

09:45–10:00 EGU2011-10398

Christian Jaedicke, Miet Van Den Eeckhaut, Farrokh Nadim, Javier Hervás, Bjørn Kalsnes, Jessica T. Smith, Veronica Tofani, Roxana Ciurean, and Mike G. Winter

Identification of landslide hazard and risk "hotspots" in Europe

**NH3.7 – Prediction and forecasting of landslides – Posters**

Convener: Filippo Catani | Co-Conveners: Fausto Guzzetti, Nejan Huvaj

**Halls X/Y | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Nejan Huvaj

08:30–08:45 EGU2011-938

Angelika Pocsai, András Zámolyi, Balázs Székely, Gábor Molnár, Andreas Roncat, and Peter Drexl

Change detection on the Doren landslide, using geological field measurements and laser-scanned data (Vorarlberg, Austria)
EGU General Assembly 2011

XY555  EGU2011-2345

Byung-Gon Chae and Jeong-Hae Choi
A method to predict landslide based on gradient of volumetric water content

XY556  EGU2011-3395

Gianluca Martelloni, Samuele Segoni, Riccardo Fanti, and Filippo Catani
A statistical model based on rainfall thresholds for landslides forecasting: implementation in the alert systems of the Emilia Romagna region (Italy) for civil protection purposes.

XY557  EGU2011-3991

Jui-Yi Ho, Kwan Tun Lee, Tung-Chiung Chang, and Yu-Hsun Liao
Influences of soil thickness on shallow landslide prediction

XY558  EGU2011-5660

Silvia Peruccacci, Maria Teresa Brunetti, Silvia Luciani, Carmela Vennari, and Fausto Guzzetti
Lithological control on rainfall thresholds for the possible initiation of landslides in central Italy

XY559  EGU2011-6010

Guénolé Mainsant, Eric Larose, Denis Jongmans, Clément Michoud, Cornelia Brönnimann, Laurent Baillet, and Michel Jaboyedoff
Variation of S-wave velocity as an indicator for predicting solid-to-liquid transition in clay landslide

XY560  EGU2011-8301

Gianluca Martelloni, Emanuele Massaro, and Franco Bagnoli
Particle based method for shallow landslides: theoretical effect of sliding surface lubrication by rainfall

XY561  EGU2011-8432

Roberto Giannecchini, Yuri Galanti, and Giacomo D'Amato Avanzi
Rainfall and shallow landslides in the Middle Serchio Valley (Northern Tuscany, Italy): possible duration/intensity critical threshold curves

XY562  EGU2011-8837

Aurélie Pannatier, Charly Berthod, and Eric Bardou
Landslide of Morasses : Borehole campaign and hydrogeology study

XY563  EGU2011-8852

Eric Bardou, Guillaume Favre-Bulle, Pascal Omstein, and Jean-Daniel Rouiller
Glacier Bonnard (Switzerland) a complex permafrosted site source of debris flows : necessary monitoring for prediction of the dynamic and its evolution

XY564  EGU2011-8945

Claudia Meisina, Davide Zizioli, and Francesco Zucca
Shallow landslides susceptibility mapping: comparison of different deterministic methods

XY565  EGU2011-9277

Céline Bourdeau, Philippe Reiffsteck, and Pietro Alfonsi
Application of an existing landslide forecast analytical model to different geographic, climatic, geological and topographic settings

XY566  EGU2011-9389

Matteo Convertino, Filippo Catani, and Alberto Troccoli
Maximum Entropy Macroscale Prediction of the Occurrence and Size of Landslides Driven by Climate Change Rainfall Variation

XY567  EGU2011-11079

Claudio Lucianaz, Fabrizio Diotri, Marco Vagliasindi, Oscar Rorato, Marcello Mamino, Marco Allegretti, Nicola Bergomi, and Marco Roggero
A low cost wireless GNSS network to trace displacements

XY568  EGU2011-11204

Samuele Segoni, Alessandro Battistini, Ascanio Rosi, Guglielmo Rossi, and Filippo Catani
A real time WebGIS landslide warning system based on a regional set of spatially variable rainfall thresholds

XY569  EGU2011-12605

Paulo Amaral, Rui Marques, José Luís Zêzere, Gabriela Queiroz, and Fernando Marques
Soil matric suction and its contribution for slope stability assessment on a near real time monitoring basis: a case study from Povoação council (Azores)

XY570  EGU2011-13132

Zenaida Chitu, Ionut Sandric, Bogdan Mihai, and Ionut Savulescu
Spatio-temporal prediction of landslide hazard in Subcarpathian Area, between Prahova and Ialomita Valleys, Romania

XY571  EGU2011-13193

Matthias Wiegand, Christoph Seeber, Heike Hartmann, Wei Xiang, and Lorenz King
Landslide Hazards in the Xiangxi Watershed / Three Gorges Reservoir, China: Assessing internal biophysical Vulnerability

XY572  EGU2011-11444

Emanuele Intrieri and Farrokh Nadim
Guidelines for the design and implementation of landslide Early Warning Systems
Landslide susceptibility mapping for a part of North Anatolian Fault Zone (Northeast Turkey) using likelihood-frequency ratio model

Gökhan Demir, Mustafa Aytækin, Aykut Akgün, and Sabriye Banu ?kizler

G3.2/AS4.19/CL4.9/GD1.6/NH4.8/SM5.7 – Geodesy and natural and induced hazards: Progress during 30 years of the WEGENER initiative (co-organized) – Orals
Convener: Susanna Zerbini | Co-Conveners: Robert Reilinger, Mustapha Meghraoui
Room: 18
Chairperson: M. Meghraoui and P. Briole

08:30–08:45 EGU2011-12696
Andrew Hooper, David Bekaert, and Mahmut Arikan
Radar interferometry for measuring regional-scale processes

08:45–09:00 EGU2011-12096
Ziyadin Cakir, Mustapha Meghraoui, Esra Cetin, Ahmet Akoglu, and Samir Belabbes
Postseismic Hanging-wall Subsidence of the 2003 Zemmouri (Mw=6.9, Algeria) Thrust Earthquake From InSAR Time Series

09:00–09:15 EGU2011-11725
Jean-Mathieu Nocquet, Andrea Walpersdorf, François Jouanne, Frédéric Masson, Jean Chéry, and Philippe Vernant
Slow deformation in the Western Alps from a decade of Continuous GPS measurements

09:15–09:30 EGU2011-13090
Pierre Briole
Ground deformation monitoring in the Corinth rift laboratory, Greece

09:30–09:45 EGU2011-4840
Athanassios Ganas, Kostas Chousianitis, George Drakatos, Marios Papanikolaou, Panagiotis Argyakis, Maria Kolligri, Panagiota Petrou, Evagelia Batsi, and Christina Tsimi
NOANET: High-rate GPS Network for Seismology and Geodynamics In Greece

09:45–10:00 EGU2011-2324
Ugur Dogan, Semih Ergintav, Baki Karaboce, Gokhan Arslan, Ayse Selendi (1), Deniz Oz, Cuneyt Ayd?n (1), Azer Ilgar, Rahsan Cakmak (2), Alpay Belgen, Enver Sad?koglu, Eyup Bilgic, and Ahmet Direnc
Long-term Crustal Deformations Based on Gravity and GPS Measurements (2006 - 2010) in Marmara Region, Turkey

COFFEE BREAK

Chairperson: R. Reilinger and A. Hooper

10:30–10:45 EGU2011-11359
Philippe Vernant
Interseismic strain across strike slip faults, what can we learn from ~20 years of GPS measurements ?

10:45–11:00 EGU2011-11222
Cecilia Scarpetta, Vincenza Luceri, Roberto Lanotte, Rosa Pacione, Brigida Pace, and Giuseppe Bianco
Velocity field in Mediterranean area from ASI-CGS GPS, SLR and VLBI solutions: the ASIMed solution

11:00–11:15 EGU2011-3512
Roberto Sabadini, Gabriele Cambiotti, and Yanick Ricard
New insights on Mantle Convection and Ice Age True Polar Wander

11:15–11:30 EGU2011-8013
Johannes Boehm, Peter Steigenberger, Robert Heinkelmann, and Harald Schuh
Troposphere delay modeling in VLBI and GNSS analysis

11:30–11:45 EGU2011-6503
Luce Fleitout, Jean-Didier Garaud, Georges Cailletaud, Christophe Vigny, Wim Simons, Boujnib Ambrosius, Itthi Trisirisatayawong, and Chalermchon Satirapod
Modeling the post-seismic deformations of the Aceh, Nias and Benkulu earthquakes

11:45–12:00 EGU2011-9723
Tonie van Dam, Xavier Colliieux, Zuheir Altamimi, and James Ray
A review of GPS and GRACE estimates of surface mass loading effects

G3.2/AS4.19/CL4.9/GD1.6/NH4.8/SM5.7 – Geodesy and natural and induced hazards: Progress during 30 years of the
Hiromi Fujimoto, Motoyuki Kido, and Yukihito Osada
Some improvements in the GPS/Acoustic seafloor positioning

Simone Dellagnello and the SCF (INFN-LNF) Team
SCF-Test of LAGEOS and the GNSS for geodesy and navigation applications

Vadim Millyukov, Vladimir Zararov, Alexey Mironov, Mark Kaufman, and Dmitry Duev
Development of the Northern Caucasus GPS/GLONASS network: progress during 18 years (observations and results)

Yusaku Ohta, Tatsuya Kobayashi, and Satoshi Miura
Long term stabilities and its noise properties of the middle to long baseline RTK-GPS time series for the earthquake size rapid determination

Tim Wright, Hua Wang, Carolina Pagli, and Matthew Garthwaite
Mapping Tectonic Strain on a Global Scale with InSAR

M Meghan Miller
UNAVCO Event response capabilities: Four 2010 earthquakes that advanced hazards science

Graham Appleby, Georg Kirchner, Jan McGarry, Carey Noll, Erricos Pavlis, and Michael Pearlman
High Quality Products from Satellite Laser Ranging

Luisa Bastos, Machiel Bos, and Rui M.S Fernandes
An investigation of monument stability of GPS stations in Iberia

Machiel Bos, Odair Tavares, Luisa Bastos, and Rui Ferandes
An online GPS time-series analysis provider at GEODAC

Haluk Ozener, Asli Dogru, and Bulent Turgut
Contemporary Results of GPS Observations in Ismetpasa Creeping Region of North Anatolian Fault Zone (NAFZ), Turkey

Radia Mir, Salem Kahlouche, and Said Touam
Crustal deformations using GPS data and the Kalman filter: preliminary results

Susanna Zerbini, Claudio Prati, Giovanni Cappello, Maddalena Errico, Fabrizio Novali, and Silvia Scirpoli
Combination of INSAR and GPS to measure ground motions and atmospheric signals

M. Ersen Aksoy, Mustapha Meghraoui, Matthieu Ferry, Ziyadin Çakır, and Gulse Uçarku?
Short-term and long-term slip rate estimations along the Ganos Fault using stream offsets and paleo-climatic changes (North Anatolian Fault, Turkey)

Stathis C. Stiros, Fanis Moschas, Lujia Feng, and Andrew V. Newman
Constraints to the 2008 Patras (Greece) seismic fault: Evidence from historical triangulation and morphotectonic data.

Stefano Tinti, Alberto Armigliato, and Gianluca Pagnoni
The role of GPS observations in a Tsunami Early Warning System suitable for near-shore tsunami detection and forecast.

Kamil Eren, Turgut Uzel, Engin Guial, Ibrahim Tiryakioglu, Ahmet Anil Dindar, and Haluk Yilmaz
Tectonic Studies in Turkey Using CORS-TR Observations

Marc-Andre Gutscher
Tectonics of the Gibraltar subduction and its relation to recent kinematics
Regional and local deformation analysis results from the Nile River Valley and its relation to seismicity

Mohamed Chlieh, Hernando Tavera, Jean-Mathieu Nocquet, Juan-Carlos Villegas, Hugo Perfettini, and Jean-Philippe Avouac
Interseismic Coupling maps in South America subduction zone as indicator of future large Megathrust Earthquakes

Joaquim Sousa, Luisa Bastos, Antonio Ruiz, Ramon Hanssen, and Andy Hooper
Terrain Deformation Monitoring in Granada Basin Area Using Persistent Scatterers Interferometry (PSI)

Yasser Mahmoud, Frederic Masson, Mustapha Meghraoui, Ziyadin Cakir, Abd elmotaleb Alchalbi, Hakan Yavasoglu, Onder Yonlue, Mohamed Daoud, Semih Ergintav, and Sedat Inan
GPS velocity field in SE Turkey and NW Syria derived from 2009 and 2010 measurements

Yüksel Altiner
Another view on the study of Earth's crust deformations applied in Adriatic plate

Aggeliki Marinou, Xanthos Papanikolaou, Dimitris Paradissis, Dimitris Anastasiou, Vangelis Zacharis, Panayiotis Tzavaras, Kalliopi Papazissi, and Christiana Mitsakaki
Estimating of tectonic velocities in the Ionian region.

Rui Fernandes, José Quembo, Jorge Miranda, and Damien Delvaux
Present-Day Kinematics of Mozambique derived from Episodic GPS data

Robert King, Simon McClusky, Philippe Vernant, Semih Ergintav, Galaktion Hahubia, Fakhraddin Kadirov, Samir Mammadov, Ruben Stepanyan, Tamara Guseva, and Vadim Milyukov
New GPS velocity field for the Arabian-Eurasian collision zone

Demetris Anastasiou, Aggeliki Marinou, Xanthos Papanikolaou, Vangelis Zacharis, Demitris Paradissis, Kalliopi Papazissi, and Christiana Mitsakaki
Deformation studies using GPS data for South Peloponnisos

Juan Carlos Villegas Lanza, Jean-Mathieu Nocquet, Hernando Tavera, Mohamed Chlieh, and Francis Bondoux
A new GPS velocity field from Central Peru to northern Ecuador

Oliver Boyd, Yuehua Zeng, and Leonardo Ramirez-Guzman
Modeling surface deformation in the New Madrid seismic zone

Tilo Schön, Julia Illigner, Cornelia Zech, Cecep Subarya, Pak Khafid, Wahyu Pandoe, Imam Mudita, and Roman Galas
GNSS in Support of Sea Level Monitoring: Early Warning to Long-Term Corrections

David Mencin, Selwyn Sacks, Alan Linde, and Michael Gladwin
Borehole Strainmeters and Natural Hazards
11:15–11:30 EGU2011-2668
João Silva, João Carreiras, Isabel Rosa, and José Pereira
Greenhouse gas emissions from shifting cultivation in the tropics, including uncertainty and sensitivity analysis

11:30–11:45 EGU2011-7074
Elisa Garcia-Hurtado, Esther Borras, Pilar Sanchez, Teresa Vera, M.Jaime Baeza, and V.Ramon Vallejo
Determination of emissions from Mediterranean shrubland fires.

11:45–12:00 EGU2011-13297
Brian Magi, Elena Shevliakova, Sergey Malyshev, and Stephen Pacala
Modeling Anthropogenic Drivers of Fires

NH7.2/AS4.14/BG2.17 – Fire in the Earth System: Impacts and Feedbacks (co-organized) – Posters
Convener: Kirsten Thonicke | Co-Conveners: Allan Spessa

Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Kirsten Thonicke

XY574 EGU2011-621
Faith Taylor, Ronan Paugam, and Martin Wooster
Exploring and Improving Methods of Validating a 1D Plume Rise Model for Wildfire Emissions: The Use of BIRD and MODIS Earth Observation Products

XY575 EGU2011-2921
Matthias Forkel, Kirsten Thonicke, Sibyll Schaphoff, Ursula Heyder, and Christiane Schmullius
Hotspots, vulnerable ecosystems and global change of fire-influenced permafrost degradation

XY576 EGU2011-3542
Mirco Migliavacca, Alessandro Dosio, Alessandro Cescatti, Andrea Camia, Jesus San Miguel-Ayazn, and Tracy Durrant Houston
Modeling forest fires dynamics in Europe using the Community Land Model

XY577 EGU2011-7184
Elisa Garcia-Hurtado, Jorge Pey, Esther Borras, Andrés Alastuey, Xavier Querol, and V.Ramon Vallejo
Determination of particle tracers released in forest fire events in the Mediterranean basin. Ayoraburning experiment.

XY578 EGU2011-9614
Jane Liu, David Tarasick, Mark Parrington, Paul Palmer, Huixia He, Kevin Strawbridge, and Tom Duck
Observation of High Ozone From Canadian Boreal Forest Fires in 2010

XY579 EGU2011-10524
Anatoly Prokushkin, Oleg Pokrovsky, and Jerome Viers
Wildfire effects on stream hydrochemistry within the zone of continuous permafrost distribution in Central Siberia

XY580 EGU2011-11273
Beatriz Monge-Sanz, Steve Arnold, and Sarah Monks
Estimation of boreal fire emissions under future climate scenarios and their impacts on Arctic atmospheric composition

XY581 EGU2011-11696
Margarita Evtyugina, Ana Patricia Fernandes, Ana Calvo, Teresa Nunes, Célia Alves, Luis Tarelho, and Ana Vicente
Characterisation of emissions from wildfires in Portugal in summer 2010

XY582 EGU2011-12635
Iryna Khlystova, Silvia Kloster, Alex Loew, and Christian Reick
Integration of satellite burned area products into the land biosphere model JSBACH

XY583 EGU2011-10782
Thomas Smith, Katherine Allen, Robert Mars, Michael Harris, John Dold, and Martin Wooster
Emissions of greenhouse gases and selected volatile organic compounds from UK moorland burning estimated using open-path FTIR spectrometry and burnt area measures.

NH7.3/ESSl22/SSS1.9 – Spatial and temporal patterns of wildfires: models, theory, and reality (co-organized) – Orals
Convener: Rosa Lasaponara | Co-Conveners: Luciano Telesca, Jesus San Miguel, Andrea Camia, Ricardo Trigo, Mário Pereira, Mike Wotton
Room: 2
Chairperson: Rosa Lasaponara, Andrea Camia
13:30–13:45  EGU2011-14159  
Martin Wooster, Patrick Freeborn, Ronan Paugam, Gareth Roberts, Weidong Xu, Stefania Amici, and Tim Lynham  
Spectral Radiant Energy Emission Measurements of Vegetation Fires

13:45–14:00  EGU2011-13790  
Daniela Stroppiana, Mirco Boschetti, Pietro Alessandro Brivio, and Luigi Boschetti  
Mapping Areas Affected by Fires across Natural and Agricultural Ecosystems in Europe from Spectral Indices

14:00–14:15  EGU2011-12353  
Wilfrid Schroeder, Louis Giglio, Ivan Csizsar, Evan Ellicott, and Christopher Justice  
A look at 10 years of MODIS active fire data and the prospects for VIIRS

14:15–14:30  EGU2011-12734  
Panagiota Papakosta, Sebastian Andreas Neuvefeind, Steve Schaefer, and Daniel Straub  
A probabilistic model of the influence of weather, geography and humans on wildfire occurrences in the Mediterranean

14:30–14:45  EGU2011-4945  
Brian Lamb, Natalie Wagenbrenner, Jason Forthofer, Bret Butler, Kara Yedinak, Patrick O'Keefe, Dennis Finn, and Pete Robichaud  
Development and evaluation of high-resolution wind simulation tools to improve fire weather forecasts

14:45–15:00  EGU2011-9162  
Lasse Loepefe, Francisco Lloret, and Anselm Rodrigo  
Non-linear response of European fire size to weather conditions

Chairperson: Mario Pereira, Ricardo Trigo

15:30–15:45  EGU2011-14158  
Gernot Ruecker, Dieter Oertel, Eckehard Lorenz, Winfired Halle, Thomas Terzibaschian, Anja Hoffmann, and Joachim Tiemann  
High Resolution Active Fire Monitoring for Global Change Analysis by FireBIRD

15:45–16:00  EGU2011-11187  
Clemens Wastl, Christian Schunk, and Annette Menzel  
Climate change impact on meteorological forest fire danger in the Alpine Space

16:00–16:15  EGU2011-10500  
Guillermo Rein  
Climate Feedbacks on Smouldering Earth: Enchantment of Moisture deficit and self-heating of fossil and pre-fossil soils

16:15–16:30  EGU2011-12378  
Stefan Doerr and Richard Shakesby  
Do common fire-severity estimation parameters really tell us much about landscape susceptibility to enhanced hydrogeomorphological response?

16:30–16:45  EGU2011-9078  
Richard Dupont, Brad Pierce, John Worden, Johnathan Hair, Marta Fenn, Paul Hamer, Murali Natarajan and the ARCTAS Team  
Reconstructing ozone chemistry from Asian wild fires using models, satellite and aircraft measurements during the ARCTAS campaign

16:45–17:00  EGU2011-13996  
Andrea Camia, Jesús San-Miguel-Ayanz, Lara Vilar del Hoyo, and Tracy Durrant Houston  
Spatial and temporal patterns of large forest fires in Europe

NH7.3/ESSII22/SSS1.9 – Spatial and temporal patterns of wildfires: models, theory, and reality (co-organized) –  
Posters  
Convener: Rosa Lasaponara | Co-Conveners: Luciano Telesca, Jesus San Miguel, Andrea Camia, Ricardo Trigo, Mario Pereira, Mike Wotton  
Halls X/Y | Display Time 08:00–19:30  
Author in Attendance: 17:30–19:00  
Chairperson: Mike Wotton, Jesus San-Miguel, Luciano Telesca

XY584  EGU2011-341  
Ioannis Athanasiou, Dionisios Kalivas, George P. Petropoulos, and Vasiliki Kollias  
An intercomparison of burnt area estimates from key operational products: results from the analysis of Greek wildland fires

XY585  EGU2011-14153  
Facundo Oddi and Luciana Ghermandi  
Spatial structure of Fabiana imbricata shrublands in the NW Patagonia
XY586  EGU2011-1797
Silvia Merino-de-Miguel, Margarita Huesca, Alberto Setzer, Fabiano Morelli, Silvia de Jesús, and Federico González-Alonso
Spatial-temporal comparison between MODIS Burned Area and Thermal Anomalies Products during 2008 in Brazil

XY587  EGU2011-2726
Julian Campo, Vicente Andreu, Eugenia Gimeno-García, Oscar Gonzalez-Pelayo, and Jose Luis Rubio
Medium term changes in the structure and organic matter content of a Mediterranean Rendzic Leptosol affected by repeated fires of different severities

XY588  EGU2011-6388
Fortunato De Santis, Rosa Lasaponara, Antonio Lanorte, and Tiziana Montesano
Satellite based estimation of Aerosols from forest fire

XY589  EGU2011-6396
Emilio Chuvieco
Monitoring global burned area trends from European satellites: the ESA FIRE CCI Project

XY590  EGU2011-8762
Antonio Lanorte, Tiziana Montesano, Fortunato De Santis, and Rosa Lasaponara
Estimating burn severity and vegetation recovery using satellite MODIS data

XY591  EGU2011-6801
Fortunato De Santis, Rosa Lasaponara, and Antonio Lanorte
Integrating Remote Sensing, Topographic Factors and Outputs from Metereological Models for Real-Time Forest Fire Danger Estimation

XY592  EGU2011-7900
Fortunato De Santis, Rosa Lasaponara, and Antonio Lanorte
Estimating effectiveness of spectral index for burned area mapping

XY593  EGU2011-8799
Antonio Lanorte
A comprehensive overview on the use of satellite remote sensing to characterize and map fuel types

XY594  EGU2011-8208
Antonio Lanorte, Tiziana Montesano, Fortunato De Santis, and Rosa Lasaponara
Analysis of persistence in time series of VEGETATION data for monitoring burned areas

XY595  EGU2011-9909
Antonio Lanorte, Maria Danese, Beniamino Murgante, and Rosa Lasaponara
Cluster Analysis for burned areas detection

XY596  EGU2011-12706
Malik Amraoui, Carlos C.C. DaCamara, Teresa J. Calado, and Sofia L. Ermida
Maps of risk of fire over Mediterranean Europe

XY597  EGU2011-9936
Natalie Arndt, Harald Vacik, Alexander Arpaci, and Hartmut Gossow
Mapping areas susceptible to forest fire along the wildland urban interface in selected regions of the mountain forests in Austria

XY598  EGU2011-12615
Malik Amraoui, Margarida L.R. Liberato, Teresa J. Calado, Carlos C.C. DaCamara, Luis Pinto Coelho, and Ricardo M. Trigo
The impact of meteorological conditions on fire activity in Mediterranean Europe

XY599  EGU2011-13369
Stephan Seeling, Sascha Nink, and Henning Buddenbaum
Supporting pre-fire planning and canopy fuel parameters estimation employing a forest information system and remote sensing data

XY600  EGU2011-14001
Mário Pereira, Liliana Caramelo, and Ricardo Costa
Fire regime in Portugal: exploratory, trend and variability analysis

XY601  EGU2011-13993
Luís Carvalheiro, Guilherme Chagas, Maria Orgaz, Mário Pereira, Liliana Caramelo, and Yoshiro Yamazaki
Modelling forest fire weather risk in Continental Portugal

XY602  EGU2011-13989
Pedro Sousa, Ricardo Trigo, Mário Pereira, Célia Gouveia, and Liliana Caramelo
Modelling forest fire weather risk in Continental Portugal

XY603  EGU2011-13987
Pedro Sousa, Ricardo Trigo, Mário Pereira, Célia Gouveia, and Liliana Caramelo
Regionalising Iberia fire regimes and links with large-scale meteorological variability

XY604  EGU2011-13931
Nicolas Mari, Giovanni Laneve, Enrico Cadau, and Pablo Marzialetti
Fire damage assessment in Sardinia: the use of ALOS/PALSAR data for the management post fire affects
XY605  EGU2011-1494
Carmen D. Vega Orozco, Mikhail Kanevski, Marj Tonini, and Marco Conedera
Geostatistics for Forest Fires: from variography to geosimulations

XY606  EGU2011-6707
Emmanuel Da Ponte-Canova, Cristina Vega-Garcia, and Jesus Peman
On the relationship between wildfires and reforestations in Spain from 1988 to 2008

XY607  EGU2011-9659
hendri hendri and the Timothy LOH 2),?Ram S.TIWAREE 2) and Khiam Jin LEE 2) ?Han Soo LEE 3), and Takao YAMASHITA 3) Team
Towards an Integrated Fire Management Framework using Space-based Application in Asia and The Pacific

XY608  EGU2011-9769
Christian Schunk, Bernhard Ruth, Michael Leuchner, Clemens Wastl, and Annette Menzel
Methods for the automated in-situ measurement of dead fine fuel moisture dynamics

XY609  EGU2011-9470
Chris Eastaugh, Alexander Arpaci, and Harald Vacik
Methods of comparing fire danger indices

XY610  EGU2011-6490
Stephen Clandillon and the Hervé Yesou (1) Team
GMES Emergency Response - Fire mapping experience within EO-based Rapid Mapping

XY611  EGU2011-11992
Paolo Fiorucci, Luca Molini, and Antonio Parodi
Spatio-temporal relative humidity patterns and extreme wildfires in the Mediterranean

NH8.5 – Natural hazard impact on technological systems and urban areas – Orals
Convener: Elena Petrova | Co-Conveners: Elisabeth Krausmann, Maria Naranjo, Carla Arregoitia, Cecilia Tortajada
Room: 11
Chairperson: n.n.

10:30–10:45  EGU2011-1161
Elena Petrova
Accidents with oil releases in Russia: impact of natural hazards

10:45–11:15  EGU2011-12627
Christoph Kuells
Resilience of urban water supply systems to natural hazards and systemic risks

11:15–11:30  EGU2011-11435
Nina Frolova, Valery Larionov, and Jean Bonnin
Integrated risk assessment and management with information technology application

11:30–11:45  EGU2011-5885
Jeannette Sieber
Influence of extreme weather on electricity infrastructure and adaptation options - a GIS-based approach

11:45–12:00  EGU2011-5405
Tamás Lipovics, Sándor Czakó, and István Kelemen
Lessons learnt from the red sludge accident of 4 October 2010 in Ajka, Hungary

12:00–12:15  EGU2011-8149
Miranda Deda, Mattia Fiorini, Marco Massabò, and Roberto Rudari
A fugacity based approach to simulate pollutant fate and transport after floods

NH8.5 – Natural hazard impact on technological systems and urban areas – Posters
Convener: Elena Petrova | Co-Conveners: Elisabeth Krausmann, Maria Naranjo, Carla Arregoitia, Cecilia Tortajada
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: n.n.

XY612  EGU2011-2520
Boyko Rangelov
Nonlinearities in cost assessment of the natural hazards and some technological disasters mitigation techniques

XY613  EGU2011-10617
Pavel Doběš, Pavel Danhelka, Aleš Košták, and Pavel Hrdina
Proposal of the methodology for combined natural and technological risks identification and assessment

XY614  EGU2011-13947
Valentina Burova, Vera Pyrchenko, and Alexey Petrasov
The Map of Social Risk of Russia Caused by Flooding, Hurricanes, Landslides, Mudflows, and Avalanches
XY615  EGU2011-14066
Vera Pyrchenko and Valentina Burova
Algorithm of Calculation of Individual and Social Risk from Hazardous Natural Processes based on The Danger's Degree Map and Databases

XY616  EGU2011-13865
Sofia Gavrilova
Spatial and temporal distribution of natural disasters in Russia (1990-2009) and their influence on technological disasters

XY617  EGU2011-3035
Augusta-Diana Crisan, Alexandru Ozunu, Zoltan Torok, and Alexandru Vana
Vulnerability of critical infrastructure to natural hazards. Case study: Fire at hexane tank park damaged by earthquake

XY618  EGU2011-1284
Inna Balanuyuk, Anatoly Dmitrievsky, Boria Baranov, and Olga Chaikina
Geohazards Related with Engineering of Gas Pipelines in Gas Hydrate Fields of the Barents Sea

XY619  EGU2011-6356
Shan Wei and Guo Ying
Analysis of Subgrade Instability of Heihe-Beian Highway K177 +100- K179 +300 of China

XY620  EGU2011-10039
Elena Klimenko, Ludmila Kuksina, and Yaroslav Muravyev
Lahar danger for Kliuchevskoy volcano massif (Kamchatka)

XY621  EGU2011-10745
Aleš Košťáko, Pavel Danihelka, and Tomáš Mišíák
The discharge plume determination by conductivity measurements in Northern Moravia rivers towards industrial pollution detection.

XY622  EGU2011-11470
Attila Anton, József Szabó, Csaba Gyuricza, Péter László, László Radimszki, Sándor Köös, Nikolett Uzinger, Annamária Laborzci, Zsófia Bakacsi, and László Pásztor
Assessment of pedological impacts of Hungary's Red Mud Disaster

XY623  EGU2011-13659
Alejandro Linayo
Seismic microzoning applications for urban technological risk assessment in the city of Merida (Venezuela)

XY624  EGU2011-14075
Galina Postolenko
The River Valley Construction And Its Significance For Human Activity

XY625  EGU2011-435
Carla Arregoitia
Desalination and Natural Hazards

XY626  EGU2011-10162
Maria Naranjo
Climate change impact on hydraulic structures: Alcala de Henares and Mexico City

XY627  EGU2011-670
Carlos Uriarte Vega and Carlos A.Robles
The Problem of Water Treatment in Mexico City (Nezahualcoyotl)

XY628  EGU2011-10777
Agustin F. Breña
Monthly and annual dryness analysis in Mexico City

XY629  EGU2011-2302
Chun-Ying Chiu, Jyr-Ching Hu, and Jihn-Sung Lai
Reactivation of the Shanchiao Fault and its Implication to the Variation of Landforms in Taipei Basin

XY630  EGU2011-421
Ojilve Ramon Medrano Perez
Synergy water and energy to a natural disaster: a challenge of sustainability in large cities.
EGU2011-13672
**Eve Arnold**, Friedrich Barnikel, Jean-Luc Berenguer, Anita Bokwa, Angelo Camerlenghi, Francesca Cifelli, Francesca Funiciello, Carlo Laj, Stephen Macko, Annegret Schwarz, Phil Smith, Herbert Summesberger and the Eve Arnold Team
Geoscience Information For Teachers (GIFT) Workshops at the European Geoscience Union

EGU2011-1044
**Alain Sarkissian** and Jan Borm
International Master Arctic Studies at Versailles University

EGU2011-1558
**Roberto Greco**
1st edition in Europe of International Earth Science Olympiad

EGU2011-2238
**Carla Cardano** and Ambra Boscaro
Walking on a carpet of stars under the moonlight

EGU2011-2309
**Jean-Luc Berenguer**, Françoise Courboulex, and Audrey Tocheport
Tuned in to the Earth from the classroom with 'Sismos à l'Ecole'

EGU2011-2319
**Silvia Elisabeth Moraes**
Building interdisciplinary thinking through thematic projects

EGU2011-2536
**Antoni Cassany**
Biodiversity around us: El Saler (Valencia)

EGU2011-3106
**Pierluigi Stroppa**
Complexity pays

EGU2011-3130
**Fulvia Bradassi**, Francesco Cumani, and Guido Bressan
Ocean Acidification: a school experiment

EGU2011-3137
**Paul Denton** and Aoife O'Mongain
School Seismology Experiences in the UK

EGU2011-3153
**Dario Carrea**, Marc-Henri Derron, and Michel Jaboyedoff
Raising awareness of children for landslide hazard using analogical sand box simulation

EGU2011-3251
**Paul Pillot**
Crystallographic models make geology clear

EGU2011-4087
**Niklas Wästeby**
Research School for Teachers, an example from Sweden

EGU2011-4108
**Paola Arcaleni**
Amphibians extinction risk A new learning and teaching methodology to preserve Biodiversity

EGU2011-4176
**Filippo Camerlenghi**, Lezzani Giacomo, and Pasquare’ Federico Aligi
Assessing the effectiveness of the GIFT Strategy: A BSc Dissertation on the 2010 Workshop

EGU2011-4257
**Sandrine Gayrard**
Oceanides Project - from Venus to Neptune, oceanographic buoys

EGU2011-4427
**Dandrey Guillaume**
The ‘Phylogen

EGU2011-4856
**Julie Boyle**
Practical Lessons Based on Seismology and Meteorology

EGU2011-5725
**Michaela Poppe**, Andreas Zitek, Michael Stelzhammer, Bert Bredeweg, and Susanne Muhar
How can we increase causal and structural system understanding in environmental science education? First evaluation results of a conceptual modelling software (DynaLearn) in Austria

EGU2011-7427
**Gerda Holzapfel** and Florin Florineth
WASsERLEBEN - High school students, teachers, students and scientists together in action

EGU2011-8260
**Isabella Marini**
Ferments of Life: barley, saliva and the enzyme idea.
A segment of purine metabolism: an experimental tool for important biochemical concepts.

Stress response and evolution

Teaching Geosciences at the Children's University Vienna and the Vienna Natural History Museum

Microbiology in practice: Are there really any live and active bacteria cultures in yogurts?

Laurence Durand and Aline Desmorat

Darwin, the man who dared! Science and history project

Selection and preparation of a national team for International Earth Science Olympiads (IESO): the Italian case

Bringing the Ocean closer: an example of how to bind Research and Education and Outreach

Training Communication and Method Skills to Enrich Scientific Education

BIOVALLEY: COLLEGE NETWORK (BCN): Trinational Network to Intensify the Teaching of Natural Science at Gymnasium Level in the trinational region near Basel

Enhancing Oceanography understanding with the experiences of "Captive Oceans"

A didactic model of a mountain glacier

A charter about the good use of water made by 2 classes of 13 years old pupils

Geology in school

Teaching climate effects on plant growth in primary schools of rural areas

Puzzle Universe

Defining geotopes as educational tools in Earth Sciences: their use, valuation and protection

New Collaborative Strategies for Bringing the Geosciences to Students, Teachers, and the Public: Progress and Opportunities from the National Earth Science Teachers Association and Windows to the Universe

Engaging the K-12 community in Adelie Penguin and climate change research using the internet to provide a virtual field trip to Cape Royds, Ross Island, Antarctica.

Climate literacy for upper primary teachers
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<td>John Moore</td>
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<td>XL47</td>
<td>GRUVEE Broad Impacts: Elements of a Successful Teacher at Sea Experience</td>
<td>Buffy Cushman-Patz</td>
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<td>Portuguese &quot;Teacher on Board&quot;</td>
<td>Beatriz Oliveira and Raquel Costa</td>
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<td>Elisabeta Niculescu</td>
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<td>Geoschools - Teaching geosciences in secondary schools</td>
<td>Georgia Fermeli, Fritz Steininger, Guillermo Meléndez, Michael Dermitzakis, Amelia Calonge, Carolina D’Arpa, Carolina Di Patti, Anastasia Koutsouveli, Carlos Neto de Carvalho, and Joana Rodrigues</td>
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<td>XL52</td>
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<td>Philippe Alleris</td>
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<td>Combining virtual and real field environments using Google Earth to engage both teachers and students in polar science</td>
<td>Laura Lukes</td>
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<td>The Teacher Scientist Network - best practice in local partnerships</td>
<td>Phil Smith and Carol Hince</td>
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<td>Investigative project: Evolution</td>
<td>Francisca Guerola and Alicia Miralles</td>
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<td>XL56</td>
<td>Science CLIL - water and marine ecosystem</td>
<td>Costantina Cossu</td>
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**NH9.8 – Risk management in a changing world considering spatio-temporal variability – Orals**

Convener: Christoph Aubrecht | Co-Conveners: Jean-Philippe Malet, Sérgio Freire, Sven Fuchs, Thomas Glade, Clemens Neuhold, Cees van Westen

Room: 2
Chairperson: C. Aubrecht, J.-P. Malet

- 08:30–08:45 EGU2011-11881 Paola Mercogliano, Emilia Damiano, Edoardo Bucchignani, and Lucio Olivares
  Prediction of shallow landslides in pyroclastic soils due to climatic changes in the Mediterranean area
- 08:45–09:00 EGU2011-7960 Dan Balteanu, Mihai Micu, Viorel Chendes, Dana Micu, Mihaela Sima, and Carmen Dragota
  Environmental change and natural hazards in Vrancea Seismic Region
- 09:00–09:15 EGU2011-5668 Monique Fort, Etienne Cossart, and Gilles Arnaud-Fassetta
  Natural hazards, road development, increased vulnerability and risks in the Nepal Himalayas
- 09:15–09:30 EGU2011-4079 Marc Wieland, Massimiliano Pittore, Stefano Parolai, and Jochen Zschau
  Rapid multi-scale assessment of seismic vulnerability: an integrated approach based on multi-source imaging
- 09:30–09:45 EGU2011-13693 Sergio Freire and Christoph Aubrecht
  Advanced Tsunami Risk Assessment through Integration of Temporal Aspects in Population Exposure Modeling
- 09:45–10:00 EGU2011-5912 Leonardo Garrido
  Incorporating Spatio-Temporal Variability in Earthquake Socio-Economic Impact Modeling
NH9.8 – Risk management in a changing world considering spatio-temporal variability – Posters
Convener: Christoph Aubrecht | Co-Conveners: Jean-Philippe Malet, Sérgio Freire, Sven Fuchs, Thomas Glade, Clemens Neuhold, Cees van Westen

Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 13:30–15:00
Chairperson: S. Fuchs, C. Neuhold

XY631 EGU2011-1255
Sven Fuchs, Sergey Sokratov, Yuri Seliverstov, Yulia Zaika, and Alexander Shnyparkov
Spatiotemporal avalanche risk modelling in heavily industrialised arctic regions

XY632 EGU2011-2470
Toshihiro Osaragi
Spatiotemporal Distribution of Railroad Users with Difficulty in Returning Home after a Devastating Earthquake

XY633 EGU2011-13239
Christoph Aubrecht, Sérgio Freire, Josef Fröhlich, Beatrice Rath, and Klaus Steinnocher
Time Dependency of Risk Governance Elements - Seeing Foresight and Prediction in a Disaster Management Context

XY634 EGU2011-10928
Clemens Neuhold and Hans Peter Nachtnebel
Integrating regional development to flood risk assessment

XY635 EGU2011-10979
Clemens Neuhold and Hans Peter Nachtnebel
Assessing prospective flood risk - case studies from Austria

XY636 EGU2011-9990
Holger Cammerer and Annegret Thieken
Land use scenarios for flood risk analyses

XY637 EGU2011-3162
Kalliopi Sapountzaki
Individual systems managing own (and others’) vulnerability to hazards by means of resilience

XY638 EGU2011-4240
José Manuel Marrero, Alicia García, Ángeles Linares, and Ramón Ortiz
The Mitigation Effort Index (MEI), A new concept to asses the social and political factors in establishing risk levels. Application to volcanic risk.

XY639 EGU2011-5538
Ting-Chi Tsao, Wen-Chun Lo, Chen-Yu Chen, Ching-Tung Cheng, and Shu-Yeong Chi
The Evaluation of Debris Flow Risk Management Effectiveness in Taiwan - Using F-N Curve as a Tool

XY640 EGU2011-12896
Laura López, Sergio Acosta, Eduardo García-Ortega, José Luis Sánchez, and Andrés Merino
An evaluation of the social perception of meteorological risks in Castile-León

XY641 EGU2011-3488
Yvonne Schaub, Wilfried Haebeler, Christian Huggel, Matthias Künzler, and Michael Bründl
New lakes in de-glaciating alpine areas: addressing current and future risks from impulse waves due to rock/ice avalanches

XY642 EGU2011-9974
Alexandre Remaitre and Jean-Philippe Malet
Assessing the influence of climate change on rainfall patterns associated to landslide and debris flow triggering in the South French Alps

XY643 EGU2011-5600
Cees van Westen, Dinand Alkema, Janneke Ettema, and Sabine Maresch
CHANGES project: Changing Hydro-meteorological Risks - as Analyzed by a New Generation of European Scientists

XY644 EGU2011-9841
Christoph C. Raible, Sabine Kleppek, Mark Wüest, David N. Bresch, Akio Kitoh, Hiroyuki Murakami, and Thomas F. Stocker
Atlantic Hurricanes and Associated Insurance Loss Potentials in Future Climate Scenarios

XY645 EGU2011-9413
Michael Hagenlocher and Stefan Lang
A spatial meta-indicator for identifying and evaluating hotspots of climate-related drivers for conflict and migration in the Sahel

XY646 EGU2011-8582
Christian Hoffmann
Vulnerability and climate change fitness in mountain areas - an investigation of hazard zone planning in the Autonomous Province Bolzano South Tyrol

NH9.12 – Novel approaches for combining social and natural science data sets in environmental research – Posters
XY647  EGU2011-2029  
Tianduowa Zhu and Maurits Ertsen  
New interdisciplinary approaches for understanding ancient irrigation

XY648  EGU2011-2619  
Vasileios Markantonis and Volker Meyer  
A comprehensive methodological framework for valuating the intangible effects of the natural hazards.

XY649  EGU2011-4796  
Louise Bracken and Elizabeth Oughton  
Issues of combining social and physical science methodologies

XY650  EGU2011-6692  
Christopher (Kit) Macleod  
Lessons learned and future needs for integrative studies

XY651  EGU2011-7702  
Gemma Carr, Robert Potter, and Stephen Nortcliff  
The benefits and challenges of an interdisicplinary approach for understanding soil sustainability hazards from irrigation with reclaimed water

XY652  EGU2011-10106  
Karen Sudmeier-Rieux, Stephanie Jaquet, Marc-Henri Derron, and Michel Jaboyedoff  
New approach to an old problem: understanding coping strategies for reducing landslide risk in Central Nepal

XY653  EGU2011-11290  
Katie Oven, Nick Rosser, Samantha Jones, Alex Densmore, Dave Petley, Lena Dominelli, and Jonathan Rigg  
Building rural resilience in seismically active regions: Combining local and outside knowledge for effective risk reduction

XY654  EGU2011-11712  
Jeremy Phillipson  
Why social scientists should engage with natural scientists?

XY655  EGU2011-11795  
Corinna Lüthje, Mike Schäfer, and Jürgen Scheffran  
Limits to the Anthropocene. What are the challenges and boundaries of science for the post-normal age?

XY656  EGU2011-13509  
Esther Julia Olaya.  
Miguel Barrios. Héctor Cárdenas, Henry Garzón, and Miguel Thomas  
Assessing perception of debris flood risk in the village of Villa Restrepo, Colombia
Wednesday, 06 April

**EOS04 – Contemporary Education in a Changing World (co-listed) – Orals**
Convener: Ana María 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 Pajtób-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 Maria 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 Fragiacomo, 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**
Convener: Ana María 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
**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
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

hossien sharifan
Investigation of Equations for Actual ET in Salinity Conditions (wet Climate)

Maria Angeles Mendiola and Pedro Luis Aguado
Implementation of one course in the Open Course Ware from of Polithecnic University of Madrid, Spain. (OCW-UPM)

M Dolores Redel Macías, Ramón Lara Raya, and Encarnación Taguas
Collaborative learning in electronic engineering

Gabriel Gasco, José Manuel Fidalgo, and Ana Méndez
Advances in the organic waste management: Links between research, society and education

hossien sharifan
Teaching Actual Evaluation of Tomato by Epan In Wet Climate

hossien sharifan
Evaluation of Salinity effect on Water Temperature In Wet Climate

Augusto Arce, Ana Maria Tarquis, Javier Caniego, Jesus Vazquez, Augusto Serrano, and Maria Carmen Cartagena

Janos Mika, Ildiko Dobi, and Anett Ivady
Circulation conditions of strong heat island in Budapest, with applications in weather forecasting and climate impact studies

Jose M Anton, Juan B Grau, Ana M Tarquis, Rubén Moratiel, Silvia Medina, Fabregat Joaquín, 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 of Madrid

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

Eva Vidal Vázquez and Jorge Paz-Ferreiro
The role of soil classification in basic soil science disciplines

Eva Vidal Vázquez, Rafael Montanari, and Jorge Paz-Ferreiro
Darwin's contribution to Soil Biology

María José Polo, Marta Egüen, and Cristina Aguilar
Content structure and program development in Transport and mixing in fluid flow

Emilio Camacho, Sergio Castro, Alfonso García-Ferrer, Rosa Gallardo, Blanca Pizarro, and Encarnación Taguas
Exploring the “employability expectations

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 Schifers
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

15:30–15:45  EGU2011-8914  
Albrecht Weerts and Peter Gijsbers  
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  
Elfi Toufoula-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 Dorninger, Christoph Hegg, Andrea Montani, and Roberto Ranzi  
Uncertainty propagation for flood forecasting in the Alps: Different views and impacts from MAP D-PHASE

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**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 Schiffer

**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 Seinistra
High Performance Isosurface Extraction Implementations for Hydrometeorological Data Visualization

XY291  EGU2011-13782  
Luca Ferrari, 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 Cotelo Queijo
Exploiting the FinisTerrae supercomputer to improve the characterization of spatio-temporal predictability of severe weather events

XY296  EGU2011-13784  
Antonio Parodi, Dieter Kranzlmueller, Andrea Clematis, Michael Schiffer, 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

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 Payrastre, 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, Olga 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 Trinic
Contribution to the low streamflow hydrological analysis of the Sava River in Croatia

A212  EGU2011-5496
Mihael Bren?i? 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 Degré
Statistical analysis of low-flow based on short time series. The case of Wallonia

A215  EGU2011-6987
Dagmar Stojkovová
Utilization of the local minimum method for assessment of groundwater runoff development and drought occurrence in Topla and Ondava River catchments, Eastern Slovakia
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<td>A216</td>
<td>Ageel Bushara, Mekonnen Gebremichael, Riccardo Rigon, and Tagreed Abdelrahim</td>
<td>Time series analysis of 44 years of daily-observed flows of the Nile River</td>
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<td>A217</td>
<td>Mehmet C. Demirel and Martijn J. Booij</td>
<td>Low flow forecasting with a lead time of 14 days for navigation and energy supply in the Rhine River</td>
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<td>A218</td>
<td>Benjamin Renard and the EXTRAFLO project Team</td>
<td>Comparing frequency analysis approaches: a data-based methodological framework.</td>
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<td>A219</td>
<td>Giuseppe Rossi and Enrica Caporali</td>
<td>Regional statistical analysis of rivers low flow</td>
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<td>A221</td>
<td>Chiara Bocci, Enrica Caporali, and Alessandra Petrucci</td>
<td>Understanding rainfall extreme values in Tuscany (Italy)</td>
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<td>A223</td>
<td>Chandra Kiran B Krishnamurthy, Christina Karamperidou, Francesco Ciolfi, and Upmanu Lall</td>
<td>Space-time structure of extreme precipitation in Europe over the last century: a climate perspective.</td>
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<td>A224</td>
<td>Cristina Andrade, João A. Santos, Joaquim G. Pinto, and João Corte-Real</td>
<td>The hydrological impacts and large-scale atmospheric dynamics of the 2009-10 wet winter in Portugal</td>
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<td>A225</td>
<td>Barbara Kerek, Laszlo Kuti, and Tamas Muller</td>
<td>Agrogeological effects of drought vulnerability</td>
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<td>Pierre Brigode, Pietro Bernardara, Emmanuel Paquet, Joël Gailhard, Pierre Ribstein, and Ralf Merz</td>
<td>Complete application of the SCHADEX method on an Austrian catchment: extreme flood estimation on the Kamp river</td>
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<td>A227</td>
<td>Miriam Fendekova, Marian Fendek, and Milos Gregor</td>
<td>Base flow drought index</td>
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<td>A228</td>
<td>Andrej Machlica, Oliver Horvat, Milos Gregor, and Miriam Fendekova</td>
<td>Comparison of base flow estimation using two hydrological models and some hydrological programs in the terms of groundwater drought assessment</td>
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<td>A229</td>
<td>Wai Kwok Wong, Stein Beldring, Torill Engen-Skaugen, Ingrid Haddeland, and Hege Hisdal</td>
<td>Climate change effects on summer droughts in Norway</td>
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<td>A230</td>
<td>Hironori Inomata, Kuniyoshi Takeuchi, and Kazuhioko Fukami</td>
<td>Comparison of MRI-AGCM precipitation outputs with observed precipitation as a basis for the prediction of future extreme precipitation in Asian region</td>
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<td>A231</td>
<td>Lev Kuchment and Alexander Gelfan</td>
<td>Coupling of probabilistic and deterministic approaches for assessment of extreme flood risk</td>
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<td>A232</td>
<td>Wojciech Jakubowski</td>
<td>Application of 3-dimensional copula in the estimation of low flow extremes</td>
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<td>A233</td>
<td>Tamara Tokarczyk and Wiwiana Szalik?ska</td>
<td>The concept of the operational drought hazard assessment scheme</td>
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<td>A234</td>
<td>Nathalie Bertrand and Jan Polcher</td>
<td>Droughts in the Twentieth Century: Spatial and temporal patterns of Soil moisture variations at large surface scheme</td>
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Clorinda Cortis, Montaldo Nicola, Saba Andrea, and Albertson John D
On the estimation of the design flood of the Rio Mogoro dam in Sardinia

Jesus López and Félix Francés
Possible influence of large-scale climate indices on the variability of maximum streamflow in rivers of Peninsular Spain

Kwok Pan Chun, Howard S Wheater, and Christian J Onof
Non-stationary extreme rainfall estimation for the UK

Thierry Leviandier
A probabilistic definition of a characteristic duration of floods relevant for the transformation of rainfall distribution to flood distribution

Chi Cong Nguyen, Eric Gaume, and Olivier Payrastre
Incorporation of information on extreme floods in regional flood frequency analyses: some methodological reflections.

Laszlo Kuti and Barbara Kerek
The effect of aridity on the soil-parent material-groundwater system in the Danube-Tisza Interfluwe

Ignazio Giuntoli, Benjamin Renard, and Antoine Bard
Low flow trends in France: analysis of 236 undisturbed catchments over 40 years

Jan Kocum, Bohumír Janský, Julius řešák, and Jakub ?urda
Potential reduction of hydrological extremes in headwaters: case study of upper Vltava River basin, Czechia

Francesco Laio
Linear estimation of design values

GMPV12/NH2.4 – Measuring and modelling of volcano eruption dynamics (including 2011 Robert Wilhelm Bunsen Medal Lecture) (co-organized) – Orals
Convener: Tim Druitt | Co-Conveners: Olgeir Sigmarsson, Donald B. Dingwell, Augusto Neri, Ulrich Kueppers, Fred Witham
Room: 20
Chairperson: F. Witham

08:30–08:45 EGU2011-2782
Hiroshi Shinohara
Volcanic degassing by conduit magma convection: Links and gaps to magmatic volatiles

08:45–09:00 EGU2011-4022
Frances Beckett, Mike Burton, Heidy Mader, Jeremy Phillips, Margherita Polacci, Alison Rust, and Fred Witham
Exchange flow experiments and implications for degassing processes at basaltic volcanoes

09:00–09:15 EGU2011-12680
Fred Witham, Jeremy Phillips, and Heidy Mader
Modelling Volcanic Melt Inclusions and Gas Compositions and Periodicities from Fluid Mechanical and Petrological Experiments

09:15–09:30 EGU2011-12727
Zachary Atlas, Jeffrey Ryan, and Jacqueline Dixon
Multi-stage degassing and volatile flux at Masaya Volcano, Nicaragua

09:30–09:45 EGU2011-5904
Elisabetta Del Bello, Edward W. Llewellyn, Jacopo Taddeucci, Piergiorgio Scarlato, and Steve J. Lane
Magma drainage around rising gas slugs and burst overpressure in Strombolian eruptions

09:45–10:00 EGU2011-8309
Mark Thomas and Jurgen Neuberg
Explaining multiple active seismic sources in ascending magma

COFFEE BREAK

Chairperson: T. Druitt
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<td>10:30–11:30</td>
<td>EGU2011-14176</td>
<td>Interactions between small scale processes and large scale dynamics in pyroclastic density currents (Robert Wilhelm Bunsen Medal Lecture)</td>
<td>Michael Manga and Josef Dufek</td>
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<td>11:45–12:00</td>
<td>EGU2011-2035</td>
<td>Mobility of Pyroclastic Flows</td>
<td>Bruno Cagnoli and Giovanni Paolo Romano</td>
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**LUNCH BREAK**

Chairperson: A. Neri

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<tr>
<td>13:45–14:00</td>
<td>EGU2011-13388</td>
<td>Pulsating activity during the 2010 summit eruption of Eyjafjallajökull: Correlation of eruptive style, plume height, deformation, seismicity, earthquake tremor and chemical evolution of eruptive products</td>
<td>Freystein Sigmundsson, Magnús Tumi Gudmundsson, Thor Thordarson, Sigrún Hreinsdóttir, Sigurlaug Hjaltadóttir, Kristín Vogflóð, Olgeir Sigmarsson, Póra Árnadóttir, Andy Hooper, and Póður Arason</td>
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<tr>
<td>14:00–14:15</td>
<td>EGU2011-12403</td>
<td>Simulating and observing Icelandic ash cloud movements toward Italy</td>
<td>Claudia Spinetti, Sara Barsotti, M. Fabrizia Buongiorno, Luca Nannipieri, and Augusto Neri</td>
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<td>14:15–14:30</td>
<td>EGU2011-3069</td>
<td>Modelling unsteady volcanic eruption columns and vulcanian eruption columns</td>
<td>Matthew Scase, Peter Holland, and Jeremy Phillips</td>
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<td>14:30–14:45</td>
<td>EGU2011-5050</td>
<td>How to integrate petrology and magma process time scales with geophysical and geochemical volcano monitoring data?</td>
<td>Fidel Costa</td>
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<td>14:45–15:00</td>
<td>EGU2011-12622</td>
<td>Time scales of magma mingling during the 2010 eruption of Eyjafjallajökull, Iceland</td>
<td>Olgeir Sigmarsson and Michel Condomines</td>
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Chairperson: U. Kueppers

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<tr>
<td>15:30–15:45</td>
<td>EGU2011-13980</td>
<td>Volcanic ash from Halema'uma'u Kilauea in 2008: sensitive indicators of near surface process</td>
<td>Bruce F Houghton, Lauren A Swavely, Don A Swanson, and Rebecca J Carey</td>
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<td>15:45–16:00</td>
<td>EGU2011-5990</td>
<td>Aggregation control on ash sedimentation from the Eyjafjallajökull volcanic cloud: insights from field and laboratory high-speed imaging</td>
<td>Jacopo Taddeucci, Piergiorgio Scarlato, Cristian Montanaro, Corrado Cimarelli, Elisabetta Del Bello, Carmela Freda, Daniele Andronic, Magnus Tumi Gudmundsson, and Donald Bruce Dingwell</td>
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<td>16:00–16:15</td>
<td>EGU2011-12157</td>
<td>Volcanic Ash versus Turbine Ingestion Test Sands: Thermal Stability Experiments</td>
<td>Kai-Uwe Hess, Ulrich Kueppers, Corrado Cimarelli, Donald Bruce Dingwell, David S Rickerby, and Paul Madden</td>
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<td>16:30–16:45</td>
<td>EGU2011-13395</td>
<td>Whole deposit grain size for the tephra of the 2004 Grímsvötn eruption, Iceland.</td>
<td>Thorvaldur Thordarson, Tanya Jude-Eton, Björn Oddsson, and Magnús Guðmundsson</td>
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<td>16:45–17:00</td>
<td>EGU2011-3634</td>
<td>LiDAR derived morphology of the 1993 Lascar pyroclastic flow deposits: implications for flow dynamics and rheology</td>
<td>David Jessop, Karim Kelfoun, Philippe Labazuy, Olivier Roche, and Anne Mangeney</td>
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### GMPV12/NH2.4 – Measuring and modelling of volcano eruption dynamics (including 2011 Robert Wilhelm Bunsen Medal Lecture) (co-organized) – Posters

**Convener:** Tim Druitt | **Co-Conveners:** Olgeir Sigmarsson, Donald B. Dingwell, Augusto Neri, Ulrich Kueppers, Fred Witham

**Hall A | Display Time 08:00–19:30**

**Author in Attendance:** 17:30–19:00

**Chairperson:** T. Druitt

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<td>A156</td>
<td>EGU2011-2783: Conduit magma convection of a rhyolitic magma: Constraints from cosmic-ray muon radiography of Satsuma-Iwojima, Japan</td>
<td>Hiroshi Shinohara and Hiroyuki Tanaka</td>
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<td>A157</td>
<td>EGU2011-3964: Magmatic convection in a volcano conduit.</td>
<td>Nadezhda Ivanova and Melnik Oleg</td>
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<td>A158</td>
<td>EGU2011-13315: Permeability Development in Volcanic Conduits during Persistent Degassing</td>
<td>Jeremy Phillips and Julius Baghdadi</td>
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<td>A159</td>
<td>EGU2011-13428: Magma Evolution due to Degassing and Circulation in Persistently-Active Volcanic Systems</td>
<td>Jeremy Phillips and Fred Witham</td>
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<td>A160</td>
<td>EGU2011-4253: Dissection of crystal bearing melts rheology</td>
<td>Benoit Cordonnier, Michael Manga, and Boris Kauss</td>
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<td>A161</td>
<td>EGU2011-4268: Source parameters of eruptions generated by rapid decompression of volcanic rocks</td>
<td>Alejandra Arciniega-Ceballos, Miguel Alatorre-Ibargüengoitia, Bettina Scheu, Donald B Dingwell, and Hugo Delgado-Granados</td>
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<td>A163</td>
<td>EGU2011-6985: High speed imaging of geysers as an analogue to Strombolian eruptions</td>
<td>Elisabetta Del Bello, Jacopo Teddeucci, Piergiorgio Scarlato, Daniele Andronico, Corrado Cimarelli, and Carmela Freda</td>
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<td>A164</td>
<td>EGU2011-10296: Laboratory Studies of Volcanic Explosion Earthquakes</td>
<td>Rosanna Smith, Bettina Scheu, Yan Lavallee, Philip Benson, Sandra Karl, and Donald Dingwell</td>
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<td>A165</td>
<td>EGU2011-8574: Noble gases signature of mantle beneath Stromboli (Aeolian Islands, Italy), as inferred from fluid inclusions investigation in mafic phenocrysts from HP-LP products and from ultramafic xenoliths</td>
<td>Andrea Rizzo, Mauro Martelli, Alberto Renzulli, Filippo Ridolfi, and Alberto Rosciglione</td>
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<td>A166</td>
<td>EGU2011-8586: Complex degassing processes at Mt Etna as inferred by the geochemistry of peripheral and crateric gas discharges</td>
<td>Antonio Paonita, Antonio Caracausi, Mauro Martelli, and Andrea Rizzo</td>
</tr>
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<td>A169</td>
<td>EGU2011-9085: Internal overpressure and bedrock fluid-pore pressure conditions for failure around an inflating magmatic chamber: insight from hydromechanical elasto-plastic models</td>
<td>Muriel Gerbault and Frederic Cappa</td>
</tr>
<tr>
<td>A171</td>
<td>EGU2011-7705: Textural and compositional features of ash erupted between 18 and 22 May 2010 from Eyjafjallajökull</td>
<td>Daniele Andronico, Piergiorgio Scarlato, Corrado Cimarelli, Elisabetta Del Bello, Carmela Freda, Valeria Misiti, and Jacopo Teddeucci</td>
</tr>
</tbody>
</table>
A172  EGU2011-661
Emma Gatti, Hema Achyuthan, Adam J. Durant, Vishwas S. Kale, Saidin Mokhtar, and Clive Oppenheimer
Insights into the Toba Super-Eruption using SEM Analysis of Ash Deposits.

A173  EGU2011-9440
Eruption and emplacement dynamics of a cinder cone named Karniyarik Tepe in Cappadocia region (Turkey).

A174  EGU2011-9785
Pierre Delmelle, Paul Ayris, Sam Shutkever, and Donald Bruce Dingwell
SO2 and HCl scavenging by ash at high temperature in volcanic eruption plumes: insights from laboratory experiments

A175  EGU2011-12230
Fabien Albino, Virginie Pinel, Hélène Massol, and Marielle Collombet
Conditions for detection of ground deformation induced by conduit flow

A176  EGU2011-11999
Ulrich Kueppers, Bernhard Auer, Corrado Cimarelli, Teresa Scolamacchia, and Donald Bruce Dingwell
Experimentally constraining the boundary conditions for volcanic ash aggregation

A177  EGU2011-6365
Tim Drutt, Etienne Deloule, Fidel Costa, Mike Dungan, and Bruno Scaillet
Reservoir growth through mixing of different silicic magma batches prior to the Minoan eruption of Santorini

NH3.5 – Advanced methods in landslides research II: modelling – Orals
Convener: Giulio G.R. Iovine | Co-Conveners: Denis Cohen
Room: 1
Chairperson: G. Iovine and D. Cohen

08:30–08:45  EGU2011-3127
Dave Milledge, Vaughan Griffiths, Jeff Warburton, and Stuart Lane
Can we use the infinite slope model within catchment scale landslide models given its landslide length assumption?

08:45–09:00  EGU2011-12758
Zhina Liu and Hemin Koyi
Monitoring internal deformation of unstable cohesionless slopes: insights from DEM modeling

09:00–09:15  EGU2011-8803
Peter Lehmann and Dani Or
Emergence of power law for frequency-magnitude statistics of shallow landslides based on Self-Organized Criticality hydro-mechanical model

09:15–09:30  EGU2011-2060
Natan Micheletti, Loris Foresti, Mikhail Kanevski, Andrea Pedrazzini, and Michel Jaboyedoff
Landslide Susceptibility Mapping Using Adaptive Support Vector Machines and Feature Selection

09:30–10:00  EGU2011-4205
Shiva P. Pudasaini
A General Two-Fluid Debris Flow Model

NH3.5 – Advanced methods in landslides research II: modelling – Posters
Convener: Giulio G.R. Iovine | Co-Conveners: Denis Cohen
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: G. Iovine and D. Cohen

XY299  EGU2011-63
Mohamed Mastere, Brigitte Van Vliet - Lanoë, and Lahsen Ait Brahim
Mass Movements Susceptibility Assessment Using a “Logistic Regression

XY300  EGU2011-900
Diana Salciarini, Claudio Tamagnini, and Pietro Conversini
A simplified approach for rainfall-induced shallow landslide and debris flow hazard assessment

XY301  EGU2011-1532
Valentina Svalova
Modeling and Monitoring for Landslide Processes

XY302  EGU2011-2364
Deniz Oz, Ugur Dogan, Semih Ergintav, and Alpay Belgen
Monitoring of Landslide Deformation with GPS and Kalman Filter in Avcilar District of Istanbul, Turkey
Preliminary results of laboratory experiments on substratum roughness, grainsize and volume influence on the motion and spreading of large rock avalanches

Integrated magnitude-frequency analysis of real mass movements with synthetic prototypes generated by slope stability simulator

Suitability of simple rheological laws for the numerical simulation of long-runout volcanic avalanches

I-MOD3D: an integrated tool for hydrologic and stability analysis of steep-slopes in shallow pyroclastic deposits

The Hornbergl-Rockslide: 25 years of Monitoring - Space-Time Geostatistics and Visualization of Results

Numerical runout-simulation of small debris avalanches in the Faroe Islands by use of DAN3D

Grain-scale Precursor Events during Shallow Landslide Initiation using a Stick-Slip Fiber Bundle Model

Analytical box simulations for detection of pre-failure deformation with 3D Digitizer

Theoretical interpretation of behaviour of a new rheometer for mud and debris flows

Landslide shape modeling from field cartography

Landslide hazard assessment in urban areas - a case study in Lisbon County (Portugal)

Landslide hazard in Roman Urban Area

Landslide hazard assessment in urban areas - a case study in Lisbon County (Portugal)

Satellite time series analysis for landslide hazard assessment. A case study in the Breaza administrative, Prahova County, Romania

Land cover trajectories and their impact on slope stability in the Ecuadorian Andes

Landslide occurrence frequencies and susceptibility assessment, Machu Picchu, Peru

Coupling 3D GIS-based modelling and field methods to evaluate landslide hazard predisposition

Landslide hazard assessment in urban areas - a case study in Lisbon County (Portugal)

Landslide hazard in Roman Urban Area

Probabilistic Rockfall Hazard Analysis

Chairperson: Paola Reichenbach
XY314  EGU2011-13557
Lucia Silva, João Araújo, and Nelson Fernandes
The Effects of Vegetation Changes in the Spatial Distribution of Landslides in Southern Brazil

XY315  EGU2011-10231
Jan Blahut, Clemens Pfurtscheller, and Jan Klimes
Estimation of losses from landslides - a review of current approaches

XY316  EGU2011-5118
Cristina Henriques and José Luís Zêzere
Landslide inventories and susceptibility evaluation: a comparison between aerial-photo interpretation and field survey data

XY317  EGU2011-11788
Mathieu Fressard, Yannick Thiery, and Olivier Maquaire
Landslide susceptibility assessment by logistic regression in the Pays d’Auge plateau (Normandy, France): improvement of a procedure in a hilly valley context

XY318  EGU2011-11862
Tamar Tsamalashvili, Mathieu Fressard, Genadi Tvaouri, Yannick Thiery, Olivier Maquaire, and Tamaz Cheliz
Landslide susceptibility mapping at large scale over Georgia using heuristic model

XY319  EGU2011-10073
Meei-Ling Lin and Sheng-Chi Lin
Using conditional probability method for estimation of landslide occurrence probability

XY320  EGU2011-4742
Aldina Piedade, José Luís Zêzere, Cristina Henriques, Pedro Sevinate Pinto, Susana Pereira, and Raquel Melo
Assessment and validation of landslide susceptibility in different geomorphological environments in Portugal

XY321  EGU2011-4655
Clémence Guillard and José Luís Zêzere
Landslide susceptibility assessment and validation in the framework of municipal planning. A case study in the area north of Lisbon (Portugal)

XY322  EGU2011-6155
Helene Petschko, Rainer Bell, Alexander Brenning, and Thomas Glade
Modelling landslide susceptibility in large and heterogeneous regions with generalised additive models: case study Lower Austria

XY323  EGU2011-12594
Maria Pereira and the Instituto Superior Técnico Team
Analysis of factors potentially triggering and/or constraining landslides occurring during the floods of February 20th, 2010 in Madeira Island

XY324  EGU2011-3306
Nils Tilch and Leonhard Schwarz
Spatial and scale-dependent variability in data quality and their influence on susceptibility maps for gravitational mass movements in soil, modelled by heuristic method

XY325  EGU2011-4831
Yvonne Martin, Darren Sjogren, Les Jagielko, and Edward Johnson
Scaling Issues and Discriminant Function Analysis of Landsliding for the Haida Gwaii, British Columbia, Canada

XY326  EGU2011-13257
Rita Pimenta, Sérgio Oliveira, Fernando Marques, and José Luís Zezere
Geological database improvement influence on physically based landslide susceptibility assessment at regional scale

XY327  EGU2011-3654
Leonhard Schwarz and Nils Tilch
Why are good process data so important for the modelling of landslide susceptibility maps?

XY328  EGU2011-2883
Rosian Majid
Slope inventory and hazard assessment along mountainous road using airborne laser scanning data and orthophotos in Peninsular Malaysia in 2010

XY329  EGU2011-441
SungWook Park, HyuckJin Park, and TaeJeong Kang
Probabilistic analysis of rock slope stability using terrestrial LiDAR
XY330  EGU2011-7543
Constantina Porumbescu and George Vina
Landslide hazard assessment on waste dumps areas in Romania Case study - Motru cole mine basin, Gorj County

XY331  EGU2011-9700
Maria Kouli, Constantinos Loupasakis, Pantelis Soupios, and Filippos Vallianatos
Landslide hazard assessment and causal factor analysis in Chania Prefecture, Crete Island, Greece

XY332  EGU2011-7553
Clément Michoud, Marc-Henri Derron, Pascal Horton, Andrien Queyrel, Michel Jaboyedoff, François-Joseph Baillefard, Alexandre Loye, Pierrick Nicolet, and Andrea Pedrazzini
New improvement of the Slope Angle Distribution approach in order to assess hazard and risk along roads exposed to rockfalls: example of the Bagnes valley, Swiss Alps.

XY333  EGU2011-1409
Joan Torrebadella, Joan Altimir, and Ivan Villaró
El Forn landslide (Andorra), an example of geological risk management in large sliding inhabited areas

XY334  EGU2011-9327
Katharina Friess and Ulrich Ranke
Model for an assessment of lahar-endangered regions, to be applied in developing countries, based on expertise gained from the Mt. Rainier volcano (USA)

XY335  EGU2011-2516
Jan Klimeš and Jan Blahut
Landslide risk assessment and its use in development planning, highlands of the Outer Western Carpathians, Czech Republic

XY336  EGU2011-10766
Simone Sterlacchini, Jan Blahut, and Simone Frigerio
From risk assessment to disaster preparedness and response at a regional scale

XY337  EGU2011-11934
Candide Lissak Borges, Olivier Maquaire, Anne Puissant, and Jean Philippe Malet
Landslide risk assessment and post-crisis management along the coast of Pays d'Auge, Normandy, France

XY338  EGU2011-2065
Mario Floris, Francesca Bozzano, Andrea D’Alpaos, Anna De Agostini, Alfredo Rocca, Giovanni Stevan, Giulia Tessari, and Rinaldo Genevois
Landslides triggered by November 2010 flood in NE Italy: a starting point for forecasting modelling and engineering geology design of remote sensing monitoring.

XY339  EGU2011-3078
Bruno Manfrè, Michele Maugeri, Ernesto Motta, and Erminia Ractiti
Debris flows following heavy rainfalls occurred in Messina (Italy) on October 2009

XY340  EGU2011-4390
Yasuhiro Shuin, Norifumi Hotta, Keigo Matsue, Kazuhiro Aruga, and Toshiaki Tasaka
Estimating landslide-triggering rainfall thresholds using two conceptual models for soil water and potential landslide area indices with 30 years of hourly rainfall data

XY341  EGU2011-4133
Tien-Chien Chen, Xuan Jiang, Zhen-Yu Wang, and Xun-Yuan Zeng
Location and magnitude to earthquake and rainfall triggered landslide in Ai-Liao catchment, South Taiwan

SM1.8/G3.7/GD1.10/NH4.9/TS8.4 – Recent Large Earthquake and Tsunami Activity (co-organized) – Orals
Convener: Ramon Carbonell | Co-Conveners: Fabrizio Storti, Stefano Tinti, Mourad Bezzeghoud
Room: 26
Chairperson: n.n.

15:30–15:45  EGU2011-304
narges khajavi, mark quigley, kevin furlong, amir rezanejad, and tim davies
Ground-Motion Intensity Inferred From Upthrow of Boulders and Rock Falls during the 2010 Darfield Earthquake, Port Hills, New Zealand

15:45–16:00  EGU2011-2252
Ingo Grevemeyer, Ernst Flueh, Ivonne Arroyo, and Anke Dannowski
Rupture zone of the Mw=8.8 2010 Maule earthquake constrained by aftershock seismicity and teleseismic moment tensor inversion of large aftershocks

16:00–16:15  EGU2011-4356
Kazuki Koketsu, Yusuke Yokota, Yasuyuki Kawazoe, Sunhe Yun, and Satoko Oki
Source process of the 2010 Yushu, China, earthquake in the eastern Tibetan plateau

16:15–16:30  EGU2011-8350
Stefano Lorito, Fabrizio Romano, Simone Atzori, Xiaopeng Tong, Antonio Avallone, John McCloskey, Massimo Cocco, Enzo Boschi, and Alessio Platanesi
Limited overlap between the Darwin gap and co-seismic slip of the great 2010 Chile earthquake
16:30–16:45  EGU2011-9398
Jimin Lee, Wolfgang Friederich, and Thomas Meier
Moment magnitude estimation of large earthquakes using source time function inversion in real-time

16:45–17:00  EGU2011-9512
Hermann M. Fritz, Jose C. Borroto, Bambang Suwargadi, Li LinLin, Qiu Qiang, Ignatius Ryan Pranantyo, Vassilis Skanavis, and Costas E. Synolakis
Reconnaissance of the 25 October 2010 Mentawai Islands Tsunami in Indonesia

17:00–17:15  EGU2011-12772
Costas E. Synolakis, Hermann M. Fritz, Catherine M. Petroff, Robert Weiss, Patricio A. Catalan, Rodrigo Cienfuegos, Patricio Winckler, Nikos Kalligeris, Carl Ebeling, and Sergio Barrientos
The Chile tsunami of 27 February 2010: Field survey and modeling

SM1.8/G3.7/GD1.10/NH4.9/TS8.4 – Recent Large Earthquake and Tsunami Activity (co-organized) – Posters
Convener: Ramon Carbonell | Co-Conveners: Fabrizio Storti, Stefano Tinti, Mourad Bezzeghoud

Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: n.n.

XY661  EGU2011-13095
Dietrich Lange, Frederik Tilmann, Susan Beck, Andreas Rietbrock, Jean-Pierre Vilotte, Sergio Barrientos, Diana Comte, Klaus Bataille, Pascal Methé and the Chile Aftershocks Team
Preliminary aftershock distributions of the 27 February 2010 Mw 8.8 Maule Earthquake from International Aftershock Survey data

XY662  EGU2011-1826
Wen-Yen Chang, Ruey-Der Hwang, Tzu-Wei Lin, Jo-Pan Chang, and Hui-Nei Chuang
Estimates of Source Parameters of the 2010 ML 6.4 JiaSian (Taiwan) Earthquake from Teleseismic P-wave Inversion

XY663  EGU2011-2576
Yunus Emre Bulbul, Barbaros Cetiner, and Gülüm Tan?can
Source Modelling of the 2010 Elazig / Turkey Earthquake

XY664  EGU2011-2838
Won Young Yun and Sun-Cheon Park
Early estimation of magnitude and moment tensor analysis of large regional earthquakes around the Korean peninsula

XY665  EGU2011-2958
Yesim Cubuk, Seda Yolsal-Cevikbilen, and Tuncay Taymaz
Source Parameters of March 8, 2010 Karakocan (Elazig, SE Turkey) Earthquakes: Synthesis of Time Domain Regional Moment Tensor and Teleseismic Body-Waves Inversions

XY666  EGU2011-5617
Frauke Klingelhoefer, Chao-Shing Lee, Marc-Andre Gutscher, Jing-Yi Lin, and Chin-Wei Liang
The rupture zone of the Feb. 2010 M8.8 Maule Chile earthquake: preliminary relocation of aftershocks from a temporary marine seismic network and numerical modeling of forearc thermal structure

XY667  EGU2011-6021
Kuo-Jen Chang, Rou-Fei Chen, Jian-Zhong Li, Yuping Liu, Chia-Yu Lu, and Chih-Tung Chen
Preliminary analysis of active deformation in Chengdu foreland basin, China

XY668  EGU2011-8845
Anne Deschamps, Bernard Mercier de Lépinay, Marie Paule Bouin, Julie Perrot, Frauke Klingelhoefer, Valérie Clouard, Philippe Charvis, Boris Marcailou, and David Graindorge
A new insight on the HAITI event: aftershock study.

XY669  EGU2011-9088
Denis Lombardi, Thierry Camelbeeck, Thomas Lecocq, Giovanni Rapagnani, and Michel Van Camp
Preliminary data analysis from a permanent seismic station newly installed in the Sør Rondane Mountains, East Antarctica

XY670  EGU2011-10653
Muzli Muzli, Joachim Saul, Guenter Asch, Rongjiang Wang, and Frederik Tilmann
Co-seismic displacement of the 2010, Mw 7.8 Mentawai earthquake obtained from Strong Motion Data

XY671  EGU2011-12780
Anke Dannowski, Ingo Greve, Ernst R. Flueh, Martin Thorwart, and Wolfgang Rabbel
Crustal structure from teleseismic P-wave receiver function analysis in the Maule Region, Central Chile

XY672  EGU2011-12170
Ivonne Arroyo, Ingo Greve, Ernst Flueh, Helene Kraft, Eduardo Moscoso, Diana Comte, Martin Thorwart, Yvonne Dzierma, and Wolfgang Rabbel
3-D Velocity Structure and Seismotectonics prior to the 2010 Chile Earthquake (Mw 8.8) from an Amphibious Seismological Network
NEAR FIELD data analysis of the Maule event by comparison between tide gauges, long base tiltmeters and broad band seismometers.

**NH5.3/NP7.3/OS2.5 – Nonlinear Dynamics of the Coastal Zone (co-organized) – Orals**

Convener: Ira Didenkulova | Co-Conveners: Efim Pelinovsky

**Room: 4**

Chairperson: n.n.

13:30–13:45 EGU2011-3048
**Geir Pedersen**
Stationary runup patterns on a sloping beach

13:45–14:00 EGU2011-5389
**Valery Liapidevskii**
Shallow water equations for breaking surface waves

14:00–14:15 EGU2011-103
**Ira Didenkulova** and Efim Pelinovsky
Nonlinear wave evolution and runup in inclined channels

14:15–14:30 EGU2011-8891
**Alec Torres-Freyermuth**, Jack A. Puleo, Duvravka Pokrajac, and Paulo Salles
RANS Modelling of Swash Zone Hydrodynamics

14:30–14:45 EGU2011-3200
**Deepak Vatvani**, Niels Zweers, Hans de Vries, Vladimir Makin, and Maarten van Ormondt
Storm surge and wave simulations in the Gulf of Mexico using a consistent drag relation for atmospheric and storm surge models

14:45–15:00 EGU2011-1692
**Eugene Morozov**, Alexey Marchenko, and Sergey Muzylev
Supercooling and water structure near the fjord glacier

Chairperson: n.n.

15:30–15:45 EGU2011-13867
**Chiang C. Mei**, I-Chi Chan, Philip L.-F. Liu, Zhenhua Huang, and Weigu Zhang
Long waves through emergent coastal vegetation

15:45–16:00 EGU2011-1935
**Roger Grimshaw** and Evans Osaisai
A simple model of the effect of bottom sediment transport on wave set-up

16:00–16:15 EGU2011-12030
**Tatyana Lyubimova**, Yanina Parshakova, Nataliya Shumilova, Shengping Luo, and Bernard Roux
Modeling of the near-field distribution of pollutants from a multi-port coastal outfall

16:15–16:30 EGU2011-4680
**Boris Katsnelson**, Mohsen Badiey, and James Lynch
Observation of nonlinear internal waves in the Shallow Water 2006 experiment and interference of low-frequency sound waves in the long-range propagation

16:30–16:45 EGU2011-11369
**Yannis Cuypers**, Pascale Bouruet Aubertot, Pascal Lazure, Antonio Lourenço, Michel Lunven, Marc Sourriceau, and Lourdes Velo-Suarez
Non linear internal tides, turbulent mixing and their impact on phytoplankton distribution in the continental shelf of South Brittany

16:45–17:00 EGU2011-3551
**Tim Boyd, Mark Inall**, Dumont Estelle, and Griffiths Colin
AUV observations of mixing in the tidal outflow from a Scottish sea loch

**NH5.3/NP7.3/OS2.5 – Nonlinear Dynamics of the Coastal Zone (co-organized) – Posters**

Convener: Ira Didenkulova | Co-Conveners: Efim Pelinovsky

**Halls X/Y | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Ira Didenkulova, Efim Pelinovsky

17:30–17:45 EGU2011-44
**Ekaterina Shurgalina** and Efim Pelinovsky
Formation of an abnormal wave in case of interaction with a vertical barrier
XY343  EGU2011-4628
My Ha Dao, Eng Soon Chan, and Pavel Tkalich
Fine-scale processes of plunging wave in deep water

XY344  EGU2011-8505
Erick Javier Lopez Sanchez and Gerardo Ruiz Chavarría
Numerical study of particle transport due to periodic movement of water in a system of two oceanic basins connected by a channel

XY345  EGU2011-4279
Olga Shishkina
Linear and non-linear mechanisms of formation of edge internal waves in the shelf zone

XY346  EGU2011-4865
Alexander Yankovsky, Legna Torres-Garcia, and Raymond Torres
Interaction of tides, river discharge and bathymetric forms in the Santee River, SC, USA

XY347  EGU2011-12323
Anatoliy Filonov and Iryna Tereshchenko
The high amplitude internal waves generated at San Esteban sill in the Gulf of California

XY348  EGU2011-62
Artem Rodin and Efim Pelinovsky
Large-amplitude simple and shock waves in shallow water

XY349  EGU2011-5069
Onno Bokhove, Elena Gagarina, Anthony Thornton, Jaap van der Vegt, and Wout Zweers
Bore Soliton Splash

XY350  EGU2011-830
Adrien Poupardin, Nicolas Bourmeot, Grégory Pinon, Elie Rivoalen, Jérôme Brossard, and Gaëlle Perret
Vortex dynamics around an immersed structure

XY351  EGU2011-105
Ira Didenkulova and Efim Pelinovsky
Long wave interaction with the sea wall in a basin of variable depth

XY352  EGU2011-109
Irina Nikolkina, Ira Didenkulova, Efim Pelinovsky, and Narcisse Zahibo
Runup of landslide-generated waves

XY353  EGU2011-5111
Petr Denissenko, Ira Didenkulova, Jonathan Pearson, and Efim Pelinovsky
Statistical characteristics of the non-linear run-up measured in a wave flume

XY354  EGU2011-4484
Byung Ho Choi, Victor Kaistrenko, Efim Pelinovsky, Kyeong Ok Kim, and Byung Il Min
Combination of 2D numerical simulations of long waves in a basin of variable depth with 1D analytical runup formulae

XY355  EGU2011-104
Ira Didenkulova, Efim Pelinovsky, Tarmo Soomere, Kevin Parnell, and Maija Viška
Beach response on the interplay of two wave systems: ship wakes and winds waves

XY356  EGU2011-7894
claudé Vella, francois Demory, victor Canut, philippe Dussouillez, and Thomas Jules Fleury
First evidence of accumulation of mega boulders on the Mediterranean rocky coast of Provence (southern France).

NH5.4 – Coastal flooding and erosion risk: present and future – Orals
Convener: Fernando J. Mendez | Co-Conveners: Barbara Zanuttigh, Robert J. Nicholls
Room: 4
Chairperson: Fernando J. Mendez

08:30–08:45  EGU2011-7576
Sylvain Elineau, Anne Duperret, Pascal Mallet, and Rémi Caspar
Urban tidal flooding in Normandy (Le Havre, NW France)

08:45–09:00  EGU2011-5578
Debora Bellafioire, Christian Ferrarin, and Georg Umgiesser
Analysis of coastal hydrodynamic variations using modeling to assess climate changes on a local scale

09:00–09:15  EGU2011-10394
Siddharth Narayan, Susan Hanson, Robert Nicholls, and Derek Clarke
Use of the Source - Pathway - Receptor - Consequence Model in Coastal Flood Risk Assessment

09:15–09:30  EGU2011-13680
Fernando J. Mendez, Inigo J. Losada, Sonia Castanedo, Roberto Minguez, Raul Medina, Borja G. Reguero, and Cristina Izaguirre
Present and Future Coastal risk assessment
EGU General Assembly 2011
09:30–09:45 EGU2011-6741 Andrea Critto, Silvia Torresan, Alex Zabeo, Jonathan Rizzi, Valentina Gallina, Silvio Giove, and Antonio Marcomini
DESYCO: a Decision Support System for the assessment of coastal flooding and erosion risk due to climate change

09:45–10:00 EGU2011-12548 Phoebe Koundouri, Bénédicte Rulleau, and Mavra Stithou
Can Coastal Europe Insure Against Climate Change: A Review of Experiences on Floods and Soil Erosion.

NH5.4 – Coastal flooding and erosion risk: present and future – Posters
Convener: Fernando J. Mendez | Co-Conveners: Barbara Zanuttigh, Robert J. Nicholls
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Fernando J. Mendez

XY357 EGU2011-1694 Barbara Zanuttigh, Luisa Perini, and Paolo Mazzoli
Scenarios of combined river and sea water inundation along the Adriatic Coast

XY358 EGU2011-6554 Victor Ntegeka, Patrick Willems, and Jaak Monbaliu
Incorporating the correlation between upstream inland, downstream coastal and surface boundary conditions into climate scenarios for flood impact analysis along the river Scheldt

XY359 EGU2011-1540 Li-Chung Wu, Dong-Jiing Doong, Yang-Ming Fan, and Chia Chuen Kao
Information System for the Early Warning of Coastal Flooding

XY360 EGU2011-13683 Melisa Menendez, Fernando J. Mendez, and Inigo J. Losada
Short-term extrapolation of extreme sea level statistical distributions

XY361 EGU2011-13682 Cristina Izaguirre, Paula Camus, Melisa Menendez, Fernando J. Mendez, and Inigo J. Losada
Projection of extreme marine climate in coastal areas using statistical downscaling

XY362 EGU2011-1221 J Javier Diez, Rosa Paz, M.Dolores Esteban, José-Santos López, and Vicente Negro
Coastal urban flood resilience vs climate change

XY363 EGU2011-3684 Enrique Peña and Luis Cea
Baldaio lagoon hydrodynamics and flooding. Evolution of natural and shellfish production.

XY364 EGU2011-12460 Amit Mushkin and Oded Katz
LiDAR monitoring of coastal cliff geomorphic response to an extreme winter storm with comparison to the long term retreat rate of the cliff (Eastern Mediterranean Sea, Israel)

XY365 EGU2011-4833 Sergey Lebedev
Assimilation satellite altimetry data in flood wave propagation model of the Caspian Sea

XY366 EGU2011-7096 Marzena Sztobryn, Beata Kowalska, Jacek Lendzion, and Arkadiusz Fabrycki
Meteomarine conditions of storm surges in Hel peninsula: past, present, future and impact on flooding vulnerability.

A new GIS based methodology to assess coastal vulnerability by using a Modified Coastal Vulnerability Index (MCVI)

XY368 EGU2011-10025 Christian Breitung, Florian Haas, Tobias Heckmann, and Michael Becht
Measuring Coastal Erosion on Moraine Cliffs of the Baltic Sea using Ground-Based LiDAR - Creating a disposition model of soft rock cliff erosion

NH5.5 – Storm Surges and coastal areas: extreme events, damages, and risk – Orals
Convener: Diego Rybksi | Co-Conveners: Christoph Mudersbach, Jürgen Jensen, Jürgen Kropp
Room: 2
Chairperson: Dr. Diego Rybksi
Global influences of the 18.61 year lunar nodal cycle and 8.85 year cycle of lunar perigee on coastal flooding

Expected future changes in the joint distribution of storm surges and waves in the North Sea due to anthropogenic climate change

Problem of storm surges in the North Indian Ocean and plan for enhancing its forecasting capability

Assessing the hydrodynamic boundary conditions for integrated risk analyses along the German North Sea coastline

Adaptive pathways in coastal systems for losses reduction due to storm surges and sea-level rise: The case of Ísafjörður, Iceland.

A cost-benefit framework for adaptation to sea level rise

Storm surge on Lithuanian coasts: past experience and future perspectives

Sediment accumulation at Northern Germany's marsh islands - An evaluation of a natural adaptation mechanism to Holocene sea level rise

The use of probabilistic techniques in the evaluation of storm surge hazard and risk.

Developing Sustainable Coastal Protection- and Management Strategies for Schleswig-Holstein's Halligen Considering Climate Changes (ZukunftHallig)

Analysis of insured and structural damages due to waves and storm surges hazards (storm Johanna 10-12 March 2008)

Using a multi models approach to assess coastal exposure to marine inundation within a global change context

Identifying damage functions through density transformation

Extreme storm surges. A method to calculate extreme events at the North Sea coast

Effects of climate change on storm surges in the Elbe Estuary - A sensitivity study

Integrated Risk Analysis for Extreme Storm Surges in GIS (XtremRisK)
Mohamed Fathy Tawfeek Tayel and Hocine Oumeraci
Prediction of Extreme Storm Surge Levels using Recurrent Artificial Neural Networks.

Paul Liu and Uggo Pinho
Extreme waves in South Atlantic Ocean near Northeast Coast of Brazil

Nabil Ismail
Assessment of Recent Coastal Flooding in Alexandria and Future Outlook for the Nile Delta

Ole Baltazar Andersen, Per Knudsen, and Carlo Sørensen
Storm surges prediction and sea level rise along the Danish North Sea coast from tide gauges and satellite altimetry

NH8.4 – Sinkholes: from susceptibility to risk evaluation and mapping – Posters
Convener: Giulio G.R. Iovine | Co-Conveners: Mario Parise, Stefania Nisio
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: G. Iovine, S. Nisio

Damien Closson, Paolo Pasquali, Najib Abou Karaki, Nada Milisavljevic, Frédéric Hallot, Marc Acheroy, and Francesco Holecz
Dead Sea salt karst system dynamics measured with InSAR PS and SBAS techniques

Georg Kaufmann, Douchko Romanov, Grit Jahn, and Julio Galindo de Guerreros
Geophysical exploration above cave sites: From measurements to model predictions

Mario Parise and Antonio Fiore
Chronology of sinkhole events in Apulia, Italy

Douchko Romanov, Georg Kaufmann, Thomas Hiller, Jannis Epting, and Peter Huggenberger
The impact of local rock properties on the karstification of aquifers close to dam sites: the case of a gypsum karst aquifer on the Birs river in Switzerland

Nadia Netti, Lucio Olivares, and Paola Mercogliano
Landslide risk management: a multidisciplinary approach to define a Decision Support System for rainfall induced landslides.

Risk assessment of sinkhole hazard in Turkey

Valerio Baiocchi, Francesca Giannone, Loredana Liso, and Mario Vecchio
The survey of “Pozzo del Merro

Rocio Zúñiga-Lara, Gerardo Cifuentes-Nava, René Chávez-Segura, Andrés Tejero-Andrade, Esteban Hernández-Quintero, and Alicia Monzón
Near Surface Electrical Tomography to Detect Hazardous Areas in Guatemala City

Héctor Gil, Aránzazu Luzón, María Asunción Soriano, Óscar Pueyo, Antonio Pérez, and Andrés Pocovi
Pleistocene sinkholes and subsidence at the confluence of the Ebro and Jalón Rivers (central Ebro Basin, NE Spain).

Lisa Borgatti, Gilberto Bonaga, Guido Gottardi, Alberto Landuzzi, Gianfranco Marchi, and Luca Vittuari
Triggering and evolution of sinkholes in non-karst terrains. Examples from the Po Plain (Italy)

Vincenzo Minutolo and Paolo M. Guarino
Stability assessment of underground cavities and forecast of sinkhole dimensions by limit analysis and numerical modelling

Walter Wheeler, Jan Tveranger, Stein-Erik Lauritzen, Björn Heincke, Guiliana Rossi, Niklas Allroggen, and Simon Buckley
Architecture of a paleokarst breccia-pipe field, Carboniferous, Svalbard
NH10.1 – Modelling of dangerous phenomena, and innovative techniques for hazard evaluation and risk mitigation –
Orals
Convener: Giulio G.R. Iovine | Co-Conveners: Johannes Huebl, Michael Sheridan, Stefan Scheer, Christoph Aubrecht, Manuel Pastor, Thomas Glade, Farrokh Nadim
Room: 4
Chairperson: G. Iovine, C. Aubrecht

10:30–10:45 EGU2011-10973
Nina Frolova, Jean Bonnin, and Valery Larionov
Data for disaster risk assessment

10:45–11:00 EGU2011-11264
Michael Bründl
EconoMe - Instruments for Assessing the Benefit-Cost-Ratio of Mitigation Measures

11:00–11:15 EGU2011-241
Víctor Stefanescu
Early warning system based on the history of disasters in a region

11:15–11:30 EGU2011-8186
André Henzen, Michael Franke, and Christoph Graf
The role of nowcasting products and meteorological data for improving debris flow prediction

11:30–11:45 EGU2011-9845
Aurelio Stoppini, Fabio Radicioni, and Raffaella Brigante
Integrated geomatic techniques for monitoring, study and control of a landslide in an urban area

11:45–12:00 EGU2011-8471
Jean Pascal Iannacone, Alessandro Corsini, Byron Quan Luna, and Francesco Ronchetti
Sensitivity analysis of rock avalanche’s run-out simulation in Trafoi (South Tyrol, Italy)

NH10.1 – Modelling of dangerous phenomena, and innovative techniques for hazard evaluation and risk mitigation –
Posters
Convener: Giulio G.R. Iovine | Co-Conveners: Johannes Huebl, Michael Sheridan, Stefan Scheer, Christoph Aubrecht, Manuel Pastor, Thomas Glade, Farrokh Nadim
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 15:30–17:00
Chairperson: F. Nadim, M. Pastor

XY395 EGU2011-1010
Oreste Terranova, Stefano L. Gariano, Pasquale Iaquinta, and Giulio G.R. Iovine
Forecasting the occurrence of rainfall-induced landslides by means of a self-adaptive model

XY396 EGU2011-13392
Giulio G.R. Iovine, Stefano L. Gariano, Roberto Greco, Pasquale Iaquinta, Annamaria D. Pellegrino, and Oreste G. Terranova
Shallow landslide susceptibility in the "Costa Viola" mountain ridge (southern Calabria)

XY397 EGU2011-1194
Konstantinos Karagiorgos, Michael Chiari, Gerda Schneider, and Sven Fuchs
The challenge of EU Flood Directive: preliminary flood risk assessment for flash floods in the catchment of Rafina, Greece

XY398 EGU2011-1651
Sebastian Scheuer, Dagmar Haase, and Volker Meyer
Introducing a semantically-enabled, ontology-supported software tool for the multicriteria, multidimensional assessment of natural hazard risk

XY399 EGU2011-1698
Giovanni Lanneve, Fabrizio Ferrucci, and Fabrizio Battazza
Evaluation of the SIGRI forest fires monitoring system based on MSG/SEVIRI images

XY400 EGU2011-2865
Daniela Ghica, Dan Cornelius Rau, and Constantin Ionescu
Design of an innovative seismic valve for automatic blocking of the natural gas and dangerous liquids leakage in case of strong earthquake

XY401 EGU2011-2983
Ji-Shang Wang, Yi-Chao Zeng, Chyan-Deng Jan, and Cheng-Yu Chen
A method to develop the rainfall-based criteria for debris-flow warning for the area lacking data

XY402 EGU2011-3579
Samuel Auclair, Xavier Goula, Jose-Antonio Jara, Yolanda Colom, Anne Lemoine, and Bastien Colas
Exploring the feasibility of an early warning system in a moderate seismicity context: case study of Pyrenees

XY403 EGU2011-4221
Ryan Anderson and Hilmar Gudmundsson
Ice Shelf Calving Risks for Halley Research Station, Antarctica
XY404  EGU2011-5394
Jochen Zschau, Paolo Gasparini, Hormoz Modaressi, and Kevin Fleming
MATRIX: Developing multi-hazard and multi-risk assessment methods for Europe

XY405  EGU2011-8619
Stefan Kollarits, Diethart Leber, and Ingo Schnetzer
Linking hazard maps to contingency planning needs - the MONITOR II Continuous Situation Awareness System (CSA)

XY406  EGU2011-9306
Melanie S. Kappes, Klemens Gruber, Simone Frigerio, and Thomas Glade
MultiRISK - a tool for coherent multi-hazard risk analyses

XY407  EGU2011-9774
Alexandru Marmureanu, Constantin Ionescu, Bogdan Grecu, and Carmen Ortanza Cioflan
Vrancea earthquake early warning system upgrade

XY408  EGU2011-10776
Marina Kechaidou, Georgios Ch. Sirakoulis, Emmanouil M. Scordilis, and Ioannis Karayfyllidis
Modelling real earthquake activity with reverse engineering based on evolutionary computation methods

XY409  EGU2011-10844
Sirma Stenzel and Kathrin Baumann-Stanzer
Modelling of accidental released hazardous gases for the elaboration of emergency plans

XY410  EGU2011-10922
Thomas Fischer, Florian Haas, Otfrid Baume, and Michael Becht
Modeling of debris flows on hillslopes and in channels in high alpine catchment areas of the Northern Tian Shan, South-East Kazakhstan

XY411  EGU2011-10927
Anna Scotto di Santolo, Anna Maria Pellegrino, and Aldo Evangelista
A new rheometer for mud and debris flows

XY412  EGU2011-10991
Robert Bishop
The Future of Climate and Geo-Science

XY413  EGU2011-12301
Ioannis Matsangouras and Panagiotis T. Nastos
Design and proposal of the AHEWS (Atmospheric Hazards Early Warning System) related to the new Greek Regional Administrative structure

XY414  EGU2011-13004
George Hloupis, Ilias Stavrakas, Alexandros Alexandridis, Kostas Moutzouris, and Dimos Triantis
Can open source electronics platforms be beneficial for early warning systems?

XY415  EGU2011-13842
Gino Mirocle Crisci, Valeria Lupiano, Donato D'Ambrosio, Rocco Rongo, William Spataro, Maria Vittoria Avolio, and Salvatore Di Gregorio
High detailed debris flows hazard maps by a cellular automata approach

XY416  EGU2011-13894
Elvira V. Perekhotitseva
On the forecasting of the dangerous rainfalls and floods at the territory of Europe and the forecasting of the drought over the central part of Russia in the Summer of 2010

EMRP11/GMPV30/NH10.5/TS2.8 – Rock Physics and Natural Hazards (co-organized) – Orals
Convener: Sergio Vinciguerra | Co-Conveners: Philip Benson, Daniel Faulkner, Giulio Di Toro
Room: 42
Chairperson: S. Vinciguerra; P. Benson

10:30–10:45  EGU2011-1907
Patrick Baud, Wei Zhu, Sergio Vinciguerra, and Teng-fong Wong
Brittle faulting and inelastic compaction in Alban Hills tuff: microstructural observations and micromechanical modeling

10:45–11:00  EGU2011-4812
Michael Heap, Andreas Laumann, Kai-Uwe Hess, Yan Lavallée, Patrick Baud, Philip Meredith, and Donald Dingwell
Chemical, physical and mechanical properties of tuffs from Campi Flegrei (Italy)

11:00–11:15  EGU2011-6510
Sergio Vinciguerra, Silvio Mollo, Paola Tuccimei, Michael Heap, Michele Soligo, Mauro Castelluccio, Piergiorgio Scarlato, and Donald Dingwell
Radon and thoron emission from high and low porosity rocks under increasing deformation: An experimental study
11:15–11:30 EGU2011-9526
William Hancock and Dion Weatherley
On the influence of Particle Shape in fault gouge simulations using the Discrete Element Method

11:30–11:45 EGU2011-9638
Tadashi Takano, Ken-ichiro Maki, Eriko Soma, Katsumi Hattori, and Takashi Maeda
Fundamentals of Microwave Detection in Association with Rock Fracture and Experimental Data for Various Rocks

11:45–12:00 EGU2011-13191
Thomas Mitchell, Michael Heap, Yan Lavallee, Takehiro Hirose, Donald Dingwell, Sergio Vinciguerra, Jörg Renner, and Andrea Cavallo
Frictional Melt Generated from Similar & Dissimilar Volcanic and Sedimentary Rocks.

EMRP11/GMPV30/NH10.5/TS2.8 – Rock Physics and Natural Hazards (co-organized) – Posters
Convener: Sergio Vinciguerra | Co-Conveners: Philip Benson, Daniel Faulkner, Giulio Di Toro
Hall A | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: D. Faulkner; G. Di Toro

A32 EGU2011-4285
Philip Benson, Michael Heap, Yan Lavallee, Patrick Selvadurai, Asher Flaws, Kai Hess, Burkhard Schillinger, and Donald Dingwell
Fracturing of volcanic edifices and dyking during magma ascent

A33 EGU2011-4825
Linda Petrakova, Michael Heap, Yan Lavallée, Patrick Baud, and Donald Dingwell
Investigating the stability of the volcanic edifice at Volcán de Colima, Mexico

A34 EGU2011-6749
Andrew Bell, Ian Main, Michael Heap, Patrick Baud, and Philip Meredith
Application of a mean-field model for brittle creep strain rates under finite loading conditions

A35 EGU2011-7145
Pierre Gavrilenko and Chandrani Singh
Modelling the hydromechanical response in the neighbourhood of Koyna reservoir (India): Results of the initial filling period

A36 EGU2011-7203
Sergio Vinciguerra, Michael Heap, Silvio Mollo, Yan Lavallée, Kai Hess, Donald Dingwell, Gianluca Iezzi, and Patrick Baud
Volcanic edifice weakening via thermal reactions

A37 EGU2011-10139
Olivier Lengliné, Jean Schmittbuhl, Jean Elkhoury, Jean-Paul Ampuero, Renaud Toussaint, and Knut Jorgen Maløy
Interplay of seismic and aseismic deformation during brittle creep crack propagation

A38 EGU2011-10209
Elizabeth Gaunt, Peter Sammonds, Rosanna Smith, Philip Meredith, and Christopher Kilburn
Volcanic dome stability; Permeability and fluid pressurisation of the Mount St Helens 2004-2008 lava dome complex

A39 EGU2011-10450
Gianluca Gola, Vincenzo Pasquale, Paolo Chiozzi, and Massimo Verdoya
Appropriate mixing models to estimate thermal properties of clastic and chemical/biochemical rocks

A40 EGU2011-14195
Charlotte Feneis, Bettina Scheu, Yan Lavallee, and Donald B. Dingwell
Effect of water saturation on the fragmentation threshold and tensile strength of rocks in volcanic environments

A41 EGU2011-7831
Jean Sulem, Ioannis Stefanou, and Emmanuel Veveakis
Strain localization during rapid shearing of a saturated rock layer: Preferred instability wave length and shear band thickness

SC3/NH11.1 – [Short Course] Hydrodynamics of Tsunami Waves (co-organized) – Orals
Convener: Efim Pelinovsky
Room: 1
Chairperson: Efim Pelinovsky

10:30–12:00 EGU2011-1071
Efim Pelinovsky
Hydrodynamics of Tsunami Waves
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 Tchebakova, 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
Nadia Tchebakova, 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 Skeien, 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
Communicating probabilistic climate-sensitive disease risk forecasts

Statistical Issues of Managing Uncertainties in Environmental Models

Realising the Uncertainty Enabled Model Web

Inference of abrupt changes in noisy data records using Bayesian transdimensional changepoint models

How long should we measure to obtain reliable average catchment sediment yields?

A methodology to assess the exactness of Stream Network modeling process on agricultural watersheds

The influence of the spatial resolution of topographic input data on the accuracy of 3-D UV actinic flux and irradiance calculations

Singular vector based uncertainties of initial values and emissions for the ZEPTER-2 campaign

The automated mobile GPR acquisition system for road and bridge monitoring

Towards an automated mobile GPR acquisition system for road and bridge monitoring

Full-waveform inversion of ground penetrating radar data to assess chloride and moisture content in concrete

The SBAS-DInSAR approach as a tool for monitoring millimetric displacements affecting infrastructures

Programme Group Programme NH

15:30–15:33 Session Introduction
15:33–15:48 Philipp Fürholz and Johannes Hugenschmidt

Towards an automated mobile GPR acquisition system for road and bridge monitoring

15:48–16:03 Jan van der Kruk, Alexis Kalogeropoulos, Johannes Hugenschmidt, Sebastian Busch, and Kaspar Merz

Full-waveform inversion of ground penetrating radar data to assess chloride and moisture content in concrete

16:03–16:18 Michele Manunta, Manuela Bonano, Riccardo Lanari, Maria Marsella, and Luca Paglia

The SBAS-DInSAR approach as a tool for monitoring millimetric displacements affecting infrastructures
Transport infrastructure surveillance: monitoring of land slides, quick clay, rock slides, avalanches and bridge oscillations using an optical displacement monitoring system.

Development of a low cost uncooled infrared system dedicated to long term monitoring of transport infrastructures

New sensing technologies to analyze engineering structures in a validation test site: Hydrogeosite laboratory

The dissemination activities of the ISTIMES project

The dissemination activities of the ISTIMES project

Gl-axe - an ICT Solution for Sensor Data Processing

Informational and wavelet methodologies for combined analysis of geophysical data within the ISTIMES project

Tunnel detection based on data fusion with radio frequency and electrical resistive tomography

Accurate real-time reconstruction of three-dimensional temperature fields

Recent Advances in the Cylindrical-Wave Approach for Electromagnetic Scattering by Subsurface Targets

Monitoring of Individual Ground Structures with Very High-Resolution Satellite Synthetic Aperture Radar: Results with the TerraSAR-X System

Impact shock damage assessment on a beam and its foundation soil by using Ground Penetrating Radar and Electrical Resistivity Tomography

Infrared thermography applied to road networks winter risk evaluation
Jean Dumoulin, Marion Bost, Erick Merliot, Laurent Dubois, Frédéric Rocher-Lacoste, Louis-Marie Cottineau, and Frédéric Bourquin
Design, conception and realisation of high energetic mechanical impacts on a civil engineering structure to evaluate sensing techniques in ISTIMES project framework

Simone Pascucci, Angelo Palombo, Cristiana Bassani, Rosa Maria Cavalli, Federico Santini, and Stefano Pignatti
Integrated optical and thermal data analysis for a rapid surface diagnostic of transport infrastructures: the cement beam case study in Montagnole (France).

Angela Perrone, Erick Merliot, Jean Dumoulin, and Francesco Soldovieri
IBIS-S SAR system for the remote survey of an armed concrete beam: the experiment of Montagnole (French Alpes) within ISTIMES project

Benjamin van Wyk de Vries, Pablo Grosse, Engielle Paguican, Mahar Lagmay, Karine Bernard, and Matthieu Kervyn
Volcanic morphology shaped by mass wasting processes: especially debris avalanches

Philippe Schoeneich
Impact of mass movements on valley shape and profile. Two examples from the Swiss Prealps and the Massif des Écrins

Georgie Bennett, Henri Eisenbeiss, Peter Molnar, Brian McArdell, Fritz Schlunegger, and Paolo Burlando
The Illgraben sediment cascade, 1963-2009

Michi Strasser
An underwater perspective on the significance of mass-movement processes

Mads-Peter J Dahl, Lis E Mortensen, Niels H Jensen, and Anita Veihe
Magnitude-frequency characteristics and preparatory factors for debris slide activity in the Northern Faroe Islands

Thomas Dewez and Céline Cnudde
Coastal cliff retreat rates: a probabilistic approach fed by Terrestrial Laser Scanner monitoring data

Sara Savi, Michelle Bollschweiler, Markus Stoffel, and Fritz Schlunegger
From source to sink: analysis of debris flow events assessed by Dendro-geomorphology.

Christoff Andermann, Richard Gloaquet, Stephane Bonnet, Alain Crave, and Silke Merchel
Erosion patterns in the Nepal Himalayas from river gauging, cosmogetic nuclides and precipitation data

Oldrich Navratil, Frédéric Liébault, Laigle Dominique, Bellot Hervé, Ravanat Xavier, Ousset Frédéric, Theule Joshua, Demirdjian Jean-Luc, Segel Vincent, and Ficquet Marc
High-frequency monitoring of debris-flows and flash floods in the French Alps

Federica Fiorucci, Michele Santangelo, Francesca Ardizzone, Alessandro Cesare Mondini, Dino Torri, and Fausto Guzzetti
Geometry of gullies and shallow landslides obtained from VHR stereoscopic satellite images
Remote Identifying Geomorphic Processes on Alluvial Fans Using The Bidirectional Reflectance Distribution Function (BRDF)

Relationships between mass movements and tectonic uplift in the upper Sinni River valley, Calabria-Lucania border, Southern Italy

The interactions of channel and hillslope process of Shihmen reservoir watershed, northern Taiwan

Examples of deep-seated slope deformation in the headwaters of the Audour and Bouhya Rivers in the Central Rif Mountains, Morocco

An integrated geomorphological approach based on Stream-Length Gradient Index to detect deep-seated landslides

Debris-flow sediment transfer in Alto Adige, central Eastern Alps (Italy)

Gully erosion following wildfire in steep, mountainous terrain in the western U.S.A.

Modelling uncertainty in short-term catchment erosion rates

Debris flow pulse activity driven by rock collapse events and associated hazards

Alluvial archives of land use histories in small drainage basins of the Mexican highlands

Processes and timing of sediment delivery from headwaters to trunk streams in Central Europe

Using OSL to evaluate the impacts of land-use change with the arrival of Europeans in SE Australia: Applications on Grabben Gullen Creek (NSW, Australia)

Debris flow and climate relations in the North French Alps region

Recent extreme snow-avalanche events tracked through tree-ring analysis - a case-study from Western Norway

Tree-ring reconstruction of snow avalanches: an evaluation of the dendrogeomorphic approach by comparison with historical archives on an accurately documented path (Chamonix, French Alps).

Alluvial archives of land use histories in small drainage basins of the Mexican highlands

Processes and timing of sediment delivery from headwaters to trunk streams in Central Europe

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<td>A130</td>
<td>Measuring event- and century-scale changes in sediment sources to the upper Mississippi River</td>
<td>Patrick Belmont, Jane Willenbring, and Julia Marquard</td>
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<td>A131</td>
<td>Improvement of snow avalanche hazard and vulnerability assessment in the French Alps using a combination of dendrogeomorphic and statistical approaches</td>
<td>Romain Schläppy, Vincent Jomelli, Markus Stoffel, Delphine Grancher, Michael Deschatres, and Daniel Brunstein</td>
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<td>A132</td>
<td>The assessment of erosive potential: Application to the northern Rif (Morocco)</td>
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<td>A133</td>
<td>Historical Gully Erosion in the Upper Mississippi River Valley Hill Country</td>
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<td>A134</td>
<td>Dating of fluvial sediments in the Morava River watershed (Czech Republic) based on 137Cs and Pb and Zn contamination</td>
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<td>A135</td>
<td>Assessing the reconstruction of landslide activity using anatomical changes in stems and exposed roots.</td>
<td>Jérôme Lopez Saez, Christophe Corona, and Frédéric Berger</td>
</tr>
<tr>
<td>A136</td>
<td>Spatial distribution and hydrological threshold of the October 1954 high magnitude debris flow event occurred in the Amalfi coast (southern Italy)</td>
<td>Pantaleone De Vita and Pasquale Smaldone</td>
</tr>
<tr>
<td>A137</td>
<td>Hydro-geomorphic response of the Arroyo Cabrera 1997 flash flood (Central Spain)</td>
<td>Virginia Ruiz-Villanueva, Jose-Maria Bodoque, Andres Diez-Herrero, Miguel-Angel Eguibar, Anastasio Fernandez-Yuste, and Ignacio Gutierrez</td>
</tr>
<tr>
<td>A138</td>
<td>Using in-situ cosmogenic C-14 and Be-10 depth-profiles to quantify site-specific Holocene soil erosional events: a sensitivity analysis</td>
<td>Reka-H Fülöp, Paul Bishop, Derek Fabel, Gordon T Cook, Christoph Schnabel, Philip Naysmith, Sheng Xu, and Jeremy Everest</td>
</tr>
<tr>
<td>A139</td>
<td>Roughness calibration and peak discharge estimation based on scars on trees inflicted by woody sediments</td>
<td>Juan Antonio Ballesteros, Jose Maria Bodoque, Andrés Diez-Herrero, Mauricio Sanchez-Silva, and Markus Stoffel</td>
</tr>
<tr>
<td>A140</td>
<td>Changes in human occupation and soil erosion rates through historical time: evidence from an agricultural complex in Toledo (Spain).</td>
<td>Raul Ortega, Veerle Vanacker, Isabel Miralles, and Nicolas Bellin</td>
</tr>
<tr>
<td>A141</td>
<td>A regional reconstruction of debris-flow frequency in a dolomitic valley in the western Austrian Alps</td>
<td>Emily Procter, Michelle Bollschweiler, and Markus Stoffel</td>
</tr>
<tr>
<td>A142</td>
<td>Downstream migration of human impact in the mid-mountain foreland, temperate climatic zone.</td>
<td>Kazimierz Klimek</td>
</tr>
<tr>
<td>A143</td>
<td>Assessment of Late Holocene sediment volume and accumulation rates in valley floors of the Swiss Alps: The Hasli valley and Lütschine Fan delta case study</td>
<td>Filipe Carvalho and Lothar Schulte</td>
</tr>
<tr>
<td>A144</td>
<td>Causes and effects of soil erosion in small catchments of Central Europe</td>
<td>Markus Dotterweich</td>
</tr>
<tr>
<td>A145</td>
<td>Tree-ring responses to climate and to seasonal changes in water levels of an ice-contact glacier in the Western Italian Alps</td>
<td>Valentina Garavaglia, Giovanni Leonelli, Manuela Pelfini, and Laura Camilla Vezzola</td>
</tr>
</tbody>
</table>
A146  EGU2011-10422  
Michelle Bollschweiler, Markus Stoffel, Marco Borga, Francesco Comiti, and Bruno Mazzorana  
Tree rings as a tool to better understand debris-flow occurrence and initiation - a case study from South Tyrol

A147  EGU2011-10543  
Barbara Kogelnig-Mayer, Markus Stoffel, Michelle Bollschweiler, and Johannes Hübl  
Frequency and magnitude reconstructions on sites influenced by debris flows and snow avalanches using tree-ring series and physically-based process models

A148  EGU2011-12799  
Michael Maerker and the EROMED Team  
EROMED Project: “Definition of an integrated model for the predictive evaluation of the water erosion phenomena in the Mediterranean environment

GMPV5 – Monitoring and observations of active volcanoes using in-situ and remote sensing techniques (co-listed) – Posters
Convener: Michael Burton | Co-Conveners: Thomas Staudacher, Jurgen Neuberg, Hugo Delgado Granados, Alessandro Bonaccorso  
Hall A | Display Time 08:00–19:30  
Author in Attendance: 17:30–19:00  
Chairperson: GMPV5 Conveners

A180  EGU2011-6683  
Thomas Staudacher, Andrea Di Muro, Valérie Ferrazzini, Florent Brenguier, Patrice Boissier, Philippe Kowalski, Philippe Caterine, Frédéric Lauret, and François Beauducel  
The Piton de la Fournaise, a closely-monitored volcano

A181  EGU2011-1639  
Francisco Núñez-Cornú and Carlos Suárez-Plascencia  

A182  EGU2011-2711  
Lucia Zaccarelli, Dima Droznin, Nikolai Shapiro, Sergei Senyukov, Evgenii Gordeev, and Victor Chebrov  
Monitoring the activity of Kliuchevskoi volcano through seismic noise cross-correlations

A183  EGU2011-8321  
Sandra Karl, Jurgen Neuberg, and Thomas Roome  
Rethinking moment tensor inversion methods to retrieve the source mechanisms of low-frequency seismic events

A184  EGU2011-1486  
Beatrix Gómez-Izquierdo, Hazel Rymer, José Miguel Azañón, and Guillermo Alvarado  
New structure detected at Poás Volcano (Costa Rica) after the Cinchona Earthquake (January 2009)

A185  EGU2011-2033  
Mariangela Sciotto, Andrea Cannata, Stefano Gresta, Eugenio Privitera, and Laura Spina  
The role of North East Crater in the 13 May 2008 eruption at Mt. Etna by means of seismo-infrasonic events

A186  EGU2011-821  
Amy Dabrowa, David Green, Jeremy Phillips, and Alison Rust  
Remote monitoring of volcanic eruptions using the International Monitoring System infrasound network

A187  EGU2011-2096  
Andrea Cannata, Mariangela Sciotto, Letizia Spampinato, and Laura Spina  
Investigation of explosive activity along an eruptive fissure by infrasound: 2008 Mt. Etna eruption

A188  EGU2011-8476  
Laura Spina, Andrea Cannata, Eugenio Privitera, Sylvie Vergniolle, Carmelo Ferlito, Stefano Gresta, Placido Montalto, and Mariangela Sciotto  
Inside the shallow Mt. Etna plumbing system from analysis of infrasonic signals (August 2007-December 2009)

A189  EGU2011-12095  
Amy Dabrowa, Jeremy Phillips, Alison Rust, and David Green  
Infrasound Generated by Strombolian Eruptions - Insights from Laboratory Experiments

A190  EGU2011-9760  
Alessandro Bonaccorso, Alessandro Bonforte, Gilda Currenti, Ciro Del Negro, and Filippo Greco  
Magma storage, eruptive activity and flank instability: inferences from ground deformation and gravity changes during the 1993-2000 recharging of Mt. Etna volcano

A191  EGU2011-7888  
Karen Pascal, Jurgen Neuberg, and Eleonora Rivalta  
Checking the validity of superimposing analytical deformation models

A192  EGU2011-3971  
Vaso Saltogianni and Stathis C. Stiros  
Modeling the Mogi source of a small-scale inflation episode of the Santorini volcano (Aegean Sea) using EDM data and a numerical-topological approach
A193  EGU2011-11594
**Fabio Sansivero**, Giuseppe Vilardo, Giovanni Chiodini, and Vincenzo Augusti
Thermal IR monitoring of active volcanic areas: instruments and methodologies used at Campi Flegrei Caldera (Italy) in the period 2004-2010 and new technological implementations to plan in near future.

A194  EGU2011-2163
**Sonia Calvari**, Ralf Buettner, Antonio Cristaldi, Piero Dellino, Flora Giudicepietro, Massimo Orazi, Rosario Peluso, Letizia Spampinato, Bernd Zimanowski, and Enzo Bosch
The 7 September 2008 major explosion at Stromboli volcano: Characterisation of the event and quantification of the ejecta from a multi-parametric analysis

A195  EGU2011-5142
**Jonathan Procter**, Gert Lube, Shane Cronin, and Jean-Claude Thouret
Tracing sediment pulses in lahars using multiparameter recording stations and serialised geophones.

A196  EGU2011-5940
**Jacopo Taddeucci**, Corrado Cimarelli, Marie-Noëlle Guilbaud, Miguel Alatorre-Ibargüengoitia, and Hugo Delgado-Granados
A reappraisal of the explosive activity of Xitle volcano, Mexico City.

A197  EGU2011-10917
**Vladimir Conde**, Bo Galle, Angelica Muños, and Hugo Delgado
A Rapid Deployment System for volcano gas monitoring

A198  EGU2011-11874
**Matthias Fickel** and Hugo Delgado Granados
Measurement of SO2 and BrO in the plumes of Mexican volcanoes

A199  EGU2011-12948
**Hendrik Fischer**, Arne Krueger, Peter Rusch, Roland Harig, Roberto Basaldud, and Michel Gruter
Scanning UV Gas Imaging System (SUGIS) applied to study the SO2 Emission from Popocatepetl volcano

A200  EGU2011-5927
**Peter Lübcke**, Nicole Bobrowski, Sebastian Illing, Christoph Kern, Leif Vogel, Johannes Zielcke, and Ulrich Platt
Observing the plume of Popocatépetl and Colima with a novel SO2-Camera

A201  EGU2011-1656
**Paolo Papale**
Early Warning Systems at active volcanoes: trends and challenges

A202  EGU2011-11670
**Luca Merucci**, Michael Burton, Stefano Corradini, and Patrick Allard
Ground- and space-based observations of volcanic degassing during the 2010 Eyjafjallajökull eruption.

A203  EGU2011-7387
**Selami Yilmaz**, Nicole Bobrowski, Harald Flentje, Udo Frieß, Christoph Hörmann, Christoph Kern, Holger Sihler, Leif Vogel, Thomas Wagner, and Ulrich Platt
Observation of the volcanic plume of Eyjafjallajökull over continental Europe by Multi-Axis Differential Optical Absorption Spectroscopy (MAX-DOAS)

A204  EGU2011-10341
**Letizia Spampinato**, Clive Oppenheimer, Andrea Cannata, Placido Montalto, Giuseppe Giovanni Salerno, and Sonia Calvari
Superimposed degassing cycles at active basaltic volcanoes

A205  EGU2011-10804
**Nicole Bobrowski**, Giovanni Bruno Giuffrida, Dario Tedesco, Matthew Yalire, Santiago Arrelliano, Charles Balagizi, and Bo Galle
Gas emission measurements of the active lava lake of Nyiragongo, DR Congo

A206  EGU2011-9018
TDL, UV-DOAS, COSPEC and miniDOAS measurements of the degassing from the summit crater of Teide volcano, Tenerife, Canary Islands

A207  EGU2011-10753
**Patrik Norman**, Bo Galle, Hugo Delgado Granados, Mike Burton, and Silvana Hidalgo
Using meso-scale meteorological modeling to reduce errors in gas flux measurements from volcanoes

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**NH1.7/AS4.6/CL3.6 – Assessment of Weather-related Risk on Agricultural Production and Agribusiness (co-organized) – Orals**
Convener: Ana Maria Tarquis | Co-Conveners: Nicolas R. Dalezios, Antonio Saa, Mikhail Semenov, Fernando Burgaz, Anne Gobin, Marijn van der Velde
**Room**: 4
**Chairperson**: Ana M. Tarquis
15:30–15:45  EGU2011-197  
**Mónica Alexandra Rodrigues**, Ana Monteiro, Solange Leite, and Hervé Quénol  
Climate Observation and Modeling over Land Vines in the Context of Climate Change: a Douro Region Case Study  

15:45–16:00  EGU2011-2664  
Aureliano C. Malheiro, **João A. Santos**, and Joaquim G. Pinto  
Impacts of climate change on viticultural zoning in Europe  

16:00–16:15  EGU2011-2113  
**Fausto Tomei**, Rodica Tomozeiu, Giulia Villani, and Vittorio Marletto  
Climate change and irrigation in northern Italy, scenarios of adaptation from the Agroscenari project  

16:15–16:30  EGU2011-7906  
Zbigniew Szwejkowski, Leszek Kuchar, Ewa Dragańska, and **Krysztof Grabowska**  
Risk in agricultural production in Poland and climate change  

16:30–16:45  EGU2011-10049  
**Nicolas Dalezios**  
Assessment of Cotton Production in Drought-Prone Areas in Greece  

16:45–17:00  EGU2011-13418  
**Anne Gobin**  
Climate impacts on biomass production in Belgium  

**NH1.7/AS4.6/CL3.6 – Assessment of Weather-related Risk on Agricultural Production and Agribusiness**  
(co-organized) – Posters  
Convener: Ana Maria Tarquis | Co-Conveners: Nicolas R. Dalezios, Antonio Saa, Mikhail Semenov, Fernando Burgaz, Anne Gobin, Marijn van der Velde  
**Halls X/Y | Display Time 08:00–19:30**  
Author in Attendance: 17:30–19:00  
Chairperson: Anne Gobin and Nicolas Dalezios  

XY359  EGU2011-200  
**Mónica Alexandra Rodrigues**, Alfredo Rocha, Ana Monteiro, Hervé Quénol, and José Rodrigues de Freitas  
Simulation of the Climatic Risks episodes in the Demarcated Douro Region Vineyards using the WRF model  

XY360  EGU2011-4111  
**Mónica Alexandra Rodrigues**, Ana Monteiro, Maria Helena Pina, Hervé Quenó, and José Rodrigues de Freitas  
Contribution of the Agriculture Advices in the Prevention and Evaluation of Risks in Vineyard within the Demarcated Douro Region  

XY361  EGU2011-12324  
**Barbara Köstner**, Johannes Franke, Thoralf Hänsel, Matthias Kuhnert, Marco Lorenz, and Tobias Donix  
Importance of different climate projections for the analysis of climate impact on agricultural production  

XY362  EGU2011-13018  
**Francesca Todisco**, Francesco Mannocchi, and Lorenzo Vergni  
Intensity-duration-frequency curve for the agricultural drought  

XY363  EGU2011-13074  
Luigi Perini, Luca Salvati, **Antonella De Angelis**, and Sofia Bajocco  
Climate change assessment: proposal for a standardized index  

XY364  EGU2011-13285  
**Marijn van der Velde**  
Contrasting crop responses to extreme weather events  

XY365  EGU2011-13638  
Mario Cunha and **Christian Ricther**  
Modelling the Cyclical Behaviour of Wine Production in Douro Region Using a Time-Varying Parameters Approach  

XY366  EGU2011-1784  
M. Carmen Cartagena, **M.Teresa Castellanos**, A.Maria Tarquis, M. Jesús Cabello, Francisco Ribas, and Augusto Arce  
Risk of nitrate pollution in agricultural systems  

XY367  EGU2011-13729  
**Jose Luis Valencia**, Fredi Leonidas, Antonio Saa-Requejo, Jose María Gasco, and Ana Maria Tarquis  
Spatial and temporal precipitation patterns of the Ebro River Basin, Spain  

XY368  EGU2011-6827  
**Jose M Anton**, Juan B Grau, Ana M Tarquis, Raúl Sánchez, Leonor Rodríguez, and Diego Andina  
Some past decision theory models for euro construction model codes and for road drainage in Spain, and modest hints with multi-criteria methods for agro and environmental assurance
XY369  EGU2011-1894
Ruben Moratiel, José M Durán, Richard L. Snyder, and Ana M. Tarquis
Future reference evapotranspiration in Duero Valley (Spain)

XY370  EGU2011-1944
Pieranna Servadio, Simone Bergonzoli, and Davide Dell'Unto
Effects on some soil qualities following the traffic of high axle load machinery at different water contents

XY371  EGU2011-5076
Angelica Giarolla, Priscila S. Tavares, Chou S. Chan, and Renan L. B. Souza
Evaluation of seasonal forecasts of surface air temperature from Eta model for a soybean producing location in Brazil

XY372  EGU2011-2737
Saeb Khresat
Assessment of the risks from climate change and water scarcity on agriculture production in Jordan

XY373  EGU2011-3252
Araya Berhe, Saskia Keesstra, and Leo Stroosnijder
Simple model for assessing climatic constraints under the past and present agriculture in the northern Ethiopia

XY374  EGU2011-5917
Eline Vanuytrecht and Dirk Raes
Assessment of the 'CO2 fertilization effect' on crops with the AquaCrop model

XY375  EGU2011-6284
Franziska Strauss, Franz Sinabell, and Erwin Schmid
The relative weight of weather risks in crop production volatility in Austria

XY376  EGU2011-6508
Jose M Anton, Juan Bautista Grau, Colombo Speroni, Lisandro De los Rios, Diego Andina, and Ana Maria Tarquis
Mathematical model for the arrangement and the cleaning of the river basin and surroundings of the river sandy grounds to its passage by the city of Salta (Argentina)

XY377  EGU2011-10291
Antonio Saa, Ana Tarquis, Mª Rosario García, Mª Cruz Díaz, and Fernando Burgaz
Extreme temperature events analyzed with Fast Fourier Transform

XY378  EGU2011-13624
Fulgenicio Buendia, Rafael Bermudez, Ana Maria Tarquis, and Diego Andina
FMECA Application in Rainfall Hazard Prevention

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, Qi 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 Remy Garçon  
Operational use of ensemble hydrometeorological forecasts at EDF (French producer of energy)

A298  EGU2011-13811  
**Nicola Rebora**, 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 Thiemig, **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 Bliefernicht, 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 Thiene-del Pozo, and Peter Salamon
Improving risk prevention through flash flood ensemble early warning

GMPV10/G3.11/NH2.7/TS1.8 – Volcano deformation, dynamics, and deep structure (co-organized) – Orals
Convener: Valerio Accocella | Co-Conveners: Agust Gudmundsson, Giuseppe Puglisi, Sigurjon Jonsson, Thomas R. Walter
Room: 20
Chairperson: Accocella/Gudmundsson

10:30–10:45  EGU2011-9272
Robert (Bob) White, Hilary Martens, Janet Key, Heidi Soosalu, and Steinunn Jakobsdottir
Dyke Propagation and Deformation under the Icelandic Rift Zone Tracked by Seismicity.

10:45–11:00  EGU2011-10053
Margaret Hartley and Thor Thordarson
Formation of Óskjuvatn caldera at Askja, north Iceland: evolution of caldera collapse and implications for the lateral flow hypothesis

11:00–11:15  EGU2011-13562
Freysteinn Sigmundsson, Olgeir Sigmarsson, Andy Hooper, Sigrún Hreinsdóttir, Sigurlaug Hjaltadóttir, Kristín Vögfröð, Póra Árnadóttir, Rikke Pedersen, Páll Einarsson, Kurt Feigl and the Eyjafjallajökull volcano anatomy Team
The 2010 inflation and deflation sources of Eyjafjallajökull: Magma flow, geochemical characteristics and evidence for intrusion triggering of the explosive summit eruption

11:15–11:30  EGU2011-12804
Andrew Hooper, Freysteinn Sigmundsson, Sigrún Hreinsdóttir, Thóra Árnadóttir, David Bekaert, Rikke Pedersen, Matthew Roberts, Páll Einarsson, Benedikt Ófeigsson, Kurt Feigl and the Eyjafjallajökull Geodetic Team
The 2010 inflation and deflation sources of Eyjafjallajökull: Modelling of geodetic data from InSAR and GPS

11:30–11:45  EGU2011-9347
Carolina Pagli, Tim Wright, Hua Wang, Eric Calais, Laura Bennati, Cynthis Ebinger, Manahloh Belachew, and Elias Lewi
Geodynamics of Afar: 3D crustal velocities and strain rates from multiple InSAR tracks and GPS

11:45–12:00  EGU2011-12013
Eleonora Ravalli, Marco Beleggia, and Torsten Dahm
The changing shape of dykes during propagation explains the pattern of induced seismicity

LUNCH BREAK

Chairperson: Walter/Acocella
13:30–13:45 EGU2011-9800
Agust Gudmundsson, Nahid Mohajeri, and Zoe Barnett
Power-law size distributions in volcanotectonics

13:45–14:00 EGU2011-430
Joel Ruch, Valerio Acocella, Fabrizio Storti, Marco Neri, Susi Pepe, Giuseppe Solaro, and Eugenio Sansosti
Detachment depth revealed by rollover deformation: an integrated approach at Mount Etna.

14:00–14:15 EGU2011-11476
Alessandro Bonforte, Francesco Guglielmino, and Giuseppe Puglisi
Dynamics preceding and accompanying the 2008-2009 Eruption of Mt. Etna (Italy) imaged by integrated GPS and DInSAR data

14:15–14:30 EGU2011-12004
Danila Scandura, Alessandro Bonaccorso, Gilda Currenti, and Ciro Del Negro
FEM-based inversion of DInSAR data to infer coseismic slip distribution along Pernicana Fault System at Mt Etna

14:30–14:45 EGU2011-2871
Nobuo Geshi, Joel Ruch, and Valerio Acocella
Relationships between caldera size and eruptive volume of magma

14:45–15:00 EGU2011-11641
Eoghan Holohan, Thomas Walter, John Walsh, Benjamin van Wyk de Vries, Martin Schöpfert, and Valentin Troll
Origin and Significance of Oblique-slip Faulting during Caldera Collapse

Chairperson: Jonsson/Puglisi

15:30–15:45 EGU2011-9301
Guillermo Caravantes González, Jeffrey Zurek, Hazel Rymer, Corinne Locke, John Cassidy, and Glyn Williams-Jones
Structural and geophysical study of Masaya Caldera

15:45–16:00 EGU2011-8670
Christelle Wauthier, Valérie Cayol, François Kervyn, and Nicolas d'Oreye
Nyiragongo Volcano 2002 Eruption Constrained by Multibeam InSAR Data

16:00–16:15 EGU2011-11962
Mariarosaria Manzo, Pietro Tizzani, Giuseppe Solaro, Eugenio Sansosti, Paolo Berardino, Andrea Manconi, Antonio Pepe, Susi Pepe, and Riccardo Lanari
Twenty years of ground deformation monitoring at Campi Flegrei caldera (Southern Italy) via advanced space-based remote sensing techniques

16:15–16:30 EGU2011-9561
Michael Lisowski, Maurizio Battaglia, and Michael Poland
Analysis of GPS-measured deformation before, during, and after the 2004-2008 dome-building eruption of Mount St. Helens, Washington

16:30–16:45 EGU2011-11916
Francesco Casu
Present scenario and new perspectives for Differential SAR Interferometry in volcanic areas

16:45–17:00 EGU2011-4399
Jose Fernandez and Antonio G. Camacho
Modelling geodetic changes at volcanic areas by extended sources. Model and application examples.

GMPV10/G3.11/NH2.7/TS1.8 – Volcano deformation, dynamics, and deep structure (co-organized) – Posters
Convener: Valerio Acocella | Co-Conveners: Agust Gudmundsson, Giuseppe Puglisi, Sigurjon Jonsson, Thomas R. Walter
Hall A | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Gudmundsson/Jonsson/Puglisi/Walter

A208 EGU2011-10760
Maike Schubert, Thomas Driesner, Taras Gerya, and Peter Ulmer
Basaltic magma as trigger for felsic intrusions

A209 EGU2011-1102
Gabriele Uenzelmann-Neben, Daniela N. Schmidt, Frank Niessen, and Ruediger Stein
Glacial rebound causes intraplate volcanism off South Greenland

A210 EGU2011-2638
Vadim Milyukov and Andrey Myasnikov
Monitoring the state of the magmatic structures of Elbrus volcano based on observation of lithospheric deformations
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<th>A211</th>
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<td>Virgílio Mendes, <strong>José Madeira</strong>, António Trota, António Brum da Silveira, Joaquim Pagarete, and Pedro Elósegui</td>
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<td>GPS surveying in S. Jorge, Azores, reveal volcanic unrest?</td>
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<td><strong>Marco Neri</strong>, Joel Ruch, Bornas Ma. Antonia Vidamo, Martinez-Villegas Mylene, Bariso Ericson, and Bignami Christian</td>
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<td>Volcano-tectonic evolution of Mt. Kanlaon, Negros Island, Philippines</td>
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<tr>
<td><strong>Ingrid Fjeldskaar Løtveit</strong>, Agust Gudmundsson, and Willy Fjeldskaar</td>
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<td>Mechanical and thermal effects of sill emplacement in layered rocks</td>
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<td><strong>Joel Ruch</strong>, Adriano Nobile, Valerio Accocella, and Nobuo Geshi</td>
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<td>Volcano collapse and pit crater formation using analogue models: an application to Myiakejima, Japan.</td>
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<td><strong>Valerio Accocella</strong>, Giuseppe Solaro, Susi Pepe, Joel Ruch, Marco Neri, and Eugenio Sansosti</td>
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<td>Anatomy of an unstable volcano from InSAR: multiple processes affecting flank instability at Mt. Etna, 1994-2008</td>
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<tr>
<td><strong>Amalia Bonanno</strong>, Vincenzo Vinciprova, Giuseppe Puglisi, and Giuseppe Nunnari</td>
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<td>FE Modeling of the instable eastern flank of Mt. Etna volcano during the inter-eruptive period 2003 - 2004</td>
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<td><strong>Francesco Guglielmino</strong>, Alessandro Bonforte, Giuseppe Puglisi, Christian Bignami, Salvatore Stramondo, Francesco Obrizzo, Urs Wegmüller, and Pierre Briole</td>
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<td>The April 3, 2010 earthquake along the Pernicana fault (Mt. Etna - Italy): analysis of satellite and in situ ground deformation data integrated by the SISTEM approach</td>
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<td>Marco Aliotta, Andrea Cannata, Daniele Carbone, Giuseppe Di Grazia, Salvatore Gambino, Francesco Guglielmino, Placido Montalto, Domenico Patanè, and <strong>Giuseppe Puglisi</strong></td>
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<td>Geophysical effects of the lava fountain episodes at Mt. Etna: insights on the shallow plumbing system</td>
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<td>Giorgio De Guidi, <strong>Salvatore Scudero</strong>, and Stefano Gresta</td>
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<td>Relationship between surface and deep structure at Mt. Etna volcano (Sicily)</td>
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<td><strong>Christina Plattner</strong>, Falk Amelung, Scott Baker, Rob Govers, and Mike Poland</td>
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<td>Modeling flank motion at Kilauea volcano (Hawai‘i): Insights in the dynamic interaction between tectonic and magmatic driving forces for volcano deformation</td>
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<td><strong>Fabien Albino</strong>, Virginie Pinel, and Freysteinn Sigmundsson</td>
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<td>Influence of surface load variations on shallow magma storage zones: Application to Icelandic subglacial volcanoes</td>
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<td><strong>Andreas Fichtner</strong> and Hrvoje Tkalcic</td>
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<td>Insights into the kinematics of a volcanic caldera drop: Probabilistic finite-source inversion of the 1996 Bardarbunga, Iceland, earthquake</td>
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<td><strong>Thomas R. Walter</strong></td>
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<td>Web-cam Strain Measurement at Mount St. Helens from 2004-2008</td>
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<td><strong>Thomas Dewez</strong>, Clément Hibert, Anne Mangeney, Philippe Kowalski, Philippe Catherine, and Gilles Grandjean</td>
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<td>Ground-based stereo-photogrammetric monitoring of the active crater of Piton de la Fournaise, La Réunion Island</td>
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<td><strong>Adriano Nobile</strong>, Joel Ruch, Valerio Accocella, Sven Borgstrom, Valeria Siniscalchi, Eugenio Sansosti, Andrea Manconi, and Yosuke Aoki</td>
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<td>Deformation on Aso Caldera (SW Japan) detected through DInSAR</td>
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<td>Antonio Troiano, Maria Giulia Di Giuseppe, Zaccaria Petrillo, Claudia Troise, and <strong>Giuseppe De Natale</strong></td>
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<td>Ground deformation at calderas driven by fluid injection: modelling unrest episodes at Campi Flegrei (Italy)</td>
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<td><strong>Sébastien Leibrandt</strong>, Pierre-Yves Gillot, and Anthony Hildenbrand</td>
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<td>Emplacement of large volcanoclastic breccia volumes in relationship with the evolution of a central caldera: volcanic history of the Cantal massif (France)</td>
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A228  EGU2011-7956
Muriel Gerbault
Conditions for shear and tensile failure around an inflating circular magmatic chamber: internal overpressure and shear band geometries obtained from analytical and numerical elasto-plastic models

A229  EGU2011-8541
Rodrigo del Potro, Joachim Gottsmann, Antonio Camacho, and Mayel Sunagua
Deep structure beneath Uturuncu volcano in the central Andes: Insights from new density anomaly models

A230  EGU2011-9772
Ricardo Ramalho, George Helffrich, Michael Cosca, Derek Vance, Dirk Hoffmann, and Daniela N. Schmidt
Ocean Island Uplift, the Cape Verde Example

A231  EGU2011-11713
Manoochehr Shirzaei, Thomas R. Walter, Hamid. R. Nankali, and Eoghan. P. Holohan
Gravity-driven deformation of Damavand volcano detected through InSAR time series

A232  EGU2011-11425
Pietro Tizzani, Andrea Manconi, Giovanni Zeni, Antonio Pepe, Marinarosaria Manzo, Antonio Camacho, José Fernández, Paolo Berardino, Francesco Casu, and Riccardo Lanari
A unitary physical model for the long- and short-term deformation field revealed at Tenerife volcanic island

NH3.8 – Large slope instabilities: characterisation, dating, triggering, monitoring and modelling – Orals
Convener: Giovanni Crosta | Co-Conveners: John Clague, Lars Blikra, Michel Jaboyedoff, Federico Agliardi, Oliver Korup
Room: 1
Chairperson: Crosta G.B., Clague, J.J

13:30–13:45  EGU2011-2215
Marc Ostermann and Diethard Sanders
At least 500 post-glacial catastrophic rockslides/rock avalanches in the Alps: Is there a message?

13:45–14:00  EGU2011-13028
Andrea Pedrazzini, Michel Jaboyedoff, Alexander Loye, and Battista Matasci
Distribution and characteristics of large slope instabilities in Rhone Valley (Switzerland)

14:00–14:15  EGU2011-3877
Catherine Cloutier, Jacques Locat, and Réjean Couture
Displacement patterns obtained from monitoring at the Gascons rockslide, Gaspé Peninsula, Canada

14:15–14:30  EGU2011-8911
Roberta Pellicani, Filomena Canora, and Giuseppe Spilotro
Experiences from the monitoring of the large landslide of Aliano (Basilicata, Italy)

14:30–14:45  EGU2011-5143
Masahiro Chigira, Takehiro Hariyama, and Shintaro Yamasaki
Internal structures of an early stage of gravitational slope deformation on a dip slope of sedimentary rocks

14:45–15:00  EGU2011-5622
Stephane Bouissou, Romain Darnault, Alexandre Chemenda, and Yann Rolland
Gravitational rock slope failure and associated fracturing: New insights from geological analysis and numerical modeling

Chairperson: Jaboyedoff, M., Agliardi, F.

15:30–15:45  EGU2011-5793
Pascal Lacroix and David Amitrano
Modeling the long term dynamic and damage of large rockslides

15:45–16:00  EGU2011-7501
Zerathe Swann, Lebourg Thomas, and Bigot-Cormier Florence
Long-term evolution and variations of maturation of deep-seated slope failures, insights from the “La Marbrière” slope (Southern Alps, France).

16:00–16:15  EGU2011-8651
Daria Marchetti, Giacomo D’Amato Avanzi, Roberto Giannecchini, and Alberto Puccinelli
The importance of the geological model in large slope instabilities: the case of Marinasco-Strà landslide (Eastern Liguria, Italy)

16:15–16:30  EGU2011-10865
Luca Zorzi, Matteo Massironi, Rinaldo Genevois, Stefan Schneiderbauer, and Volkmar Mair
Inherited structures and slope evolution: the case of the left slope of the Ridnaun Valley.

16:30–16:45  EGU2011-6203
Fernando Ornelas Marques, Anthony Hildenbrand, João Catalão, Cristina Maria Cattita, and Ana Cristina Costa
Active large sector collapse on Pico Island (Azores)
Keh-Jian Shou and Shih-Tsu Chen
On the ancient Song-Mao landslide in Taiwan

XY379  EGU2011-1067
Chiara Boccali, Stefano Devoto, Claudia Strada, and Luca Zini
Geomorphological characterization and monitoring of slope movements between Salurn and Neumarkt (Adige Valley, Italy)

XY380  EGU2011-3412
Ewald Brueckl, Fritz K. Brunner, Erich Lang, Stefan Mertl, Martin Mueller, and Ulrike Stary
The Gradenbach Observatory - monitoring in-stationary deep-seated gravitational creep by geodetic, hydrological, and seismological methods

XY381  EGU2011-3437
Engielle Mae Paguican, Benjamin van Wyk de Vries, and Alfredo Mahar Francisco Lagmay
Hummocks in large avalanches: how they form and what they mean

XY382  EGU2011-4050
Ching-Wei Lin and Yen-Yen Li
The Influence of Geological Structures on the Initiation of Large Landslides: An Example from Hsiaolin Landslide Induced by Typhoon Morakot in 2009, Taiwan

XY383  EGU2011-4419
Pantaleone De Vita, Maria Teresa Carratù, Giovanni La Barbera, and Roberto Santoro
Kinematics and geological constraints of the constant slow moving Pisciotta earth slide (southern Italy)

XY384  EGU2011-5228
Marc-Andre Brideau
Characterization of a large landslide complex in weak rock at Cape Turnagain, North Island, New Zealand.

XY385  EGU2011-5671
Stephane Bouissou, Thomas Bois, and Michel Jaboyedoff
Influence of structural heterogeneities and of large scale topography on imbricate gravitational rock slope failures: New insights from 3-D physical modeling and geomorphological analysis.

XY386  EGU2011-5869
Yu-Chang Chan, Kou-Jen Chang, and Rou-Fei Chen
Geologic structures contributing to the catastrophic Xiaolin landslide in Taiwan: Evidence from pre- and post-landslide airborne LiDAR data

XY387  EGU2011-6310
Karine Bernard and Benjamin van Wyk de Vries
Characterisation of breccia structure at the base of large landslides: a necessary step for modelling.

XY388  EGU2011-10165
Meei-Ling Lin, Kuo-Lung Wang, Jui-Tung Liao, Bin-Sheng Yu, Sheng-Chi Lin, Chao-Wei Chen, Li-Yuan Fei, Chung-Ji Ji, and Hsi-Horng Lin
Investigation and analysis of a landslide area subjected to faults and fracture materials- the Tsuiluan area in Central Taiwan

XY389  EGU2011-6879
Alessandro Sacchini, Francesco Faccini, and Mauro Piccasso
Large-scale landslides in Upper Scrivia Valley (Ligurian Apennine, Italy)

XY390  EGU2011-5794
Andrew Kos, Alexandra Signer, Phillip Schaer, Tazio Strozzi, Florian Amann, Giorgio Valenti, and Simon Loew
New insights into the kinematic behaviour of the Alpe di Roscioro rock slope instability, Canton Tessin, Switzerland

XY391  EGU2011-6526
Vincent Lebrouc, Stéphane Schwartz, Laurent Baillet, Denis Jongmans, Jean François Gamond, Julien Carcaillot, Olivier Le roux, Didier Bourles, and Régis Braucher
Dynamic characterisation of gravitational movements affecting the southern edge of Belledonne massif (French Alps): contribution of CRE dating and thermal modeling

XY392  EGU2011-6920
Anna Roccati, Francesco Faccini, Mauro Piccasso, and Flavio Poggi
Geomorphological characterisation and PSInSAR monitoring activities of a large slope instabilities in the External Liguride ophiolites (Northern Apennine, Italy)
Large landslide along the Adriatic coastline in Southern Italy

In situ and remote long-term real-time monitoring of a large alpine rockslide

Forecasting landslide motion by a dynamic elasto-visco-plastic model

Characterisation and movements’ quantification using structural analysis, remote sensing and geological modelling methods of the ‘Borns du Diable

Modelling Mortisa large slow-moving landslide (Northern Italy) through geomorphological analysis

An integrated Distinct Element Modeling and Remote Sensing Study of the Barrier, British Columbia, Canada

Effects of the interaction between rock avalanche and substrate material

Large scale reconstruction of fragmentation in a rock avalanche deposit

Modeling rock avalanche propagation onto glaciers

Susceptibility analysis of large rock instabilities

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 Krzemsinska and Thom Bogaard
On the influence of fissure flow on the landslide activity

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  
Grigoris 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 Pandolfi, 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  
Guénoël 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 Defontaines, Sophie Violette, Noémí 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
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<th>Paper No.</th>
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<tr>
<td>Title</td>
<td>Steffen Popp-Hofmann, Daniel Altdorff, David Sauer, and Peter Dietrich</td>
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<tr>
<td>Abstract</td>
<td>Geoelectrical exploration of subsurface structures and processes of the Alpine “Heumöser” hillslope</td>
</tr>
<tr>
<td>Authors</td>
<td>Steffen Popp-Hofmann, Daniel Altdorff, David Sauer, and Peter Dietrich</td>
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<tr>
<td>Title</td>
<td>Marco Walter and Manfred Joswig</td>
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<tr>
<td>Abstract</td>
<td>Permanent seismic monitoring of fracture processes caused by fast water infiltrations at the Heumöser slope, Austria</td>
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<tr>
<td>Authors</td>
<td>Marco Walter and Manfred Joswig</td>
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<tr>
<td>Title</td>
<td>Elias Garcia Urquia and Kennett Axelson</td>
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<tr>
<td>Abstract</td>
<td>The Role of Antecedent Rainfall on the Activation of Landslides in Tegucigalpa, Honduras</td>
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<td>Authors</td>
<td>Elias Garcia Urquia and Kennett Axelson</td>
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<tr>
<td>Title</td>
<td>Julien Gance, Séverine Bernardie, Rosalie Vandromme, and Gilles Grandjean</td>
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<tr>
<td>Abstract</td>
<td>Contribution of seismic tomography for taking soil variability into account in landslide stability numerical modelling</td>
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<td>Title</td>
<td>Emilie Garel, Anne-Laure Cognard-Plancq, Michel Esteves, Nicole Mathys, Sébastien Klotz, Dominique Renard, Micheline Debroux, and Vincent Marc</td>
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<tr>
<td>Abstract</td>
<td>Monitoring water content in highly-clayey soils: calibration, temperature dependence and field use of “WCR” probes</td>
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<tr>
<td>Authors</td>
<td>Emilie Garel, Anne-Laure Cognard-Plancq, Michel Esteves, Nicole Mathys, Sébastien Klotz, Dominique Renard, Micheline Debroux, and Vincent Marc</td>
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**NH4.1/SM5.8 – Seismo electro-magnetic phenomena and earthquakes precursors (co-organized) – Orals**

Convener: Pier Francesco Biagi | Co-Conveners: Masashi Hayakawa, Oleg Molchanov, Tommaso Maggipinto

**Room: 10**

Chairperson: Pier Francesco Biagi

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<td>Analysis of the DEMETER data related to seismic activity bringing Chile area into focus</td>
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Mohammed Y. Boudjada, Konrad Schwingenschuh, Emad Al-Haddad, Michel Parrotot, Patrick Galopeau, Bruno Besser, Günter Stangl, and Wolfgang Voller
Effect of solar and geomagnetic activities on the reception of sub-ionospheric VLF transmitter signals by DEMETER micro-satellite

Masashi Hayakawa, Yasushi Kasahara, Takashi Nakamura, Yasuhide Hobara, Shinichirou Asai, and Toru Inaba
Observation of Doppler shifts of subionospheric VLF/LF signals and the seismic effect

Valery Korepanov, Fedir Dudkin, Masashi Hayakawa, and Olha Leontyeva
Local lithospheric magnetic activity before selected earthquakes in Japan

Dimitar Ouzounov, Katsumi Hattori, Sergey Pulinets, Tiger Liu, Michel Parrot, Menas Kafatos, Patrick Taylor, Frank Yang, Kaori Oyama, and Shimpei Kon
Integrated Sensing, Analysis and Validation of Atmospheric Signals Associated with Major Earthquakes

Chairperson: Masashi Hayakawa/Tommaso Maggipinto

Oleg Molchanov and Alexander Schekotov
To predict something is better than nothing

Mariano Lisi, Carolina Filizzola, Nicola Genzano, Nicola Pergola, and Valerio Tramutoli
Reducing atmospheric effects on RST analysis by exploiting TIR split windows channels on MSG/SEVIRI satellite sensor: the case of Abruzzo earthquake (April 6, 2009; MI~5.8)

Francesco Mancini and Angelo Galeandro
Assessing the ionospheric Total Electron Content (TEC) from GPS measurements as a possible precursor of high magnitude earthquakes

Gerald Duma, Friedemann Freund, Max Lazarus, Taha Rabeh, and Robert Dahlgren
New results on the solar impact on global seismicity

Konrad Schwingenschuh, Alexander Rozhnoi, Maria Solovieva, Massimo Vellante, Umberto Villante, Petko Nenoveki, Victor Wesztergom, Pier Francesco Biagi and the SEM Team
Coordinated ground-based ULF and sub-ionospheric VLF seismo-electromagnetic investigations in Europe

Yasuhide Hobara, Tasku Kamoi, and Masashi Hayakawa
Statistical property of the ULF magnetic emissions in relation with Izu Island earthquake swarm in Japan

Alexander Rozhnoi, Maria Solovieva, Pier Francesco Biagi, Konrad Schwingenschuh, and Masashi Hayakawa
LF signal spectrum analysis for strong earthquakes

Masha Solovieva, Alexander Rozhnoi, Michel Parrot, Konrad Schwingenschuh, Masashi Hayakawa, and Pier Francesco Biagi
Correlation of VLF/LF variations from ground and satellite observations with magnetic activity and outer-zone particles

Pier Francesco Biagi, Flavia Righetti, Tommaso Maggipinto, Anita Ermini, Iren Moldovan, Adrian Moldovan, Aydin Buyukzarac, Hugo da Silva, Mourad Bezzeghoud, and Michael Contadakis
Analysis of the LF data collected by the European radio network during one year
XY406  EGU2011-7444
Hugo Gonçalves da Silva, Cláudia Serrano, António Domingos Heitor Silva Reis, Mourad Bezzeghoud, Rui Namorado Rosa, José Fernando Borges, Bento Caldeira, Mouhaydine Tlemçani, and Pier Francesco Biagi
Influence of seismic activity in the atmospheric electrical field in Lisbon (Portugal) from 1961 until 1991

XY407  EGU2011-2376
Iren-Adelina Moldovan, Adrian Moldovan, Pier Francesco Biagi, Constantin Ionescu, Anica Otilia Placinta, Tommaso Maggipinto, Konrad Schwingenschuh, and Mohammed Y. Boudjada
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XY408  EGU2011-6669
Iren-Adelina Moldovan, Constantin Ionescu, Anica Otilia Placinta, Angela Constantin, Emilia Popescu, and Adrian Septimiu Moldovan
Geomagnetic anomalies recorded at Muntele Rosu (Romania) seismic observatory and their statistical correlation with earthquake occurrence and solar magnetic storms

XY409  EGU2011-2166
Palangio Paolo Giovanni and Di Lorenzo Cinzia
Transient electromagnetic phenomena associated with L'Aquila earthquake

XY410  EGU2011-2602
Palangio Paolo Giovanni and Di Lorenzo Cinzia
Eulerian component of secular variation associated with the Mw 6.3 L'Aquila earthquake sequence of April 2009

XY411  EGU2011-10502
Angelo De Santis, Gianfranco Cianchini, Cinzia Di Lorenzo, Domenico Di Mauro, Manuele Di Persio, Barbara Iezzi, Paolo Palangio, Enkelejda Qamili, and Lixin Wu
Analysis of the geomagnetic field transfer functions during the 2009 L'Aquila seismic sequence

XY412  EGU2011-1510
Masashi Hayakawa
On the fluctuation spectra of seismo-electromagnetic phenomena

XY413  EGU2011-2713
Florian Fülbert, Claudia-Veronika Meister, Steffen Hauf, Uwe Bonnes, Peter Dziendziel, and Dieter H.H. Hoffmann
The Darmstadt VLF radiophysical station VADAR for the detection of possible earthquake precursors

XY414  EGU2011-12199
Claudia-Veronika Meister, Benjamin Mayer, and Dieter H.H. Hoffmann
Modeling of ionospheric electromagnetic earthquake precursors

XY415  EGU2011-10107
Gustav Prattes, Konrad Schwingenschuh, Hans Eichelberger, Manfred Stachel, Werner Magnes, Massimo Vellante, Umberto Villante, and Petko Nenovski
Epicenter location determination by an ULF magnetic field polarization technique analyzing the 2009 L'Aquila earthquake

XY416  EGU2011-13608
Panagiotis Kyriazis, Ilias Stavrakas, Cimon Anastasiadis, Dimos Triantis, and John Stonham
Mechanically stimulated electric signals modelled as extreme micro-current distributions

XY417  EGU2011-6469
Dimos Triantis, Cimon Anastasiadis, Ilias Stavrakas, and Filippos Vallianatos
Electric signal emissions from rock samples used as failure predictors

XY418  EGU2011-13528
Anatoliy Kotsarenko, Vladimir Grimalsky, Vsevolod Yutsis, Roman Perez Enriquez, Svetlana Koshevaya, Gustavo Urquiza Beltran, Luis Ivan Medina Perez, Carlos Valdes Gonzales, and Ana Gabriela Bravo Osuna
Final results of the Radon concentration study in volcano Popocatepetl area, Mexico, Dec 2007 - Dec 2009

XY419  EGU2011-9666
Alejandro Ramirez-Rojas, Luciano Telesca, and Fernando Angulo-Brown
Study of entropy in the natural time domain of geoelectrical time series monitored in Guerrero-Oaxaca, México.

XY420  EGU2011-375
Ioseb Turazashvili and Nino Kachakhidze
Problem of Identity of Acoustic and Electromagnetic Emission Area

XY421  EGU2011-590
Kenichi Yamazaki
Variations in the magnetic field arising from the propagation of seismoelectric waves in magnetized crust with finite conductivity

XY422  EGU2011-800
Vikram Singh and Birbal Singh
Ground observation of electromagnetic emissions related to clusters of earthquakes
**XY423** EGU2011-2075


Coordinated measurements of ionospheric, electromagnetic and geodynamic parameters in the Baikal rift system in summer of 2009 and 2010

**XY424** EGU2011-6371

**Tatsuo Onishi**, Jean-Jacques Berthelier, and Masashi Kamogawa

Critical analysis of plasma wave disturbances over the Sichuan region in a period encompassing the May 12, 2008 EQ

**XY425** EGU2011-13610

**Victor Novikov**

Towards Earthquake Prediction Based on Electromagnetic Triggering Phenomena

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**NH4.3/SM5.1 – Seismic hazard evaluation, precursory phenomena and reliability of prediction (co-organized) – Orals**

Convener: Michael E. Contadakis | Co-Conveners: Jochen Zschau, Thomas Xenos, Pier Francesco Biagi

**Room:** 11

Chairperson: Michael Contadakis

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**NH4.3/SM5.1 – Seismic hazard evaluation, precursory phenomena and reliability of prediction (co-organized) – Posters**

Convener: Michael E. Contadakis | Co-Conveners: Jochen Zschau, Thomas Xenos, Pier Francesco Biagi

**Halls X/Y | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Michael Contadakis, Thomas Xenos, Jochen Zschau, Pier Francesco Biagi

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XY430  EGU2011-2387
Maling Yang, Daqing Chen, Yuanmin Huang, and Huiling Gong
Abnormal gas wells’ pressure before and after the Wenchuan earthquake of Zhongba gas field in Sichuan province

XY431  EGU2011-3075
Renata Gazdova, Oldrich Novotny, Jiri Malek, Jan Valenta, Milan Broz, and Petr Kolinsky
Groundwater level variations in the seismo-active region of western Bohemia in the years 2005-2010

XY432  EGU2011-3852
Tatyana A. Smaglichenko, Andrey V. Gorbatikov, Alexander V. Smaglichenko, and Aleksey V. Nikolaev
The role of seismic tomography for the Earthquake Early Warning system

XY433  EGU2011-5372
Sin Mei Ng
Earthquake intensity scale problem in Taiwan as revealed by damaging events in the past decade

XY434  EGU2011-5807
Andrea Antonioli, Simone Atzori, and Giuseppe Pezzo
Coseismic stress evolution, different patterns from different slip distributions

XY435  EGU2011-6290
Elias Tsiapas, Despina Soumelidou, and Christos Tsiapas
EARTHQUAKES - VOLCANOES(Causes - Forecast - Counteraction)

XY436  EGU2011-6517
Marco Amanti, Giuseppe Di Capua, Silvia Peppoloni, Carlo Cipolloni, Giovanni Conte, Danilo Avola, and Andrea Del Buono
The SEE-GeoForm WebGIS: a tool for seismic data and hazard analysis

XY437  EGU2011-6639
Margarita Moisidi, Derek Rust, Stephen Kershaw, Pantelis Soupis, Filippos Vallianatos, and Sabatino Piscitelli
Geological and geophysical evidences for seismic hazard assessment of northwestern and southwestern Crete (Greece)

XY438  EGU2011-7875
Tensay Berhe and Wei Wu
Effect of valley shape on the seismic response of earthfill dam - a 3D numerical parametric study

XY439  EGU2011-10588
Demetrios Plakias, Taxiarchis Papakostas, and Filippos Vallianatos
A first principles approach to understand the physics of precursory accelerating seismicity

XY440  EGU2011-10645
Filippos Vallianatos, Alexis Cartwright-Taylor, and Peter Sammonds
A spatiotemporal non-extensive approach to investigate seismicity of 6th April 2009, ML5.8, L’Aquila (Central Italy) earthquake.

XY441  EGU2011-10690
Filippos Vallianatos, George Michas, George Papadakis, and Peter Sammonds
A non extensive statistical physics view to the June 1995, Aigion earthquake (M6.2) aftershock sequence (West Corinth rift).

XY442  EGU2011-10723
Filippos Vallianatos and Peter Sammonds
Non-extensive thermodynamics applied to global seismicity before and after the Sumatran mega-earthquake.

XY443  EGU2011-10810
Filippos Vallianatos, George Hloupis, and Ilias Papadopoulos

NH5.1 – New developments in tsunami science and in mitigation of tsunami risk, including early warning – Orals
Convener: Stefano Tinti | Co-Conveners: Ira Didenkulova, Helene Hebert
Room: 4
Chairperson: Stefano Tinti

08:30–08:45  EGU2011-1628
Mikhail Nosov and Anastasiya Moshenceva
Residual hydrodynamic fields in the ocean due to tsunamigenic earthquakes

08:45–09:00  EGU2011-101
Ira Didenkulova, Irina Nikolkina, Efim Pelinovsky, and Narcisse Zahibo
Tsunami waves generated by submarine landslides of variable volume

09:00–09:15  EGU2011-13429
José M. González Vida, Manuel J. Castro, Marc de la Asunción, Enrique D. Fernández-Nieto, Jorge Macías, and Carlos Parés
Modelling submarine avalanches and generated tsunamis. Application to tsunami effects forecasting.
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| 09:15–09:30 | **EGU2011-9441**  
Fahad Mohammed and Hermann Fritz  
Tsunami generation and propagation by 3D deformable granular landslides |
| 09:30–09:45 | **EGU2011-3010**  
Stephane Popinet  
Quadtree-adaptive tsunami modelling |
| 09:45–10:00 | **EGU2011-4537**  
Gerassimos A. Papadopoulos, Elena Daskalaki, and Anna Fokaefs  
The intensity field of tsunamis |

**COFFEE BREAK**

Chairperson: Ira Didenkulova

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Emile Okal, Hermann Fritz, Mohammad Ali Hamzeh, Javad Ghasemzadeh, and Majid Naderi  
Field survey of the 1945 Makran Tsunami in Southeastern Iran |
| 10:45–11:00 | **EGU2011-2891**  
Finn Levholt, Geir Pedersen, Sara Bazin, Daniela Kühn, and Carl Bonnevie Harbitz  
Tsunami run-up variability due to heterogeneous slip on the fault plane |
| 11:00–11:15 | **EGU2011-2996**  
Carl Bonnevie Harbitz, Kjetil Sverdrup-Thygeson, Gunilla Kaiser, Rowan Swarny, Laura Gruenburg, Syttfest Glimsdal, Finn Levholt, Brian McAdoo, and Regula Frauenfelder  
GIS methodologies for local tsunami risk assessment - validation for the 2009 South Pacific tsunami in American Samoa |
| 11:15–11:30 | **EGU2011-3702**  
José A. Álvarez-Gómez, Omar Quetzalcoatl Gutierrez Gutierrez, Íñigo Aniel-Quiroga, Mauricio González, Paolo Estrada, Miguel Castro, Jennifer Larreyñana, Francisco Gavidia, and Emilio Carreño  
Tsunami risk assessment on the coast of El Salvador (Part I: Hazard) |
| 11:30–11:45 | **EGU2011-6462**  
Andrea Argnani, Stefano Tinti, Alberto Armigliato, Claudia Bonazzi, Filippo Zaniboni, Gianluca Pagnoni, and Roberto Tonini  
Active tectonics along the submarine slope of south-eastern Sicily: The case of the 1693 earthquake and tsunami |
| 11:45–12:00 | **EGU2011-3042**  
Alberto Armigliato, Stefano Tinti, Andrea Argnani, Filippo Zaniboni, Gianluca Pagnoni, and Roberto Tonini  
A review of the 11th January 1693 eastern Sicily tsunami: what can numerical modelling tell us about the source? |

**LUNCH BREAK**

Chairperson: Helene Hebert

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Paolo Marco De Martini, Alessandra Smedile, and Daniela Pantosti  
New developments in paleotsunami research: inland and offshore multiple records from the Augusta Bay (eastern Sicily, ITALY) |
| 13:45–14:00 | **EGU2011-3313**  
Nevio Zitellini and the NEAREST Team  
Development of a Tsunami Early Warning System (TEWS) Prototype based on the direct monitoring of a potential tsunamigenic structure located near the coasts of SW Iberia: Preliminary results of the EU Project NEAREST |
| 14:00–14:15 | **EGU2011-11960**  
Maria Ana Baptista, Miguel Miranda, Alessandro Annunziato, Giovanni Francello, Rachid Omira, Luis Matias, and Joao Catalão  
Lessons on past tsunamis impacting Lisbon area, and consequences for tsunami alert |
| 14:15–14:30 | **EGU2011-11387**  
Alexander Rudloff, Joern Lauterjung and the GITEWS Project (AWI, BGR, DLR, GFZ, GIZ/GTZ, HZG/GKSS, IFM-GEOMAR, KDM, UNU-EHS) Team  
The German Indonesian Tsunami Early Warning System (GITEWS) - Experiences, Results & Visions |
NH5.1 – New developments in tsunami science and in mitigation of tsunami risk, including early warning – Posters

Convener: Stefano Tinti | Co-Conveners: Ira Didenkulova, Helene Hebert

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Stefano Tinti

XY444 EGU2011-303
Jennifer DuBois, Tim Davies, and Deirdre Hart
The plausibility of a submarine landslide generated tsunami at Kaikoura Canyon

XY445 EGU2011-1587
Roberto Tonini, Alberto Armigliato, Stefano Tinti, and Gianluca Pagnoni
Investigation on the possible source of the 27 February 2010 Chile earthquake through tsunami numerical simulations and comparison between calculated and observed data.

XY446 EGU2011-1631
Mikhail Nosov and Anna Bolshakova
Tsunami source parameters versus earthquake magnitude and depth: Monte Carlo simulation

XY447 EGU2011-1942
Lidia Bressan, Stefano Tinti, Filippo Zaniboni, and Gianluca Pagnoni
How to calibrate a Tsunami Early Detection Algorithm for a site with no instrumental tsunami records: the example of Catania, Italy

XY448 EGU2011-2573
Alexandre Sahal, Julie Morin, Franck Lavigne, and François Schindele
Indian Ocean transoceanic tsunamis affecting La Réunion Island, France

XY449 EGU2011-2884
Finn Løvholt, Gopinath Gopalakrishnan, Srinivasa Raju, and Carl Bonnevie Harbitz
Simulation of earthquake tsunami inundation along the Tamil Nadu coastline, India

XY450 EGU2011-3094
Establishing a Tsunami Warning Center in Turkey

XY451 EGU2011-3241
Hande Aykurt Vardar, Selma Unlu, Yildiz Altinok, Bedri Alpar, Naside Ozer, Nuray Balkis, Sena Akçer Ön, and Cenk Yalt?rak
Assessment of Tsunami Impacts on the Kocasu Region (Sea of Marmara, Turkey)

XY452 EGU2011-4610
Gianluca Pagnoni, Stefano Tinti, Alberto Armigliato, Roberto Tonini, and Filippo Zaniboni
Tsunami vulnerability assessment for harbours of the Adriatic coast of Apulia, Italy, performed through the worst-case tsunami scenarios approach

XY453 EGU2011-4770
Filippo Zaniboni, Stefano Tinti, Gianluca Pagnoni, Enrica Marotta, Giovanni Orsi, Marta Della Seta, and Paola Fredi
A preliminary study of tsunami vulnerability in the Gulf of Naples based on scenarios of tsunamigenic landslide occurrences in the island of Ischia.

XY454 EGU2011-4910
Sara Carolina Gallazzi, Stefano Tinti, Alberto Armigliato, and Alessandra Maramai
Tsunami hazard assessment in the Mediterranean: results from the analysis of the TRANSFER project tsunami catalogue and from a hybrid statistical-deterministic approach

XY455 EGU2011-806
Ceren Ozer, Ahmet Cevdet Yalciner, Andrey Zaytsev, and Efim Pelinovsky
General View of Dispersion in Tsunami Modeling

XY456 EGU2011-5716
Raissa Mazova, Boris Baranov, and Karina Dozorova
Numerical simulation of possible earthquake-generated tsunami in Komandorskiy seismic gap, western Aleutian arc

XY457 EGU2011-5741
Rick van Adrichem, Rafael Aránguiz Muñoz, and Deepak Vatvani
Tsunami Inundation Simulations in the Bay of Concepción, Chile using TUNAMI and Delft3D models
XY458  EGU2011-5855
Tatyana Voronina
Reconstruction of the Initial Tsunami Waveform by SVD Technique

XY459  EGU2011-6094
Victor Kaystrenko and Nadezhda Razzhigaeva
Some peculiarities of using paleotsunami data for creation of tsunami recurrence function

XY460  EGU2011-6265
Mikhail Nosov, Anna Bolshakova, Shusaku Inoue, Sergey Kolesov, Hiroyuki Matsumoto, and Tatsuo Ohmachi
Hydroacoustic resonance in the 2003 Tokachi-oki tsunami source

XY461  EGU2011-6787
Nicole Giraleas and Gerassimos Papadopoulos
On the little-known tsunami associated with the strong earthquake of 26 November 1595 in Crete island, Hellenic Arc

XY462  EGU2011-7245
Ira Didenkulova and Efim Pelinovsky
Abnormal amplification of tsunami waves at special bottom geometries

XY463  EGU2011-7264
Audrey Gailler, Hélène Hébert, Anne Loevenbruck, and Bruno Hernandez
Forecasting database for the tsunami warning center for the western Mediterranean Sea

XY464  EGU2011-7270
Mira Pasari?, Beatriz Brizuela, Alessandra Maramai, and Mirko Ori?
Historical Tsunamis on the Eastern Coast of the Adriatic

XY465  EGU2011-8130
Omirachid, Baptista Maria Ana, Mellas Samira, and Leone Frederique
The November 1st, 1755 tsunami in Morocco- uncertainties in Historical reports and consequences for the future TWS in the area

XY466  EGU2011-8960
Brent Henderson, Kathleen Hodgkinson, Dave Mencin, Adrian Borsa, and Mike Jackson
PBO Borehole Strainmeter Recordings Of Tsunami on the West Coast of North America

XY467  EGU2011-10028
Camille Daubord, Sébastien Allgeyer, Ronan Creach, and Hélène Hebert
Western Mediterranean and North Atlantic tsunamis: inventory and analysis of tide gauge data

XY468  EGU2011-10121
Georgy Shevchenko, Artem Loskutov, and Alexander Shishkin
Samoa (30.09.2009) and Chilean (28.02.2010) tsunami recording in the bays of Shikotan Island (South Kuril Islands)

XY469  EGU2011-10383
Alessandra Maramai, Stefano Tinti, Laura Graziani, Alberto Armigliato, and Sara C. Gallazzi
Applicability of the NEAMTWS Decision Matrix for the Mediterranean to the Italian tsunamis

XY470  EGU2011-10623
Alexey Androsov
Landslide model: verification and validation

XY471  EGU2011-10668
Sébastien Allgeyer, Hébert Hélène, and Raúl Madariaga
Tsunami hazard assessment for French coastlines constrained by numerical modeling

XY472  EGU2011-12452
Robert Weiss, Justin O'Shay, and Costas Synolakis
Initial waves from submarine landslides

XY473  EGU2011-13880
Alexandre Sahal, Mathieu Labbé, Anne Lemahieu, Camille Daubord, Claire Donnadieu, and Hélène Hébert
The 1979 Nice airport tsunami (French Riviera): comparison between field investigations and a refined numerical modelling of the landslide and consecutive tsunami

XY474  EGU2011-13067
Annalisa Gardi, Nathalia Valencia, Tugdual Salaün, Stéphanie Laisse, and Richard Guillaume
Numerical simulation of tsunami on French Mediterranean coasts using very high resolution Digital Terrain Models (based on photogrammetry, multibeam, LIDAR data and field validation)

XY475  EGU2011-12485
Robert Weiss, Andrew Munoz Munoz, Robert Dalrymple, Alexis Herault, and Giuseppe Bilotta
3D long-wave runup with GPU-SPHysics

XY476  EGU2011-13598
Burak Uslu, Marie Eble, and Chris Chamberlin
Modeling influence of tide stages on forecasts of the 2010 Chilean tsunami
Catherine Chagué-Goff, James Goff, Walter Dudley, Atun Zawadzki, John Bennett, Henk Heijnis, Scott Nichol, Scott Mooney, Claire Courtney, and Dale Dominey-Howes
Multi-proxy analysis of an enigmatic sand layer in Pololu Valley, Hawaii: tsunami or storm deposit?

Ergin Ulutas and Alessandro Annunziato
Pre-defined earthquake source mechanism parameters for Tsunami Early Warning in Mediterranean Region

Nathalia Valencia, Richard Guillaume, and Annalisa Gardi
Coupling of Tsunami modelled flow depth and current velocity for analysis and mapping of impact on human being, buildings and accessibility of the inundated area

Stefano Tinti, Alberto Armigliato, Lidia Bressan, and Gianluca Pagnoni
The role of a decision support system (DSS) in tsunami early warning for near-field sources

NH8.1/BG1.13/SSS1.10 – Heavy-metal contamination of the environment (co-organized) – Orals
Convener: Jennifer A. Holden | Co-Conveners: Höpke Andresen, Bruce D. Malamud, Loretta Li
Room: 2
Chairperson: J.A. Holden and L. Li

10:30–11:20 2 minute Poster Summaries
11:20–12:00 Discussion

NH8.1/BG1.13/SSS1.10 – Heavy-metal contamination of the environment (co-organized) – Posters
Convener: Jennifer A. Holden | Co-Conveners: Höpke Andresen, Bruce D. Malamud, Loretta Li
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: n.n.

Al-Duc Nguyen, Jian-xin Zhao, Yue-xing Feng, Kefu Yu, Wan-ping Hu, and Trung-Ba Pham
High-resolution rare earth and other trace metal records in Porites sp. coral in Nha Trang Bay (Viet Nam), western South China Sea: Impact of recent coastal development and human activities

Muhammad Imran Irfan, Thomas Meisel, and Friedrich Pichler
The extent of anthropogenic and geogenic contamination in an industrial alpine area in Leoben, Austria

Tyler B. Smith and Philip N. Owens
Sediment-associated metals in streams draining agriculture, forestry and mining in the Quesnel River Basin, British Columbia, Canada

Sheng Wei, Wang, Chen Wuin Liu, Ta Wei Chang, and Yu Hsuan Kao
Transformation of inorganic As species in groundwater samples with the presence of Fe(II)/Fe(III)

Farid Moore, azizeh aghazadeh, and Behnam Keshavarzi
Metal toxicity in the stream sediments surrounding sungun porphyry copper deposit, NW, Iran

Sezin Oeztan and Rolf-Alexander Duering
Determination of the pseudo total metal content of environmental matrices by different extraction methods

Thomas Hanauer, Levan Navroqashvili, Sylvia Schnell, Diedrich Steffens, Besik Kalandadze, Tengiz Urushadze, and Peter Felix-Henningsen
Impact of non-ferrous metal mining on soil functions in the Mashavera valley, Georgia

Thomas Hanauer, Stephan Jung, Diedrich Steffens, Levan Navroqashvili, Besik Kalandadze, and Peter Felix-Henningsen
In situ remediation of Cd, Cu and Zn contaminated topsoils by different amendments

Adam Lukasik, Zygmunt Strzyszcz, and Marcin Szuszkiewicz
Magnetic susceptibility enhancement in soils of urban parks of Upper Silesia region (Poland) as pollution indicator

Michal Piwnik
Evaluation of soil texture and change in amounts of heavy metals in soil under industrial pressure
XY491  EGU2011-10774
Hülya Kaplan, Stefan Ratering, Thomas Hanauer, Peter Felix-Henningsen, and Sylvia Schnell
Impact of a trace metal contamination from mining activity on soil microbial communities and respiration activity of irrigated Kastanozems in Georgia

XY492  EGU2011-9499
Bozena Sosak-Swiderska
The soil fungi communities and risk assessment of heavy metal contaminated soils management

XY493  EGU2011-11718
Tanja Teran-Mita, Angel Faz, Flor Salvador, and Joseilito M. Arocena
Small-Scale Gold Mines in Andean region of Bolivia: Mercury in soils and plants from burning areas

XY494  EGU2011-468
Levan Navrozashvili, Thomas Hanauer, Besik Kalandadze, Tengiz Urushadze, Diedrich Steffens, and Peter Felix-Henningsen
Transfer of Cd, Cu and Zn from soil into food crops in the Mashavera Valley, Georgia

XY495  EGU2011-1751
Silvia Fontana, Claudio Bini, Mohammad Wahsha, and Martina Bullo
Heavy metals contamination in soils and their transfer to common wheat (Triticum aestivum L.): a case study

XY496  EGU2011-13568
Manuela Inácio, Eduardo Ferreira da Silva, Virgínia Pereira, Anne-Marie Guichard-Costa, and Sandra Valente
Accumulation of potentially harmful elements in soils and forage plants in the Industrial area of Estarreja, Portugal

XY497  EGU2011-11588
Melanie longchamp, Nicolas Angeli, Philippe Biron, Thierry Bariac, and Maryse Castrec-Rouelle
Determination of selenium species in Zea mays samples by enzymatic extraction and HPLC-ICP-MS

XY498  EGU2011-419
nathalie fagel
Atmospheric mercury deposition during the last 1500 years in Western Europe: The Misten peat bog record (Hautes Fagnes - Belgium)

XY499  EGU2011-11443
Jose A. Acosta, Angel Faz, Karsten Kalbitz, Boris Jansen, and Silvia Martinez-Martinez
Heavy metals concentration in street dust from different land uses in Murcia (SE Spain)

XY500  EGU2011-11484
Jose A. Acosta, Angel Faz, Karsten Kalbitz, Boris Jansen, and Silvia Martinez-Martinez
Distribution of metals in particle size fractions from street dust of Murcia (Spain)

XY501  EGU2011-14045
Susana Fernández, Manuel Antonio González, Cristina Santín, and Miguel Angel Alvarez
The role of salt marshes as heavy metal sinks in cantabrian seaboard (Bay of Biscay)

XY502  EGU2011-238
Agnieszka Medyńska-Juraszek and Cezary Kaba?a
Heavy metal mobility in humus layers affected by copper industry in SW Poland

XY503  EGU2011-3810
Markus Puschenreiter
The GREENLAND project: gentle remediation of trace element contaminated land

XY504  EGU2011-4357
Yoon-Su Kim, Hyo-Taek Chon, and Jong-Un Lee
Bioleaching of Heavy Metals in Contaminated Soils of the Old Smelting Site by Microbiological Sulfur Oxidation

XY505  EGU2011-7589
Lucian Petrescu, Essaid Bilal, and Luisa Elena Iatan
Phytostabilization of actinide-contaminated soils (East Carpathians, Romania)

XY506  EGU2011-183
Li Huang, Loretta Li, and Ken Hall
Removal of trace metals from contaminated street and wetland sediments with a biosurfactant (Saponin) and an artificial surfactant (SDS)

NH8.2 – Medical Geochemistry: processes occurring at interfaces between geological materials and human health – Orals
Convener: Paolo Censi | Co-Conveners: Yigal Erel, THomas Darrah, Sandro Drago, Maria Luigia Giannossi
Room: 2
Chairperson: Thomas Darrah, Yigal Erel & Paolo Censi
13:30–13:45  EGU2011-13128
Thomas Darrah, M. Ellen Campbell, Dario Tedesco, Matthew Horton, and Robyn Hannigan
The Development and Application of Cryogenic Laser Ablation ICP-MS (CLA-ICP-MS) for Trace Elemental Analysis of Biological Tissues
13:45–14:00  EGU2011-11820
Valentina Rimondi, Pilario Costagiolia, John Gray, Orlando Vaselli, Marco Benvenuti, and Piero Lattanzi
Mercury diffusion in fish of the Hg mining district of Monte Amiata (Southern Tuscany, Italy)

14:00–14:15  EGU2011-11157
Elisa Tamburo, Gaetano Dongarrà, Daniela Varrica, and Daniela D'Andrea
Trace elements in hair of urban schoolboys: a diagnostic tool in environmental risk assessment

14:15–14:30  EGU2011-13172
Amanda Carey, Thomas Darrah, Ellen Campbell, Robyn Hannigan, Emilio Cuoco, and Robert Poreda
The Effects Of Coal-Fired Power Plant Emissions And Fly Ash On A Regional Watershed

14:30–14:45  EGU2011-10333
David Damby and Claire Horwell
Factors affecting the potential toxicity of volcanic ash

14:45–15:00  EGU2011-608
Francisco Blanco, Montserrat López-Mesas, Silvia Serranti, Giuseppe Bonifazi, Josef Havel, and
Manuel Valiente
NIR-Hyperspectral Imaging and Artificial Neural Networks for the Characterisation of Renal Calculi
08:30–08:45 EGU2011-2815
Vivek Walia, Tsanyao Frank Yang, Ching-Chou Fu, Shih-Jung Lin, Kuo-Liang Wen, and Cheng-Hong Chen
Study of Fault Traces in Taiwan Using Soil-gas Geochemistry

08:45–09:00 EGU2011-602
Arvind Kumar, Surinder Singh, Bikramjit Singh Bajwa, Sandeep Mahajan, Sunil Dhar, Vivek Walia, and Tsanyo Frank Yang
Application of statistical analysis for soil gas radon concentration for earthquake studies

09:00–09:15 EGU2011-1243
Neves Luis, Alcides Pereira, Dolores Pereira, Mercedes Peinado, and lldefonso Armenteros
Radiological study of building stones from a Spanish Region: Castilla and Leon

09:15–09:30 EGU2011-13737
Leena Kamra, Vinay Mohan Choubey, and Irfan Ahmad
Soil and Groundwater Radon variations in different geological formations of Bhilagana valley, Garhwal Himalaya, India

09:30–09:45 EGU2011-13740
Sandeep Mahajan, Bikramjit Singh Bajwa, Vivek Walia, Arvind Kumar, Surinder Singh, and Tsanyo Frank Yang
Active fault studies, using soil gas method, in tectonically actives zones of Himachal Pradesh state, India

09:45–10:00 EGU2011-11366
David Wertheim, Gavin Gillmore, Louise Brown, and Nick Petford
Analysis and 3D visualisation of tracks in Solid state Nuclear Track Detectors

NH8.3 – Radon and Other Naturally Occurring Radioactive Hazards – Posters
Convener: Robin Crockett | Co-Conveners: Gavin Gillmore
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Robin Crockett

XY516 EGU2011-10964
Hedvig Eva Nagy, Csaba Szabó, Ákos Horváth, and Attila Kiss
Radiometric measurements in Pál-völgy show cave (Budapest, Hungary)

XY517 EGU2011-11724
Katalin Zsuzsanna Szabó, Ákos Horváth, László Pásztor, and Csaba Szabó
Geogenic radon potential map of Pest County, Hungary: Methodology of field measurements

XY518 EGU2011-3354
Shivvaran Singh Raguwanshi
Radon Background Fluctuations and Radiometric Determination of Uranium, Thorium and Potassium

XY519 EGU2011-10420
Massimo Bochiolo, Massimo Verduya, Paolo Chiozzi, Vincenzo Pasquale, Enrico Chiaberto, and Mauro Magnoni
Evaluation of radon specific exhalation in uranium-rich metamorphic rocks

XY520 EGU2011-4512
Robin Crockett
Monte-Carlo Simulation of Radon Equilibrium Under Varying Conditions.

XY521 EGU2011-13685
Gavin Gillmore and Robin Crockett
Session Keynote: Radon, Health and Natural Hazards and IGCP Project 571.

XY522 EGU2011-11726
Gavin Gillmore, Asif Khan, Malcolm Tadd, and Paul Sowan
Reigate Caves, UK: a historic sand mine system - real-time radon concentration survey results and time-averaged SSNTDs.

XY523 EGU2011-8411
Gavin Gillmore, Tadeusz Przylibski, and Naghi Jabarivasal
Dissolved radon in well waters in Hamadan, Iran.

XY524 EGU2011-11774
Dependence of Rn-222 concentration changes in water of stream on the distance from the spring

XY525 EGU2011-13735
Vinay Mohan Choubey, Naresh Kumar, Baldev Raj Arora, and Leena Kamra
Assessment of four years continuous radon variability in the borehole in Garhwal Himalaya

XY526 EGU2011-5373
Asta Gregori? and Janja Vaupoti?
Radon concentration and ventilation in two different passages in the Postojna Cave
ST5.1/NH8.6 – Space Weather and its Effects on Terrestrial and Geo-Space Environments: Science and Applications (co-organized) – Orals
Convener: Norma Crosby | Co-Conveners: Mirela Voiculescu, Aleksey Dmitriev
Room: 32
Chairperson: Norma Crosby

15:30–15:45  EGU2011-13709
  Ioanna Tsagouri
On the assessment of space weather models for operational use: evaluation of the performance of ionospheric forecasting models

15:45–16:00  EGU2011-2662
  Maria Elena Innocenti, Giovanni Lapenta, Lapo Bettarini, Ed Lee, Stefano Markidis, Bojan Vrsnak, Manuela Temmer, Astrid Veronig, Francois Crespom, Chafih Skandrani and the Soteria Space-Weather Forecast & Data Assimilation Team
Solar wind forecasting: a method based on data assimilation with Kalman filters

16:00–16:15  EGU2011-11171
  Andreja Susnik and Biagio Forte
Ionospheric scintillation activity measured in the African region by means of GNSS signals

16:15–16:30  EGU2011-7928
  Paul Prikryl, Ian G. Richardson, Periyadan T. Jayachandran, and Sajjan C. Mushini
GPS phase scintillation at high latitudes following near-earth interplanetary coronal mass ejections

16:30–16:45  EGU2011-5888
  Sean Bruinsma and Thierry Dudok de Wit
Optimal Solar Inputs for use in Upper Atmosphere Density Models

16:45–17:00  EGU2011-232
  Tatiana Novikova, Oleg Shumilov, Elena Kasatkina, and Alexey Chramov
Cosmophysical and natural factors, and trauma occurrence level of people working and living behind the polar circle.

17:00–17:15  EGU2011-6476
  Gareth Lawrence, Simon Reid, Eva Robbrecht, Michel Kruglanski, Rowena Smillie, Norbert Jakowski, Daniel Heynderickx, Pablo Beltrami, and Truls-Lynne Hansen
Space Weather Precursor Services under ESA's SSA programme

ST5.1/NH8.6 – Space Weather and its Effects on Terrestrial and Geo-Space Environments: Science and Applications (co-organized) – Posters
Convener: Norma Crosby | Co-Conveners: Mirela Voiculescu, Aleksey Dmitriev
Hall Z | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Norma Crosby

Z155  EGU2011-8403
  Gerald Duma, Friedemann Freund, Max Lazarus, and Taha Rabeh
Coupled ionospheric and telluric electromagnetic fields - seismotectonic relevance

Z156  EGU2011-1629
  Oleg Shumilov, Elena Kasatkina, Vladimir Masloboev, Alexandr Kanatjev, Mauri Timonen, Kari Mielikainen, Natalia Lukina, and Irina Kirtsideli
Solar and volcanic signals in tree-rings from Kola Peninsula and Northern Lapland

Z157  EGU2011-1630
  Elena Kasatkina, Oleg Shumilov, Marja-Liisa Sutinen, Alexey Chramov, Alexey Enykeev, and Tatiana Novikova
Search for solar and lunar rhythms in suicides in European Arctic (Northwest of Russia and Finnish Lapland)

Z158  EGU2011-10841
  Tamara Breus, Yuri Gurfinkel, Vadim Ozheredov, and Tatyana Zhenchenko
The threshold effects of Space and Terrestrial weather influence on human physiological parameters

Z159  EGU2011-4626
  Tamara Breus, Vadim Ozheredov, and Vladimir Obridko
Analysis of the solar activity dynamics by the method of nonlinear singular forecasting

Z160  EGU2011-13402
  Peter Stauning
Seasonal variations in the monitoring by PCN and PCS indices of Solar Wind energy input to the Magnetosphere.

Z161  EGU2011-10581
  Consuelo Cid, Yolanda Cerrato, Walter D. Gonzalez, and Elena Saiz
A new solar wind-magnetosphere coupling function
Z162  EGU2011-5073
Edwin Catalan, Lorena Gayarre, Oscar García, **Juan Jose Blanco**, Jose Medina, Sebastian Sanchez, Manuel Prieto, and Daniel Meziat
Castilla-La Mancha Neutron Monitor (CaLMa) GEANT4 simulations

Z163  EGU2011-5085
Edwin Catalan, **Juan Jose Blanco**, Jose Medina, Oscar García, Javier Rodriguez-Pacheco, and Miguel Angel Hidalgo
Castilla-La Mancha Neutron Monitor (CaLMa) expected response to solar events using the neutron monitor data base (NMDB)

Z164  EGU2011-5101
Jose Medina, **Juan Jose Blanco**, Oscar García, Edwin Catalan, Daniel García, Daniel Meziat, Javier Rodriguez-Pacheco, Sebastian Sanchez, Manuel Prieto, and Miguel Angel Hidalgo
Castilla-La Mancha neutron monitor (CaLMa) status at April 2011

Z165  EGU2011-5184
**Kazi Abul Firoz**, Yong-Jae Moon, Kyung-Suk Cho, Jung-A Hwang, Yong-Deuk Park, Karel Kudela, and Lev Dorman
Relationship between GLE and Solar X-ray Flare

Z166  EGU2011-10824
**Richard Boynton**, Michael Balikhin, Stephen Billings, and Ping Li
Dynamical model for the evolution of Dst

Z167  EGU2011-11701
**Costel Munteanu**, Stein Haaland, and Bagrat Mailyan
Improved estimation of propagation times of short-term IMF variations using minimum variance analysis and wavelet de-noising techniques

Z168  EGU2011-9727
**Aleksey Dmitriev**, Alla Suvorova, and Igor Veselovsky
Magnetosphere Expansion On Recovery Phase Of Recurrent Magnetic Storms

Z169  EGU2011-3717
**Daniel Weimer** and C. Robert Clauer
A new Model for Predicting Geomagnetic Perturbations

Z170  EGU2011-12876
**Kalevi Mursula**, Eija Tanskanen, and Jeffrey Love
Spring-Fall asymmetry of substorm strength, geomagnetic activity and solar wind: Implications for semiannual variation and solar hemispheric asymmetry

Z171  EGU2011-9709
**Diana Besliu-Ionescu**, Oana Chiricuta, Marilena Mierla, and Georgeta Maris
Study of Halloween 2003 events

Z172  EGU2011-9691
**Oana Chiricuta**, Diana Besliu-Ionescu, Marilena Mierla, and Georgeta Maris
Analysis of coronal mass ejections who produced major geomagnetic storms during the period 1998-2008

Z173  EGU2011-13645
**Paolo Pagano**, Adriaan van Ballegooijen, and Fabio Reale
Modeling of unstable MHD equilibria in the solar corona and role of plasma pressure

Z174  EGU2011-13849
**Olga Malandraki**, Lun C. Tan, Donald V. Reames, and Linghua Wang
Use of Incident and Reflected Solar Particle Beams to Trace the Topology of Magnetic Clouds

Z175  EGU2011-12716
**Norma Crosby** and the SEPEM Team
Solar Energetic Particle Environment Modelling: the ESA SEPEM Project

**NH9.1/EG8 – Public policy and commercial applications of natural catastrophe risk assessment (co-organized)**

Orals
Conveners: Rashmin Gunasekera, Matthew Foote | Co-Conveners: Marc Wüest, Robert Muir-Wood, Bruce D. Malamud
Room: 1
Chairperson: n.n.

08:30–08:45  EGU2011-12404
**Nicholas Watkins**, Sam Rosenberg, Sandra Chapman, Mark Naylor, and Mervyn Freeman
When black swans come in bunches: modelling the impact of temporal correlations on the return periods of heavy tailed risk

08:45–09:00  EGU2011-6411
**Alice Modica**, Peter J. Stafford, and Helen Crowley
Vector-Valued Seismic Demand Analysis within Earthquake Risk Assessment
09:00–09:15  EGU2011-12128
Milan Simic and John E. Alarcon
Assessment of Earthquake Loss Distribution Between Public and Private Risk Takers

09:15–09:30  EGU2011-6636
Stuart Lane and Matthew Foote
Geographically-explicit flood risk assessment (aka Flood Maps): the basis of rational policy response?

09:30–09:45  EGU2011-8302
Marc Choffet, Michel Jaboyedoff, Olivier Lateltin, Eric Leroi, and Markus Imhof
Valuation of natural hazard insurance data for a quantified vulnerability assessment. Case studies for flood and hail using insurance data of Swiss public insurance.

09:45–10:00  EGU2011-13713
Ulrich Schwarz
Floodplain restoration potential and flood mitigation along the Danube

COFFEE BREAK

Chairperson: n.n.

10:30–10:45  EGU2011-13768
Renato Vitolo, David Stephenson, Jane Strachan, Pier Luigi Vidale, Gero Michel, and Ian Cook
Global patterns of tropical cyclones clustering

10:45–11:00  EGU2011-11061
Mari Jones, Hayley Fowler, Christopher Kilsby, Renato Vitolo, David Stephenson, Ian Cook, and Gero Michel
UK Rainfall extremes: trends, non-stationarity, and clustering

11:00–11:15  EGU2011-12537
Kirsten Mitchell-Wallace, Markus Gut, Henry Bovy, and Ronny Abplanalp
Modelling Severe Convective Storm in the US

11:15–11:30  EGU2011-9520
Jonathan Meagher and Christine Ziehmann
A new landscape of storm surge risk for the United States

11:30–11:45  EGU2011-8981
Christine Ziehmann, Jonathan Meagher, and Shree Khare
The relative roles of wind, storm surge and inland flooding causing damage from Japan Typhoon

11:45–12:00  EGU2011-5491
Angelika Werner and Neil J. Holbrook
A spatial seasonal forecast model of tropical cyclone risk for the Australian region

NH9.1/EG8 – Public policy and commercial applications of natural catastrophe risk assessment (co-organized) – Posters
Conveners: Rashmin Gunasekera, Matthew Foote | Co-Conveners: Marc Wüest, Robert Muir-Wood, Bruce D. Malamud
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: n.n.

XY527  EGU2011-3371
Katherine Royse, John Rees, Susanne Sargeant, Chris Franklin, and Lynne Porter
Predicting Uncertainty and Risk in the Natural Sciences: Bridging the gap between academics and industry

XY528  EGU2011-13914
Christine Dietrich
Structuring of Insurance-Linked Securities (ILS) and its Application in Natural Catastrophe Risk Assessment

XY529  EGU2011-11685
Rashmin Gunasekera, Suranga Kahandawwa, Srima Samansiri, Chaminda Weerasinghe, Ramitha Wijethunge, and Ananda Mallawatantri
Framework for a Methodology to Integrate Vulnerability to Develop Flood Risk Profiles for Ayagama and Elapatha, Sri Lanka.

XY530  EGU2011-11832
Keiko Saito, Robin Spence, Rashmin Gunasekera, and Matthew Foote
Supervised and unsupervised characterisation of urban exposure data using remotely sensed images for catastrophe loss modelling

XY531  EGU2011-7643
Marie-Kristina Thomson and Barbara Page
Insured exposure development for estimating the financial consequences of windstorm risk in Europe
XY532  EGU2011-13922  
Jürgen Gaiser-Porter, Ian Scott, Hélène Galy, Renato Vitolo, Jane Strachan, Pier Luigi Vidale, and David Stephenson  
Sensitivity analysis using simple visualizations of the ACE index, to improve understanding of the driving parameters of tropical cyclone impact models

XY533  EGU2011-9140  
Aidan Slingsby, Jane Strachan, Pier-Luigi Vidale, Jason Dykes, and Jo Wood  
Browsing large natural hazard event sets

XY534  EGU2011-13008  
Nicolas Merlet, Kevin Larnier, Sylvia Becerra, Anne Peltier, and Denis Dartus  
Real-time 3D visualization of flood modelling for improving risk perception in medium hazard level areas

XY535  EGU2011-12370  
Justin Butler, Juan England, and Emma Roberts  
Insurance-focussed prototype models for analysing and visualising flood risk in Latin American megacities

XY536  EGU2011-13739  
Christopher Sampson, Paul Bates, Alastair Duncan, and Timothy Fewtrell  
Merging airborne and terrestrial LiDAR data to determine geometric controls on flood propagation in urban areas

XY537  EGU2011-10293  
Clemens Pfurtscheller, Michael Vetter, Christine Gschöpf, Jose Luis Salinas, and Andrea Fischer  
Assessing the indirect economic effects for entrepreneurial flood risk management based on extreme precipitation scenarios and LiDAR-data

XY538  EGU2011-8854  
Linda Speight, Jim Hall, Chris Kilsby, and Paul Kershaw  
Understanding spatial and temporal dependencies in flood risk exposure in the UK

XY539  EGU2011-2111  
Jillian Eldridge and Diane Horn  
Planning policy and flood risk, a sustainable insurance future in the Thames Gateway?

XY540  EGU2011-9318  
Nilgün Okay  
Coastal Geo-Hazards around the Mediterranean Sea and Risk Reduction

XY541  EGU2011-1965  
Gabriele Villarini, James Smith, and Mary Lynn Baec  
Towards the Development of a US Flood Model

XY542  EGU2011-8361  
Gabriele Villarini, Francesco Serinaldi, and James Smith  
Development of a Pan-European Seasonal Forecasting System for Hydrometeorological Variables: Rainfall Forecast for Ukraine, Moldova and Romania

XY543  EGU2011-13019  
Jessica Turner, Katie Coughlin, and Enrica Bellone  
Regional increases in landfall frequency and intensity of Atlantic hurricanes in a stochastic model forecast

XY544  EGU2011-11194  
Raymond Richardson, David Bachiochi, George Rowe, Robert Kilcup, Michael Dickinson, Nihat Cubukcu, Brian Mackey, and David Hamilton  
Using the ECMWF 15-day Ensemble Prediction System to Forecast Property Loss for European Windstorm Events

XY545  EGU2011-5982  
Michael Kunz, Marc Puskeiler, and Susanna Mohr  
Assessment of the hail hazard from a combination of radar and insurance data

XY546  EGU2011-3326  
Pierrick Nicolet, Marc Choffet, and Michel Jaboyedoff  
Landslides distribution during intense climatic events, the case of August 2005 in Switzerland

XY547  EGU2011-4909  
James Daniell  
The Worldwide CATDAT Damaging Earthquakes and Damaging Volcanoes Databases: Socio-economic trends, values and analysis including 2010.

XY548  EGU2011-4923  
James Daniell, Friedemann Wenzel, and Bijan Khazai  
The Economics of Earthquakes since 1900: The Hybrid Natural Disaster Economic Index, Historical Loss Conversion, Future Impacts and Insurance Takeout.

XY549  EGU2011-12100  
John E. Alarcon and Milan Simic  
Near real-time loss assessment from natural disasters

SC4/NH11.2 – [Short Course] Time-Series Analysis: how to apply and interpret the Fast Fourier Transform
OS5.2 – Surface Waves and Wave-Coupled Effects in Lower Atmosphere and Upper Ocean (co-listed) – Orals
Convener: Alexander Babanin | Co-Conveners: Miguel Onorato, Fangli Qiao
Room: 11
Chairperson: n.n.
08:30–08:45 EGU2011-4955
Fabrice Ardhuin and Aron Roland
Validation of numerical waves models in strong currents, a tribute to Owen Phillips.
08:45–09:00 EGU2011-13650
Aron Roland, Tai-Wen Hsu, Jian-Ming Liau, Yaron Toledo, and Shan-Hwei Ou
On the extension of the Wave Action Equation for higher order depth and current effects
09:00–09:15 EGU2011-4644
Victor Shrira and Sergei Annenkov
Evolution of random wind wave fields under rapidly changing wind
09:15–09:30 EGU2011-9313
Alexander Soloviev, Silvia Matt, and Atsushi Fujimura
Air-sea interface in hurricane conditions
09:30–09:45 EGU2011-4892
Yuliya Troitskaya, Daniiil Sergeev, Oleg Druzhinin, Alexander Kandaurov, and Olga Ermakova
Laboratory investigation and direct numerical simulation of wind effect on steep surface waves
09:45–10:00 EGU2011-9201
Paul Liu
Contemplating Ocean Wave Measurements

COFFEE BREAK

Chairperson: n.n.
10:30–10:45 EGU2011-2418
Dmitry Chalikov and Alexander Babanin
Numerical investigation of breaking waves in spectral environment
10:45–11:00 EGU2011-2889
Alessandro Iafrati
Energy dissipation mechanisms in spilling and in highly aerated plunging breaking events
11:00–11:15 EGU2011-10306
Guillemette Caulliez
Dissipation regimes for short wind waves
11:15–11:30 EGU2011-809
Francisco J. Ocampo-Torres
Non-linear interactions of wind-sea and opposing swell determined through bispectral analysis
11:30–11:45 EGU2011-2042
Sergei I. Badulin and Vladimir E. Zakharov
Scales of nonlinear relaxation and balance of wind-driven seas
11:45–12:00 EGU2011-2266
Leonid Lopatoukhin, Alexander Boukhinovsky, and Ekaterina Chernysheva
New generation of Wind and Wave climate handbooks

LUNCH BREAK

Chairperson: n.n.
13:30–13:45 EGU2011-3519
Peter Janssen
Ocean Wave effects on the daily cycle in SST
13:45–14:00  EGU2011-3930
Johannes Gemmrich and Svein Vagle
Observations of wave-induced mixing

14:00–14:15  EGU2011-4324
Yeli Yuan and Ming Lu
A unified theory of waves in a general ocean

14:15–14:30  EGU2011-1932
Anna Rutgersson, Björn Carlsson, Rajesh Kumar, Alvaro Semedo, Øyvind Sætra, and Øyvind Breivik
Impact of surface waves on the atmosphere in a coupled wave-atmosphere regional climate model

14:30–14:45  EGU2011-1080
Lev Shemer and Andrey Zavadsky
On Reynolds stresses over wind waves

14:45–15:00  EGU2011-3906
Paul Hwang
Ocean Surface Roughness and Remote Sensing

SSS1.4 – Ash in the Environment (co-listed) – Orals
Convener: Paulo Pereira | Co-Conveners: Xavier Úbeda, Scott Woods, Tiina Tulonen, Jorge Mataix-Solera, Radka Kodesova, Deborah Martin, Artemi Cerdà
Room: 6
Chairperson: Paulo Pereira

08:30–08:45  EGU2011-1595
Agustin Merino, Beatriz Omil, Martin Santalla, Fernando Solla-Gullon, Cesar Perez-Cruzado, Federico Sanchez-Rodriguez, Nieves Barros, and Roque Rodriguez-Soolheiro
Application of wood ash containing charcoal to intensive forest plantations in humid temperate regions

08:45–09:00  EGU2011-2223
Ales Kapicka and Eduard Petrovsky
Magnetic properties of fly ash and its relevance for soil pollution mapping

09:00–09:15  EGU2011-9035
Stefan H Doerr, Rick Shakesby, Rob Bryant, Cristina Santin, Hugh Smith, Sheridan Gary, and Patrick Lane
Carbon sequestration potential of ash deposits from wildfires: the case of the 2009 Black Saturday Fires, Australia

09:15–09:30  EGU2011-9615
Victoria Balfour and Scott Woods
Characterizing the Hydrological Properties of Laboratory and Wildfire Ash from North America

09:30–09:45  EGU2011-10904
Merche B. Bodí, Gary Sheridan, Stefan Helmut Doerr, Jorge Mataix-Solera, and Artemi Cerdà
Sediment settling rate in a water body after a wildfire: ash and soil

09:45–10:00  EGU2011-3363
Tiina Tulonen, Lauri Arvola, and Rauni Strömmer
Cadmium Release from Peat and Accumulation in Aquatic Ecosystem after Experimental Wood Ash Treatment

SSS1.4 – Ash in the Environment (co-listed) – Posters
Convener: Paulo Pereira | Co-Conveners: Xavier Úbeda, Scott Woods, Tiina Tulonen, Jorge Mataix-Solera, Radka Kodesova, Deborah Martin, Artemi Cerdà
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Radka Kodesova

XY708  EGU2011-620
Justin Maghanga, Benard O. Orori, Kingiri Senelwa, Maurice M. Mwamburi, Bekuta K. Baloi, and Lazare Etiégni
Defluoridation of water using double precipitation method with wood ash leachate and alum

XY709  EGU2011-626
Lazare Etiégni, Bernard O. Orori, Kingiri Senelwa, Maurice M. Mwamburi, Bekuta K. Baloi, and Justin K. Maghanga
Ash leachate used as supporting electrolyte during wastewater treatment by electrocoagulation

XY710  EGU2011-989
Paulo Pereira, Artemi Cerdà, Xavier Úbeda, Jorge Mataix-Solera, and Deborah Martin
High severity wildfire effects in ash thickness and immediate post-fire evolution in a Portuguese Pinus pinaster forest.
XY711  EGU2011-1394
Torben Seidel and Hans Ruppert
Balancing heavy metal release from small-scale biomass combustion systems

XY712  EGU2011-3111
Radka Kodesova, Ales Kapicka, Jakub Lebeda, Hana Grison, Martin Kocarek, and Eduard Petrovsky
Numerical simulation of fly-ash transport in sandy material using HYDRUS-1D

XY713  EGU2011-6186
Paulo Pereira, Jorge Mataix-Solera, Xavier Úbeda, and Artemi Cerdà
Fire severity effects on ash water repellency in a Lithuanian grassland. Preliminary results

XY714  EGU2011-6539
Artemi Cerdà, Merche B. Bodí, and Félix Ángel González-Peñaloza
Ash depth and ash cover evolution after forest fire in Eastern Iberian Peninsula

XY715  EGU2011-6764
Paulo Pereira, Xavier Úbeda, and Deborah Martin
Spatial Variation of ash extractable Potassium after a wildfire

XY716  EGU2011-8943
Juan Antonio Campos, Ascensión Ines Gómez, Jose Angel Amorós, Caridad Pérez de los Reyes, Francisco Jesús García-Navarro, Marta María Moreno, and Anselmo Acosta
Assessing oxygen consumption in an agricultural soil amended with two different wood ashes.

XY717  EGU2011-9195
Jolita Dudaite, Pereira Paulo, Edita Baltrenaite, and Xavier Ubeda
Temperature effects on mass loss, ash pH, Electrical Conductivity and colour of Pinus Sylvestris and Acer Plantanoides. A laboratory study

XY718  EGU2011-11789
Peter Hartmann, Heiner Fleige, and Rainer Horn
Effects of long term atmospheric deposition of lignite fly ash on soil physical properties of forest soils

XY719  EGU2011-12126
Violeta Cepanko, Pranas Baltrenas, and Paulo Pereira
Investigation of Heavy metals stabilization in compost of grain residue with bio-fuel ash and zeolite additives

XY720  EGU2011-12416
Isabel Campos, Nelson Abrantes, Patrícia Pereira, Joana Raimundo, Diana Vieira, João Canário, Carlos Vale, Ana Ferreira, and Jan Jacob
Polycyclic aromatic hydrocarbons and metals in ashes and burnt and unburnt forest soils in north-central Portugal
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. Cherkokulsky, 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 Krasnoshekova, 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 Tchebakova
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 Tchebakova, Almuth Arndt, Luca Belelli, 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
Eva Konkoly-Gyurö, Csaba Mátyás, Géza Király, Pál Bárázs, and Áron Drüszer
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 Topuria, 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. Starodumova, 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, Viktoryia 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 Skyadneva, and Nina V. Uzhegova
Chemical composition of background aerosols sampled in Siberia

GMPV5 – Monitoring and observations of active volcanoes using in-situ and remote sensing techniques (co-listed) – Orals
Convener: Michael Burton | Co-Conveners: Thomas Staudacher, Jurgen Neuberg, Hugo Delgado Granados, Alessandro Bonaccorso
Room: 20
Chairperson: Alessandro Bonaccorso

08:30–08:45  EGU2011-5549
Christoph Hörmann, Holger Sihler, Nicole Bobrowski, Christoph Kern, Marloes Penning de Vries, Leif Vogel, Ulrich Platt, and Thomas Wagner
Coincident observations of SO2 and BrO from volcanic eruptions by the GOME-2 instrument

08:45–09:00  EGU2011-2432
Nicolas Theys, Huges Brenot, Jeroen van Gent, Michel van Roozendael, Ronald van der A, Lieven Clarisse, Daniel Hurtmans, Yasmine Ngadi, Pierre Coheur, and Cathy Clerbaux
A multi-sensor alert system for volcanic emissions using satellite SO2 and ash measurements

09:00–09:15  EGU2011-8083
Corentin Caudron, Devy Syahbana, Thierry Camelbeeck, and Alain Bernard
Multi-disciplinary continuous monitoring of Kawah Ijen volcano, East Java, Indonesia

09:15–09:30  EGU2011-9255
Jurgen Neuberg
The role of seismology in volcanic forecasting

09:30–09:45  EGU2011-12124
Adolfo Inza, Jérôme Igor Mars, Jean-Philippe Métxaxian, Gareth Shane O’Brien, and Orlando Macedo
Three-component seismic array location of LP and explosions

09:45–10:00  EGU2011-2855
Takao Ohminato, Takayuki Kaneko, Takao Koyama, Atsushi Watanabe, Atsushi Yasuda, Minoru Takeo, Yoshiaki Honda, and Masato Iguchi
Volcano Observations Using an Unmanned Autonomous Helicopter: seismic observations near the active summit vents of Sakurajima volcano, Japan

COFFEE BREAK
Chairperson: Jurgen Neuberg

10:30–10:45 EGU2011-8324
Michele Pantaleo, Thomas R. Walter, Markus Ramatschi, Junping Chen, Gerd Gendt, and Maorong Ge
Nisyros volcano monitoring through ground based InSAR, GPS, seismology and thermal sensing

10:45–11:00 EGU2011-7852
Kristina Meier, Matthias Hort, Ekkehart Tessmer, and Joachim Wassermann
An integrated geophysical approach: Field and modelling studies for a better understanding of infrasound signals at Yasur volcano, Vanuatu

11:00–11:15 EGU2011-12328
Riccardo Lanari, Pietro Tizzani, Giovanni Zeni, Antonio Pepe, Francesco Casu, and Michele Manunta
The 1992-2010 Yellowstone Caldera surface deformation evolution investigated through Advanced Spaceborne Radar Interferometry

11:15–11:30 EGU2011-4990
Miguel Alatorre-Ibarguengoitia, Hugo Delgado-Granados, Donald Dingwell, and Lucio Cárdenas-González
Hazard assessment of volcanic ballistics: Integrating field observations, theory and fragmentation experiments

11:30–11:45 EGU2011-6610
Thomas Staudacher, Andrea Di Muro, Valerie Ferrazzini, Florent Brenguier, Patrice Boissier, Philippe Kowalski, Philippe Caterine, Frédéric Laurent, and Hervé Douris
The 2010 eruptive cycle at Piton de la Fournaise volcano

11:45–12:00 EGU2011-13182
Patrick Allard, Alessandro La Spina, Giancarlo Tamburello, Alessandro Aiuppa, Andrea Di Muro, and Thomas Staudacher
First measurements of magmatic gas composition and fluxes during an eruption (October 2010) of Piton de la Fournaise hot spot volcano, La Reunion island

LUNCH BREAK

Chairperson: Hugo Delgado Granados

13:30–13:45 EGU2011-5432
Olga Girina, Alexander Manevich, Anton Nuzhdaev, Olga Konovalova, Sergey Ushakov, and Dmitry Melnikov
Monitoring of 2010-2011 Kizimen Volcano Eruption and Prediction of Danger for Aviation

13:45–14:00 EGU2011-8958
Fabio Madonna, Aldo Amodeo, Giuseppe D'Amico, Lucia Mona, and Gelsomina Pappalardo
Observation of aerosol layers using co-located multiwavelength Raman lidar and microwave radar at CIAO during Eyjafjallajökull 2010 eruption

14:00–14:15 EGU2011-8556
Nicole Bobrowski and Giovanni Bruno Giuffrida
Can bromine/sulphur ratios be used to forecast volcanic eruptions? An example study at Mt Etna.

14:15–14:30 EGU2011-12892
Hugo Delgado Granados, Ramón Espinasa-Pereña, Sergio R. Rodríguez, Wendy V. Morales-Barrera, Maríana P. Jácome Paz, and José M. Álvarez Nieves
Use of soil CO2 flux for the recognition of the most active zones in the Xalapa Monogenetic Volcanic Field

14:30–14:45 EGU2011-8168
Corentin Caudron and Alain Bernard
Hydroacoustic quantifications of CO2 bubbles in volcanic lakes

14:45–15:00 EGU2011-12010
Robin Campion, Gaia Pinardi, Pierre-François Coheur, Giuseppe Salerno, Michael Burton, Hugo Delgado-Granados, María Martínez-Cruz, Simon Carn, and Alain Bernard
Comparing and integrating SO2 measurements from ground and space.

NH1.1/AS4.5/CL3.3 – Extreme events induced by extreme weather and climate change: Evaluation and forecasting of disaster risk and proactive planning (co-organized) – Orals
Convener: Athanasios Loukas | Co-Conveners: Maria-Carmen Llasat, Uwe Ulbrich
Room: 10
Chairperson: M.C. Llasat, U. Ulbrich, A. Loukas
08:30–08:45  EGU2011-12911
Deniz Bozkurt, Baris Onol, and Omer Lutfi Sen
Simulated intense convective precipitation over the Black Sea coasts: sensitivity to temporal
modifications of SST

08:45–09:00  EGU2011-3103
Yves Tramblay, Luc Neppel, Julie Carreau, and Kenza Najib
Non-stationary frequency analysis with climatic covariates of heavy rainfall events in the French
Mediterranean region

09:00–09:15  EGU2011-10251
Margarida L. R. Liberato, Isabel F. Trigo, and Ricardo M. Trigo
Variability of Extreme Precipitation Events in Western Iberia

09:15–09:30  EGU2011-5719
Marina Baldi, Virginia Ciardini, John David Dalu, and Tiziana De Filippis
A climatology of hail frequency and intensity in Italy

09:30–09:45  EGU2011-11767
Juan Cuesta, Pierre H. Flamant, and Cyrille Flamant
Aggravation of air quality conditions due to multi-layer aerosol load in the Paris area during the heatwave
of August 2003

09:45–10:00  EGU2011-10820
Jan Bliefernicht, András Bárdossy, Harald Kunstman, and Patrick Laux
Robust identification of rare atmospheric states for statistical downscaling of hydro-meteorological
extremes

COFFEE BREAK

Chairperson: M.C. Llasat, U. Ulbrich, A. Loukas

10:30–10:45  EGU2011-4462
Rana Samuels, Maayan Harel, and Pinhas Alpert
Building High Resolution Climate Change Ensembles for Forecasting Future Rainfall in the Middle East

10:45–11:00  EGU2011-10015
Christian Dobler
Assessment of climate change impacts on flood hazard potential in an Alpine watershed

11:00–11:15  EGU2011-7649
Markus Stowasser, Ivo Báňovský, Erasmo Buonomo, Carlo Buontempo, Thomas Duveau, Cressida
Ford, Jane Toothill, and Silvio Tschudi
Climate Change and Extreme Surface Flooding in Northern Italy

11:15–11:30  EGU2011-5141
Markus Donat, Tobias Pardowitz, Gregor C. Leckebusch, and Uwe Ulbrich
Estimating the risk of losses caused by winter storms in Germany

11:30–11:45  EGU2011-12411
Jürgen Grieser, Christos Mitas, and Steve Jewson
Modelling Wind Loss from Convective Events in Europe - Hazard, Vulnerability, Exposure

11:45–12:00  EGU2011-13853
John Tzabiras, Athanasios Loukas, and Lampros Vasiliades
Evaluation of monthly precipitation downscaling methods accuracy for the assessment of climate change
impacts on droughts

XY174  EGU2011-195
Boryana Markova, Viara Rafailova, Rumjana Mitzeva, and Guergana Guerova
Severe thunderstorm developed on 28 June 2007 over northeast Bulgaria

XY175  EGU2011-1389
Stephan Pfahl and Hein Wernli
Spatial coherency of extreme weather events in Central Europe
XY176 EGU2011-2700
Florinela Georgescu and Sabina Stefan
Dynamic of the troposphere in cases of weather extreme events

XY177 EGU2011-2704
Ana C. Costa, João A. Santos, and Joaquim G. Pinto
Climate change scenarios for precipitation extremes in Portugal based on COSMO-CLM ensemble simulations

XY178 EGU2011-5173
Seth Westra
Joint dependence between extreme rainfall and storm surge in the coastal zone

XY179 EGU2011-6698
Kai Born, Rabea Haas, Patrick Ludwig, Adam Podlaha, and Joaquim G. Pinto
Extreme Winds: Improvement of RCM storm simulations using gust parameterizations and MOS

XY180 EGU2011-6721
Patrick Ludwig, Kai Born, Radovan Drinka, Alexandros Georgiadis, and Joaquim G. Pinto
Diagnosis of exceptional recent European winter storms

XY181 EGU2011-6909
Susanna Mohr and Michael Kunz
Trend analysis of convective indices relevant for hail events in Germany

XY182 EGU2011-6910
Ingo Meirold-Mautner, Benedikt Bica, and Yong Wang
INCA-CE: A Central European initiative in nowcasting applications

XY183 EGU2011-6933
Haiyan Zhao, Ge Gao, Peiqun Zhang, and Xiaodong Yan
The modification of Meteorological Drought Composite Index

XY184 EGU2011-7416
Blaz Kurnik, Andrej Ceglar, and Lucka Kajfez Bogataj
Assessing droughts in Europe using Standardised Precipitation Index (SPI) and Regional Climate Models (RCMs)

XY185 EGU2011-12632
Johannes Merklein and Oleg Panferov
3D-Modelling of the destructive effects of windstorms on spatially complex forests

XY186 EGU2011-11550
Jose de Jesus Salas Perez, Carme Llasat, and Carlos González-Gándara
Climatology of the Nortes of the Gulf of Mexico

XY187 EGU2011-12985
Andrés Merino, Eduardo García-Ortega, Laura López, and José Luis Sánchez
Pre-frontal hailstorm episodes in the Iberian Peninsula: identification, analysis and prediction.

XY188 EGU2011-1582
Emanuele Eccel, Piero Cau, Kathrin Riemann-Campe, and Franco Biasioli
Climatology of hailstorms in an alpine area and its links with atmospheric precursors

XY189 EGU2011-2318
francesco cioffi, Upmanu Lall, Evgeny Volodin, Christina Karamperidou, and Roberto Purini
21st Century Projections of Precipitation Extremes in the Mediterranean from a medium resolution GCM

XY190 EGU2011-4541
Weibiao Li
Characteristics of the Precipitation Extremes over the Urban Areas of the Pearl River Delta of China

XY191 EGU2011-7558
Thorsten Simon, Christian Ohiwein, and Andreas Hense
Downscaling of Monsoon Precipitation in Poyang Basin, China, using a Generalized Pareto Distribution

XY192 EGU2011-10387
Nikolay Sidorenkov
Causes of anomalous hot summers and the possibility of their forecasts

XY193 EGU2011-10697
Christos Mitas
Numerical Simulation of Extreme European Windstorms

XY194 EGU2011-11616
Sarah Kew, Frank Selten, Geert Lenderink, and Wilco Hazeleger
Robust assessment of future changes in extreme precipitation over the Rhine basin using a GCM

XY195 EGU2011-12289
Amílcar Soares, Dora Roque, Pedro Benevides, Pedro Nunes, Ricardo Armas, and Maria Pereira
Desertification Indicators derived from Earth Observation Data: Application to Portugal and Brazil

XY196 EGU2011-12331
Martin Graneroed and Haraldur Ólafsson
Climatology and meteorology of lightnings in Norway
XY197  EGU2011-10835
Giuseppe Delmonaco, Domenico Fiorenza, Luca Guerrieri, Carla Iadanza, Claudio Margottini, Daniele Spizzichino, Alessandro Triglia, and Eutizio Vittori
Geological risk assessment, mitigation and IT services and tools management: the BRISEIDE Project approach

XY198  EGU2011-13809
Zhou Haiguang
Mesoscale Structure of the Snow Storm in Zhejiang on 29 January 2008 by Dual-radar

XY199  EGU2011-7439
Olga Petrucci, Maurizio Polemio, and A.Aurora Pasqua
Damaging Hydrogeological Events in Calabria (Italy): new results of an ongoing historical research

XY200  EGU2011-11928
Alessio Capriolo, Francesca Giordano, Rosa Anna Mascolo, and Daniele Spizzichino
Climate change and disaster risk reduction through adaptation plans and policies: the ACT (Adapting to Climate change in Time) project approach

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**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 Se?i?iks
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?

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**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 Youngjo, 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

NH3.9 – Documentation and monitoring of landslides and debris flows for mathematical modelling and design of mitigation measures – Orals
Convener: LUCA FRANZI | Co-Conveners: Massimo Arattano, Muneyuki Arai
Room: 2
Chairperson: Luca Franz

08:30–08:45  EGU2011-5681
Yolanda Deubelbeiss, Christoph Graf, Brian McArdell, and Perry Bartelt
Numerical modeling of debris flows - Case study at Dorfbach, Randa (Valais, Switzerland)

08:45–09:00  EGU2011-6983
Andreas Huber and Christian Scheidl
Comparison of debris flow simulation models for lateral runout prediction on the fan

09:00–09:15  EGU2011-5498
Ting-Chi Tsao, Chih-Hao Hsu, Wen-Chun Lo, Chen-Yu Chen, and Chin-Tung Cheng
The Investigation and Mitigation Strategy of a Debris Flow Creek after Typhoon Morakot in Taiwan

09:15–09:30  EGU2011-8228
Luzia Fischer, Lena Rubensdotter, Caterina Melchiorre, Knut Stalsberg, and Pascal Horton
Debris flow susceptibility mapping - from analysis at basin scale to national scale mapping

09:30–09:45  EGU2011-10526
Matteo Berti, Paolo Mora, Carlo Bonanno, and Elena Piantelli
Testing innovative power-supply systems for GPS monitoring in landslide areas

09:45–10:00  EGU2011-14131
Anna Maria Ferrero, Luigi Canelli, and Giuseppe Mandrone
Debris Flow Risk mitigation by the means of rigid and flexible barriers. Experimental tests and impact analysis

NH3.9 – Documentation and monitoring of landslides and debris flows for mathematical modelling and design of mitigation measures – Posters
Convener: LUCA FRANZI | Co-Conveners: Massimo Arattano, Muneyuki Arai
Halls X/Y | Display Time 08:00–17:00
Author in Attendance: 15:30–17:00
Chairperson: Luca Franz
XY214  EGU2011-14093
Shih-Meng Hsu, Huai-Yu Wen, Chi-Hung Chao, Nai-Chin Chen, and Shue-Yeong Chi
Watershed Sediment Yield Estimate during Heavy Rain Period

XY215  EGU2011-13594
Bor-shiun Lin, Hsing-Chuan Ho, Shu-Yeong Chi, Ting-Chi Tsao, Hsiao-Yuan Yin, Wen-Chun Lo, and
Shih-Meng Hsu
Discussions on Debris Flow Induced Factors of Shenmu Watershed in Taiwan

XY216  EGU2011-2068
Mario Floris, Francesca Bozzano, Andrea D’Alpaos, Anna De Agostini, Antonio Galgano, Alfredo Rocca,
Giovanni Stevan, Giulia Tessari, Giordano Teza, and Rinaldo Genevois
A process-based model for the definition of hydrological alert systems in landslide risk assessment

XY217  EGU2011-5588
Muneyuki Arai
Occurrence condition of roll wave and flow model on muddy debris flow

XY218  EGU2011-7770
Andrea Guida, Roberto Greco, Emilia Damiano, Lucio Olivares, and Luciano Picarelli
Hydrological response of steep slopes in unsaturated pyroclastic soils: long-term monitoring results

XY219  EGU2011-10430
Massimo Arattano, Marta Chiarle, Velio Coviello, Cristina Occhiena, Marina Pirulli, and Claudio Scavia
Acoustic emissions investigation for rock slope stability analysis in high mountain areas

XY220  EGU2011-11490
Luca Di Martino, Cristiano Freilone, Giuseppe Ricca, and Maurizio Toja
December 2008-April 2009: landslide phenomena in Asti Provincia - Northwest Italy (interference with
secondary roads)

NH3.10/GM6.2 – Rock mechanics and structural controls on hillslope processes (co-organized) – Orals
Room: 2
Chairperson: F. Agliardi, C. Zangerl, G.B. Crosta

10:30–10:45  EGU2011-8426
Federico Agliardi, Giovanni B. Crosta, Stefano Zanchetta, Marco Secondi, Valentina Barberini, Nicoletta
Fusi, and Elena De Ponti
Fabric controls on the failure mode of strongly deformed metamorphic rocks: investigation, modelling,
and impact on rock-slope stability

10:45–11:00  EGU2011-3235
Martin Ziegler, Simon Loew, Jeffrey Moore, and Florian Amann
Distribution and fractographic features of exfoliation joints in the Central Swiss Alps (Grimsel area, Aar
Massif)

11:00–11:15  EGU2011-6454
Thomas Strauhal, Christian Zangerl, Daniela Anna Engl, Wolfgang Fellin, and Peter Tropper
Geotechnical and mineralogical sliding zones properties of rockslides in paragneissic rock masses

11:15–11:30  EGU2011-13348
Riccardo Castellanza, Matteo Ciantia, Claudio di Prisco, Federico Agliardi, and Giovanni Crosta
Weathering effects on the mechanical behavior of calcarenites: experimental evidences and impact on
the stability of costal cliffs and cavities

11:30–11:45  EGU2011-13069
Andrea Pedrazzini, Michel Jaboyedoff, and Alexandre Loye
From Sackung to rock avalanche: the example of Sierre landslide (Switzerland)

11:45–12:00  EGU2011-1533
Irene Manzella, Herbert H. Einstein, and Giovanni Grasselli
Propagation of large debris avalanches: analytical, DEM and FEMDEM modelling of granular and block
flows.

NH3.10/GM6.2 – Rock mechanics and structural controls on hillslope processes (co-organized) – Posters
Halls X/Y | Display Time 08:00–17:00
Author in Attendance: 15:30–17:00
Chairperson: F. Agliardi, C. Zangerl, G.B. Crosta

XY221  EGU2011-1632
Laura Superchi, Andrea Wolter, Doug Stead, John J. Clague, Monica Ghirotti, and Rinaldo Genevois
Comparison of photogrammetric and field survey data from the sliding surface of the 1963 Vajont Slide, Italy
Stefano Margiotta, Fiorella Mazzone, and Sergio Luigi Negri
Integrated approach based on qualitative rock classification system (Qsrm) and quantitative geological and geophysical surveys to characterize coastal cliffs

Marc-André Brideau, Matthieu Sturzenegger, Doug Stead, Michel Jaboyedoff, Martin Lawrence, Nicholas Roberts, John Clague, Brent Ward, and Tom Millard
Structural controls on the 2007 Chehalis Lake landslide, British Columbia, Canada

Florian Humair, Jean-Luc Epard, Andrea Pedrazzini, Corey Froese, and Michel Jaboyedoff
Genesis and related slope stability analyses of the Turtle Mountain anticline (Alberta, Canada)

Oded Katz and Julia K. Morgan
The role of fractures in controlling the size and geometry of landslides; Insights from Discrete Element Method computer simulations

Marc-André Brideau, Matthias Sutter, Andrea Pedrazzini, Corey Froese, and Michel Jaboyedoff
Genesis and related slope stability analyses of the Turtle Mountain anticline (Alberta, Canada)

Jia-Jyun Dong and Huai-Houh Hsu
Effects of Hydraulic Conductivity / Strength Anisotropy on the Stability of Stratified, Poorly Cemented Rock Slopes

Jia-Jyun Dong and Ni-Bin Liu
Effects of Hydraulic Conductivity / Strength Anisotropy on the Stability of Stratified, Poorly Cemented Rock Slopes

Jia-Jyun Dong and Huai-Houh Hsu
Effects of Hydraulic Conductivity / Strength Anisotropy on the Stability of Stratified, Poorly Cemented Rock Slopes

James Glover, Nick Rosser, Werner Gerber, and Dave Petley
Quantifying the influence of rock shape on the run out of rock fall

Aucelli Pietro, Rosskopf Carmen, and Di Paola Gianluigi
The role of mass wasting in the evolution of valley systems: an example from the Molise region (Southern Italy)

Jia-Jyun Dong and Yi-Ju Su
Topography, rock mass strength and pore water pressure

Assaf Klar, Einat Aharonov, and Oded Katz
Landslide volume and surface area - Analytical and observational relations

Alexandre Loye, Josh I. Theule, Michel Jaboyedoff, Frédéric Liébault, Andréa Pedrazzini, and Richard Metzger
Geological and morphostructural implication for sediment and debris supplying channels of small alpine catchments prone to debris flow

Thomas Bois, Thomas Lebourg, Emmanuel Tric, and Swann Zerathe

NH3.11/SSP3.4 – Submarine Landslides: Mechanisms, Processes and their Sedimentary Record (co-organized) –
Orals
Convener: Roger Urgeles | Co-Conveners: Alessia Errera, Michi Strasser, David Mosher, Jason Chaytor
Room: 1
Chairperson: Michael Strasser, Alessia Errera

13:30–13:45
Pierre Henry, Toshiya Kanamatsu, Michael Strasser and the IODP Expedition 333 Scientists Team
Drilling Quaternary submarine landslides on the Nankai accretionary wedge: Results from IODP Expedition 333

13:45–14:00
Kei Ogata, Emiliano Mutti, Roberto Tinterri, and Gian Andrea Pini
Mass transport complex in confined intra-slope basins: the case study of the Epiligurian Specchio unit (Northern Apennines, Italy)

14:00–14:15
Justin O'Shay, Robert Weiss, and Costas Synolakis
How long does it take to generate tsunami waves by submarine landslides?
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<th>Time</th>
<th>Presentation ID</th>
<th>Title</th>
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<tbody>
<tr>
<td>14:15–14:30</td>
<td>EGU2011-9771</td>
<td>Nicole J. Baeten, Jan Sverre Laberg, Matthias Forwick, Tore O. Vorren, Michael Ivanov, Maarten Vanneste, Carl Fredrik Forsberg, and Tore J. Kvalstad Small-scale mass wasting on the continental slope offshore Lofoten, northern Norway</td>
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<tr>
<td>14:45–15:00</td>
<td>EGU2011-11514</td>
<td>Roger Urgeles and Angelo Camerlenghi Submarine landslides in the continental margins of the Mediterranean Sea: spatial distribution, major characteristics and implications for geohazard assessment</td>
</tr>
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**NH3.11/SSP3.4 – Submarine Landslides: Mechanisms, Processes and their Sedimentary Record (co-organized) – Posters**

**Convener:** Roger Urgeles | **Co-Conveners:** Alessia Errera, Michi Strasser, David Mosher, Jason Chaytor

**Halls X/Y | Display Time 08:00–17:00**

**Author in Attendance:** 15:30–17:00

**Chairperson:** Alessia Errera, Michael Strasser

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<tr>
<td>XY235</td>
<td>EGU2011-4603</td>
<td>Daniel Winkelmann, Julia Schwab, Michi Strasser, Benedict Preu, Tilman Schwennck, and Sebastian Krastel Large-Scale Submarine Mass-Masting offshore Uruguay</td>
</tr>
<tr>
<td>XY236</td>
<td>EGU2011-4608</td>
<td>Shu-Kun Hsu, Ching-Hui Tsai, Hsin-Yi Lin, and Song-Chuen Chen Slope failure and fluid flow in the northern margin of South China Sea</td>
</tr>
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<td>XY237</td>
<td>EGU2011-4219</td>
<td>Matthias Forwick, Jan Sverre Laberg, Maarten Vanneste, and Tore O. Vorren Down- and along-slope erosional and depositional processes on the NW Svalbard continental slope</td>
</tr>
<tr>
<td>XY238</td>
<td>EGU2011-9197</td>
<td>Michele Rebesco, Angelo Camerlenghi, Renata G. Lucchi, Maria Teresa Pedrosa Gonzalez, Chiara Sauli, Gianni Madrussani, and Roger Urgeles Thin-skinned and giant submarine landslides on the southern Storfjorden Trough Mouth Fan (western Barents Sea)</td>
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<tr>
<td>XY239</td>
<td>EGU2011-11297</td>
<td>Stefan Bünz, Runar Johansen, Jan-Sverre Laberg, and Jürgen Mienert 3D Seismic Analysis of Buried Slide Deposits in the SW Vering Basin, Mid-Norwegian Margin</td>
</tr>
<tr>
<td>XY240</td>
<td>EGU2011-3452</td>
<td>Nicolas Pinet, Virginia Brake, Gabriel Huot-Vézina, Calvin Campbell, and Mathieu J. Duchesne Comparative quantitative geomorphology of Holocene mass-transport deposits, St. Lawrence River Estuary, Canada.</td>
</tr>
<tr>
<td>XY242</td>
<td>EGU2011-6047</td>
<td>Antonio Cattaneo, Daniel Minisini, Alessandra Asili, Miquel Canals, Ben De Mol, Sara Lafuerta, Galderic Lastras, Alessandro Remia, Nabil Sultan, and Marco Taviani Age constraints and sediment properties of Ana Slide (Balearic Sea, Western Mediterranean) and implications on age dating of submarine landslides</td>
</tr>
<tr>
<td>XY243</td>
<td>EGU2011-13552</td>
<td>James Hunt and Russell Wynn Use of distal turbidites to decipher landslide records of frequency, volume and failure mechanism: case studies from the Moroccan Turbidite System</td>
</tr>
<tr>
<td>XY244</td>
<td>EGU2011-13564</td>
<td>James Hunt and Russell Wynn Landslide and earthquake events recorded in distal turbidites in the deepwater basins of the Western European Margin</td>
</tr>
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XY245  EGU2011-4738
Anne Bernhardt, Lisa Stright, and Donald R. Lowe
Debris Flow and Turbidity Current Interactions in a Large Submarine Axial Channel Belt, Upper Austrian Molasse Basin

XY246  EGU2011-6338
Alexander Goater and Andrew Hogg
Modelling Submarine Turbidity Currents

XY247  EGU2011-2335
Sueng-Won Jeong, Jacques Locat, Serge Leroueil, and Jean-Loup Robert
Fluidization process in submarine landslides due to water infiltration caused the high mobility of debris flows

XY248  EGU2011-7656
Atsuya Tsukui, Hiroshi Fukuoka, Akito Tsutsumi, and Shintaro Yamasaki
Sliding-surface-liquefaction of sand-dry ice mixture and long runout submarine landslides

XY249  EGU2011-8883
Anna Reusch, Gauvain Wiemer, Achim Kopf, and Michael Strasser
Submarine slope stability at the Nankai Trough - dynamic triaxial testing of water-saturated sediment samples

XY250  EGU2011-1366
Hiroyuki Matsumoto, Toshitaka Baba, and Yoshiyuki Kaneda
Evidence of submarine landslide triggered by the 2009 Suruga Bay, Japan earthquake

XY251  EGU2011-6419
Chih-Chieh Su, Jing-Yi Tseng, Ho-Han Hsu, Ho-Shing Yu, and James T. Liu
The Submarine Hazards Off Southwestern Taiwan: from 2006 Pingtung Earthquake to 2009 Morakot Typhoon

NH4.2 – Deformation processes and accompanying mechanical and electromagnetic phenomena, for rocks and other materials, from the laboratory to the geophysical scale – Orals
Convener: Konstantinos Eftaxias | Co-Conveners: Costantin Nomicos, Qinghua Huang
Room: 11
Chairperson: Tamaz Chelidze

Tamaz Chelidze and Teimuraz Matcharashvili
Dynamic triggering and synchronization: laboratory and field scale

13:45–14:00  EGU2011-11932
Dimitar Ouzounov, Sergey Pulinets, Michel Parrot, Konstantin Tsybulya, Patrick Taylor, and Alonco Baeza
The atmospheric response to M7.0 Haiti and M8.3 Chilean earthquakes revealed by joined analysis of satellite and ground data

14:00–14:15  EGU2011-2465
Dumitru Stanica and Dragos Armand Stanica
Electromagnetic methodology used to assess the short-term precursory parameters related to seismic activity

14:15–14:30  EGU2011-3097
Hugo Goncalves da Silva, Manuel Fernandes Graça, Jorge Silva Monteiro, Mourad Bezzeghoud, Rui Namorado Rosa, Sushil Kumar Mendiratta, and Mouhaydine Tlemcani
Electric transport in different granitic rocks

14:30–14:45  EGU2011-4595
Qinghua Huang, Qiao Wang, and Yufeng Lin
Geoelectric response on the ground surface due to inhomogeneity of electric structure

14:45–15:00  EGU2011-11320
Victor Novikov, Vladimir Zeigarnik, Vadim Klyuchkin, Vladimir Okunev, and Eugeny Lazarev
Experimental Study of Dynamic and Electromagnetic Triggering Phenomena at the Spring-Block Facility

NH4.2 – Deformation processes and accompanying mechanical and electromagnetic phenomena, for rocks and other materials, from the laboratory to the geophysical scale – Posters
Convener: Konstantinos Eftaxias | Co-Conveners: Costantin Nomicos, Qinghua Huang
Halls X/Y | Display Time 08:00–17:00
Author in Attendance: 15:30–17:00
Chairperson: Konstantinos Eftaxias

XY252  EGU2011-13756
Ping Zhang
The Impending Geoelectric Precursors to the Sumatra Earthquake and the Wenchuan Earthquake
**SM5.2/NH4.7 – Time-dependent earthquake occurrence and seismic hazard: physics and statistics (co-organized)**

**Orals**

**Convener:** Gert Zöller | Co-Conveners: Sebastian Hainzl, Massimo Cocco, Mark Naylor

**Room:** 26

**Chairperson:** Gert Zöller

- **08:30–09:00** EGU2011-4954  
  **Clément Narteau, Peter Shebalin, and Matthias Holschneider**  
  Probing the state of stress using early aftershocks

- **09:00–09:15** EGU2011-948  
  **Denise De Gaetano, John McCloskey, and Suleyman Nalbant**  
  The systematic study of the stability of forecasts in the rate- and state-dependent model

- **09:15–09:30** EGU2011-5005  
  **Marco Mucciarelli and Dario Albarello**  
  Empirical testing of earthquake recurrence models at source and site

- **09:30–09:45** EGU2011-4917  
  **Stanislaw Lasocki**  
  Clustering of seismic events in equivalent dimension hyperspaces - premonitory effects of M8.8 Chile earthquake of February 27, 2010

- **09:45–10:00** EGU2011-12502  
  **Renata Rotondi and Elisa Varini**  
  Statistical tests for the retrospective detection of space-time clusters of seismic events

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**COFFEE BREAK**
10:30–11:00  EGU2011-9019
Hugo Perfettini, Jean-Philippe Avouac, Hernando Tavera, Mohamed Chlieh, Jean-Mathieu Nocquet, Dominique Remy, Kositsky Andrew, and Anthony Sladen
Seismic and aseismic slip on the central Peru megathrust

11:00–11:15  EGU2011-10366
Michel Bouchon, Hayrullah Karabulut, Mustafa Aktar, Serdar Özalaybey, Jean Schmittbuhl, and Marie-Paule Bouin
Observation of repeating earthquakes during the nucleation of the 1999 Mw 7.6 Izmit earthquake

11:15–11:30  EGU2011-8463
Virginie Durand, Michel Bouchon, David Marsan, and Nikos Theodoulidis
Seismic interactions in Greece following the M=6.4, 2008, Achaea earthquake

11:30–11:45  EGU2011-3660
Matthias Holschneider, Gert Zöller, and Sebastian Hainzl
Estimation of the maximum magnitude in the framework of a doubly-truncated Gutenberg-Richter model: Limits of statistical inference from earthquake catalogs

11:45–12:00  EGU2011-4653
Seeck Goo Song
Earthquake source statistics inferred from earthquake source physics - Toward developing an extended earthquake rupture forecast model

SM5.2/NH4.7 – Time-dependent earthquake occurrence and seismic hazard: physics and statistics (co-organized) –

XY512  EGU2011-1845
Haikun Jiang, Maling Yang, Xuejun Sun, Jian Lv, Chuanhen Yan, and Qiong Wu
A typical locally triggered seismicity in Southwest of China, following the large rainfall event of June 2010

XY513  EGU2011-2053
Alessandro Caporali, Salvatore Barba, Michele Carafa, Roberto Devoti, Grazia Pietrantonio, and Federica Riguzzi
Static stress drop as determined from geodetic strain rates and statistical seismicity

XY514  EGU2011-3765
Pierre Dublanchet, Pascal Bernard, and Pascal Favreau
Cycle and triggering of a rate-and-state asperity model.

XY515  EGU2011-7014
Gregor Hillers and Yehuda Ben-Zion
Modeling Tectonic Tremor and Slow Slip Events with rate-and-state friction close to critical zero weakening

XY516  EGU2011-11265
Gilbert Brietzke, Sebastian Hainzl, Gert Zöller, and Matthias Holschneider
Quasi-Dynamic Simulations on Multiple Fault Systems

XY517  EGU2011-5847
Hongjun Si, Akemi Noda, Michiharu Ikeda, Kazuki Ogiyama, Naoki Nishizaka, and Yuki Ohno
A study on rupture propagation between the segments on the MTL based on the simulation of dynamic rupture process

XY519  EGU2011-2987
Christoph Bach and Sebastian Hainzl
Aftershock modeling based on Coulomb stress-triggering and ground shaking

XY520  EGU2011-8347
Sebastian Hainzl, Gert Zöller, Gilbert B. Brietzke, Lifeng Wang, and Matthias Holschneider
A stochastic fault-based earthquake simulator for short- and long-term seismicity

XY522  EGU2011-7460
Beata Orlecka-Sikora, Stanislaw Lasocki, Grzegorz Lizurek, and ?ukasz Rudzi?ski
Response of seismic activity in mines to the stress changes due to mining induced strong seismic events

XY523  EGU2011-623
Samira Maghsoudi, Simone Cesca, Sebastian Hainzl, Dirk Becker, Torsten Dahm, Diethelm Kaiser, and Volker Oye
Statistical Tools for Seismicity Analysis in Mining Environments

XY524  EGU2011-6912
Andrew Bell, Sarah Touati, Mark Naylor, and Ian Main
The nature and origin of the interevent-time distribution of volcanic earthquakes
XY525  EGU2011-8949  
Amir Hossein Hakimhashemi, Gottfried Gruenthal, Holger Schelle, and Christian Bosse  
Time-Dependent Seismic Hazard Assessment in the Dead Sea Fault Zone

XY526  EGU2011-4946  
Katalin Gribovszki, Péter Varga, and Ferenc Schulek-Tóth  
Deterministic Seismic Hazard Assessment of the inner town of Budapest

XY527  EGU2011-10274  
Hayrullah Karabulut, Jean Schmittbuhl, Michel Bouchon, Serdar Özalaybey, Olivier Lengliné, Guillaume Daniel, Ahu Kömec, Virginie Durand, and Marie-Paule Bouin  
Seismicity in the Cinarcik basin, East Marmara: changes due to the 1999 Izmit Earthquake and present-day activity

XY528  EGU2011-2036  
Elena Sasorova, Andreeva Marina, and Levin Boris  
Spatial-temporal distributions of earthquakes of the Kuril Island arc

XY529  EGU2011-4259  
Emmanouil Katsifarakis, Antonios Konstantaras, Emmanuel Maravelakis, Emmanouil Skounakis, and Martin Varley  
Seismic clustering algorithms

XY530  EGU2011-2523  
Yan Jia, Edmund Fiegweil, Christiane Freudenthaler, Rita Meurers, and Wolfgang Lenhardt  
Overview of Austrian Seismic Monitoring in 2010

XY531  EGU2011-12120  
Emmanouil Skounakis, Anthony Konstantaras, Emmanouil Katsifarakis, Emmanuel Maravelakis, Konstantinos Banitsas, and Martin Varley  
Seismic data clustering management system

NH5.2/NP7.4/OS5.5 – Extreme Sea Waves (co-organized) – Orals  
Convener: Efim Pelinovsky | Co-Conveners: Christian Kharif, Alexey Slunyaev  
Room: 4  
Chairperson: n.n.

08:30–08:45  EGU2011-3927  
Elzbieta Bitner-Gregersen and Alessandro Toffoli  
Probability of occurrence of rogue waves

08:45–09:00  EGU2011-102  
Ira Didenkulova  
Freak waves in the coastal zone of the Baltic Sea

09:00–09:15  EGU2011-1804  
Georg Lindgren and Finn Lindgren  
Stochastic 3D Lagrange waves, asymmetry properties and consequences for marine safety

09:15–09:30  EGU2011-1551  
Leonid Lopatoukhin, Alexander Boukhanovsky, and Ekaterina Chernycheva  
Climatic wave spectra of extreme wind waves

09:30–09:45  EGU2011-6052  
Miguel Onorato and Alessandro Toffoli  
The role of the modulational instability in the interaction of waves and currents

09:45–10:00  EGU2011-4810  
Odin Gramstad, Jean-Michel Lefevre, and Karsten Trulsen  
Model and case study for freak waves in crossing swell and wind sea

COFFEE BREAK

Chairperson: n.n.

10:30–10:45  EGU2011-9094  
Gerassimos Athanassoulis and Konstantinos Belibassakis  
Fully nonlinear water waves of high amplitude, propagating in finite depth

10:45–11:00  EGU2011-13724  
Alexander Dyachenko and Vladimir Zakharov  
On canonical equation for water waves

11:00–11:15  EGU2011-3943  
Walter Craig  
Nonlinear water wave interactions
11:15–11:30 EGU2011-2013
**Nail Akhmediev**, Adrian Ankiewicz, Jose-Maria Soto-Crespo, and John M. Dudley
Rogue Waves: Early Warning vs Forecast

11:30–11:45 EGU2011-1933
**Roger Grimshaw** and Sergei Annenkov
Water wave packets propagating over variable depth

11:45–12:00 EGU2011-1977
Sergei Annenkov and **Victor Shrira**
Self-similar evolution of wind wave statistical momenta

**LUNCH BREAK**

Chairperson: n.n.

13:30–13:45 EGU2011-137
**Anna Sergeeva**, Lev Shemer, and Alexey Slunyaev
Effects of occasional wave breaking on extreme wave statistics in stochastic modeling

13:45–14:00 EGU2011-1253
Yang-Yih Chen and **Hung-Chu Hsu**
Theoretical and Experimental study of Nonlinear water waves on uniform current

14:00–14:15 EGU2011-4226
Victor Shrira and **Alexey Slunyaev**
Rogue waves on jet currents caused by nonlinear evolution of trapped modes

14:15–14:30 EGU2011-1036
Sergey Dobrokhotov, Vladimir Nazaikinskiy, and Brunello Tirozzi
Explicit Asymptotics for Waves and Vortices with Small Amplitudes on the Shallow Water Created by Localized Sources and their Applications

14:30–14:45 EGU2011-288
**Karima Khusnutdinova**
The effect of an internal wave on breaking surface waves and the oceanic subsurface bubble layer

14:45–15:00 EGU2011-1975
Tatiana Talipova and Oxana Kurkina
Modulation instability and hazardous internal waves in South China and Baltic Seas

**NH5.2/NP7.4/OS5.5 – Extreme Sea Waves (co-organized) – Posters**
Convener: Efim Pelinovsky | Co-Conveners: Christian Kharif, Alexey Slunyaev
Halls X/Y | Display Time 08:00–17:00
Author in Attendance: 15:30–17:00
Chairperson: Christian Kharif and Efim Pelinovsky

XY263 EGU2011-2128
**Roman Shamin**
Numerical Simulation of FreakWaves: Detection, Predict and Breaking

XY264 EGU2011-7735
**Shiqiang Yan** and Qingwei Ma
Fully Non-linear Investigation of Freak Waves and their Interaction with Winds and Currents

XY265 EGU2011-115
**Alexey Slunyaev**, Anna Sergeeva, and Efim Pelinovsky
Rogue wave modeling: Approximate vs fully nonlinear wave simulations

XY266 EGU2011-342
**Arnida L. Latifah** and E. van Groesen
Investigations of coherence in extreme water waves

XY267 EGU2011-37
**Efim Pelinovsky** and Ira Didenkulova
Freak waves in the field of the nonlinear non-dispersive shallow-water waves

XY268 EGU2011-13924
**Efim Pelinovsky** and Dong-Jiing Doong
Freak wave observations in Taiwanese and Russian waters

XY269 EGU2011-807
**Andrey Zaytsev**, Efim Pelinovsky, Ahmet Yalciner, Ceren Ozer, and Irina Kostenko
Studies of Freak Waves in southern Part of Okhotsk Sea
XY270  EGU2011-108
Ira Didenkulova and Irina Nikolkina
Freak waves in 2006-2010

XY271  EGU2011-2382
Amin Chabchoub and Norbert Hoffmann
The Peregrine Breather Solution in a water wave tank

XY272  EGU2011-42
Ekaterina Shurgalina and Efim Pelinovsky
Life-time of freak waves of different shapes: dispersive focusing framework

XY273  EGU2011-7716
Huilong Zeng and Karsten Trulsen
Variation of kurtosis over non-uniform bathymetry

XY274  EGU2011-1019
Hubert Branger, Laurent Grare, Christian Kharif, Pierre Lubin, Stephane Glockner, Pauline Robin, and Olivier Kimmoun
Wind effects on waves propagating to the shore: experimental and numerical investigations

XY275  EGU2011-1435
Roland Thomas and Christian Kharif
Stability of a Stokes' wave train in the presence of uniform vorticity

XY276  EGU2011-1050
Antonio Lechuga
Large amplitude edge waves on a beach

XY277  EGU2011-4559
Oxana Kurkina, Tatiana Talipova, Efim Pelinovsky, Tarmo Soomere, and Ayrat Giniyatullin
Prognostic characteristics of internal waves for the Baltic Sea

XY278  EGU2011-5286
Nikolay Makarenko, Janna Malteva, and Alexei Kazakov
Extreme internal waves in a weakly stratified shear flows

XY279  EGU2011-13256
Andrey Serebryany and Cho-Teng Liu
Observations of large-amplitude internal wave of the second mode in Luzon Strait

XY280  EGU2011-4549
Dmitry Arkhipov, Georgy Khabakhpashev, Anatoly Litvinenko, and Nurziya Safarova
Combined approach to a simulation of the interaction of nonlinear spatial waves in seas with gently sloping bottom

XY281  EGU2011-508
Elena Alekseenko, Bernard Roux, Alexander Sukhinov, and Christian Kharif
Influence of currents and wave propagation on the seagrass meadows development in shallow water systems (near shoreline)

XY282  EGU2011-1573
Ekaterina Batcyna, Nikolay Petrukhin, and Efim Pelinovsky
Strong wave amplification in the atmosphere with large temperature gradients

XY283  EGU2011-536
Shalva Gagoshidze
To the Calculation of Periodic Longitudinal Waves in Trapezoidal Channels and Their Action on Bank Slopes

XY284  EGU2011-1685
Vasily Maximov, Gayaz Khakimzyanov, Igor Nudner, Efim Pelinovsky, and Konstantin Semenov
The Solitary Wave Interaction with a Partially Submerged Stationary Structure

XY285  EGU2011-1686
Vasily Maximov, Igor Nudner, Yuri Mayorov, Dmitry Babchik, and Konstantin Semenov
Extreme Waves Interaction with Lattice Structures

XY286  EGU2011-3981
Natalia Chaykovskaya and Artem Rodin
Psychological characteristics of human behaviour at a roque-wave event

XY287  EGU2011-6781
Jean-François Dorville, Hugues Berthelot, and Narcisse Zahibo
Effect of Extremes Wave on a mitigate type of the French West Indies coast, with a low cost modeling

XY288  EGU2011-6022
Narcisse Zahibo, Irina Nikolkina, Efim Pelinovsky, and Jean-François Dorville
Extreme Sea Waves on Guadeloupe, French West Indies

XY289  EGU2011-4456
Mikhail Lavrentiev, Andrey Marchuk, and Konstantin Simonov
Identification of tsunami wave parameters at source

NH6.1/CR11.30 – Snow cover and avalanches (co-organized) – Orals
Convener: Florence Naaim-Bouvet | Co-Conveners: Mohamed NAAIM, Emma Surinach Cornet, Alec van Herwijnen, Jürg Schweizer, David McClung

Room: 11
Chairperson: Charles Fierz

08:30–08:45  EGU2011-1978
David McClung and Chris Borstad
Probability distribution of energetic-statistical strength size effect in alpine snow

08:45–09:00  EGU2011-14072
Ingrid Reiweger, Stephan Simioni, and Jürg Schweizer
Failure of weak snow layers

09:00–09:15  EGU2011-3190
Johan Gaume, Guillaume Chambon, Mohamed Naaim, and Nicolas Eckert
Influence of weak layer heterogeneity on slab avalanche release. Finite Element Modeling.

09:15–09:30  EGU2011-9027
Elena Klimenko
Modeling snowpack on avalanche terrain for its stability estimation

09:30–09:45  EGU2011-13916
Christoph Mitterer, Achim Heilig, Lino Schmid, Jürg Schweizer, and Olaf Eisen
Measuring wet-snow properties with ground-penetrating radar technology

09:45–10:00  EGU2011-5674
Hélène Castebrunet, Nicolas Eckert, and Gérald Giraud
Climatological study of natural avalanche activity of the past 50 years in the French Alps

COFFEE BREAK

Chairperson: Emma Suriñach

10:30–10:45  EGU2011-10414
Andrea Soncini and Daniele Bocchiola
Future snow avalanche regime under climate scenarios in the Italian Alps

10:45–11:00  EGU2011-1440
Helmut Schreiber, Klaus Lorentschitsch, Walter L. Randeu, Markus Mayerl, Alexander Podesser, and Arnold Studeregger
Avalanche measurements by the radar-based monitoring system Grimming-Multereck

11:00–11:15  EGU2011-8177
Alvaro Soruco, Emmanuel Thibert, Christian Vincent, Renaud Blanc, and Raphèle Héno
Measurement of avalanche front velocity from high-speed terrestrial digital photogrammetry

11:15–11:30  EGU2011-8448
Magni Hreinn Jónsson, Eiríkur Gíslason, Harpa Grímsdóttir, and Tómas Jóhannesson
Two-dimensional modeling of snow avalanches in Iceland - applications for hazard mapping and avalanche forecasting

11:30–11:45  EGU2011-9857
Margarita E. Eglit
Effect of the slope curvature on an avalanche dynamics

11:45–12:00  EGU2011-2604
Paolo Caccamo, Thierry Faug, Hervé Bellot, Frederic Ousset, and Florence Naaim-Bouvet
Small-scale tests on granular avalanches against various types of flat obstacles

NH6.1/CR11.30 – Snow cover and avalanches (co-organized) – Posters

Convener: Florence Naaim-Bouvet | Co-Conveners: Mohamed NAAIM, Emma Surinach Cornet, Alec van Herwijnen, Jürg Schweizer, David McClung

Halls X/Y | Display Time 08:00–17:00
Author in Attendance: 15:30–17:00
Chairperson: Thierry Faug

XY290  EGU2011-7707
Reinhard Fromm and Peter Höller
Ski pole test: A comparison with traditional observation techniques

XY291  EGU2011-13927
Klemens Mayer, Ingrid Reiweger, Stephan Simioni, and Jürg Schweizer
Localisation of acoustic emission events during loading of snow samples
<table>
<thead>
<tr>
<th>XY292</th>
<th>EGU2011-10070</th>
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<tbody>
<tr>
<td><strong>Charles Fierz</strong> and Michael Lehning</td>
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<tr>
<td>Revisiting snow settlement simulations performed with SNOWPACK</td>
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<th>XY293</th>
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<tbody>
<tr>
<td><strong>Benjamin Reuter</strong> and Jürg Schweizer</td>
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<tr>
<td>The effect of surface warming on snow slab stiffness and fracture propagation propensity in avalanche snowpacks</td>
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<th>XY294</th>
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<tr>
<td><strong>Sebastian Feick</strong>, Stefan Brunner, Christoph Mitterer, and Jürg Schweizer</td>
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<td>Automated detection and analysis of gliding snow</td>
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<tr>
<td><strong>Ingrid Reiweger</strong>, Christoph Mitterer, and Jürg Schweizer</td>
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<td>2-D modelling of water flow in snow</td>
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<tr>
<td><strong>Charles Fierz</strong>, Pascal Haegeli, Roger Atkins, Matthias Gerber, Johannes Hörtlagni, John Kelly, Samuel Morin, Patrick Nairz, and Ian Tomm</td>
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<tr>
<td>An International Standard for the Exchange of Snow Profile Information</td>
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<th>XY297</th>
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<tbody>
<tr>
<td><strong>David McClung</strong></td>
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<tr>
<td>The strength and weight of evidence in backcountry avalanche forecasting</td>
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<th>XY298</th>
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<tr>
<td><strong>Igor Chiambretti</strong>, Mauro Valt, and Stefano Pivot</td>
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<tr>
<td>Winter season 2009-2010 - avalanche accidents in Italy</td>
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<th>XY299</th>
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<tr>
<td><strong>Mauro Valt</strong> and Paola Cianfarra</td>
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<tr>
<td>Recent snow cover and temperature variability in the Italian Alps and relations to avalanche activity</td>
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<th>XY300</th>
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<tr>
<td><strong>Cristina Pérez</strong>, Emma Surinach, Ignasi Vilajosana, Arnold Kogelnig, Martin Hiller, and François Dufour</td>
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<tr>
<td>Snow avalanche characterization by quantitative study of the generated seismic signals</td>
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<th>XY301</th>
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<tr>
<td><strong>Florence Naaim-Bouvet</strong>, Hervé Bellot, Mohamed Naaim, Nishimura Kouichi, and Romain Gaucher</td>
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<tr>
<td>Measurements of blowing snow : size distribution of snow particles at Lac blanc pass, French Alps.</td>
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<tr>
<td><strong>Alexander Prokop</strong> and Josef Pichler</td>
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<tr>
<td>A high resolution approach to define extreme spatial snow heights in avalanche release zones</td>
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<tr>
<td><strong>DynAval Team</strong></td>
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<tr>
<td>A comparison between three avalanche test sites in northwestern Alps as developed in the DYNAVAL-Alcotra project.</td>
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<tr>
<td>Monica Barbero, Fabrizio Barpi, Leandro Bornaz, Mauro Borri-Brunetto, Èloïse Bovet, Enrico Bruno, Elisabetta Ceaglio, Bernardino Chiaia, <strong>Valerio De Biagi</strong>, Daniele Fassin, Michele Freppaz, Barbara Frigo, Danilo Godone, Margherita Maggioni, Oronzo Pallara, Luca Pitet, Valerio Segor, Franco Torretta, Davide Viglietti, Arnoldo Welf, and Ermanno Zanini</td>
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<tr>
<td>Preliminary measurements and surveys at the Italian avalanche test site Punta Seehore.</td>
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<tr>
<td><strong>Arnold Kogelnig</strong>, Cristina Pérez, Emma Surinach, Johannes Hübl, Ignasi Vilajosana, Lambert Rammer, Martin Hiller, and François Dufour</td>
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<tr>
<td>On the use of infrasonic and seismic sensors to determine acoustic emissions of snow avalanches</td>
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<tr>
<td>Djebar Baroudi, Betty Sovilla, and <strong>Emmanuel Thibert</strong></td>
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<td>Effects of flow regime and sensor geometry on snow avalanche impact pressure</td>
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<tr>
<td>Monica Barbero, Fabrizio Barpi, Mauro Borri-Brunetto, Eloïse Bovet, Enrico Bruno, Elisabetta Ceaglio, Bernardino Chiaia, Valerio De Biagi, <strong>Michele Freppaz</strong>, Barbara Frigo, Oronzo Pallara, Luca Pitet, Valerio Segor, Claudio Vicari, Ermanno Zanini, and Margherita Maggioni</td>
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<td>A new test site in Aosta Valley (northwestern Italian Alps) for measuring the effects of snow-gliding on avalanche defence structures</td>
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<tr>
<td><strong>Valerio De Biagi</strong>, Bernardino Chiaia, Barbara Frigo, and Francesca Del Din</td>
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<td>New design guidelines for buildings in hazardous avalanche areas.</td>
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<tr>
<td>Benoit Chanut, <strong>Thierry Faug</strong>, and Mohamed Naaim</td>
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<tr>
<td>Force from granular flows on a wall-like obstacle: contribution to snow avalanche dam design</td>
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</table>
XY310  EGU2011-12108  
Engelbert Gleirscher, Anna Maschek, Jan-Thomas Fischer, Martin Kern, and Markus Aufleger  
Granular Experiments on the avalanche mitigation structure ‘Muehlauer Klamm’, Innsbruck, Tyrol.  

XY311  EGU2011-3737  
Philomène Favier, Nicolas Eckert, David Bertrand, and Mohamed Naaim  
Optimal design of snow avalanche passive defense structure using extreme value run-out models  

XY312  EGU2011-12360  
Philipp Jörg, Matthias Granig, and Peter Sampl  
Case studies with SamosAT based on several avalanche events in February and March 2009  

NH9.9 – Vulnerability assessments in natural hazard and risk analysis – Orals  
Convener: Thomas Glade | Co-Conveners: Joern Birkmann, Sven Fuchs, Carolina Roman  
Room: 1  
Chairperson: Thomas Glade  

08:30–08:45  EGU2011-5521  
Chih-Hao Hsu, Ting-Chi Tsao, and Wen-Chun Lo  
A Preliminary Study of Building Vulnerability to Debris Flow Hazard in Taiwan  

08:45–09:00  EGU2011-4932  
Maria Papathoma-Koehle, Margreth Keiler, Reinhold Totschnig, and Thomas Glade  
Improvement of vulnerability assessment based on extreme events: a debris-flow event in South Tyrol  

09:00–09:15  EGU2011-675  
Sven Fuchs, Jürgen Suda, and Markus Holub  
Vulnerability reduction by adapted building design  

09:15–09:30  EGU2011-5653  
daniela molinari, francesco ballio, and scira menoni  
The role of vulnerability for Early Warning Systems effectiveness  

09:30–09:45  EGU2011-7762  
Paulo Canário, Helena Nogueira, and Henrique Andrade  
Vulnerability Assessment to Extreme Heat in the Lisbon Metropolitan Area - an attempt of spatial modelling.  

09:45–10:00  EGU2011-9908  
Stefan Kienberger, Peter Zeil, Gerald Reischenböck, and Diana Maria Contreras Mojica  
Application of the MOVE framework for local and sub-national scale levels on flood hazards - Contributions to the vulnerability and scale debate  

COFFEE BREAK  

Chairperson: Joern Birkmann  

10:30–10:45  EGU2011-1060  
Nino Tsereteli, Otar Varazanashvili, Tamaz Chelidze, Avtandil Amiranashvili, and Alexander Gvencadze  
Development of Multiple risks deciles assessment for natural hazards for the territory of Georgia  

10:45–11:00  EGU2011-7374  
Bijan Khazai, Bjorn Vangelsten, Sebnem Duzgun, Janina Braun, and James Daniell  
Social Impacts of Emergency Shelter Provision in the aftermath of Earthquakes: Integrating Social Vulnerability in Systemic Seismic Vulnerability Analysis  

11:00–11:15  EGU2011-1096  
Dagmar Haase, Volker Meyer, and Sebastian Scheuer  
Exploring multicriteria flood vulnerability by integrating flood risk and coping capacity - from a starting point view towards an end point view of vulnerability  

11:15–11:30  EGU2011-7561  
Tina Kunz-Plapp, Bijan Khazai, and James Daniell  
Social Impacts of Earthquakes on Health and Health Care Systems: Integrating Social Vulnerability in Systemic Seismic Vulnerability Analysis  

11:30–11:45  EGU2011-5790  
Marc Zebisch, Stefan Schneiderbauer, Steve Kass, Lydia Pedoth, and Alberto Pistocchi  
Assessment of vulnerability to natural hazards and climate change in mountain environments - examples from the Alps  

11:45–12:00  EGU2011-8721  
Anne Holsten, Tabea Lissner, Marcus Klaus, and Jürgen P. Kropp  
The need for multisectoral impact assessments to initiate concerted adaptation
XY313  EGU2011-6392
Francesco Stecchi, Francesco Mancini, Claudia Ceppi, and Giovanni Gabbianelli
A GIS approach to risk analysis in the city of Tuzla (BiH) after severe ground deformation phenomena

XY314  EGU2011-1045
Konstantinos Karagiorgos, Michael Chiari, Fotis Maris, and Sven Fuchs
Quantification of vulnerability for elements at risk exposed to torrent processes in Mediterranean regions

XY315  EGU2011-1084
Sven Fuchs and the RISK MAP Team
Active vulnerability reduction by public participation - the RISK MAP project

XY316  EGU2011-3013
Gabriela Boca, Alexandru Ozunu, and Serban Nicolae Vlad
Assessment of the technological installations vulnerability to natural hazards

XY317  EGU2011-2933
Hayrullah Yurekli and Oznur Karaca
Liquefaction Potential Mapping Using GIS For Nazilli, Western Anatolia

XY318  EGU2011-3290
Stephanie Jaquet, Karen Sudmeier-Rieux, Marc-Henri Derron, and Michel Jaboyedoff
Influence of vulnerability on the risk analysis. Case studies of two villages in Dolakha district, Central-Eastern Nepal

XY319  EGU2011-3402
Maria Ilaria Pannaccione Apa, Emmanuel Kouokam, Robert Mbe Akoko, Pierre Thierry, and Maria Fabrizia Buongiorno
MT. CAMEROON SOCIO-ECONOMIC VULNERABILITY AND RESILIENCE ASSESSMENT THROUGH TRADITIONAL SURVEY METHODS [FP7-ENV-2007-1] Project MIA-VITA (Mitigate and assess risk from volcanic impact on terrain and human activities)

XY320  EGU2011-4942
Maria Paphothama-Koehle, Melanie Kappes, and Margreth Keiler
An indicator-based methodology for vulnerability assessment in alpine areas

XY321  EGU2011-7288
Mirko Baruffini, Christian Ambrosi, Roberto Marzocchi, and Maurizio Pozzoni

XY322  EGU2011-7380
Goran Trendafiloski, Oriol Gaspa, Raveem Ismail, and Guillaume Pousse
Earthquake loss estimation models for exposure data with higher resolution and quality

XY323  EGU2011-3994
Paola Salvati, Cinzia Bianchi, Mauro Rossi, and Fausto Guzzetti
Individual landslide and flood risk in Italy: an update

XY324  EGU2011-7655
Olga Petrucci and Maria Carme Llasat
Impacts of natural disasters: a review of recent literature

XY325  EGU2011-7751
Maja Slekco, Klemen Bergant, Gregor Gregori?, and Samo Stani?
Assessing and mapping crop vulnerability to drought using multi-criteria method

XY326  EGU2011-8872
t. Goded, e. Buforn, and j. Irizarry
Vulnerability assessment of historical buildings in the city of Málaga (Southern Spain)

XY327  EGU2011-9090
Claudia Strada, Federico Rupi, Matteo Mottironi, Ludwig Nössing, Guido Rossi, Paolo Montagner, and Antonio Danesi
Methodology for creating the priority list of actions for the reduction of hydrogeological risks on the road network of the Autonomous Province of Bolzano (Project Paramount)

XY328  EGU2011-7812
Reinhold Totschnig and Sven Fuchs
Vulnerability of buildings to torrent processes

XY329  EGU2011-10448
Rosastella Daminelli, Alberto Marcellini, and Alberto Tento
Microtremor investigations at the Santuario della Rocca (Sabbio Chiese, Brescia)
Sofia Bajocco, Antonella De Angelis, Alberto Sassi, Luigi Perini, and Luca Salvati
Analysis of land degradation sensitivity hot-spots through space and time: Italy as a case study

Márcio Silva, Carlos Bateira, and Susana Pereira
Vulnerability Assessment of Buildings and Roads to Shallow Translational Landslides in Santa Marta de Penaguião, Vila Real, Portugal

Hormoz Modaresi, Evelyne Foerster, Amelie Vagner and the ENSURE Project Team
Enhancing resilience of communities and territories facing natural and na-tech hazards

Mohsin Qureshi, Ikuo Towhata, and Suguru Yamada
Safety assessment of weathered slopes by measuring shear wave velocity

Stefan Hochreiter-Stigler
Future Flood Risk and Adaptation Strategies in the Tisza Region: A dynamic risk-layer approach

Elina Kasvi, Hannu Hyvöppä, Anttoni Jaakkola, Joni Mäkinen, Juha Hyvöppä, and Petteri Alho
Estimating sediment features and hydraulic parameters on a sand bedded point bar using LiDAR height and intensity and high resolution UAV-based images

Sarah Derouin and Lucille Piety
Seeing faults through the trees: A case study on using LiDAR in highly vegetated areas to determine fault activity and geomorphology

Francesco Zucca, Fabio Remondino, Giorgio Agugiaro, Marco Franceschi, Davide Zizioli, and Christian Peloso
Mapping the vertical: Oblique LiDAR acquisition for mapping Dolomites cliff (NE Italy)

Christoph Siart, Markus Forbriger, and Matthieu Ghilardi
Fusing surface and subsurface geodata: a case study on Cretan karst landforms

Robert Barneveld
Measuring microtopography with Terrestrial Laser Scanning: Aspects of data quality

Gottfried Mandlburger, Johannes Otepka, Wilfried Karel, Markus Hollaus, Camillo Ressl, Alexander Haring, Christian Briese, Gabor Molnar, and Bernhard Höfle
OPALS - a comprehensive laser scanning software for geomorphological analysis

Jean-Stephane Bailly and Carole Delenne
Riverbed image simulation for a better exploration of coarse-grained sediment sizing image analysis methods

Thomas Dewez, Christian Mathon, Hiromi Kobayashi, Aude Nachbaur, Olivier Sedan, Frederic Berger, Emilie Nowak, and Emmanuel Des Garets
Real-size rockfall trajectory and derived mechanical quantities from close-range stereo video experiment in Tahiti, French Polynesia

Dirk Rieke-Zapp
In situ measurement of bedrock erosion

Room: 21
Chairperson: n.n.

10:30–10:45 EGU2011-633
Elina Kasvi, Hannu Hyvöppä, Anttoni Jaakkola, Joni Mäkinen, Juha Hyvöppä, and Petteri Alho
Estimating sediment features and hydraulic parameters on a sand bedded point bar using LiDAR height and intensity and high resolution UAV-based images

10:45–11:00 EGU2011-9479
Sarah Derouin and Lucille Piety
Seeing faults through the trees: A case study on using LiDAR in highly vegetated areas to determine fault activity and geomorphology

11:00–11:15 EGU2011-4647
Francesco Zucca, Fabio Remondino, Giorgio Agugiaro, Marco Franceschi, Davide Zizioli, and Christian Peloso
Mapping the vertical: Oblique LiDAR acquisition for mapping Dolomites cliff (NE Italy)

11:15–11:30 EGU2011-11858
Christoph Siart, Markus Forbriger, and Matthieu Ghilardi
Fusing surface and subsurface geodata: a case study on Cretan karst landforms

11:30–11:45 EGU2011-10198
Robert Barneveld
Measuring microtopography with Terrestrial Laser Scanning: Aspects of data quality

11:45–12:00 EGU2011-7933
Gottfried Mandlburger, Johannes Otepka, Wilfried Karel, Markus Hollaus, Camillo Ressl, Alexander Haring, Christian Briese, Gabor Molnar, and Bernhard Höfle
OPALS - a comprehensive laser scanning software for geomorphological analysis

LUNCH BREAK

Chairperson: n.n.

13:30–13:45 EGU2011-11459
Jean-Stephane Bailly and Carole Delenne
Riverbed image simulation for a better exploration of coarse-grained sediment sizing image analysis methods

13:45–14:00 EGU2011-3631
Thomas Dewez, Christian Mathon, Hiromi Kobayashi, Aude Nachbaur, Olivier Sedan, Frederic Berger, Emilie Nowak, and Emmanuel Des Garets
Real-size rockfall trajectory and derived mechanical quantities from close-range stereo video experiment in Tahiti, French Polynesia

14:00–14:15 EGU2011-1329
Dirk Rieke-Zapp
In situ measurement of bedrock erosion
14:15–14:30 EGU2011-4479 Rafael Caduff, Fritz Schlunegger, Andrew Kos, Charles Werner, and Andreas Wiesmann
Assessment of precise spatial and temporal slope deformation with the GAMMA Portable Radar Interferometer in the Illegaran debris flow catchment, Central Swiss Alps

14:30–14:45 EGU2011-5193 Chih-Ming Tseng, Ching Weei Lin, and Jin King Liu
Application of High-resolution LiDAR-derived DEM in Landslide Volume Estimation

14:45–15:00 EGU2011-4065 David Hodgetts
Quantitative geology from digital outcrop data for the characterisation of hydrocarbon reservoirs.
Chairperson: Paola Passalacqua

15:30–15:45 EGU2011-10133 Tim Le Bas, Aaron Micallef, and Philippe Blondel
Use of texture analysis techniques for digital mapping of underwater environments: The case of a submerged karstic landscape offshore Malta.

15:45–16:00 EGU2011-5594 Paolo Tarolli and Paola Passalacqua
The statistical signature of Earth-Surface Processes

16:00–16:15 EGU2011-2980
giulia sofia, Paolo Tarolli, Federico Cazorzi, and Giancarlo Dalla Fontana
Channel network identification from high-resolution DTM: a statistical approach.

16:15–16:30 EGU2011-7484 John Hillier and Mike Smith
Testing Quantification Methods with Synthetic Drumlins in a real DEM

16:30–16:45 EGU2011-2646 Florent Levavasseur, Jean-Stéphane Bailly, Philippe Lagacherie, Colin François, and Rabotin Michaël
Uncertainties of water flow-paths in digital cultivated landscape: consequences on overland flows and channel run-off

16:45–17:00 EGU2011-9831 Jungrack Kim, ShiYuan Lin, JeongWoo Hong, SangYoon Yun, YougHwi Kim, and HeaWoon Yun
Very high resolution Martian topographic data processing and its application for virtual reality implementation


Hall A | Display Time 08:00–17:00
Author in Attendance: 08:30–10:00
Chairperson: n.n.

A94 EGU2011-923 Susanne Schnitzer

A95 EGU2011-12089 Maximilian Sproß, Erik Bollmann, Andrea Fischer, Lorenzo Rieg, Rudolf Sailer, and Johann Stötter
Spatial statistical analysis on glacier surface elevation change based on ALS data

A96 EGU2011-1147 Stefan Harnischmacher and Harald Zepp
Detection and Quantification of Mining Subsidence in the Ruhr District (Germany) Using Historic Maps and Digital Elevation Models

A97 EGU2011-12173 Alberto Guarnieri, Nicola Milan, Antonio Vettore, and Paolo Tarolli
A prototype of landslide observatory in the eastern italian alps

A98 EGU2011-12225 Alice Ciulli, Gianluca Chessa, Leonardo Disperati, Simone Gadenz, and Massimo Perna
Topographic units mapping from DEM analysis: evaluation of the Upslope Position Index (UPI) in two Tuscany (Italy) study areas

A99 EGU2011-12557 Vincenzo D'Agostino and Gabriele Bertoldi
Hazard hierarchization of debris flow sediment source areas
A100  EGU2011-5309  Paola Passalacqua, Colin P. Stark, Yuichi S. Hayakawa, Zhou Lin, Takashi Oguchi, and Tsuyoshi Hattanji
The objective mapping of channel initiation and landsliding on lidar DTMs in Japan and their interaction with vegetation

A101  EGU2011-8188  Marco Cavalli, Sebastiano Trevisani, and Lorenzo Marchi
Geomorphometric assessment of spatial sediment connectivity in small alpine catchments

A102  EGU2011-8286  Marco Cavalli, Sebastiano Trevisani, Beatrice Goldin, Elena Mion, and Lorenzo Marchi
Derivation of channel network of an alpine region from high-resolution DTM: the example of the Autonomous Province of Trento (Italy)

A103  EGU2011-10449  Markus Thiel, Tobias Heckmann, Florian Haas, and Michael Becht
Quantification of coarse sediment connectivity in alpine geosystems

A104  EGU2011-3804  Federico Cazorzi, Paolo Tarolli, Giulia Sofia, Alberto De Luca, and Giancarlo Dalla Fontana
Surface water storage in alluvial and urbanized plains: the effectiveness of high resolution topography

A105  EGU2011-12442  Bastiaan Notebaert, Piégay Hervé, and Alber Adrien
Structural properties of floodplain width in the Rhone catchment: methodology and results

A106  EGU2011-12580  Svetlana Samsonova and Aleksandr Koshkarev
Eco-geomorphological digital model of Moscow city

A107  EGU2011-11648  Wolfgang Schwanghart, Geoff Groom, Nikolaus J. Kuhn, and Goswin Heckrath
Automatic identification of water-logged agricultural areas using LiDAR DEMs

A108  EGU2011-398  pradeep Lodha
GIS based critical watershed analysis for soil conservation management using SWAT model

A109  EGU2011-14048  Domenica Costantino and Maria Giuseppa Angelini
Production of checked DTM by Terrestrial Laser Scanner (TLS)

A110  EGU2011-4886  Roderick OHara and Gerhard Neukum
Refined elevation models and reflectance for HRSC images

A111  EGU2011-10908  Luigi Perotti, Massimo Lanfranco, Marco Giardino, and Paolo Zamparutti
Creation and test of a mobile GIS application to support field data collection and mapping activities

A112  EGU2011-1555  Lorenzo Picco, Paolo Vitti, Luca Mao, Diego Ravazzolo, Emanuel Rigon, Johnny Moretto, and Mario Aristide Lenzi
Large Woody Debris measurements, in a gravel bed braided river environment, using Terrestrial Laser Scanner: the Piave River study case.

A113  EGU2011-3570  Thomas Dewez, Aude Nachbaur, Olivier Sedan, Emilie Nowak, and Emmanuel Des Garets
Monitoring the degradation of weathered volcanic man-made escarpments by close-range photogrammetry in Tahiti, French Polynesia

A114  EGU2011-4378  Greg Hancock and Garry Willgoose
Rapid erosion assessment on disturbed site: Quantification of erosion rates using laser scanning and modelling on a mine waste rock dump

A115  EGU2011-10667  Dave Favis-Mortlock
The role of high-resolution microtopographic grids in validating the RillGrow model

A116  EGU2011-12718  Michael Winkler, W. Tad Pfeffer, Klaus Hanke, and Georg Kaser
Close range photogrammetry reveals recession pattern of Kilimanjaro ice cliffs

A117  EGU2011-12931  Muhammad Anggri Setiawan
Evaluation of interpolation methods in tillage surface area

A118  EGU2011-13663  Inna Stepanova
On the finding of the earth's surface topography with the help of toda-hierachy

A119  EGU2011-14050  Sierd de Vries, Roderik Lindenbergh, Sylvie Soudarissanane, and Matthieu de Schipper
Monitoring short term aeolian beach sand transport using terrestrial laser scanning
A120  EGU2011-410  
**Tanja Vicovac**, Alexander Reiterer, and Dirk Rieke-Zapp  
Change Detection of Geological Surfaces by Image-Based Sensor Systems

A121  EGU2011-6204  
**Luca Carturan**, Simone Calligaro, Alberto Guarnieri, Nicola Milan, Paolo Tarolli, Daniele Moro, Giovanni Baldassi, Federico Cazorzi, Antonio Vettore, and Giancarlo Dalla Fontana  
Terrestrial Laser Scanner survey of two small glacial formations in the Eastern Italian Alps

A122  EGU2011-11627  
**Hubert Lehner**, Christian Briese, and Rudolf Sailer  
Radiometric calibration of airborne laser scanning data: case study rockglaciers

A123  EGU2011-6847  
**Rudolf Sailer**, Erik Bollmann, Johann Stötter, Susanna Hoinkes, Lorenzo Rieg, and Maximilian Spross  
Quantification of morphodynamic processes in glaciated and recently deglaciated terrain

A124  EGU2011-10541  
**Ekaterina Vsemirnova**, Richard Jones, Jiulin Guo, and Kenneth McCaffrey  
Quantitative characterization of fracture networks using terrestrial lidar data, an example from high porosity sandstones at Appleby, UK

A125  EGU2011-10815  
**Luigi Perotti**, Marco Bacenetti, Marco Giardino, and Stefano Marta  
Geomorphological and geostructural characterisation of Veny Valley (Courmayeur, Italy) using an integrated field-based, Lidar and Remote Sensing techniques

A126  EGU2011-8362  
**Petteri Alho**, Matti Vaaja, Elina Kasvi, Antero Kukko, Hannu Hyyppä, Juha Hyyppä, Harri Kaartine, Matti Kurkela, and Claude Flener  
Multitemporal MLS data and terrestrial photogrammetry in a change detection of point bars

A127  EGU2011-12268  
**Markus Forbriger**, Karsten Schitteck, Christoph Siart, and Bernhard Höfle  
New approaches in vegetation mapping - use of terrestrial laser scanning on high Andean cushion peatlands

A128  EGU2011-13847  
**Andreas Roncat**, Balázs Székely, Gábor Molnár, András Zámolyi, Angelika Pocsai, and Camillo Ressl  
High-resolution terrestrial laser scanning of temporary small-scale terraces in a dynamic landscape - a pilot study at the Doren landslide

A129  EGU2011-14039  
**Andreas Roncat**, Yuri Dublyansky, Christoph Spötl, Peter Dorninger, and Norbert Pfeifer  
A full-3D laser-scan mapping of a hypogene cave: a morphogenetic study of Märchenhöhle, Austria

A130  EGU2011-10670  
**Markus Hollaus**, Norbert Pfeifer, Andreas Roncat, and Hieu Van Duong  
Analyzing ICESat/GLAS derived terrain roughness parameter using airborne LiDAR data

A131  EGU2011-8673  
**Martin Rutzinger**, Bernhard Höfle, and Korbinian Kringer  
Quality of geomorphological breaklines extracted from airborne laser scanning

A132  EGU2011-8512  
Cristina Castagnetti, Eleonora Bertacchini, **Alessandro Capra**, Marco Dubbini, Riccardo Rivola, and Alessandro Corsini  
Integrating LiDAR and terrestrial laser scanning for a detailed description of landslides geomorphology

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**OS5.2 – Surface Waves and Wave-Coupled Effects in Lower Atmosphere and Upper Ocean (co-listed) – Posters**

Convener: Alexander Babanin | Co-Conveners: Miguel Onorato, Fangli Qiao

**Halls X/Y | Display Time 08:00–17:00**

Author in Attendance: 13:30–15:00

Chairperson: Alex Babanin, Miguel Onorato, Fangli Qiao

XY450  EGU2011-5374  
**Alexander Babanin** and Dmitry Chalikov  
Numerical investigation of turbulence generation in non-breaking potential waves

XY451  EGU2011-9087  
**Jonas Takeo Carvalho** and Valdir Innocentini  
Wind wave climate along Brazilian coast using a spectral partitioning algorithm

XY452  EGU2011-4410  
**Dejun Dai**, Fangli Qiao, Wojciech Sulisz, Lei Han, and Alexander Babanin  
An Experiment on the Non-Breaking Surface-Wave-Induced Vertical Mixing

XY453  EGU2011-4389  
**Vladimir Dulov** and Maria Kosnik  
A Field Study of 2D-Wavenumber Spectra of Short Wind Waves
XY454  EGU2011-1520
Alina Galchenko, Alexander Babanin, and Dmity Chalikov
Influence of wind forcing on evolution and breaking of nonlinear wave groups.

XY455  EGU2011-7390
Georgia Kalantzzi, Christine Gommenginger, and Meric Srokosz
Spectral wave dissipation, operational wave models and observations: is there a way of improving wave forecasts?

XY456  EGU2011-7116
Charles-Antoine Guérin and Guillemette Caulliez
Statistical properties of short wind waves: a high resolution laboratory study

XY457  EGU2011-2837
Mark Hemer, Kathleen McInnes, and Roshanka Ranasinghe
Projected future wave climate along Australia's eastern margin

XY458  EGU2011-12478
Rajesh Kumar, Anna Rutgersson, and Prasad Kumar
Impact of rain in modifying wave height in a coupled wave - climate model

XY459  EGU2011-10268
Alexey Mironov
Theoretical description of breaking crests distributions measured in field conditions

XY460  EGU2011-10250
Alexey Mironov, Charles-Antoine Guerin, Danièle Hauser, Maria Kosnik, and Vladimir Dulov
Statistical properties of short wind waves obtained from photo-stereo observations of sea surface.

XY461  EGU2011-6352
Miguel Onorato and Francesco Zonta
Direct numerical simulation of the boundary layer induced by surface gravity waves

XY462  EGU2011-5158
Ruslan Puscasu, Alexander Babanin, and Michael Stiassnie
Numerical investigation of a novel wave-action transfer model for near-resonant water waves

XY463  EGU2011-4145
Fangli Qiao, Zhenya Song, Changshui Xia, and Dejun Dai
The improvement of ocean and climate models through surface wave: From mean state to long-term variations

XY464  EGU2011-12871
Ivan Savelyev and Robert Handler
Infrared imaging of near-surface eddies generated by steep and by breaking surface waves.

XY465  EGU2011-6275
Mathieu Dutour Sikirić, Aron Roland, Ivica Janeković, Igor Tomaži, and Milivoj Kuzmić
Two-way coupling of ROMS and WWM models

XY466  EGU2011-4629
Zhenya Song and Fangli Qiao
The establishment of the atmosphere-wave-ocean circulation coupled models-The improvement of CGCMs's simulations by the wave-induced vertical mixing

XY467  EGU2011-2099
Chia-Huan Ting, Alexander Babanin, and Dmity Chalikov
Dependence of Drag Coefficient on the Directional Spreading of Ocean Waves

XY468  EGU2011-5399
Alessandro Toffoli, Alexander Babanin, and Jason McConochie
Field observations of the mixed layer depth in the Indian Ocean: effect of wave-induced turbulence

XY469  EGU2011-8695
Oleg Druzhinin and Yuliya Troitskaya
Investigation of statistical parameters of turbulent air flow over waved water surface by direct numerical simulation

XY470  EGU2011-4501
Wu-ting Tsai and Li-ping Hung
Characteristics of interfacial transport in a wind-driven gravity-capillary surface wave

XY471  EGU2011-12295
Kimmo K Kahma, Laura Tuomi, and Heidi Pettersson
Wave statistics in seasonally ice-covered seas

XY472  EGU2011-2794
Anatoli Vakhguei and Alexander Babanin
Influence of water droplet size variations on propagation of the pressure wave above water surface

XY473  EGU2011-5966
Soeren H. Ahmerkamp, Jörg-Olaf Wolff, and Stephen G. Monismith
On wave motions at the steep slope of a coral reef
Changshui Xia and Fangli Qiao
The Establishment of the Wave-circulation Coupled Model and Its Application