

EGU General Assembly 2011
Programme Group Programme
SSS – Soil System Sciences

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Monday, 04 April

GD3.3/TS10.3 – Neoproterozoic basins and orogenesis in the circum-North Atlantic region (co-listed) – Posters

Convener: Peter Cawood | Co-Conveners: Rob Strachan

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Rob Strachan

- A9 EGU2011-120
Kathryn Cutts, Martin Hand, Rob Strachan, David Kelsey, and Peter Cawood
Valhalla orogenesis in the North Atlantic region: characterisation of the Knoydartian and Renland events using integrated phase modelling and in situ LA-ICPMS geochronology
- A10 EGU2011-2477
Maarten Krabbendam, Helen Bonsor, Tony Prave, and Rob Strachan
Grenville Foreland basin sedimentation in Scotland: structure, stratigraphy and sedimentology of the early Neoproterozoic Torridon and Morar group sequences
- A11 EGU2011-1357
Helen Bonsor, Rob Strachan, Tony Prave, and **Maarten Krabbendam**
A complete sedimentological transect of the early Neoproterozoic Morar Group in northern Scotland: reappraisal of the basin and tectonic setting
- A12 EGU2011-7419
Rob Strachan, Peter Kinny, Mike Fowler, and Ian Millar
Early Neoproterozoic (c. 1000-960 Ma) sedimentation and magmatism in northern Scotland: constraints on tectonothermal events within the peri-Rodanian Valhalla Orogen
- A13 EGU2011-7580
Graham Leslie, Martin Smith, Martin R. Gillespie, and Maarten Krabbendam
Extension preceding continental rupture and generation of the Laurentian ocean-continent transition zone - Neoproterozoic basement-cover relationships in the Grampian Caledonides of Scotland.
- A14 EGU2011-10859
Anna Bird, Matthew Thirlwall, and Rob Strachan
New evidence for the timing of Neoproterozoic metamorphic events in the northwest Highlands - insights from Lu-Hf and Sm-Nd dating
- A15 EGU2011-10882
Fernando Corfu
Constraints on the origin of the Seve and Kalak Nappe Complexes, Scandinavian Caledonides
- A16 EGU2011-14102
David G. Gee, Anna Ladenberger, Stefan Claesson, Jaroslaw Majka, Peter Robinson, Per-Gunnar Andréasson, and Yaron Be'eri-Shlevin
Sediment provenance signatures in the Middle Allochthon of the Scandinavian Caledonides - evidence of Sveconorwegian source terrains
- A17 EGU2011-1663
Chris Kirkland, Stephen Daly, Simon Johnson, and Elena Belsousova
Lu-Hf evolution patterns and implications for palaeotectonic settings

SSS1.3 – Molecular proxies for studying biogeochemical changes in the environment – Orals

Convener: Klaas G.J. Nierop | Co-Conveners: Boris Jansen, Ian Bull, Claudio Zaccane, Teodoro Miano, Luca Bragazza

Room: 9

Chairperson: Ian Bull / Luca Bragazza

- 08:30–08:45 EGU2011-3315
Helen Talbot, Martin Cooke, Chun Zhu, Luke Handley, Jung-Hyun Kim, Richard Pancost, and Thomas Wagner
Novel biohopanoid molecular proxies for bacterial populations and processes
- 08:45–09:00 EGU2011-7514
Jens Altmann, Marjo Palviainen, Boris Jansen, and Karsten Kalbitz
Stability of root and needle-derived biomarkers during litter decomposition
- 09:00–09:15 EGU2011-2961
Arnaud Huguet, Guido L.B. Wiesenberg, Martina Gocke, Céline Fosse, and Sylvie Derenne
Rhizoliths in loess: evidence for the heterotrophic lifestyle of branched GDGT-producing bacteria
- 09:15–09:30 EGU2011-6730
Martina Gocke, Yakov Kuzyakov, and Guido L.B. Wiesenberg
Rhizoliths in the loess-paleosol sequence of Nussloch (SW Germany): Differentiation between ancient and modern vegetation using n-alkanes

- 09:30–09:45 EGU2011-7809
Marie Spohn and Luise Giani
 Carbohydrates as Biomarkers for Studying Soil Biota and Land Use Change
- 09:45–10:00 EGU2011-5936
Axel Birkholz, Rienk Smittenberg, Irka Hajdas, Lukas Wacker, Jostein Bakke, and Stefano M. Bernasconi
 Reconstruction of soil organic carbon build-up and dynamics using compound-specific radiocarbon analysis of lake sediments

COFFEE BREAK

Chairperson: Claudio Zacccone/ Klaas Nierop

- 10:30–10:45 EGU2011-5055
Guido Wiesenberger, Bidisha Majumder, Martina Gocke, Yakov Kuzyakov, Jennifer Dungait, Liz Dixon, and Roland Bol
 Influence of soil moisture on plant biosynthesis, C incorporation and storage in soils at a molecular level
- 10:45–11:00 EGU2011-5552
Olivia Bertrand, Emmanuelle Montargès-Pelletier, Laurence Mansuy-Huault, Benoît Losson, Audrey Pernot, Jacqueline Argant, Pierre Faure, Emmanuel Garnier, Charles Kraemer, and Raymond Michels
 Geochemical and Historical study of a 700 year old pond, Lansquenet -Lorraine, France- A multidisciplinary approach
- 11:00–11:15 EGU2011-731
Rosaleen Mylotte, Michael H. B. Hayes, and Catherine Dalton
 Study of Estuarine Sediments From Galway Bay, Ireland
- 11:15–11:30 EGU2011-13051
pete maxfield
 Microbially mediated methane oxidation across a 4.1 million year soil chronosequence
- 11:30–11:45 EGU2011-7999
Julien Parisod, Mohammad Hassouna, Alexandre Buttler, and Luca Bragazza
 Spatial and temporal characterization of dissolved organic matter in bog water based on spectroscopic properties: the effects of humification
- 11:45–12:00 EGU2011-81
Maris Klavins, Inese Silamikele, Oskars Purmalis, and Linda Ansone
 Organic matter humification and trace element accumulation in raised bogs depending on the peat properties

SSS1.3 – Molecular proxies for studying biogeochemical changes in the environment – Posters

Convener: Klaas G.J. Nierop | Co-Conveners: Boris Jansen, Ian Bull, Claudio Zacccone, Teodoro Miano, Luca Bragazza

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Boris Jansen / Teodoro Miano

- Z39 EGU2011-60
Matt Galloway and Doug Cobos
 Can a dewpoint hygrometer measure water potential at field capacity (-33 kPa)?
- Z40 EGU2011-119
Marco Griepentrog, Alexander Heim, Frank Hagedorn, Rienk H. Smittenberg, and Michael W. I. Schmidt
 Does nitrogen deposition affect the turnover of plant- and microbially-derived organic matter compounds differently?
- Z41 EGU2011-425
Claudio Zacccone, Teodoro M. Miano, and William Shotyk
 Can peat humic acids constitute the “memory”
- Z42 EGU2011-564
Daniel B. Wiedemeier, Simon G. Haberle, Evelyn S. Krull, and Michael W.I. Schmidt
 New molecular marker and spectroscopic tools for reconstructing wildfire history
- Z43 EGU2011-1249
Harald Biester, Yvonne-Marie Hermanns, and Antonio Martinez-Cortizas
 The Influence of organic matter decay on the distribution of major and trace elements in ombrotrophic mires - a case study from the Harz mountains
- Z44 EGU2011-1925
 Karsten Kalbitz, **Boris Jansen**, and Emiel Van Loon
 Using preserved extractable lipids in a multi-proxy reconstruction of past vegetation patterns

- Z45 EGU2011-5042
Ian Bull, Andrew Rawlins, Philip Ineson, and Richard Evershed
The fate of collembola derived organic matter in soil
- Z46 EGU2011-8952
Klaas G.J. Nierop, Cornelia I. Blaga, Gert-Jan Reichart, Tom Jilbert, Caroline P. Slomp, and Jaap S. Sinninghe Damsté
Hypoxia in the Baltic Sea as revealed by lipid biomarkers
- Z47 EGU2011-5546
David Hiltbrunner, Michael W.I. Schmidt, and Stephan Zimmermann
Afforestation of former pastures with *Picea abies* in a subalpine ecosystem affects the microbial community composition
- Z48 EGU2011-6323
Ülle Sillasoo, Minna Väliranta, Angelika Portsmouth, and Margus Pensa
Relating fire and humification data in peat bog profiles
- Z49 EGU2011-7811
Kelley Sterle, Örjan Gustafsson, Philip Gschwend, and Christopher Reddy
Centennial-scale variations in abundance and sources of black carbon aerosols as recorded in two lake sediment cores from NE USA and N. Europe
- Z50 EGU2011-7899
Céline Estournel-Pelardy, **Laurent Grasset**, and André Amblès
First Multi-Shot thermochemolysis applied to the lipid-free organic fraction isolated from a peat (Jura Mountains, East France)
- Z51 EGU2011-7966
Céline Estournel-Pelardy, Laurent Grasset, Leos Doskocil, and André Amblès
Comparison of three methods for the analysis of lignin in soils and sediments: CuO oxidation, thermochemolysis and Derivatization Followed by Reductive Cleavage method.
- Z52 EGU2011-8043
Mirjam Studer, Samuel Abiven, Rolf T. W. Siegwolf, and Michael W. I. Schmidt
Multiple-Isotope labelling (¹³C, ¹⁸O, ²H) in a Controlled Environment (MICE) as a new tool for studying the allocation of organic molecules within the plant-soil system?
- Z53 EGU2011-8880
Carles M. Rubio, Luís Outeiro, **Francesc Ferrer**, and Xavier Úbeda
DIFFERENCES ON LOAM SOIL THERMAL PROPERTIES AFTER PRESCRIBED FIRE (Montgri Massif, Spain)
- Z54 EGU2011-12057
Marie Alexis, Katell Quénéa, Christelle Anquetil, and Farid Sellami
Hint of prehistoric fire uses: Step 1. Characterization of experimental fire residues
- Z55 EGU2011-13031
Arnoud Boom, Andrew S. Carr, Zoë Roberts, Alex Cumming, Brian M. Chase, Michael F. Meadows, and Matthew Britton
A systematic study of resistant organic matter and soil carbon dynamics in South African drylands.
- Z56 EGU2011-13147
Nadezda Vasilyeva, Evgeniy Y. Milanovskiy, Samuel Abiven, Michael Hilf, and Michael W.I. Schmidt
Pyrogenic carbon quantity and quality unchanged after 55 years of organic matter depletion in a Chernozem
- Z57 EGU2011-13296
Luis Roca, Maria Soriano, Vicente Pons, and Rafael Boluda
Soil organic fraction and its biological activity as parameters to assess soil quality .

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 Deckers
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/SSS1.12 – 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 Gärtner, Frank Graf, Peter Lüscher, Albert Böll, 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 Obriejetan, 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 Obriejetan, 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
- XY523 EGU2011-5424
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)

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

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

Room: 9

Chairperson: Mike Kirkby

- 13:30–13:45 EGU2011-9467
Klaudia Oleschko, Eusebio Ventura, Genaro Armendáriz, Ana Maria Tarquis, and Edith Perrier
 Topological invariance and spatial scaling of surface roughness in two highly eroded zones of Mexico: a comparative study
- 13:45–14:00 EGU2011-688
Diana Vieira, Jacob Keizer, João Nunes, Isabel Fernandes, Silvia Faria, Raquel Ferreira, Elisabete Pedrosa, Maria Varela, and Luísa Pereira
 Runoff and erosion at the micro-plot and slope scale in a small burnt catchment, central Portugal
- 14:00–14:15 EGU2011-3632
Magalie Delmas, Olivier Cerdan, and Jean-Marie Mouchel
 Origin of river sediment exports: Taking into account hillslopes characteristics and spatial variability
- 14:15–14:30 EGU2011-10829
Alemayehu Muluneh and Ólafur Arnalds
 Synthesis of Research on Land Use and Land Cover Dynamics in the Ethiopian Highlands
- 14:30–14:45 EGU2011-11239
Irene Marzloff, Johannes B. Ries, and Jean Poesen
 Short-term vs. medium-term monitoring for detecting gully-erosion variability in a Mediterranean environment: Addressing the time-scale problem in gully dynamics
- 14:45–15:00 EGU2011-4580
Gianbattista Bussi and Félix Francés
 Calibration of TETIS-SED model by using check dams sedimentation volumes with different temporal resolutions. Application to a Mediterranean medium size basin (Rambla del Poyo, Spain).
- Chairperson: Saskia Keesstra
- 15:30–15:45 EGU2011-13170
Joris de Vente, Jean Poesen, Matthias Vanmaercke, and Gert Verstraeten
 Predicting soil erosion and sediment yield at the catchment scale: scale issues, modelling and understanding
- 15:45–16:00 EGU2011-669
Léonard Bernard-Jannin, Didier Orange, Pham Dinh Rinh, Thierry Henry des Tureaux, Mathieu Laissus, Pascal Jouquet, and Tran Duc Toan
 The contribution of erosion in a small cultivated hilly catchment of North Vietnam due to an exceptional rainfall event
- 16:00–16:15 EGU2011-4542
alessio radice and elisa giorgetti
 On sediment transport modelling in mountain environments
- 16:15–16:30 EGU2011-12269
 A.N. Thanos Papanicolaou and **Dimitrios Dermisis**
 Investigating the effects of land management practices on upland erosion using a state-of-the-art laser scanner technique
- 16:30–16:45 EGU2011-7386
 Victor Jetten, **BV Rajesh Shruthi**, and Norman Kerle
 Object-based gully feature extraction using high spatial resolution imagery
- 16:45–17:00 EGU2011-7673
Jesús Rodríguez González, Pablo J. Zarco-Tejada, and José Alfonso Gómez
 Inversion of the Hapke model with diurnal multispectral reflectance data for assessing soil surface roughness

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

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

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: AnaMaria Tarquis

- Z58 EGU2011-1016
Lionel Mabit
 Sediment dynamics assessed at catchment scale using nuclear techniques with the support of Geographical Information Systems

- Z59 EGU2011-1031
Achim A. Beylich
Mass transfers, sediment budgets and relief development in four drainage basins in Iceland, Swedish Lapland and Finnish Lapland
- Z60 EGU2011-1397
Achim A. Beylich, Susan Liermann, and Katja Laute
Spatio-temporal variability of chemical and mechanical denudation in glacier-fed mountain catchments in Nordfjord, western Norway
- Z61 EGU2011-2518
Seifeddine Jomaa, D. Andrew Barry, Alessandro Brovelli, B. C. Peter Heng, Graham C. Sander, Jean-Yves Parlange, and Calvin W. Rose
Effect of stone cover on rainfall-driven soil erosion with negligible surface roughness
- Z62 EGU2011-3805
Marie-Alice Harel, Emmanuel Mouche, Jérémy Patin, and Emmanuel Ledoux
A 1D runoff-runon model : scale and connectivity
- Z63 EGU2011-10261
Saskia Keesstra, Arnaud Temme, Lea Wittenberg, and Noam Greenbaum
Testing LAPsus-D, a daily sediment delivery model, in a meso-scale Mediterranean catchment: a case study in Israel.
- Z64 EGU2011-10332
Diana Arévalo, Ramón Bienes, Marta Ruiz-Colmenero, and María José Marqués
Comparison of soil erosion models (USLE, RUSLE) and a new adapted model in a basin of central Spain
- Z65 EGU2011-10870
Manuel López-Vicente, Ana Navas, Javier Machín, and Leticia Gaspar
Spatial scale dependency of runoff and sediment connectivity in small sub-catchments in the Spanish Pyrenees
- Z66 EGU2011-12810
Muhammad Anggri Setiawan, Volker Wichmann, Johann Stötter, and Junun Sartohadi
Development of Modified MMF (Morgan-Morgan-Finney) soil erosion model for various spatial and temporal scales
- Z67 EGU2011-636
Annelies Voogt, Saskia Keesstra, and Manuel Seeger
Concepts of catchment-scale sediment connectivity for physically-based and dynamic modeling
- Z68 EGU2011-1591
Els Verachtert, Miet Van Den Eeckhaut, Jean Poesen, Gerard Govers, and Jozef Deckers
Susceptibility models for pipe collapse in loess-derived soils in a temperate humid climate
- Z69 EGU2011-2285
Willem Maetens, Jean Poesen, and Matthias Vanmaercke
Inter-annual variation of runoff and soil loss in Europe and the Mediterranean in relation to land use and climate.
- Z70 EGU2011-3649
Juan Francisco Sanchez-Moreno, Victor Jetten, and Chris Mannaerts
Influence of the map complexity of saturated hydraulic conductivity on runoff and soil erosion modeling. A case study in Ribeira Seca, Santiago Island, Cape Verde.
- Z71 EGU2011-5044
Matthias Vanmaercke, Jean Poesen, Willem Maetens, Joris de Vente, and Gert Verstraeten
The importance of Sediment Yield as a Desertification Indicator
- Z72 EGU2011-9135
Alona Armstrong, John Quinton, and Barbara Maher
Tracing sediment by enhancing soil magnetic properties
- Z73 EGU2011-9718
Giancarlo Dalla Fontana, Simone Calligaro, Federico Cazorzi, and Paolo Tarolli
Automatic recognition of road and pathway induced slope instabilities by high resolution topography
- Z74 EGU2011-12787
Patricia Sande, José Manuel Mirás Avalos, and **Antonio Paz González**
Description of suspended sediments and three phosphorus forms concentrations at the outlet of an agroforestry catchment by multifractal parameters
- Z75 EGU2011-14076
Anne Gobin and Philippe Van de Vreken
Impacts of crop growth dynamics on soil erosion at the regional scale
- Z76 EGU2011-3351
Claudio Bosco, Daniele De Rigo, Olivier Dewitte, and Luca Montanarella
Towards a Reproducible Pan-European Soil Erosion Risk Assessment - RUSLE
- Z77 EGU2011-4706
Ronald Pöppel, Thomas Glade, and Margreth Keiler
The role of humans as (dis)connectors in small fluvial systems: sedimentological effects and their implications

SSS3.3 – Phytoremediation of polluted soils – Orals

Convener: Jaume Bech | Co-Conveners: Manuela Abreu, Carmen Perez-Sirvent, Charlotte Poschenrieder, Gary Banuelos

Room: 22

Chairperson: Jaume Bech

13:30–13:45 EGU2011-9411

Gary Banuelos

Austria abstract-Sustainable Operation of Selenium Phytomangement with the Production of New Bio-based Products in Central California

13:45–14:00 EGU2011-6875

Carmen Perez-Sirvent, Maria-Jose Martínez-Sánchez, **Mari Luz Garcia-Lorenzo**, Manuel Hernandez-Cordoba, and Jose Molina-Ruiz

Trace element accumulation in plants from an area affected by mining activities (SE, Spain).

14:00–14:15 EGU2011-1807

Mohammad Ahmad Wahsha, Claudio Bini, Silvia Fontana, and Diana Maria Zilioli

Phytotoxicity assay on soils and plants: elements for phytoremediation of mine soils

14:15–14:30 EGU2011-2322

Jorge Paz-Ferreiro, Adriana Moreno Pires, Gustavo Scarmen Piagentini Pinto, and **Cleide Aparecida de Abreu**

Use of filter cake and peat for mitigating soil multicontamination in conjunction with castor oil plant as phytoextractant

14:30–14:45 EGU2011-6075

Frank Schindler and Erika Kothe

Long term bioimmobilization and bioremediation at an AMD contaminated site in Eastern Thuringia

14:45–15:00 EGU2011-11520

Raúl Zornoza, **Angel Faz**, Dora Maria Carmona, Silvia Martinez-Martinez, and Jose A. Acosta

Aided phytostabilization reduces bioavailability of heavy metals in mine soils from SE Spain

Chairperson: Jaume Bech, Manuela Abreu, Gary Banuelos, Carmen Perez-Sirvent

15:30–15:45 EGU2011-10523

Maria Manuela Abreu, Ana Pacheco, Maria Clara Magalhães, Miguel Fornelos, and António Campos

Time evaluation of available uranium and radium from a contaminated mine soil of Urgeiriça (Portugal) amended with ground bone and sheep manure

15:45–16:00 EGU2011-11618

Carmen Perez-Sirvent, Maria Jose Martínez-Sánchez, Salvadora Martínez-Lopez, and Jaime Bech

Antimony and arsenic bioaccumulation in *Dittrichia viscosa* growing in soils affected by mining activities.

16:00–16:15 EGU2011-9154

David Houben, Jonathan Pircar, and Philippe Sonnet

Effects of cost-effective amendments on leaching, phytoavailability and fractionation of heavy metals in a contaminated soil

16:15–16:30 EGU2011-11603

Silvia Martínez-Martínez, Raul Zornoza, Jose A. Acosta, **Angel Faz**, and Dora M. Carmona

A proposed methodology to achieve true landscape reclamation of mine soils based on phytostabilization

16:30–16:45 EGU2011-12807

Ivan Dimitrov, Panayotova Marinela, and Dimitar Sachkov

Geological conditions for prevention of nitrate pollution of potable waters in the agricultural areas of Southeast Bulgaria

16:45–17:00 EGU2011-13161

Min Li, Jin Zhang, Shuang Liu, Qi Cao, Sue White, and Michael Whelan

Fractionation of organic phosphorus and its distribution in profile soils of Yeyahu Wetland in Beijing, China

SSS3.3 – Phytoremediation of polluted soils – Posters

Convener: Jaume Bech | Co-Conveners: Manuela Abreu, Carmen Perez-Sirvent, Charlotte Poschenrieder, Gary Banuelos

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Jaume Bech, Manuela Abreu, Carmen Perez-Sirvent

Z78 EGU2011-242

Erika Santos, Maria Manuela Abreu, and Felipe Macías

Characteristics improvement of different tailings from São Domingos mine for vegetation development by amendments addition

- Z79 EGU2011-1126
Jaume Bech, Joan Barceló, Nuria Roca, Luis Tonón, Paola Duran, Giovanni Larriva, and Charlotte Poschenrieder
Trace element accumulation in plants from mine soils at a silver mining area in southern Ecuador.
- Z80 EGU2011-1446
Francisco Jesus Garcia, Jose Angel Amoros, Caridad Perez, Sandra Bravo, Raimundo Jimenez, Jose Maria Esbri, and Pablo Higeras
Mercury uptake of *Olea europaea* from contaminated soils of Almadén mining district (Spain).
- Z81 EGU2011-1924
Jaume Bech, Paola Durán, Núria Roca, Wilfredo Poma, Isidoro Sánchez, Juan Barceló, and Charlotte Poschenrieder
Accumulation of Pb and Zn in *Bidens triplinervia* and *Senecio* sp, spontaneous species from mine spoils in Peru, as potential use for phytoremediation in South America
- Z82 EGU2011-2311
Jaume Bech, Paola Duran, Nuria Roca, Juan Barceló, Rafael Boluda, Luis Roca-Perez, and Charlotte Poschenrieder
Accumulation of heavy metals in plants growing around an abandoned mine in Poblet, Tarragona (NE Spain)
- Z83 EGU2011-4230
Teresa Valente, Patrícia Gomes, and Jorge Pamplona
Natural remediation of mine waste-dumps - mapping the evolution of vegetation cover in distinctive geochemical environments.
- Z84 EGU2011-4792
Silvia Porro and Luisa De Capitani
Relationship between wild trees and heavy metals on the Hop waste-rock dump (Rosia Montana mining area, Romania)
- Z85 EGU2011-6844
Carmen Perez-Sirvent, Maria Jose Martínez-Sanchez, Mari Luz Garcia-Lorenzo, Manuel Hernandez-Cordoba, and Jose Molina-Ruiz
Trace element content in plants collected in Portman bay (SE, Spain).
- Z86 EGU2011-6853
Maria Jose Martinez-Sanchez, Carmen Perez-Sirvent, Mari Luz Garcia-Lorenzo, **Manuel Hernandez-Cordoba**, and Jose Molina-Ruiz
Heavy metal accumulation in plants collected in the vicinity of a sulphuric acid plant (SE, Spain).
- Z87 EGU2011-9431
Maria João Batista, **M. Manuela Abreu**, Juan Locutura, Daniel de Oliveira, João X. Matos, Alejandro Bel-Ann, and Luis Martins
The mobility of lead and other trace elements from soils to sediments from the Iberian Pyrite Belt region into the atlantic ocean
- Z88 EGU2011-10130
Felipe Macias Vazquez, Felipe Macias Garcia, Luis Rodriguez Lado, Jose Ramón Verde Vilanova, and Marta Camps Arbestain
Capacity of phytoaccumulation of Hg in plants developed in contaminated soils with different concentrations of Hg in the area of La Manjoya (Oviedo, N Spain)
- Z89 EGU2011-10456
Maria Manuela Abreu, Erika Santos, Eliana Fernades, and Maria Clara Magalhães
Behaviour of *Cistus populifolius*, *Cistus salviifolius* and their hybrid in polymetallic contaminated mine areas
- Z90 EGU2011-10738
Ana Sevilla, Daniel Trigueros, Sabina Rossini, Benito Valdés, and María Dolores Mingorance
EVALUATION OF THE ABILITY OF *NERIUM OLEANDER* TO REMEDIATE Pb-CONTAMINATED SOILS
- Z91 EGU2011-11539
Melanie longchamp, Nicolas Angeli, Philippe Biron, Patricia Richard, Thierry Bariac, and Maryse Castrec-Rouelle
Accumulation of selenate and selenite uptake in *Zea mays* in hydroponic system
- Z92 EGU2011-11556
Paul Romkens, **Luc Bonten**, Horng Yuh Guo, and Chih Min Chiang
Phytoremediation potential of *Indica* rice to clean cadmium polluted paddy fields
- Z93 EGU2011-11694
Erika Santos, Maria Manuela Abreu, Felipe Macías, and Maria Clara Magalhães
Effects of organic/inorganic amendments in geochemical evolution of trace elements dispersion by leachates from sulfide containing tailings
- Z94 EGU2011-11953
Jordi Fernandez, Massimo Zacchini, and Isabel Fleck
PHOTOSYNTHETIC AND GROWTH RESPONSES OF *Populus* CLONES I-214 AND ERIDANO TO ELEVATED Zn CONCENTRATIONS

- Z95 EGU2011-12195
Maria Sokolovska, Miglena Zhiyanski, Núria Roca, and **Jaume Bech**
Bioremediation of soils after open mining in Kremikovtzi region, Bulgaria
- Z96 EGU2011-12233
Claudio Bini, Mohammad Wahsha, Silvia Fontana, Diana Zilioli, and Michela Gallo
Background levels of PTEs in terraced agroecosystems of NE Italy: geogenic vs anthropogenic enrichment and phytoremediation perspectives
- Z97 EGU2011-12315
Martin Banov, **Jaume Bech**, Plamen Ivanov, Venera Tsoleva, Miglena Zhiyanski, and Marin Blagiev
Resolving of environmental problems caused by the processing of copper ore
- Z98 EGU2011-12550
Jose Maria Esbri, Miguel Angel Lopez-Berdonzes, Pablo Higuera, and Alfonso Gonzalez-Pavon
Mercury Bioaccumulation in wild fungi from Almaden mining district (Spain)
- Z99 EGU2011-12904
Carmen Perez-Sirvent, **Salvadora Martinez Lopez**, Maria Jose Martinez Sanchez, and Manuel Hernandez Cordoba
Antimony mobility in soils located in the surroundings of an abandoned mining site(SE, Spain)
- Z100 EGU2011-12935
Maria Jose Martínez-Sánchez, Salvadora Martínez-Lopez, Lucia Belen Martinez, and Carmen Perez-Sirvent
Evaluation of the orally bioavailable arsenic in plants growing in an area affected by mining activities.
- Z101 EGU2011-13550
Borbala Biro, Márta Pirovka Polgári, Monika Domonkos, and Tamás Vigh
The potential use of Mn-mud in a low quality sandy soil on the bases of growth and plant-microbe interaction at four grasses
- Z102 EGU2011-14042
Corrado Marcenò, **Susana Fernandez**, David Jimenez Gamez, Álvaro Bueno, and Miguel Angel Alvarez
Preliminary data about the phytoremediation capability of some plant species in Pb-Zn and Hg-As mining wastes, Cantabrian range, north of Spain
- Z103 EGU2011-11558
Dora M. Carmona, **Angel Faz**, Silvia Martinez-Martinez, Raul Zornoza, Sebla Kabas, and Jose A. Acosta
Marble waste and pig slurry as amendments for stabilization of abandoned tailing ponds in SE Spain: preliminary results

SSS4.2 – Predicting soil N mineralization; relevance of extractable organic matter fractions – Posters

Convener: Gerard Ros | Co-Conveners: Stefaan De Neve, Julia Cooper, Hans-Werner Olf

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Gerard Ros

- Z104 EGU2011-1941
Gerard Ros
Nitrogen mineralization: a review and meta-analysis of the predictive value of soil tests
- Z105 EGU2011-927
Mehdi Sharifi, Bernie Zebarth, David Burton, and Cynthia Grant
Predicting soil nitrogen mineralization in humid environment of Eastern Canada
- Z106 EGU2011-2678
Kanagaratnam Jegajeevagan, Steven Sleutel, and **Stefaan DeNeve**
Physicochemical indices for N mineralization from vegetable cultivated soils Flanders Belgium
- Z107 EGU2011-6922
Heide Spiegel, Georg Dersch, Josef Söllinger, Andreas Baumgarten, and Karl Aichberger
The use of compost on agricultural soils - results of a long-term field trial with special regard to Corg and N dynamics
- Z108 EGU2011-7583
wilfried wenzl, wilfried hartl, and ivoneta diethart
NIR-Measurement-Technique of N-C-Fractions in Agricultural Soils using Silicadioxid as Transfer- Matrix
- Z109 EGU2011-9944
Viktor Bruckman, Shuai Yan, Eduard Hochbichler, and Gerhard Glatzel
Impact of forest stand management on temporal dynamics of soil carbon and nitrogen
- Z110 EGU2011-10634
Noeleen T. McDonald, David P. Wall, Catherine J. Watson, Ronnie J. Laughlin, Stanley T.J. Lalor, and Nyncke J. Hoekstra
Can soil N tests accurately predict N mineralisation in grassland soils?
- Z111 EGU2011-14130
Anwar Ghani, Mark Shepherd, Gordon Rajendram, Mike Rollo, and John Waller
Nitrogen supplying capacity assessment in temperate pasture soils

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

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

Room: 23

Chairperson: Samuel Abiven

- 13:30–14:00 EGU2011-5784
Timothy Eglinton, Valier Galy, Bernhard Peucker-Ehrenbrink, Nicholas Drenzek, Angela Dickens, Xiaojuan Feng, Enno Schefuss, Britta Voss, Daniel Montlucon, and Ying Wu
 The origin and evolution of organic matter signatures carried by rivers to the oceans
- 14:00–14:15 EGU2011-1151
Christian Schurig, Rienk Smittenberg, Jürgen Berger, Peter Fittkau, Anja Miltner, and Matthias Kästner
 SOM genesis - microbial biomass fragments could be a significant source in newly exposed ecosystems
- 14:15–14:30 EGU2011-13801
Nimisha Singh, Samuel Abiven, Margaret S. Torn, and Michael W.I. Schmidt
 The uncertain future of pyrogenic carbon in terrestrial system
- 14:30–14:45 EGU2011-3675
Barros Nieves, César Pérez-Cruzado, Josefa Salgado, and Agustín Merino
 Monitoring changes in OM in afforested soils by calorespirometry, thermal analysis and NMR
- 14:45–15:00 EGU2011-8233
Xiaojuan Feng, Jorien E. Vonk, Örjan Gustafsson, Valier Galy, Daniel B. Montlucon, and Timothy I. Eglinton
 Fate of lignin in large river systems across different latitudes - Perspectives from compound-specific radiocarbon analysis
- Chairperson: Thorsten Dittmar
- 15:30–16:00 EGU2011-13657
Gerhard J. Herndl and Thomas Reinthaler
 Refractory deep-ocean dissolved organic matter: Enigmas and inconsistencies about its formation and transformation?
- 16:00–16:15 EGU2011-2445
Thorsten Dittmar, Jiyoung Paeng, Jutta Niggemann, and Aron Stubbins
 Millennium-scale stabilization of marine dissolved organic matter through thermogenesis
- 16:15–16:30 EGU2011-12611
Yves Gelinas, Karine Lalonde, Alfonso Mucci, and Alexandre Ouellet
 The Rusty Sink: Iron Promotes the Preservation of Organic Matter in Sediments
- 16:30–16:45 EGU2011-13891
Williams T. Cooper, Malek M. Tfaily, Rasha Hamdan, J. Elizabeth Corbett, and Jeffrey P. Chanton
 Reactive and Refractory Components of Organic Matter in Peat Soils and their Relation to Climate Change
- 16:45–17:00 EGU2011-10663
Norbert Hertkorn and Philippe Schmitt-Kopplin
 Natural Organic Matter and our Current Capacity to Depict Molecular Dissimilarity

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

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

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

Author in Attendance: 17:30–19:00

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

- BG39 EGU2011-7060
Bjorn Erhagen, Ulrik Ilstedt, and Mats B Nilsson
 Temperature response (Q₁₀) of heterotrophic CO₂ production in response to varying simple carbon sources and microbial metabolic status
- BG40 EGU2011-9361
Irina Perminova, Alexander Volikov, Sergey Ponomarenko, Vladimir Kholodov, Elena Lasareva, and Kirk Hatfield
 Design of surface-active humic substances capable for stabilization of soil aggregates
- BG41 EGU2011-972
Carlos Rezende, Alex Mazurec, and Plinio Camargo
 Carbon and Nitrogen Elemental and Isotopic Composition in Atlantic Forest Soils Submitted to Different Land Uses

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

SSS5.6 – Digital soil mapping: novel approaches (including geophysical measurements, micromorphology) to the prediction of key soil properties for modelling physical processes – Orals

Convener: Gilles Grandjean | Co-Conveners: Ulrike Werban, Uta Sauer, Jay Jabro, Luca Trombino

Room: 22

Chairperson: G. Grandjean, P. Dietrich

- 08:30–08:45 EGU2011-2365
Eddie Loonstra
 Applications of proximal gamma ray soil sensor systems

- 08:45–09:00 EGU2011-3500
Erika Lück and Joerg Ruehlmann
Resistivity mapping with Geophilus electricus
- 09:00–09:15 EGU2011-4976
Isabelle Cousin, Marion Tétégan, Maud Séger, Arlène Besson, Guillaume Giot, Catherine Pasquier, and Bernard Nicoullaud
Field-scale estimation of rock content in stony soils from electrical resistivity measurements
- 09:15–09:30 EGU2011-5840
Julien Thiesson, Solène Buvat, Maud Séger, Guillaume Giot, Arlène Besson, and Alain Tabbagh
The use of magnetic susceptibility and viscosity measurements as a mapping tool for soil properties: DIGISOIL field results
- 09:30–09:45 EGU2011-6381
Antoine Stevens, **Bas van Wesemael**, and Isabel Miralles
Validation of soil organic carbon predictions based on airborne imaging spectroscopy and multivariate regressions
- 09:45–10:00 EGU2011-6611
Bas van Wesemael, Antoine Stevens, and Marco Nocita
Evaluating imaging spectroscopy for mapping soil organic carbon content and quantifying SOC stocks in the plough layer of an arable field

COFFEE BREAK

Chairperson: P. Dietrich, G. Grandjean

- 10:30–10:45 EGU2011-7538
Grant Tranter, Nick Jarvis, Julien Moeys, and Mats Söderström
Broad-scale digital soil mapping with geographically disparate geophysical data: a Swedish example
- 10:45–11:00 EGU2011-9918
Frédéric André, Davood Moghadas, Harry Vereecken, and Sébastien Lambot
Full-waveform modelling of electromagnetic induction data for improved estimation of soil electrical properties
- 11:00–11:15 EGU2011-10556
Claudia Dierke, Ulrike Werban, Eddie Loonstra, Tina Wunderlich, and Peter Dietrich
Analysis of gamma-ray results at different field sites with varying conditions
- 11:15–11:30 EGU2011-10828
Tina Wunderlich, Hauke Petersen, Said Attia al Hagrey, and Wolfgang Rabbel
Relating the composition and water content of soils to electrical permittivity and conductivity: Results from laboratory and field measurements
- 11:30–11:45 EGU2011-10864
Uwe Franko, Janine Krüger, Thorsten Behrens, Karsten Schmidt, Milan Kroulik, and Ulrike Werban
Soil function modelling based on soil property maps produced by digital soil mapping from geophysical data
- 11:45–12:00 EGU2011-11634
Thorsten Behrens, Karsten Schmidt, Leonardo Ramirez-Lopez, Ulrike Werban, and Thomas Scholten
Digital Soil Sensing and Mapping - Lessons from the iSOIL Project

SSS5.6 – Digital soil mapping: novel approaches (including geophysical measurements, micromorphology) to the prediction of key soil properties for modelling physical processes – Posters

Convener: Gilles Grandjean | Co-Conveners: Ulrike Werban, Uta Sauer, Jay Jabro, Luca Trombino

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: J. Jabro, L. Trombino

- Z112 EGU2011-2543
Gilles Grandjean and the DIGISOIL Team
The DIGISOIL multi-sensor system: from geophysical measurements to soil properties mapping
- Z113 EGU2011-1627
Fabio Scarciglia and Donatella Barca
A new methodological approach for the assessment of heavy metal pollution in soils: the use of Laser Ablation ICP-MS in thin sections coupled with traditional micromorphological and geochemical techniques

- Z114 EGU2011-2841
Raluca-Mihaela Maftei, Nicolas Coppo, Emil Rusu, Roxana Ciurean, Ovidiu Avram, Constantina Porumbescu, and Elena Tudor
Shallow landslides mapping at Telega (Prahova County, Romania)
- Z115 EGU2011-2960
Peter Dietrich, Uta Sauer, Anne-Kathrin Nüsch, and Ulrike Werban
Need for standardizing geophysical measurement - CEN Workshop "Best practice approach for electromagnetic induction (EMI) measurements of the near surface"
- Z116 EGU2011-2997
Gareth Clay, Fred Worrall, and Andy Lloyd
Simulated livestock trampling and compaction of a peat soil - impact on gaseous CO₂ fluxes
- Z117 EGU2011-3502
Stephania Ern, Luca Trombino, and Cristina Cattaneo
Micromorphological Aspects of Forensic Geopedology: Ultramicroscopic Characterization of Phosphatic Impregnations on Soil Particles in Experimental Burials
- Z118 EGU2011-4038
Mohammad Monirul Islam, Marc Van Meirvenne, Eddie Loonstra, Eef Meerschman, Philippe De Smedt, Fun Meeuws, Ellen Van De Vijver, and Liesbet Cockx
Identifying key properties for mapping stable soil management zones
- Z119 EGU2011-4073
Azam Jafarisirizi, Peter Finke, Shamsollah Ayoubi, and Hossein Khademi
Role of geomorphology in identifying soil types in an arid region in southeastern Iran
- Z120 EGU2011-5556
Selen Deviren Saygin, **Gunay Erpul**, and Mustafa Basaran
Evaluation of different aggregate stability methodologies for clay soils of semi arid landuses
- Z121 EGU2011-5764
Maud Seger, Arlène Besson, Guillaume Giot, Bernard Nicoullaud, and Isabelle Cousin
Soil water-structure interaction in the tilled horizon as monitored in space and time by 2D Electrical Resistivity Tomography method
- Z122 EGU2011-7063
Kévin Samyn, Gilles Grandjean, Adnand Bitri, and Olivier Cerdan
Digital mapping of soil thickness and stiffness using spectral analysis of multi-channel surface-wave data
- Z123 EGU2011-7119
Ivano Rellini, **Luca Trombino**, Cristina Carbone, and Marco Firpo
Petroplinthite formation in a Quaternary complex paleosol along NW Italian coast: from micromorphology to landscape evolution.
- Z124 EGU2011-7120
Francesca Garfagnoli, Andrea Ciampalini, **Sandro Moretti**, and Leandro Chiarantini
Mapping of soil properties from hyperspectral remote sensing: the DIGISOIL strategy for soil processes modelling.
- Z125 EGU2011-7146
Solène Buvat, Yves Coquet, and Alain Tabbagh
Geoelectrical cartography of soils
- Z126 EGU2011-8725
Carlo Innocenti, Andrea Taramelli, Emiliana Valentini, and Sergio Cappucci
Use of airborne LiDAR and hyperspectral data to study the sandy beach morphology along the Lazio region coast (Italy)
- Z127 EGU2011-8932
Caroline Chartin, Hocine Bourennane, Sébastien Salvador-Blanes, Florent Hinschberger, and Jean-Jacques Macaire
Classification and mapping of morphological features associated to important soil thicknenings within cultivated hillslopes - Example from southwestern Parisian Basin, France
- Z128 EGU2011-9073
Greet Ruyschaert, Lorens Coorevits, Bart Vandecasteele, Alex De Vliegheer, and Jozef Deckers
Soil compaction related to root growth of cover crops and N dynamics
- Z129 EGU2011-9337
Eric Lund
Simultaneous Proximal Sensing of Soil EC and Organic Matter: Implications for Digital Soil Mapping, Modeling, and Management
- Z130 EGU2011-9357
Andreas Gubler and Marco Carizzoni
Using Near Infrared Spectroscopy in Digital Soil Mapping
- Z131 EGU2011-9482
Inês Lopes da Fonseca
Modelling the Thresholds of Soil-Landscape Units using Fuzzy Logic

- Z132 EGU2011-10140
Florent Hinschberger, Caroline Chartin, **Sébastien Salvador-Blanes**, Emilien Aldana-Jague, and Jean-Jacques Macaire
Bedrock and soil resistivity mapping as a tool for characterizing soil thickness on cultivated hillslopes. A case study in Seuilly, SW Parisian Basin, France
- Z133 EGU2011-10175
Christoph Müller, Silke Waldhauer, Raimund Schneider, Marion Stellmes, Johannes Stoffels, Sören Thiele-Bruhn, and Joachim Hill
Identifying areas of drought risk in forest: developing a method for forestry planners
- Z134 EGU2011-10960
László Pásztor, Zsófia Bakacsi, and József Szabó
Spatio-temporal integration of soil data originating from different sources for the estimation of national carbon stock in Hungary
- Z135 EGU2011-11230
Arlène Besson, Maud Seger, Guillaume Giot, and **Isabelle Cousin**
Soil properties mapping at the field scale from DC landscape survey sensor.
- Z136 EGU2011-11737
Hauke Petersen, Tina Wunderlich, Said A. al Hagrey, and Wolfgang Rabbel
Integrative field and lab approach to study soil parameters
- Z137 EGU2011-12082
Laura Gargiulo, Giacomo Mele, and Fabio Terribile
Soil fauna activity and soil porosity: characterization by micromorphological image analysis

Tuesday, 05 April

GD3.3/TS10.3 – Neoproterozoic basins and orogenesis in the circum-North Atlantic region (co-listed) – Orals

Convener: Peter Cawood | Co-Conveners: Rob Strachan

Room: 30

Chairperson: Rob Strachan and Peter Cawood

- 15:30–15:45 EGU2011-2484
Peter Cawood, Rob Strachan, and Sergei Pisarevsky
 Neoproterozoic sedimentation and orogenesis in NE Laurentia
- 15:45–16:00 EGU2011-4439
Sergei Pisarevsky
 Neoproterozoic paleogeography: paleomagnetic perspective
- 16:00–16:15 EGU2011-9286
 Arild Andresen, **Lars Augland**, and Nana Agyei-Dwarko
 The Landegode- Heggmovatn "basement terranes"- fragments of the Laurentian Grenville Orogen in the Scandinavian Caledonides?
- 16:15–16:30 EGU2011-9378
Galen Halverson, Francis Macdonald, Grant Cox, Emily Smith, Justin Strauss, Mark Schmitz, Justin Payne, and Charlie Roots
 Multi-stage breakup of Rodinia in northwest Laurentia: new insights from the Yukon
- 16:30–16:45 EGU2011-2729
Maurice Colpron and JoAnne Nelson
 Baltican and Caledonian origins for Neoproterozoic successions in exotic terranes of the North American Cordillera
- 16:45–17:00 EGU2011-14133
Henning Lorenz, Jaroslaw Majka, Alexander Larionov, and David Gee
 Grenville-Sveconorwegian detrital zircon signatures in the High Arctic, from East Greenland to Severnaya Zemlya

HS2.10 – Hydrological change: Ecological development, landscape evolution and hydrological response (co-listed) – Orals

Convener: Hartmut Holländer | Co-Conveners: António Ferreira, Susanne Winter, Thomas Maurer, Susanne Stadler, Artemi Cerdà

Room: 36

Chairperson: Hartmut Holländer

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

HS2.10 – Hydrological change: Ecological development, landscape evolution and hydrological response (co-listed) – Posters

Convener: Hartmut Holländer | Co-Conveners: António Ferreira, Susanne Winter, Thomas Maurer, Susanne Stadler, Artemi Cerdà

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: António Dinis Ferreira

- A220 EGU2011-945
Philip Hunke, Eva Nora Müller, and Peter Zeilhofer
Interaction of vegetation dynamics with water and nutrient cycling: Ecohydrological analysis of heavily modified agricultural fields in the Cerrado of Mato Grosso, Brazil
- A221 EGU2011-3739
Sheila Palmer, Mark Crowther, and Chapman Pippa
Evidence for abiotic DOC losses in a peatland stream
- A222 EGU2011-4126
Alena Kulasova, **Sarka Blazkova**, and Keith Beven
Runoff generation research in an area with land use and ecological change
- A223 EGU2011-4208
Helene Rieckh, Jean F. Schneider, Willibald Loiskandl, and Horst H. Gerke
Relationship between land cover change and the appearance of water logging and salinisation
- A224 EGU2011-5100
Joseph Holden and Richard Grayson
Changes in storm hydrographs associated with long-term peatland vegetation change
- A225 EGU2011-6784
Mana Gharun, Tarryn Turnbull, and Mark Adams
Water Use Dynamics in Disturbed Australian Montane Forests
- A226 EGU2011-7771
Anne Gaedeke and Ina Umlauf
Comparison of different approaches of spatial discretization for modelling the natural discharge in a subcatchment of the river Spree (125 km²) in Lusatia (Germany)
- A227 EGU2011-11752
Edinson Pacheco, Joaquim Farguell, and Xavier Úbeda
Hydrological dynamics in a Mediterranean coastal drainage basin: the river Daró (2004-2010)
- A228 EGU2011-11803
Thomas Maurer, Anna Schneider, Uwe Buczeko, and Horst H. Gerke
Modeling the structural heterogeneity of an artificial hydrological catchment.
- A229 EGU2011-11804
Edinson Pacheco, Luis Outeiro, Alejandro Miguel, Joaquim Farguell, and Xavier Úbeda
Runoff and sediment production in a Mediterranean basin with two different land uses (2005-2009)
- A230 EGU2011-11893
Tim Allott, Martin Evans, Clive Agnew, Jim Freer, Clare Brown, and Rachael Maskill
The impacts of peatland restoration on runoff generation and downstream flood risk in the UK uplands: a comparative study of headwater catchments in the Peak District National Park
- A231 EGU2011-4269
Mikołaj Piniewski, Jarosław Chormański, Lars Gottschalk, and Irina Krasovskaia
Exploring changing environment in wetland national park Kampinos, Poland
- A232 EGU2011-4342
Robert Gilkes and Nattaporn Prakongkep
A drying climate is acidifying podosols and groundwater in SW Australia.
- A233 EGU2011-8555
Nicole Jackisch and Markus Weiler
Quantifying hydrological processes in an experimental watershed in an ecologically planned neighbourhood
- A234 EGU2011-8759
Agustin Brena, Markus Weiler, and Kerstin Stahl
Predicting evapotranspiration change in a successional forest without eddy covariance measurements
- A235 EGU2011-8988
Jana Chmielewski and Vera Luthardt
Responses of different mire types on temporal climatic shifts and land-use parameters
- A236 EGU2011-11379
Greg O'Donnell, John Ewen, Enda O'Connell, and Josie Geris
Adjoint distributed catchment modelling for flood impact of rural land use and management change
- A237 EGU2011-12741
Helen Roe, Timothy Patterson, and Graeme Swindles
Tracking catchment disturbance using lake thecamoebians (testate amoebae): case studies from the Greater Toronto Area, Ontario, Canada

A238 EGU2011-13583

António Ferreira, Rick Shakesby, Celeste Coelho, Carla Ferreira, Célia Bento, Tanya Esteves, and Manuela Carreiras

The impact of fire on the spatial and temporal distribution of hydrologic and geomorphologic processes at slope and catchments scales.

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

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

Room: 34

Chairperson: Nunzio Romano

08:30–08:45 EGU2011-12394

Keir Soderberg, Lixin Wang, Stephen Good, and Kelly Caylor

Measurement of soil water vapor isotopes for evapotranspiration partitioning

08:45–09:00 EGU2011-6345

Anatoly Zeiliger and Olga Ermolaeva

Seasonal Patterns of Temporal Persistence of Water Content Profile of the Dark Shestnut Soil Profile

09:00–09:15 EGU2011-12526

Meritxell Gran, Jesús Carrera, Maarten W. Saaltink, Manuel Ordoñez, and María Rey

The El Cabril cover: design, monitoring system and modelling

09:15–09:30 EGU2011-2380

Gerd Wessolek, Klaus Bohne, Steffen Trinks, and Wim Duijnsveld

Hydro-pedotransfer functions to predict annual capillary rise and actual evapotranspiration for grassland

09:30–09:45 EGU2011-10301

Mathieu Javaux, Xavier Draye, Valentin Couvreur, Harry Vereecken, and Jan Vanderborght

How relevant are hydrological 1D models for predicting root water uptake processes?

09:45–10:00 EGU2011-5172

Todd Scanlon

A new approach to unraveling the contributions to soil moisture dynamics arising from the distinct processes of soil evaporation and plant transpiration

COFFEE BREAK

Chairperson: Rafael Angulo-Jaramillo

10:30–10:45 EGU2011-5595

Sabine Attinger and Anke Hildebrandt

A critique on combining the water stress function with root density distributions to find vertical water uptake profiles in SVAT models

10:45–11:00 EGU2011-5196

Valeriy Y. Ivanov, Lingli He, Gil Bohrer, Christoph S. Vogel, and Mahta Moghaddam

Upscaling tree-scale canopy and soil water heterogeneity for a temperate deciduous forest of Northern Michigan

11:00–11:15 EGU2011-12788

Nicola Montaldo, Roberto Corona, and John D. Albertson

Soil Water Balance and Vegetation Dynamics in two Contrasting Water-limited Mediterranean Ecosystems on Sardinia, Italy

11:15–11:30 EGU2011-2688

Pilar Fuente Tomai, Alexandre Pryet, Christian Dominguez, Cedric Chaumont, Sophie Violette, and Noémi d'Ozouville

Water budget of vegetation in montane cloud forests: a case-study in Santa Cruz Island, Galápagos

11:30–11:45 EGU2011-6097

Anne Verhoef and Andrés Fernández Kusanovi?

Prediction of soil moisture content from soil temperatures

11:45–12:00 EGU2011-6520

Raquel García González, Anne Verhoef, and Pier Luigi Vidale

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

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

Posters

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

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

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

- A423 EGU2011-7482
Gabriele Baroni, Carlos Andres Rivera Villarreyes, and Sascha Oswald
A stochastic approach for hydrological models to bridge the gap between modelling and monitoring activities.
- A424 EGU2011-1956
Steven Evett, Robert Schwartz, Nazar Ibragimov, Naem Mazahreh, and Nedat Katbeh-Bader
Local and profile soil water content monitoring: A comparison of methods in terms of apparent and actual spatial variation
- A425 EGU2011-2690
Teodor Rusu, David Weindorf, Beatrix Haggard, Paula Ioana Moraru, Horea Cacovean, Ileana Bogdan, and Mara Lucia Sopterean
Soil Moisture and Temperature Monitoring for Sustainable Land and Water Management in Transylvanian Plain, Romania
- A426 EGU2011-1990
Robert Schwartz, Steven Evett, and Alan Schlegel
Monitoring Near Surface Soil Water and Associated Dynamics of Infiltration and Evaporation Fluxes
- A427 EGU2011-8805
Angelica Durigon, Quirijn de Jong van Lier, and Klaas Metsellar
Infrared temperature to assess plant transpiration reduction
- A428 EGU2011-8348
Vladimir Klipa, Martina Sobotkova, and Michal Snehota
Evaluation of TDR water content measurements in large undisturbed soil sample
- A429 EGU2011-207
José Vicente, David Moret-Fernández, Borja Latorre, César González-Cebollada, and Francisco Lera
TDR-Lab V.1.0: New TDR software for water content and electrical conductivity measurements
- A430 EGU2011-3457
Laure Beff, Thomas Günther, and Mathieu Javaux
Comparison of soil water content distribution measured by TDR and ERT
- A431 EGU2011-2899
Alessandra Vinci, Lorenzo Vergni, and Francesca Todisco
Evapotranspiration of alfalfa: comparison between eddy covariance measurements and the FAO-56 approach estimates in Central Italy
- A432 EGU2011-4321
xia zhang
Improvement and Validation of A Soil-Atmosphere Model for Simulation of Bare Soil Surface Energy Balance in Semiarid Area
- A433 EGU2011-10110
Antonio Celso Dantas Antonino, Willames de Albuquerque Soares, José Romualdo de Sousa Lima, Carlos Alberto Brayner de Oliveira Lira, Eduardo Soares Souza, Suzana Maria Gico Lima Montenegro, and Michel Vauclin
Simulation of water and energy fluxes in a cowpea cultivated field in Northeast Brazil
- A434 EGU2011-12335
Sebastian Gayler, Sebastian Bittner, Eckart Priesack, Joachim Ingwersen, and Thilo Streck
Impact of different degrees of detail in models of root water uptake on simulated seasonal patterns of evapotranspiration and soil moisture
- A435 EGU2011-4333
Manoj Shukla, Sanjit Deb, and John Mexal
Assessment of Water Fluxes in the Root Zone of a Flood-irrigated Mature Pecan Orchard in Arid Southern New Mexico
- A436 EGU2011-3526
Laurent Lassabatere, **Rafael Angulo-Jaramillo**, Deniz Yilmaz, Pierre-Emmanuel Peyneau, Paolo Nasta, and Jirka Simunek
Analytical evaluation of 1D cumulative infiltration with regards to soil hydraulic properties
- A437 EGU2011-5342
Michal Dohnal, Tomas Vogel, Miroslav Tesar, Jana Votrubova, and Martin Sanda
Young and full-grown spruce tree soil-plant-atmosphere systems studied by sap flow measurement methods
- A438 EGU2011-8616
Sebastian Bittner, Daniel Ritter, and Eckart Priesack
Using terrestrial laser scanner data to obtain the hydraulic architecture of plants
- A439 EGU2011-8941
Rabi Mohtar, Yousra Hamby, Majdi Abou Najm, and Julie Jesiek
Assessing Isotropy of Shrinkage in Soils

- A440 EGU2011-11216
Jens Altmann, Marjo Palviainen, Boris Jansen, and Karsten Kalbitz
 Molecular differences of root and needle decomposition
- A441 EGU2011-8933
 Paolo Nasta, Joseph Pollacco, Bynayak Mohanty, and **Nunzio Romano**
 Uncertainty related to the estimation of saturated hydraulic conductivity from parameters of soil water retention function

HS8.3.7 – Unsaturated zone flow and transport processes: from science to soil and water management (co-listed) –

Orals

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

Room: 34

Chairperson: Marnik VANCLOOSTER

- 13:30–13:45 EGU2011-8565
Markus Wehrer and Kai Uwe Totsche
 Release and transport of hydrophobic contaminants from aged multicomponent NAPL in the subsurface - jump up and run or sit back and relax?
- 13:45–14:00 EGU2011-4676
Chi Chin Yang, Po Chia Chen, and Wei Cheng Lo
 An Experimental Study on the Influence of Fluid Saturation on the Attenuation Coefficient of the First Dilatational Wave in Standard Sand Saturated by an Oil-Water Mixture
- 14:00–14:15 EGU2011-8713
Salsabil Marzougui, Gerhard Schäfer, Solenn Cotel, and Olivier Razakarisoa
 Experimental study of the influence of vapor density and pressure gradient on the vapor flux of Trichloroethylene in the unsaturated zone
- 14:15–14:30 EGU2011-8153
Amir Raoof and Majid Hassanizadeh
 Dispersivity under partially-saturated conditions; pore-scale processes
- 14:30–14:45 EGU2011-12031
Fabien Decung, Valérie Guérin, Mohamed Krimissa, and Boris Chevrier
 Soil Transfer Parameters Estimation: Comparison of Field Infiltration Methods
- 14:45–15:00 EGU2011-7475
Erwin Zehe and Julian Klaus
 Equifinality and structure control on bromide and pesticide leaching at tile drained hillslopes: a model study based on a comprehensive field data set
- Chairperson: Marnik VANCLOOSTER
- 15:30–15:45 EGU2011-90
Yakov Pachepsky, Feng Pan, Diederik Jacques, Andrey Guber, and Martinus van Genuchten
 Ensemble Kalman filtering to perform data assimilation with soil water content probes and pedotransfer functions in modeling water flow in variably saturated soils
- 15:45–16:00 EGU2011-478
Ofer Dahan and Yaara Rimon
 Characterization of Flow and Transport in Deep Vadose Zone - Implication from Direct Observations
- 16:00–16:15 EGU2011-2735
Simon Perreault, Karem Chokmani, Michel Nolin, and Gaétan Bourgeois
 Validation and sensitivity analyses of a soil temperature and moisture model under pedoclimatic conditions of southern Quebec (Canada)
- 16:15–16:30 EGU2011-6163
Mats Larsbo
 An episodic transit time model for quantification of preferential solute transport
- 16:30–16:45 EGU2011-7418
Julian Klaus, Erwin Zehe, Martin Elsner, Christoph Külls, Dorothee Schneider, Sibylle Steinbeiss, and Stephanie West
 Tile drained hillslopes as natural lysimeters - linking rapid transport and re-mobilisation of different pesticides with isotope signatures during controlled irrigation experiments
- 16:45–17:00 EGU2011-11261
Pieter le Roux, Johan Van Tol, Malcolm Hensley, and Simon Lorentz
 Soil indicators of hillslope hydrology

HS8.3.7 – Unsaturated zone flow and transport processes: from science to soil and water management (co-listed) –

Posters

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

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Dieuwke Schotanus

- A442 EGU2011-332
Abdel-monem Amer
Water sorptivity as applied to predict the hydraulic conductivity and capillary-sorption potential of water in soils
- A443 EGU2011-1876
Eugenia Gimeno-García, Vicente Andreu, Juan Antonio Pascual-Aguilar, and José Luis Rubio
Rainfall-runoff response and temporal soil moisture dynamics in a Mediterranean forest soil
- A444 EGU2011-2635
Jay Jabro, Robert Evans, and William Iversen
Efficacy of Passive Capillary Samplers for Estimating Soil Water Drainage in the Vadose Zone
- A445 EGU2011-3172
Julien Farlin, Tom Gallé, Michael Bayerle, Hassanya El Khabbaz, Christian Braun, Denis Pittois, and Ulrich Leopold
Assessment of the spatial distribution of pesticide soil residues as a mean to constrain and upscale pesticide leaching predictions
- A446 EGU2011-3501
François Wiaux, Boubacar Billo Bah, Bas van Wesemael, and Marnik Vanclooster
Impact of field scale variability of soil organic carbon in pesticide leaching modelling (case study of the Molinee catchment, Belgium)
- A447 EGU2011-4387
Golayeh Yousefi, Ali Akbar Mahboubi, Mohammad Reza Mosaddeghi, and Azadeh Safadoust
Bromide and Lithium transport through intact soil columns influenced by crop management
- A448 EGU2011-4572
Javier Rodrigo-Illarri, Francisco Segura-Sobrinó, and Juan Manuel Pérez-Furió
Soil remediation of the Avenida de Francia Urban Planning Area in Valencia (Spain)
- A449 EGU2011-5238
Chiu-Shia Fen
Comparison of modeling approaches for assessing density-driven and gravitation-induced gas transport in porous media
- A450 EGU2011-5934
Saska Mc Grath and Barbara ?en?ur Curk
Hydraulic and transport properties of a coarse grained unsaturated zone in an urban environment
- A451 EGU2011-6070
Alice Alonso, **Mohamed Sbaa**, and Marnik Vanclooster
Assessing water quality and pollution origin of the Bou-Areg aquifer (north east Morocco)
- A452 EGU2011-6149
Alice Alonso, Samuel Mattern, Eric Laloy, Christian Roisin, Mathieu Javaux, Marnik Vanclooster, and Charles Biélders
Soil functioning indicators (INFOSOL): a methodological approach for developing and assessing dynamic soil functions within the soil protection strategy context
- A453 EGU2011-6311
Marnik Vanclooster and **Mohamed Hossein Mohammadi**
Predicting the soil moisture characteristic curve from particle size distribution with a simple physical model
- A454 EGU2011-8035
Marco Hümann, Christoph Müller, Gebhard Schöler, Raimund Schneider, and Sören Thiele-Bruhn
Identification of runoff generation processes - Impact of different forest types on soil-water interrelations
- A455 EGU2011-8314
Maïmouna Ibrahim, Guillaume Favreau, Jean Luc Seidel, Mathieu Le Coz, and Boureima Ousmane
Impact of land conversion from fallow to rain-fed and irrigated crop fields on aquifer recharge in semiarid Niger
- A456 EGU2011-8888
Sana Ounaïes, Gerhard Schäfer, Raphaël di Chiara Roupert, Michèle Trémolières, and Stéphane Defraeye
Numerical studies of the influence of soil heterogeneities on water flow in the unsaturated zone of the Erstein polder site
- A457 EGU2011-9275
Branka Bracic Zeleznik, Vesna Zupanc, and Marina Pintar
Lysimeter Klece: Water balance calculation from two types of lysimeter
- A458 EGU2011-9945
Steffen Heberle, Lena Flecken, Jens S. Buchner, and Kurt Roth
Solute dispersion in unsaturated porous media - a high-resolution lab experiment
- A459 EGU2011-10559
Anne Gaffron, Markus Hirsch, and Holger Weiss
Soil column tomography - Combined geoelectrical and hydrochemical investigations in laboratory scale to characterize tropical soils in their potential for artificial groundwater recharge

- A460 EGU2011-11002
László Pásztor, Zsófia Bakacsi, József Szabó, Annamária Laborczi, and László Kuti
Elaboration of a 3D, regional scale, spatial dataset for the support of modeling water regime in the unsaturated zone
- A461 EGU2011-11059
Corinne Loisy and Adrian Cerepi
Monitoring of water and heat transfer in the vadose zone of a carbonate reservoir formation (Upper Oligocene of Aquitaine Basin, France)
- A462 EGU2011-11759
Luc Bonten, Bertjan Groenenberg, Henning Meesenburg, and Wim de Vries
Use of advanced geochemical models in vadose zone reactive transport modeling
- A463 EGU2011-12524
Gro Eggen, Helen Kristine French, Toon Leijnse, and Esther Bloom
Importance of unsaturated zone parameters for chemical transport
- A464 EGU2011-13436
Andreas Kallioras, Abidur Khan, Mustefa Reshid, Pierre Todoroff, Heike Pfletschiger, Christoph Schuth, Randolph Rausch, and Mohammed Al-Saud
Investigation of groundwater recharge through unsaturated zone studies in arid regions
- A465 EGU2011-13103
Stefano Ferraris, Patrizia Savi, and Ivan Maio
Complex Permittivity Determination from Measured Scattering Parameters of TEM Waveguide

SSS1.6 – Sustaining soil for human health – Orals

Convener: Rosario García Moreno | Co-Conveners: John Crawford, Maria Cruz Diaz Alvarez

Room: 9

Chairperson: John W. Crawford

- 10:30–10:45 EGU2011-12206
Philip J. White
Managing the Mineral Nutrition of Plants and People
- 10:45–11:00 EGU2011-7862
An Van den Putte, Gerard Govers, Jan Diels, Christoph Langhans, Wim Clymans, and Eline Vanuytrecht
Soil properties, root patterns and crop yields compared under different types of conservation tillage
- 11:00–11:15 EGU2011-9114
Tommy D'Hose, Mathias Cougnon, Alex De Vlieghe, Nicole Viaene, Wim Cornelis, Erik Van Bockstaele, and Dirk Reheul
Does improved soil quality generate higher crop yields?
- 11:15–11:30 EGU2011-10558
Nidia Raquel Costa, Marcelo Andreotti, Cristiano Magalhães Pariz, Nelson de Araújo Ulian, Rafael Montanari, Maila Terra Gioia, and Antonio Paz González
Response of irrigated common bean to nitrogen fertilization of two forage species used as previous cover crops
- 11:30–11:45 EGU2011-3824
Glecio Machado Siqueira, Montserrat Valcárcel Armesto, and **Jorge Paz-Ferreiro**
Spatial variability of phosphorus on a field with a long-term history of livestock manure application
- 11:45–12:00 EGU2011-1261
Juan Antonio Campos Gallego and Rosario García Moreno
Trace element content in fungi sporocarps as assessment of the relationship with the inorganic substrate.

SSS1.6 – Sustaining soil for human health – Posters

Convener: Rosario García Moreno | Co-Conveners: John Crawford, Maria Cruz Diaz Alvarez

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Rosario García Moreno

- Z20 EGU2011-1055
Rosario García Moreno, **Ruben Moratiel Yugueros**, Maria Cruz Diaz Alvarez, and Francisca Guerrero
Soil heat flux density measurements to evaluate soil conservation practices in semiarid conditions
- Z21 EGU2011-1056
Fanny Ruiz Casado, Rosario Garcia Moreno, Antonio Saa Requejo, and María Cruz Diaz Alvarez
Trends of Soil Conservation Practices Related To Crop Production in Spain for the Last Twenty Years

- Z22 EGU2011-1057
John W. Crawford, Rosario García Moreno, and Robert Burdock
Managing Selenium Recycling Organic Matter in Soils from Semiarid Environments
- Z23 EGU2011-1058
Rosario García Moreno, John W. Crawford, and Timur Burykin
Soil Surface Variability in Relation to Microstructure
- Z24 EGU2011-1264
Jose Angel Amoros, Francisco Jesus García Navarro, Caridad Pérez de los Reyes, Juan Antonio Campos Gallego, Sandra Bravo Martín-Consuegra, Cesar Rivera Triguero, and Raimundo Jiménez Ballesta
GEOCHEMICAL INFLUENCE OF SOIL IN LEAF AND GRAPE COMPOSITION: THE CASE OF *Vitis vinífera* L. (Cv. CENCIBEL) IN LA MANCHA (SPAIN).
- Z25 EGU2011-1798
Jun Wang, Yan Chen, Michel Faure, and Wei Lin
Polyphase deformation recorded from Mesozoic granitoids in the North China Block. Example from the Yunmengshan granodiorite
- Z26 EGU2011-2091
Rosario García Moreno, **Emma Gaitán Fernández**, Luis Torres Michelena, Javier Pórtoles, and Luis Torres Michelena
Definition of impact indexes in Central American countries suffering food insecurity
- Z27 EGU2011-8135
Patricia Almendros, Demetrio Gonzalez, and Jose Manuel Alvarez
Residual effect of natural and synthetic zinc chelates on zinc in a soil solution of a waterlogged acidic soil. Evolution of the pH and redox potential
- Z28 EGU2011-9056
Marta María Moreno, Carmen Moreno, Jaime Villena, Ignacio Mancebo, Ramón Meco, and Juan Antonio Campos
Effect of different mulches on soil microbiological properties in processing tomato
- Z29 EGU2011-9064
Marta María Moreno, Carlos Lacasta, and Ramón Meco
Crop organic management on soil properties in semiarid areas
- Z30 EGU2011-10744
Alfonso Lag, Ignacio Gómez, Jose Navarro-Pedreño, Ignacio Meléndez, and Carlos Linares
Influence of *Cynara cardunculus* L. over essential cations on semiarid low productive agricultural soils.
- Z31 EGU2011-13720
Gabriel Gasco, Juan Barcenas, Roberto López, Jacqueline Hernández, and Miguel Larrea
Surface application of mixtures of cattle manure vermicompost (VEB) with dolomitic lime (CD) and phosphogypsum (FY) to improve Ultisols. Study in simulated soils columns.
- Z32 EGU2011-13357
Luis Mármol, Jacqueline Hernández, Miguel Larreal, and **Gabriel Gascó**
Vermicomposting of duckweed with sheep manure
- Z33 EGU2011-13295
Gabriel Gascó, José Manuel Fidalgo, Óscar Rodríguez, Guillermo Sánchez, Francisca Guerrero, and Ana Méndez
Treatment of soils contaminated with Zn^{2+} and Cu^{2+} by soil flushing technology
- Z34 EGU2011-5781
Rosane da Silva Días, Cleide Aparecida de Abreu, Roger Manuel Mestas Valero, José Manuel Mirás Avalos, and Eva Vidal Vázquez
Total and extractable Phosphorus concentrations at different depths in a soil fertilized with manure
- Z35 EGU2011-2719
Glecio Machado Siqueira, Montserrat Valcárcel Armesto, and **Jorge Paz-Ferreiro**
Trace elements contents within an agricultural field receiving long-term farmyard manure

NH7.3/ESS122/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 Csiszar, 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 Neuefeind, 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 Loepfe, 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, Winfried 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/ESS122/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, Mário 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 Meteorological 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 Arpacı, 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 Marzioletti
Fire damage assessment in Sardinia: the use of ALOS/PALSAR data for the management post fire affects
- XY605 EGU2011-1494
Carmen D. Vega Orozco, Mikhaïl 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

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

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

Room: 9

Chairperson: Josè A. Gomez

- 15:30–15:45 EGU2011-693
Mourad Arabi and Eric Roose
 Agricultural intensification and fight erosion by Water and soil fertility management" (G.C.E.S.) in Algeria
- 15:45–16:00 EGU2011-1421
Seth Dabney, Daniel Yoder, and David Lightle
 Current Status and Uses of RUSLE2 within the USA
- 16:00–16:15 EGU2011-13104
Gil Eshel, Dafna DiSegni, Eran Raveh, Marcelo Sternberg, Alex Furman, Ahamed Nasse, Yonatan Avrams, Yoel Drishpoun, and Roey Egozi
 A multi-disciplinary approach for promoting soil conservation in modern Industrialized Agriculture
- 16:15–16:30 EGU2011-13535
Rory Walsh
 The orientation of past, current and future catchment and slope erosion research in Sabah (Malaysian Borneo) to the design and implementation of more sustainable land management strategies
- 16:30–16:45 EGU2011-4693
Encarnación V. Taguas, Juan V. Giráldez, José L. Ayuso, Rafael Pérez, Carlos Castillo, and José A. Gómez
 Preliminary assesment and cost analysis of incentives for gully control in agricultural areas of Andalusia (Southern Spain)
- 16:45–17:00 EGU2011-13268
Joris de Vente, Albert Solé-Benet, Jorge López, and Carolina Boix-Fayos
 Sustainable Land Management in SE-Spain: effective and feasible measures to reduce soil and water loss for agriculture

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

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

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Josè A. Gomez

- Z36 EGU2011-7848
Jesús Rodríguez González, José Alfonso Gómez, and Pablo J. Zarco-Tejada
 Assessing soil surface roughness using reflectance band indices obtained with an airborne multispectral sensor at very high spatial resolution
- Z37 EGU2011-4078
Azam Jafarisirizi, Shamsollah Ayoubi, and Hossein Khademi
 Relationship between geomorphic surfaces and the establishment of pistachio gardens in Zarand region, southeastern Iran

- Z38 EGU2011-6447
Patricia Ayuso-Ruiz, **Jose Luis Ayuso**, Encarnación Taguas, Amanda García-Marín, and Rafael Ayuso-Muñoz
Estimation of the mean annual erosivity in the region Eastern Andalusia (Spain) through the maximum annual precipitation values of 24 hours and daily duration.
- Z39 EGU2011-12858
Rafael Pérez, Pedro Merino, Encarnación V. Taguas, Juan V. Giráldez, and José A. Gómez
Preliminary development of a drone for the qualitative evaluation of the grass cover and gullies in agricultural lands
- Z40 EGU2011-7431
Gema Guzmán, Rosemarie Hoesl, Peter Strauss, and José A. Gómez
A rainfall simulation experiment to evaluate two sediment tracers in a furrow-shoulders system
- Z41 EGU2011-12821
Rafael Pérez, Luis Galisteo, Encarnación V. Taguas, Juan V. Giráldez, and José A. Gómez
Portable laser topographic profiler for the evaluation of gully volumes
- Z42 EGU2011-9711
Gema Guzman, Juan Carlos Cañasveras, Hakim Boulal, Helena Gómez-McPherson, H, Vidal Barrón, and Jose A. Gómez
Soil redistribution after rainfall events in a furrow-shoulder system at field scale using iron oxides as sediment tracers
- Z43 EGU2011-7620
Verena Butzen, Manuel Seeger, Markus Casper, Stefan Wirtz, and Johannes B. Ries
Investigation of the spatial distribution of runoff generation and soil erosion processes by means of experimental methods and field mapping
- Z44 EGU2011-10460
Laura Marqués, Ramón Bienes, and Marta Ruiz-Colmenero
Studying relation between plants and soil: use of vegetation covers in a vineyard to improve soil physical properties
- Z45 EGU2011-14003
Giussepe Bombino, Pietro Denisi, Vincenzo Tambourino, **Demetrio Zema**, and Santo Zimbone
HYDROLOGICAL EFFECTS OF DIFFERENT SOIL MANAGEMENT PRACTICES IN MEDITERRANEAN CONDITIONS
- Z46 EGU2011-6273
Feliciano Licciardello, Encarnación V. Taguas, Mark Nearing, Salvatore Barbagallo, and José A. Gómez
Evaluation of the WEPP model in olive orchards under different soil managements in a vertic soil under Mediterranean type of climate
- Z47 EGU2011-6513
Encarnación V. Taguas, Rafael Pérez, Jose Luis Ayuso, and Jose A. Gómez
Analysis of the runoff and soil lossess temporal variability in a small experimental olive orchard catchment in Southern Spain

SSS2.5 – Soil and irrigation sustainability practices – Orals

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

Room: 9

Chairperson: Giuseppe Provenzano

- 08:30–08:45 EGU2011-13816
Antonio Santiago, Juan Pablo Cárdenas, Juan Carlos Losada, Rosa Maria Benito, Ana Maria Tarquis, and Francisco Borondo
Community Structure in Soil Porous System
- 08:45–09:00 EGU2011-1762
Nick van de Giesen, Jop Jansen, Philip Stive, Scott Tyler, Susan Steele-Dunne, and Lucas Williamson
Distributed Sensing of Soil Heat Flux
- 09:00–09:15 EGU2011-13158
María Gil-Rodríguez, Leonor Rodríguez-Sinobas, Javier Benítez-Buelga, Raúl Sánchez-Calvo, Luis Juana-Sirgado, Guillermo Castañón-Lion, and Francisco Laguna-Viñuelas
Use of DFOT Heat Pulse Method For Wetting Pattern Determination in Drip Irrigation Emitters
- 09:15–09:30 EGU2011-2911
Gerard Arbat, Albert Roselló, Francesc Domingo Olivé, Jaume Puig-Bargués, Elena González Llinàs, Miquel Duran-Ros, Joan Pujol, and Francisco Ramírez de Cartagena
Soil water and nitrate distribution under drip and furrow irrigation regimes for corn
- 09:30–09:45 EGU2011-3819
María Fátima Moreno Pérez and **José Roldán Cañas**
The role of irrigation indicators in best irrigation water management practices

09:45–10:00 EGU2011-2268

Giuseppe Provenzano, Carmelo Agnese, Mario Minacapilli, and **Giovanni Rallo**

Modelling olive orchard response to water stress and definition of critical thresholds of soil water status

SSS2.5 – Soil and irrigation sustainability practices – Posters

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

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: María Gil Rodríguez

Z48 EGU2011-1434

Gerard Arbat, Jaume Puig-Bargués, Miquel Duran-Ros, Javier Barragán, and Francisco Ramírez de Cartagena

Soil wetting patterns under surface drip irrigation for different soil conditions

Z49 EGU2011-10538

Giuseppe Provenzano, Carmelo Agnese, Carmelo Cammalleri, Giuseppe Ciraolo, Mario Minacapilli, and Giovanni Rallo

Partitioning ET measurements for sparse vegetation: application to an olive orchard

Z50 EGU2011-2443

Issifou Adam, Didier Michot, Yadji Guéro, Boubacar Soubega, Issaka Moussa, Gilles Dutin, and Christian Walter

In situ spatiotemporal monitoring of saline vertic paddy soils from niger by subsurface geophysics during a desalinization experiment

Z51 EGU2011-1788

M. Carmen Cartagena, Augusto Arce, A. Maria Tarquis, Francisco Ribas, M Jesús Cabello, and **M. Teresa Castellanos**

Methodology to assess economic and environmental impacts of Nitrogen in fertirrigation systems.

Z52 EGU2011-11920

Helene Rieckh and Margarita Himmelbauer

Subsurface drip irrigation and soil amendment: experiments and modeling of water storage, movement and uptake

Z53 EGU2011-64

Manuel Esteban Peillon Mesa, Ana Maria Tarquis Alfonso, José Luis García Fernández, and **Raúl Sánchez Calvo**

The use of wind pumps for irrigating greenhouse tomato crops: a case study in Cuba

Z54 EGU2011-935

Najme Yazdanpanah, Majid Mahmoodabadi, and Ali Neshat

Dynamics of macroelements (nitrogen, phosphorus and potassium) in ameliorating process of a saline- sodic soil

Z55 EGU2011-6181

Patricia Almendros, Jose luis Gabriel, and **Miguel Quemada**

Replacing bare fallow with cover crops in an irrigated cropping system: soil salinity and salt leaching

Z56 EGU2011-13244

Marcos Lado and Meni Ben-Hur

Increasing soil surface roughness by means of tillage to reduce runoff generation in irrigated soils

Z57 EGU2011-3093

Kim Mosse, Antonio Patti, Tim Cavagnaro, Evan Christen, Kerri Steenwerth, Sanjai Parikh, and Maya Buelow
An evaluation of winery wastewater application to vineyard soils.

Z58 EGU2011-8216

francesc ferrer, francisco fonseca, and Josep M Villar

Soil water content at field capacity (FC): estimation of a reliable value in the field

Z59 EGU2011-5386

Javier Benitez Buelga, Leonor Rodríguez-Sinobas, and Rodrigo Morillo

Determination of suitable irrigation lengths and intervals using capacitance humidity sensors for a sandy soil

Z60 EGU2011-11044

Anatoly Zeiliger and Olga Ermolaeva

Concept of non-uniform irrigation technology for complex soil cover within irrigated field

Z61 EGU2011-14004

Idelfonso Pla Sentís

Modelling soil salinization processes for sustainable irrigation management

Z62 EGU2011-5662

Oussama mounzer, Francisco Pedrero, Francisco Perez, Rosalia Alcobendas, Jose Maria Bayona, Pedro Nortes, Emilio Nicolas, and Juan Jose Alacron

Sustainable use of reclaimed water for irrigation of mandarin trees

SSS4.3 – Molecular carbon cycling in the environment and implications on humus bioactivity and global changes – Orals

Conveners: Riccardo Spaccini, Claudio Zaccane | Co-Conveners: Luciano Canellas, Tim Cavagnaro, Claudio Ciavatta, Teodoro Miano, Antonio Patti, Alessandro Piccolo, César Plaza

Room: 6

Chairperson: Alessandro Piccolo

- 08:30–08:45 EGU2011-97
Xiangyun Song, Genxing Pan, Lianqing Li, Xuhui Zhang, Riccardo Spaccini, Donato Sannino, and Alessandro Piccolo
 Changes in hydrophobic fractions of SOM in three paddy soils and one marsh soil amended with corn straw
- 08:45–09:00 EGU2011-194
Genxing Pan, Dawen Liu, Lianqing Li, and Yongzhuo Liu
 SOC accumulation in paddy soils under longterm fertilization experiments from South China: increase in microbial quotient and fungi dominance
- 09:00–09:15 EGU2011-959
Charisma Lattao, Yuan Li, Jingdong Mao, Mark Chappell, Lesley Miller, Albert Leo dela Cruz, and Joseph Pignatello
 Probing sorption selectivity of neutral organic compounds to Soil/Sediment Organic Matter through advanced Solid State NMR and nuclear paramagnetic relaxation probes
- 09:15–09:30 EGU2011-1149
Christian Schurig, Rienk Smittenberg, Jürgen Berger, Peter Fittkau, Anja Miltner, and Matthias Kästner
 The contribution of bacterial cell wall fragments to the formation of soil organic matter - a case study from a glacier forefield
- 09:30–09:45 EGU2011-1507
Claudio Bini and Valentina Faggian
 Carbon stock evaluation in different forest stands in North-East Italy
- 09:45–10:00 EGU2011-3233
Stephan Glatzel, Cindy Tefs, Albrecht Jordan, Matthias Hammer, Uwe Schmidt, and Gerd Gleixner
 Long term consequences of disturbance on soil organic matter storage in temperate forests

COFFEE BREAK

Chairperson: Teodoro Miano

- 10:30–10:45 EGU2011-3256
Matthias Kaestner and Anja Miltner
 Microbial biomass - a significant source for soil organic matter
- 10:45–11:00 EGU2011-3492
Boris Jansen, Jan Van Mourik, and Arno De Vreng
 Carbon cycling in polycyclic driftsand sequences
- 11:00–11:15 EGU2011-4328
Robert Qualls, Kurt Pregitzer, and Courtney Company
 Mineralization of soil carbon stored by forest trees during exposure to elevated atmospheric carbon dioxide
- 11:15–11:30 EGU2011-5032
 Gabriela Chilom and **James A. Rice**
 Effect of self-assembly on the role of humic materials in the environment
- 11:30–11:45 EGU2011-6351
Jesko Zimmermann, Jens Dauber, and Michael B. Jones
 Soil carbon sequestration under *Miscanthus x giganteus* - A large scale survey
- 11:45–12:00 EGU2011-6856
Greet Verlinden and Geert Haesaert
 The effect of humic substances on nitrogen mineralization

LUNCH BREAK

Room: 9

Chairperson: Claudio Ciavatta

- 13:30–13:45 EGU2011-8019
Katharina Maria Keiblinger, Ines C. Wilhartitz, Thomas Schneider, Leo Eberl, Kathrin Riedel, and Sophie Zechmeister-Boltenstern
 Soil metaproteomics - a comparison of extraction protocols
- 13:45–14:00 EGU2011-8445
Charlotte Lloyd, Katerina Michaelides, Richard Evershed, David Chadwick, and Jennifer Dungait
 Tracing runoff- and erosion-driven transport of slurry-derived pollutants in soil systems using molecular-scale organic biomarkers
- 14:00–14:15 EGU2011-10520
Nunzio Fiorentino and Massimo Fagnano
 Soil fertilization with composted solid waste: short term effects on lettuce production and mineral N availability
- 14:15–14:30 EGU2011-10822
Marie-France Dignac, Jeremy Doublet, Françoise Watteau, Nicolas Pechot, and Sabine Houot
 Fate of plastic residues in soils after urban compost applications: identification of pyrolysis molecular markers in the soil size fractions
- 14:30–14:45 EGU2011-10877
Dennis Konadu, Andrew Jarvis, and John Quinton
 Opportunity mapping of terrestrial carbon sequestration across UK landscapes
- 14:45–15:00 EGU2011-10961
Antonio Nebbioso, Alessandro Piccolo, and Riccardo Spaccini
 Humeomics for a structure-bioactivity relationship of Humic Substances

SSS4.3 – Molecular carbon cycling in the environment and implications on humus bioactivity and global changes –

Posters

Conveners: Riccardo Spaccini, Claudio Zaccone | Co-Conveners: Luciano Canellas, Tim Cavagnaro, Claudio Ciavatta, Teodoro Miano, Antonio Patti, Alessandro Piccolo, César Plaza

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Antonio Patti - Timothy Cavagnaro

- Z63 EGU2011-975
Martynova Natalia
 Stabilization mechanisms and functions of organic matter in phosphorites soils of Mongolia
- Z64 EGU2011-1321
Martin Wiesmeier, Markus Steffens, Angelika Kölbl, and Ingrid Kögel-Knabner
 Carbon sequestration in degraded semi-arid grasslands of Northern China
- Z65 EGU2011-1566
 Isabel Miralles, Raúl Ortega, Vicenta Millán-Casamayor, M^a Carmen Leirós, **Carmen Trasar-Cepeda**, Miguel Soriano, Francisco Martínez-Abarca, and Fernando Gil-Sotres
 Molecular and biochemical characterization of soils from semi-arid Mediterranean ecosystems
- Z66 EGU2011-3418
 Luigi Sciubba, Luciano Cavani, Claudio Marzadori, and **Claudio Ciavatta**
 Effects of composted municipal sewage sludge on microbial biomass, basal respiration and fluorescein diacetate hydrolysis
- Z67 EGU2011-2194
Rita Lopes, Diana Bello, Ángeles Prieto-Fernández, Carmen Trasar-Cepeda, Celia Manaia, Fernando Gil-Sotres, M^a Carmen Leirós, and Olga Nunes
 Does the rice crop rotation stage influence the composition and activity of cultivable microbial populations of bulk soil from organically farmed rice fields?
- Z68 EGU2011-3120
 Kim Mosse, **Antonio Patti**, Timothy Cavagnaro, Ron Smernik, and Evan Christen
 Long Term Winery Wastewater Applications and Soil Carbon increases.
- Z69 EGU2011-4752
Shinichiro Ueno, Morihiro Ono, and Kenichiro Sugitani
 Biogeochemical characteristics of plant-soil system in a limestone area: A case study of Mt. Kinsho-zan, Gifu prefecture, central Japan
- Z70 EGU2011-4974
Jose Damian Ruiz Sinoga, Sarah Pariente, Asuncion Romero Diaz, and Juan Francisco Martinez Murillo
 Soil Carbon Sequestration along a Mediterranean pluviometric gradient. (South of Spain)
- Z71 EGU2011-13637
 Víctor G. Franco-Otero, Pedro Soler-Rovira, Diana Hernández, Esther G. López-de-Sá, Alfredo Polo, and **César Plaza**
 Short-term effects of the application of mineral fertilizer and municipal organic wastes on non-humified and humified soil organic matter content

- Z72 EGU2011-13377
Leonardo Dobbss, Pierluigi Mazzei, Alessandro Piccolo, Fábio Olivares, and Luciano Canellas
Metabolomic evaluation of in vitro ³¹P Nuclear Magnetic Resonance (NMR) in maize seedlings treated with humic acids
- Z73 EGU2011-6218
Sebastian Unteregelsbacher, Silke Hafner, Georg Guggenberger, Georg Miehe, Xingliang Xu, Jianquan Liu, and **Yakov Kuzyakov**
Response of long-, medium- and short-term processes of the carbon budget to overgrazing-induced crusts in the Tibetan Plateau
- Z74 EGU2011-7803
András Bidló, Péter Juhász, Péter Szűcs, and Péter Ódor
Carbon stock of the soil in some West-Hungarian forested lands
- Z75 EGU2011-10278
Nadine Koch, Christophe Hissler, Sören Thiele-Bruhn, and Christoph Müller
Site and tree stand specific variations in soil organic matter properties in forest soils
- Z76 EGU2011-10380
Luciano Canellas, Fábio Olivares, Leonardo Dobbss, Natália Aguiar, Lázaro Peres, Alessandro Piccolo, and Antonio Nebbioso
Probing the hormonal activity of fractionated humic molecular components in tomato auxin mutants
- Z77 EGU2011-11668
Giovanni Gigliotti, Luisa Massaccesi, Daniela Pezzolla, and Alberto Agnelli
Aggregation and nitrogen mineralisation in two soils with different texture treated with live-stock derived organic materials.
- Z78 EGU2011-13117
Gerlinde Trümper and Andreas Klik
Soil CO₂ efflux for a sandy silt and a loamy clay under different tillage systems
- Z79 EGU2011-12385
Ana Sevilla, Jesús Fernández-Gálvez, and María Dolores Mingorance
COMPOST AND Fe OXIDES AS SOIL AMENDMENTS FOR MINE TAILING RECLAMATION: ORGANIC MATTER MINERALIZATION AND NUTRIENT AVAILABILITY
- Z80 EGU2011-11740
Priscillia Semaoune, Mathieu Sebilo, Sylvie Derenne, Christelle Anquetil, Véronique Vauzy, Laurent Ruiz, Thierry Morvan, and Joëlle Templier
Dynamics of soil organic matter and mineral nitrogen in soil: investigation into a complex relationship
- Z81 EGU2011-3261
Matthias Kaestner and Anja Miltner
Microbial biomass - a significant source for soil organic matter
- Z82 EGU2011-5049
Gabriela Chilom, Moustafa Khalaf, and **James A. Rice**
Effect of self-assembly on the microbial degradation of humic
- Z83 EGU2011-932
Najme Yazdanpanah and Majid Mahmoodabadi
Study on microbial respiration during reclamation of a calcareous saline- sodic soil

IG13/BG2.15/SSS6.2 – Isotope techniques for understanding wetlands and agricultural catchments (co-organized) –

Orals

Convener: Philippe Negrel | Co-Conveners: Thomas Hein, Mari Ito, Randall Hunt, Marisol Manzano, Roland Bol, Guido Wiesenberger, Delphine Derrien

Room: 41

Chairperson: Philippe Négrel; Guido Wiesenberger

- 13:30–13:45 EGU2011-552
Christine Mukwaya
Identification of sources of water recharging a Lacustrine wetland; Lake Kyoga
- 13:45–14:00 EGU2011-879
Emilia Bocanegra, Daniel Martínez, Asunción Romanelli, and Mauricio Quiroz Londoño
Isotope techniques and flow modelling for the assessment of groundwater-wetland interactions in the Pampa Plain, Argentina. "La Salada
- 14:00–14:15 EGU2011-4845
Emmanuelle Petelet-Giraud and Philippe Negrel
Surface Water - Groundwater Interactions in Wetlands: Sr Isotope Constraints
- 14:15–14:30 EGU2011-6898
Marisol Manzano, Leticia Rodríguez, Javier Heredia, Luís S. Vives, Juan Nittman, M^a Emília Zabala, Pradeep Agarwal, and Luís Araguás
Hydrochemical and isotopic assessment of the Iberá hydrogeological system in NE Argentina

- 14:30–14:45 EGU2011-7782
Nina Welti, Elisabeth Bondar-Kunze, Matthias Mair, Wolfgang Wanek, Patricia Bonin, Gilles Pinay, and Thomas Hein
 Reconnection of Danube Floodplains: Use of stable isotopes to determine the effects on nitrogen cycling
- 14:45–15:00 EGU2011-8768
Martin Šanda, Michal Dohnal, and Milena Císlerová
 Hydrological functioning of the mountainous peatlands - oxygen isotopes study
- Chairperson: Delphine Derrien; Philippe Négrel
- 15:30–15:45 EGU2011-9267
Babasola Ajiboye, Therese McBeath, Jason Kirby, Samuel Stacey, Fien Degryse, and Michael McLaughlin
 The use of stable isotopes to quantify macro- and micronutrient uptake from compound fertilizers
- 15:45–16:00 EGU2011-11501
Jan Reent Köster, Reinhard Well, Albert Manninen, Roland Bol, Klaus Dittert, Lukas Emmenegger, Béla Tuzson, Laura Cárdenas, Karl Hermann Mühling, and Joachim Mohn
 Isotopomer analysis of soil derived N₂O - comparative measurements using QCLAS and IRMS techniques
- 16:00–16:15 EGU2011-12552
Randall Hunt, Michael Fienen, and John Walker
 The Value of Natural Tracers for Parameter Estimation in a Creek-Wetland Complex
- 16:15–16:30 EGU2011-12555
Isabel Muñoz, María Bascones, Roger Puig, Neus Otero, and Albert Soler
 Dual isotope approach for tracing nitrate pollution in a vulnerable zone in La Alcarria (Madrid, Spain)
- 16:30–16:45 EGU2011-6045
Eric Crosson, David Balslev-Clausen, and John Dore
 A new analyzer to measure the abundance of ¹⁴N¹⁵N¹⁶O and ¹⁵N¹⁴N¹⁶O relative to ¹⁴N¹⁴N¹⁶O to help elucidate microbial N₂O dynamics in terrestrial ecosystems.
- 16:45–17:00 EGU2011-6789
Horacio Higuera, Marisol Manzano, Emilio Custodio, Iker Juárez, Roger Puig, and Ramón Aravena
 Isotopic assessment of the impact of agriculture on the hydrology of the aquifer and wetlands at the Doñana Ramsar site, SW Spain

IG13/BG2.15/SSS6.2 – Isotope techniques for understanding wetlands and agricultural catchments (co-organized) –
Posters

Convener: Philippe Négrel | Co-Conveners: Thomas Hein, Mari Ito, Randall Hunt, Marisol Manzano, Roland Bol, Guido Wiesenberger, Delphine Derrien

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Marisol Manzano, guido.wiesenberger

- A497 EGU2011-3725
Pierre-Joseph Hatton, Samuel Bodé, Delphine Derrien, Nicolas Angeli, Louisette Gelhaye, Bernd Zeller, and Pascal Boeckx
 The role of microorganisms in the incorporation of carbon into mineral-organic associations
- A498 EGU2011-3786
Philippe Négrel, Martin Šanda, Romain Millot, and Alena Kulasova
 Detecting flow processes in peatlands using Li isotopes
- A499 EGU2011-3886
 Agnès Brenot, **Philippe Négrel**, Romain Millot, and Clotilde Bertin
 Stable (O, H) and strontium isotope tracing of the Narces de la Sauvetat peatland (Massif Central, France) water fluxes
- A500 EGU2011-4868
Emmanuelle Petelet-Giraud and Philippe Négrel
 Multi-isotopes systematics to constrain surface water-groundwater interactions in an alluvial plain: the Loire River case
- A501 EGU2011-6080
 Silke Hafner, Sebastian Unteregelsbacher, Xingliang Xu, Xiaogang Li, Georg Guggenberger, Georg Miehe, and **Yakov Kuzyakov**
 Effect of grazing on C partitioning in Tibetan montane pasture revealed by ¹³CO₂ pulse labeling
- A502 EGU2011-10020
Miryam Martinez and Iñaki Antiguada
 Understanding the influence of land use and geology on hydrochemistry and hydrodynamic of Salburua wetland (Isotope techniques).

- A503 EGU2011-10646
Cristina Pérez Bielsa and Luis Javier Lambán Jimenez
 Estaña Lakes and Estopiñán aquifer hydrogeological study advances (Huesca, España).
- A504 EGU2011-13299
Mari Ito, Philippe Negrel, Thomas Hein, Randall Hunt, Marisol Manzano and the Participants of CRP on hydrological processes in wetlands Team
 IAEA Coordinated Research Project investigates hydrological processes in various wetlands in the world
- A505 EGU2011-10912
 Michaela Dippold, **Yakov Kuzyakov**, and Mikhail Biryukov
 Short-term transformation of alanine in soil assessed by position-specific labeling
- A506 EGU2011-14079
Guido Wiesenberger, Maxim Dorodnikov, Yakov Kuzyakov, and Andreas Fangmeier
 Turnover and stabilization of organic carbon and plant derived alkanes in soil density fractions
- A507 EGU2011-14018
 Agnès Brenot and **Emmanuelle Petelet-Giraud**
 Groundwater contribution to riverine wetlands in a chalk area: geochemical and isotopic evidences.
- A508 EGU2011-12848
Janine Kettering, Sina Berger, Bernd Huwe, Ralf Kiese, Yakov Kuzyakov, and Marianne Ruidisch
 Nitrate leaching in intensive dryland agriculture under monsoon climate: a suction lysimeter study
- A509 EGU2011-14023
 Laurence Gourcy, Agnès Brenot, and **Emmanuelle Petelet-Giraud**
 Isotopic and geochemical tools for characterizing surface water-groundwater relationships in la Bassee floodplain area (Seine River Basin, France)
- A510 EGU2011-3797
Philippe Negrel, Romain Millot, Agnès Brenot, and Clotilde Bertin
 Lithium isotopes: a new tracer of groundwater circulation in a peat land
- A511 EGU2011-13596
John Walker, Randall Hunt, Seann McClure, Christopher Lowry, and Mary Anderson
 Characterizing a Northern Temperate fen using multiple tracers, Allequash Creek, Northern Wisconsin, USA
- A512 EGU2011-13123
Gregor Hsiao, Lee Heng, and Dave Williams
 New Experimental Approaches to Measuring Plant-Extracted Waters

Wednesday, 06 April

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

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

Room: 29

Chairperson: Jose Manuel Antón

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

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

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

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Rosa María Gonzalez-Tirados

- XL1 EGU2011-1626
Kakha Nadiradze and Nana Phirosmnashvili
Climate Change, Agriculture and Food Crisis and correlations

- XL2 EGU2011-9320
Heather Short
Positive feedbacks: using simple systems diagrams, the Himalayas, and ice core oxygen isotope data to introduce first-year college students to the complexities of Earth's climate system
- XL3 EGU2011-13412
hossien sharifan
Investigation of Equations for Actual ET in Salinity Conditions(wet Climate)
- XL4 EGU2011-9832
María Angeles Mendiola and **Pedro Luis Aguado**
Implementation of one course in the Open Course Ware from of Polytechnic University of Madrid, Spain. (OCW-UPM)
- XL5 EGU2011-13306
M Dolores Redel Macías, Ramón Lara Raya, and **Encarnación Taguas**
Collaborative learning in electronic engineering
- XL6 EGU2011-13234
Gabriel Gascó, José Manuel Fidalgo, and Ana Méndez
Advances in the organic waste management: Links between research, society and education
- XL7 EGU2011-13325
hossien sharifan
Teaching Actual Evaluation of Tomato by Epan In Wet Climate
- XL8 EGU2011-13198
hossien sharifan
Evaluation of Salinity effect on Water Temperature In Wet Climate
- XL9 EGU2011-11509
Augusto Arce, Ana Maria Tarquis, Javier Caniego, Jesus Vazquez, Augusto Serrano, and Maria Carmen Cartagena
New Titles Implementation in the Framework of European Higher Education Area at E.T.S. Ingenieros Agrónomos of Madrid: Education Planning
- XL10 EGU2011-13763
Janos Mika, Ildiko Dobi, and Anett Ivady
Circulation conditions of strong heat island in Budapest, with applications in weather forecasting and climate impact studies
- XL11 EGU2011-12077
Jose M Anton, Juan B Grau, Ana M Tarquis, Rubén Moratíel, Silvia Medina, Fabregat Joaquin, Sánchez Elena, and Andina Diego
Survey and brain storming studies about machines, constructions, human and environmental risk consideration in the careers of the Universidad Politécnica of Madrid
- XL12 EGU2011-4651
Emilio Camacho, Sergio Castro, Alfonso García-Ferrer, Rosa Gallardo, Blanca Pizarro, and **Encarnación V. Taguas**
Inter-generational experiences for encouraging the students of the first course of Agronomist and Forestry Engineering degrees
- XL13 EGU2011-6090
Eva Vidal Vázquez and **Jorge Paz-Ferreiro**
The role of soil classification in basic soil science disciplines
- XL14 EGU2011-11931
Eva Vidal Vázquez, **Rafael Montanari**, and Jorge Paz-Ferreiro
Darwin's contribution to Soil Biology
- XL15 EGU2011-13612
María José Polo, Marta Egüen, and Cristina Aguilar
Content structure and program development in “Transport and mixing in fluid flow
- XL16 EGU2011-13815
Emilio Camacho, Sergio Castro, Alfonso García-Ferrer, Rosa Gallardo, Blanca Pizarro, and Encarnación Taguas
Exploring the "employability expectations"

HS8.3.1 – Soil-plant interactions from the rhizosphere to field scale (co-listed) – Orals

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

Room: 38

Chairperson: Martine van der Ploeg

- 15:30–15:45 EGU2011-11191
Yangmin X Kim, Mohsen Zarebanadkouki, Doris Vetterlein, Ernst Steudle, and Andrea Carminati
Measurements of water transport across soil and root using a root pressure probe and a pressure chamber

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

HS8.3.1 – Soil-plant interactions from the rhizosphere to field scale (co-listed) – Posters

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

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Mathieu Javaux

- A373 EGU2011-13717
Abbas Dara, Andrea Carminati, Ahmad B. Moradi, Sascha Oswald, and Peter Vontobel
 Dynamics of Root Responses to Water Heterogeneity in Soil Using Neutron Radiography
- A374 EGU2011-1810
José Carlos Casagrande, Rodolfo Martins Bonilha, Marcio Roberto Soares, Debora Sabonaro Zunkeller, Rose Mary Reis-Duarte, and Maria Leonor R. C. Lopes Assad
 Root System Distribution and Soil Sampling in Restinga Forest Ecosystem
- A375 EGU2011-1860
Sarah Garre, Loïc Pagès, Mathieu Javaux, Jan Vanderborght, and Harry Vereecken
 Parameterizing the Root System Development of Summer Barley using Minirhizotron Data
- A376 EGU2011-3121
Véronique Chaplain, Pauline Défossez, Ghislaine Delarue, Guy Richard, Daniel Tessier, and Jean Roger-Estrade
 Effects of grassland on bulk density of soil and mechanical resistance
- A377 EGU2011-11652
Peter Hartmann and Klaus von Wilpert
 Identification of soil properties affecting fine root distributions in forest soils
- A378 EGU2011-5065
 Eckart Priesack, **Sebastian Bittner**, and Michael Janott
 Applications of a new model of water flow in soil-plant systems
- A379 EGU2011-7980
Mohsen Zarebanadkouki, Andrea Carminati, Ahmad Moradi, Hans-Jörg Vogel, Abbas Dara, Hanna Esser, Stefan Hartmann, and Nikolay Kardjilov
 Root water uptake and root permeability measured by heavy water injection and neutron radiography
- A380 EGU2011-12506
Martine van der Ploeg, Onno Calf, and Nicole van Dam
 The influence of genotype on the water stress response of Bittersweet
- A381 EGU2011-12630
Laura-Roxana Stingaciu, Mathieu Javaux, Andreas Pohlmeier, Valentin Couvreur, Jan Vanderborght, and Harry Vereecken
 Modeling root water uptake with R-SWMS using magnetic resonance imaging experiments
- A382 EGU2011-8653
Martin Šanda, Tomáš Haase, and Jan Wild
 Combined thermal and soil moisture TDT standalone unit.

- A383 EGU2011-11257
Arlène Besson, **Maud Seger**, Guillaume Giot, Bernard Nicoullaud, and Isabelle Cousin
Compaction effect on the availability of water stocks for crops
- A384 EGU2011-12065
Christina M. Schreiber, Bo Zeng, Stephan Blossfeld, Uwe Rascher, Vicky M. Temperton, Marian Kazda, Ulrich Schurr, and Arnd J. Kuhn
Rhizosphere reactions of flooding-exposed plants from Three Gorges Reservoir (TGR) area, P.R. China, monitored by means of a low-invasive and high resolving approach
- A385 EGU2011-6536
Andrea Schnepf, Daniel Leitner, Jakob Santner, Markus Puschenreiter, Walter Wenzel, and Tiina Roose
Modelling phosphate uptake by a growing oilseed rape root system as influenced by root exudation
- A386 EGU2011-6774
Martina Gocke, Wu Liang, Uta Beyersdorf, Michael Sommer, and Yakov Kuzyakov
Silicon uptake by wheat and rice: Effects of Si pools and pH
- A387 EGU2011-10143
Natalie Schröder, Mathieu Javaux, Bernhard Steffen, Bernd Körfgen, Jan Vanderborght, and Harry Vereecken
Impact of 3-D root uptake on solute transport: a numerical study
- A388 EGU2011-6751
Martina Gocke and Yakov Kuzyakov
Pedogenic carbonate recrystallization rates and periods are regulated by temperature-dependent rhizosphere processes: Relevance for paleoenvironmental applications
- A389 EGU2011-4171
José Carlos Casagrande, Rodolfo Martins Bonilha, Marcio Roberto Soares, Débora Sabonaro Zunkeller, Rose Mary Reis-Duarte, and Maria Leonor R. C. Lopes Assad
Soil Fertility Management for Restinga Forest
- A390 EGU2011-12881
Joachim Ingwersen and Thilo Streck
Root water uptake compensation in land surface modelling

SSS2.4 – Soil water repellency: origin, assessment and geomorphological consequences (including Philippe Duchaufour Medal Lecture) – Orals

Convener: Antonio Jordán | Co-Conveners: Lorena M. Zavala, Stefan Doerr, Lee MacDonald, Gary Sheridan, Jorge Mataix-Solera

Room: 9

Chairperson: n.n.

- 08:30–08:45 EGU2011-1171
Arturo JP Granged, **Antonio Jordán**, Lorena M Zavala, and Gema Bárcenas-Moreno
Increased runoff rates and fingered flow after fire-induced changes in soil water repellency
- 08:45–09:00 EGU2011-2108
Gary Sheridan, Jane Cawson, Petter Nyman, Marita McGuirk, Akiko Ono, Patrick Lane, Phillip Noske, and Hugh Smith
Fire, water repellency, soil hydraulic conductivity, and overland flow generation in SE Australian forests
- 09:00–09:15 EGU2011-6560
Cathelijne R. Stoof, Demie Moore, Coen J. Ritsema, and Louis W. Dekker
Natural and fire-induced soil water repellency in a Portuguese shrubland: the role of soil moisture, fire temperature and vegetation removal
- 09:15–09:30 EGU2011-1266
Christopher A E Hamlett, Neil J Shirtcliffe, Michael I Newton, Glen McHale, Sujung Ahn, Robert Bryant, and Stefan H Doerr
Particle based superhydrophobicity - Lab model to field behaviour
- 09:30–09:45 EGU2011-13440
Ingrid Hallin, Rob Bryant, Stefan Doerr, and Peter Douglas
A Statistical Analysis of the Effect of Droplet Volume on Water Droplet Penetration Time Results
- 09:45–10:00 EGU2011-3105
Véronique Chaplain, Pauline Défossez, Ghislaine Delarue, Jean Roger-Estrade, Anthony Roger Dexter, Guy Richard, and Daniel Tessier
Impact of soil water repellency on mechanical resistance

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2011-12187
Amii Whelan, Cedric Kechavarzi, and Ruben Sakrabani
 The breakdown of water repellency in compost amended soils
- 10:45–11:00 EGU2011-11248
Stan Kostka
 Implications of soil water repellency on crop water productivity
- 11:00–12:00 EGU2011-14190
Stefan Doerr
 Soil water repellency: the development of a discipline and its role in soil systems science (Philippe Duchaufour Medal Lecture)

SSS2.4 – Soil water repellency: origin, assessment and geomorphological consequences (including Philippe Duchaufour Medal Lecture) – Posters

Convener: Antonio Jordán | Co-Conveners: Lorena M. Zavala, Stefan Doerr, Lee MacDonald, Gary Sheridan, Jorge Mataix-Solera

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- Z42 EGU2011-4947
 Maria Desamparados Soriano, **Maria Jose Molina**, Josep Llinares, and Pilar Salvador
 Potential hydrophobicity of a sandy soil induced by the litter of three Mediterranean aromatic plants
- Z43 EGU2011-10731
Sujung Ahn, Christopher Hamlett, Stefan Doerr, Rob Bryant, Neil Shirtcliffe, Glen McHale, and Michael Newton
 The role of particle wettability in splash detachment behaviour: a simulation study using hydrophobic and hydrophilic glass beads
- Z44 EGU2011-9449
 Marita McGuirk, **Gary Sheridan**, Jane Cawson, and Patrick Lane
 An experimental analysis of the mechanisms generating post-fire soil water repellency in a dry Eucalyptus forest in SE Australia
- Z45 EGU2011-3839
 Lianne de Jonge, **Manuel Seeger**, Verena Butzen, and Demie Moore
 Experimental study on the dynamics of water repellency on temperate forest soils
- Z46 EGU2011-9057
 Elizabeth Bond, Alun Jones, Stefan Doerr, Ed Dudley, and **Geertje van Keulen***
 Do proteins play a role in the development of soil hydrophobicity?
- Z47 EGU2011-1193
 Arturo JP Granged, **Lorena M Zavala**, Antonio Jordán, and Gema Bárcenas-Moreno
 Post-fire evolution of soil properties in a Mediterranean heathland after experimental burning
- Z48 EGU2011-1796
Paulo Pereira, Jorge Mataix-Solera, Vicky Arcenegui, Xavier Úbeda, and Artemi Cerdà
 Fire effects and short-term changes on water repellency in a Lithuanian grassland soil
- Z49 EGU2011-3978
F. Javier León-Miranda, Jorge Mataix-Solera, Maite Echevarría, and David Badía
 Wildfire effects and temporal changes of water repellency in a gypsiferous soil
- Z50 EGU2011-7748
 Miguel Ángel Márquez, **David Badía-Villas**, Javier Aguirre, and Clara Martí
 Fire effect on soil water repellency in different ecosystems of NE-Spain
- Z51 EGU2011-13201
Lee Macdonald, Robert Coats, Peter Robichaud, Joseph Wagenbrenner, and Robert Brown
 Effects of Post-fire Salvage Logging on Soil Water Repellency
- Z52 EGU2011-8873
 Sílvia Faria, **Diana Vieira**, Maria Eufémia Varela, Sérgio Prats, Maruxa Malvar, and Jan Keizer
 Temporal variation in topsoil water repellency in recently burnt eucalypt and pine stands in north-central of Portugal
- Z53 EGU2011-4581
Artemi Cerdà and Félix Ángel González-Peñaloza
 Organic farming trigger soil water repellency on citrus plantations
- Z55 EGU2011-6905
Henryk Czachor, Stefan Doerr, and Lubomir Lichner
 Small changes in wetting angle cause major changes in hydrological characteristics of subcritically water repellent agricultural soils

- Z56 EGU2011-9628
 Brad Frost, **Thomas Over**, and Jonathan Blitz
 Measurement of soil inter-particle adhesion using atomic force microscopy: Effects of hydrophobicity and humidity

SSS2.7 – Erosion and Ecology – Orals

Convener: Artemi Cerdà | Co-Conveners: Mike Kirkby, José Damian Ruiz Sinoga

Room: 6

Chairperson: Mike Kirkby

- 13:30–13:45 EGU2011-3057
Bill Dietrich and Dino Bellugi
 Trees, topography and erosion: a comparison of two landscapes
- 13:45–14:00 EGU2011-13405
Lee Macdonald, Isaac Larsen, Keelin Schaffrath, and Matthew Welsh
 Short- and Long-term Feedbacks Among Vegetation Cover, Fires, Erosion, and Topography
- 14:00–14:15 EGU2011-14150
Juan Puigdefabregas, Jaime Martínez Valderrama, Maria E. Sanjuan, and Gabriel del Barrio
 The Thornes vegetation-erosion competition model (VEC) revisited: Linking land condition assessment to land use impact
- 14:15–14:30 EGU2011-1128
Wang Zhaoyin
 Vegetation and erosion on the Tibetan Plateau
- 14:30–14:45 EGU2011-13311
David J. Eldridge
 Erosion of sediment displacement: animal foraging promotes sediment, water and seed movement in a semi-arid woodland
- 14:45–15:00 EGU2011-11593
Erik Cammeraat
 Vegetation patterns, runoff, sediment delivery and organic carbon output from a small catchment in SE Spain
- Chairperson: José Damián Ruiz Sinoga
- 15:30–15:45 EGU2011-8315
Donatella Termini
 Role of vegetation on flow hydrodynamics and erosion processes
- 15:45–16:00 EGU2011-9368
Maxim Shoshany
 Geosimulation Based Modeling of Patch Pattern Dynamics and Shrublands' Biomass across semi-arid to arid Gradients
- 16:00–16:15 EGU2011-5788
Tom Vanwalleghe, Malin Ziehmer, and Giráldez Juan Vicente
 Measuring and predicting gully growth in olive orchards: the importance of roots
- 16:15–16:30 EGU2011-4377
Jesus Alvarez-Mozos, Eguzki Abad, Maider Arive, Javier Casalí, Miguel A. Campo, Mikel Goñi, Javier Diez, Youssef Chahor, and Ignacio Diego
 Effectiveness of geotextiles in reducing runoff and soil loss on steep slopes
- 16:30–16:45 EGU2011-13896
Nikolaus J Kuhn
 Connecting the cycles: impact of sediment, Carbon and nutrient erosion on GHG emissions
- 16:45–17:00 EGU2011-1133
Georg Leitingner, Erich Tasser, and Ulrike Tappeiner
 Land-use/cover change (LUCC) and erosion risks

SSS2.7 – Erosion and Ecology – Posters

Convener: Artemi Cerdà | Co-Conveners: Mike Kirkby, José Damian Ruiz Sinoga

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Juan Francisco Martínez Murillo

- Z57 EGU2011-206
Ali Naeimi-Nezamabad
 Modelling River Geomorphology Change Using Artificial Neural Network and GIS, Case study: Gavbandy river in south of Iran

- Z58 EGU2011-287
Mitja Brilly and Andrej Vidmar
Measurement of high Sava river flow in years 2009 and 2010
- Z59 EGU2011-519
Juan Francisco Martínez-Murillo, José Damián Ruiz-Sinoga, and Miguel Ángel Gabarrón-Galeote
Assessment of over-grazing effects on water and soil resources in Souther Spain)
- Z60 EGU2011-1076
Parisa Mokhtari Karchegani, Shamsollah Ayoubi, and Naser Honarju
Magnetic susceptibility as a proxy of soil redistribution affected by land use change and slope gradient in hilly regions of Lordegan, Western Iran.
- Z61 EGU2011-1177
Félix A. González Peñaloza, Lorena M. Zavala, and Antonio Jordán
Reduction of erosion risk by ash and charred litter after burning
- Z62 EGU2011-6332
Artemi Cerdà, Félix Ángel González-Peñaloza, and Merche B. Bodí
Wild boars as soil erosion agents in agriculture land in Eastern Spain
- Z63 EGU2011-2263
Elena G. Vologina, Michael Sturm, and Svetlana S. Vorob'eva
Holocene/Pleistocene: Sediments of basins, ridges and near-coast areas of Lake Baikal, Russia
- Z64 EGU2011-10898
Leticia Gaspar, Ana Navas, and Javier Machín
Effect of the vegetation cover on the ¹³⁷Cs soil redistribution rates in Mediterranean slope transects
- Z65 EGU2011-3576
Sarah Sagemann and Ulrike Scherer
Modelling the effects of agroforestry systems on erosion, phosphorus loss and water balance in a small cultivated loess catchment
- Z66 EGU2011-4374
Greg Hancock, Jeff McDonnell, and Luisa Hopp
Ecological death under extreme events and landscape evolution: Does tree throw affect sediment transport and landscape evolution?
- Z67 EGU2011-2869
Nikolaus J. Kuhn
Rainfall, runoff and environmental change in the critical zone of the Gallocanta Basin, Iberian Range, Spain
- Z68 EGU2011-14107
João Pedro Nunes, Júlia Seixas, and Jan Jacob Keizer
Impacts of climate change on water balance, vegetation productivity and soil erosion in southern Portugal
- Z69 EGU2011-5763
Pariente Sarah
Rock fragments as micro-fertile islands in semiarid areas
- Z70 EGU2011-3441
Peter Shanahan, John Quinton, Martyn Silgram, and Jim Chandler
Using close-range photogrammetry to measure temporal changes in soil surface roughness and sealing of tractor tramlines
- Z71 EGU2011-8218
Peter Fabian and Rütger Rollenbeck
Biomass burning: A significant source of nutrients for Andean rainforests
- Z72 EGU2011-9382
Greg McCarty
Linkage between erosion and sediment deposition and soil carbon storage within terrestrial ecosystems.
- Z73 EGU2011-10312
Tristram Hales and Chelcy Ford
Quantifying the Ecophysiological Mechanics Driving Root Reinforcement of Soils
- Z74 EGU2011-12554
Mark Wuddivira and the Mark N. Wuddivira Team
Predicting the Stability and Erodibility of Humid Tropical Soils under Intense Rainfall
- Z75 EGU2011-12856
Henrik Svensen, Sverre Planke, and Galen R. Gisler
Rock barbeque: Recent landslide-triggered fires in shale and coal on west Greenland, and the implications for fire as a geological agent
- Z76 EGU2011-13382
Jorge Paz-Ferreiro, **Ildegardis Bertol**, and Fabricio Tondello Barbosa
Effects of burning and fertilization of natural herbaceous vegetation on water erosion and nutrient leaching in South Brazil highlands

– Posters

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

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Horst H. Gerke, Antonio Coppola

- Z77 EGU2011-8246
Tomas Vogel, Michal Dohnal, Jaromir Dusek, and Jana Votrubova
Dual-continuum modeling of flow and transport processes in a shallow hillslope soil
- Z78 EGU2011-10689
Antonio Coppola, Horst Gerke, Vincenzo Comegna, Alessandro Comegna, and Angelo Basile
Modelling of preferential water flow through an unsaturated expansive soils
- Z79 EGU2011-8974
Antonio Coppola, Alessandro Comegna, Vincenzo Comegna, Giovanna Dragonetti, Miles Dyck, Nicola Lamaddalena, Mohamed Kassab, and Angelo Basile
Identifying solute transport scale in an unsaturated stony soil by spectral analysis and scale dependence of transport variance
- Z80 EGU2011-789
Kirill Gerke and Roy Sidle
Visualization of subsurface preferential paths and biomat flows on forested hillslopes: experimental study
- Z81 EGU2011-793
Kirill Gerke, Roy Sidle, and Gennadiy Fedotov
Quantification of fluorescent staining tracer in soil profiles: calibration and influence of adsorption
- Z82 EGU2011-4625
Annika Badorreck and Horst H. Gerke
Visualization of soil structure modifications and infiltration patterns by ground-dwelling beetle larvae and moss vegetation
- Z83 EGU2011-9097
Donghao Ma, Claude Doussan, Arnaud Chapelet, Francois Charron, and Albert Olioso
Monitoring soil to groundwater preferential flow during border irrigation using time-lapse ERT
- Z84 EGU2011-3006
Alexander Eder and Peter Strauss
Influence of slurry application technique on P and N loading of drainage tiles
- Z85 EGU2011-4980
Mélanie Weynants and Mathieu Javaux
Land cover impact on close to saturation hydraulic properties of silt loam soils
- Z86 EGU2011-1590
Els Verachtert, Miet Van Den Eeckhaut, Jean Poesen, and Jozef Deckers
Impact of soil characteristics and land use on piping erosion - a case study from Belgium.
- Z87 EGU2011-8955
Alessandro Comegna, Antonio Coppola, Vincenzo Comegna, Gerardo Severino, and Angelo Sommella
Assessing spatial variability of selected soil hydraulic properties using analysis of internal drainage experiments
- Z88 EGU2011-3124
Miroslav Fer and Radka Kodeosva
Estimating hydraulic properties of the soil aggregates and their clay coatings from water retention and cumulative capillary rise data
- Z89 EGU2011-6355
Detlef Biemelt and Horst H. Gerke
Hysteretic soil water retention functions from field time series for initial development phases of an artificially-constructed hydrological catchment

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

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

Room: 21

Chairperson: Niklaus Kuhn

- 10:30–11:00 EGU2011-9652
Asmeret Asefaw Berhe, Margaret S. Torn, Jennifer W. Harden, Sarah D. Burton, Markus Kleber, and John Harte
Stabilization Mechanisms of Soil Organic Matter in Eroding Watersheds: Implications for Erosion induced Terrestrial Carbon Sequestration
- 11:00–11:15 EGU2011-2037
Jianhui Zhang, Shijun Ni, and Zhengan Su
Dual roles of tillage erosion in lateral SOC movement in the landscape

- 11:15–11:30 EGU2011-10747
Xiang Wang, Erik Cammeraat, Zhengang Wang, Gerard Govers, and Karsten Kalbitz
 Stability of organic matter in soils of the Belgium Loess Belt upon erosion and deposition
- 11:30–11:45 EGU2011-12061
Shailaja Vinjili, Ruth Robinson, and Richard Bates
 Investigating Peatland Hydrology and Stratigraphy using Geophysical techniques
- 11:45–12:00 EGU2011-644
Elisabet Nadeu, Asmeret A. Berhe, Joris de Vente, and Carolina Boix-Fayos
 Soil organic carbon replacement and deposition in a highly eroding Mediterranean catchment

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

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

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Martin Evans

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

SSS3.1 – Soil pollution, bioremediation, and changing management systems – Posters

Convener: Peter Burauel | Co-Conveners: Reiner Schroll, Isabelle Lamy, Jean Charles Munch

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Peter Burauel and Jean Charles Munch

- Z90 EGU2011-826
Anna Gunina and Mikhail Biryukov
The influence of phenolic acids on microbiological activity of soils
- Z91 EGU2011-3087
Nicolai David Jablonowski, Andreas Linden, Stephan Köppchen, Daniel Goebbels, Björn Thiele, Diana Hofmann, and Peter Burauel
Influence of dry-wet cycles on the water-extractability of aged 14C-pesticide residues in soils
- Z92 EGU2011-3131
Radka Kodesova, Tereza Hajkova, Martin Kocarek, Ondrej Drabek, Vit Kodes, and Josef Kozak
Chlorotoluron behavior in compost amended soil
- Z93 EGU2011-3254
Anja Miltner, Karolina Nowak, Cristobal Girardi, Andreas Schäffer, and Matthias Kästner
The fate of organic pollutants in soil - Emerging views on the environmental relevance of non-extractable residues
- Z94 EGU2011-4984
Robin Oliver
Terrestrial Phototrophs can make an Important Contribution to the Degradation of Crop Protection Products
- Z95 EGU2011-6318
Elisabeth Löfstrand, **Mats Larsbo**, David van Alphen de Veer, and Barbro Ulén
Pesticide leaching from a heavy clay and a loamy soil amended with black carbon
- Z96 EGU2011-8087
Sohaib Aslam, Florian Chabauty, Valérie Bergheaud, Yolaine Goubard, Laure Vieubl  -Gonod, Patricia Garnier, and Pierre Benoit
Effect of mulch quality and decomposition on dynamics of glyphosate in mulch amended soil systems
- Z97 EGU2011-9156
Julie Raux, Yoann Copard, Jean-Paul Dupont, and Philippe V  rit  
Sources, distribution and mobility of polycyclic aromatic hydrocarbons and pesticides in soils from a small agricultural watershed (Normandy, Northern of France). Impact on the quality of groundwater resources.
- Z98 EGU2011-9395
Bertrand Pourrut, Alain Lepr  tre, Eric Therssen, Annabelle Deram, Pirouz Shirali, Fabrice Cazier, Antoine Richard, Renaud Scheifler, Jacques Blarel, Francis Douay and the PHYTENER Team
The PHYTENER project: development of phytostabilisation combined with energy crop production on agricultural soils highly contaminated by metals
- Z99 EGU2011-10881
Alfonso Lag, Ignacio G  mez, Jose Navarro-Pedre  o, M   Belen Almendro, and M   Victoria Bas
Ni and Cd bioavailable fraction in mediterranean soils cultivated with *Cynara cardunculus* L. and amended with different sewage sludge compost doses
- Z100 EGU2011-14205
Muhammad Iqbal and Isabelle Lamy
Assessment of changes in trace metal availability of contaminated soils after changes in land use from annual to perennial cropping systems
- Z101 EGU2011-14206
Micka  l Hedde and **Isabelle Lamy**
Impact of energy crops on soil invertebrate communities in contaminated agricultural plains
- Z102 EGU2011-14209
Nastasia Wanat, Annabelle Autruy, Emmanuel Joussein, Adnane Itmi, and Jean Charles Munch
The adaptation of *Miscanthus x giganteus* plant to soils developed from mining wastes

SSS4.1/BG2.19 – Soil organic carbon (SOC) dynamics at different spatial scales (co-organized) – Orals

Convener: Bas van Wesemael | Co-Conveners: Kristof Van Oost, Jens Leifeld

Room: 9

Chairperson: Bas van Wesemael

- 13:30–13:45 EGU2011-7669
Michael Sommer and J  rgen Augustin
CarboZALF-D - An interdisciplinary field experiment on carbon dynamics

- 13:45–14:00 EGU2011-10412
Maarten Braakhekke, Markus Reichstein, Thomas Wutzler, Christian Beer, Marcel Hoosbeek, Bart Kruijt, Jens Kattge, Marion Schrumpf, and Pavel Kabat
 Explaining the vertical soil organic matter distribution with lead-210 measurements and Bayesian calibration
- 14:00–14:15 EGU2011-3043
Stéphanie Goffin, Bernard Longdoz, Martin Maier, Helmer Schack Kirchner, and Marc Aubinet
 Multilayer Analysis of Soil Respiration and its Isotopic Signature in Forest Ecosystem
- 14:15–14:30 EGU2011-1589
Markus Egli, Giovanni Mastrolonardo, Ruedi Seiler, Giacomo Certini, Salvatore Raimondi, Filippo Favilli, and Paolo Cherubini
 Charcoal and stable soil organic matter indicate fire frequency, past vegetation and climate in volcanic soils (Mt. Etna, Sicily)
- 14:30–14:45 EGU2011-7926
Carina Ortiz, Erik Karlton, Jari Liski, and Göran Ågren
 How certain are coniferous forest SOC estimates? A comparison of model simulations and measurements at regional scales
- 14:45–15:00 EGU2011-8491
Erik Karlton, Anders Jacobson, and Tommy Lennartsson
 Soil carbon sequestration in Swedish grasslands
- Chairperson: Jens Leifeld
- 15:30–15:45 EGU2011-1606
Michaela Bach, Arne Heidkamp, Clemens Siebner, and Annette Freibauer
 The German agricultural soil carbon inventory: conceptual framework and methodology
- 15:45–16:00 EGU2011-1087
Jeroen Meersmans, Manuel Pascal Martin, Eva Lacarce, Johanna Wetterlind, Line Boulonne, Sébastien Lehmann, and Dominique Arrouays
 Modelling spatial distribution of Soil Organic Carbon (SOC) in France using multiple linear regression approach and comparing model selection criteria.
- 16:00–16:15 EGU2011-5516
Rastislav Skalský, Gabriela Barančíková, Martina Nováková, Zuzana Tarasovičová, Jarmila Makovníková, Monika Gutteková, Štefan Koco, Ján Halas, and Juraj Balkovič
 Setting-up and application of spatial data for SOC stocks modelling in topsoils of agricultural soils of Slovakia in 1970 - 2006 period
- 16:15–16:30 EGU2011-53
Alexander Pastukhov, Dmitry Kaverin, Galina Mazhitova, Gustaf Hugelius, and Olga Shakhtarova
 Soil organic carbon storage in the forest-tundra ecotone zone in the North-Eastern Europe
- 16:30–16:45 EGU2011-8544
Marieke Oosterwoud, Erwin Temminghoff, Hans Meeussen, and Sjoerd van der Zee
 Modelling organic carbon adsorption in Russian taiga and tundra soils
- 16:45–17:00 EGU2011-662
Emily Woollen, Mathew Williams, Casey Ryan, and John Grace
 Carbon stocks in a miombo woodland landscape: spatial distribution and controls

SSS4.1/BG2.19 – Soil organic carbon (SOC) dynamics at different spatial scales (co-organized) – Posters

Convener: Bas van Wesemael | Co-Conveners: Kristof Van Oost, Jens Leifeld

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Kristof Van Oost

- Z103 EGU2011-5526
Park Sa Kim, Dong Hwan Kang, Byung Hyuk Kwon, Yun Hwan So, Hun Sun Yu, and Kwang Ho Kim
 CO₂ Variation for photosynthesis and respiration at the coastal wetland: Sunrise and sunset conditions
- Z104 EGU2011-4036
Carlos Sierra
 Organic matter quality and its temperature sensitivity during decomposition: theory and reconciliation of empirical approaches
- Z105 EGU2011-979
Lianqing Li
 Variation in soil organic carbon fractions and microbial community activities in response to vegetation succession in degraded karst terrain
- Z106 EGU2011-2708
Paula Ioana Moraru, Teodor Rusu, and Mara Lucia Sopterean
 Soil Tillage Conservation and its Effect on Soil Organic Matter, Water Management and Carbon Sequestration

- Z107 EGU2011-7937
Marie Spohn and Luise Giani
Soil Organic Carbon Dynamics in Two Chronosequences of Mineral Hydromorphic Soils
- Z108 EGU2011-8143
Cristina Santín, Rosana Menéndez, Susana Fernández, Stefan Doerr, and Miguel Ángel Álvarez
Organic matter characteristics and distribution in Atlantic mountain soils affected by wildfires
- Z109 EGU2011-7133
Sebastian Dötterl, **Kristof Van Oost**, Bas Van Wesemael, Antoine Stevens, and Timothy A. Quine
Soil erosion and its impact on organic carbon storage in changing agricultural landscapes: A multi-scale analysis
- Z110 EGU2011-597
Evgeniy Milkheev, Raisa Egorova, Yuriy Tsubenov, and Galina Chimitdorjieva
CO₂ emissions from cryogenic soils Asiatic Russia
- Z111 EGU2011-6198
Christopher Poeplau, Axel Don, **Jens Leifeld**, Lars Vesterdal, and Bas Van Wesemael
Impact of land-use change on soil organic carbon dynamics - Development of carbon response functions
- Z112 EGU2011-3384
Robert Jandl
Land use form affects the soil carbon pool - Case study Austria
- Z113 EGU2011-1075
Parisa Mokhtari Karchegani, Shamsollah Ayoubi, Naser Honarju, and Ahmad Jalalian
Predicting soil organic matter by artificial neural network in landscape scale using remotely sensed data and topographic attributes
- Z114 EGU2011-1020
Manuel Martin, Martin Wattenbach, Pete Smith, Jeroen Meersmans, Claudy Jolivet, Line Boulonne, and Dominique Arrouays
Boosted regression trees models for estimating soil organic carbon stocks at the national scale
- Z115 EGU2011-1120
Erik Grüneberg, Daniel Ziche, and Nicole Wellbrock
Regional estimation of soil carbon stocks and changes in Germany's forest soils based on the National Soil Inventory to provide the greenhouse gas reporting
- Z116 EGU2011-1380
Mohammad I. Khalil, Phillip O'Brien, Gerard Kiely, and Christoph Müller
Empirical estimation of organic carbon stocks for agricultural soils in the Republic of Ireland
- Z117 EGU2011-5213
Guodong Sun and Mu Mu
Investigating nonlinear variations in the soil carbon by the Lund-Potsdam-Jena model in China
- Z118 EGU2011-13463
Anne Gobin, Nele Desmet, and Paul Campling
Assessment of soil organic carbon fluxes at the European scale
- Z119 EGU2011-9503
Dirk de Kramer and Willem Hendriks
carbon footprinting of regional development projects
- Z120 EGU2011-13686
Bas van Wesemael, Keith Paustian, Jeroen Meersmans, Esther Goidts, Gabriela Barancikova, and Mark Easter
The role of agricultural management in historic soil C changes, a case study from Belgium

SM3.6/SSP2.4/SSS5.8/TS4.5 – Imaging the shallow subsurface with seismic and GPR methods (co-organized) – Orals

Convener: Lars Nielsen | Co-Conveners: Klaus Holliger, Hansruedi Maurer, Matthew Yedlin

Room: 26

Chairperson: L NIELSEN

- 08:30–08:45 EGU2011-9517
Robert Ferguson, Adam Pidlisecky, and Colin Rowel
Shot record depth migration of georadar data
- 08:45–09:00 EGU2011-13422
Walter Wheeler, Björn Heincke, Giuliana Rossi, and Niklas Allroggen
GPR, seismic and geo-electric investigation of a paleokarst breccia pipe field, Svalbard
- 09:00–09:15 EGU2011-5845
Jens Tronicke, Hendrik Paasche, and Urs Böniger
Inversion of crosshole traveltimes using particle swarm optimization
- 09:15–09:30 EGU2011-7882
Giovanni Angelo Meles, Stewart Greenhalgh, Jan van der Kruk, Hansruedi Maurer, and Alan Green
GPR Full Waveform Sensitivity Analysis using a FDTD Adjoint Method

09:30–09:45 EGU2011-1302

CharLotte Krawczyk, Ulrich Polom, Stefan Trabs, and Torsten Dahm

High-resolution imaging of sinkhole structures in the city of Hamburg by urban shear-wave reflection seismics

09:45–10:00 EGU2011-4532

Stewart Greenhalgh, Bing Zhou, and Mark Greenhalgh

Wavenumber sampling strategies for 2.5D frequency-domain seismic modelling in general anisotropic media

SM3.6/SSP2.4/SSS5.8/TS4.5 – Imaging the shallow subsurface with seismic and GPR methods (co-organized) –

Posters

Convener: Lars Nielsen | Co-Conveners: Klaus Holliger, Hansruedi Maurer, Matthew Yedlin

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: M YEDLIN; K HOLLIGER

XY695 EGU2011-10297

Lasse Lambrecht and Wolfgang Friederich

Simulation of seismic wave propagation for reconnaissance as part of an interaction model in machined tunneling

XY696 EGU2011-2679

Rolf Sidler, German Rubino, and Klaus Holliger

Comparison of numerical simulations of seismic wave propagation in heterogeneous porous media and corresponding visco-elastic equivalent solid composites

XY697 EGU2011-2655

German Rubino and **Klaus Holliger**

Wave-induced fluid flow effects related to porous rocks containing spatially continuous variations of the physical properties

XY698 EGU2011-4241

Matthew Yedlin and Jean Virieux

Uniform Asymptotic Expansions for Vector Waves

XY699 EGU2011-5729

Kévin Samyn, Adnand Bitri, and Gilles Grandjean

Imaging near-surface feature using cross-correlation analysis of multi-channel surface-wave data

XY700 EGU2011-4737

Ariesty Asikin, Andri Hendriyana, and Rachmat Sule

Application of Partial Crs-Stack Method to Enhance Gas Reservoir Characterization in a Complex Geological Structure: Synthetic Case Study

XY701 EGU2011-12533

Javier Olona, Javier A. Pulgar, Gabriela Fernández-Viejo, Carlos López-Fernández, and Juan M. González-Cortina

Seismic and electrical methods applied to the evaluation of subsidence risk derived from mining works

XY702 EGU2011-1634

SanLinn. I. Kaka, Abdalla El-Amin, Aymen Al-Lehyani, and Mohammad Aqel

Near-surface seismic refraction method applied to characterize subsurface in Eastern Saudi Arabia

XY703 EGU2011-5534

Kerim Martínez and José Alfredo Mendoza

Seismic refraction survey to identify faults along a planned viaduct site in Constantine, Algeria: Application and comparison of tomography and generalized reciprocal method interpretations.

XY704 EGU2011-2842

Ho-Young Lee, Nam-Hyung Koo, Keun-Pil Park, Dong-Geun Yoo, Dong-Hyo Kang, Young-Gun Kim, Gab-Seok Seo, and Kyu-Duk Hwang

High-resolution shallow marine seismic survey off Yeosu, Korea using an air gun and 8 channel streamer cable

XY705 EGU2011-5775

Jehanne Demand and François Marillier

Example of shear-wave velocity variations along a 2D seismic profile revealed by surface-wave analysis.

XY706 EGU2011-5635

Vassilis Karastathis, Athanassios Ganas, Petros Karmis, George Drakatos, and Kostas Makropoulos

Application of seismic velocity modelling at footwall escarpment areas in Greece

XY707 EGU2011-13151

Jenneke G. Bakker, **Jan van der Kruk**, Jutta Bikowski, Colby M. Steelman, Anthony L. Endres, and Harry Vereecken

Multi-layer inversion of freezing induced dispersive Ground Penetrating Radar data

- XY708 EGU2011-1353
Jens Buchner, Alexander Kühne, Benny Antz, Ute Wollschläger, and Kurt Roth
Evaluating surface GPR measurements on a layered soil model using a ray path approach and the full solution of Maxwell's equations
- XY709 EGU2011-10936
Matthias Leopold and Jörg Völkel
Application of GPR within an artificial water catchment in NE Germany
- XY710 EGU2011-7694
Jorrit Fahlke, Jens Buchner, Olaf Ippisch, Kurt Roth, and Peter Bastian
Comparison of 3D ground-penetrating radar simulations with measurements on the ASSESS-GPR test site
- XY711 EGU2011-8636
Aránzazu Luzón, Óscar Pueyo, **Antonio Pérez**, and Arsenio Muñoz
GPR application to the study of tufa constructions: a tool for hydrocarbon exploration
- XY712 EGU2011-5530
Lars Nielsen and Lars B. Clemmensen
Constraints on relative sea-level fluctuations at the island of Anholt, Kattegat Sea, from AD ~1000 to the beginning of the 20th century based on interpretation of GPR reflection data

Thursday, 07 April

HS8.3.5 – Trace gases emissions from soils: Sources, mechanisms and process rates (co-listed) – Orals

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

Room: 34

Chairperson: Yakov Kuzyakov

- 13:30–14:00 EGU2011-8025
Peter Dörsch and Umb Nitrogen group
Multiple approaches to understand regulation of N₂O from denitrification: the case of pH
- 14:00–14:15 EGU2011-14017
Fernando Moyano and Claire Chenu
An Integrated Analysis of Soil Incubation Data: Deriving Soil Type Dependent Moisture-Respiration Relations
- 14:15–14:30 EGU2011-10780
Paul Murphy, Denis Minogue, Pádraig French, DeJun Li, and Thomas Bolger
Nitrous oxide emissions from temperate grassland soils as affected by seasonal dairy soiled water application and soil type
- 14:30–14:45 EGU2011-8033
Dennis Imer, Lutz Merbold, Werner Eugster, and Nina Buchmann
Diurnal cycles of carbon dioxide, methane and nitrous oxide fluxes from three Swiss grasslands
- 14:45–15:00 EGU2011-10478
Matthias Kuhnert, Jagadeesh Yeluripati, Pete Smith, and The NitroEurope Team
Simulating N₂O and NO emissions from European forest and grassland ecosystems using the process based model DailyDaycent
- Chairperson: Petra Stolk
- 15:30–15:45 EGU2011-13644
Markus Reichstein, Miguel Mahecha, Nuno Carvalhais, Gitta Lasslop, Sonia Seneviratne, Holger Lange, Alessandro Cescatti, and Mirco Migliavacca
On the Temperature Sensitivity of Respiration at Ecosystem Level
- 15:45–16:00 EGU2011-6775
Hanna Silvennoinen, Annelene Pengerud, Christina Biasi, and Peter Dörsch
Denitrification kinetics support high nitrous oxide emissions in West Siberian cryoturbated tundra
- 16:00–16:15 EGU2011-1654
Frank Hagedorn, Sonja Wipf, and Melissa Martin
Experimental soil warming leads to sustained carbon losses from alpine treeline ecosystems
- 16:15–16:30 EGU2011-10401
Mats G. Oquist, Mats Nilsson, and Hjalmar Laudon
Export of greenhouse gases across the soil/stream interface in a boreal headwater stream
- 16:30–16:45 EGU2011-4602
Leonardo Montagnani, **Damiano Zanotelli**, Christian Ceccon, Giovanni Manca, and Massimo Tagliavini
Combining continuous soil respiration and eddy covariance measurements to assess environmental controls on soil respiration and gross primary production
- 16:45–17:00 EGU2011-11731
Sami Ullah and Tim Moore
Biogeochemical Controls on CH₄, N₂O and CO₂ Fluxes from Deciduous and Boreal Forests Soils in Eastern Canada
- 17:00–17:15 EGU2011-8219
Edzo Veldkamp and Katrin Wolf
Nitrogen availability links soil nitrous oxide and nitric oxide fluxes with forest productivity of a tropical montane forest in southern Ecuador

HS8.3.5 – Trace gases emissions from soils: Sources, mechanisms and process rates (co-listed) – Posters

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

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Lutz Weihermüller

- A360 EGU2011-424
Enrique P. Sánchez-Cañete, Penélope Serrano-Ortiz, Andrew S. Kowalski, Cecilio Oyonarte, and Francisco Domingo
Subterranean CO₂ ventilation and its role in net ecosystem exchange with the atmosphere

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

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

SSS1.4 – Ash in the Environment – 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-Soalleiro
 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 – 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. Balozi, 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. Balozi, 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

SSS1.5 – Stability and Functions of Mountain Soils – Posters

Convener: Frank Hagedorn | Co-Conveners: Christine Alewell, Michele Freppaz

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY721 EGU2011-977
Martynova Natalia
Stability and Functions of Mountain Phosphorites Rock Soils of Mongolia
- XY722 EGU2011-3061
David Hiltbrunner, Pascal A. Niklaus, Sebastian Schulze, Michael W.I. Schmidt, and Stephan Zimmermann
Cattle trampling alters soil properties and greenhouse gas fluxes from soils in a Swiss sub-alpine pasture
- XY723 EGU2011-4137
Diana Maria Zilioli, Mohammad Wahsha, and Claudio Bini
The effects of land use changes on mountainous terraced soil systems of the Dolomites region (northern Italy)
- XY724 EGU2011-4224
Andreas Schindlbacher, Robert Jandl, Hannes Kobler, and Thomas Dirnböck
Soil respiration in a wind-damaged Norway spruce forest
- XY725 EGU2011-5194
Anzilni Amasya
Soil Arthropod Abundance and Formation of Sclerotium Grains in Fagus Forest, Akita, Japan
- XY726 EGU2011-5503
Sayuri Kato, Nobuo Sakagami, and Makiko Watanabe
Characterization of transition zone of forest soil and vegetation in Mt. Chokai, northern Japan
- XY727 EGU2011-5969
Gianluca Filippa, Michele Freppaz, Giorgio Buffa, Enrico Rivella, and Ermanno Zanini
Coupling carbon, nitrogen and water chemistry with plant distribution in two alpine wetland ecosystems
- XY728 EGU2011-6421
Gianluca Filippa, Michele Freppaz, and Ermanno Zanini
Pedogenetic processes beneath high altitude sorted circles in the Italian Western Alps

- XY729 EGU2011-6563
Stefania Cocco, Giorgia Brecciaroli, Alberto Agnelli, and Giuseppe Corti
 Patterned ground soils in the Apennines, a vanishing landscape?
- XY730 EGU2011-6618
Stefania Cocco, Giorgia Brecciaroli, Michele Freppaz, Gianluca Filippa, Alberto Agnelli, and Giuseppe Corti
 Impact of different land-uses on soil processes in Apennines environments
- XY731 EGU2011-6727
Fabienne Curtaz, Gianluca Filippa, Michele Freppaz, Cristina Galliani, and Ermanno Zanini
 Effect of land improvements on agricultural soils in the Alps
- XY732 EGU2011-10059
Michele Freppaz, Gianluca Filippa, and Ermanno Zanini
 Long-term impacts of ski-runs construction and management on alpine soils

SSS1.7 – Badlands and badlands processes in relation to regolith, soil, biodiversity and human pressure – Orals

Convener: ESTELA NADAL ROMERO | Co-Conveners: Aaron YAIR, Dino Torri, Rorke Bryan

Room: 9

Chairperson: Dino Torri

- 08:30–08:45 EGU2011-13964
Rorke Bryan
 Considerations on the Role and Significance of Badland Research
- 08:45–09:00 EGU2011-2026
 aaron Yair, rorke Bryan, nikolaus Kuhn, and **hanoch Lavee**
 Sensitivity of the Zin badlands (Israel) to climate change
- 09:00–09:15 EGU2011-30
Hazel Faulkner
 Badlands in marl lithologies: a field guide to soil dispersion, sub-surface erosion and piping-origin gullies
- 09:15–09:30 EGU2011-7413
Kohei Higuchi and Masahiro Chigira
 Periodic change of erosion and the weathering process in a badland of Plio-Pleistocene mudstone in southwestern Taiwan
- 09:30–09:45 EGU2011-13942
Francesc Gallart, Nuria Pérez Gallego, Jerome Latron, Nuria Martínez Carreras, and Guillaume Nord
 Badland dynamics and its role in runoff and sediment response in a small Mediterranean mountain basin (Vallcebre, eastern Pyrenees)
- 09:45–10:00 EGU2011-3184
John Boardman
 Badland development in South Africa

SSS1.7 – Badlands and badlands processes in relation to regolith, soil, biodiversity and human pressure – Posters

Convener: ESTELA NADAL ROMERO | Co-Conveners: Aaron YAIR, Dino Torri, Rorke Bryan

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY733 EGU2011-1624
 Milica Kasanin-Grubin, **Nikolaus J. Kuhn**, Aaron Yair, Rorke Bryan, and Wolfgang Schwanghart
 Badland evolution and climate change: a sensitivity analysis
- XY734 EGU2011-13873
Nikolaus J. Kuhn
 Climate change in badlands: impact or no impact?
- XY735 EGU2011-13966
Milica Kasanin-Grubin and Rorke Bryan
 Clay mineralogy as a crucial factor in badland hillslope processes
- XY736 EGU2011-2867
Nikolaus J. Kuhn
 Badlands as analogue models for landscape change: a case study from the Negev
- XY737 EGU2011-2085
David Regües and Estela Nadal-Romero
 Uncertainty on the evaluation of sediment yield from badland areas: suspended sediment transport estimation in the Araguás catchment (Central Spanish Pyrenees).

- XY738 EGU2011-13497
Nicolle Mathys, Sebastien Klotz, and Freddy Rey
 Erosion and sediment yield in mountain Mediterranean badlands catchments: processes and factors observed in the Experimental catchments of Draix, (Alpes-de-haute-Provence), France
- XY739 EGU2011-5086
Artemi Cerdà and Félix Ángel González-Peñaloza
 The infiltration process in the Badlands of eastern Iberian Peninsula
- XY740 EGU2011-649
Estela Nadal Romero, Juan Francisco Martínez Murillo, Matthias Vanmaercke, and Jean Poesen
 Erosion and sediment yield in Mediterranean badland areas
- XY741 EGU2011-650
Juan Francisco Martínez-Murillo, Estela Nadal-Romero, David Regúés, Artemi Cerdà, and Jean Poesen
 Assessment of the hydrological and erosional response of Mediterranean badlands through rainfall simulation experiments: a review
- XY742 EGU2011-7256
 Lorenzo Borselli, Rorke Bryan, Federica Fiorucci, Alessandro C. Mondini, Jean Poesen, Mauro Rossi, and **Dino Torri**
 Rill and pipe channel characteristics in badlands with a case study in Tuscany (Italy)
- XY743 EGU2011-13854
Artemi Cerdà, Félix Ángel González Peñaloza, and Merche B. Bodí
 Road embankments versus badlands. Are they the same from an erosional point of view?
- XY744 EGU2011-8356
Sandra Werb, Susanna Werth, Till Francke, and Axel Bronstert
 Surveying accuracy of badland surface morphology in Central Spanish Pyrenees using a high resolution terrestrial LIDAR scanner
- XY745 EGU2011-8823
Jose Maria Bodoque, Juan Antonio Ballesteros, Ana Lucía, José Francisco Martín Duque, Juan Manuel Rubiales, and Mar Genova
 Applying dendrogeomorphological analysis for measuring medium-term sheet erosion: a case study of sand slope gullies at central Iberia
- XY746 EGU2011-7608
Laouina Abdellah, Machouri Nadia, Chaker Miloud, Aderghal Mohammed, Alkarkouri Jamal, and Sfa Mohammed
 The biologic correction of gullies by Atriplex halimus plantation
- XY747 EGU2011-14027
Simona Maccherini, Michela Marignani, Margherita Gioria, Monia Renzi, Elisa Santi, Dino Torri, Jonas Tundo, and Olivier Honnay
 Determinants of plant community composition of remnant biancane badlands: a hierarchical approach to quantify species-environment relationships
- XY748 EGU2011-2942
 Kristien Petrlc, **Estela Nadal Romero**, Els Verachtert, Esther Bochet, and Jean Poesen
 Spatial patterns of vegetation in sub-humid badlands: a case study from the Central Spanish Pyrenees

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.

- XY481 EGU2011-855
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
- XY482 EGU2011-11981
Muhammad Imran Irfan, Thomas Meisel, and Friedrich Pichler
 The extent of anthropogenic and geogenic contamination in an industrial alpine area in Leoben, Austria

- XY483 EGU2011-12958
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
- XY484 EGU2011-7461
Sheng Wei, Wang, Chen Wuing Liu, Ta Wei Chang, and Yu Hsuan Kao
Transformation of inorganic As species in groundwater samples with the presence of Fe(II)/Fe(III)
- XY485 EGU2011-23
Farid Moore, **azizeh aghazadeh**, and Behnam Keshavarzi
Metal toxicity in the stream sediments surrounding sungun porphyry copper deposit, NW, Iran
- XY486 EGU2011-333
Sezin Oeztan and Rolf-Alexander Duering
Determination of the pseudo total metal content of environmental matrices by different extraction methods
- XY487 EGU2011-157
Thomas Hanauer, Levan Navrozashvili, 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
- XY488 EGU2011-159
Thomas Hanauer, Stephan Jung, Diedich Steffens, Levan Navrozashvili, Besik Kalandadze, and Peter Felix-Henningsen
In situ remediation of Cd, Cu and Zn contaminated topsoils by different amendments
- XY489 EGU2011-7306
Adam Lukasik, Zygmunt Strzyszcz, and Marcin Szuszkiewicz
Magnetic susceptibility enhancement in soils of urban parks of Upper Silesia region (Poland) as pollution indicator
- XY490 EGU2011-10751
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-Swidarska
The soil fungi communities and risk assessment of heavy metal contaminated soils management
- XY493 EGU2011-11718
Tania Teran-Mita, **Angel Faz**, Flor Salvador, and Joselito 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 Guihard-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 Kabała
Heavy metal mobility in humus layers impacted 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)

SSS5.2 – Geophysical and Geotechnical Analysis of Soils – Orals

Convener: Ferhat Ozcep

Room: 9

Chairperson: Prof. Dr. Semih Tezcan

- 10:30–10:45 EGU2011-2426
Ali Firat Cabalar and Kagan Tuncay
Cyclic Behavior of Various Sands and Steel Interfaces
- 10:45–11:00 EGU2011-3525
Linda Seward, Cornelia Broennimann, Seraina Kauer, Manfred Staehli, Sarah M. Springman, and Michael Plötze
Geotechnical and hydrological investigations into a landslide prone site at Rufiberg, Canton Schwyz, Switzerland
- 11:00–11:15 EGU2011-4970
Cengiz Kurtulus, Ali Bozkurt, and Hasan Endes
Geophysical and Geotechnical Studies for Electric Power Plants Project At the Sakarya River Zone, Turkey
- 11:15–11:30 EGU2011-12003
Carlos Pallares, **Claude Bacconnet**, Denis Fabre, Aurélie Talon, and Jean Claude Thouret
Geotechnical characteristics of the Misti volcano lahar deposits of Holocene age: an example from the Rio Chili Valley, Arequipa, South Peru
- 11:30–11:45 EGU2011-320
Semih Tezcan and Zuhail Ozdemir
Allowable Bearing Pressure in Soils and Rocks through Seismic Wave Velocities
- 11:45–12:00 EGU2011-583
Savas Karabulut and Oguz Ozel
Estimation of Shear Wave Velocity structure by using Love Waves: Possible Engineering (Near Surface) Implications

SSS5.2 – Geophysical and Geotechnical Analysis of Soils – Posters

Convener: Ferhat Ozcep

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Assist. Prof. Dr. Ferhat Ozcep

- XY749 EGU2011-255
Hüseyin Tur, Hakan Alp, and Okan Tezel
An Evaluation of Various Geophysical Data for A Coastal Structure Design : Avcilar (Istanbul) Case
- XY750 EGU2011-321
Semih Tezcan and Kubilay Kaptan
IMPORTANCE of GEOPHYSICAL PROSPECTING for SOIL AMPLIFICATION STUDIES
- XY751 EGU2011-322
Semih Tezcan and Zuhail Ozdemir
LIQUEFACTION RISK ANALYSES BASED on SHEAR WAVE VELOCITY MEASUREMENTS

- XY752 EGU2011-2904
Natsuko Uoi, Tomoyoshi Murata, Wataru Morishima, and Makiko Watanabe
Evaluation of soil resource of historical parks in Tokyo Metropolis
- XY753 EGU2011-3020
Zheng-yi Feng and Kai-shiun Su
An HHT Based Method for Phase Velocity Analysis of SASW Exploration
- XY754 EGU2011-4978
Cengiz Kurtulus, Ali Bozkurt, and Hasan Endes
Physical-Mechanical Features of the Sandy Clayey Silt From the Inner Shore of the Izmit Gulf in the Marmara Sea-Turkey
- XY755 EGU2011-9744
Tazegul Ozcep, Ferhat Ozcep, and Oguz Ozel
Comparison between Vs30 and Earthquake Amplifications, and their Reliability for Seismic Design Codes : Adapazari (Turkey) Case
- XY756 EGU2011-11347
Paola Bordonì, Marco Tallini, Giuliano Milana, Fabrizio Cara, Francesco Del Monaco, Giuseppe Di Giulio, and John Haines
Seismic response of L'Aquila (Central Appennines, Italy) from 2D numerical simulation
- XY757 EGU2011-11386
Fabrizio Cara, Giuseppe Di Giulio, Gian Paolo Cavinato, Daniela Famiani, and Giuliano Milana
Assessment of ground-motion amplification in the Fucino Basin (Central Italy) through seismic data
- XY758 EGU2011-11436
Giuliano Milana, Fabrizio Cara, Francesco Del Monaco, Giuseppe Di Giulio, and Marco Tallini
Characterization of the breccia deposits in downtown L'Aquila (Central Italy) through multichannel analysis of surface waves
- XY759 EGU2011-12633
Francesco Del Monaco, Marco Tallini, Giuliano Milana, Fabrizio Cara, Giuseppe Di Giulio, and Francesco Setale
Seismic noise in a geologically complex site (L'Aquila, central Italy) to fine-tune the subsoil model for seismic microzonation mapping
- XY760 EGU2011-588
Ferhat Ozcep, Savas Karabulut, and Guldane Boyraz
Integrated Use of Geophysical and Geotechnical Data for Seismic Urban Planning Studies: Bursa (Nilufer, Osmangazi and Yildirim) City Case
- XY761 EGU2011-184
Savas Karabulut, Okan Tezel, Ferhat Ozcep, and Nazire Imre
Seismic Microzoning Studies After Flooding Hazard in Selimpasa (Istanbul)

NP3.8/SSS5.7 – Scaling, Nonlinearity, and Complexity in soils and surface hydrology (co-organized) – Orals

Convener: Ana Maria Tarquis | Co-Conveners: Edith Perrier, R M Lark, Ruth E Falconer, Daniel Gimenez, Fco. Jimenez-Hornero, Marco Marani, João de Lima, Witek Krajewski, M. Gebremichael, Remko Uijlenhoet

Room: 13

Chairperson: Marco Marani

- 08:30–08:45 EGU2011-871
Agathe Giangola-Murzyn, Ioulia Tchiguirinskaia, Daniel Schertzer, and Shaun Lovejoy
Scale and complexity of urban hydrology
- 08:45–09:00 EGU2011-1305
Demetris Koutsoyiannis and Simon-Michael Papalexiou
Scaling as enhanced uncertainty
- 09:00–09:15 EGU2011-4119
Armin Bunde and Mikhail Bogachev
Universal Scaling Features in Precipitation and River Flows
- 09:15–09:30 EGU2011-5447
Alexis Berne, Joel Jaffrain, and Marc Schleiss
Small-scale variability of the raindrop size distribution
- 09:30–09:45 EGU2011-1358
Lucia Mancini, Francesco Brun, Diego Dreossi, Georgios Kourousias, Margherita Polacci, Marco Voltolini, and Giuliana Tromba
The Pore3D software library applied to the quantitative morphological and textural analysis of three-dimensional images in geosciences

- 09:45–10:00 EGU2011-1596
Francisco Jose Jimenez-Hornero, Eduardo Gutierrez de Rave, Juan V. Giraldez, and Jorge E. Jimenez-Hornero
 Application of lattice Boltzmann simulations and multifractal analysis to describe the simulated flow velocity in idealised porous media

COFFEE BREAK

Chairperson: F.J. Jimenez-Hornero

- 10:30–10:45 EGU2011-1747
Carsten Schilli, Gunnar Lischeid, and Joerg Rinklebe
 Identification of prevailing processes in soils using nonlinear statistics
- 10:45–11:00 EGU2011-7895
Konstantin Stolpovsky, Mehdi G. Gharasoo, and Martin Thullner
 Spatio-temporal variations of microbial metabolic activity caused by pore scale heterogeneity of porous media
- 11:00–11:15 EGU2011-2320
Jorge Paz-Ferreiro, Jose Garcia Vivas Miranda, Laura F.S. da Silva, Edson Eiji Matsura, and Mara de Andrade Marinho
 A preliminary study of multifractality from microprofiles of soil penetration resistance
- 11:15–11:30 EGU2011-8656
Marko Samec, Antonio Santiago, Juan Pablo Cardenas, Rosa Maria Benito, Ana Maria Tarquis, Sacha Jon Mooney, and Dean Korošak
 Quantifying soil complexity using network models of soil porous structure
- 11:30–11:45 EGU2011-10436
Samuel Roberson and Gert-Jan Weltje
 A numerical toolbox for the homogenization of particle-size data
- 11:45–12:00 EGU2011-13507
Ruth E Falconer, Alasdair N Houston, Wilfred Otten, and Philippe Baveye
 Emergent properties of the fungal-soil complex

NP3.8/SSS5.7 – Scaling, Nonlinearity, and Complexity in soils and surface hydrology (co-organized) – Posters

Convener: Ana Maria Tarquis | Co-Conveners: Edith Perrier, R M Lark, Ruth E Falconer, Daniel Gimenez, Fco. Jimenez-Hornero, Marco Marani, João de Lima, Witek Krajewski, M. Gebremichael, Remko Uijlenhoet

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Ruth Falconer

- XY550 EGU2011-682
 Vera Rocheta, **Jorge Isidoro**, and João de Lima
 Small scale infiltration in Portuguese cobblestone paving: field measurements with a double ring infiltrometer.
- XY551 EGU2011-3857
Orlando Zúñiga Escobar, Juan Carlos Osorio Saravia, Ramiro Cuero Guependo, Julian Andres Peña Ospina, and Luis Fernando Gomez
 Toward a complex system of soil: a synthetic and analytic complementary approach
- XY552 EGU2011-4919
Juan Matos, Ana Maria Tarquis, and Humberto Millán
 Soil fragmentation study applying different tillage systems
- XY553 EGU2011-5720
Pedro Luis Aguado, Juan Pablo del Monte, and Ana Maria Tarquis
 Structure function and Multifractal spectrum applied to Digital Elevation Model
- XY554 EGU2011-7642
Athanasios Paschalis, Peter Molnar, and Paolo Burlando
 Quantification of the effects of measurement precision on precipitation scaling estimators
- XY555 EGU2011-9634
Daniel Hirmas and Nathaniel Brunsell
 Application of wavelet and fractal techniques to the analysis to soil structure and color
- XY556 EGU2011-10238
Christina Bogner, Baltasar Trancón y Widemann, and Michael Hauhs
 Simulation of flow patterns in soils

- XY557 EGU2011-11117
Silvia Carvalho, Isabel de Lima, and João de Lima
Drop-size distribution of rainfall events in Coimbra, Portugal
- XY558 EGU2011-13207
Gabriel Gascó, Ana Tarquis, Sandra Barriga, Antonio Saa, and Ana Méndez
Application of images analysis to the quantification of surface properties of adsorbent materials prepared from paper industry waste materials
- XY559 EGU2011-13458
Leonor Rodriguez-Sinobas, Javier Benitez Buelga, Maria Gil Rodriguez, Raúl Sánchez Calvo, Guillermo Castañón Lion, Luis Juana Sirgado, and Francisco Laguna Viñuelas
Optimization of the irrigation time and irrigation frequency by using Hydrus-2D and a capacitance FDR sensor.
- XY560 EGU2011-14155
Alexandra N. Kravchenko, Wei Wang, **Andrew Worth**, Alvin J. M. Smucker, and Mark L. Rivers
Fractal characterization of the intra-aggregate pore heterogeneity in macro-aggregates from contrasting land use and management treatments
- XY561 EGU2011-13229
Cong Tuan Hoang, Ioulia Tchiguirinskaia, Daniel Schertzer, and Shaun Lovejoy
Multifractal parameters and extreme behaviour of high resolution rainfall time series
- XY562 EGU2011-8968
Basudev Biswal and Marco Marani
A Geomorphological Interpretation of the Power Law Relations Connected with Recession Curves
- XY563 EGU2011-1267
Carmine Fallico, **Aldo Pedro Ferrante**, Maria Chiara Vita, and Samuele De Bartolo
Direct and indirect measurements of porosity on a real heterogeneous confined aquifer
- XY564 EGU2011-11829
Joel Quintanilla-Dominguez, Maria Guadalupe Cortina-Januchs, Benjamin Ojeda-Magaña, Antonio Vega-Corona, Ana Maria Tarquis, and Diego Andina
Image sub-segmentation by PFCM and Artificial Neural Networks to detect pore space in 2D and 3D CT soil images
- XY565 EGU2011-13371
Pilar López González-Nieto, Ana Maria Tarquis, and Jose Manuel Redondo
Fractal Behaviour and Irregularity of Wetting Fronts in Heterogeneous Porous Media
- XY566 EGU2011-13410
Ana Maria Tarquis, Antonio Saa-Requejo, Jesús Rodriguez-Gonzalez, Jose Alfonso Gómez, and **Pablo Zarco-Tejada**
Spatial variability of Soil Surface Roughness
- XY567 EGU2011-13817
Ana Maria Tarquis, Jose Luis Valencia, Antonio Paz-González, and **Antonio Saa-Requejo**
Thresholding Soil Surface Images
- XY568 EGU2011-7578
Athanasios Paschalis, Peter Molnar, and Paolo Burlando
Dependence structure in the weights of a multiplicative random cascade model for rainfall
- XY569 EGU2011-8238
Mário J Franca, Rui M. L. Ferreira, and Ulrich Lemmin
Cross-correlation between time scales in open-channel river flows
- XY570 EGU2011-7458
Eva Vidal Vázquez, Sidney R. Vieira, José G.V. Miranda, Otavio A. Camargo, João R.F. Menk, and Jorge Paz-Ferreiro
Joint multifractal analysis of soil general properties measured along a transect
- XY571 EGU2011-8442
Eva Vidal Vázquez, Rosario García Moreno, and **Jorge Paz-Ferreiro**
Exploring the heterogeneity of the soil pore system using multifractal analysis from Mercury injection and Nitrogen sorption
- XY572 EGU2011-9281
Jorge Paz-Ferreiro and **Marcelo G. Wilson**
Suitability of multifractal parameters to describe the effect of intensification of rice production on soil structure decay
- XY573 EGU2011-12036
Daniel Gimenez and Sung Won Yoon
Entropy Characterization of Soil Pore Systems Derived from Soil Water Retention Curves
- XY574 EGU2011-13000
Antonio Paz-González, **Roger Manuel Mestas Valero**, Rômulo Guimaraes Giácomo, and Elza da Silva Militão
Characterizing scale-dependent soil moisture series under Eucalyptus globulus using multifractal techniques

- XY575 EGU2011-13621
Simona Hapca, Zi Xiang Wang, Clare Wilson, Phillipe Baveye, Murray Lark, and Wilfred Otten
 Predictive modelling of the 3D chemical composition of soil using kriging based methods
- XY576 EGU2011-13661
Edith Perrier, Nigel R.A. Bird, and Tibot B. Rieutord
 Percolation and filtration properties of multiscale soil models: existence of critical pore sizes

SSS6.1 – Applications and developments of magnetic resonance techniques in geosciences – Posters

Convener: Pellegrino Conte | Co-Conveners: Anne E. Berns, Giuseppe Alonzo, Andreas Pohlmeier, Heike Knicker

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Pellegrino Conte, Anne E. Berns, Giuseppe Alonzo

- XY762 EGU2011-400
Gabriella Butera, Pellegrino Conte, Claudio De Pasquale, and Giuseppe Alonzo
 Thermal degradation of microcrystalline cellulose in concentrated phosphoric acid as assessed by HPLC, high field NMR spectroscopy and low field NMR relaxometry
- XY763 EGU2011-507
Valentina Marsala, Pellegrino Conte, Alessandro Pozzi, Massimo Valagussa, Anna Micalizzi, and Giuseppe Alonzo
 Innovative techniques of nuclear magnetic resonance for assessment of physical and chemical properties of biochar
- XY764 EGU2011-777
 Rasha Hamdan and **William T. Cooper**
 Linking Phosphorus Sequestration to Carbon Stabilization in Wetland Soils by ³¹P and ¹³C NMR Spectroscopy
- XY765 EGU2011-1279
Anne E. Berns, Herbert Philipp, and Hans-Dieter Narres
¹⁵N-CPMAS-NMR spectroscopy of ¹⁵N-labeled sulfadiazine/humic acid complexes
- XY766 EGU2011-1327
Anne E. Berns
 Quantitativeness of CP and DP spectra
- XY767 EGU2011-4281
Svetlana Filimonova, André Hilscher, and Ingrid Kögel-Knabner
 Advanced ¹²⁹Xe NMR techniques for examining soil meso- and microporosity and its role in hosting soil organic matter
- XY768 EGU2011-4469
Gabriele E. Schaumann, Dörte Diehl, Marko Bertmer, Alexander Jaeger, Pellegrino Conte, Giuseppe Alonzo, and Jörg Bachmann
 Effect of cation loading of peat on low-field and high-field proton NMR characteristics
- XY769 EGU2011-6804
Stephan Costabel and Ugur Yaramanci
 On the use of nuclear magnetic resonance for estimating the unsaturated hydraulic conductivity of soils on laboratory and field scale
- XY770 EGU2011-12361
 Rachel Jorand, **Norbert Klitzsch**, and Oliver Mohnke
 NMR Measurements for Characterizing Tight Gas Reservoir Rocks
- XY771 EGU2011-12676
 Natascha Spindler, Petrik Galvosas, Andreas Pohlmeier, **Laura - Roxana Stingaciu**, and Harry H. Vereecken
 NMR velocimetry with 13-interval stimulated echo multi slice imaging in natural porous media under small flow rates
- XY772 EGU2011-12704
Laura-Roxana Stingaciu, Lutz Weihermüller, Andreas Pohlmeier, Siegfried Stapf, and Harry Vereecken
 Determination of hydraulic properties of model soil column using combined magnetic resonance imaging and multi-step-outflow experiments
- XY773 EGU2011-13940
 Merryn Smith, Pellegrino Conte, Anne E. Berns, and **Timothy Cavagnano**
 Use of nuclear magnetic resonance spectroscopy for evaluation of soil properties at a riparian-paddock interface

SSS6.5 – Diffuse reflectance spectroscopy in soil science: new ideas, approaches and strategies – Orals

Convener: Raphael Viscarra Rossel | Co-Conveners: César Guerrero, Abdul Mounem Mouazen

Room: 9

Chairperson: Raphael A. Viscarra Rossel and Abdul M. Mouazen

- 13:30–13:45 EGU2011-253
Martin Leue, Horst H. Gerke, and Ruth H. Ellerbrock
 Small-scale maps of organic matter properties of intact preferential flow path surfaces using DRIFT spectroscopy
- 13:45–14:00 EGU2011-3743
Bernard Barthès, Didier Brunet, Magalie Lesueur-Jannoyer, Raphaël Achard, Luc Rangon, and Thierry Woignier
 Use of near infrared reflectance spectroscopy (NIRS) for determining soil content in chlordecone (organochlorine pesticide)
- 14:00–14:15 EGU2011-6124
Marco Nocita, Antoine Stevens, and Bas Van Wesemael
 Improving spectral techniques to determine soil organic carbon by accounting for soil moisture effects.
- 14:15–14:30 EGU2011-7548
Sharon M. O'Rourke and Nicholas H. Holden
 The potential of visible-near infrared hyperspectral imaging for determining soil organic matter and carbon fractions in forest top soils
- 14:30–14:45 EGU2011-9331
Andreas Gubler
 VNIRS calibrations: ideas to enhance their stability and applicability
- 14:45–15:00 EGU2011-9801
César Guerrero and Raúl Zornoza
 Extending the geographical validity of NIR models by spiking: can hybrid spectra act as bridges between sets? A case study for soil organic carbon
- Chairperson: Abdul M. Mouazen and César Guerrero
- 15:30–15:45 EGU2011-11833
Markus Steffens and Henning Buddenbaum
 Hyperspectral assessment of the three-dimensional variability of various soil properties in a stagnic luvisol
- 15:45–16:00 EGU2011-14088
Raphael Viscarra Rossel, Antoine Stevens, and Members of The Soil Spectroscopy Group
 The Global Soil Spectral Library: a quantitative analysis using model trees
- 16:00–16:15 EGU2011-8175
Dries Verheyen, Jan Diels, Jean Poesen, and Endalkachew Kissi
 The use of visible and near-infrared reflectance measurements for identifying the source of suspended sediment in rivers and comparison with chemical fingerprinting
- 16:15–16:30 EGU2011-13224
Krzysztof Kuźnierek and Cezary Kaźmierowski
 Building a regional soil organic carbon calibration model using VisNIR spectroscopy in a postglacial landscape
- 16:30–16:45 EGU2011-13056
 Haiqing Yang, Boyan Kuang, and **Abdul Mouazen**
 Effect of Wavelength Reduction on the Prediction of Soil N and C Using Visible and Near-infrared Diffuse Reflectance Spectroscopy
- 16:45–17:00 EGU2011-6664
Johan Linderholm and Paul Geladi
 Conventional NIR and NIR hyperspectral imaging - Analysis of soils, sediments in Archaeology

SSS6.5 – Diffuse reflectance spectroscopy in soil science: new ideas, approaches and strategies – Posters

Convener: Raphael Viscarra Rossel | Co-Conveners: César Guerrero, Abdul Mounem Mouazen

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: César Guerrero and Raphael A. Viscarra Rossel

- XY774 EGU2011-2617
Harm Bartholomeus, Clifton Sabajo, Annemarie Van Groenestijn, and Lammert Kooistra
 K-means clustering for improved spectral estimation of multiple soil properties with large spectral databases
- XY775 EGU2011-13973
Frederic Le Guillou and Raphael Viscarra Rossel
 How do different particle sizes affect mid infrared spectra and their spectroscopic calibrations?
- XY776 EGU2011-13970
Jean Charles Simonin and Raphael Viscarra Rossel
 Global predictions of soil carbon by mid infrared spectroscopy

- XY777 EGU2011-12699
César Guerrero and Raúl Zornoza
Spiking as strategy to extend NIR models: effects of the type of samples added and weight in model
- XY778 EGU2011-5110
Lukas Brodsky, Radka Kodesova, and Ales Klement
Soil spectra properties modelling to analyze influence of water content
- XY779 EGU2011-1429
Britta Stumpe, Thomas Engel, Bernd Steinweg, Helmut Meuser, Michael Dohlen, and Bernd Marschner
Characterization and identification of slags and ashes as critical components in urban soils.
- XY780 EGU2011-6678
Marcos Rafael Nanni, Marcelo Luiz Chicati, José Alexandre M. Demattê, Antonio Carlos S. Costa, Everson Cezar, Roney Berti Oliveira, Everton Neiro, Franciele Romagnoli, and Niny Johanna Velano
Soil surface spectral information of Landsat imagery as an indicative of soil class discrimination
- XY781 EGU2011-7258
Jürgen Kattner, David Lilek, Eva Edelmann, Andreas Paul Loibner, and Birgit Herbinger
Linearization of MIR-DRIFT soil spectra using the 2518 cm⁻¹ carbonate band as internal standard
- XY782 EGU2011-9335
Paolo Prosperi
Chemometric modelling for the assessment of the effectiveness of conservation agriculture in a study area in Italy
- XY783 EGU2011-14007
Elisabete Pedrosa, **César Guerrero**, Paula Maia, Andrea Pérez-Bejarano, Marifé Varela, Diana Vieira, and Jan Jacob Keizer
The use of NIR for estimating wildfire-induced heating of forest topsoil
- XY784 EGU2011-13391
Krzysztof Kusnierek, Marco Nocita, Rachel Opitz, Fekerte Yitagesu, and Andras Zamolyi
Improving the soil organic carbon and pH VisNIR calibrations within the field of uniform soil cover by extending the model with the samples from the nearby locations
- XY785 EGU2011-13276
Krzysztof Kuśnierek
Within-field estimation of soil organic carbon using a regional VisNIR model in a post-glacial landscape
- XY786 EGU2011-12251
Eric Lund
Measuring Soil Profile Carbon Sequestration Rates with a Vis-NIR-EC-Force Probe
- XY787 EGU2011-10153
Massimo Conforti, **Gabriele Buttafuoco**, Pietro P.C. Aucelli, Antonio P. Leone, Gaetano Robustelli, and Fabio Scarciglia
Mapping soil degradation using spectral reflectance measurements and geostatistics in a sample catchment in southern Italy
- XY788 EGU2011-7703
Boyan Kuang and **Abdul Mouazen**
Effects of soil moisture content and soil texture on Vis-NIR spectroscopy prediction of key soil properties at field scale
- XY789 EGU2011-12250
Haiqing Yang, Boyan Kuang, and **Abdul Mouazen**
Performance comparison of calibration models developed for the prediction of soil nitrogen and carbon contents with various vis-NIR-MIR spectral ranges
- XY790 EGU2011-6550
Claudio Colombo, Vincenzo Michele Sellitto, Giuseppe Palumbo, and Darrell Schultze
STUDY ON SPECTRAL FEATURES OF EUROPEAN VOLCANIC SOIL USING BI-DIRECTIONAL REFLECTANCE SPECTROSCOPY (BDRS)

Friday, 08 April

SSS1.2/HS12.13/NP3.11 – Wind-driven rain and aeolian sediment transport in environmental studies (co-organized) –

Orals

Convener: Charles Biolders | Co-Conveners: Jean Louis Rajot, Geert Sterk, João de Lima, Don Gabriels, Gunay Erpul

Room: 9

Chairperson: n.n.

15:30–15:45 EGU2011-9922

Carsten Hoffmann, Roger Funk, and Michael Sommer

Assessment of extreme wind erosion from a cropping field in Inner Mongolia

15:45–16:00 EGU2011-14090

Feras Youssef, Saskia Visser, Derek Karssenbergh, Günay Erpul, and Feras Ziadat

Strategies for Measuring Wind Erosion at the Regional Scale, Observation of Wind Erosion in Khanasser Valley Region, Syria

16:00–16:15 EGU2011-10974

Tidjani Adamou Didier, Biolders Charles, Ambouta Karimou, and Tychon Bernard

Dune rehabilitation using a mechanical fixation technique: effect on sediment fluxes and on the quantitative and qualitative recovery of the herbaceous groundcover.

16:15–16:30 EGU2011-4913

Gunay Erpul, Donald Gabriels, Darrell Norton, Dennis Flanagan, Chihua Huang, and Saskia Visser

Interactions between raindrop impact and shallow interrill flow under wind-driven rain (WDR)

16:30–16:45 EGU2011-2853

Peeyush Khare, Tushar Agarwal, and Sat Ghosh

A novel rain simulator for hydrological and agricultural applications in wind driven monsoonal conditions with a particular reference to India.

16:45–17:00 EGU2011-1793

Hilal Samray, **Gunay Erpul**, and Donald Gabriels

Raindrop impacted shallow overland flow transport under different fall trajectories of wind-driven rain (WDR)

SSS1.2/HS12.13/NP3.11 – Wind-driven rain and aeolian sediment transport in environmental studies (co-organized) –

Posters

Convener: Charles Biolders | Co-Conveners: Jean Louis Rajot, Geert Sterk, João de Lima, Don Gabriels, Gunay Erpul

Hall Z | Display Time 08:00–17:00

Author in Attendance: 08:30–10:00

Chairperson: Joao de Lima

Z49 EGU2011-680

Jorge Isidoro and João de Lima

Evaluation in the laboratory of the influence of storm movement on the hydrologic response of small areas.

Z50 EGU2011-4634

João de Lima, Jorge Isidoro, Vijay Singh, and M. Isabel de Lima

The effect of moving storm acceleration on runoff hydrographs

Z51 EGU2011-8093

Maria Cristina Rulli, Francesco Meneguzzo, and Renzo Rosso

Wind Control of Storm Triggered Shallow Landslides

Z52 EGU2011-4960

Mustafa Basaran, Gunay Erpul, and Oguzhan Uzun

Evaluation of field performances of BEST sediment catchers in sandy loam soils of arid zone of Turkey

Z53 EGU2011-9400

Thomas Iserloh, Wolfgang Fister, Miriam Marzen, Manuel Seeger, and Johannes B. Ries

The influence of wind-driven rain on soil detachment rates on homogenous sandy substrate

Z54 EGU2011-965

Majid Mahmoodabadi, Fatemeh Dehghani, and Hamidreza Azimzadeh

Random and oriented roughness influence on soil erosion rate using wind tunnel experiment

Z55 EGU2011-2939

Charles Biolders, Adamou Didier Tidjani, and Karimou Ambouta

Seasonal dynamics of the parameters determining wind erosion on rangeland in Eastern Niger

Z56 EGU2011-5001

Jean Louis Rajot, Amadou Abdourhamane Touré, Zibo Garba, Béatrice Marticorena, Christophe Petit, and David Sebag

Impact of very low crop residuescover on wind erosion in the Sahel

Z57 EGU2011-5738
Geert Sterk
 On-site and off-site impacts of wind erosion in Europe: an overview

SSS2.2/EMRP15/GM10.2/PS7.0 – Modeling the Experiment, Experimenting the Models (co-organized) – Orals
 Convener: Manuel Seeger | Co-Conveners: Luigi Colangeli, Javier Martin-Torres, Nikolaus J. Kuhn, Karsten Seiferlin, Markus Casper, Derek W. G. Sears, Ulrike Scherer, Ruth Ziethe, Tobias Heckmann, Sandra Schumacher

Room: 9

Chairperson: Manuel Seeger

08:30–08:45 EGU2011-2476
Mike Kirkby
 Modelling overland flow generation on a rough hillslope

08:45–09:00 EGU2011-2012
Afshin Ghahramani and Yoshiharu Ishikawa
 Rain splash transport over steep hillslope; modeling of transport

09:00–09:15 EGU2011-629
Stefan Wirtz, Manuel Seeger, and Johannes B. Ries
 Experimental validation of basic model assumptions

09:15–09:30 EGU2011-5410
 Zhengyao Nie, Gavan McGrath, and **Christoph Hinz**
 Rock particle fragmentation, as an alternative to fluvial transport, explains size sorting on arid hillslopes

09:30–09:45 EGU2011-10118
Olivier Dewitte, Claudio Bosco, Miet Van Den Eeckhaut, and Mohamed Daoudi
 A statistical approach to predict gully initiation susceptibility with common spatial data

09:45–10:00 EGU2011-1025
Aleksey Sidorchuk
 Stochastic theory of soil erosion: the novel approach to modelling and experimentation

COFFEE BREAK

Chairperson: Ulrike Scherer, Luigi Colangeli

10:30–10:45 EGU2011-1311
Michael Dietze and Arno Kleber
 Orientation patterns of stone pavements: from field experiments to a physically-based model and towards laboratory experiments

10:45–11:00 EGU2011-7977
An Van den Putte, Gerard Govers, Jan Diels, Annemie Leys, Christoph Langhans, and Wim Clymans
 Can rainfall simulation data be used to parameterize a dynamic infiltration model?

11:00–11:15 EGU2011-2287
Willem Maetens, Jean Poesen, and Matthias Vanmaercke
 Confrontation of the PESERA map with measured soil loss rates at plot scale

11:15–11:30 EGU2011-2938
Jonathan Merrison, Haraldur Gunnlaugsson, Christina Holstein-Rathlou, Svend Knak Jensen, Per Nørnberg, and Keld Rasmussen
 Granular Electrification, Sand Transport and Mineralogy.

11:30–11:45 EGU2011-6606
 Gregor Golabek, Tobias Keller, **Taras Gerya**, Paul Tackley, Guizhi Zhu, and James Connolly
 Core and early crust formation on Mars

11:45–12:00 EGU2011-8070
Rafael Escribano, Oscar Gálvez, Belén Maté, Miguel A. Moreno, Víctor J. Herrero, and F. Javier Martín-Torres
 Anomalies in the spectra of planetary ice particles

LUNCH BREAK

Chairperson: Javier Martin Torres

- 13:30–13:45 EGU2011-10584
Ha Tran, Jean-Michel Hartmann, and Geoffrey Toon
 Line-mixing effects on spectral shape and consequences for laboratory and atmospheric spectra analyses
- 13:45–14:00 EGU2011-8929
Ludmilla Kolokolova
 Remote Sensing of Aggregated Aerosols Using Photopolarimetry
- 14:00–14:15 EGU2011-13452
Enric Pale
 Earthshine measurements and extrasolar planet spectral retrieval
- 14:15–14:30 EGU2011-10233
S  verine Robert, Arnaud Mahieux, Val  rie Wilquet, Rachel Drummond, Ann Carine Vandaele, Jean Vander Auwera, Yuri Borkov, Valery I. Perevalov, Sergei A. Tashkun, and Jean-Loup Bertaux
 Analysis of new Absorption Bands of the Carbon Dioxide Isotopologues in Venus Spectra
- 14:30–14:45 EGU2011-2366
David Jacquemart
 Recent progress in acetylene laboratory measurements for astrophysical applications
- 14:45–15:00 EGU2011-12177
Wladimir Neumann, Doris Breuer, and Tilman Spohn
 The efficiency of magma heat transport in accreting planetesimals

SSS2.2/EMRP15/GM10.2/PS7.0 – Modeling the Experiment, Experimenting the Models (co-organized) – Posters

Convener: Manuel Seeger | Co-Conveners: Luigi Colangeli, Javier Martin-Torres, Nikolaus J. Kuhn, Karsten Seiferlin, Markus Casper, Derek W. G. Sears, Ulrike Scherer, Ruth Ziethe, Tobias Heckmann, Sandra Schumacher

Hall Z | Display Time 08:00–17:00

Author in Attendance: 15:30–17:00

Chairperson: Nikolaus Kuhn

- Z58 EGU2011-8109
Pelin Aklik and Wei Wu
 Centrifuge modeling of geotextile reinforced slopes
- Z59 EGU2011-13632
Constance Bornkamp and J  rgen Schmidt
 Experimental research and modelling macropore flow in soils
- Z60 EGU2011-870
Tom Coulthard, Greg Hancock, and John Lowry
 Modelling soil erosion with a downscaled landscape evolution model
- Z61 EGU2011-1433
Stefan Strohmeier and Andreas Klik
 Erosion Plot Monitoring: Impact of different Tillage Systems on average annual Soil Erosion and the Significance of Extreme Rainfall Events
- Z62 EGU2011-1625
Nikolaus J. Kuhn and Elizabeth K. Armstrong
 Organic Matter erosion from sandy soils: solving the mass balance
- Z63 EGU2011-4123
Ulrike Scherer, Erwin Zehe, Klaus Traebing, and Kai Gerlinger
 Parameterisation of a soil detachment model using rainfall simulation experiments
- Z64 EGU2011-5740
Claude M  gler, Olivier Planchon, J  r  my Patin, Sylvain Weill, Norbert Silvera, Patricia Richard, and Emmanuel Mouche
 Modelling of overland flow and tracer transport experiments under simulated rainfall at plot scale
- Z65 EGU2011-7541
Verena Butzen, Manuel Seeger, Markus Casper, and Johannes B. Ries
 Parameterization of the process-based soil erosion model LISEM by means of experimental measurements
- Z66 EGU2011-7857
Mazhar Ali, Geert Sterk, and Piet Peters
 Influence of hydraulic parameters on sediment transport in shallow flows
- Z67 EGU2011-888
Mazhar Ali, Geert Sterk, Manuel Seeger, and Leo Stroosnijder
 Experimental Estimation of Mean Flow Velocity under Overland Flow
- Z68 EGU2011-12811
Lucy Clarke, Timothy Quine, and Andrew Nicholas
 Experimental study of flow width dynamics on alluvial fans

- Z69 EGU2011-12945
Marc Biancheri - Astier, Valérie Ciarletti, and Alain Reineix
3D characterization of the deep sub-surface by a bistatic HF GPR operating from the surface
- Z70 EGU2011-4665
María J. García-Algaba, **Encarnación V. Taguas**, Luciano Mateos, and José A. Gómez
Describing and modelling the rainfall-runoff pattern of an olive orchard large catchment in Southern Spain
- Z71 EGU2011-875
Mary Elise Rumpf, Sarah Fagents, Christopher Hamilton, and Ian Crawford
The Search for a Solar Record in Lunar Paleoregoliths through Numerical Modeling and Analogous Experiments
- Z72 EGU2011-2006
Hiroko Nagahara and Kazuhito Ozawa
Phyllosilicate and its role on the evolution of organic materials in the early solar nebula
- Z73 EGU2011-2378
Attila Császár, Csaba Fábri, and Edit Mátyus
Toward a Line List for Methane
- Z74 EGU2011-2728
Jiri Pavlu, Martin Beranek, Jakub Vaverka, Ivana Richterova, Zdenek Nemecek, and Jana Safrankova
Lunar dust simulants (LHT, JSC, MLS) compared in the frame of secondary emission
- Z75 EGU2011-3601
Juris Freimanis
Polarized radiative transfer equation in some special curvilinear coordinate systems
- Z76 EGU2011-13174
Erwan Tréguier, Albrecht Schmidt, Frédéric Schmidt, Alejandro Cardesín, Stéphane Erard, Patrick Martin, Patrick Pinet, Saïd Moussaoui, and Nicolas Dobigeon
Analysis of a collection of planetary hyperspectral images through non-negative source separation
- Z77 EGU2011-4899
Marie-Claire Gazeau, Yves Benilan, Et-Touhami Es-Sebbar, Antoine Jolly, Emmanuel Arzoumanian, Nicolas Fray, and Hervé Cottin
Characterization of continuous vacuum ultraviolet lamps - Implication on the study of methane photolysis at Lyman alpha (121.6 nm)
- Z78 EGU2011-7729
Jeremy Guignard, Misha Bystricky, and Mickael Toplis
Grain Growth in Experimental Forsterite $\pm$ Metal $\pm$ Silicate Melt Systems: Analogues of Chondritic and Achondritic Parent Bodies.
- Z79 EGU2011-9862
Alexander Stiegler and Günter Kargl
A broadband frequency characterisation of Martian analogue dielectric behaviour
- Z80 EGU2011-11540
Olivia Golle, **Caroline Dumoulin**, Ondrej Cadek, and Gael Choblet
A method to compute topography and geoid from viscous convection overlaid by an elastic lithosphere
- Z81 EGU2011-12375
Javier Martin-Torres, Alejandro Soto, Mark Richardson, Ian McEwan, and Javier Gómez-Elvira
Radiative Transfer Calculations for the REMS/Mars Science Laboratory Ground Temperature Sensors
- Z82 EGU2011-12284
Javier Martin-Torres
Calculation of Refraction Indices of Mars and Terrestrial Atmospheres Using Spectroscopic Databases
- Z83 EGU2011-2972
Jonathan Morrison, Line Drube, Haraldur Gunnlaugsson, Christina Holstein-Rathlou, Svend Knak Jensen, Jon Mason, Morten Bo Madsen, Per Nørnberg, and Manish Patel
Research Using the European Mars Simulation Wind Tunnel Facility
- Z84 EGU2011-2727
Jakub Vaverka, Jiri Pavlu, Martin Beranek, Ivana Richterova, Jana Safrankova, and Zdenek Nemecek
Secondary emission from Martian soil simulant

ERE5.1/GMPV32/HS12.1/SSS2.9 – Coupled reactive transport: Codes, applications and trends (co-organized) – Orals

Convener: Georg Kosakowski | Co-Conveners: Josep M. Soler, Peter Alt-Epping

Room: 3

Chairperson: Peter Alt-Epping

15:30–15:45 EGU2011-716

Maria Gabriela Davila Ordoñez, Maria Garcia Rios, Josep M. Soler, and Jordi Cama
Modeling the dissolution of calcite coupled to gypsum precipitation in acid brines

- 15:45–16:00 EGU2011-2202
Yaniv Edery, Harvey Scher, and **Brian Berkowitz**
Modeling Dissolution and Precipitation Dynamics During Dedolomitization
- 16:00–16:15 EGU2011-4128
Jennifer Palguta, Colin F. Williams, Steven E. Ingebritsen, Stephen H. Hickman, and Eric Sonnenthal
An approach for modeling geothermal reservoir behavior using the reactive transport simulator TOUGHREACT
- 16:15–16:30 EGU2011-11479
Caroline de Dieuleveult, Vincent Lagneau, and Juan Hidalgo
Development of an isotopic fractionation and filiation module in the reactive transport code HYTEC
- 16:30–16:45 EGU2011-721
Andrey Afanasyev
Simulation of multiphase flows of binary mixtures under sub- and supercritical conditions
- 16:45–17:00 EGU2011-12020
Marco De Lucia, Susanne Stadler, Matthias Rateitzak, and Michael Kühn
Evaluating uncertainties in geochemical modelling for CO₂ storage: multivariate sensitivity analysis of database entries

ERE5.1/GMPV32/HS12.1/SSS2.9 – Coupled reactive transport: Codes, applications and trends (co-organized) –

Posters

Convener: Georg Kosakowski | Co-Conveners: Josep M. Soler, Peter Alt-Epping

Hall XL | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: n.n.

- XL179 EGU2011-11527
Blaise Delmotte, Carole Delenne, Vincent Guinot, and Elena Gomez
Calibration and sensitivity analysis of a one-dimensional model of pollutant transport and degradation in maturation ponds.
- XL180 EGU2011-12919
Thomas Gimmi, Olivier X. Leupin, Jost Eikenberg, Martin A. Glaus, Luc R. Van Loon, H. Niklaus Waber, Josep M. Soler, Acacia Naves, Javier Samper, Sarah Dewonck and the rest of the DR Team
Results and modelling of the 4-year diffusion and retention (DR) experiment in Opalinus Clay in the Mont Terri URL
- XL181 EGU2011-4004
Josep M. Soler, Marja Vuorio, and Aimo Hautajärvi
Reactive transport modeling of the interaction between water and a cementitious grout in a fracture
- XL182 EGU2011-10034
Alexandre Boisson, Luc Aquilina, and Olivier Bour
Influence of flow velocity on denitrification in a pore-scale lab experiment
- XL183 EGU2011-2044
Georg Kosakowski and Urs Berner
Influence of a concrete liner on the evolution of the near field of a HLW repository
- XL184 EGU2011-10789
Peter Alt-Epping and Larynn W. Diamond
Implications of rock composition, brine composition and pressure/temperature conditions for CO₂ mineral trapping in deep saline aquifers
- XL185 EGU2011-10010
Christoph Egbers and Nicoleta Scurtu
Challenges in the Numerical Modelling of the CO₂-Transport in Pipelines
- XL186 EGU2011-5581
Haibing Shao, Christina M. Haberer, Peter Grathwohl, and Olaf Kolditz
Modeling the oxygen mass transfer across the capillary fringe using a multiphase reactive transport code - numerical model construction and comparison with experimental data
- XL187 EGU2011-13903
Mingliang Xie, Olaf Kolditz, and Helge Moog
A geochemical model for highly saline solutions
- XL189 EGU2011-7457
Dedong Li, Christof Beyer, and Sebastian Bauer
Simulation of fluid-mineral kinetic reactions during CO₂ storage using ChemApp and SUPCRT92 coupled to OpenGeoSys
- XL190 EGU2011-7625
Luis Manuel de Vries, Albert Nardi, Luit Jan Slooten, and Jesus Carrera
Random Walk Particle Tracking for reactive transport modelling

- XL191 EGU2011-11295
Sarah Jane Fowler, **Ferdinand Hingerl**, Thomas Driesner, Georg Kosakowski, Dmitrii Kulik, and Thomas Wagner
Reactive transport simulation by combining a multiphase-capable transport code for unstructured meshes with Gibbs energy minimization and multi-electrolyte solution models
- XL192 EGU2011-13635
Hamidreza M. Nick, Pierre Regnier, Martin Thullner, Stephan Matthai, and Florian Centler
A reactive transport model for complex geological media
- XL193 EGU2011-14156
Rajandrea Sethi and Tiziana Tosco
E-MNM1D: A model for the simulation of shear thinning suspensions of zerovalent iron micro and nanoparticles in porous media
- XL194 EGU2011-2696
Minh Tan Vu and Pierre M Adler
Deposition and/or dissolution in Porous Media
- XL195 EGU2011-3229
Mohamed Hayek, Georg Kosakowski, and Sergey Churakov
Analytical solutions for diffusive transport with heterogeneous reactions and porosity changes
- XL196 EGU2011-6773
alain dimier and elodie jeandel
A phreeqc-Elmer coupling algorithm for T-H-M-C modeling applications

HS9.2/GM3.4/SSS2.10 – Erosion and sediment delivery in agricultural landscapes: monitoring, modelling and management (co-organized) – Orals

Convener: Stéphane Follain | Co-Conveners: Rossano Ciampalini, Peter Fiener, João Pedro Nunes

Room: 39

Chairperson: João Pedro Nunes

- 08:30–08:45 EGU2011-8936
Léonard Bernard-Jannin, Maria Ermitas Rial, Maria Luz Rodríguez-Blanco, José António Rodríguez-Suárez, and João Pedro Nunes
Runoff generation and soil erosion processes at multiple spatial scales in a Mediterranean mountain catchment
- 08:45–09:00 EGU2011-13794
Lillian Øygarden, Johannes Deelstra, Anne-Grete B. Blankenberg, and Hans Olav Eggestad
Climate change, erosion and nutrient loss from agricultural dominated catchments in Norway
- 09:00–09:15 EGU2011-5208
Wei Wei and Liding Chen
Responses of water erosion processes to natural rainfall change in terrestrial ecosystems
- 09:15–09:30 EGU2011-10188
Saskia Keesstra and Arnaud Temme
Modelling daily sediment delivery in meso-scale catchments: LAPSUS-D: a test for temperate climate.
- 09:30–10:00 EGU2011-6997
Dave Favis-Mortlock and John Boardman
What more do we know, twenty years later? Updating the potential impacts of future climate change on soil erosion by water on the English South Downs

COFFEE BREAK

Chairperson: Peter Fiener

- 10:30–10:45 EGU2011-1620
Nikolaus J. Kuhn
Assessing lateral organic Carbon movement in small agricultural catchments
- 10:45–11:00 EGU2011-10435
Rossano Ciampalini, Stéphane Follain, and Yves Le Bissonnais
LandSoil: a model for the analysis of the impact of erosion on agricultural landscape evolution
- 11:00–11:15 EGU2011-6015
Jana Moravcova, Tomas Pavlicek, Monika Koupilova, Pavel Ondr, Tomas Kvitek, and Jan Vachal
The comparison between theoretical annual loss of sediments and real sediment loss during the extreme rainfall runoff events

- 11:15–11:30 EGU2011-4700
Ronald Pöpl, Margreth Keiler, Kirsten von Elverfeldt, and Thomas Glade
 The effects of different land use patterns on sedimentological (dis)connectivity in small agricultural catchments
- 11:30–11:45 EGU2011-3917
Douglas Smith and Stanly Livingston
 Reducing hydrological connectivity of depressions to streams in glacial till landscapes
- 11:45–12:00 **Discussion**

HS9.2/GM3.4/SSS2.10 – Erosion and sediment delivery in agricultural landscapes: monitoring, modelling and management (co-organized) – Posters

Convener: Stéphane Follain | Co-Conveners: Rossano Ciampalini, Peter Fiener, João Pedro Nunes

Hall A | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Rossano Ciampalini

- A317 EGU2011-3134
Ondrej Jaksik, Radka Kodesova, Iva Stehlikova, Tereza Zadorova, Ales Kapicka, and Vit Penizek
 Spatial soil material redistribution due to soil erosion studied using magnetic susceptibility mapping
- A318 EGU2011-3155
Tereza Zadorova, Ondřej Jakšík, Radka Kodešová, and Vít Penížek
 Influence of topography and soil properties on soil aggregates stability
- A319 EGU2011-3541
Hans von Suchodoletz, Marco Herrmann, Marcus Schmidt, and Christoph Zielhofer
 Tracking and quantifying recent soil erosion in a semi-arid catchment area at Lanzarote (Canary Islands)
- A320 EGU2011-6732
 Legrain Xavier, Colard Francois, Colinet Gilles, Demarcin Pierre, and **Degré Aurore**
 Soil redistribution in rural catchment: how fifty years old soil survey can help model improvement
- A321 EGU2011-10113
Susanna Werth, Sandra Werb, Till Francke, and Axel Bronstert
 Analysis on underlying connectivity mechanisms of a mesoscale dryland river basin, NE Spain
- A322 EGU2011-10639
Alemayehu Muluneh, Saskia Keesstra, and Leo Stroosnijder
 Strategies to adapt to climate change in the Central Rift Valley of Ethiopia: Linking regional drought stress patterns to on-farm water management.
- A323 EGU2011-10954
Annegret Larsen and Hans-Rudolf Bork
 Agricultural terraces and their influence on sediment storage, transport and reworking
- A324 EGU2011-12863
João Pedro Nunes, Júlio C. Lima, Léonard Bernard-Jannin, Elsa Sampaio, María Ermitas Rial-Rivas, Madalena Moreira, Jan Jacob Keizer, and João Corte-Real
 Estimating the impacts of climate change on soil erosion in Mediterranean watersheds
- A325 EGU2011-4179
María Luz Rodríguez-Blanco, María Mercedes Taboada-Castro, María Teresa Taboada-Castro, João Pedro Nunes, María Ermitas Rial, and Jan Jacob Keizer
 Sediment yield response to climate change in an atlantic catchment in NW Spain: preliminary results with the SWAT model
- A326 EGU2011-7599
Nicolas Feltz, Alexandre Maignard, Hélène Cordonnier, Charles Biélders, and Abdel Ilah Mokadem
 Mapping erosion at field scale in Wallonia
- A327 EGU2011-8998
Youssef Chahor, Carlos Antoñanzas, Javier Loizu, Javier Casali, Miguel Angel Campo, and Rafael Giménez
 Evaluation of the AnnAGNPS model for predicting runoff in large agricultural watershed in Navarre (Spain)
- A328 EGU2011-11133
Olga Khvostova
 Gorky reservoir slope stability assessment
- A329 EGU2011-11163
 Nora Kummert, Eléonore Beckers, and **Aurore Degré**
 Erosion and rainfall erosivity under climate change: rainfall simulation and soil losses measurement at field scale

SSS7.1/EOS11 – New, original and successful ideas for teaching Earth Sciences / EOS (co-organized) – Orals

Convener: Artemi Cerdà | Co-Conveners: Elena Sparrow, Tim Stott, Vincent C H Tong, Joseph Liddicoat, Laura Cobden

Room: 6

Chairperson: Elena B. Sparrow and Laura Cobden

- 13:30–13:45 EGU2011-14116
Félix Ángel González Peñaloza
 Geographical Information Systems in Higher Education Studies in Spain. Challenges for a new generation of students after the Bologna Agreement
- 13:45–14:00 EGU2011-1136
Wolfgang Schlager
 Earth's layers and their cycles as a framework for teaching geosciences
- 14:00–14:15 EGU2011-1165
Alejandro Aguilar Sierra
 Visual Learning for Earth Sciences Education
- 14:15–14:30 EGU2011-13958
Vincent C H Tong
 Linking equations to scientific concepts in geosciences: A novel combined use of online polling and lecturing
- 14:30–14:45 EGU2011-13001
Joseph Liddicoat
 Issue-centered Earth Science undergraduate instruction in U.S. colleges and universities
- 14:45–15:00 EGU2011-13042
Erika Vye, William I. Rose, and Mark Klawiter
 Sense of place and partnering with the National Park Service - Innovative ideas for teaching Earth Science
- Chairperson: Vincent C. H. Tong and Joseph Liddicoat
- 15:30–15:45 EGU2011-9505
Elena B. Sparrow, Martha R. Kopplin, Leslie S. Gordon, Sheila Yule, Rebecca Boger, and Kim Morris
 Integrating Research in Earth System Science Education
- 15:45–16:00 EGU2011-5820
Aldo Zollo, Jean-Luc Berenguer, Antonella Bobbio, Francoise Courboux, Paul Denton, Stefano Solarino, and Anne Sornette Sauron
 The European experience of educational seismology
- 16:00–16:15 EGU2011-13949
Laura Cobden and Jeannot Trampert
 Incorporating scientific research into undergraduate courses: A hands-on approach
- 16:15–16:30 EGU2011-3782
Gillian Foulger
 The mantle plumes debate in the classroom
- 16:30–16:45 EGU2011-1244
Dolores Pereira, Luis Neves, Carlos González Neila, Marta Septien, and María Manteca
 Student's final year projects: an opportunity to link research and teaching
- 16:45–17:00 EGU2011-9263
Matteo Cattadori
 The I-CLEEN Project (Inquiring on CLimate & ENergy). Enhancing an enquiry-based approach to Earth System Science in Italian classrooms

SSS7.1/EOS11 – New, original and successful ideas for teaching Earth Sciences / EOS (co-organized) – Posters

Convener: Artemi Cerdà | Co-Conveners: Elena Sparrow, Tim Stott, Vincent C H Tong, Joseph Liddicoat, Laura Cobden

Hall Z | Display Time 08:00–17:00

Author in Attendance: 08:30–10:00

Chairperson: Artemi Cerdà

- Z85 EGU2011-312
Denis Zhilin
 Involving Pupils in Geoscientific Researches: Russian Experience
- Z86 EGU2011-1014
Artemi Cerdà and Félix Ángel González-Peñaloza
 Teaching Geography to young (ERASMUS) and old (NAUGRAN) students. Why not mix in the same class?
- Z87 EGU2011-1621
Nikolaus J. Kuhn
 Teaching with Tolkien: environmental analysis of a fantasy world
- Z88 EGU2011-1642
Matteo Cattadori and Fabio Florindo
 The seeds left in Italy by the educational program of the ANDRILL (Antarctic geological DRILLing) research

- Z89 EGU2011-2531
Constance Bornkampf, Jürgen Schmidt, Marcus Schindewolf, Stefan Bornkampf, Thomas Gründemann, and Anja Träber
 New 3D lenticular maps for teaching earth and environmental sciences
- Z90 EGU2011-4105
Mónica Alexandra Rodrigues, Maria Helena Pina, Ana Monteiro, and Alina-Mihaela Luchian
 Geography in the Physics Classroom - An Interdisciplinary Approach
- Z91 EGU2011-4887
Lucia Dias, Catarina Diniz, Claudia Corniciuc, Duarte Gomes, and Sofia Arvela
 Palynology at School
- Z92 EGU2011-4963
Jose Damian Ruiz Sinoga, Paloma Hueso Gonzalez, and Asunción Romero Diaz
 Experimental plot system for soil recovery in southern Spain.
- Z93 EGU2011-5304
Jeffrey Ryan
 Facilitating student education and professional development through intensive in-classroom investigations using remotely operable microbeam instrumentation
- Z94 EGU2011-6122
Rui Neves, Maria C. Neves, and Vítor Duarte Teodoro
 Improving Learning Processes in Meteorology with Computational Modelling
- Z95 EGU2011-6212
Jakob Abermann, Jay Fleisher, and William Dittrich
 The Juneau Ice Field Research and education program
- Z96 EGU2011-6874
 Alexander Cernusca, Federico Fillat, Daniel Gómez, Neil Bayfield, and **David Badía-Villas**
 Interdisciplinary field approach to teach Environmental Sciences. The biggest ecological gradient in S-Europe as scenario.
- Z97 EGU2011-12773
Jose Damian Ruiz Sinoga and Asuncion Romero Diaz
 Voracious urbanization as accelerator of soil degradation. (Spain South). Techniques for the assessment of soil degradation processes.
- Z98 EGU2011-13952
Vincent C H Tong
 Research seminars: pedagogical issues and solutions
- Z99 EGU2011-4510
Rachmat Sule, Eko J. Wahyudi, Wawan G. A. Kadir, Djoko Santoso, and Tri Hartono
 Learning Basic Geophysical Methods in a Mélange Geological Complex
- Z100 EGU2011-8464
Rosella Nave, Sandro de Vita, Mauro Antonio Di Vito, and Marcello Martini
 MOVE: the new Earth Sciences Museum of Vesuvius Observatory (Naples, Italy)
- Z101 EGU2011-8744
Jialin Lin
 The tropical biases in IPCC AR4 climate models
- Z102 EGU2011-10972
Giuliana D'Addezio, Antonella Marsili, Ingrid Hunstad, Pierfrancesco Burrato, Paolo Casale, Massimiliano Vallocchia, Umberto Fracassi, and Guido Ventura
 Seismic waves and acoustic waves: from earthquake to music
- Z104 EGU2011-11982
Rosella Nave, Marco Anzidei, Antonio Caramelli, Giovanni Coppini, Giuliana D'Addezio, Graziano Ferrari, Francesco Frugoni, Alessandra Maramai, Fabio Sansivero, and Stefano Solarino
 "Dynamic Mediterranean
- Z105 EGU2011-11145
 Kornelija Špoler ?ani?, **Dubravka Rasol**, Kristian Horvath, and Krešimir ?ani?
 Little meteorologist - workshop and booklet for pupils

