

EGU General Assembly 2012
Programme Group Programme
SSS – Soil System Sciences

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Monday, 23 April

BG4.1 – How interactions of recalcitrant and labile organic matter may drive carbon and nutrients balance in terrestrial and aquatic ecosystems (co-listed) – Posters

Convener: B. Guenet | Co-Conveners: T. J. Battin, M. Reichstein

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

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- BG64 EGU2012-7833
E. Blagodatskaya, N. Khomyakov, O. Myachina, S. Blagodatsky, and Y. Kuzyakov
 Three-source-partitioning of soil carbon pools and fluxes and priming effects induced by carbohydrates of different availability
- BG65 EGU2012-10236
K. Wagner, A. Sieczko, M. Bengtsson, N. Burns, E. Herberg, and T. Battin
 Extracellular enzyme activity assays (EEA) as a tool to investigate priming in freshwater biofilms
- BG66 EGU2012-12330
A. Bastianoni, J.V. Montoya, C. Mendez, and J. Paolini
 Dissolved organic carbon biodegradability from leaf litter leachates of riparian tropical trees
- BG67 EGU2012-12713
M. M. Bengtsson, K. Wagner, E. R. Herberg, N. R. Burns, W. Wanek, and T. J. Battin
 Interactions between recalcitrant and labile organic carbon in streams - Can stream biofilms mediate a priming effect?
- BG68 EGU2012-12750
N R Burns, J A Rosentreter, M M Bengtsson, K Wagner, E R Herberg, and T J Battin
 DOM transformations in stream biofilms shown by fluorescence spectroscopy
- BG69 EGU2012-13116
J.V. Montoya, A. Bastianoni, C. Mendez, and J. Paolini
 Evaluation of leaf litter leaching kinetics through commonly-used mathematical models

BG4.2 – Glacial retreat: implications for microbial ecology and biogeochemistry (co-listed) – Posters

Convener: T. J. Battin | Co-Conveners: A. Anesio, B. Sattler

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

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- BG70 EGU2012-9240
M. Meola, A. Lazzaro, and J. Zeyer
 Microbial diversity and biogeochemistry in glacier forefields: assessment of ecological stability in high alpine environments
- BG71 EGU2012-4858
L. Wilhelm, K. Besemer, G. Singer, and T. J. Battin
 Microbial biodiversity of the vanishing cryosphere in the Alps
- BG72 EGU2012-5156
C. Fasching, G. Singer, P. Steier, J. Niggemann, T. Dittmar, and T.J. Battin
 Ancient soil organic carbon in glaciers supports downstream metabolism in the European Alps
- BG73 EGU2012-7479
A.M. Anesio, J. Telling, M. Tranter, A. Hodson, J. Cook, M. Stibal, M. Yallop, G. Barker, C. Bellas, and J. Wadham
 Carbon and Nitrogen fixation at the surface of Glaciers and Ice Sheets
- BG74 EGU2012-11978
B. Frey
 Microbial diversity and activity along the forefield of a receding glacier
- BG75 EGU2012-13075
E. Hood, D. Scott, A. Vermilyea, A. Stubbins, P. Raymond, and R. Spencer
 Biogeochemistry of glacial runoff along the Gulf of Alaska
- BG76 EGU2012-13353
B. Sattler, M. Tilg, M. Storrie-Lombardi, D. Remias, and R. Psenner
 Laser Induced Fluorescence Emission (L.I.F.E.): In Situ Non-Destructive Detection of Microbial Life on Supraglacial Environments
- BG77 EGU2012-13852
M. Laghdass, J. Deloffre, R. Lafite, C. Hänni, B. Gillet, S. Cecillon, P. Simonet, and F. Petit
 Shift in prokaryotic diversity in Arctic sediment along a continuum Glacier -River - Fjord using massive 16S rRNA gene tag sequencing

CL1.15 – Temperature observations in the subsurface: contributions to climate sciences, soil sciences, permafrost, glaciology, hydrology, and heat flow studies (co-listed) – Orals

Convener: V. Rath | Co-Conveners: J. Noetzli, F. González-Rouco, J.S. Safanda

Room: 13

Chairperson: Jeanette Noetzli

- 08:30–08:45 EGU2012-9221
S. Gruber
 Decreasing sensitivity of permafrost temperature to environmental change challenges monitoring and data interpretation
- 08:45–09:00 EGU2012-7686
D. Kitover, H. Renssen, R. van Balen, J. Vandenberghe, and D.M. Roche
 Simulating permafrost evolution in Eurasia during the last deglaciation
- 09:00–09:15 EGU2012-3943
M. N. Gooseff, S. E. Godsey, J. E. Barrett, and A. Lewcowicz
 The Influence of Snow, Water Bodies, and Permafrost Degradation on Shallow Soil Energy and Hydrology in the Arctic and Antarctic
- 09:15–09:30 EGU2012-6375
S.C. Steele-Dunne, N. van de Giesen, J.H.A.M. Jansen, C. Hatch, J. Selker, S. Tyler, T. Ochsner, and M.H. Cosh
 Distributed Temperature Sensing as a tool for monitoring heat transfer processes in the shallow subsurface
- 09:30–09:45 EGU2012-795
A. Markert, S. Trinks, M. Facklam, and G. Wessolek
 A new method using evaporation for high-resolution measurements of soil thermal conductivity at changing water contents
- 09:45–10:00 EGU2012-1835
A. Rabinovich, G. Dagan, and T. Miloh
 Underground heat conduction near a spherical inhomogeneity: theory and applications

COFFEE BREAK

Chairperson: J.F. González Rouco

- 10:30–10:45 EGU2012-14423
V. Cermák
 Air - Ground - Bedrock Temperature Coupling, Its Monitoring at Borehole Climate Observatories
- 10:45–11:00 EGU2012-6252
J. Majorowicz, J. Šafanda, W. Gosnold, and M. Unsworth
 Subsurface temperature signature of a large Pleistocene - Holocene surface warming in the North Alberta, Canada
- 11:00–11:15 EGU2012-1423
F. Lucazeau and F. Rolandone
 Heat-Flow and Subsurface Temperature History in Eastern Senegal (West Africa)
- 11:15–11:30 EGU2012-13996
V. Bense
 Hydrogeological analysis using heat as a tracer in a variety of geological settings
- 11:30–11:45 EGU2012-12137
K. Zhu, P. Bayer, and P. Blum
 Urban heat fluxes in the subsurface of Cologne, Germany
- 11:45–12:00 EGU2012-13383
 M. Dłuzewski, **E. Zmudzka**, D. Woronko, and K. Biejał
 The influence of barchan shape on the moisture and temperature of the dune sand and the diversity of local climate

CL1.15 – Temperature observations in the subsurface: contributions to climate sciences, soil sciences, permafrost, glaciology, hydrology, and heat flow studies (co-listed) – Posters

Convener: V. Rath | Co-Conveners: J. Noetzli, F. González-Rouco, J.S. Safanda

Hall Z | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Jan Safanda

- Z67 EGU2012-4470
S. Schneider, M. Hoelzle, and C. Hauck
 Influence of subsurface heterogeneity on observed borehole temperatures at a mountain permafrost site in the Upper Engadine, Swiss Alps
- Z68 EGU2012-2859
P. Džurdek, J. Šafanda, and D. Rajver
 Detection and Quantification of Local Anthropogenic and Regional Climatic Transient Signals in Temperature Logs from Czechia and Slovenia
- Z69 EGU2012-7382
V. Cermák, J. Šafanda, P. Dedecek, and M. Kresl
 Round-Air Temperature Coupling: Results of Long-Term Temperature-Time Monitoring at the Experimental Borehole Site at Prague (The Czech Republic)
- Z70 EGU2012-6475
V. Rath
 GUMNET - A new subsurface observatory in the Guadarrama Mountains, Spain
- Z71 EGU2012-2754
V. Rath, J. E. Smerdon, J. F. González-Rouco, and H. Beltrami
 Which boreholes do we need to resolve the Common Era in borehole paleoclimatology?
- Z72 EGU2012-2870
G. Bouron, D. Mimoun, and D. Graillet
 Analysis of mechanisms and effects of snow-melting on the groundwater recharge downstream mountainous watershed in a climate-changing context. Example: the Lignon du Forez watershed, Massif Central, France.
- Z73 EGU2012-7609
 D. Demezhko, A. Kotlovanova, and **Yu. Khachay**
 Geothermal evidences of pre-industrial ground temperature changes in the Urals and Eastern Europe
- Z74 EGU2012-3707
N. Andrés, D. Palacios, J.J. Zamorano, C.E. Mendoza-Margáin, and L. Vázquez-Selem
 Ten years monitoring ground temperature at Iztaccíhuatl Volcano (México).
- Z75 EGU2012-3716
N. Andrés, D. Palacios, J.J. Zamorano, C.E. Mendoza-Margáin, and L. Vázquez-Selem
 Deglaciation, ground temperature and volcanic activity in Popocatepetl (México).
- Z76 EGU2012-6493
L.M. Tanarro, D. Palacios, A. Gómez-Ortiz, and F. Salvador-Franch
 Snow cover and ground surface temperature on a talus slope affected by mass movements. Veleta cirque, Sierra Nevada, Spain
- Z77 EGU2012-9346
A. Kellerer-Pirklbauer, G. Winkler, and M. Pauritsch
 Widespread evidences of hoarfrost formation at a rock glacier in the Seckauer Tauern, Austria
- Z78 EGU2012-11953
E. Santolaria and V. Rath
 Parametrizations of land-atmosphere energy and mass transfer: the role of the snow layer and the freeze/thaw cycle
- Z79 EGU2012-12336
M. B. Stevens, H. Beltrami, and J. F. Gonzalez-Rouco
 New metrics for permafrost model validation
- Z80 EGU2012-11182
 D. Mottaghy, **V. Rath**, and G. Schwamborn
 The influence short and long term climate changes on the temperature field at the Lake El'gygytyn site: results from borehole data and modelling
- Z81 EGU2012-3160
G. Matharoo, H. Beltrami, V. Rath, and L. Tarasov
 Effects of long-term history on borehole paleoclimatology
- Z82 EGU2012-12874
V. Rath, J. Alvarez-Solas, M. Montoya, and C. Ritz
 Can boreholes help to constrain the dynamics of the Laurentide ice sheet on the millennial time-scale during last glacial period?
- Z83 EGU2012-13109
J. Noetzli, P. Deline, M. Phillips, and A. von Poschinger
 Characteristics of the thermal regime in steep bedrock permafrost in the European Alps described by borehole temperatures and heat conduction modeling
- Z84 EGU2012-12981
M. Keuschnig, I. Hartmeyer, A. Schmidjell, and L. Schrott
 The adaptation of iButtons® for near-surface rock temperature and thermal offset measurements in a high alpine environment - Instrumentation and first results, Kitzsteinhorn (3203 m), Hohe Tauern, Austria

ERE1.1 – Energy, Resources & the Environment (co-listed) – Orals

Convener: M. Kühn | Co-Conveners: H. Held

Room: 19

Chairperson: n.n.

- 08:30–08:45 EGU2012-11733
A. Liebscher, M. Scheck-Wenderoth, and GeoEn Research Group
 GeoEn -Research on Geo-Energy
- 08:45–09:00 EGU2012-14063
A. Manzella, H. Milsch, B. Hahne, J.D. van Wees, and D. Bruhn
 Deep geothermal resources and energy: Current research and developments
- 09:00–09:15 EGU2012-10658
L. Basava-Reddi and A. Camps
 The Status, Potential and Research Progress of CO2 Storage Worldwide
- 09:15–09:30 EGU2012-2540
I.B Lambert
 How rich is Australia's minerals endowment and is it adequate to sustain a major role in meeting international demand?
- 09:30–09:45 EGU2012-4205
H Luick, A Niemann, E Perau, and U Schreiber
 Coalmines as Underground Pumped Storage Power Plants (UPP) - A Contribution to a Sustainable Energy Supply?
- 09:45–10:00 EGU2012-5681
M. Popp
 Ringwallspeicher - a geotechnical option for large storage capacities

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2012-11706
C. A. Gueymard
 A globally calibrated aerosol optical depth gridded dataset for improved solar irradiance predictions
- 10:45–11:00 EGU2012-434
M. Castelli, M. Petitta, and E. Emili
 Solar energy assessment in the Alpine area: satellite data and ground instruments integration for studying the radiative forcing of aerosols.
- 11:00–11:15 EGU2012-6430
G. Glatzel
 Liquid biofuels - can they meet our expectations?
- 11:15–11:30 EGU2012-7399
R. Prikryl, S. Siegesmund, A. Török, P. Brimblecombe, and M. Gomez-Heras
 Construction materials, monuments and environment
- 11:30–11:45 EGU2012-14237
S. Parey, P. Bernardara, and M.G. Donat
 Climate change impact on economical and industrial activities
- 11:45–12:00 EGU2012-8741
N. Ranger and S. Surminski
 The impact of climate change on the BRICS economies: The case of insurance demand.

ERE1.1 – Energy, Resources & the Environment (co-listed) – Posters

Convener: M. Kühn | Co-Conveners: H. Held

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XL1 EGU2012-4992
J. Ballabrera, A. Garcia-Olivares, E. Garcia-Ladona, and A. Turiel
 A global renewable mix with proven technologies and common materials
- XL2 EGU2012-1781
N. Nakaten, T. Kempka, M. Green, A. Preshelkova, D. Merachev, R. Schlüter, and R. Azzam
 Development of a technical-economic model for dynamic calculation of COE, energy demand and CO2 emissions of an integrated UCG-CCS process

- XL3 EGU2012-1141
A. Ribotti, M. Borghini, A. Cucco, E. De Domenico, V. Dibenedetto, L. Fazioli, L. Genovese, G. Iaria, A. Olita, F. Raffa, K. Schroeder, R. Sorgente, and N. Spanò
PRIAMO project: a feasibility study on Sicilian sites for sea power plants in coastal waters
- XL4 EGU2012-7091
G. Zodiatis, G. Galanis, D. Hayes, A. Nikolaidis, C. Kalogeri, A. Adam, G. Kallos, and G. Georgiou
Near Shore Wave Modeling and applications to wave energy estimation
- XL5 EGU2012-13853
B. Psiloglou, **C. Giannakopoulos**, A. Dagoumas, and K. Skourtis
Energy consumption and temperature correlations for 4 Greek Ionian Sea islands
- XL6 EGU2012-2658
C. Demain, M. Journée, and **C. Bertrand**
Evaluation of different models to estimate the global solar radiation on inclined surface
- XL7 EGU2012-2664
M. Journée, **C. Demain**, R. Müller, and C. Bertrand
Towards a climatology of surface incoming solar radiation over the Benelux by merging long time series of Meteosat-derived estimations and ground-based measurements
- XL8 EGU2012-6840
R. Davy and **A. Troccoli**
Interannual variability of solar energy generation in Australia
- XL9 EGU2012-1761
M. Cony, J. Polo, L. Martin, A. Navarro, and I. Serra
Analysis of Solar Irradiation Anomalies in Long Term Over India
- XL10 EGU2012-9421
M. Cony, **L. Singal**, L. Martin, and J. Polo
Modeling of Solar Resource from VIS Images of Meteosat First Generation over India
- XL11 EGU2012-12808
J. Badosa, M. Haeffelin, and N. Kalecinski
Solar radiation temporal and spatial variability and correlations with trade wind characteristics over Reunion Island (21S, 55.5E)
- XL12 EGU2012-7188
J.-B. Jee, S.-H. Jeon, Y.-J. Choi, and K.-T. Lee
Development of Solar Resources Map using Satellites and Numerical Prediction Data on Korean Peninsula
- XL13 EGU2012-10076
Ö. Bilgin
Turkey's High Temperature Geothermal Energy Resources and Electricity Production Potential
- XL14 EGU2012-9678
D. E. Bruno, S. D'Arpa, N. Lopez, A. Galgaro, E. Destro, S. Chiesa, and V. F. Uricchio
A parametric model for geothermal potential assessment on a regional scale
- XL15 EGU2012-7477
D. Bertermann, **H. Klug**, L. Morper-Busch, C. Bialas, and J. Rohn
ThermoMap - Spatial mapping of superficial geothermal energy resources using WebGIS for information distribution
- XL16 EGU2012-6374
R. Garcia-Gonzalez, **A. Verhoef**, P.L. Vidale, G. Gan, A. Chong, and D. Clark
Estimating the CO2 mitigation potential of horizontal Ground Source Heat Pumps in the UK
- XL17 EGU2012-8427
A. JesuBek, A. Westphal, C. Berlin, H. Würdemann, and A. Dahmke
Acceptance of Subsurface Heat Storage in Germany - Assessing the Impacts on Ground Water Quality
- XL18 EGU2012-4666
S. Jaber, K. Ibrahim, and M. Al-Muhtaseb
Phosphate Resources Estimation Using Kriging and Geographic Information Systems
- XL19 EGU2012-2544
I.B Lambert
Global Uranium And Thorium Resources: Are They Adequate To Satisfy Demand Over The Next Half Century?
- XL20 EGU2012-2231
K. Voit, K. Bergmeister, and I. Janotka
Reducing CO2-Emission by using Eco-Cements
- XL21 EGU2012-1779
B. Marker
Regulation of dust from minerals operations in England
- XL22 EGU2012-784
F. Mandija and F. Vila
Dust resuspension characteristics over several quarries of limestone

- XL23 EGU2012-3061
G. Walton and H. Datson
Dust sampling developments using sticky pads
- XL24 EGU2012-1100
S. M. B. Bittar, P. V. Straaten, M. de Fatima de Araujo Vieira Santos, Y. J. Agra Bezerra da Silva, M. da Silva, T. Saraiva de Melo Pinheiro, F. Gusmao Didier de Moraes, A. M. de Aguiar Accioly, S. R. Alves de Santana, H. A. dos Santos, D. M. de Carvalho, G. de Lima Ferreira, and C. de Carvalho Santos
Reforestation and landscape reconstruction in gypsum mine area from the semiarid region of NE Brazil
- XL25 EGU2012-45
K. Murray and C. Peterman
Soil Contamination as a Legacy of the U.S. Auto Industry, Southwest Detroit, Michigan USA
- XL26 EGU2012-5171
M. Noah, A. Vieth-Hillebrand, and H. Wilkes
Advanced characterisation of organic matter in oil sands and tailings sands used for land reclamation by Fourier transform-ion cyclotron resonance-mass spectrometry (FT-ICR-MS)
- XL27 EGU2012-7980
S. Delvoie, J.-P. Radu, I. Ruthy, and R. Charlier
Engineering geological mapping in Wallonia (Belgium) : present state and recent computerized approach
- XL28 EGU2012-1640
M. Lappé and J. Kallmeyer
A cell extraction method for oily sediments
- XL29 EGU2012-3628
M. Kaufman, D. Rogers, and K. Murray
Integrating Data from Geological Investigations into Urban Watershed Restoration Efforts
- XL30 EGU2012-4570
A. Pape, C. Knapp, and C. Switzer
The Impacts of Thermal and Smouldering Remediation on Soil Properties Related to Rehabilitation and Plant Growth
- XL31 EGU2012-13153
A Garcia Cantu Ros, S. Kriewald, D Rybski, and J P Kropp
Food security, growth and spatial organization of urban areas: a global perspective
- XL32 EGU2012-9287
A. Damm, J. Köberl, F. Prettenhaler, and C. Töglhofer
Economic Impacts of Climate Change on Winter Tourism: Challenges for Ski Area Operators
- XL33 EGU2012-10159
A. Bauwens, C. Sohler, D. Deraedt, and A. Degré
How could Mosan agriculture be impacted by climate change and future droughts ?
- XL34 EGU2012-10773
P. Brigode, P. Bernardara, E. Paquet, F. Garavaglia, J. Gailhard, and P. Ribstein
Prediction of future hydrological hazard via the SCHADEX method
- XL35 EGU2012-1538
J. Napieralski, K. Murray, G. Luera, K. Thomas Brown, and L. Reynolds Keefer
Broadening Diversity in the Geosciences through Teacher-Student Workshops that Emphasizes Community-Based Research Projects

HS1.3 – Metrics, measures and objective functions in Hydrology' (co-listed) – Orals

Convener: U. Ehret | Co-Conveners: E. Zehe, H. Gupta, C. Perrin, Simon Seibert, D. E. Reusser

Room: 39

Chairperson: H. Gupta, U. Ehret

- 08:30–08:45 EGU2012-3809
G. Evin, M. Thyer, D. Kavetski, and G. Kuczera
A flow-regime based diagnostic approach to residual error modelling
- 08:45–09:00 EGU2012-14088
D.E. Reusser, T. Gräff, and D. Kneis
Model comparison using the finger print approach
- 09:00–09:15 EGU2012-1834
S. Gharari, M. Hrachowitz, F. Fenicia, and H. H. G. Savenije
Calibration validation revisited or how to make better use of available data: Sub-period calibration
- 09:15–09:30 EGU2012-14115
H Lange
The hunt for deterministic structures in noisy hydrological data
- 09:30–09:45 EGU2012-2767
G. Lischeid, T. Hohenbrink, and U. Schindler
A metrics for soil hydrological processes and their intrinsic dimensionality in heterogeneous systems

09:45–10:00 EGU2012-10597

G. Nearing and H. Gupta

An OSSE Approach to Evaluating the Utility of Data Assimilation

HS1.3 – Metrics, measures and objective functions in Hydrology' (co-listed) – Posters

Convener: U. Ehret | Co-Conveners: E. Zehe, H. Gupta, C. Perrin, Simon Seibert, D. E. Reusser

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: C. Perrin, S. Seibert, D. Reusser

A61 EGU2012-14095

L Crochemore, **C Perrin**, and V Andréassian

Linking numerical criteria and expert judgement: results from the Melbourne's experiment

A62 EGU2012-8034

S.V. Weijs, N. van de Giesen, and M.B. Parlange

Description length as a performance metric for explaining hydrological data

A63 EGU2012-237

J. Nossent and W. Bauwens

Application of a normalized Nash-Sutcliffe efficiency to improve the accuracy of the Sobol' sensitivity analysis of a hydrological model

A64 EGU2012-11549

M. Zambrano-Bigiarini and A. Bellin

Comparing Goodness-of-fit Measures for Calibration of Models Focused on Extreme Events

A65 EGU2012-6782

W. Gong, H.V. Gupta, and D.W. Yang

Estimating Best Achievable Performance Using an Information Theoretic Approach

A66 EGU2012-12354

C. Massmann and H. Holzmann

Analysing goodness of fit measures using a sensitivity based approach

A67 EGU2012-4661

P.J. Smith and K. Beven

Hydrological Similarity and Consistently Wrong models

A68 EGU2012-3493

K. Beven, P. J. Smith, and J. Davies

How to define limits of acceptability

A69 EGU2012-10888

Y. van der Velde, S.E.A.T.M van der Zee, P.J.J.F. Torfs, and R. Uijlenhoet

Quantifying mixing of water within catchments.

A70 EGU2012-5924

SP Seibert and U Ehret

Detection of flood events in hydrological discharge time series

A71 EGU2012-11007

H. Xu

Testing the influence of rain gauges' density and distribution on hydrological modeling results, a case study of Xiangjiang River basin

A72 EGU2012-12343

M. Stefouli, **E. Charou**, E. Vasileiou, N. Stathopoulos, and A. Perrakis

Monitoring Reservoirs Using MERIS And LANDSAT Fused Images : A Case Study Of Polyfitos Reservoir - West Macedonia - Greece

A73 EGU2012-3328

G. Pryahina, E. Zelepukina, and N. Guzel

Run-off regime of the small rivers in mountain landscapes (on an example of the mountain "Mongun-taiga

A74 EGU2012-669

H. C. Yang and C. J. Chiang

The Comparison of Wading Measurement Discharge between ADC and FP111 in Shallow Flow

SSS1.4 – Urban soils and the urbanization impacts – Orals

Convener: Prof Pariente | Co-Conveners: T. Nehls, J.-L. Morel, C. SCHWARTZ, A. Ferreira, T. Steenhuis, R. Walsh

Room: 22

Chairperson: Sarah P., Nehls T., Steenhuis T.

13:30–13:45 EGU2012-647

L. Jean-Soro

Evolution of platinum concentration in soil and sediment from urban environment

- 13:45–14:00 EGU2012-1535
R. van de Graaff
 The role of regolith and soil development with respect to assessing heavy metal contamination in urban soils with particular reference to iron.
- 14:00–14:15 EGU2012-1849
J. Amossé, C. Le Bayon, E.A.D. Mitchell, and J.M. Gobat
 Bioindication in Urban Soils in Switzerland
- 14:15–14:30 EGU2012-3351
V. I. Vasenev and J.J. Stoorvogel
 How to map soil carbon stocks in highly urbanized regions?
- 14:30–14:45 EGU2012-7720
A. Oz, P. Sarah, and H. Zhevelev
 Soil properties in urban parks and city population in Tel Aviv-Jaffa: Mutual effects
- 14:45–15:00 EGU2012-14165
R.L. Pato, C. Dias-Ferreira, A.O. Tavares, and M.C. Magalhães
 Evaluation of Historical Industrial Pollution in urban sediments

SSS1.4 – Urban soils and the urbanization impacts – Posters

Convener: Prof Pariente | Co-Conveners: T. Nehls, J.-L. Morel, C. SCHWARTZ, A. Ferreira, T. Steenhuis, R. Walsh

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Schwartz C., Walsh R., Morel J.-L., Ferreira A.

- XY535 EGU2012-1001
C.S.S. Ferreira, D. Soares, A.J.D. Ferreira, M.L. Costa, T.S. Steenhuis, C.O.A. Coelho, and R.P.D. Walsh
 Urban areas impact on surface water quality during rainfall events
- XY536 EGU2012-4762
D. Zacháry, Gy. Jordán, and Cs. Szabó
 Geochemical study of urban soils in public areas of an industrialized town (Ajka, western Hungary)
- XY537 EGU2012-6846
P.Y Liao, C.W Liu, and W.Y Liu
 Evaluate the Application of TPH test kits to Identify the Potential Contaminants in Gas Stations
- XY538 EGU2012-8887
 J.. Duffy and **R.P.D. Walsh**
 River pollution dynamics in a post-industrial urban catchment in Swansea, South Wales
- XY539 EGU2012-9560
A. Bidló, P. Szűcs, A. Horváth, O. Kámán, and E. Németh
 Soil investigation in cities of West Hungary
- XY540 EGU2012-14044
 N. Salifou, G. Séré, F Watteau, V Casel, J Cortet, and **C Schwartz**
 Evolution of the poral structure of a constructed Technosol during its early pedogenesis
- XY541 EGU2012-14036
T. Nehls, S. Rokia, B. Mekiffer, and G. Wessolek
 Bricks in urban soils
- XY542 EGU2012-816
T. Nehls, Y.N. Rim, and G. Wessolek
 A process based run-off model for paved urban soils
- XY543 EGU2012-998
C.S.S. Ferreira, T.S. Steenhuis, D. Soares, A.J.D. Ferreira, C.O.A. Coelho, R.P.D. Walsh, and J.L.M.P. de Lima
 Hydrological changes in a Mediterranean urbanizing catchment
- XY544 EGU2012-7480
J.-P. Bedell, S. Saulais, and C. Delolme
 Zinc, cadmium, and copper mobility and accumulation in reeds (*Phragmites australis*) in urban sediments from two stormwater infiltration basins
- XY545 EGU2012-7613
H. Zhevelev and P. Sarah
 Heterogeneity as an index of anthropogenic disturbance of soil and vegetation in urban Parks
- XY546 EGU2012-8186
J. Kim, H. S. Kim, and J. W. Kim
 Properties of 21 Urban Agricultural Soils in Seoul, Korea
- XY547 EGU2012-10476
M. Sager, H.T. Chon, and L. Marton
 About contaminant element composition of roadside dust samples from Budapest and Seoul, including Pt and Pd

- XY548 EGU2012-13846
C. Schwartz, E.D. Chenot, J. Cortet, F. Douay, C. Dumat, C. Pernin, and B. Pourrut
 A strategy for the survey of urban garden soils
- XY549 EGU2012-13965
R. Souissi, M. Munoz, F. Souissi, P. Courjault-Radé, and A. Ben Mammou
 Study of contaminated soils of the abandoned Pb, Zn, Cd Jebel Ressas mine tailings (North eastern Tunisia)
- XY550 EGU2012-13966
M.A. Othmani, F. Soussi, E. Ferreira da Silva, A. Moussi, W. Oueslati, and R. Jebali
 Distribution and speciation of metals in soils of the former mining district of Touiref (Northwest Tunisia)
- XY551 EGU2012-14163
F.A. Swartjes and P.F. Otte
 Integrated groundwater quality management in urban areas
- XY552 EGU2012-13964
 G. Daldoul, **R. Soussi**, F. Soussi, and A. Boularbah
 Agricultural land contamination by heavy metals around the former mining site of Bechateur (northern Tunisia)

SSS2.1 – Nanosized iron oxides in soils: agronomic, environmental and palaeoenvironmental significance (including Philippe Duchaufour Medal Lecture) – Orals

Convener: J. Torrent | Co-Conveners: S. Kraemer, Gomez

Room: 3

Chairperson: José A. Gómez

- 10:30–11:30 EGU2012-14461
J. Torrent
 Iron oxides as pedoenvironmental indicators: state of the art, answers and questions (Philippe Duchaufour Medal Lecture)
- 11:30–11:45 EGU2012-1109
T. Mansfeldt and S. Schuth
 Iron oxide mineralogy and stable iron isotope composition in a Gleysol with petrogleyic properties
- 11:45–12:00 EGU2012-6039
J. Braunschweig, J. Bosch, A. Fritzsche, K. U. Totsche, and R. U. Meckenstock
 Colloid generation from ferrihydrite macroaggregates by organic compounds enhances microbial reduction rates

SSS2.1 – Nanosized iron oxides in soils: agronomic, environmental and palaeoenvironmental significance (including Philippe Duchaufour Medal Lecture) – Posters

Convener: J. Torrent | Co-Conveners: S. Kraemer, Gomez

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: José Torrent/Stephan Kraemer

- XY553 EGU2012-3400
P. Nørnberg, K. Finster, H.P. Gunnlaugsson, S.K. Jensen, J.P. Merrison, and A.L. Vendelboe
 Transformation of goethite/ferrihydrite to hematite and maghemite under temperate humid conditions in Denmark
- XY554 EGU2012-2300
V. Barrón, F.M. Michel, Q. Liu, C.B. Koch, and J. Torrent
 Effects of Al(III) on the ferrihydrite - ordered ferrimagnetic ferrihydrite - hematite transformation
- XY555 EGU2012-4724
M. Wan, C. Schröder, and S. Peiffer
 Mössbauer evidence of rapid pyrite formation during the interaction of dissolved sulfide and lepidocrocite
- XY556 EGU2012-7259
E. Neubauer, W. D. C. Schenkeveld, F. v. D. Kammer, S. M. Kraemer, and T. Hofmann
 Influence of pH on mobilization and formation of iron-dominated colloids in podzol
- XY557 EGU2012-8289
D. Jordanova, N. Jordanova, P. Petrov, and E. Petrovsky
 Pedogenic iron oxides in two Luvisols from Bulgaria, developed under continental Mediterranean climate
- XY558 EGU2012-6171
L. Camargo and J. Marques JR.
 Clay mineralogy in different geomorphic surfaces in sugarcane areas
- XY559 EGU2012-8855
I Díaz, MC del Campillo, V Barrón, and A Delgado
 Iron oxides in eroded sediments from two representative catchments from South Spain: an example of its environmental implications

- XY560 EGU2012-8396
F. Yunta, **J.J Lucena**, and E. Smolders
Carbonate component reduces o,oEDDHA/Fe sorption on two-line ferrihydrite
- XY561 EGU2012-6312
I. Sánchez-Alcalá, M.C. del Campillo, V. Barrón, and J. Torrent
Nanosiderite is effective to alleviate iron chlorosis in sensitive plants growing on calcareous soils
- XY562 EGU2012-3789
A.R. Sánchez-Rodríguez, M.C. del Campillo, V. Barrón, and J. Torrent
Effect of phosphate fertilization on the bioavailability of iron in calcareous soils
- XY563 EGU2012-4064
G. Guzmán, J.C. Cañasveras, V. Barrón, and J.A. Gómez
Incorporation and measurement of synthetic nanosized iron oxides into soil profile for innovative agricultural applications
- XY564 EGU2012-4454
I. Díaz, **A. Delgado**, A. de Santiago, M.C. del Campillo, and J. Torrent
Iron deficiency chlorosis in plants as related to Fe sources in soil

SSS3.4/BG2.26/OS3.5 – Stabilization of organic matter in soils, sediments and marine dissolved organic matter (co-organized) – Orals

Convener: S. Abiven | Co-Conveners: T. Dittmar, M. W. I. Schmidt

Room: 3

Chairperson: Samuel Abiven

- 13:30–13:45 EGU2012-818
C.A. Masiello, B. Dugan, K. Zygourakis, H. Gonnermann, Z. Liu, K.L. Ziegelgruber, and V.J. Chuang
Physical controls on organic matter stability
- 13:45–14:00 EGU2012-13952
K. Wolf, R. Bol, J.A.J. Dungait, L. Dixon, D. Dhanoa, D. Beaumont, and G.L.B. Wiesenberger
Long term drainage alters plant biodiversity and soil C- and N-storage
- 14:00–14:15 EGU2012-9482
A. Miltner, R. Kindler, J. Achtenhagen, K. Nowak, C. Girardi, and M. Kästner
Stabilization of microbial biomass in soils: Implications for SOM formation and xenobiotics degradation
- 14:15–14:30 EGU2012-5586
L. Tranvik, C. Gudas, B. Koehler, and D. Kothawala
Inland water transformation and stabilization of terrestrial organic carbon during transport from soil to sea
- 14:30–14:45 EGU2012-5819
B. Jansen, J.M. Van Mourik, A. De Vreng, and K. Kalbitz
Carbon cycling in polycyclic driftsand sequences
- 14:45–15:00 EGU2012-10263
J Niggemann, G Gerdts, and T Dittmar
Molecular-level dynamics of refractory dissolved organic matter

SSS3.4/BG2.26/OS3.5 – Stabilization of organic matter in soils, sediments and marine dissolved organic matter (co-organized) – Posters

Convener: S. Abiven | Co-Conveners: T. Dittmar, M. W. I. Schmidt

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY565 EGU2012-20
P. Rovira, L. Lopez-Sangil, and V.R. Vallejo
Organic matter stabilization in mediterranean forest soils: interaction with fine mineral matter
- XY566 EGU2012-180
F. Sakellariadou
Studies of the DOM aqueous extracts from coastal marine sediments
- XY567 EGU2012-475
Y. H. Xiao, T. Sara-aho, and A. V. Vähätalo
Contribution of ferric iron to the absorption by chromophoric dissolved matter
- XY568 EGU2012-2202
M. Moriizumi and T. Mutsunaga
Temporal change in molecular weight distribution of hot-water extractable organic nitrogen from cattle manure compost buried in soil using high-performance size exclusion chromatography with chemiluminescent nitrogen detection

- XY569 EGU2012-4805
Z. Y. Zhu, J. Zhang, Y. Wu, and L. Shao
Particulate organic matter in the northwest East China Sea: Implications from amino acids enantiomers
- XY570 EGU2012-5961
T. Dittmar, B. Blasius, C. Steinbrink, C. Feenders, M. Stumm, J. Christoffers, J. Niggemann, G. Gerdt, H. Osterholz, M. Seibt, M. Seidel, and A. Vähätalo
Universal molecular features of refractory dissolved organic matter in fresh- and seawater
- XY571 EGU2012-6407
P. Barré, L. Cécillon, A.F. Plante, C. Chenu, B.T. Christensen, J.M. Fernandez, C.M. Gherardi, S. Houot, T. Kätterer, F. van Oort, C. Peltre, and P.R. Poulton
Evolution of soil organic matter energetic and chemical composition during long-term bare fallow: implications for soil carbon vulnerability to global change
- XY572 EGU2012-6932
O. Vishnyakova, G. Chimitdorzhieva, and D. Andreeva
Composition of Humic Acids of the Lake Baikal Sediments
- XY573 EGU2012-8718
T. Tesi, M.A. Goñi, L. Langone, R.A. Wheatcroft, S. Miserocchi, and L. Bertotti
Early diagenesis of recently deposited organic matter: a 9-yr time-series study of a flood deposit
- XY574 EGU2012-10275
M.-A. Courty
Nature and origin of the resistant carbonaceous polymorphs involved the fossilization of biogenic soil-aggregates
- XY575 EGU2012-10727
H. Abdelrahman, D. Olk, C. Cocozza, and T. Miano
Fractionation and characterization of soil organic carbon during transition to organic farming
- XY576 EGU2012-12016
H. Throckmorton, J. Bird, L. Dane, M. Firestone, and W. Horwath
Stabilization of diverse microbial residues in California and Puerto Rico Forest Soils
- XY577 EGU2012-12076
G. de Dato, A. Lagomarsino, R. Abou Jaoudé, and P. De Angelis
Soil carbon sequestration and mineralization potential in an old-field revegetated with shrubs in semi-arid climate conditions
- XY578 EGU2012-12595
N. Hertkorn, M. Harir, B. P. Koch, B. Michalke, P. Grill, and P. Schmitt-Kopplin
High field NMR Spectroscopy and FTICR Mass Spectrometry: Powerful Discovery Tools for the Characterization of Marine Dissolved Organic Matter
- XY579 EGU2012-13281
H. Chmiel, J. Kokic, J. Niggemann, T. Dittmar, and S. Sobek
Organic carbon accumulation and reactivity in central Swedish lakes during the Holocene
- XY580 EGU2012-13951
S. Abiven, J. Fuchser, M.W.I. Schmidt, and T. Dittmar
Molecular characterisation of soil organic matter by laser-desorption ionization Fourier-transform ion cyclotron resonance mass spectrometry (LDI-FT-ICR-MS)
- XY581 EGU2012-14072
M. Seidel, T. Riedel, H. Waska, I G. N. A. Suryaputra, M. Beck, and **T. Dittmar**
Sinks and sources of dissolved organic matter in permeable sediments of the coastal North Sea
- XY582 EGU2012-14159
M.S. Studer, S. Abiven, M.W.I. Schmidt, and R.T.W. Siegwolf
How to trace organic matter input by living plants into and within the soil?

SSS5.20 – Understanding Fire Phenomena in the Earth System Using Interdisciplinary Approaches – Orals

Convener: C. M. Belcher | Co-Conveners: G. Rein, N. Tessler, C. Chafer, A. C. Scott

Room: 22

Chairperson: Claire M. Belcher, Guillermo Rein, Andrew C. Scott

- 15:30–15:45 EGU2012-5864
E. Planas and E. Pastor
Fuel, wildfire danger and behaviour modelling: state of the art and medium-term prospects
- 15:45–16:00 EGU2012-9757
S. Turquety, A. Anav, L. Menut, P. Drobinski, P. Messina, B. Bessagnet, and S. Stromatas
Fire emissions in the Euro-Mediterranean area: variability and impact on air quality
- 16:00–16:15 EGU2012-129
G. Rein
Smouldering Fires in the Earth System

- 16:15–16:30 EGU2012-8118
C. M. Belcher
 Experimental Approaches to Understanding Ancient Ecosystems Flammability
- 16:30–16:45 EGU2012-1028
V.A Hudspith, A.C Scott, and M.E Collinson
 Temporal variability in charcoal distribution in Permian coal: Implications for interpreting palaeowildfire history
- 16:45–17:00 EGU2012-12930
T. M. Lenton
 Fires and the rise and regulation of atmospheric oxygen

SSS5.20 – Understanding Fire Phenomena in the Earth System Using Interdisciplinary Approaches – Posters

Convener: C. M. Belcher | Co-Conveners: G. Rein, N. Tessler, C. Chafer, A. C. Scott

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Claire M. Belcher, Guillermo Rein, Andrew C. Scott

- XY583 EGU2012-14132
R. Hadden and G Rein
 Laboratory study of smouldering peat fires: dynamics and emissions
- XY584 EGU2012-14130
E Pastor, D Tarragó, and E Planas
 New tendencies in wildland fire simulation for understanding fire phenomena: An overview of the WFDS system capabilities in Mediterranean ecosystems
- XY585 EGU2012-12813
 J.C. Thomas, **A. Simeoni**, F. Colella, and J.L. Torero
 Piloted Ignition Regimes of Wildland Fuel Beds
- XY586 EGU2012-5906
S. Pueyo
 Complex systems approach to fire dynamics and climate change impacts
- XY587 EGU2012-7762
S. Gonzi, P. I. Palmer, L. Feng, R. Paugam, and M. Wooster
 Using fire radiative power (FRP) observations to describe the vertical transport of wildfire emissions: impacts on atmospheric pollutant transport and inferred flux estimates
- XY588 EGU2012-3332
A. Bastos, C. M. Gouveia, C. C. DaCamara, and R. M. Trigo
 Post-fire vegetation behaviour in large burnt scars from 2005 fire season in Spain
- XY589 EGU2012-12537
PL Ascough, E Tilston, and M Garnett
 Assessing the mineralisation of charcoal carbon in temperate soils
- XY590 EGU2012-2296
J. Heath, C. Chafer, T. Bishop, and F. Van Ogtrop
 Ten years post-wildfire recovery and health of Eucalypt forests and woodland in the Sydney Basin, Australia, using remotely sensed vegetation indices
- XY591 EGU2012-3778
E.U. Hobley, G.R. Willgoose, S Frisia, and G Jacobsen
 Chemical changes in soil charcoal of differing ages inferred from DRIFT spectra
- XY592 EGU2012-4618
A. C. Scott, M. Hardiman, N. Pinter, and R.S Anderson
 Charcoal as evidence of fire regimes in the Pleistocene of the California Islands
- XY593 EGU2012-11366
 B.I. Magi, **S. Rabin**, E. Shevliakova, and S. Pacala
 A data-based method to determine the regional impact of agriculture on fire seasonality
- XY594 EGU2012-12152
A. Simeoni
 Experimental understanding of wildland fires
- XY595 EGU2012-13092
A. C. Scott and I.J. Glasspool
 The uses of charcoal to reconstruct fire history in deep time.

NH7.3/AS4.3/BG2.25/ESS1.8/NP4.6/SSS5.24 – Spatial and temporal patterns of wildfires: models, theory, and reality (co-organized) – Orals

Convener: M.G. Pereira | Co-Conveners: R. Trigo, A. Camia, M. Penning de Vries, Dr Clarisse, L Boschetti

Room: D

Chairperson: n.n.

- 08:30–08:45 EGU2012-1162
C. D. Vega Orozco, M. Kanevski, J. Golay, M. Tonini, and M. Conedera
Multifractal analysis of forest fires in complex regions
- 08:45–09:00 EGU2012-2092
M. Kanevski, A. Champendal, C. Vega Orozco, M. Tonini, and M. Conedera
A new concept of wildland-urban interface based on city clustering algorithm
- 09:00–09:15 EGU2012-6519
T. Penman, **R. Bradstock**, G. Caccamo, and O. Price
Developing a probabilistic fire risk model and its application to fire danger systems
- 09:15–09:30 EGU2012-11497
D. Oom, I. Bistinas, A. C. L. Sa, and J.M.C. Pereira
Continental spatial non-stationarity of fire-human relationship using GWR
- 09:30–09:45 EGU2012-13822
M. Long, A. Ganteaume, M. Jappiot, G. Andrienko, and N. Andrienko
Analysis of fire causes spatial and temporal distribution in France
- 09:45–10:00 EGU2012-12008
Y. Zhang, D. Obrist, B. Zielinska, and A. Gerler
Emissions of carbon species, organic polar compounds, potassium, and mercury from prescribed burning activities

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2012-3335
A. Bastos, C. M. Gouveia, R. M. Trigo, and C. C. DaCamara
Vegetation recovery assessment following large wildfires in the Mediterranean Basin
- 10:45–11:00 EGU2012-13785
T. Brown, C. Kolden, and J. Abatzoglou
Assessing fuels treatments in the context of climate change
- 11:00–11:15 EGU2012-12648
T. Calheiros, M.G. Pereira, T.J. Calado, C.C. Dacamara, and J.G. Pinto
Potential effects of regional climate change on rural fires over Europe
- 11:15–11:30 EGU2012-3852
R. Bradstock, M. Boer, T. Penman, and O. Price
Divergent responses of fire to recent climate change: evidence from bio-regional patterns across south-eastern Australia
- 11:30–11:45 EGU2012-1967
D. Cane, C. Wastl, S. Barbarino, L. Renier, C. Schunk, and A. Menzel
Evaluation of fire potential in the climatic scenario: an Alpine area perspective
- 11:45–12:00 EGU2012-7340
A. Shvidenko and D. Schepaschenko
Wildfire in Northern Eurasia and climate change
- Chairperson: n.n.
- 15:30–15:45 EGU2012-3173
I. Csaszar, W. Schroeder, L. Giglio, E. Ellicott, and C.O. Justice
A comparison of remote sensing of active fires from MODIS and VIIRS
- 15:45–16:00 EGU2012-11107
G. Ruecker, E. Lorenz, A.A. Hoffmann, D. Oertel, and J. Tiemann
A mission concept for a dedicated Fire Monitoring Constellation of small satellites based on the BIRD heritage
- 16:00–16:15 EGU2012-12485
C. C. DaCamara, R. Libonati, A. Barros, G. Gaspar, and T. J. Calado
Using MODIS imagery to assign dates to maps of burn scars in Portugal
- 16:15–16:30 EGU2012-8366
r. Paugam, m. Wooster, s. Freitas, s. Gonzi, and p. Palmer
Parameterization of Fire Injection Height in Large Scale Transport Model

- 16:30–16:45 EGU2012-9558
E. Athanasopoulou, C. Giannakopoulos, H. Vogel, D. Rieger, C. Knote, M. Hatzaki, B. Vogel, and A. Karali
 Fire risk and air pollution assessment during the 2007 wildfire events in Greece using the COSMO-ART atmospheric model
- 16:45–17:00 EGU2012-10521
J.W. Kaiser, A. Benedetti, R. Detmers, A. Heil, J.-J. Morcrette, M.G. Schultz, G.R. van der Werf, M.J. Wooster, and W. Xu
 Assimilation of FRP Observations for Global Fire Emission Estimation in MACC-II

NH7.3/AS4.3/BG2.25/ESSI1.8/NP4.6/SSS5.24 – Spatial and temporal patterns of wildfires: models, theory, and reality (co-organized) – Posters

Convener: M.G. Pereira | Co-Conveners: R. Trigo, A. Camia, M. Penning de Vries, Dr Clarisse, L Boschetti

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY281 EGU2012-14135
 N.J. Gonçalves, **M.G. Pereira**, P. Fernandes, C. Loureiro, C.C. DaCamara, and M.T. Calado
 Landscape-structure metrics influence on fire size distribution in Portugal
- XY282 EGU2012-12208
 R. Costa, **M.G. Pereira**, L. Caramelo, C. Vega Orozco, and M. Kanevski
 Spatio-temporal clustering of wildfires in Portugal
- XY283 EGU2012-779
E. Íñiguez-Remón, D. Badía-Villas, and P. Ibarra-Benlloch
 Spatial and temporal changes in land cover and its relation to the wildfire risk in Montes de Zuera (NE-Spain)
- XY284 EGU2012-12737
Panagiota Papakosta, Florian Klein, Simon König, Stefan Peters, and Daniel Straub
 Linking spatio-temporal data to the Fire Weather Index to estimate the probability of wildfire in the Mediterranean
- XY285 EGU2012-11226
B. Arca, G. Pellizzaro, A. Canu, G.V. Pintus, R. Ferrara, and P. Duce
 An analysis on Wildland Urban Interface in North Sardinia
- XY286 EGU2012-9852
C.M. Gouveia, A. Bastos, R.M. Trigo, and C. DaCamara
 Drought impact on vegetation in pre and post fire events in Iberian Peninsula
- XY287 EGU2012-12172
V. Bacciu, G. Pellizzaro, P. Santoni, B. Arca, A. Ventura, M. Salis, T. Barboni, V. Leroy, D. Cancellieri, E. Leoni, L. Ferrat, Y. Perez, P. Duce, and D. Spano
 Fuel type characterization and potential fire behavior estimation in Sardinia and Corsica islands
- XY288 EGU2012-2419
D. Cane, A. Arpacı, M. Conedera, E. Valse, S. Barbarino, H. Vacik, and G.B. Pezzatti
 Suitability of different Fire Weather Indices for alpine conditions: an extensive evaluation with high resolution data
- XY289 EGU2012-8422
C. Schunk, C. Wastl, M. Leuchner, C. Schuster, and A. Menzel
 Forest fire danger indices under extreme meteorological conditions in a complex topography - the situation in the Bavarian Alps in autumn 2011
- XY290 EGU2012-13793
K. Koster, J. Pumpanen, and F. Berninger
 Recovery of soil carbon and nitrogen pools following forest fires in eastern Lapland, Finland.
- XY291 EGU2012-10307
A. Ganteaume, M. Jappiot, and C. Lampin
 Assessing and ranking the flammability of some ornamental plant species to select firewise plants for landscaping in WUI (SE France).
- XY292 EGU2012-597
E. Shvetsov
 The Correlation Analysis of Fire Energy Release and Weather Conditions
- XY293 EGU2012-13648
M. Amraoui, C.C. DaCamara, and S.L. Ermida
 An algorithm to detect fire activity using Meteosat: fine tuning and quality assesment
- XY294 EGU2012-3196
I. Csizar, C.O. Justice, E. Prins, W. Schroeder, C. Schmidt, and L. Giglio
 Fire Monitoring from the New Generation of US Polar and Geostationary Satellites

- XY295 EGU2012-11870
G. Mazzeo, C. Filizzola, I. Coviello, F. Marchese, R. Corrado, T. Lacava, R. Paciello, N. Pergola, and V. Tramutoli
 Performance assessment of a Robust Satellite Techniques (RST-FIRES) for forest fire detection and monitoring
- XY296 EGU2012-1704
S. Veraverbeke and S. Hook
 Evaluating spectral indices and spectral mixture analysis for assessing fire severity and adjusting burning efficiency using Landsat data
- XY297 EGU2012-1705
S. Veraverbeke, S. Hook, and G. Hulley
 A single date SWIR-MIR index (SMI) for rapid fire severity assessments
- XY298 EGU2012-10622
T. Thonat, C. Crevoisier, A. Chédin, R. Armante, L. Crépeau, and N. A. Scott
 Study of biomass burning emissions with Aqua/AIRS and MetOp-A/IASI
- XY299 EGU2012-7916
 C. Kontoes, I. Papoutsis, D. Michail, Th. Herekakis, M. Koubarakis, K. Kyzirakos, M. Karpathiotakis, C. Nikolaou, M. Sioutis, G. Garbis, S. Vassos, **I. Keramitsoglou**, M. Kersten, S. Manegold, and H. Pirk
 Wildfire monitoring via the integration of remote sensing with innovative information technologies
- XY300 EGU2012-8868
I. Berdufi, O. Jaupaj, M. Marku, M. Deda, E. Fiori, M. D'Andrea, G. Biondi, P. Fioruci, M. Massabò, P. Zorba, and M. Gjonaj
 Bulletin of Forest Fire risk in Albania- The experience of the Albania National Centre for forecast and Monitoring of Natural Risks
- XY301 EGU2012-525
V. Rakitin, A. Safronov, L. Yurganov, E. Fokeeva, E. Grechko, and A. Dzhola
 CO atmospheric pollution of Moscow area during wild fires in summer 2010, estimates of emissions and their uncertainties
- XY302 EGU2012-1254
N. Ursino and M.C. Rulli
 Hydrological minimal model for fire regime assessment in Mediterranean ecosystem
- XY303 EGU2012-7298
O. Stein, J.W. Kaiser, A. Heil, and M.G. Schultz
 Model sensitivity to global fire emissions: GFED versus GFAS
- XY304 EGU2012-7945
M.J.M. Penning de Vries, O.N.E. Tuinder, T. Wagner, and M. Fromm
 Calculation of smoke plume mass from passive UV satellite measurements by GOME-2 polarization measurement devices
- XY305 EGU2012-10052
M. Salis, B. Arca, A. Ager, C. Fois, V. Bacciu, P. Duce, and D. Spano
 Extreme Wildfire Spread and Behaviour: Case Studies from North Sardinia, Italy
- XY306 EGU2012-6855
C.I. Mason, G.J. Sheridan, H.G. Smith, O. Jones, D. Chong, and K. Tolhurst
 FIRESTORM: Modelling the water quality risk of wildfire.
- XY307 EGU2012-13343
M. D'Andrea, P. Fiorucci, G. Biondi, and D. Negro
 PROPAGATOR: a synchronous stochastic wildfire propagation model with distributed computation engine
- XY308 EGU2012-11419
J. Mandel, A. K. Kochanski, V. Y. Kondratenko, and J. D. Beezley
 Coupled atmosphere-fire modeling with data assimilation for 2007 Santa Ana fires
- XY309 EGU2012-4307
V. Khan
 Long-range forecasting of forest fire danger index based on PLAV model outputs

SSS6.2 – Eco-engineering mitigations against natural hazards: Biological and Geophysical contributions to sustainable soil bioengineering in a changing world – Orals

Convener: H. P. Rauch | Co-Conveners: F. Rey, F. Preti, F. Graf, F. Ozcep

Room: 3

Chairperson: F. Graf, F. Ozcep

- 15:30–15:45 EGU2012-14122
H.B. Msita, D.N. Kimaro, P.W. Mtakwa, B.M. Msanya, S. Dondyene, J. Poesen, and J. Deckers
 Effectiveness Of Miraba an Indigenous Soil and Water Conservation Measures On Reducing Runoff And Soil Loss In Arable Land Of Western Usambara Mountains

- 15:45–16:00 EGU2012-8324
D Ilangovan and **L. Fernandes**
Simple and Effective Undisturbed Core sampling in Mudflats
- 16:00–16:15 EGU2012-1864
A. Erktan, B. Pianu, P. Lucisine, and F. Rey
Role of the morphology of Salix tillers barriers in marly sediment trapping efficiency in gully floor under ecological restoration: a flume experiment
- 16:15–16:30 EGU2012-1422
J. Eisenmann
Wave basin model tests of technical-biological bank protection
- 16:30–16:45 EGU2012-14175
M. Schwarz
Influence of root and root channels distributions on the lateral subsurface flow of homogeneous soils
- 16:45–17:00 EGU2012-11888
W. Lammeranner
Root Development of Salix purpurea L. on Heavily Compacted Levee Soils

SSS6.2 – Eco-engineering mitigations against natural hazards: Biological and Geophysical contributions to sustainable soil bioengineering in a changing world – Posters

Convener: H. P. Rauch | Co-Conveners: F. Rey, F. Preti, F. Graf, F. Ozcep

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: F. Preti, Freddy Rey

- XY596 EGU2012-10799
M. von der Thannen, C. Weissteiner, H.P. Rauch, N. Tilch, and B. Kohl
The Influence of vegetation on processes of shallow soil erosion in subalpine catchment areas in Western Austria
- XY597 EGU2012-1062
F. Ozcep, S. Karabulut, and T. Ozcep
On comparisons between Shear Wave Velocities and Soil-Water Content
- XY598 EGU2012-1067
S. Karabulut, N. ?mre, S. Dalgic, and F. Ozcep
Geotechnical Investigation of Landslides in Gurpinar Region
- XY599 EGU2012-4394
Ch. Rickli, S. Burger, H. Herranahof, T. Michel, A. Moser, and A. Tröger
A new inclinable shear apparatus for large sample testing: design and perspectives
- XY600 EGU2012-4456
F. Graf and Ch. Gromke
Wind erosion in the alpine zone - a case study at Latschuefurgga (Davos, Switzerland)
- XY601 EGU2012-4902
H.-H. Hsu
A Preliminary Design of a Calibration Chamber for Evaluating the Stability of Unsaturated Soil Slope
- XY602 EGU2012-6581
P. Borja, **V. Vanacker**, D. Alvarado, and G. Govers
Restoration of badlands through applying bio-engineering techniques in active gully systems: Evidence from the Ecuadorian Andes
- XY603 EGU2012-6684
K.-L. Wang, C.-C. Ho, J.-Y. Lin, and H.-S. Tsao
Sediment Transport and Control of Keelung River - From Watershed Management Aspect
- XY604 EGU2012-6917
F. Ali, N. Osman, R. Hashim, and A. Khalilnejad
Numerical and Experimental Investigation on Root Anchorage
- XY605 EGU2012-7879
G. Holzapfel, P. Weihs, L. Stockreiter, and E. Hoffmann
Determination of the Annual Shading Potential of Salix Purpurea Coppice using Hemispherical Photographs
- XY606 EGU2012-9616
M. Obriejetan, F. Florineth, and H.P. Rauch
Erosion Control and Recultivation Measures at a Headrace Channel of a Hydroelectric Power Plant using Different Combined Soil Bioengineering Techniques
- XY607 EGU2012-10739
S. Tron, A. Dani, F. Laio, F. Preti, and L. Ridolfi
Root profile modeling as a link between ecohydrology and slope stability

XY608 EGU2012-11431

R. Matuza

Hydro-geophysics in highway monitoring - new approach to jointing multimodal MASW and refraction surveying.

SSS9.1 – Radioactive Chemical Species in Soils : pollution and remediation – Orals

Convener: J. Bech | Co-Conveners: M. Abreu, E. Korobova, C. Perez-Sirvent, M. Sokolovska

Room: 6

Chairperson: J. Bech, M. Abreu, E. Korobova

08:30–08:45 EGU2012-1795

L. Jovanovic, B. Kaldybaev, B. Djenbaev, and A. Tilenbaev

DISTRIBUTION OF NATURAL (U-238, Th-232, Ra-226) AND TECHNOGENIC (Sr-90, Cs-137) RADIONUCLIDES IN SOIL-PLANTS COMPLEX NEAR ISSYK-KUL LAKE, KYRGYZSTAN

08:45–09:00 EGU2012-1339

H-K Je and **H-T Chon**

Regional and Detailed Survey for Radon Activities in Soil-Gas and Groundwater in the Okchon Zone, Korea

09:00–09:15 EGU2012-13567

M.J. Martínez-Sánchez, M.L. García-Lorenzo, **C. Perez-Sirvent**, S. Martínez-López, M. Hernández-Córdoba, and J. Bech

Methodology for the ecotoxicological evaluation of areas polluted by phosphogypsum wastes.

09:15–09:30 EGU2012-22

I. Molchanova, V. Pozolotina, L. Mikhailovskaya, and **E. Antonova**

Efficiency of natural self-purification of ecosystems vs. countermeasures applied at the East-Ural Radioactive Trace (EURT)

09:30–09:45 EGU2012-10080

P. Georgiev, S. Groudev, I. Spasova, and M. Nikolova

Ecotoxicological characteristic of a soil polluted by radioactive elements and heavy metals before and after its bioremediation

09:45–10:00 EGU2012-13919

V.M. Shkinev, E.M. Korobova, and V.G. Linnik

Investigation of radionuclide distribution in soil particles in different landscapes

COFFEE BREAK

Chairperson: J. Bech, E. Korobova, C. Perez-Sirvent

10:30–10:45 EGU2012-3749

E. Korobova

Patterns of Cs-137 and Sr-90 distribution in conjugated landscape systems

10:45–11:00 EGU2012-14216

E. Rodriguez, J.A. Suárez, C. Gascó, T. Schmid, and M. Rodriguez

Radionuclide determination techniques and spectroradiometry as tools to determine soil erosion

11:00–11:15 EGU2012-2994

H. Ahmed, S. Young, and G. Shaw

Solubility and mobility of thorium and uranium in soils: the effect of soil properties on Th and U concentrations in soil solution

11:15–11:30 EGU2012-14211

M.J. Martínez, **C. Perez-Sirvent**, S. Martínez-López, J.P. Bolívar, F. Mosqueda, F. Vaca, and R. García-Tenorio

Evaluation of the diffuse contamination of soils caused by residues coming from the large scale production of phosphate fertilisers

11:30–11:45 EGU2012-5020

V.G Linnik, J.E. Brown, V.N. Potapov, and V.V. Surkov

Spatial structure of floodplain soil radionuclide contamination of the Enisey River near the Krasnoyarsk Mining and Chemical Combine

11:45–12:00 EGU2012-14110

A.N. Ratnikov, N.I. Sanzharova, D.G. Sviridenko, and T.L. Zhigareva

Effectiveness of complex fertilizers of new generation on radioactive contaminated lands

LUNCH BREAK

Chairperson: J. Bech, M. Abreu, C. Perez-Sirvent

- 13:30–13:45 EGU2012-3143
M.M. Abreu, J. Lopes, M.C.F. Magalhães, and E. Santos
 Ecotoxicity evaluation of an amended soil contaminated with uranium and radium using sensitive plants
- 13:45–14:00 EGU2012-9976
S. Groudev, P. Georgiev, I. Spasova, and M. Nicolova
 In situ cleaning of a heavily polluted soil in a uranium deposit
- 14:00–14:15 EGU2012-13704
M.J. Martínez- Sanchez, C. Perez-Sirvent, J.P. Bolivar, and R. Garcia-Tenorio
 Methodological proposal for the remediation of a site affected by phosphogypsum deposits
- 14:15–14:30 EGU2012-14198
N.V. Baranovskaya, L.P. Rikhvanov, I.N. Matveenko, V.D. Strakhovenko, I.N. Malikova, B.L. Shcherbakov, F.V. Sukhorukov, and V.P. Aturova
 Radioactive Elements in Soils of Siberia (Russia)
- 14:30–14:45 EGU2012-13975
M Batista, C Prazeres, D Oliveira, C Inverno, and L Rodrigues
 Geochemistry and radiometry of the Nisa region, central Portugal. A definition of high uranium background
- 14:45–15:00 EGU2012-7653
V. Ubugunov, V. Dorzhonova, and L. Ubugunov
 Heavy Metals Phytoextraction from the Polluted Soils of Zakamensk (Russia)

SSS9.1 – Radioactive Chemical Species in Soils : pollution and remediation – Posters

Convener: J. Bech | Co-Conveners: M. Abreu, E. Korobova, C. Perez-Sirvent, M. Sokolovska

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: J. Bech, M. Abreu, E. Korobova, C. Perez-Sirvent

- XY609 EGU2012-156
I. Yordanova, D. Staneva, L. Misheva, Ts. Bineva, and M. Banov
 Radioactivity in Virgin Soils and Soils from Some Areas with Closed Uranium Mining Facilities in Bulgaria
- XY610 EGU2012-350
F. S. Olise, O. F. Oladejo, O. K. Owoade, S. M. Almeida, M. D. Ho, and H. B. Olaniyi
 Radionuclides' Content Speciation and Fingerprinting of Nigerian Tin Mining Tailings
- XY611 EGU2012-2314
J. Bech, J. Rustullet, P. Tume, N. Roca, F.J. Tobias, J. Garrigó, F. Reverter, and P. Sánchez
 Distribution of Thorium, Cesium, Yttrium and Zirconium in Alfisol pedons in the Catalan Coastal Range (NE Spain)
- XY612 EGU2012-2874
J Bech, P Tume, N Roca, F. J Tobias, F Reverter, P Sanchez, and J Rustullet
 Thorium and other trace elements in soils from Catalonia (Spain)
- XY613 EGU2012-3154
M.M Abreu, O. Neves, and M. Marcelino
 Influence of season growth, soils and irrigation water composition on the concentration of uranium in two lettuce (*Lactuca sativa* L.) varieties. Field experiments
- XY614 EGU2012-3631
I.M. Antunes and A.F. Ribeiro
 Spatial distribution of environmental risk associated to a uranium abandoned mine (Central Portugal)
- XY615 EGU2012-5981
J. Bech, N. Roca, A. López-Pancorbo, R. Fernández-Sánchez, and P. Tume
 Uranium levels in Ebro Delta topsoils (NE Spain)
- XY616 EGU2012-10029
L. Petrescu and E. Bilal
 A study of contaminated soils near Crucea-Botus, an uranium mine (East Carpathians, Romania): metal distribution and partitioning of natural actinides with implications for vegetation uptake
- XY617 EGU2012-10156
M.M. Abreu, A. Pacheco, E. Santos, and M.C.F. Magalhães
 Application of ground bone and sheep manure on soils from two contaminated sites and influence on oat growth, uranium and radium uptake and translocation
- XY618 EGU2012-10296
P. Favas and J. Pratas
 Uranium in soils and plants of the Sevilha mine (Central Portugal)

- XY619 EGU2012-11744
M. Sokolovska, M. Zhiyanski, J. Bech, N. Roca, and E. Slavtcheva
Distribution of radiocesium in soil and biomass of oak ecosystems in Bulgaria after the Chernobyl accident
- XY620 EGU2012-11946
J. Bech, F. Reverter, P. Tume, N. Roca, E. Suarez, G. Sepúlveda, and M. Sokolovska
Uranium, Thorium and some other trace elements in phosphorites from different provenances
- XY621 EGU2012-13414
J.P. Bolivar, F. Mosqueda, F. Vaca, R. Garcia-Tenorio, M.J. Martinez-Sanchez, C. Perez-Sirvent, and S. Martinez-Lopez
Radioactive influence of some phosphogypsum piles located at the SW Spain in their surrounding soils and salt-marshes
- XY622 EGU2012-13570
T. Parkner and Y. Onda
Rapid reduction of ¹³⁷Cs caused by soil erosion on a typical agricultural field in Fukushima
- XY623 EGU2012-13664
M.J. Martinez-Sanchez, C. Perez-Sirvent, M.L. Garcia-Lorenzo, J. Bech, and M. Hernandez- Cordoba
Spectroscopic techniques for assessing the possible use of phosphate rock by-products for the removal of trace elements in soils.
- XY624 EGU2012-13939
M. Gomes and L. Martins
Natural Radiation in the North International Douro Cliffs
- XY625 EGU2012-13972
M Zhiyanski, M Sokolovska, E Sokolovska, and J Bech
Study on Caesium-137 distribution in soil - coniferous trees system and conceptual model
- XY626 EGU2012-14104
A.I. Shcheglov and **O.B. Tsvetnova**
Radionuclide behaviour in forest soils of Russian Federation and Ukraine
- XY627 EGU2012-14105
M.V. Fedorkova and N.I. Belova
Factors affecting ¹³⁷Cs bio- availability under the application of different fertilizing systems
- XY628 EGU2012-14108
I.V. Kochetkov and V.S. Anisimov
Effect of Organic Matter on the Parameters of the Selective Adsorption of Cobalt and Zinc by Soils and Their Clay Fractions
- XY629 EGU2012-14195
N.V. Baranovskaya, L.P. Rikhvanov, A.N. Zlobina, I.A. Matveenkov, and N Wang
The Nature of Soil High Radioactivity in Chinese Province Guangdong
- XY630 EGU2012-14218
G.V. Lavrentyeva and I.V. Geshele
Use of Quantity Indicators for Forecasting of Biogeochemical Behavior Sr-90 and Cs-137 in the Conditions of the Combined Pollution of Soils
- XY631 EGU2012-14365
Y. A. Pivovarov
Estimation of Zn mobility and biological availability in sod-podzolic soil and leached chernozem based on results of soil extraction by various salt solutions and Zn accumulation in barley plants

SSS9.2 – Soil de-pollution and changing organic management systems – Posters

Convener: P. Burauel | Co-Conveners: Dr. Munch, I. Lamy

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: I. Lamy

- XY632 EGU2012-4191
T. Lescure, C. Joulain, P. Bauda, C. Hénault, and F. Battaglia-Brunet
Influence of organic substrates on the kinetics of bacterial As(III) oxidation
- XY633 EGU2012-5229
K. M. Nowak, C. Girardi, A. Miltner, A. Schäffer, and M. Kästner
Contribution of microorganisms to non-extractable residue formation from biodegradable organic contaminants in soil
- XY634 EGU2012-5941
I. Cavoški, N. Jablonowski, P. Burauel, and T. Miano
The effect of chars and their water extractable organic carbon (WEOC) fractions on atrazine adsorption-desorption processes

- XY635 EGU2012-9514
N. D. Jablonowski, K. Yu, S. Koeppchen, and P. Buraue
 Release of aged ¹⁴C-atrazine residues from soil facilitated by dry-wet cycles
- XY636 EGU2012-9673
N. D. Jablonowski, M. Mucha, B. Thiele, D. Hofmann, and P. Buraue
 Influence of alternating soil drying and wetting on the desorption and distribution of aged ¹⁴C-labeled pesticide residues in soil organic fractions
- XY637 EGU2012-11087
D. Obrist, D.W. Johnson, S.E. Lindberg, and Y. Luo
 Mercury (Hg) accumulation in terrestrial carbon (C) reservoirs: magnitude, spatial patterns, fate upon C losses, and implications of global change
- XY638 EGU2012-11691
I. Lamy, L. Beaumelle, M. Iqbal, and C. Chenu
 Role of organic matter on trace metal availability in contaminated soils: case of high biomass perennial crops vs annual crops
- XY639 EGU2012-12043
D. Barbosa, D. Dick, P. Buraue, U. Langen, and S. Koeppchen
 Sorption and degradation of ¹⁴C-Atrazine in oat straw and in Brazilian Acrisol under no-tillage
- XY640 EGU2012-12456
E.V. Mellis, A.A. Rodella, and C.C.B. Levy
 Assessment of phytoavailability of heavy metals in tropical soils by modified Neubauer method (organic extractor).
- XY641 EGU2012-13957
D. Hofmann, D. Steffen, N.D. Jablonowski, and P. Buraue
 Dissolved organic carbon (DOC) in soil extracts investigated by FT-ICR-MS

SSS10.2 – Soils as record of the past – Orals

Convener: C Zaccone | Co-Conveners: J. van Mourik, C. Barbante, S.J. Kluiving

Room: 6

Chairperson: C. Zaccone, J.M. van Mourik

- 15:30–15:45 EGU2012-14407
W. Shotyk
 Reconstructing the environmental impact of smelters using Pb isotope analyses of peat cores from bogs: Flin Flon, Manitoba and Harjavalta, Finland
- 15:45–16:00 EGU2012-1914
G.T. Swindles, P.J. Morris, A.J. Baird, M. Blaauw, and G. Plunkett
 Are peatland water-table reconstructions reliable proxies of past climate?
- 16:00–16:15 EGU2012-11501
M. Lamentowicz, M. Gałka, K. Tobolski, and A. Górska
 Land-use change, climate and conservation of peatlands: lessons from the high-resolution palaeoecology peat archives of the southern Baltic region
- 16:15–16:30 EGU2012-12478
C. Giguët-Covex, J. Poulenard, F. Arnaud, J-R. Disnar, P. Sabatier, B. Wilhelm, I. Jouffroy-Bapicot, P-J. Rey, F. David, and E. Malet
 Past soil erosion history recorded by lake sediments in mountain areas (north and south French Alps): complex interactions with climatic and human activities
- 16:30–16:45 EGU2012-14360
J. Wallinga, M. Schilder, and J. van Mourik
 Sand and soil dynamics studied by quartz OSL dating
- 16:45–17:00 EGU2012-5834
B. Jansen and K. Kalbitz
 A new biomarker approach to reconstruct past vegetation patterns

SSS10.2 – Soils as record of the past – Posters

Convener: C Zaccone | Co-Conveners: J. van Mourik, C. Barbante, S.J. Kluiving

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: C. Barbante, S.J. Kluiving

- XY642 EGU2012-4145
H. von Suchodoletz, L. Zöller, A. Hilgers, U. Radtke, and D. Faust
 Middle Pleistocene palaeoenvironmental changes of the eastern Canary Islands - revealed by the Málá dune-palaeosol-sequence at Lanzarote (Canary Islands)

- XY643 EGU2012-6635
K. Yoo, J. Ji, A.K. Aufdenkampe, and J. Klaminder
Geochemical mass balance approach to quantify long-term impacts of agricultural conversion of forest on the elemental losses and gains in soils
- XY644 EGU2012-13620
C Zacccone, P Adamo, S Giordano, and TM Miano
Investigating the potential of floating mires as record of palaeoenvironmental changes
- XY645 EGU2012-13598
M. Gocke and G.L.B. Wiesenberg
Postsedimentary incorporated root and rhizomicrobial remains influence composition of loess organic matter - an approach based on lipid molecular proxies
- XY646 EGU2012-9642
M. Allan, G. Le Roux, F. De Vleeschouwer, N. Mattielli, and **N. Fagel**
Atmospheric deposition of Pb, Cu, Ni, As, Sb, V, Cr, Co, Cd and Zn recorded in the Misten peat bog (Hautes-Fagnes, Belgium) during the Industrial Revolution
- XY647 EGU2012-6597
L. Poto, J. Gabrieli, R. Pini, G. Cozzi, C. Turetta, P. Ferretti, S. Crowhurst, C. Ravazzi, C. Zacccone, and C. Barbante
High-resolution multi-proxy record of climatic and environmental conditions during the Holocene in the Eastern Italian Alps using a novel XRF and ICP-MS calibration method
- XY648 EGU2012-4795
C Zacccone, G Rein, V D'Orazio, R Hadden, CM Belcher, and TM Miano
Smouldering bog wildfires and possible implications in palaeoenvironmental reconstructions
- XY649 EGU2012-1618
D. Dudare and M. Klavins
Peat humic acids and their complex forming properties as influenced by peat humification
- XY650 EGU2012-9499
A. Vrel, D. Boust, P. Lesueur, J. Deloffre, R. Dillies, M. Rozet, L. Solier, C. Dubrulle-Brunaud, C. Cossonnet, and S. Thomas
Close deciphering of the sediment record of stable and radioactive contamination in the upper Seine estuary, over the last 50 years: a phosphogypsum legacy
- XY651 EGU2012-13629
T. Pampura, M. Meili, M.E. Kylander, K. Holm, A. Probst, and V. Demkin
Lead concentrations and isotopic compositions in a paleosol buried under an Iron-Age kurgan in the Lower Volga region of Russia, and comparison to modern soils.
- XY652 EGU2012-2475
M. Dotterweich, P. Kühn, J.F. Tolksdorf, S. Müller, and O. Nelle
Late Pleistocene to early Holocene aeolian and flash-flood sedimentation and soil formation in a small hilly catchment in SW-Germany (Palatinate forest)
- XY653 EGU2012-10390
K. Koster, E. Guttmann-Bond, S. Kluiving, and M. van Leusen
Detecting buried archaeological soils with TGA in an agricultural terrace setting in Northern Calabria, Italy
- XY654 EGU2012-12575
Dr. J.M. van mourik and **Dr. R.T. Slotboom**
Palyno-ecological reconstruction of the impact of historical land use on soils and landforms in Luxembourg.
- XY655 EGU2012-12619
Dr. J.M. van mourik and **Dr.L.H. Cammeraat**
Palaeosols as geomorphic backbones in landscape development
- XY656 EGU2012-12210
L. Danko
Geochronology of Holocene Soil Forming Processes in the Baikal Region
- XY657 EGU2012-12539
Dr. J.M. van mourik and Dr. J. Wallinga
Geochronology of initial soils in Late-Holocene polycyclic drift-sand deposits (Weerterbergen, S.E. Netherlands)
- XY658 EGU2012-12496
Dr. J.M. van mourik and Dr. B. Jansen
The added value of biomarker analysis in palaeo-ecology

SSS11.1 – Organic farming, soils and energy balance – Orals

Convener: M. M. Moreno Valencia | Co-Conveners: A. M. Tarquis, C. Moreno Valencia, I. Gelfand, R. Sánchez, A. Cerdà

Room: 3

Chairperson: A. Cerdà

- 08:30–08:45 EGU2012-7982
D. Linsler, D. Geisseler, F. Taube, R. Loges, and B. Ludwig
 Effect of slurry application and one season of cropping on aggregates and carbon, nitrogen and phosphorus pools in grassland soils
- 08:45–09:00 EGU2012-380
S. Sukartono and W. Utomo
 Crop water use efficiency following biochar application on maize cropping systems on sandy soils of tropical semiarid eastern Indonesia
- 09:00–09:15 EGU2012-1084
M.M. Moreno, C. Moreno, C. Lacasta, A.M. Tarquis, and R. Meco
 Energy balance in rainfed herbaceous crops in a semiarid environment for a 15-year experiment. 1. Impact of farming systems
- 09:15–09:30 EGU2012-1259
A. Mohammadi, S. Rafiee, A. Jafari, and A. Keyhani
 An assessment of energy use efficiency and sensitivity analysis of inputs in rice paddy production
- 09:30–09:45 EGU2012-568
I. Gerlfand, S.K. Hamilton, and G.P. Robertson
 Carbon and energy balances for cellulosic biofuel crops in U.S. Midwest
- 09:45–10:00 EGU2012-10847
B. Gabrielle, N. Gagnaire, R. Massad, V. Prieur, and Y. Python
 Environmental assessment of biofuel chains based on ecosystem modelling, including land-use change effects

SSS11.1 – Organic farming, soils and energy balance – Posters

Convener: M. M. Moreno Valencia | Co-Conveners: A. M. Tarquis, C. Moreno Valencia, I. Gelfand, R. Sánchez, A. Cerdà

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: M.M. Moreno

- XY659 EGU2012-13946
R. Meco, M.M. Moreno, C. Lacasta, A.M. Tarquis, and C. Moreno
 Importance of energy balance in agriculture.
- XY660 EGU2012-1086
M.C. Moreno, M.M. Moreno, C. Lacasta, A.M. Tarquis, and R. Meco
 Energy balance in rainfed herbaceous crops in a semiarid environment for a 15-year experiment. 2. Impact of crop rotations.
- XY661 EGU2012-13530
I. Gerlfand, S.K. Hamilton, S.S. Snapp, and G.P. Robertson
 Methodology for calculation of carbon balances for biofuel crops production
- XY662 EGU2012-2944
D. Felten and C. Emmerling
 Energy balances of bioenergy crops (*Miscanthus*, maize, rapeseed) and their CO₂-mitigation potential on a regional farm scale
- XY663 EGU2012-1857
E. Gwata
 The Potential of Pigeonpea (*Cajanus cajan*) for Producing Important Components of Renewable Energy and Agricultural Products
- XY664 EGU2012-5789
R. Sánchez, L. Rodríguez-Sinobas, L. Juana, F. V. Laguna, G. Castañón, M. Gil, and J. Benítez
 Energy requirements in pressure irrigation systems
- XY665 EGU2012-615
H. Alizadeh and S.J. Mousavi
 Holistic irrigation water management approach based on stochastic soil water dynamics
- XY666 EGU2012-14155
 M. Peillón, R. Sánchez, A.M. Tarquis, and **J.L. García**
 Wind pumps for irrigating greenhouse crops
- XY667 EGU2012-10720
M.I. Requejo, R. Villena, L. Ventas, F. Ribas, M.T. Castellanos, M.J. Cabello, A. Arce, and M.C. Cartagena
 Risk of wine-distillery waste compost application in vulnerable zones: nitrogen balance
- XY668 EGU2012-13685
A. Cerdà, M.B. Bodí, and F. García-Orenes
 Soil and water losses on citrus orchards under Mediterranean Type Ecosystems. Organic against chemical farming

- XY669 EGU2012-13011
K. Roessler and F. Jenny
Biochar/compost project in Ghana
- XY670 EGU2012-3032
N. J. Kuhn
Interrill sediment enrichment of P and C from organically and conventionally farmed silty loams
- XY671 EGU2012-13868
J. van der Lubbe, R. Tjallingii, G-J. Brummer, and R. Schneider
Did Wet conditions prevail in the Zambezi catchment during Younger Dryas and Heinrich events?
- XY672 EGU2012-4303
D. Le Bars, H.A. Dijkstra, and W.P.M de Ruijter
Salinification and warming of the South Atlantic due to the Indonesian Throughflow

Tuesday, 24 April

EMRP1.4 – Soil, sediment and dust magnetism - magnetic parameters in environmental studies (co-listed) – Orals

Convener: T Magiera | Co-Conveners: E. Petrovsky, L. Sagnotti

Room: 34

Chairperson: Leonardo Sagnotti

- 10:30–10:45 EGU2012-4282
E. Appel, W. Rösler, and G. Ojha
Stepwise magnetic-geochemical approach for efficient assessment of heavy metal polluted sites
- 10:45–11:00 EGU2012-472
C. Fürst, D. Zirlewagen, and F. Makeschin
Mapping of ferrimagnetic susceptibility for screening of fly ash deposition
- 11:00–11:15 EGU2012-8169
T. Magiera, **M. Szuszkiewicz**, and M. Rachwa?
Application of soil magnetometry on urban and industrial areas affected by different sources of pollution
- 11:15–11:30 EGU2012-7159
K. Fabian, **C. Reimann** and the GEMAS project Team
The magnetic susceptibility of European agricultural soils
- 11:30–11:45 EGU2012-2265
F. Hrouda, J. Pokorny, and M. Chadima
Out-of-phase magnetic susceptibility as a rapid and efficient indicator of ultrafine magnetic particles in rocks, soils, and environmental materials
- 11:45–12:00 EGU2012-13049
G. McIntosh, M Aranzaru Revuelta, J Pey, R Noriega Salmon, B Artinano Rodriguez de Torres, X Querol, and A Alastuey
Magnetic properties of atmospheric particles
- 12:00–12:15 EGU2012-4958
M. Jelenska, B. Górka-Kostrubiec, and E. Król
The study of indoor air pollution by means of magnetometry

EMRP1.4 – Soil, sediment and dust magnetism - magnetic parameters in environmental studies (co-listed) – Posters

Convener: T Magiera | Co-Conveners: E. Petrovsky, L. Sagnotti

Hall A | Display Time 08:00–19:30

Author in Attendance: 13:30–15:00

Chairperson: Tadeusz Magiera

- A1 EGU2012-1218
L. Shenggao
Magnetic mineralogy of heavy metals-contaminated soils
- A2 EGU2012-4712
S. Dlouha, **E. Petrovsky**, L. Boruvka, A. Kapicka, and H. Grison
Magnetic properties of alluvial soils polluted with heavy metals
- A3 EGU2012-555
T. El-Hasan and M. Lataifeh
Field and Dual Magnetic Susceptibility Proxies Implication for Heavy Metal Pollution Assessment in the Urban Soil of Al-Karak City, South Jordan.
- A4 EGU2012-4003
C.X. Zhang
Heavy metal pollution in farmland irrigated with river water near a steel plant - detection by magnetic and geochemical methods
- A5 EGU2012-3411
L. Cao, E. Appel, S.Y. Hu, G. Yin, and W. Rösler
Environmental pollution at Linfen and its change - magnetic monitoring of leaves and soil
- A6 EGU2012-5088
B. Górka - Kostrubiec, M. Jeleńska, and E. Król
Magnetic monitoring of pollution deposited on leaves, bark and soil: preliminary results
- A7 EGU2012-2195
W. Kim, S.J. Doh, Y. Yu, and J.W. Moon
Low- and high-temperature magnetic properties of iron-bearing particles of combustion origin
- A8 EGU2012-5137
G. Ojha, E. Appel, and T. Magiera
Towards innovative roadside monitoring

- A9 EGU2012-1120
M. Wawer, M. Szuszkiewicz, and T. Magiera
Characteristics of current roadside pollution of soils in Upper Silesia
- A10 EGU2012-1582
A. Winkler and L. Sagnotti
Low and room temperature magnetic features of the traffic related urban airborne PM
- A11 EGU2012-8035
E. Márton, P. Sipos, T. Németh, V. Kovács Kis, and Z. May
Urban dust settled at different sides and levels of a High Building next to a major road in Budapest: Integrated Magnetic, Mineralogical and Geochemical Study
- A12 EGU2012-4761
E. Petrovsky, B. Kotlik, R. Zboril, A. Kapicka, and H. Grison
Magnetic properties of atmospheric PM_x in a small settlement during heating and non-heating season

SSS1.2 – Soil Science: Historical and Societal Issues – Orals

Convener: E.C. Brevik | Co-Conveners: A. Hartemink

Room: 6

Chairperson: Eric C. Brevik, Alfred E. Hartemink

- 15:30–15:45 EGU2012-1225
A. Baumgarten
The Austrian Soil Science Society: History and Developments
- 15:45–16:00 EGU2012-1813
C. Calzolari
An overview on the history of pedology and soil mapping in Italy
- 16:00–16:15 EGU2012-5525
S. Hallett and L. Deeks
A history of Soil Survey in England and Wales
- 16:15–16:30 EGU2012-5747
K.M. Cohen, E. Stouthamer, W.Z. Hoek, and **H. Middelkoop**
100 years of mapping the Holocene Rhine-Meuse delta plain: combining research and teaching
- 16:30–16:45 EGU2012-142
I. Kovda
Victor Kovda, Soil Science and Biosphere
- 16:45–17:00 EGU2012-38
A. Tsatskin
On Russian concepts of Soil Memory - expansion of Dokuchaev's pedological paradigm

SSS1.2 – Soil Science: Historical and Societal Issues – Posters

Convener: E.C. Brevik | Co-Conveners: A. Hartemink

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Eric C. Brevik, Alfred E. Hartemink

- XY523 EGU2012-2
E.C. Brevik
50 Years of Soil Survey Horizons
- XY524 EGU2012-6
E.C. Brevik and A.E. Hartemink
A short history of the soil science discipline
- XY525 EGU2012-7
E.C. Brevik
Historical Highlights From 75 Years of the Soil Science Society of America
- XY526 EGU2012-14295
E.C. Brevik
Collier Cobb and Allen D. Hole: Geologic Mentors to Early American Soil Scientists
- XY527 EGU2012-14301
J.M. Gonzalez, E. Ventura Jr., J.Z. Castellanos, and **E.C. Brevik**
The History of Soil Science in Mexico
- XY528 EGU2012-14294
A.E. Hartemink, B. Lowery, and C. Wacker
Historical Soil Maps of Wisconsin, USA

- XY529 EGU2012-68
R. Mapa
Landmarks of History of Soil Science in Sri Lanka
- XY530 EGU2012-1146
H. de Winter
The rise of adjusted fertilizer recommendations and the 1946 establishment of the Soil Service of Belgium
- XY531 EGU2012-14239
C.C. Muggler, O. Spaargaren, and A.E. Hartemink
The Glinka Memorial Soil Monolith Collection: a treasure of Soil Science
- XY532 EGU2012-9464
J. Kovács, B. Raucsik, A. Varga, G. Újvári, G. Varga, F. Ottner, and K. Wriessnig
Stepwise climate change recorded in Plio/Pleistocene paleosols from Hungary
- XY533 EGU2012-10785
H. E. Belkin and K. Luo
Selenium in Paleozoic stone coal (carbonaceous shale) as a significant source of environmental contamination in rural southern China
- XY534 EGU2012-13812
I. Puskás, A. Farsang, and K. Balog
Indicators for drought characterization of soils in different soil types, Hungary

SSS5.4 – Assessment and modeling of concentrated flow erosion – Orals

Convener: R. Giménez | Co-Conveners: L. Gordon, E. Taguas, Dr. Casalí, M. James, R. Egozi, G. Eshel

Room: 22

Chairperson: Javier Casalí

- 15:30–15:45 EGU2012-872
R.L. Bingner, H.G. Momm, R.R. Wells, and S.M. Dabney
Contributions and Concerns of Concentrated Flow Erosion and Assessment Technologies in Watershed Systems
- 15:45–16:00 EGU2012-1059
R. Egozi and G. Eshel
Extreme soil erosion events in Israel coastal area: observations & measurements
- 16:00–16:15 EGU2012-1376
S. Nouwakpo and C. Huang
The role of subsurface hydrology in soil erosion and channel network development on a laboratory hillslope
- 16:15–16:30 EGU2012-10356
A. Afana, Y. Cantón, and **A Solé-Benet**
Hillslope evolution in Tabernas badlands (SE Spain) since 1995. Erosion pins and laser scanner measurements.
- 16:30–16:45 EGU2012-14262
C. Castillo, R. Pérez, M.R. James, J.N. Quinton, E.V. Taguas, and J.A. Gómez
Field methods for measuring concentrated flow erosion
- 16:45–17:00 EGU2012-280
V. Ranga, J. Poesen, A. Van Rompaey, S.N. Mohapatra, and P. Pani
Spatial analysis of badland dynamics in the lower Chambal Valley India

SSS5.4 – Assessment and modeling of concentrated flow erosion – Posters

Convener: R. Giménez | Co-Conveners: L. Gordon, E. Taguas, Dr. Casalí, M. James, R. Egozi, G. Eshel

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Javier Casalí

- XY535 EGU2012-1075
N. Christanto, D.P. Shrestha, V.G. Jetten, and A. Setiawan
Modeling the effect of terraces on land degradation in tropical upland agricultural area
- XY536 EGU2012-1378
S. Nouwakpo and C. Huang
A simplified close range photogrammetric technique for soil erosion assessment
- XY537 EGU2012-2656
S. Strohmeier, A. Klik, and S.K. Nouwakpo
Physical Model Study: Rill Erosion Morphology and Flow Conditions

- XY538 EGU2012-4597
M. R. James, C. Castillo, R. Pérez, E. V. Taguas, J. A. Gomez, and J. N. Quinton
Determining gully volume from straightforward photo-based 3D reconstruction
- XY539 EGU2012-4638
Y. Chahor, J. Casali, and R. Giménez
Assessment of the Compound Topographic Index CTI to predict Potential Ephemeral Gullies in Navarre (Spain)
- XY540 EGU2012-10248
S. Wirtz, T. Iserloh, G. Rock, V. Butzen, M. Seeger, S. Betz, and J.B. Ries
Soil erosion on abandoned land in Andalusia - a comparison of sheet- and rill erosion rates
- XY541 EGU2012-10579
F. Fiorucci, M. Rossi, F. Ardizzone, I. Marchesini, and D. Torri
Use of stereoscopic satellite images for mapping and characterization of rill and gully erosion
- XY542 EGU2012-10730
O. Yermolaev
Slope erosion estimation in the river basin of the boreal zone of the East Russian Plain
- XY543 EGU2012-10976
C. Castillo, R. Pérez, J. Mora, and J.A. Gómez
Quantification of gully erosion in a cultivated area in Southern Spain under high rainfall conditions
- XY544 EGU2012-11173
C. Castillo, R. Pérez, E.V. Taguas, J.S. Lora, J.V. Giráldez, and J.A. Gómez
Improvement on a portable laser profiler for gully volume evaluation: laboratory and field testing
- XY545 EGU2012-11276
J. Rebolledo, **E.V. Taguas**, T. Vanwalleghe, J.L. Ayuso, and J.A. Gómez
Quantitative evaluation of concentrated flow erosion in a Mediterranean olive orchard microcatchment
- XY546 EGU2012-12483
A. Raveloson, F. Visnovitz, B. Székely, G. Molnár, and B. Udvardi
A multidisciplinary study on lavaka (gully erosion) formation in Central Highlands, Madagascar
- XY547 EGU2012-13808
M. Seeger, S. Wirtz, and M. Ali
Erosion by shallow concentrated flow - experimental model deconstruction
- XY548 EGU2012-14124
R.L. Bingner, S.M. Dabney, E. J. Langendoen, H. G. Momm, R. R. Wells, and G. V. Wilson
USDA-ARS Concentrated Flow Erosion and Assessment Technology Research for Evaluation of Conservation Practices in Watershed Systems
- XY549 EGU2012-14252
Y. Chahor, J. Casali, and R. Giménez
Testing AnnAGNPS model in predicting ephemeral gully erosion in Navarre (Spain)

SSS5.7 – Temporal dynamics and effects of changes in land use on soil properties and processes – Orals

Convener: A Paz-González | Co-Conveners: A. Schwen, A. M. Tarquis, C. A. de Abreu, D. Or, Inv. C Oleschko, W. Durner, A. Saa, A. Gobin, J. A. Gómez, M. Kutilek, K.S. Schwärzel

Room: 6

Chairperson: n.n.

- 08:30–08:45 EGU2012-1806
G. C. G. dos Santos, G. S. Valladares, O. A. Camargo, and **C. A. Abreu**
Assessment of Copper and Zinc in Soils of a Vineyard Region in the State of São Paulo, Brazil
- 08:45–09:00 EGU2012-243
A. Paz González, R. Da Silva Días, E. Vidal Vázquez, and **C. A. de Abreu**
Available P, Ca and Mg in an Atlantic Small Catchment
- 09:00–09:15 EGU2012-4414
C Piegholdt, D Geisseler, H-J Koch, and B Ludwig
Long-term tillage effects on the distribution of P fractions of German loess soils
- 09:15–09:30 EGU2012-6512
A. Gobin and **P. Campling**
Soil organic carbon stocks and fluxes due to land use conversions at the European scale
- 09:30–09:45 EGU2012-8153
M.P.W. Sonneveld, D.F. Van Apeldoorn, K.H. Pepers, and M.C. Hanegraaf
Quantifying effects of land use change on soil organic matter at the landscape scale
- 09:45–10:00 EGU2012-974
E.C. Brevik
Soil Properties in a South Georgia, USA, Borrow Pit 40 Years After Excavation Ceased
-

COFFEE BREAK

Chairperson: Antonio Paz González

- 10:30–10:45 EGU2012-9234
C. Tote, E. Swinnen, M. Goossens, I. Reusen, and S. Delalieux
 Assessment of the environmental effects of mining using SPOT-Vegetation NDVI
- 10:45–11:00 EGU2012-8142
K.D. Peter, J.B. Ries, I. Marzolf, and S. d'Oleire-Oltmanns
 Soil Erosion in agro-industrially used Landscapes between High and Anti-Atlas
- 11:00–11:15 EGU2012-9530
M. López-Vicente and A. Navas
 Soil moisture status in a set of rain-fed cereal fields: application of the DR2 model at monthly scale
- 11:15–11:30 EGU2012-2033
E. Beckers, C. Roisin, E. Plougonven, D. Deraedt, A. Léonard, and A. Degré
 Micro and macroscopic investigation to quantify tillage impact on soil hydrodynamic behaviour
- 11:30–11:45 EGU2012-14308
A.M. Tarquis, A. Saa-Requejo, J.L. Valencia, R. Moratiel, and A. Paz-Gonzalez
 Variation of soil surface roughness under simulated rainfall
- 11:45–12:00 EGU2012-875
S.G. Zihms
 Understanding the impact of high temperature processes on soil properties

LUNCH BREAK

Chairperson: n.n.

- 13:30–13:45 EGU2012-8087
M. Lado, R. Kiptoon, A. Bar-Tal, I.I.C. Wakindiki, and M. Ben-Hur
 Interaction between soil mineralogy and the application of crop residues on aggregate stability and hydraulic conductivity of the soil
- 13:45–14:00 EGU2012-26
R. Horn, S. Peth, and S. Gebhardt
 Pore rigidity in structured soils - only a theoretical boundary condition for hydraulic properties?
- 14:00–14:15 EGU2012-9253
D. Russo
 Time-Dependent Soil Hydraulic Conductivity in Salt-Affected Soils
- 14:15–14:30 EGU2012-2086
H. McNamara
 An estimate of energy dissipation due to soil-moisture hysteresis
- 14:30–14:45 EGU2012-4789
G. Bodner, P. Scholl, W. Loiskandl, and H.-P. Kaul
 Environmental and management impacts on temporal variability of soil hydraulic properties
- 14:45–15:00 EGU2012-2237
R. Rosenzweig, U. Shavit, and A. Furman
 Dynamics of hydraulic properties due to biological clogging

SSS5.7 – Temporal dynamics and effects of changes in land use on soil properties and processes – Posters

Convener: A Paz-González | Co-Conveners: A. Schwen, A. M. Tarquis, C. A. de Abreu, D. Or, Inv. C Oleschko, W. Durner, A. Saa, A. Gobin, J. A. Gómez, M. Kutilek, K.S. Schwärzel

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Antonio Paz González

- XY550 EGU2012-8581
 J. T. Mainardi, L. H. Jung, A. R. Correa, D. M. P. Pellin, B. R. F. Souza, C. G. Roque, R. B. Teixeira, V. Minotto, and **R. Montanari**
 Selection of soil physical attributes spatially related with the grain yield common bean in Chapadão do Sul, MS, Brazil
- XY551 EGU2012-2941
G.M. Siqueira, S.R. Vieira, C.A. Lima, and R.V.P. Fontes Júnior
 Temporal stability of the soil water content in an Rhodic Eutrudox consolidated no tillage

- XY552 EGU2012-3255
G. M. Siqueira, R. V. P. Fontes Júnior, A. A. A. Montenegro, Y. L. Barros, and E.F.F. Silva
 Spatial variability of soil apparent electrical conductivity(ECa) and the water table depth in an alluvial valley under different uses.
- XY553 EGU2012-3006
 T.K.S. Borges, A.A.A. Montenegro, T.E.M. Santos, V.P. Silva Junior, and **G.M. Siqueira**
 Soil moisture and soil loss study under different cover densities in Ultisols in Pernambuco State semi-arid (Brazil)
- XY554 EGU2012-3190
 J.Z.F. Corbo, S.R. Vieira, and **G.M. Siqueira**
 Spatial Distribution of Soil Fauna In Long Term No Tillage
- XY555 EGU2012-7954
K. Beerten and D. Mallants
 Landscape evolution and soil hydrological change: new insights from sandy soils in the Campine area, Northern Belgium
- XY556 EGU2012-11203
J. Marioti, J. Padilha, I. Bertol, F. T. Barbosa, J. C. Ramos, R. S. Werner, E. Vidal Vázquez, and M. S. Tanaka
 Effect of Cropping System and Contouring or Downland Sowing on Soil Water Erosion under no Tillage
- XY557 EGU2012-3425
J. Padilha, I. Bertol, J. Marioti, J. C. Ramos, M. C. Flores, M. S. Tanaka, and A. Paz González
 Water Erosion in a Two Year Old Stand of Eucalyptus benthamii under three Plantation Methods
- XY558 EGU2012-201
R. A. Sabattini, S. M. Sione, S. G. Ledesma, J. A. Sabattini, and M. G. Wilson
 State of Conservation of the Native Forests in Entre Ríos (Argentina) and Changes in Land Use
- XY559 EGU2012-1353
F. T. Barbosa, I. Bertol, A. J. de Amaral, P. Grahl dos Santos, R. R. Ramos, R. S. Werner, and J. M. Miras Avalos
 Hydrological Variables and Dissolved Phosphorus in the Runoff from No-tilled Soil after Application of Swine Liquid
- XY560 EGU2012-10754
P. Iori, R. B. da Silva, M. S. Dias Junior, and A. Paz González
 Assessment of land use in protected areas of the state of Sao Paulo, Brazil
- XY561 EGU2012-1393
M. B. Furtado, S. J. Bicudo, J. Paz-Ferreiro, S. R. Vieira, and F. M. Nascimento
 Spatial Variability of Soil Chemical Attributes and Corn Yield in two Conservation Tillage Management Systems
- XY562 EGU2012-12891
 M.M.S. Salvador, **P.L. Libardi**, N.B. Moreira, H.H.F. Sousa, and C.A. Neiverth
 Soil internal drainage: temporal stability and spatial variability in succession bean-black oat
- XY563 EGU2012-1391
L. E. Novelli, O. P. Caviglia, M. G. Wilson, and M. C. Sasal
 Indexes of Land Use Change to Predict Aggregate Stability in a Mollisol and a Vertisol of Argentina
- XY564 EGU2012-1014
C.S.S. Ferreira, D. Soares, A.J.D. Soares, C.O.A. Coelho, T.S. Steenhuis, J.J. Keizer, and R.P.D. Walsh
 The role of forest in runoff generation in a suburban catchment
- XY565 EGU2012-10382
L. F. S. Silva, M. A. Marinho, S.R. Marques, and A. Paz Gonzalez
 Physical and Chemical Characterization of a Rhodic Hapludox after 12 Years of Agricultural use under Different Management Systems
- XY566 EGU2012-1327
M. C. Sasal, J. Léonard, A. Andriulo, and M. G. Wilson
 Agriculturization in the Argentinean Northern Humid Pampas: the Impact on Soil Structure and Runoff
- XY567 EGU2012-9542
L. Gaspar, A. Navas, and J. Machin
 Relationship between ²¹⁰Pb_{ex} and soil characteristics in Mediterranean hillslope
- XY568 EGU2012-12276
A. E. Andriulo, A. B. Irizar, B. Mary, and M. G. Wilson
 Effect of Conversion from Natural Grassland to Arable Land on Soil Carbon Reserve in the Argentinean Rolling Pampas
- XY569 EGU2012-12324
R. P. Marano, S. Imhoff, H. Micheloud, and I. Carnevale
 Impact of Changes in Land Use in Hydro-physical Properties of Argiudolls of the Center of Santa Fe, Argentina

- XY570 EGU2012-1329
S. M. Sione, M. G. Wilson, and A. Paz González
Assessment of the Impacts of Rice Cropping through a Soil Quality Index
- XY571 EGU2012-1533
M. C. Alves, E. Vidal Vázquez, V. Pereira de Almeida, and J. Paz-Ferreiro
Small Scale Spatial Variability of Soil Properties and Nutrients in a Ferralsol under Corn
- XY572 EGU2012-3377
N. Wyngaard, H.E. Echeverría, A. Vidaurreta, L.I. Picone, and G.A. Divito
Carbon and Phosphorus in soil particulate fraction: effect of continuous agriculture, tillage and fertilization
- XY573 EGU2012-6454
R.G. Giácomo, O.G.de Arruda, S.N. Souto Filho, **M.C. Alves**, M.G. Pereira, and G.C. Frigério
Epigeal fauna of a degraded soil treated with mineral fertilizer and compound cellulose cultivated of tree species
- XY574 EGU2012-6476
R.A.F. Rodrigues, E.B. Santos, M.C. Alves, and O.G. Arruda
Eucalyptus development in degraded soil fertilized with sewage sludge and mineral fertilizer
- XY575 EGU2012-6423
S.N. Souto Filho, D.C. Marchini, O.G.de Arruda, R.G. Giácomo, and **M.C. Alves**
Oxisol decapitated recovery with green manure and sewage sludge: Effect on growth of *Astronium fraxinifolium*
- XY576 EGU2012-13627
C. dos Santos Batista Bonini, **M.C. Alves**, D.C. Marchini, O. Garcia de Arruda, and S. Nilce Souto Filho
Structural quality of on Oxisol in recovery for 18 years
- XY577 EGU2012-3409
M.C. Alves, F.S. Campos, and Z.M. Souza
Sugar cane management with humic extract and organic and mineral fertilizer: impacts on Oxisol some physical properties
- XY578 EGU2012-30
M. G. Wilson, H. A. Tasi, A. Paz González, E. L. Díaz, and M. C. Sasal
Soil Quality Indicators to Define Land Use in the Area of Native Forest of Entre Ríos, Argentina
- XY579 EGU2012-570
E. Vidal Vázquez, L. A. Morales, and A. Paz González
Spatial and Temporal Variability of Macronutrients in a Lime-amended Acid Paddy Field
- XY580 EGU2012-1515
V. Aparicio and J.L. Costa
Effects of changes in land use on soil physical properties and soil organic carbon content in a wheat-corn-sunflower crop sequence, in a loam soil of Argentina.
- XY581 EGU2012-3414
I. Bertol, J. Schick, F. T. Barbosa, J. Paz-Ferreiro, M. T. Flores, and A. Paz González
Water Erosion in Relation with Soil Management System and Crop Sequence during 20 Years on an Inceptisol in South Brazil

SSS5.8 – Models and scaling: Assessing impact of climate change and land management on erosion and sediment dynamics – Orals

Convener: S.D. Keesstra | Co-Conveners: E. NADAL ROMERO, G. Eshel, M.J. Kirkby, Dr. Seeger, J. A. Gómez, A. M. Tarquis, N. J. Kuhn, J. P. Nunes, J. C. Gonzalez-Hidalgo, S. Beguería, P. Lionello, C. Dazzi, E. Taguas

Room: 22

Chairperson: Saskia Keesstra

- 10:30–10:45 EGU2012-6628
J. Wainwright, A.J. Parsons, J.R. Cooper, Y. Onda, T. Furukawa, E. Obana, B. Kitchener, E.J. Long, and G.K. Hargrave
Scaling sediment dynamics on hillslopes using particle-based approaches
- 10:45–11:00 EGU2012-174
N. Cortesi, J.C. González-Hidalgo, M. Brunetti, and J. Martin-Vide
Daily Precipitation Concentration across Europe during 1971-2010
- 11:00–11:15 EGU2012-4947
I. Tsermegas, M. D?u?ewski, K. Biejat, and A. Szyrkiewicz
Degradation of terraced slopes in Mediterranean conditions
- 11:15–11:30 EGU2012-8132
J.E.M. Baartman, A.J.A.M. Temme, A. Veldkamp, V.G. Jetten, and J.M. Schoorl
Addressing the time-scale gap in erosion modelling - comparison of an event-based and a landscape evolution model

- 11:30–11:45 EGU2012-9435
M. López-Vicente, L. Quijano, L. Gaspar, J. Machín, and A. Navas
 Spatial and temporal heterogeneity of water soil erosion in a Mediterranean rain-fed crop
- 11:45–12:00 EGU2012-1334
J. Maroulis
 Queensland 2010-2011: A Summer of Extremes

LUNCH BREAK

Chairperson: Estela Nadal Romero

- 13:30–13:45 EGU2012-5901
JM García Ruiz, N. Lana Renault, E Nadal Romero, and S. Beguería
 Erosion in Mediterranean Ecosystems: changes and future challenges
- 13:45–14:00 EGU2012-11935
D.C. Buarque, W. Collischonn, and R.C.D. Paiva
 Coupling a basin erosion and river sediment transport model into a large scale hydrological model: an application in the Amazon basin
- 14:00–14:15 EGU2012-10913
A.C. Schmengler and P.L.G. Vlek
 Facing the scaling problem: A multi-methodical approach to simulate soil erosion at hillslope and catchment scale
- 14:15–14:30 EGU2012-5126
E. Argaman, R. Egozi, and N. Goldshlager
 Analysis the temporal and spatial impact of water harvesting on Aforestation processes, at the Northern Negev region, Israel
- 14:30–14:45 EGU2012-10966
E.V. Taguas, M. Burguet, R. Pérez, J.L. Ayuso, and J.A. Gómez
 Interpretation of the impact of different managements and the rainfall variability on the soil erosion in a Mediterranean olive orchard microcatchment
- 14:45–15:00 EGU2012-12086
N. Bellin, V. Vanacker, and P. Kubik
 Contrasting Modern and 10Be- derived erosion rates for the Southern Betic Cordillera, Spain

SSS5.8 – Models and scaling: Assessing impact of climate change and land management on erosion and sediment dynamics – Posters

Convener: S.D. Keesstra | Co-Conveners: E. NADAL ROMERO, G. Eshel, M.J. Kirkby, Dr. Seeger, J. A. Gómez, A. M. Tarquis, N. J. Kuhn, J. P. Nunes, J. C. Gonzalez-Hidalgo, S. Beguería, P. Lionello, C. Dazzi, E. Taguas

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Gil Eshel

- XY582 EGU2012-255
E. Nadal Romero, T. Lasanta, M. de Luis, J. González Hidalgo, and J.M. García Ruiz
 The suspended sediment response of different land uses to rainstorm events: Time compression in the Aísa Valley Experimental Station
- XY583 EGU2012-1554
JF Martínez Murillo, JD Ruiz Sinoga, MA Gabarron Galeote, and JM Senciales Gonzalez
 Spatial and temporal variability of soil water repellency in Mediterranean rangelands in South of Spain
- XY584 EGU2012-1555
JM Senciales Gonzalez, P Aguayo Maldonado, JD Ruiz Sinoga, and JF Martinez Murillo
 Spatial variability of pouring rain in the City of Málaga. (South of Spain)
- XY585 EGU2012-1600
R. Capra and C. Morice
 Super Detection of Variable Occurrences of Landslides
- XY586 EGU2012-4174
 A. Uran, I. Lorite, and **J.A. Gomez**
 Impact of cover crops on soil conservation in olive orchards under different agroecological conditions combining a conceptual soil water balance model (WABOL) and RUSLE.
- XY587 EGU2012-4246
J. Hooke
 Responses of Mediterranean channel ecosystems to climatic and land use variations

- XY588 EGU2012-7877
M. Burguet
 Evaluation of different strategies for calibration of the simple distributed model SEDD for sediment transport in an olive microcatchment
- XY589 EGU2012-9129
K.E. Welsh and R.C. Chiverrell
 Re-evaluation of slope processes in the CAESAR landscape evolution model
- XY590 EGU2012-9348
N. J. Kuhn and K. Anderson
 Matching pixels, plots and catchments
- XY591 EGU2012-10719
C. Castillo, R. Pérez, and J.A. Gómez
 A conceptual model of the hydraulics of check dam for gully control
- XY592 EGU2012-11100
F. Ardizzone, F. Guzzetti, C. Iadanza, M. Rossi, D. Spizzichino, and A. Trigila
 Solid discharge and landslide activity at basin scale
- XY593 EGU2012-11106
G. Ravazzani, M. C. Rulli, B. Groppelli, D. Bocchiola, F. Colombo, M. Mancini, and R. Rosso
 Raster based modelling of watershed erosion and sedimentation in an Alpine basin of Northern Italy
- XY594 EGU2012-11159
 A. Barkwith, L. Wang, C. Jackson, and **M. Ellis**
 Towards understanding the dynamics of environmental sensitivity to climate change: introducing the DESC model
- XY595 EGU2012-11321
C. Castillo, R. Pérez, M.R. James, J.N. Quinton, E.V. Taguas, and J.A. Gómez
 Comparing the accuracy of several field methods for measuring gully erosion
- XY596 EGU2012-12711
 J. P. Nunes, J. C. Lima, **L. Bernard-Jannin**, S. Veiga, M. L. Rodríguez-Blanco, E. Sampaio, D. P. Batista, R. Zhang, M. E. Rial-Rivas, M. Moreira, J. M. Santos, J. J. Keizer, and J. Corte-Real
 Impacts of climate change on soil erosion in Portuguese watersheds with contrasting Mediterranean climates and agroforestry practices

SSS5.10 – Dynamics of soil surface characteristics (including physical and biological soil crusts): consequences on soil functioning and role of climate and land use change – Orals

Convener: O. Cerdan | Co-Conveners: O. Malam Issa, B. MARIN, J. L. Rajot

Room: 22

Chairperson: n.n.

- 08:30–08:45 EGU2012-359
M.A Bowker, J. Belnap, F.T. Maestre, and V.B. Chaudhary
 What controls dryland soil stability? The surprising importance of biocrusts and their possible sensitivity to climate change
- 08:45–09:00 EGU2012-3692
E. Zaady, H. Yizhaq, and Y. Ashkenazy
 Biological soil crust succession impact on soil moisture and temperature in the sub-surface along a rainfall gradient
- 09:00–09:15 EGU2012-2760
B. Büdel, H. Reichenberger, and W. Williams
 Net primary productivity (NPP) of a biological soil crust (BSC) in northwestern Queensland, Australia.
- 09:15–09:30 EGU2012-2193
Y. Zhang
 Effects of biological soil crusts on seedling growth and element uptake in five desert plants in Junggar Basin, western China
- 09:30–09:45 EGU2012-1970
N. Beaugendre, A. Choné, C. Sannier, J.F. Desprats, O. Cerdan, C. Valentin, O. Malam Issa, and J.L. Rajot
 A predictive model of spatial distribution of Biological Soil Crust in the Sahel from local to regional scale
- 09:45–10:00 EGU2012-7052
T. Fischer, M. Veste, A. Eisele, O. Bens, W. Spyra, and R.F. Hüttl
 High resolution mapping of Normalized Difference Vegetation Indices (NDVI) of biological soil crusts

SSS5.10 – Dynamics of soil surface characteristics (including physical and biological soil crusts): consequences on soil functioning and role of climate and land use change – Posters

Convener: O. Cerdan | Co-Conveners: O. Malam Issa, B. MARIN, J. L. Rajot

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: O. Malam Issa

- XY597 EGU2012-1553
MA Gabarron Galeote, JF Martinez Murillo, and JD Ruiz Sinoga
 Influence of SWR on the hydrological response on two contrasting Mediterranean hillslopes at plot scale using rainfall simulations.
- XY598 EGU2012-11184
 m. malam abdou, **j.-p. vandervaere**, i. bouzou moussa, and I. descroix
 Hydrodynamic behaviour of crusted soils in the Sahel: a possible cause for runoff increase?
- XY599 EGU2012-13804
N. Gál and A. Farsang
 Interactions between soil structure and excess water formation on chernozem soils
- XY600 EGU2012-12385
F. Kebede, E. Mekonnen, N. Taha, A. Verdoodt, and E. Van Ranst
 Surface soil crust types, properties and their response to ameliorants in the irrigated field of Eastern Ethiopia
- XY601 EGU2012-6396
A. Abdourhamane Touré, J.L. Rajot, Z. Garba, B. Marticorena, C. Petit, D. Sebag, and O. Malam Issa
 Wind erosion flux measurements and variability on traditionally cultivated fields in South West Niger: crop residues and soils crust impacts.
- XY602 EGU2012-11864
J. L. Rajot, R. Paris, O. Malam Issa, A. Maman, A. Abdourhamane Touré, C. Valentin, and B. Marticorena
 Effect of biological soil crusts of the Sahel (Niger) on wind erosion
- XY603 EGU2012-3341
Y. Zhao and M. Xu
 Effects of biological soil crusts on soil fertility restoration in the hilly Loess Plateau region, China
- XY604 EGU2012-4189
A. Gay, O. Cerdan, J.F. Desprats, O. Malam Issa, C. Valentin, J.L. Rajot, and L. Descroix
 Including physical and biological soil crusts properties in gully prediction
- XY605 EGU2012-7524
O. Cerdan, M. Le, O. Malam Issa, C. Valentin, J.L. Rajot, and J.F. Desprats
 Calibration of a physically based soil erosion model for different kind of biological soil crust
- XY606 EGU2012-9307
M. Gommeaux, O. Malam Issa, T. Bouchet, C. Valentin, J.-L. Rajot, I. Bertrand, G. Alavoine, J.-F. Desprats, O. Cerdan, and D. Fatondji
 Estimating the loss of C, N and microbial biomass from Biological Soil Crusts under simulated rainfall
- XY607 EGU2012-13569
W. Williams, D. Eldridge, B. Budel, and H. Reichenberger
 Diminution of soil carbon sequestration following 72 years grazing disturbance; a study of cyanobacterial soil crusts from the Australian Mulga Lands
- XY608 EGU2012-9879
F. Ehrhardt, G. Alavoine, and I. Bertrand
 Measurement of dinitrogen fixation by Biological soil crust (BSC) from the Sahelian zone: an isotopic method.
- XY609 EGU2012-9264
A. Bourguignon, O. Cerdan, J.F. Desprats, B. Marin, O. Malam Issa, C. Valentin, and J.L. Rajot
 Effect of mineralogical, geochemical and biological properties on soils reflectance to assess temporal and spatial dynamics of BSCs in Sahelian ecosystems
- XY610 EGU2012-9353
B. Cancès, G. Gommeaux, B. Marin, M. Ponthieu, C. Ralahimanana, S. Ayachi, and O. Malam Issa
 Variability of physicochemical and mineralogical characteristics of biological soil crusts at local scale in the Sahelian zone of western Niger
- XY611 EGU2012-12145
O. Malam Issa, P. Hiernaux, A. Kalilou, J.L. Rajot, and J. Languille
 Relationship between the herbaceous and woody vegetation characteristics and biological soil crusts distribution in fallow and rangeland across a latitudinal gradient in Sahelian Western Niger
- XY612 EGU2012-10285
K. J-M Ambouta, B. Hassan Souley, O. Malam Issa, J. L. Rajot, and A. Mohamadou
 Local knowledge and perception of biological soil crusts by land users in the Sahel (Niger)

HS9.3/SSS5.23 – Effects of forest cover loss and land use change on erosion, sediment dynamics and ecosystem health (co-organized) – Orals

Convener: J. Bathurst | Co-Conveners: P. Owens

Room: 39

Chairperson: J.C. Bathurst & P.N. Owens

- 08:30–08:45 EGU2012-1363
M. Vanmaercke, J. Poesen, G. Govers, G. Verstraeten, A. Kettner, and M. Van Den Eeckhaut
 Quantifying the effects of human impact on sediment yield for European catchments
- 08:45–09:00 EGU2012-256
E. Nadal Romero, P. Serrano Muela, and D. Regüés
 The effects of forest cover in the hydrological and sediment response in a small Mediterranean mountain catchment
- 09:00–09:15 EGU2012-11476
W. Meng and T.A. Bogaard
 Evaluation of Mechanical Effect of Vegetation on Slope Stability in Terms of Root Evolution
- 09:15–09:30 EGU2012-13911
F. Cisneros, E. Pacheco, C. Coello, and G. Wyseure
 Assessment the spatial and temporary variability of sediments production taken into account the land use and the climate change, In the Paute river basin southern Ecuador
- 09:30–09:45 EGU2012-6876
P.N. Owens, T.R. Giles, W.H. Blake, E.L. Petticrew, and R. Bol
 Muted response of fine-grained sediment to a wildfire in British Columbia: the role of landscape disturbances and driving forces
- 09:45–10:00 EGU2012-8747
A.J. Espejo Perez, J.V. Giraldez Cervera, and K. Vanderlinden
 A probabilistic water erosion model for Mediterranean olive orchards with changing cover factor

HS9.3/SSS5.23 – Effects of forest cover loss and land use change on erosion, sediment dynamics and ecosystem health (co-organized) – Posters

Convener: J. Bathurst | Co-Conveners: P. Owens

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: J.C. Bathurst & P.N. Owens

- A376 EGU2012-1316
W. Maetens, J. Poesen, and M. Vanmaercke
 Plot runoff and soil loss rates under forest and shrubland in Europe and the Mediterranean. - A review -
- A377 EGU2012-8228
J.C. Bathurst
 Forests and Soil Erosion across Europe
- A378 EGU2012-8219
 S. Fabregas, **R. Hurtado**, J. Mintegui, J.C. Robredo, and J.L. García-Rodríguez
 The effects of reforestation of mountain basins on its evolution into forests, and on the stabilization of the streams draining into them. The case of Arratiecho's gorge basin in Aragon Pyrenees (Spain)
- A379 EGU2012-7143
T. Orfanus
 Wood logging and surface runoff generation under central European conditions (mechanisms, mitigation measures)
- A380 EGU2012-3231
A. Iroume, P. Schuller, A. Bronstert, P. Carey, H. Palacios, and H. Ulloa
 Runoff and suspended sediment transport after plantation interventions in experimental catchments with contrasting rainfall conditions, Chile
- A381 EGU2012-2156
 P. Schuller, D.E. Walling, **A. Iroume**, A. Castillo, and C. Quilodran
 Sediment source fingerprinting to quantify fine sediment sources in forested catchments, Chile.
- A382 EGU2012-2785
M. Guns, V. Vanacker, and A. Demoulin
 Role of land use change in landslide-related sediment fluxes in tropical mountain regions
- A383 EGU2012-14291
 K.A. Caley and **P.N. Owens**
 The influence of historical forestry practices and climate forcing on the sediment retention function of wetlands and their ability to protect downstream aquatic ecosystems
- A384 EGU2012-12545
E. L. Shuttleworth, M. G. Evans, J. J. Rothwell, and S. M. Hutchinson
 Suitability of field portable XRF for the study of contaminated peat soils
- A385 EGU2012-4257
N. J. Kuhn
 Interrill Erodibility of P and C on conventionally and organically farmed Devon soils

- A386 EGU2012-965
T. Russo and A. Fisher
 Monitoring wildfire impacts on surface water-groundwater interactions in a Coho salmonid stream habitat
- A387 EGU2012-491
H. Gibbs, A. Gurnell, K. Heppell, and K. Spencer
 Urban river restoration: implications on channel sedimentation patterns and associated ecosystem and human health

SSS7.5 – Biochar for soil remediation and global warming mitigation – Orals

Convener: J. Paz-Ferreiro | Co-Conveners: A. M. Tarquis, G. Gascó, A. M. Méndez Lázaro, L. Li, N. J. Ostle, P. Genxing, B. Glaser, P. Pereira, A. Merino

Room: 3

Chairperson: J. Paz-Ferreiro, G. Gascó, B. Glaser

- 10:30–10:45 EGU2012-2126
K. Kuzyakov, I. Bogomolova, and B. Glaser
 Decomposition and transformation of ¹⁴C labeled black carbon in soil
- 10:45–11:00 EGU2012-4498
J. Paz-Ferreiro, G. Gascó, A. Méndez, N.J. Ostle, and N.P. McNamara
 Effects of biochar on greenhouse gas emissions from arable and bioenergy crops
- 11:00–11:15 EGU2012-241
H.-P. Schmidt
 Biochar as carrier for plant nutrients and microorganisms - techniques of agro-activation
- 11:15–11:30 EGU2012-3776
 Y.Y. Fang, **B. Singh**, B.P. Singh, and E. Krull
 Mineralization of biochars in soils of contrasting mineral composition from Australia
- 11:30–11:45 EGU2012-5141
R. Felber, J. Leifeld, and A. Neftel
 Biochar application reduces N₂O emission in intensively managed temperate grassland
- 11:45–12:00 EGU2012-11836
B. Wilske, M. Bai, C. Eckhardt, C. Kammann, P. Kraft, M. Bach, H.-G. Frede, and L. Breuer
 Biochar degradation in different soils

LUNCH BREAK

Chairperson: J. Paz-Ferreiro, A. Merino, P. Pereiro

- 13:30–13:45 EGU2012-12780
F.G.A. Verheijen, S. Jeffery, A.C. Bastos, and M. van der Velde
 Biochar effects on soils: overview and knowledge gaps
- 13:45–14:00 EGU2012-1006
Dr Sohi and Dr Cross
 Toward a predictive understanding for the function of biochar in soil
- 14:00–14:15 EGU2012-547
M. Rack and J. Woods
 Life Cycle Assessment of Biochar - EuroChar Project
- 14:15–14:30 EGU2012-994
S. D. C. Case, J. Whitaker, N. P. McNamara, and D. S. Reay
 Biochar suppression of N₂O emissions from an agricultural soil: effects and potential mechanisms
- 14:30–14:45 EGU2012-1584
A. Watzinger, S. Feichtmair, F. Rempt, E. Anders, B. Wimmer, B. Kitzler, S. Zechmeister-Boltenstern, M. Horacek, F. Zehetner, S. Kloss, S. Richoz, and G. Soja
 The effect of biochar amendment on the soil microbial community - PLFA analyses and ¹³C labeling results
- 14:45–15:00 EGU2012-656
J. Chen, J. Qu, X. Liu, J. Zheng, L. Li, and G. Pan
 Inconsistent Changes in Microbial Community Structure and Abundance with Biochar Amendment in Rice Paddy Soils from South China
- Chairperson: J. Paz-Ferreiro, N. Ostle, L. Li
- 15:30–15:45 EGU2012-12040
G. Rein, R. Hadden, and C. Zarcone
 From organic matter to pyrogenic char to ash: the role of smouldering combustion in wildfires

- 15:45–16:00 EGU2012-10369
E. Michie, P. Panzacchi, C.A. Davies, S. Toet, and P. Ineson
 Soil-plant-biochar interactions and effects on soil C and N cycling in a wheat greenhouse pot experiment.
- 16:00–16:15 EGU2012-665
R. Bian, L. Cui, G. Pan, and L. Li
 Biochar amendment reduces rice Cd uptake in polluted and unpolluted paddy soils: a long term field experiment
- 16:15–16:30 EGU2012-781
A. Brennan and C. Switzer
 Biochar and the remediation of soil micropollutants
- 16:30–16:45 EGU2012-10335
P. Panzacchi, C.A. Davies, M. Ventura, E.J. Michie, and G. Tonon
 Soil GHG emissions in a Miscanthus plantation as affected by increasing rates of biochar application.
- 16:45–17:00 EGU2012-1114
HS Schulz and BG Glaser
 Compared Biochar and Compost effects on plant growth and soil factors as reported for three consequent greenhouse trial setups

SSS7.5 – Biochar for soil remediation and global warming mitigation – Posters

Convener: J. Paz-Ferreiro | Co-Conveners: A. M. Tarquis, G. Gascó, A. M. Méndez Lázaro, L. Li, N. J. Ostle, P. Genxing, B. Glaser, P. Pereira, A. Merino

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: A.M. Mendez, J. Paz-Ferreiro, A.M. Tarquis

- XY613 EGU2012-539
G. Bárcenas-Moreno, E. Escalante, A. Pérez-Bejarano, L.M. Zavala, and A. Jordán
 Microbial response to the effect of quantity and quality soil organic matter alteration after laboratory heating
- XY614 EGU2012-612
A. Zhang, Q. Hussian, L. Li, J. Zheng, G. Pan, X. Zhang, and R. Bian
 Biochar amendment decreased global warming potential of a Cd/Pb contaminated paddy ecosystem from the Tai Lake plain, China
- XY615 EGU2012-1274
P. Jiménez-Pinilla, E. Lozano, J. Mataix-Solera, V. Arcenegui, L.M. Zavala, A. Jordán, A. Morugán, A. Pérez-Bejarano, and G.M. Bárcenas
 The role of ash on soil water repellency changes in a Mediterranean area affected by a forest fire: a field conditions study
- XY616 EGU2012-1599
 K. Friede, **K. Rößler**, K. Terytze, I. Vogel, F. Worzyk, R. Schatten, R. Wagner, M. Haubold-Rosar, A. Rademacher, U. Weiß, K. Weinfurter, D. Drabkin, S. Zundel, and S. Trabelsi
 Sustainable land-use by regional energy and material flow management using "Terra-Preta-Technology"
- XY617 EGU2012-1910
P. Pereira, A. Cerdà, X. Ubeda, and J. Mataix-Solera
 Vegetation ash erosion. State-of-the-art and future perspectives.
- XY618 EGU2012-2103
 B. Omil, M.T. Fonturbel, J.A. Vega, M.A. Balboa, and **A. Merino**
 Soil organic matter dynamics and microbial activity in a cropland and soil treated with wood ash containing charcoal
- XY619 EGU2012-3674
I. Campos, N. Abrantes, P. Pereira, C. Vale, A. Ferreira, and J.J. Keizer
 Characterization of polycyclic aromatic hydrocarbons and metals in ashes released from a forest fire
- XY620 EGU2012-4061
J.A. Alburquerque, J.M. Calero, R. Villar, V. Barrón, J. Torrent, M.C. del Campillo, and A. Gallardo
 Effects of biochar produced from different feedstocks on soil properties and sunflower growth
- XY621 EGU2012-5701
P. Pereira and X. Ubeda
 Modelling ash extractable Total Phosphorous and Total Sulphur distribution after a forest fire
- XY622 EGU2012-8010
K. Rasmusson, A. Niemi, F. Fagerlund, J. Carrera, and Y. Tsang
 Identification of scale effects in dissolution trapping from the response of a push-pull experiment
- XY623 EGU2012-9501
E. Agrafioti, G. Bouras, D. Kalderis, and E. Diamadopoulos
 Pyrolysis of Greek sewage sludge to produce biochars for soil amendments

- XY624 EGU2012-10996
S.A. McCormack, A.J. Vanbergen, R.D. Bardgett, D.W. Hopkins, and N. Ostle
Biochar and biological carbon cycling in temperate soils
- XY625 EGU2012-11763
G. Ojeda, X. Domene, S. Mattana, J.P. Sousa, O. Ortiz, P. Andres, and J.M. Alcañiz
Soil biochar amendments: type and dose effects
- XY626 EGU2012-12323
B. Beckingham, J.L. Gomez-Eyles, S. Kwon, G. Riedel, C. Gilmour, and U. Ghosh
Sorption of priority pollutants to biochars and activated carbons for application to soil and sediment remediation
- XY627 EGU2012-13535
A.C. Bastos, N. Abrantes, M. Prodana, F. Verheijen, J.J. Keizer, A.M.V.M. Soares, and S. Loureiro
Effects of aqueous soil-biochar extracts on representative aquatic organisms: a first evaluation
- XY628 EGU2012-4409
G. Gascó, J. Paz-Ferreiro, F. Araujo, F. Guerrero, and **A. Méndez**
Study of heavy metal bioavailability in a soil contaminated by Ni+2 after application of biochar prepared from olive mill pomace
- XY629 EGU2012-596
X. Liu, G.X Pan, L.Q. Li, and T. Zhou
Influence of biochar amendment on greenhouse gases emission and rice production in paddy field, China
- XY630 EGU2012-607
L. Cui, G. Pan, L. Li, and J. Yan
Effect of Biochar Amendment on Bioavailability and the Uptake of Cd by Crops in a Contaminated Paddy
- XY631 EGU2012-1446
M. Alhassan and J.M. Andresen
Effect of bone on the pyrolysis product distribution and composition in a fixed bed reactor
- XY632 EGU2012-2413
C. Niggli and H.-P. Schmidt
Biochar in viticulture
- XY633 EGU2012-4385
G. Gascó, J. Paz-Ferreiro, F. Araujo, F. Guerrero, and A. Méndez
Remediation of a contaminated soil by Ni+2 after application of biochar prepared from de-inking paper sludge: Influence on enzyme activities
- XY634 EGU2012-5193
I. Hilber, F. Blum, S. Hale, G. Cornelissen, HP. Schmidt, and T.D. Bucheli
Total and bioavailable PAH concentrations in biochar - a future soil improver
- XY635 EGU2012-5224
I. Bargmann, J.M. Greef, and M. Kücke
Impact of hydrochar application on soil nutrient dynamics and plant availability
- XY636 EGU2012-6395
D. Werner, K. Bushnaf, P. Meynet, S. Puricelli, and S. Saponaro
Effect of biochar on the fate of volatile petroleum hydrocarbons and soil microbiology in an aerobic sandy soil
- XY637 EGU2012-6432
S. Kloss, F. Zehetner, S. Feichtmair, B. Wimmer, S. Zechmeister-Boltenstern, B. Kitzler, A. Watzinger, and G. Soja
Biochar application to temperate soils - effects on soil fertility and crop yield
- XY638 EGU2012-13770
L. Li, Y. Liu, W. Pan, G. Pan, J. Zheng, J. Zheng, and X. Zhang
Effects of Amendment of Biochar and Pyroligneous Solution from wheat straw pyrolysis on Yield and soil and crop salinity in a Salt stressed cropland from Central China Great Plain
- XY639 EGU2012-1637
B. Weiner, I. Baskyr, J. Pörschmann, and F.-D. Kopinke
Fate of Organic Micropollutants during Hydrothermal Carbonization

SSS7.6 – Movement and Fate of eroded soil organic matter in terrestrial ecosystems – Orals

Convener: N. J. Kuhn | Co-Conveners: T. Quine, K. Van Oost, m. evans

Room: 3

Chairperson: Nikolaus J. Kuhn

08:30–08:45 EGU2012-3009

E.T. Sundquist, K. Visser Ackerman, R.F. Stallard, and N.B. Bliss

Historical Influence of Soil and Water Management on Carbon Erosion and Burial in the United States

- 08:45–09:00 EGU2012-5509
V. Dlugoß, P. Fiener, and K. Schneider
 Depth distribution of soil organic carbon fractions and AMS 14C concentrations at different landscape positions
- 09:00–09:15 EGU2012-9572
R.E. Brazier, L. Turnbull, J. Wainwright, A. Puttock, and R. Bol
 Quantifying carbon loss by water erosion across a semi-arid grass to shrub transition
- 09:15–09:30 EGU2012-8400
J. N. Quinton, M.C Ockenden, C. Deasy, and N. Favaretto
 Trapping carbon in small ponds and wetlands
- 09:30–09:45 EGU2012-10424
L.H. Cammeraat, F. Kirkels, and N.J. Kuhn
 Soil erosion, sedimentation and the carbon cycle
- 09:45–10:00 EGU2012-8037
 Z. Wang, **G. Govers**, K. Van Oost, and R. Merckx
 Timing the carbon cycle: how far does the soil erosion benefit stretch ?

SSS7.6 – Movement and Fate of eroded soil organic matter in terrestrial ecosystems – Posters

Convener: N. J. Kuhn | Co-Conveners: T. Quine, K. Van Oost, m. evans

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Nikolaus J. Kuhn

- XY640 EGU2012-2105
N. J. Kuhn and E.K. Armstrong
 Erosion of organic matter from sandy soils: solving the mass balance
- XY641 EGU2012-2109
N. J. Kuhn
 Connecting the cycles: Impact of sediment, carbon and nutrient erosion on GHG emissions
- XY642 EGU2012-2328
W Schwanghart, T Jarmer, A Bayer, U Hoffmann, M Hunziker, NJ Kuhn, and M Ehlers
 Regression techniques for estimating soil organic carbon contents from VIS/NIR reflectance spectra
- XY643 EGU2012-3091
R.T. Jones, K. Caley, and P. Owens
 Paleolimnological records of Holocene carbon cycling: a late-glacial - Holocene record from Boswell Lake, British Columbia
- XY644 EGU2012-4245
P.I.A. Kinnell
 The effect of particle travel rate on the loss of organic matter for sheet and interrill erosion areas
- XY645 EGU2012-4998
U. Hoffmann, T. Hoffmann, and E.A. Johnson
 Assessment of variability and uncertainty of regional soil organic carbon inventories in mountain environments (Canadian Rocky Mountains, Alberta)
- XY646 EGU2012-6371
N. Chirinda, L. Elsgaard, IK Thomsen, M Lægdsmand, G Heckrath, BM Petersen, and JE Olesen
 Topographic variability influences the carbon sequestration potential of arable soils
- XY647 EGU2012-7937
F. Wiaux, J.-T. Cornelis, K. Van Oost, and M. Vanclooster
 Space-time dynamics of soil respiration link to the C pool distribution at the hillslope scale
- XY648 EGU2012-8620
Y. Hu, N.J. Kuhn, and W. Fister
 Selective nature and inherent variability of interrill erosion across prolonged rainfall simulation
- XY649 EGU2012-8659
Y. Hu, L. Xiao, N.J. Kuhn, and W. Fister
 Using settling velocity to assess movement and fate of soil organic carbon after erosion
- XY650 EGU2012-9089
H. Croft and K. Anderson
 Directional reflectance factors for monitoring spatial changes in soil surface structure and soil organic matter erosion in agricultural systems
- XY651 EGU2012-13465
W. Fister, N.J. Kuhn, S. Tesch, N. Itin, G. Heckrath, and J.B. Ries
 Erosion of SOC and Phosphor - linkage between transport rate and grain size as a function of time
- XY652 EGU2012-13893
 N. J. Kuhn and **R. Strunk**
 Soil Organic Matter Feedback to changes in soil moisture regimes

- XY653 EGU2012-13895
N. J. Kuhn, **M. Würsch**, M. Hunziker, and J. Þórsson
Soil Organic Matter recovery on eroding alluvial surfaces on Iceland
- XY654 EGU2012-13899
E. Armstrong, A. Ling, and **N.J. Kuhn**
Soil Organic Matter Erosion by Interrill Processes from Organically and Conventionally farmed Devon Soil
- XY655 EGU2012-13926
P. Greenwood
Exploring the potential for using artificial radionuclides to assess the selective erosion of sediment particles and soil organic matter

TM2 – Soil conservation policies and strategies in Europe (co-listed) – Orals

Convener: J. A. Gomez | Co-Conveners: A. Cerdà, Prof. Quinton, G. Govers, L. Montanarella, E. Gonzalez

Room: 4

Chairperson: n.n.

19:00–20:00

Wednesday, 25 April

GM4.2 – Organic matter export across landscapes: Understanding the rates and controls (co-listed) – Orals

Convener: R. Hilton | Co-Conveners: M. Evans

Room: 21

Chairperson: n.n.

- 08:30–08:45 EGU2012-8834
O. Beyssac, M. Marocchi, L. Flukiger, V. Galy, F. Herman, S Cox, and **C.C. Chen**
Tracing fossil particulate organic carbon from bedrocks to river and marine sediments: implications for the geological carbon cycle
- 08:45–09:00 EGU2012-2553
C. Ramos-Scharron and C. Restrepo
The transfer of modern organic Carbon by landslide activity in tropical montane ecosystems
- 09:00–09:15 EGU2012-9396
C. Rixen and **O. Korup**
Soil erosion and organic carbon export by wet snow avalanches
- 09:15–09:30 EGU2012-2458
J.C. Smith, N. Hovius, A. Galy, A. Tye, and J. Turowski
Particulate organic carbon export from soil and vegetation in temperate mountain regions
- 09:30–09:45 EGU2012-9798
F. Tamooh, F. Meysman, T. R. Marwick, A. V. Borges, R Merckx, J Nyunja, and S Bouillon
Seasonal dynamics of organic carbon in the Tana River Basin, Kenya
- 09:45–10:00 EGU2012-13331
T. Eglinton, V. Galy, X. Feng, N. Drenzek, A. Dickens, C. Ponton, L. Giosan, E. Schefuss, B. Voss, J. Vonk, O. Gustafsson, D. Montlucon, and Y. Wu
Climate controls on the residence time of terrestrial biospheric carbon in river basins

GM4.2 – Organic matter export across landscapes: Understanding the rates and controls (co-listed) – Posters

Convener: R. Hilton | Co-Conveners: M. Evans

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XL128 EGU2012-4407
L. Lombardo, T. Vanwalleghem, and **J.A. Gomez**
Organic carbon fluxes in stemflow, throughfall and rainfall in an olive orchard
- XL129 EGU2012-4232
J.A. Gomez, M. Burguet, M.E. Taguas, R. Perez, J.L. Ayuso, T. Vanwallgehem, J.V. Giraldez, and K. Vanderlinden
Distribution of soil organic carbon in two small agricultural Mediterranean catchments.
- XL130 EGU2012-6510
M. Glendell and **R.E. Brazier**
Controls on suspended sediment, particulate and dissolved organic carbon export from two adjacent catchments with contrasting land-uses, Exmoor UK.
- XL131 EGU2012-12415
E. L. Shuttleworth, M. G. Evans, J. J. Rothwell, and S. M. Hutchinson
Impacts of erosion and restoration on POC flux and pollutant mobilisation in the peatlands of the Peak District National Park, UK
- XL132 EGU2012-10760
M. Moreno and M. M Castillo
Storage and transport of particulate organic matter in tropical headwater streams with different catchment land use
- XL133 EGU2012-7232
K. Bunte, **JM Turowski**, N Federspiel, K Swingle, C Rickli, and SR Abt
Coarse particulate organic matter transport and particle-size distribution in two mountain streams
- XL134 EGU2012-8156
J. Bouchez, V. Galy, J. Gaillardet, C. France-Lanord, R.G. Hilton, and L. Maurice
Transport of particulate organic carbon in the Amazon River: insights from river sediment depth-profiles
- XL135 EGU2012-4584
R. G. Hilton, A. Galy, N. Hovius, S. J. Kao, M. J. Horng, and H. Chen
Climatic and geomorphic controls on the erosion of biomass from subtropical mountain forest

- XL136 EGU2012-11086
B. M. Voss, B. Peucker-Ehrenbrink, T. I. Eglinton, and V. Galy
Do different components of terrestrial sources contribute to the riverine suspended load?
- XL137 EGU2012-5474
G. Erkens, M. Van der Meulen, and H. Middelkoop
The storage of carbon in Holocene deposits in the Netherlands
- XL138 EGU2012-10920
C. Goulsbra, M. Evans, and T. Allott
Oxidation rates of overbank POC deposition in an eroding peatland
- XL139 EGU2012-12455
C. Goulsbra, M. Evans, and T. Allott
Inferring rates of in-river POC-DOC transformation using radio carbon dating
- XL140 EGU2012-8380
S. Waldron, S. Drew, D. Gilvear, H. Murray, and K. Heal
Advancing understanding of the fluvial export of organic matter through high-resolution profiling of dissolved organic carbon.
- XL141 EGU2012-2624
D.N. Kothawala, C.A. Stedmon, G.A. Weyhenmeyer, S. Köhler, R.A. Müller, and L.J. Tranvik
Structure of dissolved organic matter across 500 boreal lakes analyzed by fluorescence spectroscopy
- XL142 EGU2012-12546
G. Riise, D. Hongve, S. Haaland, R. Müller, and S. Sobek
Key factors determining DOM and colour in boreal forest lakes

GM4.3 – Sediment and carbon fluxes under human impact and climate changes (co-listed) – Orals

Convener: T. Hoffmann | Co-Conveners: G. Erkens, G. Verstraeten

Room: 21

Chairperson: n.n.

- 10:30–10:45 EGU2012-3047
S. M. Mudd and **K. Yoo**
Influence of erosion rates on particle size and carbon export from upland landscapes
- 10:45–11:00 EGU2012-11695
J. O. Kaplan and T. Vanwalleghem
Anthropogenic soil erosion over the Holocene: Application of a new dynamic soils module for global vegetation models
- 11:00–11:15 EGU2012-13834
K. Van Oost, G. Verstraeten, B. Notebaert, N. Broothaerts, S. Doetterl, and F. Wiaux
Carbon emissions as a result of land use change and accelerated soil erosion: perspectives in time & space.
- 11:15–11:30 EGU2012-12571
R. Aalto and A. Aufdenkampe
Episodic Emplacement of Sediment + Carbon within Large Tropical River Basins
- 11:30–11:45 EGU2012-7709
D. Schillereff, R. Chiverrell, J. Boyle, N. Macdonald, and J. Hooke
Brotherswater, English Lake District: a record of organic and inorganic sediment flux over the past two millenia
- 11:45–12:00 EGU2012-6827
R. Wasson
Delays in fluvial systems

HS6.2 – Remote sensing of soil moisture (co-listed) – Orals

Convener: W. Wagner | Co-Conveners: N.E.C. Verhoest, A. Loew, P. de Rosnay, S. Mecklenburg, J.-P. Wigneron, M. Drusch, Y. Kerr

Room: 36

Chairperson: n.n.

- 13:30–14:00 EGU2012-7860
Y. Kerr, D. Leroux, P. Richaume, J.P. Wigneron, A. Mialon, A. Mahmoodi, A. Al Bitar, N. Novello, C. Gruhier, T. Pellarin, C. Rudiger, H. Lawrence, P. De rosny, and C. Albergel
Soil moisture retrievals: where are we?
- 14:00–14:15 EGU2012-3222
R. Parinussa, T. Yilmaz, M. Anderson, C. Hain, and R. de Jeu
0.1 degree soil moisture retrievals from passive microwave observations

- 14:15–14:30 EGU2012-2595
C. Fatras, **F. Frappart**, E. Mougin, M. Grippa, and P. Hiernaux
Surface soil moisture over Sahel derived from ENVISAT RA-2 radar altimetry backscattering coefficients
- 14:30–14:45 EGU2012-221
C. A. Rivera Villarreyes, G. Baroni, and S. E. Oswald
Integral Quantification of Soil Water Content at the Intermediate Catchment Scale by Ground Albedo Neutron Sensing (GANS)
- 14:45–15:00 EGU2012-906
S. Abelen, F. Seitz, and A. Guentner
Global comparison of soil moisture variations as derived from remote sensing, satellite gravimetry, and hydrological modeling
- Chairperson: n.n.
- 15:30–15:45 EGU2012-1404
C. Albergel, P. de Rosnay, C. Gruhier, J. Munoz-Sabater, S. Hasenauer, L. Isaksen, Y. Kerr, and W. Wagner
Evaluation of remotely sensed and modelled soil moisture products using global ground-based in situ observations
- 15:45–16:00 EGU2012-5338
N. Wanders, D. Karssenberg, M.F.P. Bierkens, J.C. Van Dam, and S.M. De Jong
Using high-resolution soil moisture modelling to assess the uncertainty of microwave remotely sensed soil moisture products at the correct spatial and temporal support
- 16:00–16:15 EGU2012-7343
K. Rötzer, C. Montzka, H. Bogen, W. Wagner, R. Kidd, and H. Vereecken
Validation of SMOS and ASCAT Soil Moisture Products - Time Series Analysis in the Rur and Erft Catchments
- 16:15–16:30 EGU2012-3558
S. Sela, T. Svoray, and S. Assouline
Spatiotemporal evolution of water content at the rainfall-event scale under soil surface sealing conditions
- 16:30–16:45 EGU2012-557
B. Snapir and S. Hobbs
Effect of temporal sampling and timing for soil moisture measurements at field scale
- 16:45–17:00 EGU2012-511
L. Zhao, K. Yang, J. Qin, Y. Chen, W. Tang, H. Wu, C. Lin, M. Han, and C. Montzka
Spatiotemporal analysis of soil moisture at a Tibetan Plateau soil moisture/temperature monitoring network

HS6.2 – Remote sensing of soil moisture (co-listed) – Posters

Convener: W. Wagner | Co-Conveners: N.E.C. Verhoest, A. Loew, P. de Rosnay, S. Mecklenburg, J.-P. Wigneron, M. Drusch, Y. Kerr

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: N. Verhoest and J.-P. Wigneron

- A220 EGU2012-1995
J. Van doninck and N.E.C. Verhoest
Multi-temporal angular correction of ASAR Wide Swath data and the influence of vegetation phenology
- A221 EGU2012-1710
T. Y. Gan and J. Nasreen
Soil moisture retrieval from combined use of microwave (RADARSAT-2) and optical remote sensing (MODIS)
- A222 EGU2012-9193
J. Alvarez-Mozos, A. Izagirre, and A. Larrañaga
Soil moisture estimation in cereal fields using multipolarized SAR data
- A223 EGU2012-4395
P. A. M. Berry, M. Dowson, R.G. Smith, J. Carter, **J. Benveniste**, and S. Witheridge
Soil Moisture from Satellite Radar Altimetry (SMALT)
- A224 EGU2012-10472
G. Nearing, M.S. Moran, R. Scott, and G. Ponce-Campos
Estimating Thermal Inertia with a Maximum Entropy Boundary Condition
- A225 EGU2012-7457
Y. Kerr, P. Richaume, J.-P. Wigneron, P. Waldteufel, S. Mecklenburg, F. Cabot, J. Boutin, J. Font, and N. Reul
SMOS after 2 YEARS and a half in orbit

- A226 EGU2012-7557
Y. Kerr, A. Mialon, A. Al Bitar, D. Leroux, P. Richaume, C. Gruhier, L. Berthon, N. Novello, C. Rudiger, S. Bircher, J.P. Wigneron, P. Ferrazzoli, and R. Rahmoune
 SMOS Soil moisture Cal val activities
- A227 EGU2012-5009
D.J. Leroux, Y.H. Kerr, R.A.M. de Jeu, and A. Mialon
 Simplified algorithm for SMOS: adaptation of the Land Parameter Retrieval Model
- A228 EGU2012-5456
L. Berthon, A. Mialon, A. Al Bitar, F. Cabot, and Y.H. Kerr
 SMOS CATDS level 3 Soil Moisture products
- A229 EGU2012-10240
Y. Soldo, A. Khazaal, F. Cabot, and E. Anterrieu
 RFI mitigation for SMOS: a distributed approach
- A230 EGU2012-4136
X. Li, L. Weihermüller, L.X. Zhang, L.M. Jiang, and H. Vereecken
 Analyzing topography effects for L-band radiometry using an improved model approach
- A231 EGU2012-11239
M. Miernecki, J-P. Wigneron, M. Schwank, I. Volksch, H. Lawrence, A. Coll, Y. Kerr, T. Casal, and E. Lopez-Baeza
 Comparing radiometric data from SMOS and ELBARA-II over VAS (Valencia Anchor Station) in 2010 and 2011
- A232 EGU2012-5179
A.Z. Kotarba, K. Stankiewicz, J. S?omi?ski, E. S?omi?ska, and W. Marczewski
 Droughts and floods monitoring in Poland with SMOS, SEVIRI and model data
- A233 EGU2012-7800
B. Usowicz, W. Marczewski, and J.B. Usowicz
 Spatial and temporal variability of soil moisture on the field with and without plants*
- A234 EGU2012-9238
B. Usowicz, W. Marczewski, J.B. Usowicz, and M.I. Lukowski
 Statistical-physical model of the hydraulic conductivity
- A235 EGU2012-9394
J.B. Usowicz, W. Marczewski, B. Usowicz, M.I. Lukowski, J. Lipiec, and J. Slominski
 The SWEX at the area of Eastern Poland: Comparison of soil moisture obtained from ground measurements and SMOS satellite data*
- A236 EGU2012-230
X.X. Li, L.X. Zhang, and L.M. Jiang
 Measurement and simulation of topographic effects on passive microwave remote sensing over mountain areas: a case study from Tibetan Plateau
- A237 EGU2012-740
D.J. Luscombe, K. Anderson, E. Grand-Clement, N. Le-Feuvre, D. Smith, and R.E. Brazier
 Assessing the ecohydrological status of a drained peatland: Combining thermal airborne imaging, laser scanning technologies and ground water monitoring.
- A238 EGU2012-6991
S. Hahn, T. Melzer, and W. Wagner
 Latest upgrades in the METOP ASCAT Soil Moisture Product
- A239 EGU2012-13603
A. Xaver, A. Gruber, A. Hegiova, A. D. Sanchis-Dufau, and W. A. Dorigo
 The advanced quality control techniques planned for the International Soil Moisture Network
- A240 EGU2012-175
V Capecchi and B Gozzini
 A simple nudging scheme to assimilate ASCAT soil moisture data in the WRF model

HS10.5/BG2.21 – Geological and hydro-biogeochemical feedbacks shaping habitats and biodiversity in terrestrial systems (co-listed) – Posters

Convener: D. Or | Co-Conveners: G. Berberich, A. Hildebrandt, K. Caylor, U. A. Glasmacher

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A356 EGU2012-93
M. Heidak, U.A. Glasmacher, H.F. Schöler, and J.M. Hernández-Moreno
 The use of leaves and roots of *Laurus novocanariensis* as an indicator for soil and rock chemical composition in the environment of a subtropical cloud forest (Tenerife, Canary Islands, Spain).

- A357 EGU2012-548
M. El-Shafeiy, D. Birgel, A. El-Kammar, A. El-Barkooky, and J. Peckmann
 Ecological and Post-Depositional Changes across the Cretaceous-Palaeocene succession Inferred from Molecular Fossils in Black Shales, Egypt
- A358 EGU2012-864
F. Coundoul, F. Moulin, and T. Bonometti
 Role of local conditions of a turbulent boundary layer flow on the colonization and growth of a biofilm: direct numerical simulations and experiments
- A359 EGU2012-1845
R.P. Bartholomeus, J.P.M. Witte, P.M. van Bodegom, J.C. van Dam, and R. Aerts
 Contrasting extremes in water-related stresses determine species survival
- A360 EGU2012-2054
F. Carrara, F. Altermatt, I. Rodriguez-Iturbe, and A. Rinaldo
 Dendritic connectivity controls biodiversity patterns in experimental metacommunities
- A361 EGU2012-2359
S. Ceola, E. Bertuzzo, L. Mari, G. Botter, I. Hödl, T. Battin, and A. Rinaldo
 Hydrologic drivers and controls of stream biofilm-grazer interactions
- A362 EGU2012-2782
N. Claes and D. Or
 Sporulation and Germination patterns - hedging a bet on long term microbial survivability in dry soil
- A363 EGU2012-3079
A. Giometto, F. Carrara, F. Altermatt, and A. Rinaldo
 Microcosms metacommunities in river network: niche effects and biodiversity
- A364 EGU2012-3488
G. Berberich, D. Klimetzek, U. Schreiber, and M. Berberich
 Geogenic Gases and Red Wood Ant Clusters as Indicators for Neotectonic Activity at the Peninsula Bodanrück (South West Germany)
- A365 EGU2012-5213
G. Fytis, S. Reizopoulou, and E. Papastergiadou
 Biodiversity patterns of macrophyte and macroinvertebrate communities in two lagoons of Western Greece.
- A366 EGU2012-6268
A.Ya. Sidorin and A.V. Deshcherevskii
 Biological Indicators in Studies of Earthquake Precursors
- A367 EGU2012-8993
G. Wang and D. Or
 A biophysical index for predicting hydration-mediated microbial diversity in soils
- A368 EGU2012-12851
K.E. Kaiser, B. McGlynn, and R. Emanuel
 Mountain pine beetle infestation impacted by water availability

SSS1.1 – Milestones in Soil Science Research – Orals

Convener: A. Cerdà | Co-Conveners: T. Miano, J. Weber

Room: 6

Chairperson: Artemi Cerdà and A. Sujung

- 08:30–08:45 EGU2012-14416
J. Bech
 Some achievements of the Committee H "Soil Pollution, Degradation and Remediation"
- 08:45–09:00 EGU2012-7963
G. Petruzzelli
 Soil Contamination and Remediation Strategies. Current research and future challenge
- 09:00–09:15 EGU2012-4650
A. C. Scott
 Charcoal in the soil and the Earth System
- 09:15–09:30 EGU2012-14413
Y. Chen, Y. Hadar, and T. Grinhut
 Mechanisms of humic substances degradation by fungi
- 09:30–09:45 EGU2012-865
C Zacccone, W Shotyk, and TM Miano
 The humus 'memory' - Are paleoenvironmental changes and past human activities archived in peat humic acids?
- 09:45–10:00 EGU2012-4400
N. J. Kuhn
 Linking Soil and Sediment Properties for research on Biogeochemical Cycles

- 10:00–10:15 EGU2012-14410
W. Shotyk
 The Wonderful World of Wetlands (WWW): Bogs, fens, marshes and swamps and their global environmental significance

COFFEE BREAK

Chairperson: Teodoro Miano and Maria Fernández Raga

- 10:30–10:45 EGU2012-10400
S. Abiven
 Measuring decomposition to understand stabilisation: A journey to Serendip? The example of root derived and pyrogenic organic matter dynamics in soils
- 10:45–11:00 EGU2012-9165
J. Paz-Ferreiro, A. Mendez, and G. Gascó
 Biochar potential to mitigate soil pollution and soil greenhouse gas emissions
- 11:00–11:15 EGU2012-1719
E.C. Brevik and T.J. Sauer
 The Past, Present, and Future of Soils and Human Health Studies
- 11:15–11:30 EGU2012-8243
B. van Wesemael, A. Stevens, and L. Montanarella
 Land use, land management and soil organic carbon dynamics
- 11:30–11:45 EGU2012-13052
A. Paz-González, A. Tarquis, C. A. de Abreu, K. Olechko, A. Sáa, A. Gobin, J. A. Gómez, and M. Kutilek
 Changes in Land Use and Soils
- 11:45–12:00 EGU2012-8195
J.C. Bathurst
 The Forest as a Soil and Water Manager
- 12:00–12:15 EGU2012-10172
SH Doerr
 Soil water repellency: the knowledge base, advances and challenges

LUNCH BREAK

Chairperson: Jerzy Weber and Claudio Zacccone

- 13:30–13:45 EGU2012-14475
K. Stahr and M. Zarei
 Clay Minerals are controlled by the environment - Clay Minerals control the environment
- 13:45–14:00 EGU2012-8939
B. Jansen
 Molecular proxies in soil science research
- 14:00–14:15 EGU2012-4243
T. Vanwalleghem
 Past soil erosion meeting future challenges
- 14:15–14:30 EGU2012-14414
J. van Mourik
 Geochronology of Palaeosols
- 14:30–14:45 EGU2012-10363
A. Imeson
 Desertification, Land Degradation and the restoration of soil functions
- 14:45–15:00 EGU2012-11213
J.N. Quinton and A. Jarvis
 Soil society feedbacks: sustaining soil services
- 15:00–15:15 EGU2012-10319
L.H. Cammeraat
 Soil fauna, soil properties and geo-ecosystem functioning

SSS1.1 – Milestones in Soil Science Research – Posters

Convener: A. Cerdà | Co-Conveners: T. Miano, J. Weber

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Agata Novara and Paulo Pereira

- XY531 EGU2012-12
A. Cerdà, J.D. Ruiz Sinoga, and L.H. Cammeraat
Soil erosion in a man-made landscape: the Mediterranean
- XY532 EGU2012-11243
G. Eshel and R Egozi
Extreme soil erosion events: an opportunity for promoting awareness for soil conservation
- XY533 EGU2012-811
J. Martínez-Aznar, D. Badía-Villas, C. Martí-Dalmau, and F. J. León-Miranda
A soil toposequence characterization on evaporites in the semiarid Central Ebro Basin (NE-Spain)
- XY534 EGU2012-1688
J. Jabro, R Evans, and W Iversen
Freeze-Thaw Cycles Effects on Soil Compaction in a Clay Loam
- XY535 EGU2012-14417
M. B. Fernández Raga
Splash erosion. A bibliometric Review
- XY536 EGU2012-14418
S. Ahn, S. H. Doerr, P. Douglas, R. Bryant, C. Hamlett, G. McHale, M. Newton, and N. Shirtcliffe
Soil Surface Structure: A key factor for the degree of soil water repellency
- XY537 EGU2012-14415
L. Gristina, G. L. Lo Magno, and A. Novara
Different approaches to establish soil organic carbon saturation level
- XY538 EGU2012-1532
P. Pereira
Ash in the Soil System
- XY539 EGU2012-14390
C. Santín and S.H. Doerr
Black carbon, a 'hidden' player in the global C cycle
- XY540 EGU2012-13871
M.B. Bodí, A. Cerdà, J. Mataix-Solera, and S.H. Doerr
Can vegetative ash be water repellent?
- XY541 EGU2012-14404
J. Neris, M. Tejedor, and C. Jiménez
Fire effects on physical properties of Andisols (Tenerife, Canary Islands)
- XY542 EGU2012-12552
E. Molina-Navarro, R. Bienes-Allas, S. Martínez-Pérez, and A. Sastre-Merlín
In-situ soil loss monitoring in a small Mediterranean catchment to assess the siltation risk of a limno-reservoir
- XY543 EGU2012-846
A. Smetanova, M. Dotterweich, D. Diehl, U. Ulrich, and N. Fohrer
Influence of biochar and terra preta substrates on wettability and erodibility of soils
- XY544 EGU2012-1034
A. Cerdà, F.A. González Peñaloza, M. Burguet, and A. Giménez Morera
Intensification of citrus production and soil loss in Eastern Spain
- XY545 EGU2012-1037
A. Jabro and J. Jabro
Effective Ways to Communicate Research Using the Poster Format
- XY546 EGU2012-1098
F. Bétard
Non-lateritic red soils of the Brazilian drylands: taxonomy, pedogenic processes and potential for sustainable agriculture
- XY547 EGU2012-1569
C. Liu, K. Guo, and Y. Liu
Adaptive strategies against drought stress of six plant species with different growth forms from karst habitats of southwestern China
- XY548 EGU2012-2485
M. Dotterweich, J. Böttcher, and A. Krieger
Terra-Preta-Technology as an innovative system component to create circulation oriented, sustainable land use systems
- XY549 EGU2012-13732
G. Battaia, R. E. Falconer, and W. Otten
Modeling soil organic matter reallocation in soil enhanced by fungal growth

- XY550 EGU2012-4054
R. Andruschkewitsch, D. Geisseler, H. -J. Koch, and B. Ludwig
 Effects of tillage on contents of organic carbon, nitrogen, water-stable aggregates and light fraction for four different long-term trials
- XY551 EGU2012-5600
F. Winter and M. Disse
 Simulation of Runoff Concentration on Arable Fields and the Impact of Adapted Tillage Practises
- XY552 EGU2012-9670
S. Valet, M. Motelica-Heino, and H. Ozier-Lafontaine
 Soil layer condensation peak as a response to soil water properties under Sudanese climatic conditions
- XY553 EGU2012-11529
V. Martinez-Hernandez, A. de Miguel, R. Meffe, M. Leal, V. González-Naranjo, and I. de Bustamante
 Unsaturated flow dynamics during irrigation with wastewater: field and modelling study
- XY554 EGU2012-4347
M. Zimmermann, M. I Bird, and S. Zechmeister-Boltenstern
 Q10 values of tropical forest soil respiration increases with ongoing decomposition
- XY555 EGU2012-7077
 E. Eckmeier, B. Pichler, R. Krebs, C. Mavris, and **M. Egli**
 Black carbon as a carbon source for young soils in a glacier forefield?
- XY556 EGU2012-7933
E. Blagodatskaya, M. Schrumpf, E. Weber, T. Wutzler, G. Gleixner, M. Reichstein, and S. Trumbore
 Microbial control on stability of soil organic matter in drought manipulation experiment
- XY557 EGU2012-11023
L. Gargiulo, G. Mele, and F. Terribile
 Effect of rock fragments on soil surface cracks development in Vertisols
- XY558 EGU2012-6410
 C. Ciavatta, L. Cavani, **L. Sciubba**, and C. Marzadori
 The use of soil organic amendments: an old practice in a changing world
- XY559 EGU2012-3371
J. Frouz
 Interaction of leaf traits and soil fauna and their role for carbon sequestration in soil
- XY560 EGU2012-5116
N. Küçükkuş and T. Ayyıldız
 Reservoir Properties of the Zonguldak Formation, Located in the Western Black Sea Region, Northwestern Turkey

NP3.4/BG2.23/SSS1.7 – Scaling, Nonlinearity, and Complexity in soils (co-organized) – Posters

Convener: A. M. Tarquis | Co-Conveners: E. Perrier, M. Marani, D. Gimenez, R. M. Lark, R. E. Falconer, F. Jimenez-Hornero, A. N. Kravchenko, J. Crawford, M. Steffens, C. W. Mueller, R. Viscarra Rossel

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Daniel Gimenez

- XY426 EGU2012-2287
J.C. Cañasveras, V. Barrón, M.C. Del Campillo, and R.A. Viscarra Rossel
 Reflectance spectroscopy: a tool for predicting the risk of iron chlorosis in soils
- XY427 EGU2012-2648
 C. Fallico, S. Straface, F. Chidichimo, **A.P. Ferrante**, and S. De Bartolo
 Experimental evidences on the scaling behavior of a sandy porous media.
- XY428 EGU2012-5374
 S.I.E. Ern, **L. Trombino**, and C. Cattaneo
 Micromorphological Aspects of Forensic Geopedology II: Ultramicroscopic vs Microscopic Characterization of Phosphatic Impregnations on Soil Particles in Experimental Burials
- XY429 EGU2012-7695
K. Beerten, N. Vandersmissen, B. Rogiers, and D. Mallants
 Assessing soil hydrological variability at the cm- to dm-scale using air permeameter measurements
- XY430 EGU2012-13787
R. Bermudez, A. Marcano Cerdeño, A.M. Tarquis, and D. Andina
 Discrimination of different sub-basins on Tajo River based on water influence factor
- XY431 EGU2012-14051
F. Ballesteros, J. de Castro, A.M. Tarquis, and A. Méndez
 Analysis of soil images applying Laplacian Pyramidal techniques
- XY432 EGU2012-14052
 A.M. Tarquis, M.E. Sanchez, J.M. Antón, J. Jimenez, A. Saa-Requejo, D. Andina, and **J.W. Crawford**
 Sensivity analysis of geometrical and topological parameters to the thresholding soil images

- XY433 EGU2012-14057
A.M. Tarquis, N.R.A. Bird, **E. Perrier**, and J.W. Crawford
Multifractal Analysis in Binary Images
- XY434 EGU2012-14073
H. Millan, A.M. Tarquis, L.D. Pérez, J. Matos, and M. González-Posada
Geostatistical analysis of soil properties at field scale using standardized data
- XY435 EGU2012-14123
P.L. Aguado, J.P. del Monte, R. Moratiel, and A.M. Tarquis
Multiscaling analysis applied to landscape spatial characterization influenced by reservoir level
- XY436 EGU2012-14181
F. Portilla, J.L. Valencia, A.M. Tarquis, and A. Saa-Requejo
Robust regression applied to fractal/multifractal analysis.
- XY437 EGU2012-14185
R. Cumbreira, A.M. Tarquis, G. Gascó, and H. Millán
Prefractal scaling of apparent soil moisture estimated from vertical planes of Vertisol pit images
- XY438 EGU2012-14342
C. Alonso, **R.M. Benito**, and A.M. Tarquis
Comparison of fractal dimensions based on segmented NDVI fields obtained from different remote sensors.
- XY439 EGU2012-14054
A.M. Tarquis, **M.T. Castellanos**, M.C. Cartagena, F. Ribas, M.J. Cabello, A. Arce, and N.R.A. Bird
Scale and space dependencies of Nitrogen variability
- XY440 EGU2012-14359
R. Heck, N.T. Scaiff, D. Andina, and A.M. Tarquis
Influence of voxel size settings in X-Ray CT Imagery of soil in scaling properties
- XY441 EGU2012-260
O.A. Hachay, A.Y. Khachay, and O.Y. Khachay
Geosynergetic Approach for Analyze of Rock State, Theoretical and Experimental Redlts
- XY442 EGU2012-1543
E. Vidal Vázquez, J. G. V. Miranda, and J. Paz-Ferreiro
Multiscale Analysis of Soil Porosity from Hg Injection Curves in Soils from Minas Gerais, Brazil
- XY443 EGU2012-3705
M. Marinho, J. R. Raposo, J. M. Mirás Avalos, and A. Paz González
Statistical and Multifractal Evaluation of Soil Compaction in a Vineyard
- XY444 EGU2012-13613
C. dos Santos Bonini, M. C. Alves, and A. Paz González
Multifractal Characteristics of Bimodal Mercury Pore Size Distribution Curves
- XY445 EGU2012-14371
J. Rodriguez-Gonzalez, A. Saa-Requejo, J.A. Gómez, J.L. Valencia, P. Zarco, and **A.M. Tarquis**
Soil surface roughness and porosity under different tillage systems
- XY446 EGU2012-14210
M. Leopold, J. Völkl, D. Dethier, J. Huber, and M. Steffens
Characteristics of a paleosol and its implication for the Critical Zone development, Rocky Mountain Front Range of Colorado, USA.

SSS2.3 – Weathering and bioweathering: measurement techniques and implications in soil formation – Orals

Convener: P. ADAMO | Co-Conveners: P. López-Arce, B. VELDE, K. Zoghliami, A. Zornoza Indart, Eric Doehne, P. Barré

Room: 6

Chairperson: Paola Adamo

- 15:30–16:00 EGU2012-2802
O.W. Purvis, P. Convey, M.J. Flowerdew, H.J. Peat, and J. Najorka
Lichens and weathering: importance for soil formation, nutrient cycling and adaptation to environmental change
- 16:00–16:15 EGU2012-2184
J. M. Arocena and B. Velde
Breakdown of Clays by Ectomycorrhizal Fungi Through Changes in Oxidation State of Iron
- 16:15–16:30 EGU2012-668
D.M. Freire-Lista, M.J. Varas-Muriel, and **R. Fort**
Micro-fractures produced in the Cadalso de los Vidrios granite (Madrid) subjected to Freeze-Thaw Durability Testing
- 16:30–16:45 EGU2012-4132
M. Dafalla and F. Al Fouzan
SEM viewing of gypsiferous material and study of their influence on electrical resistivity

16:45–17:00 EGU2012-7688

E. Doehne and **S. Pinchin**

Field measurement of erosion rates: time-lapse monitoring of rapid stone flaking at Howden Minster, UK

SSS2.3 – Weathering and bioweathering: measurement techniques and implications in soil formation – Posters

Convener: P. ADAMO | Co-Conveners: P. López-Arce, B. VELDE, K. Zoghiani, A. Zornoza Indart, Eric Doehne, P. Barré

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Paula López-Arce

XY561 EGU2012-6418

P. Barré and B. Velde

Reversibility of soil forming clay mineral reactions induced by plant - clay interactions

XY562 EGU2012-1435

P. Adamo, V. Cozzolino, V. Di Meo, and B. Velde

Can corn plants inoculated with arbuscular mycorrhiza fungi affect soil clay assemblage?

XY563 EGU2012-10006

A. Gontier, S. Rihs, M-P. Turpault, and F. Chabaux

Impact of vegetation change on the mobility of uranium- and thorium-series nuclides in soils

XY564 EGU2012-13195

W.D.C. Schenkeveld, E. Oburger, Y. Schindlegger, A. Regelsberger, S. Hann, M. Puschenreiter, and S.M. Kraemer

The interaction of phytosiderophores with soil as a function of time

XY565 EGU2012-14201

F. Terribile, S. Vingiani, and P. Adamo

The micromorphological approach to rock-lichen interactions

XY566 EGU2012-7944

S. Vingiani, P. Adamo, and F. Terribile

Lichen-rock interaction in volcanic environments: evidences of soil-precursor formation

XY567 EGU2012-3324

S. Giordano, S. Vingiani, and P. AdamoBioweathering of a basalt from Etna (Sicily) by the moss *Grimmia pulvinata* (Hedw.) Sm.

XY568 EGU2012-2706

A.G. Caporale, M. Pigna, J.J. Dynes, V. Cozzolino, J. Zhu, and **A. Violante**

Effect of inorganic and organic ligands on the sorption/desorption of arsenate on/from Al-Mg and Fe-Mg layered double hydroxides

XY569 EGU2012-2680

A.G. Caporale, M. Pigna, A. Sommella, V. Cozzolino, and A. ViolanteInfluence of compost application on arsenic uptake by beans (*Phaseolus vulgaris* L.), irrigated with arsenic-contaminated waters at four different concentrations

XY570 EGU2012-14200

V. Ventorino, O. Pepe, L. Sannino, G. Blaiotta, and S. Palomba

Polyphasic approach to characterize heterotrophic bacteria of biofilms and patina on walls of the Suburban Bath of the Herculaneum's archaeological excavations in Italy

XY571 EGU2012-1749

P. Lopez-Arce, A. Zornoza-Indart, M. Alvarez de Buergo, and R. Fort

Weathering: methods and techniques to measure

XY572 EGU2012-6279

M. García-Rodríguez, J.D. Centeno Carrillo, and **M. Alvarez de Buergo**

Weathering landforms exposure and erosion phases in Pedriza de Manzanares (Spanish Central Range)

XY573 EGU2012-1786

M. Alvarez de Buergo, R. Fort, and E.M. Perez-Monserrat

Evolution of the alteration process in time of granitic materials from Valdemorillo quarries used in built heritage, Madrid, Spain

XY574 EGU2012-9016

M.B. Muñoz-García, P. López-Arce, M.E. Fernández-Valle, J. Dewanckele, J., J. Martín-Chivelet, R. Fort, and V. Cnudde

Weathering of speleothems: study of diagenesis with non-destructive techniques

XY575 EGU2012-1752

A. Zornoza-Indart, P. Lopez-Arce, M. Alvarez de Buergo, and R. Fort

Computed Tomography and Nuclear Magnetic Resonance to study the internal structure and measure weathering

XY576 EGU2012-8300

E. Doehne

Measuring change over time: the use of geotagged photographs to evaluate the weathering of monuments

XY577 EGU2012-14055

B. Fabiola, M. Olivier, F. Houdusse, M. Fuentes, M.J.M. Garcia, J. Lévêque, J.C. Yvin, P.A. Maron, and D. Lemenager

Evaluation of the effect of an additional fertilizer on the dynamics of microbial community and the decomposition of organic matter in soil

SSS3.6/BG2.24 – Land use and land management impacts on soil organic carbon (SOC) dynamics: from the long term experiment to the national inventory (co-organized) – Orals

Convener: B. van Wesemael | Co-Conveners: A. Don, R. Jandl, J. Leifeld, M.A. Muñoz, R. Zornoza

Room: 3

Chairperson: Bas van Wesemael

13:30–14:00 EGU2012-3033

S. Grunwald

Implications of Different Worldviews to Assess Soil Organic Carbon Change

14:00–14:15 EGU2012-4239

C. Poeplau and A. Don

Vulnerability of SOC stocks and fractions to different land-use change types in Europe

14:15–14:30 EGU2012-4197

O. van Straaten, E. Veldkamp, K. Wolf, and M. D. Corre

Effects of land use change on soil organic carbon: a pan-tropic study

14:30–14:45 EGU2012-1817

R. Jandl

Deriving reference values for the soil carbon pool for different forms of land use

14:45–15:00 EGU2012-11987

C. Ammann, J. Leifeld, A. Neftel, and J. Fuhrer

Direct comparison of repeated soil inventory and carbon flux budget to detect soil carbon stock changes in grassland

Chairperson: Maria Munoz Garcia

15:30–15:45 EGU2012-1590

P. Gottschalk, P. Lasch, F. Suckow, F. Hattermann, A. Luettgger, and F. Wechsung

Simulating the impact of land use and climate change on the German soil-carbon, -nitrogen- and -water balance

15:45–16:00 EGU2012-259

M. Wiesmeier, M. von Lützow, P. Spörlein, U. Geuß, E. Hangen, A. Reischl, B. Schilling, and I.

Kögel-Knabner

Soil organic carbon stocks in southeast Germany as affected by land use, soil type and sampling depth

16:00–16:15 EGU2012-4247

M. Nocita, A. Stevens, D. De Brogniez, F. Bampa, G. Toth, P. Panagos, B. van Wesemael, and L.

Montanarella

Prediction of SOC content at European scale by coupling Vis-NIR spectroscopy and a modified local PLSR algorithm

16:15–16:30 EGU2012-11406

R. Zornoza, M.A. Muñoz, and A. Faz

Carbon mineralization and soil fertility at high altitude grasslands in the Bolivian Andean

16:30–16:45 EGU2012-5470

D. Hiltbrunner, F. Hagedorn, P.A. Niklaus, S. Zimmermann, and M.W.I. Schmidt

Moderate effects of reforestation with Norway spruce (*Picea abies*) on carbon storage and turnover in a Swiss sub-alpine pasture

16:45–17:00 EGU2012-1041

S. Grand and L. M. Lavkulich

Effects of logging disturbance on soil organic carbon and related variables in the Coastal Range of British Columbia, Canada

SSS3.6/BG2.24 – Land use and land management impacts on soil organic carbon (SOC) dynamics: from the long term experiment to the national inventory (co-organized) – Posters

Convener: B. van Wesemael | Co-Conveners: A. Don, R. Jandl, J. Leifeld, M.A. Muñoz, R. Zornoza

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Axel Don

- XY578 EGU2012-9532
T. Medinski and D. Freese
Soil carbon stabilization and turnover at alley-cropping systems, Eastern Germany
- XY579 EGU2012-9962
M. de Blecourt, R. Brumme, and E. Veldkamp
Changes in soil carbon stocks after a conversion from secondary forest to rubber - a case study for Xishuangbanna prefecture, Southwest China
- XY580 EGU2012-4900
J. Farmer, J. Smith, P. Smith, and R. Matthews
Quantifying the impacts of land use change on soil organic carbon losses in tropical peatlands
- XY581 EGU2012-13319
G. Roth, **H. Flessa**, M. Helfrich, and R. Well
Impact of two different types of grassland-to-cropland-conversion on dynamics of soil organic matter mineralization and N₂O emission
- XY582 EGU2012-6398
M. Mayer and K. Katzensteiner
Changes in soil CO₂ efflux of organic calcareous soils due to disturbance by wind
- XY583 EGU2012-3506
SH Vetter, K. Auerswald, and C. Bernhofer
Increasing diurnal and seasonal amplitudes in carbon and water fluxes after conversion from arable to grassland
- XY584 EGU2012-5312
E. Delogu, V. LeDantec, P. Buysse, P. Mordet, and M. Aubinet
Modelling autotrophic and heterotrophic components of soil respiration in wheat fields
- XY585 EGU2012-4823
Š. Koco, G. Barančíková, R. Skalský, Z. Tarasovičová, M. Gutteková, J. Halas, J. Makovníková, and M. Nováková
Environmental analysis of soil organic carbon stock changes in Slovakia
- XY586 EGU2012-10842
C. Sirca, M. Carta, M. Salis, and D. Spano
Soil organic carbon projections in Mediterranean soils under climate change conditions
- XY587 EGU2012-10870
FB Bampa, FM Morari, RH Hiederer, GT Toth, PG Giandon, IV Vinci, and LM Montanarella
Soil Organic Carbon dynamics in agricultural soils of Veneto Region
- XY588 EGU2012-9547
D. Konadu, J. Quinton, and A. Jarvis
Modelling potential soil carbon stocks across UK landscapes: Downscaling global models to the landscape scale using model emulation
- XY589 EGU2012-6353
J. Álvaro-Fuentes, M. Easter, J.L. Arrúe, C. Cantero-Martínez, and K. Paustian
Climate change effects on soil organic carbon changes in agricultural lands of Spain
- XY590 EGU2012-7868
K. Staudt, J. Leifeld, D. Bretscher, and J. Fuhrer
Towards a model-based inventory of soil organic carbon in agricultural soils for the Swiss greenhouse gas reporting
- XY591 EGU2012-4260
S. Doetterl, S. Stevens, B. Van Wesemael, T.A. Quine, and K. Van Oost
Predicting the cropland soil organic carbon (SOC) distribution on a regional scale using airborne spectroscopy and topographic features
- XY592 EGU2012-8159
F. Stevens, P. Bogaert, and B. van Wesemael
Regional SOC inventory in the Belgian loam belt
- XY593 EGU2012-3419
K. Taalab, R. Corstanje, R. Creamer, M. Whelan, and T. Mayr
Modelling soil bulk density at the landscape scale and its contributions to carbon stock uncertainty
- XY594 EGU2012-9433
M. Pohl, U. Hagemann, M. Liebe, M. Sommer, and J. Augustin
Impact of energy maize cultivation and erosion on carbon gas exchange and soil organic carbon budgets in young moraine landscapes
- XY595 EGU2012-8585
M. Camino Serrano, I. Janssens, S. Luyssaert, P. Ciais, and B. Gielen
Factors influencing DOC leaching from terrestrial ecosystems: a database analysis
- XY596 EGU2012-14481
Y. Yang
A large carbon source from soil carbonates: evidence from China's grasslands

- XY597 EGU2012-5529
L. Ramirez-Lopez, B. van Wesemael, A. Stevens, S. Doetterl, K. Van Oost, T. Behrens, and K. Schmidt
 Integrating depth functions and hyper-scale terrain analysis for 3D soil organic carbon modeling in agricultural fields at regional scale
- XY598 EGU2012-7596
C. Noon, A. Stevens, and B. van Wesemael
 Visible and near infrared reflectance spectroscopy as a tool to monitor in situ soil organic carbon content.
- XY599 EGU2012-9130
D. de Brogniez, B. van Wesemael, R.J.A. Jones, R. Hiederer, O. Dewitte, G. Toth, and L. Montanarella
 Measurement-based review of the land use/cover components of soil organic carbon estimates for Europe
- XY600 EGU2012-7337
M. Zech, C. Hördold, K. Leiber-Sauheitl, A. Hemp, and W. Zech
 Buried black soils surrounding the white roof of Africa as regional carbon storage hotspot
- XY601 EGU2012-11197
 M.A. Muñoz, A. Faz, and **R Zornoza**
 Soil organic matter stabilization in grazing highland soils from the Andean Plateau
- XY602 EGU2012-5599
B. Pichler, C. Alewell, C. Kneisel, K. Meusburger, and M. Egli
 Effect of permafrost on the formation of organic carbon pools and their physical-chemical properties in the Eastern Swiss Alps
- XY603 EGU2012-8529
C. Göll and S. Er?ahin
 Assessment of Organic Matter Content in Highland Forest Soils in Central Anatolia of Turkey

SSS5.15 – Cutting across the soil-water field: A way to make new flowers blooming or the risk of sitting on the fence? – Orals

Convener: N. Romano | Co-Conveners: M Vanclooster, K. Nierop, S. Doerr, S.C. Dekker

Room: 22

Chairperson: N. Romano

- 10:30–10:45 EGU2012-1330
P. Jeyakumar, K. Müller, M. Deurer, C. van den Dijssel, K. Mason, S. Green, and B.E. Clothier
 Influence of soil water repellency on runoff and solute loss from New Zealand pasture
- 10:45–11:00 EGU2012-7450
L. Lichner, P.D. Hallett, Z. Drongová, H. Czachor, and L. Kovacik
 Biohydrology - it has its uses
- 11:00–11:15 EGU2012-1323
G. Cassiani, N. Ursino, R. Deiana, G. Vignoli, J. Boaga, M. Rossi, M.T. Perri, M. Blaschek, R. Duttmann, S. Meyer, R. Ludwig, A. Soddu, P. Dietrich, and U. Werban
 Geophysical mapping of soil static characteristics and monitoring of soil dynamic states: an example on agricultural land.
- 11:15–11:30 EGU2012-7005
K. Smettem, D. Breshears, and M Waddington
 Observations on the Development of Ecohydrology as a Discipline: History and Future Opportunities
- 11:30–11:45 EGU2012-9652
H.-J. Vogel and U. Weller
 From local understanding to continuous parameter fields using concepts of hydropedology
- 11:45–12:00 EGU2012-3496
K. Beven and P. Germann
 Is soil physics based on the wrong experiment?

SSS5.15 – Cutting across the soil-water field: A way to make new flowers blooming or the risk of sitting on the fence? – Posters

Convener: N. Romano | Co-Conveners: M Vanclooster, K. Nierop, S. Doerr, S.C. Dekker

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: K. Nierop, S. Doerr, S. Dekker, M. Vanclooster

- XY604 EGU2012-13010
A. Cerdà, F.A. González Peñaloza, A. Jordán, and L.M. Zavala
 Citrus orchards management and soil water repellency in Eastern Spain
- XY605 EGU2012-12142
 A. Marruedo, **M. Seeger**, R. Wengel, and V. Butzen
 Spatio-temporal variability of water repellency on forest soils in Central Europe

- XY606 EGU2012-5837
C.M. Regalado and A. Ritter
Water retention of a hydrophobic soil: Disentangling the effect of structure, organic matter and soil water repellency
- XY607 EGU2012-7021
M. Burguet
Exploring the importance of hydrophobicity in the hydrologic cycle of olive groves in Spain
- XY608 EGU2012-14369
S. Ahn, S. Im, and S. Doerr
Effect of Thickness of a Water Repellent Soil Layer on Soil Evaporation Rate
- XY609 EGU2012-3209
M. Madsen, **S. Kostka**, A. Inouye, and D. Zvirzdin
Post-fire Restoration of Soil Hydrology and Wildland Vegetation using Surfactant Seed Coating Technology
- XY610 EGU2012-14208
S.C. Dekker, K.G.J. Nierop, and J. Mao
How the origin of organic compounds affects vegetation patchiness and regime shifts in ecosystems
- XY611 EGU2012-5371
B. Peikert, N. Bandow, and G.E. Schaumann
Does wastewater from olive mills induce toxicity and water repellency in soil?
- XY612 EGU2012-13885
A. Nagy, **J. Tamás**, and M. Soltész
Modeling of water management and hydrological properties of orchards
- XY613 EGU2012-1175
E. Lozano, P. Jiménez-Pinilla, J. Mataix-Solera, J.A. González-Pérez, F. García-Orenes, M.P. Torres, V. Arcenegui, and J. Mataix-Beneyto
Factors responsible for the patchy distribution of natural soil water repellency in Mediterranean semiarid forest
- XY614 EGU2012-9814
M. Richter, S. Moenickes, O. Richter, and T. Schröder
Saturated hydraulic conductivity and biofilms: A theoretical approach linking pore and pedon scale
- XY615 EGU2012-5519
G. Martinez, Y.A. Pachepsky, H. Vereecken, K. Vanderlinden, H. Hardelauf, and M. Herbst
What is the effect of local controls on the temporal stability of soil water contents?
- XY616 EGU2012-7592
F. Cheruy, A. Campoy, J.C. Dupont, A. Ducharne, F. Hourdin, M. Haeffelin, M. Chiriaco, and A. Idelkadi
Combined influence of atmospheric physics and soil hydrology on the simulated meteorology at the SIRTa atmospheric observatory
- XY617 EGU2012-11033
T. Orfanus, N. Fodor, P.D. Hallett, L. Lichner, P. Dlapa, and K. Rajkai
Effect of vegetation on infiltration into sandy soils during wet and dry spells
- XY618 EGU2012-11486
Y. Darnedde, I. Forkutsa, L. Breuer, G. Stulina, and H.-G. Frede
Understanding vadose zone hydrology to improve irrigation practices in cotton production of Uzbekistan

SSS7.3 – Where does all the Pyrogenic Organic Matter go? Its Fate in Soils, Water and Sediments – Orals

Convenor: C. Santin | Co-Convenors: J. M. De la Rosa, S. Doerr

Room: 3

Chairperson: Cristina Santin

- 08:30–08:45 EGU2012-6357
M. W. I. Schmidt, N. Singh, B. Maestrini, M. P. W. Schneider, and S. Abiven
Where does all the fire-derived organic matter go? Do we know what we don't know (yet)?
- 08:45–09:00 EGU2012-12242
C.M. Preston, M. Simard, and G.M. Bernard
Some reflections on the natural history of pyrogenic C in boreal forests
- 09:00–09:15 EGU2012-908
E. Kane and W. Hockaday
Does more intense burning in warmer, drier boreal forest create more stable black carbon in soils?
- 09:15–09:30 EGU2012-5343
M. Ohlson, A. E. Bjune, I. Kasin, and A. Nordtug Wist
Spatial variation in the charcoal pool
- 09:30–09:45 EGU2012-5975
PL Ascough, W. Meredith, M. Bird, D. Large, C. Snape, and E. Tilston
Evaluating hydropyrolysis as a method for quantification and characterisation of Black Carbon in environmental matrices

- 09:45–10:00 EGU2012-2038
Y. Kuzyakov, I. Bogomolova, and B. Glaser
 Black carbon decomposition during 7 years and its transformation in soil estimated by ¹⁴C labeling

COFFEE BREAK

Chairperson: José María De la Rosa

- 10:30–10:45 EGU2012-830
C.A. Masiello, Z. Liu, K.L. Ziegelgruber, B. Dugan, H. Gonnermann, V.J. Chuang, and K. Zygourakis
 Density and porosity as controls on charcoal storage in soils
- 10:45–11:00 EGU2012-699
A. A. Berhe, E. Stacy, S.C. Hart, C. Hunsaker, and D. Johnson
 Lateral Transport of Black vs. Bulk SOM with soil erosion
- 11:00–11:15 EGU2012-2948
C. Rumpel
 Composition and dynamics of pyrogenic C depend on its physical form
- 11:15–11:30 EGU2012-198
J. Hatten, J. Warrick, M. Goni, R. Wheatcroft, G. Pasternack, A. Gray, and E. Watson
 The Role of Wildfire in the Export of Particulate and Pyrogenic Organic Carbon from a Small Mountainous River
- 11:30–11:45 EGU2012-2566
 M.M. Bisiaux, **A.C. Heyvaert**, and R. Edwards
 Distribution and Fate of Black Carbon Nanoparticles from Regional Urban Pollution and Wildfire at a Large Subalpine Lake in the Western United States
- 11:45–12:00 EGU2012-5903
T. Dittmar, C. E. Rezende, M. Manecki, J. Niggemann, A. R. Coelho Ovalle, and M. C. Bernardes
 Continuous flux of dissolved black carbon from a vanished tropical forest biome

SSS7.3 – Where does all the Pyrogenic Organic Matter go? Its Fate in Soils, Water and Sediments – Posters

Convener: C. Santin | Co-Conveners: J. M. De la Rosa, S. Doerr

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY619 EGU2012-9913
L. Sánchez-García, I. Cato, and Ö. Gustafsson
 The sequestration sink of soot black carbon in the Northern European Shelf sediments
- XY620 EGU2012-13741
C Licata and R Sanford
 Soil total and charcoal carbon from mountain shrublands to subalpine forests in the Colorado Front Range
- XY621 EGU2012-1022
N.A. Vasilyeva and C. Chenu
 Century scale char and non-char C co-stabilization in soil free C fractions
- XY622 EGU2012-468
C. Santin, S.H. Doerr, R.A. Shakesby, R. Bryant, G.J. Sheridan, P.N.J. Lane, H.G. Smith, and T.L. Bell
 Pyrogenic carbon in wildfire ash: characteristics and potential as C sink
- XY623 EGU2012-7729
S. Fernández, P. Rocas, C. Recondo, and C. Santin
 Ortophoto and satellite imagery to monitoring biochar in mountain soils (NW of Cantabrian Range, Spain)
- XY624 EGU2012-3802
L.N. Soucemarianadin, M.D. MacKenzie, R.E. Wasylshen, and S.A. Quideau
 Influence of the forming conditions on Black Carbon properties
- XY625 EGU2012-2762
T. Maxfield
 Mechanisms of biochar stability and functionality
- XY626 EGU2012-13915
W.C Hockaday and C.A Masiello
 The aromatic domains in charcoal are small: Implications for the fate and transport of pyrogenic carbon
- XY627 EGU2012-14259
C Santin and SH Doerr
 Quantifying pyrogenic carbon: don't miss the big bits?

- XY628 EGU2012-14260
R Bryant, **SH Doerr**, and C Santin
Black Carbon Production in Open Biomass Combustion
- XY629 EGU2012-13523
G. Almendros, Z. Hernández, F.J. González-Vila, J. Sanz, J.M. De la Rosa, and **H. Knicker**
Analysis of carbon forms in chemically-modified peat humic acids by partial least squares regression analysis of solid-state nuclear magnetic resonance spectra
- XY630 EGU2012-4893
H. Knicker, F.J. González Vila, and L. Clemente Salas
Biochemical resistance of pyrogenic organic matter in fire-affected mineral soils of Southern Europe
- XY631 EGU2012-264
J. M. De la Rosa and H Knicker
Fast effects of biochar amendment on soil C and N dynamics, nutrient availability and fertility under controlled conditions
- XY632 EGU2012-2644
N. Singh, S. Abiven, B. Maestrini, J.A. Bird, E.L. Eoin, M.S. Torn, and M.W.I. Schmidt
Changes in biogeochemistry of pyrogenic carbon in soil after one year
- XY633 EGU2012-2777
B. Maestrini, S Abiven, N Singh, J. Bird, M. S. Torn, and M.W.I. Schmidt
Pyrogenic carbon loss pathways under natural and increased N deposition and its priming effect on soil organic matter
- XY634 EGU2012-9971
M.E. Varela, S.R. Faria, **I. Campos**, M.M.P.F. Caria, R.S.V. Ferreira, A.I. Machado, M.A.S. Martins, R. Pinto, S.A. Prats, V.I. Esteves, and J.J. Keizer
Effects of wildfire on soil organic carbon export by runoff in Central Portugal
- XY635 EGU2012-1113
F. Worrall and **GD Clay**
Prescribed burning as a natural, long-term experiment in biochar addition - Can prescribed burns contribute to carbon storage in peat soils?
- XY636 EGU2012-8712
G. Almendros, F.J. González-Vila, J.A. González-Pérez, H. Knicker, **J.M. De la Rosa**, C. Dettweiler, and Z. Hernández
On the structural factors of soil humic matter related to soil water repellence in fire-affected soils
- XY637 EGU2012-14331
A. Cerdá, F. González Peñaloza, C. Santín, and S.H. Doerr
Land abandonment, fire recurrence and soil carbon content in the Macizo del Caroig, Eastern Spain
- XY638 EGU2012-14086
R. Menéndez-Duarte, S. Fernández, C. Santin, L. Gaspar, and A. Navas
Wildfire effects on C stocks in mountain soils

SSS11.3 – Soil and irrigation sustainability practices – Orals

Convener: L. Rodríguez-Sinobas | Co-Conveners: G. Provenzano, A. M. Tarquis, J. C. Cury Saad, J. Roldán Cañas, R. Moratíel, R. L. Snyder

Room: 22

Chairperson: Giuseppe Provenzano

- 13:30–13:45 EGU2012-13980
E. Playán, R Salvador, J Cavero, C López, S Lecina, and N Zapata
Developing Automatic Controllers for sprinkler irrigation systems
- 13:45–14:00 EGU2012-465
R.L Snyder, D. Spano, and R. Moratíel
Adjusting soil water balance calculations for light rainfall, dew, and fog.
- 14:00–14:15 EGU2012-997
G. Rallo, G. Provenzano, and J. Manzano-Juárez
Adapting FAO-56 Spreadsheet Program to estimate olive orchard transpiration fluxes under soil water stress condition
- 14:15–14:30 EGU2012-3272
A. Fulton, R. Snyder, C. Hillyer, M. English, B. Sanden, and D. Munk
Enhancing Adoption of Irrigation Scheduling to Sustain the Viability of Fruit and Nut Crops in California
- 14:30–14:45 EGU2012-7043
B.L. Sanden, A.E. Fulton, D.S. Munk, S. Ewert, C. Little, F. Anderson, J.H. Connell, M. Rivera, M.N. Orang, and **R.L. Snyder**
California's Effort to Improve Almond Orchard Crop Coefficients

- 14:45–15:00 EGU2012-2026
J.L. Gabriel and M. Quemada
 Salt and N leaching and soil accumulation due to cover cropping practices
 Chairperson: J. C. C. Saad
- 15:30–15:45 EGU2012-7351
J. A. Pascual-Aguilar, V. Andreu, and Y. Picó
 Detection of Anthropogenic pressures on western Mediterranean irrigation systems (La Albufera de Valencia agriculture system, eastern Spain)
- 15:45–16:00 EGU2012-9045
S. Kloss, N. Schütze, S. Walser, and J. Grundmann
 A stochastic simulation-optimization approach for estimating highly reliable soil tension threshold values in sensor-based deficit irrigation
- 16:00–16:15 EGU2012-12213
C. Sayde, J. Benítez Buelga, L. Rodríguez Sinobas, M. Gil Rodríguez, and J. S. Selker
 Latest Advances in Distributed Soil Water Content and Fluxes Monitoring Using Heated Fiber Optics
- 16:15–16:30 EGU2012-13497
J. Benítez-Buelga, C. Sayde, L. Rodríguez-Sinobas, M. Gil Rodríguez, R. Sánchez, and J. S. Selker
 A Hydrus 2D model for predicting temperature distribution of heated fiber optics embedded in a porous media
- 16:30–16:45 EGU2012-5822
L.C. Todman, C. Mougros, A.M. Ireson, A.P. Butler, and M.R. Templeton
 Pervaporative irrigation: a flow rate driven by environmental conditions
- 16:45–17:00 EGU2012-8160
F. De Lorenzi, A. Bonfante, S. Alfieri, C. Patanè, A. Basile, P. Di Tommasi, E. Monaco, and M. Menenti
 Sustainability of irrigated crops under future climate: the interplay of irrigation strategies and cultivar responses

SSS11.3 – Soil and irrigation sustainability practices – Posters

Convener: L. Rodriguez-Sinobas | Co-Conveners: G. Provenzano, A. M. Tarquis, J. C. Cury Saad, J. Roldán Cañas, R. Moratíel, R. L. Snyder

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: R.L. Snyder

- XY639 EGU2012-1176
N Pascual-Seva, A. San Bautista, S. López-Galarza, J.V. Maroto, and B. Pascual
 Water saving in chufa cultivation using flat raised beds and drip irrigation
- XY640 EGU2012-3527
J. Roldán Cañas, R. Chipana, M.F. Moreno-Pérez, and G. Chipana
 Performance of zigzag corrugated furrows in Bolivia
- XY641 EGU2012-6198
 I. Mariscal-Sancho, P. Gonzalez-Fernandez, P. León, C. Gómez-Paccard, M. Benito, and **R. Espejo**
 Impact of Ca-amendments and soil management in physical properties linked to soil-water relationship in degraded Ultisols from South-Europe
- XY642 EGU2012-6284
 A.L.B.O. Silva, **R.C.M. Pires**, R.V. Ribeiro, E.C. Machado, G.S. Rolim, J.R. Magalhães Filho, and P.E.R. Marchiori
 Water use efficiency of different sugarcane genotypes irrigated by a subsurface drip irrigation system
- XY643 EGU2012-6767
R.C.M. Pires, E.A.A. Barbosa, F.B. Arruda, T.J.A. Silva, E. Sakai, and M.G.A. Landell
 Subsurface drip irrigation in different planting spacing of sugarcane
- XY644 EGU2012-8612
A. Satriani, A. Loperte, and M. Catalano
 Time Domain Reflectometry and Electrical Resistivity Tomography applications for optimizing water use in irrigation
- XY645 EGU2012-10306
S. Kenjabaev, I. Forkutsa, V. Dukhovny, and H.G. Frede
 Assessment of Nitrate-N Load in Subsurface Drainage Water from the Agricultural Fields in the Fergana Valley, Uzbekistan
- XY646 EGU2012-8727
G. Rallo, G. Giordano, and G. Provenzano
 Assessment of a calibration procedure to estimate soil water content with Sentek Diviner 2000 capacitance probe

- XY647 EGU2012-4555
F. Wobus, **G. I. Shapiro**, M. A. M. Maqueda, and J. M. Huthnance
Numerical simulations of dense water cascading on a steep slope
- XY648 EGU2012-12594
A. Sastre-Merlín, S. Martínez-Pérez, R. Bienes-Allas, and E. Molina-Navarro
Influence of the substitution of a grass cover by a mulch on infiltration rate
- XY649 EGU2012-10397
A. Facchi, O. Gharsallah, C. Gandolfi, E. Chiaradia, and M. Mancini
Simulation of maize irrigation requirements at the regional scale: comparison between results obtained with measured and FAO-56 crop coefficient
- XY650 EGU2012-11336
T.J.J. Miorini and **J. C. C. Saad**
Productivity of irrigated bean submitted to water deficit in different phenological stages
- XY651 EGU2012-10388
M.I. Requejo, R. Villena, F. Ribas, M.T. Castellanos, M.J. Cabello, A. Arce, and M.C. Cartagena
The influence of wine-distillery waste compost on nitrogen and phosphorus dynamics and uptake by a melon crop in a shallow calcareous soil
- XY652 EGU2012-1063
B. Karimi, T. Sohrabi, F. Mirzaei, and L. Rodríguez-Sinobas
Evaluation of wetting area and water distribution on different soils in subsurface drip irrigation emitters
- XY653 EGU2012-13932
R. Sánchez, L. Rodríguez-Sinobas, L. Juana, F. V. Laguna, M. Gil, and J. Benítez
Performance of pressure control valves and flow meters precision in operational irrigation-water balance accuracy
- XY654 EGU2012-5129
J.C. C. Saad and H.M. da Silva Junior
Rational use of water in trickle irrigation design.
- XY655 EGU2012-13941
M. Gil-Rodríguez, L. Rodríguez-Sinobas, J. Benítez, R. Sánchez, C. Sayde, and J. Selker
Estimation of infiltration along unsaturated soil transects with active heated fiber optics
- XY656 EGU2012-14427
J. Rolim, J. Teixeira, and J. Catalão
Irrigation management of crops rotations in a changing climate
- XY657 EGU2012-13673
L. Rodriguez-Sinobas, M. Gil-Rodríguez, J. Benítez Buelga, R. Sánchez Calvo, C. Saydec, and J. Selker
Estimation of infiltration in a soil column using heated fiber optics
- XY658 EGU2012-7733
C. M. Rubio and F. Ferrer
Combining vapor pressure and evaporimetric methods to generate swrc - and its application to interpret soil moisture data in hydrologic studies
- XY659 EGU2012-11114
M. Gameh Ali
Best Management of Irrigation Fertilization to Sustain Environment and High yield of Maize in the Arid land in Egypt
- XY660 EGU2012-11301
A. M. Nogueira, T. A. Paço, J. C. Silvestre, L. F. Gonzalez, F. L. Santos, and L. S. Pereira
Water Footprint of a Super-intensive Olive Grove Under Mediterranean Climate using Ground-based Evapotranspiration Measurements and Remote Sensing
- XY661 EGU2012-3406
D. Spano, N. Mancosu, V. Mereu, S. Mereu, M. Orang, S. Sarreshteh, and R.L. Snyder
Assessment of agricultural water demand using SIMETAW
- XY662 EGU2012-7807
A. Bonfante, M.S. Alfieri, A. Basile, F. De Lorenzi, N. Fiorentino, and M. Menenti
The evaluation of the climate change effects on maize and fennel cultivation by means of an hydrological physically based model: the case study of an irrigated district of southern Italy

SSS11.8 – Cotton production practices impacts soil quality – Orals

Convener: B. Desouza | Co-Conveners: D.K.Y. Tan, P. Servadio

Room: 22

Chairperson: John Landers (john.land@uol.com.br); D. P. Biradar (dpbiradar@yahoo.com)

08:30–08:45 EGU2012-9632

K. Hake

Conservation Tillage Impacts on Soil Quality

- 08:45–09:00 EGU2012-35
D. Blaise and J.V. Singh
Cotton Production Practices Change Soil Properties
- 09:00–09:15 EGU2012-739
S. Bergonzoli and P. Servadio
Agricultural machineries wheeling and soil qualities mapping in climatic changes conditions
- 09:15–09:30 EGU2012-421
P. Ton
Cotton and Climate Change: Impacts and Options to mitigate and adapt.
- 09:30–09:45 EGU2012-594
M. Braunack, N Hulugalle, and I Rochester
Long-term rotation studies and the effect on soil organic carbon in cotton soils.
- 09:45–10:00 EGU2012-13723
J. N. Landers and P.L.de Freitas
Zero Tillage cotton systems and soil quality

SSS11.8 – Cotton production practices impacts soil quality – Posters

Convener: B. Desouza | Co-Conveners: D.K.Y. Tan, P. Servadio

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: P. Servadio (pieranna.servadio@entecra.it); Michael Braunack (michael.braunack@csiro.au)

- XY663 EGU2012-108
D.K.Y. Tan and N.R. Hulugalle
Carbon contributions from roots in cotton based rotations
- XY664 EGU2012-14062
D.K.Y. Tan, K. Broughton, O.G. Knox, and N.R. Hulugalle
Soil microbial biomass and root growth in Bt and non-Bt cotton
- XY665 EGU2012-11628
O. Duboc, N. Adamtey, D. Forster, and G. Cadisch
Nitrogen dynamics in organic and conventional cotton production systems in India
- XY666 EGU2012-13323
D. Blaise, M. V. Venugopalan, J. V. Singh, N. G. Narkhedkar, and K. Velmourougane
Organic cotton systems improved soil properties vis-a-vis the modern systems
- XY667 EGU2012-1124
Y. R. Aladakatti, D. P. Biradar, T. Satyanarayana, K. Majumdar, and D. Shivamurthy
Nutrient omission in Bt cotton affects soil organic carbon and nutrients status
- XY668 EGU2012-1123
Y. R. Aladakatti, S. S. Hallikeri, and R. A. Nandagavi
Long-term effects of organic and inorganic nutrient sources on soil organic carbon and major nutrients in Vertisols
- XY669 EGU2012-793
D. P. Biradar, A. R. Alagawadi, M. A. Basavanneppa, and S. S. Udikeri
Soil microflora and enzyme activities in rhizosphere of Transgenic Bt cotton hybrid under different intercropping systems and plant protection schedules
- XY670 EGU2012-1122
T. Sudha, R. Babu, **D. P. Biradar**, V. C. Patil, and G. Shirnalli
Influence of one or two Bt genes transgenic cotton free living nitrogen fixers and p-solubilising microorganisms in vertisols and alfisols
- XY671 EGU2012-8082
S. Bergonzoli, C. Beni, and P. Servadio
Soil conservation under climate change: use of recovery biomasses on agricultural soil subjected to the passage of agricultural machinery
- XY672 EGU2012-9128
M. Verotti, P. Servadio, N.P. Belfiore, and **S. Bergonzoli**
An approach for modeling the influence of wheel tractor loads and vibration frequencies on soil compaction
- XY673 EGU2012-307
J.V Singh, K Velmourougane, and S.Y Babar
Impact of rainwater conservation and nutrient management practices on cotton productivity and soil health in sub-humid rainfed Vertisols of India

Thursday, 26 April

GM2.1 – High definition topography - data acquisition, modelling, interpretation (co-listed) – Posters

Convener: D. Rieke-Zapp | Co-Conveners: A. Reiterer, J. Chandler, D. Vericat, N. Tate, D. M. Powell, J. Brasington, I. Marzloff

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: D. Vericat / N. Tate

- XL206 EGU2012-7714
A. Wagner, A. Reiterer, P. Wasmeier, **D. Rieke-Zapp**, and T. Wunderlich
Vision-Based Geo-Monitoring - A New Approach for an Automated System
- XL207 EGU2012-7858
R. Berther and D. Rieke-Zapp
Geomonitoring for understanding of sediment transport in an Alpine river catchment
- XL208 EGU2012-5566
A. Beer, L. Campana, and D. Rieke-Zapp
Evaluating sub-millimetre erosion monitoring in a mountain torrent
- XL209 EGU2012-14172
P. Marzahn, D. Rieke-Zapp, and R. Ludwig
Soil surface roughness characterization for microwave remote sensing applications
- XL210 EGU2012-4952
D. Rieke-Zapp
Insitu measurement of bedrock erosion
- XL211 EGU2012-12789
A. Volkwein, A. Beer, and L. Egli
Applications of terrestrial laser scanning in natural hazard sciences
- XL212 EGU2012-10565
M. Lo Brutto
Automatic reconstruction of 3D models in geomorphology through close-range photogrammetry and 3D web-based services
- XL213 EGU2012-5759
J. Gance, T. Dewez, J.-P. Malet, and A. Stumpf
Time-lapse stereo-photogrammetry to monitor electrical sounding electrodes on an unstable slope
- XL214 EGU2012-3537
H.K. Seo, Y.H. Noh, J.G. Um, Y.S. Choi, and M.H. Park
Applicability of digital photogrammetry technique to quantify rock fracture surfaces
- XL215 EGU2012-8167
F. Bretar, M. Pierrot-Deseilligny, D. Schelstraete, O. Martin, and P. Quernet
Generating High resolution surfaces from images: when photogrammetry and applied geophysics meets
- XL216 EGU2012-936
M. Westoby, J. Brasington, N.F. Glasser, M.J. Hambrey, and J.M. Reynolds
Structure-from-Motion photogrammetry: a novel, low-cost tool for geomorphological applications
- XL217 EGU2012-6261
C. Hugenholtz, K. Whitehead, B. Moorman, O. Brown, T. Hamilton, T. Barchyn, K. Riddell, and A. LeClair
High-resolution terrain and landcover mapping with a lightweight, semi-autonomous, remotely-piloted aircraft (RPA): a case study and accuracy assessment
- XL218 EGU2012-8822
C. Wiegand, C. Geitner, K. Heinrich, and M. Rutzinger
Multi-temporal analysis of aerial images for the investigation of spatial-temporal dynamics of shallow erosion - a case study from the Tyrolean Alps
- XL219 EGU2012-10016
C. Capanna, L. Jorda, G. Gesquière, and **P. Lamy**
A new 3D reconstruction technique applied to small solar system bodies
- XL220 EGU2012-9765
S. Delalieux, S. Livens, M. Goossens, I. Reusen, and **C. Tote**
Spatial unmixing for environmental impact monitoring of mining using UAS and WV-2
- XL221 EGU2012-8875
A Constantinescu, I. Nichersu, **C. Trifanov**, I. Nichersu, and M. Mierla
Morphometric analyze for flood hazard map using DTM built with LIDAR and Echo-sounder data in Danube Delta

- XL222 EGU2012-8905
M. Avian
First results of repeated Terrestrial Laserscanning monitoring processes at the rock fall area
Burgstall/Pasterze Glacier, Hohe Tauern Range, Central Austria
- XL223 EGU2012-10081
M. Avian
Performance and limits of different long-range TLS-sensors for monitoring high mountain geomorphic
processes at different spatial scales
- XL224 EGU2012-12400
A. Prokop and M. Chiari
Long term monitoring of geomorphological changes caused by torrent activity using terrestrial laser scanning
- XL225 EGU2012-10244
D.J. Luscombe, K. Anderson, A. Wetherelt, E. Grand-Clement, N. Le-Feuvre, D. Smith, and R.E. Brazier
Understanding the structure of Exmoor's peatland ecosystems using laser-scanning technologies
- XL226 EGU2012-10512
N. Perez-Gallego, T. Francke, J. Latron, S. Werth, S. Werb, and **F. Gallart**
Testing a Terrestrial Laser Scanner for studying badlands forms and erosion rates. Vallcebre (Catalan
Pre-Pyrenees)
- XL227 EGU2012-2469
M. Dotterweich and S. Bub
Using of high resolution morphometric thalweg analyses of dry valleys under woodland to assess land use
impact and soil erosion in the late Holocene
- XL228 EGU2012-13442
B.D. Collins, S.C. Corbett, and H.C. Fairley
Measuring and modeling high-resolution topographic change at archaeological sites in Grand Canyon National
Park, Arizona, U.S.A.
- XL229 EGU2012-731
Á. Gómez, S. Schnabel, F. Lavado, and J. Rubio
Developing a methodology to estimate historical sheet erosion rates using exposed roots and terrestrial laser
scanner
- XL230 EGU2012-5543
D. Vericat, M. Smith, J.A. López-Tarazón, A. Tena, J. Brasington, and R.J. Batalla
Monitoring Topographic Change In Highly Erodible Landscapes By Means Of Terrestrial Laser Scanning
- XL231 EGU2012-8691
M. Etchebes, P. Tapponnier, Y. Klinger, J. Van Der Woerd, X. Xu, S. Xinzhe, T. Xibin, M. Rizza, and T. Lok
Hang
Application of terrestrial LiDAR topographic data to reconstruct offset geomorphic markers along the Fuyun
strike-slip fault, Xinjiang, China
- XL232 EGU2012-1288
R.M. Frings and S. Vollmer
Use of 3D photogrammetry for measurement of river bed porosity
- XL233 EGU2012-4785
M. Smith and D. Vericat
Evaluating through-water terrestrial laser scanning under a range of flow and suspended sediment conditions

GM2.2 – Digital Landscapes: Quantitative Interrogation and Use to Examine Geomorphic Processes (co-listed) –

Posters

Convener: J. K. Hillier | Co-Conveners: P. Tarolli, P. Passalacqua, D.C. Mason, S. Conway

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Susan Conway

- XL234 EGU2012-4560
A.P. Valentine, L.M. Kalnins, and J. Trampert
Hunting for seamounts using neural networks: learning algorithms for geomorphic studies
- XL235 EGU2012-13482
VB Ernstsen, A. Lefebvre, J. Bartholdy, A. Bartholomä, and C. Winter
On the determination of net bedload transport patterns in a natural tidal inlet system (Knudedyb in the Danish
Wadden Sea)
- XL236 EGU2012-13310
F. Haas, **T. Heckmann**, L. Hilger, and M. Becht
Measuring debris flows in the proglacial area of the Gepatschferner/Austrian Alps using repeat ground-based
and airborne LiDAR data

- XL237 EGU2012-5046
J. K. Hillier and M. S. Smith
Robust 3D Quantification of Glacial Landforms: A Use of Idealised Drumlins in a Real DEM
- XL238 EGU2012-7660
L. Carturan, S. Calligaro, F. Cazorzi, G.A. Baldassi, D. Moro, A. Carton, G. Dalla Fontana, A. Guarnieri, N. Milan, and P. Tarolli
Mass balance and surface dynamics of Montasio Occidentale glacier (Eastern Italian Alps) investigated by Terrestrial Laser Scanner
- XL239 EGU2012-10137
A. J. Cook, T. Murray, A. Luckman, and D. G. Vaughan
A new 100-m Digital Elevation Model of the Antarctic Peninsula suitable for glacier morphology studies, using ASTER Global DEM
- XL240 EGU2012-9296
L. Rieg, R. Sailer, M. Sproß, M. Rutzinger, and V. Wichmann
Comparison of different DTM resolutions for surface change calculations in a high mountain environment
- XL241 EGU2012-8750
S. Trevisani, M. Cavalli, and L. Marchi
Reading alpine morphology according to surface texture: two approaches compared
- XL242 EGU2012-13565
J. B. Salisbury, J R. Arrowsmith, T. K. Rockwell, D. Haddad, O. Zielke, and C. Maddugo
The Climatic Role in Formation of Fault-Offset Geomorphic Features: Reliable Measurements for Slip-Per-Event Studies
- XL243 EGU2012-215
Yu. Yu. Yurchenko and S.V. Sokolov
Experience using of DEM's as a basis for landscapes classification at selection of geochemical methods of prospecting.
- XL244 EGU2012-8510
A. Doglioni and V. Simeone
Identification of large geomorphological anomalies based on 2D discrete wavelet transform
- XL245 EGU2012-3422
C. W. Lin, P. Tarolli, C. M. Tseng, and Y. H. Tseng
Recognition of large scale deep-seated landslides in vegetated areas of Taiwan
- XL246 EGU2012-5000
C.-M. Tseng, P. Tarolli, and C.-W. Lin
Variations of Geomorphic Signatures after a Major Typhoon
- XL247 EGU2012-5035
S. Calligaro, P. Tarolli, M. Mancini, A. Righetto, D. Capraro, G. Mei, and A. Spinazzè
Terrestrial Laser Scanner survey of a small headwater basin in the Dolomites
- XL248 EGU2012-6729
J.-K. Liu, M.-S. Yang, M.-C. Wu, and W.-C. Hsu
LiDAR DEM for Slope regulations of land development in Taiwan
- XL249 EGU2012-9407
L. Cavallari, M. Dierna, M. Gelmini, and **G. P. M. Vassena**
Multiresolution and multisensors 3D laser scanner survey of a landslide in the Italian Apls
- XL250 EGU2012-9865
P. Tarolli and A. Righetto
Regional scale analysis of the topographic signatures of landslide/debris flow dominated processes
- XL251 EGU2012-843
A. Tomczyk and M. Ewertowski
Digital Elevation Models of Differences (DODs): implementation for assessment of soil erosion on recreational trails.
- XL252 EGU2012-914
S. d'Oleire-Oltmanns, I. Marzloff, and L. Schrott
The use of very high resolution DSMs for the investigation of gully evolution in the Souss Basin, Morocco derived from UAV missions
- XL253 EGU2012-12427
J. H. Blöthe, H. Munack, and O. Korup
Sediment storage and stability along the western Tibetan plateau margin
- XL254 EGU2012-3184
F. Cazorzi, A. De Luca, A. Checchinato, F. Segna, and G. Dalla Fontana
A LiDAR based analysis of hydraulic hazard mapping
- XL255 EGU2012-4114
G. Sofia, P. Tarolli, and G. Dalla Fontana
LiDAR DTMs and anthropogenic feature extraction: testing the feasibility of geomorphometric parameters in floodplains

- XL256 EGU2012-4636
M. Della Seta, J.P. Galve, D. Piacentini, and F. Troiani
 Computation, validation and sensitivity of the DTM-derived geomorphic parameters: the case of Stream-Length Gradient Index
- XL257 EGU2012-5363
K. Fieber, I. Davenport, J. Ferryman, R. Gurney, J. Walker, and J. Hacker
 Analysis of full-waveform LiDAR pulse properties for vegetation discrimination and characterisation
- XL258 EGU2012-6172
F. Pirotti, A. Guarnieri, and A. Vettore
 Full waveform airborne laser scanning for mapping morphometric parameters in terrain with varying vegetation cover
- XL259 EGU2012-6345
J. Filski
 The State of Health of Nature Reserves: A Case Study using the Fusion of Hyperspectral and Lidar Data

GM2.3 – Geomorphological maps - indispensable tool in geomorphology (co-listed) – Orals

Convener: W. Schwanghart | Co-Conveners: JC Otto, T. Heckmann

Room: 2

Chairperson: Jan-Christoph Otto, Wolfgang Schwanghart

- 15:30–15:45 EGU2012-6114
A.C. Seijmonsbergen
 Current trends in geomorphological mapping
- 15:45–16:00 EGU2012-1763
J. Hjort
 Geomorphological mapping and analysis using statistically-based distribution modelling: advantages and pitfalls
- 16:00–16:15 EGU2012-7242
D. Loibl
 Detailed geomorphological mapping from high resolution DEM data (LiDAR, TanDEM-X): two case studies from Germany and SE Tibet
- 16:15–16:30 EGU2012-11305
T. Hoffmann and W. Schwanghart
 Geomorphic mapping using pixel-based slope-area plots
- 16:30–16:45 EGU2012-2765
 E. Vannamettee, L.V. Babel, **D. Karssenberg**, J. Schuur, M.R. Hendriks, and M.F.P. Bierkens
 Automated geomorphological mapping using Multiple Point Geostatistics
- 16:45–17:00 EGU2012-12585
M. Geilhausen and J.-C. Otto
 Smart "geomorphological" map browsing - a tale about geomorphological maps and the internet

GM2.3 – Geomorphological maps - indispensable tool in geomorphology (co-listed) – Posters

Convener: W. Schwanghart | Co-Conveners: JC Otto, T. Heckmann

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Tobias Heckmann

- XL260 EGU2012-3373
J. Jasiewicz and T.F. Stepinski
 Machine vision approach to auto-generation of high resolution, continental-scale geomorphometric map from DEM
- XL261 EGU2012-9171
H. Hikel, T. Jarmer, W. Schwanghart, N.J. Kuhn, Y. Yair, and M. Shoshani
 Geomorphological mapping in arid regions supported by the analysis of shrub patterns
- XL262 EGU2012-11966
E. Miccadei, T. Piacentini, and F. Daverio
 Morphotectonic mapping and Quaternary landscape evolution on the eastern Central Apennines and adriatic area (Italy)
- XL263 EGU2012-13363
 M. Thiel, **T. Heckmann**, and M. Becht
 Predictive Mapping of Sediment Cascades in Alpine Geosystems
- XL264 EGU2012-14233
 L. Hilger, **T. Heckmann**, F. Haas, and M. Becht
 Geomorphological mapping of the proglacial zone of the Gepatschferner glacier, Austria

- XL265 EGU2012-14388
J Goetz and JC Otto
 Adapted geomorphological mapping for sediment budget analysis - mapping focus and data base structure
- XL266 EGU2012-14396
G Prasicek and JC Otto
 Semi-automated mapping of geomorphological process domains - towards a geomorphological map of the European Alps
- XL267 EGU2012-14387
C Eisank and L Dragut
 An object-based approach to hierarchical classification of the Earth's topography from SRTM data
- XL268 EGU2012-7250
J.A. Stevenson, X. Sun, and N.C. Mitchell
 A feature-preserving denoising algorithm to improve the quality of geomorphic analysis
- XL269 EGU2012-3672
J. Alcalá, J.J. Zamorano, and D. Palacios
 Geomorphologic map and derived geomorphological evolution model of the Ampato volcanic complex (Southern Peru).
- XL270 EGU2012-3677
J. Alcalá, J.J. Zamorano, and D. Palacios
 Volcanic and glacial evolution of Chachani-Nocarane complex (Southern Peru) deduced from the geomorphologic map.
- XL271 EGU2012-14400
T. Strasser and C Eisank
 (Semi-)Automated landform mapping of the alpine valley Gradental (Austria) based on LiDAR data

HS6.2 – Remote sensing of soil moisture (co-listed) – Orals

Convener: W. Wagner | Co-Conveners: N.E.C. Verhoest, A. Loew, P. de Rosnay, S. Mecklenburg, J.-P. Wigneron, M. Drusch, Y. Kerr

Room: 36

Chairperson: n.n.

- 08:30–08:45 EGU2012-5555
C. Draper, R. Reichle, G. De Lannoy, and Q. Liu
 Assimilation of passive and active microwave soil moisture retrievals
- 08:45–09:00 EGU2012-12724
X. Zhan, W. Zheng, J. Meng, J. Dong, and M. Ek
 Impact of SMOS soil moisture data assimilation on NCEP-GFS forecasts
- 09:00–09:15 EGU2012-5488
P. de Rosnay, C. Albergel, G. Balsamo, and J. Muñoz Sabater
 ASCAT data assimilation at ECMWF
- 09:15–09:30 EGU2012-13163
M. Rasmy and T. Koike
 A Satellite Land Data Assimilation System Coupled with a Mesoscale Atmospheric Model: Towards Improving Numerical Weather Prediction
- 09:30–09:45 EGU2012-8055
S. Manfreda, L. Brocca, T. Moramarco, F. Melone, J. Sheffield, and M. Fiorentino
 Predicting root zone soil moisture using surface data
- 09:45–10:00 EGU2012-6629
E.H. Sutanudjaja, S.M. de Jong, F.C. van Geer, and M.F.P. Bierkens
 Can we monitor groundwater head variation from space? Coupling ERS spaceborne microwave observations to groundwater dynamics

HS8.3.1 – Monitoring and modelling transfer processes in the soil-plant-atmosphere continuum across scales (co-listed) – Orals

Convener: N. Romano | Co-Conveners: R. Angulo-Jaramillo, M. Javaux, M. van der Ploeg

Room: 39

Chairperson: M. Javaux, M. van der Ploeg

- 13:30–13:45 EGU2012-13106
 N. Rudolph, **S.E. Oswald**, and E. Lehmann
 Non-invasive mapping of local oxygen patterns in porous media: influence of plant roots and soil structure

- 13:45–14:00 EGU2012-3029
S. Bittner and **E. Priesack**
Modelling the impact of the light regime on single tree transpiration based on 3D representations of plant architecture
- 14:00–14:15 EGU2012-1721
y. Yang, h. Guan, J. Huston, h. Wang, C. Ewenz, s. Shang, and C. Simmons
A simple non-invasive field based method for examining and parameterizing root-water-uptake models
- 14:15–14:30 EGU2012-2661
M. Zarebanadkouki, Y. Kim, and **A. Carminati**
Where do roots take up water? A method to quantify local root water uptake
- 14:30–14:45 EGU2012-10290
M. Bechmann, Ch. Schneider, A. Carminati, D. Vetterlein, and A. Hildebrandt
How the hydraulic parametrisation of roots affects overall plant-soil interactions
- 14:45–15:00 EGU2012-13999
F. Tardieu
Has the plant genetic variability any role in models of water transfer in the soil-plant-atmosphere continuum ?
- Chairperson: N. Romano, R. Angulo-Jaramillo
- 15:30–15:45 EGU2012-6422
S.C. Steele-Dunne, J.H.A.M. Jansen, C. Hatch, T. Ochsner, M.H. Cosh, G. Dong, N. van de Giesen, S. Tyler, and J. Selker
Monitoring transfer processes in the soil-plant-atmosphere continuum across scales using Distributed Temperature Sensing
- 15:45–16:00 EGU2012-4324
G. Egea, **A. Verhoef**, P.L. Vidale, E. Black, and C. Van den Hoof
Towards an improved and more flexible representation of water stress in coupled photosynthesis-stomatal conductance models; implications for simulated land surface fluxes and variables at various spatiotemporal scales
- 16:00–16:15 EGU2012-6102
N. Romano, A. Petroselli, and S. Grimaldi
Parameter sensitivity analysis of the mixed Green-Ampt/Curve-Number method for rainfall excess estimation in small ungauged catchments
- 16:15–16:30 EGU2012-6733
V. Y. Ivanov, S. Fatichi, S. K. Kampf, and E. Caporali
Vegetation function and non-uniqueness of the hydrological response
- 16:30–16:45 EGU2012-10212
R. Zitouna Chebbi, L. Prévot, F. Jacob, and M. Voltz
Establishing seasonal chronicles of actual evapotranspiration under sloping conditions
- 16:45–17:00 EGU2012-4740
H. Bogen, R. Rosenbaum, M. Herbst, J.A. Huisman, T.J. Peterson, A.W. Western, and H. Vereecken
Seasonal and event-scale dynamics of spatial soil moisture patterns at the small catchment scale

HS8.3.1 – Monitoring and modelling transfer processes in the soil-plant-atmosphere continuum across scales (co-listed) – Posters

Convener: N. Romano | Co-Conveners: R. Angulo-Jaramillo, M. Javaux, M. van der Ploeg

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: N. Romano, R. Angulo-Jaramillo, M. Javaux, M. van der Ploeg

- A185 EGU2012-2278
L. Lassabatere, S. Loizeau, R. Angulo-Jaramillo, T. Winiarski, Y. Rossier, C. Delolme, and J.P. Gaudet
Influence of the initial soil water content on Beerkan water infiltration experiments
- A186 EGU2012-10766
M. L. Prados Garcia, J. V. Giraldez Cervera, C. Guardiola-Albert, and K. Vanderlinden
Local and non-local controls of temporal stability of water content in the sandy soils of the Doñana National Park, SW Spain
- A187 EGU2012-4791
V. Sipek
Simulations of the soil moisture dynamics in the small scale forested catchment using mesoscale hydrological model
- A188 EGU2012-8363
A. Pedrera, K. Vanderlinden, G. Martínez, A. J. Espejo, and J. V. Giráldez
Simulation of Soil Water Content Variability in a Heavy Clay Soil under Contrasting Soil Managements

- A189 EGU2012-13712
R. M. Feltrin, **J.B.D. de Paiva**, E.M.C.D. Paiva, V. Sari, and L.S. Brites
Behavior of the soil water content, for native grass field and native forest, under climatic conditions of the Atlantic forest in Southern of Brazil.
- A190 EGU2012-7316
J. Ingwersen, P. Högy, A. Fangmeier, and **T. Streck**
Energy balance closure methods of eddy covariance data tested by a coupled land surface - crop growth model
- A191 EGU2012-11842
A. Aloui, M. Masmoudi, F. Jacob, and N. Ben Mechlia
Use of the Aquacrop model for the simulation of wheat evapotranspiration in north-eastern Tunisia
- A192 EGU2012-8091
O. Gharsallah, A. Facchi, and C. Gandolfi
Performance of evapotranspiration models for a maize agro-ecosystem: from bare soil to maximum coverage in irrigated and rainfed conditions
- A193 EGU2012-14420
S. Klepsch, D. Leitner, and A. Schnepf
Single Root Model for the Impact of Root Exudates on the Fate of Phosphorus in the Rhizosphere
- A194 EGU2012-3021
Steffen Merz, Andreas Pohlmeier, Christina Seidler, Dagmar van Dusschoten, and Harry Vereecken
Water uptake patterns and root system architecture of Zea mays in a natural soil under influence of drought stress monitored by MRI
- A195 EGU2012-10361
S. Gayler, T. Wöhling, E. Priesack, H.-D. Witzmann, V. Wulfmeyer, J. Ingwersen, and T. Streck
Comparing the performance of coupled soil-vegetation-atmosphere models at two contrasting field sites in South-West Germany
- A196 EGU2012-12405
B. Silva and J. Bendix
Modelling and monitoring vegetation and evapotranspiration on an anthropogenic grassland succession in the Andes of Ecuador
- A197 EGU2012-8139
D. Deraedt, F. Ridremont, H. Claessens, and A. Degré
Hydrological behaviour of a forested catena
- A198 EGU2012-11670
C. Bakopoulou, N. Bulygina, A.P. Butler, and N.R. McIntyre
Sensitivity Analysis and Parameter Identifiability of the Land Surface Model JULES at the point scale in permeable catchments
- A199 EGU2012-6299
M. Gran, J. Carrera, and M.W. Saaltink
Interpretation by numerical modeling of data monitored at a cover for a nuclear waste repository

NP3.4/BG2.23/SSS1.7 – Scaling, Nonlinearity, and Complexity in soils (co-organized) – Orals

Convener: A. M. Tarquis | Co-Conveners: E. Perrier, M. Marani, D. Gimenez, R. M. Lark, R. E. Falconer, F. Jimenez-Hornero, A. N. Kravchenko, J. Crawford, M. Steffens, C. W. Mueller, R. Viscarra Rossel

Room: 18

Chairperson: C. W. Mueller

- 08:30–08:45 EGU2012-2896
R. M. Lark
Quality measures for geostatistical prediction of log-normal soil properties.
- 08:45–09:00 EGU2012-14154
M. A. Marinho, **J. R. Raposo**, M. Valcárcel Armesto, J. Dafonte Dafonte, and A. Paz González
Characterization of Soils and Tertiary-Quaternary Sediments by Electrical Resistivity Tomography in Terra Chá, Lugo, Spain
- 09:00–09:15 EGU2012-1963
F. Cresto Aleina, V. Brovkin, S. Muster, J. Boike, L. Kutzbach, and S. Zuyev
Poisson-Voronoi Diagrams and the Polygonal Tundra
- 09:15–09:30 EGU2012-6552
A Paz González, M. Valcarcel Armesto, J. Dafonte Dafonte, J. M. Mirás Avalos, R. da Silva Días, M. A. Marinho, and C. A. de Abreu
Charactering Spatial Variability of Soil Properties Measured on a Transect by Multifractal Analysis
- 09:30–09:45 EGU2012-466
D. Gimenez and S-W Yoon
Using Entropy to Quantify Soil Structure from Water Retention and Texture Data

- 09:45–10:00 EGU2012-14184
K. Olechko, P. Patiño, and A.M. Tarquis
 The number comb for a soil physical properties dynamic measurement
- 10:00–10:15 EGU2012-14209
A. Pohlmeier, S. Haber-Pohlmeier, M. Bechtold, J. Vanderborght, and H. Vereecken
 Magnetic resonance imaging of slow water flow during infiltration and evaporation by tracer motion

COFFEE BREAK

Chairperson: R. M. Lark

- 10:30–10:45 EGU2012-4535
E. Inselsbacher and T. Näsholm
 Microdialysis as a novel tool for in-situ monitoring of diffusive fluxes of plant-available nitrogen
- 10:45–11:00 EGU2012-8182
R. E. Falconer, G. Battaia, and W. Otten
 A pore scale model of Soil Organic Matter (SOM) dynamics and microbial colonisation
- 11:00–11:15 EGU2012-4631
M. Leue, H.H. Gerke, and R.H. Ellerbrock
 Characterization of soil organic matter composition at intact preferential flow path surfaces
- 11:15–11:30 EGU2012-8472
S. Engels, B. Marschner, and H. Zepp
 Analysing soil moisture reactions to precipitation for soil moisture regionalization
- 11:30–11:45 EGU2012-13769
J. Pett-Ridge, M. Keiluweit, J. Bougoure, P.K. Weber, M. Kleber, and P. Nico
 Joining NanoSIMS and STXM/NEXAFS to visualize soil biotic and abiotic processes at the nano-scale
- 11:45–12:00 EGU2012-14058
 A.M. Tarquis, P.L. Gonzalez-Nieto, and **N.R.A. Bird**
 3D Soil Images Structure Quantification using Relative Entropy
- 12:00–12:15 EGU2012-14183
 M. Capa-Morocho, **M. Ruiz-Ramos**, S.M. Hapca, A. Houston, and A.M. Tarquis
 Topology of a percolating soil pore network

GM6.2/HS9.6/SSS5.21 – Connectivity in water and sediment dynamics: how do we move forwards? (co-organized) – Orals

Convener: A. Parsons | Co-Conveners: S.D. Keesstra, L. Bracken, J. Wainwright, R. Poepl, D. Dunkerley

Room: 21

Chairperson: Parsons/Bracken

- 08:30–08:45 EGU2012-3521
M.J. Kirkby
 Do Not Only Connect
- 08:45–09:00 EGU2012-4463
LJ Bracken, G. Ali, AG Roy, MW Smith, D Tetzlaff, and J. Wainwright
 Hydrological connectivity for catchment management: research approaches, pathways and future agendas
- 09:00–09:15 EGU2012-9265
R.E. Poepl, S.D. Keesstra, S. Fuchs, M. Seeger, R. Bertsch, and T. Glade
 Humans as (dis)connecting agents in fluvial systems: a conceptualization with case studies from small to meso-scale catchments
- 09:15–09:30 EGU2012-5214
M.-A. Harel, E. Mouche, and E. Ledoux
 1D Runoff-runon stochastic model in the light of queueing theory : heterogeneity and connectivity
- 09:30–09:45 EGU2012-7441
L. Chen, S. Sela, T. Svoray, and S. Assouline
 Impact of soil surface sealing on Rainfall-Runoff Processes in semi-arid areas
- 09:45–10:00 EGU2012-3958
A. Zimmermann, B. Zimmermann, and H. Elsenbeer
 Connectivity: What is it good for?

COFFEE BREAK

Chairperson: Keesstra/Dunkerley

- 10:30–10:45 EGU2012-6347
C. Soulsby and D. Tetzlaff
 Hydrological connectivity as an evolutionary control for the ecohydrology of montane drainage systems
- 10:45–11:00 EGU2012-13252
L. Pfister, N. Martínez-Carreras, C. Wetzel, L. Ector, J. Frentress, and J.J. McDonnell
 Innovative interdisciplinary approaches in catchment hydrology: on the potential for diatoms and thermal infrared imagery for documenting spatio-temporal dynamics and connectivity of saturated areas in the hillslope-riparian zone-stream system
- 11:00–11:15 EGU2012-13260
T. Heckmann and W. Schwanghart
 One framework, different approaches: Exploring graph theory for the assessment of sediment connectivity
- 11:15–11:30 EGU2012-7872
M. Moreno de las Heras, P.M. Saco, and G.R. Willgoose
 Landscape Degradation in Australian Semiarid Shrublands: Variations in Hydrological Connectivity Indicate Abrupt Changes in Ecosystem Functionality
- 11:30–11:45 EGU2012-3277
J. Croke, C. Thompson, and F. Watson
 Spatial patterns of sediment erosion and deposition during an extreme flood event: Data to assess the meaning and interpretation of sediment connectivity in river systems.
- 11:45–12:00 EGU2012-13765
B. Wemple, K. Garvey, L. Morrissey, A. Pechenick, D. Rizzo, and D. Ross
 Hydrological connectivity of road and stream networks and implications for material transfer and channel morphology

ERE5.3/GMPV6.7/HS8.2.8/SSS5.22 – Coupled Physical and Chemical Transformations Affecting the Performance of GeoSystems (co-organized) – Orals

Convener: H. Holländer | Co-Conveners: P. Alt-Epping, J. M. Soler, J. Taron, G. Kosakowski

Room: 19

Chairperson: Hartmut Holländer

- 13:30–14:00 EGU2012-6910
M.C. Hill, D. Kavetski, M.P. Clark, M. Ye, C.R. Tiedeman, M. Arabi, and D. Lu
 Knowledge, transparency, refutability, and consequences: Using models to evaluate geologic repositories
- 14:00–14:15 EGU2012-5069
 M. Kelly, **A. Carter**, L. Bailey, and M. Wellstead
 Development of an Insight Model for Post-closure Radiological Risks from the Disposal of High-level Waste and Spent Fuel
- 14:15–14:30 EGU2012-1665
J.-O. Selroos, H. Cheng, S. Painter, and P. Vidstrand
 Radionuclide transport during glacial cycles: Comparison of two different approaches for handling flow transients
- 14:30–14:45 EGU2012-9217
K. Beerten, M. De Craen, and S. Brassinnes
 Constraints for estimating the future burial depth of host rocks for geological waste disposal: a case study from the Boom Clay, Campine area, Northern Belgium
- 14:45–15:00 EGU2012-3812
V.M. Yarushina, D. Bercovici, and M.L. Oristaglio
 Effect of rock rheology on fluid leak-off during hydraulic fracturing
- Chairperson: Peter Alt-Epping
- 15:30–15:45 EGU2012-1758
Y. Gensterblum, M. Sartorius, A. Busch, D. Cumming, and B.M. Krooss
 CO₂-ECBM related coupled physical and mechanical transport processes
- 15:45–16:00 EGU2012-363
P. Gamazo, J. Carrera, M.W. Saaltink, L. Slooten, C. Ayora, and S. Bea
 Modeling the influence of geochemical processes on multiphase fluid dynamics for concentrated solutions under dry conditions.
- 16:00–16:15 EGU2012-11374
K. De Pourcq, C. Ayora, J. Carrera, M. García-Gutiérrez, T. Missana, and M. Mingarro
 Reactive transport modeling for Cs retention: from batch to field experiments

- 16:15–16:30 EGU2012-2640
L. Haffert and M. Haeckel
 The effect of strong salinity and temperature gradients on transport processes and the formation of bathyal authigenic gypsum at a marine mud volcano
- 16:30–16:45 EGU2012-6242
A. Budek and P. Szymczak
 Network models of dissolution and precipitation of porous media
- 16:45–17:00 EGU2012-10509
P. Hron, D. Jost, C. Engwer, O. Ippisch, and P. Bastian
 Numerical Simulation of Microbiological Growth in the Capillary Fringe

ERE5.3/GMPV6.7/HS8.2.8/SSS5.22 – Coupled Physical and Chemical Transformations Affecting the Performance of GeoSystems (co-organized) – Posters

Convener: H. Holländer | Co-Conveners: P. Alt-Epping, J. M. Soler, J. Taron, G. Kosakowski

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XL32 EGU2012-4849
 L. Bailey, **H. Clark**, and M. Wellstead
 Development of an Environmental Safety Case for a Geological Disposal Facility in the UK
- XL33 EGU2012-7131
M.-H. Derron and M. Jaboyedoff
 Regional scale mapping of sub-surface water-rock interactions
- XL34 EGU2012-9627
M. Biafore and the REWARD Team
 Real Time Wide Area Radiation Surveillance System
- XL35 EGU2012-8208
B. Leterme
 Climate change in safety assessment of a surface disposal facility
- XL36 EGU2012-5029
H. Clark, L. Bailey, and A. Parkes
 Interpretation and Modelling of Data from Site Investigations for a Geological Disposal facility located in the UK
- XL37 EGU2012-7080
Y. Jin, Y. Konno, and J. Nagao
 Spectroscopic study of formation and dissociation processes of methane hydrate in porous media
- XL38 EGU2012-7129
Y. Konno, Y. Jin, and J. Nagao
 Measurements of Gas-Water Relative Permeability for Methane-Hydrate-Bearing Sediments using X-ray Computed-Tomography
- XL39 EGU2012-7496
J. Nagao, H. Oyama, Y. Konno, and Y. Jin
 Development of a Large-Scale Laboratory Vessel for Methane Hydrate Production Tests
- XL40 EGU2012-7196
M. Gedeon, K. Vandersteen, and B. Rogiers
 Estimation of aquifer radionuclide concentrations by postprocessing of conservative tracer model results
- XL41 EGU2012-7241
M. Gedeon and D. Mallants
 Comparison between a steady-state and a transient flow model and related radionuclide concentration predictions
- XL42 EGU2012-9341
C. Bube, V. Metz, D. Schild, E. Bohnert, and B. Kienzler
 Long-term cement-corrosion in chloride-rich solutions - a thermodynamic interpretation
- XL43 EGU2012-2651
 M. E. Houben, **B. Laurich**, G. Desbois, and J.L. Urai
 Microstructure and porosity of Opalinus Clay at the Mont Terri rock laboratory (Switzerland)
- XL44 EGU2012-941
S. De Simone, V. Vilarrasa, and J. Carrera
 Fracture instability caused by cold water injection
- XL45 EGU2012-1094
J. M. Soler
 Reactive transport modeling of concrete-clay interaction: The DM borehole at Tournemire.

- XL46 EGU2012-2642
G. Kosakowski, D.A. Kulik, and H. Shao
OpenGeoSys-GEMS: Hybrid parallelization of a reactive transport code with MPI and threads
- XL47 EGU2012-1760
H. Shao, **G. Kosakowski**, U. Berner, D. Kulik, U. Mäder, and O. Kolditz
Is the clogging process in Maqarin natural analogue controlled by accessory clay minerals? A reactive transport study with new data.
- XL48 EGU2012-12088
P. Alt-Epping, B.S.G. Almqvist, and L.W. Diamond
Coupled numerical simulations of CO₂ injection into the carbonate aquifer of the Upper Muschelkalk, N-Switzerland
- XL49 EGU2012-2650
M. Hayek, **G. Kosakowski**, A. Jakob, and S. Churakov
Benchmarking of numerical codes against analytical solutions for multidimensional multicomponent diffusive transport coupled with precipitation-dissolution reactions and porosity changes
- XL50 EGU2012-4605
N. Blundell, **M. O. Cuthbert**, M. S. Riley, S. Handley-Sidhu, and J. C. Renshaw
Engineering biomineralised groundwater flow barriers for inhibiting radionuclide transport in fractured rocks
- XL51 EGU2012-9340
T. Gimmi and A. Jakob
Assessing conceptual errors and parameter errors of a transport model used for analysing a field diffusion experiment
- XL52 EGU2012-1607
J. M. Soler, M. Vuorio, and A. Hautajärvi
High-pH plume from fracture grouting. Application to low-pH-cement grouting at ONKALO (Finland).
- XL53 EGU2012-13444
J. Samper, A. Mon, L. Montenegro, A. Naves, and B. Pisani
Thermal-hydrodynamic-geochemical models of engineered clay barriers
- XL54 EGU2012-3090
M. G. Davila Ordoñez, M. García Rios, J.M Soler, and J. Cama
Modeling dolomite - brine interaction in the context of geological CO₂ sequestration
- XL55 EGU2012-5097
E. Torres, C. Ayora, J.L. Arias, E. Garcia_Robledo, S. Papaspyrou, and A. Corzo
Diffusion-reaction modelling of early diagenesis of sediments affected by acid mine drainage.
- XL56 EGU2012-6368
J. M. Galíndez and C. Steefel
Incorporating surface phenomena into solute transport through compacted clays - Application of the Poisson-Nernst-Planck set of equations
- XL57 EGU2012-10965
J. Schikora, J. Kulenkampff, M. Gründig, and J. Lippmann-Pipke
Modelling and Simulation of 4D GeoPET Measurements with COMSOL Multiphysics 4.2a

SSS6.9 – Soil degradation and theoretical aspects of desertification in arid and semi-arid environments. Degradation versus self-organization – Orals

Convener: L. M. Zavala | Co-Conveners: A Jordán, J. Gil, T. Vanwalleghe, M. Shoshany, J. Wainwright, L.H. Cammeraat

Room: 6

Chairperson: n.n.

- 15:30–15:45 EGU2012-289
J.D. Phillips
State Transitions in Semiarid Landscapes
- 15:45–16:00 EGU2012-508
M. Shoshany
Self-organization in Shrublands' patterns along a climatic gradient: A geo-simulation and remote sensing Study
- 16:00–16:15 EGU2012-2936
V. Deblauwe, P. Coutron, and N. Barbier
Large scale pattern modulation and local processes in self-organised semi-arid vegetations
- 16:15–16:30 EGU2012-1056
E. Pankova and **A. Kontoboytseva**
Climate and processes of recent salt accumulation in soils of arid regions
- 16:30–16:45 EGU2012-443
SK Abd-Elmabod, A Jordán, M Anaya-Romero, RR Ali, M Muñoz-Rojas, LM Zavala, and D de la Rosa
Impact of topography and soil factors on crop suitability in two Mediterranean areas (Egypt and Spain)

16:45–17:00 EGU2012-435

M Muñoz-Rojas, A Jordán, LM Zavala, D de la Rosa, SK Abd-Elmabod, and M Anaya-Romero

Effect of land use and land cover changes on carbon sequestration in vegetation and soils between 1956 and 2007 (southern Spain)

SSS6.9 – Soil degradation and theoretical aspects of desertification in arid and semi-arid environments. Degradation versus self-organization – Posters

Convener: L. M. Zavala | Co-Conveners: A Jordán, J. Gil, T. Vanwalleghe, M. Shoshany, J. Wainwright, L.H. Cammeraat

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: L.M. Zavala, J. Gil, L.H. Cammeraat,

Z61 EGU2012-270

M. Wiesmeier, M. Steffens, A. Kölbl, and I. Kögel-Knabner

Soil degradation in semi-arid grasslands due to intensive grazing in Northern China

Z62 EGU2012-454

F.A. González-Peñaloza, A Jordán, N Bellinfante, G Bárcenas-Moreno, J Mataix-Solera, A.J.P. Granged, J Gil, and L.M. Zavala

Particle size conditions water repellency in sand samples hydrophobized with stearic acid

Z63 EGU2012-1215

T. Yuksek and F. Yuksek

The effects of restoration on some soil properties in degraded land in the semi-arid and semi-humid region of Turkey

Z64 EGU2012-1558

C. Branquinho, P. Pinho, P. Matos, A. Nunes, S. Tápiá, C. Máguas, and O. Correia

Ecological Indicators of early-warning of desertification: a proposal for a universal framework

Z65 EGU2012-1921

D. Dunkerley

Vegetation mosaics in arid Australia: linked roles for climate and soils

Z66 EGU2012-3605

m. shachak

Self Organization as a Tool for Complex System Understanding in a Changing World

Z67 EGU2012-3052

J.L. San Emeterio and C. Mering

Climatic and human impacts on the ligneous cover in the Sahel from analysis of aerial photographs before and after the drought periods of the 70's and 80's

Z68 EGU2012-4602

P. Iavazzo, S. Terracciano, M.E. Topa, P. Adamo, A. Coly, F. De Paola, S. Giordano, M. Giugni, and H. Touré

A methodological approach to assess sensitivity to desertification in two sub-Saharan urban areas: Ouagadougou (Burkina Faso) and Saint Louis (Senegal)

Z69 EGU2012-5090

A. Cerdà, F.A. Gonzalez Peñaloza, A.C. Imeson, and A. Gimenez Morera

Land degradation in the Canyoles river watershed, Eastern Spain

Z70 EGU2012-6298

Z. Galic and S. Orlovic

Soil preservation by afforestation in changing climate

Z71 EGU2012-8398

A. Gobin, H. Le Trinh, L. Pham Ha, and L. Hens

Land use and desertification in the Binh Thuan Province of Southeastern Vietnam: mitigation and adaptation options now and under climate change

Z72 EGU2012-10039

A. Kallioras, E. Rokos, E. Charou, A. Perrakis, E. Vasileiou, and K. Markantonis

Desertification and land degradation investigations in the Mediterranean basin based on hydrological and remote sensing data interpretation.

Z73 EGU2012-11547

R. Ciampalini, P. Billi, S. Follain, Y. Le Bissonnais, G. Ferrari, and L. Borselli

Long-term soil erosion modelling of a cultivated terraced system in the area of Aksum (Ethiopia), with the support of archaeological data

Z74 EGU2012-12764

P. Rivera-Ortiz, E. Andrade-Limas, F. De la Garza-Requena, and B. Castro-Meza

Remontant erosion in desert soils of Tamaulipas, México.

Z75 EGU2012-12871

L.H. Cammeraat and V. Kakembo

Changing vegetation self organisation affecting eco-hydrological and geomorphological processes under invasion of blue bush in SE South Africa

- Z76 EGU2012-13644
F. Nutini, **M. Boschetti**, P.A. Brivio, and M. Antoninetti
Obtaining land cover changes information from multitemporal analysis of Landsat-TM images: results from a case study in West African dryland
- Z77 EGU2012-14016
M.S Shoshany and T.J Jarmer
Exploring relationships between soil spectral and chemical properties along a climatic gradient in the Judean Desert
- Z78 EGU2012-14017
M.S Shoshany and L.K Karnibad
Pattern-Greenness-Biomass Relationships in semi-arid shrublands along a Climatic Gradient

SSS6.10 – Combat desertification and soil degradation in arid and humid environments and assess impacts on ecosystem services – approaches and solutions. – Orals

Convener: E. van den Elsen | Co-Conveners: Dr. de Vente, A. Ferreira, S. Verzaandvoort, R. Hessel, C. J. Ritsema

Room: 6

Chairperson: n.n.

- 08:30–08:45 EGU2012-2629
R. Hessel, C. Ritsema, M. Reed, G. van Lynden, C. Karavitis, G. Schwilch, V. Jetten, N. Geeson, E. van den Elsen, and S. Verzaandvoort
From framework to action: The DESIRE approach to combat desertification
- 08:45–09:00 EGU2012-1866
G. van Lynden and S. Mantel
Mapping degradation and conservation in the DESIRE Project
- 09:00–09:15 EGU2012-3932
C. Kosmas and the C. Kosmas Team
Connecting Indicators with land degradation and desertification
- 09:15–09:30 EGU2012-13668
M. Carreiras, A.J.D. Ferreira, J. Moreira, T.C.J. Esteves, S. Valente, J. Soares, C.O.A. Coelho, G. Schwilch, and F. Bachmann
How knowledge influences a MCDM analysis: WOCAT Portuguese experience on prevention of forest fires
- 09:30–09:45 EGU2012-13243
N. Jones, J. de Graaff, F. Duarte, I. Rodrigo, and A. Poortinga
Farming systems in two less favoured areas in Portugal: their development over the last two decades and their contribution to sustainable land management
- 09:45–10:00 EGU2012-894
S. Valente, C. Coelho, and J. Soares
Forest Intervention Areas (ZIF): a new approach for forest management in Portugal

COFFEE BREAK

Chairperson: R. Hessel

- 10:30–10:45 EGU2012-3296
F Wang and G Schwilch
Desertification Control Options with Multi-stakeholders workshops in Ansai County, China
- 10:45–11:00 EGU2012-3736
A. Laouina, M. Chaker, M. Aderghal, N. Machouri, and J. Alkarkouri
The potential for SLM, facing human constraints, the case of the semi-arid agro-pastoral lands in the Atlantic plateaus, Morocco
- 11:00–11:15 EGU2012-7520
V. Jetten and D. P. Shrestha
Testing soil and water conservation methods in 16 countries; do best practices exist?
- 11:15–11:30 EGU2012-5895
D. Nainggolan, L. Fleskens, and L. C. Stringer
An Assessment of the Effectiveness and Viability of Various Mitigation Technologies under Different Scenarios Using the PESERA-DESMICE Model
- 11:30–11:45 EGU2012-7536
N. Geeson, E. van den Elsen, J. Brandt, G. Quaranta, and R. Salvia
Using internet technology to inform researchers, policy makers and other stakeholders about sustainable land management in drylands: experience from a large interdisciplinary and international project

- 11:45–12:00 EGU2012-10276
C.J. Ritsema, L. Stringer, M. Reed, P. Burger, M.J.B. van de Werff ten Bosch, R. Hessel, S. Verzandvoort, E. van den Elsen, G. Schwilch, G. van Lynden, H.P. Liniger, C. Karavitis, V. Jetten, and N. Geeson
 Potential of the DESIRE approach for putting UNCCD policies into practice

LUNCH BREAK

Chairperson: n.n.

- 13:30–13:45 EGU2012-9607
S. Valet, M. Motelica-Heino, and H. Ozier-Lafontaine
 Water runoff as a major ecosystemic service at the field scale in the sudano-sahelian zone
- 13:45–14:00 EGU2012-842
N. Bellin, V. Vanacker, and B. van Wesemael
 Reconciling water harvesting and soil erosion control by thoughtful implementation of SWC measures
- 14:00–14:15 EGU2012-360
W. Maetens, J. Poesen, and M. Vanmaercke
 How effective are soil and water conservation techniques in reducing annual plot runoff and soil loss? A pan-European and Mediterranean review and analysis.
- 14:15–14:30 EGU2012-13015
D. Geneletti
 Modeling the effect of spatial policies on ecosystem services and human wellbeing
- 14:30–14:45 EGU2012-12494
J. C. Leite, A. J. D. Ferreira, T. C. J. Esteves, and C. P. M. Bento
 Deforestation in Brazil: motivations, journeys and tendencies
- 14:45–15:00 EGU2012-6481
I. Baptista, A.D. Ferreira, J. Tavares, A.L.E. Querido, A.E. A. Reis, V. Geissen, C. Ritsema, and A. Varela
 Soil and water conservation strategies and impact on sustainable livelihood in Cape Verde - Case study of Ribeira Seca watershed

SSS6.10 – Combat desertification and soil degradation in arid and humid environments and assess impacts on ecosystem services – approaches and solutions. – Posters

Convenor: E. van den Elsen | Co-Conveners: Dr. de Vente, A. Ferreira, S. Verzandvoort, R. Hessel, C. J. Ritsema

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- Z79 EGU2012-885
J. Soares, C. Coelho, T. Carvalho, E. Oliveira, and S. Valente
 The use of rainfall simulations to assess land degradation and soil erosion produced by an SLM technology, Portugal
- Z80 EGU2012-1315
W. Maetens, J. Poesen, and M. Vanmaercke
 Effects of land use on annual runoff and soil loss -a meta-analysis of a European and Mediterranean plot database-
- Z81 EGU2012-3523
M.J. Kirkby and B.J. Irvine
 The use of PESERA modelling to guide the choice of Soil and Water Conservation strategies,
- Z82 EGU2012-3608
L. Fleskens
 Application of cost-benefit analysis for evaluating land degradation mitigation measures on agricultural land: a synthesis of findings and unsolved issues.
- Z83 EGU2012-3938
Or. Kairis and the Or. Kairis Team
 Defining land degradation and desertification risk using simple indicators
- Z84 EGU2012-4920
R.A. Shakesby, C.P.M. Bento, C.S.S. Ferreira, A.J.D. Ferreira, C.R. Stoof, E. Urbanek, and R.P.D. Walsh
 The viability of prescribed fire for mitigating the soil degradational impacts of wildfire
- Z85 EGU2012-5938
S Mantel, G.V.L. Van Lynden, C.A. Karavitis, C. Kosmas, and M.J. Van der Werff ten Bosch
 Drivers of desertification and their impact

- Z86 EGU2012-7165
R. Hessel, V. Jetten, C. Karavitis, C. Kosmas, G. van Lynden, B. Irvine, and M. Kirkby
Assessing degradation; a comparison of mapping, monitoring, modeling and indicator based approaches
- Z87 EGU2012-7445
R Li, F Wang, and H Xie
Impacts of Grain for Green Project on Soil Erosion in China
- Z88 EGU2012-7742
J. TAVARES
Assessment and mapping of desertification sensitivity in an insular sahelian mountain region - case study of the Ribeira Seca Watershed, Cape Verde
- Z89 EGU2012-8209
R.P.D. Walsh, C.S.S. Ferreira, R.A. Shakesby, E. Urbanek, C.P.M. Bento, A.J.D. Ferreira, and C.R. Stoof
Prescribed fire and spatiotemporal regimes of water-repellency in Portugal: helpful or unhelpful in reducing long-term overland flow and erosion impacts?
- Z90 EGU2012-8303
E. Urbanek, **R.P.D. Walsh**, and R.A. Shakesby
Switching between hydrophobic and wettable conditions in soil: experiments to assess the influence of cracks, roots and subsurface drainage impedance
- Z91 EGU2012-10208
E. Argaman, W. Beets, J. Croes, S. Keesstra, S. Verzaandvoort, and A. Zeiliger
Detecting crop yield reduction due to irrigation-induced soil salinization in South-West Russia
- Z92 EGU2012-10741
A. Zeyliger and O Ermolaeva
Strategy of Irrigation Branch in Russia
- Z93 EGU2012-11752
D. Bartolini, L. Borselli, P. Cassi, **P. Lollino**, G. Mitaritonna, and P. Salvador Sanchis
Analysis of the erosion processes in the Rendina watershed and development of PESERA-L for modelling the contribution of shallow landslides to sediment yield
- Z94 EGU2012-12497
J. de Vente, A. Solé-Benet, J. López, and C. Boix-Fayos
Biophysical and socioeconomic impacts of soil and water conservation measures. An evaluation of Sustainable Land Management in SE Spain.
- Z95 EGU2012-13210
B.J. Irvine, L. Fleskens, and M.J. Kirkby
Modelling the regional application of stakeholder identified land management strategies.
- Z96 EGU2012-13418
A.J.D. Ferreira, S. Prats-Alegre, C.O.A. Coelho, C.S.S. Ferreira, C. Bento, R.A. Shakesby, C.R. Stoof, and C.J. Ritsema
Overview of SWC techniques to mitigate soil degradation following wildfires
- Z97 EGU2012-14426
S. Ayrault, P. Bonté, C. Duvert, M. Esteves, O. Evrard, **N Gratiot**, I Lefèvre, J Némery, J Poulenard, C Prat, and C Saenz-Romero
Identifying soil erosion sources to better anticipate in and off site degradations in a tropical highland catchment of central Mexico
- Z98 EGU2012-13421
T.C.J. Esteves, J.A.A. Soares, A.J.D. Ferreira, C.O.A. Coelho, M.A. Carreiras, and G.V. Lynden
WOCAT mapping, GIS and the Góis municipality
- Z99 EGU2012-13545
T.C.J. Esteves, M.J. Kirkby, R.A. Shakesby, A.J.D. Ferreira, J.A.A. Soares, C.S.S. Ferreira, C.O.A. Coelho, C.P.M. Bento, and M.A. Carreiras
PESERA model application in the Portuguese study areas: Góis and Mação
- Z100 EGU2012-717
D. Jokanovic, V. Popovic, D. Vilotic, S. Mitrovic, and Lj. Brasanac-Bosanac
Soil impact on the radial growth of Taxodium (Taxodium distichum (L.) Rich.) in Serbia
- Z101 EGU2012-2630
R. Hösl and P. Strauss
A rainfall simulation experiment on soil and water conservation measures - Undesirable results
- Z102 EGU2012-7435
M. Cotter, J. Grenz, and J. Sauerborn
Biodiversity evaluation in tropical agricultural systems - How will rubber cultivation and land use change effect species diversity in SW China
- Z103 EGU2012-6313
JM García-Ruiz and N Lana-Renault
Hydrological and Geomorphological impacts of land cover changes at different spatial scales. An introduction to ecosystem services from Mediterranean mountainous landscapes

- Z104 EGU2012-13815
M. Bartus, A Farsang, J. Szatmári, and K. Barta
Model based optimization of wind erosion control by tree shelterbelt for suitable land management
- Z105 EGU2012-12464
P. Hervé-Fernández and C.E. Oyarzun
Transpiration and water use efficiency in native chilean and exotic species, a usefull tool for catchment management?
- Z106 EGU2012-13524
A.J.D. Ferreira, C.S.S. Ferreira, C.O.A. Coelho, R.P.D. Walsh, and R.A. Shakesby
Overland flow generation processes in sub-humid Mediterranean forest stands
- Z107 EGU2012-4106
U Hamer
Soil degradation and rehabilitation in the tropical mountain rainforest region of South Ecuador
- Z108 EGU2012-1647
R.M. Bonilha, **J. C. Casagrande**, and R.M. Soares
Soil Quality Index Determination Models for Restinga Forest
- Z109 EGU2012-12510
C.P.M. Bento, R.A. Shakesby, R.P.D. Walsh, C.S.S. Ferreira, A.J.D. Ferreira, and E. Urbanek
Testing the effectiveness of pine needlecast in reducing post-fire soil erosion using complementary experimental approaches

SSS8.2 – Soil management as a determinant of microbial diversity and function – Orals

Convener: F. García-Orenes | Co-Conveners: J. Jansa, N. C. Johnson, A. Roldan

Room: 3

Chairperson: Jan Jansa, Nancy C. Johnson

- 13:30–13:45 EGU2012-7795
M. Moora, J. Davison, M. Metsis, M. Öpik, M. Vasar, and M. Zobel
Variation of soil arbuscular mycorrhizal fungal communities across land use gradient
- 13:45–14:00 EGU2012-1325
J. Jansa, A. Erb, H.-R. Oberholzer, P. Šmilauer, and S. Egli
Determinants of arbuscular mycorrhizal communities - soil properties or land use?
- 14:00–14:15 EGU2012-4005
G. Börjesson, T. Kätterer, and H. Kirchmann
Soil microbial biomass and community structure affected by repeated additions of sewage sludge in four Swedish long-term field experiments
- 14:15–14:30 EGU2012-4892
C. Grangeteau, M. Ducousso, P. Jourand, M. Lebrun, and A. Klonowska
Diversity of nitrogen fixing bacteria associated to the new Caledonian ubiquitous tree *Acacia spirorbis*
- 14:30–14:45 EGU2012-14004
J.M. Barea, J. Palenzuela, I. Sánchez-Castro, A. López-García, M. Ferrol, and C. Azcón-Aguilar
The impact of ecosystem degradation on the diversity of AM fungal communities associated to shrub species from the semiarid Spanish southeast
- 14:45–15:00 EGU2012-273
N.C. Johnson
Use of stoichiometry to predict the abundance and functioning of root symbioses

SSS8.2 – Soil management as a determinant of microbial diversity and function – Posters

Convener: F. García-Orenes | Co-Conveners: J. Jansa, N. C. Johnson, A. Roldan

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Fuensanta Garcia Orenes, Antonio Roldán

- Z110 EGU2012-632
D. Lesueur, M. Atieno, S. Mathu, and L. Herrmann
Importance of rhizobia in Agriculture: potential of the commercial inoculants and native strains for improving legume yields in different land-use systems
- Z111 EGU2012-797
M. Gorbacheva
The determination of the real nano-scale sizes of bacteria in chernozem during microbial succession by means of hatching of a soil in aerobic and anaerobic conditions
- Z112 EGU2012-1169
A. Morugan, F. Garcia-Orenes, and J. Mataix-Solera
Salinity effect of irrigation with treated wastewater in basal soil respiration in SE of Spain

- Z113 EGU2012-2399
I. Gomez Lucas, J.M. Soriano-Disla, J. Navarro-Pedreño, F. García-Orenes, M.B. Almendro-Candel, and M.M. Jordán
Quantification of Soil Respiration in Different Saline Soils of Alicante (Spain)
- Z114 EGU2012-2703
M.M. Alguacil, E. Torrecillas, G. Hernández, P. Torres, and A. Roldán
Jatropha curcas and Ricinus communis differentially affect arbuscular mycorrhizal fungi diversity in soil when cultivated for biofuel production in a Guantanamo (Cuba) tropical system.
- Z115 EGU2012-2710
M.M. Alguacil, E. Torrecillas, A. Roldán, G. Díaz, and P. Torres
A comparative study of AMF diversity in annual and perennial plant species from semiarid gypsum soils.
- Z116 EGU2012-2722
M.M. Alguacil, E. Torrecillas, Z. Lozano, F. Garcia-Orenes, and A. Roldan
Prunus persica crop management as step toward AMF diversity conservation for the sustainable soil management
- Z117 EGU2012-2739
M.M. Alguacil, E. Torrecillas, Z. Lozano, M.P. Torres, F. Garcia-Orenes, and A. Roldan
Long-term effect of irrigation with water from sewage treatment plant on AMF biodiversity and microbial activities.
- Z118 EGU2012-3898
S. Kato and M. Watanabe
Growth of Fagus in transition zones of forest and soil on the western slope of Mt. Chokai, northern Japan
- Z119 EGU2012-4290
A. Delgado, A. de Santiago, M. Avilés, and F. Perea
Tillage system affects microbiological properties of soil
- Z120 EGU2012-4378
D. Durán, C. Sánchez-Cañizares, A. Navarro, L. Rey, J. Imperial, and **T. Ruiz-Argüeso**
Bradyrhizobium-Lupinus mariae-josephae: a unique symbiosis endemic of a basic soil in Eastern Spain
- Z121 EGU2012-8004
K. Assigbetsé, I. Ciss, N. Bakhoun, and L. Dieng
Effect of Inoculation of Acacia senegal mature trees with Mycorrhiza and Rhizobia on soil properties and microbial community structure
- Z122 EGU2012-8953
J. Pinggera, D. Geisseler, I. Merbach, and B. Ludwig
Nitrogen utilization pathways of soil microorganisms

SSS11.2 – Soil Management for Sustainable Agro food Systems – Posters

Convener: R. García Moreno | Co-Conveners: P. White, J. Crawford, M.C. Díaz Álvarez, J. A. Amoros, J. A. Campos Gallego

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Rosario García Moreno

- Z123 EGU2012-362
N. C. Marcante, T. Muraoka, M. A. Camacho, F. R. C. F. César, and I. P. Bruno
Phosphorus use efficiency by cotton measured through ³²P isotope technique
- Z124 EGU2012-379
T Islami and W Utomo
Optimizing Nitrogen Fertilization of Maize (Zea mays L.) by Biochar Application on Degraded Land of East Java, Indonesia
- Z125 EGU2012-1119
P. I. Moraru and T. Rusu
Influence of Soil Tillage Systems on Soil Respiration and Production on Wheat, Maize and Soybean Crop
- Z126 EGU2012-2200
M.O. Cardoso, E.M.R. Pedrosa, T.F.S. Vicente, G.M. Siqueira, and A.A.A. Montenegro
Spatial distribution of nematodes in soil cultivated with sugarcane under different uses
- Z127 EGU2012-2252
R. García Moreno, S. Gameda, M.C. Diaz Alvarez, and Y.G. Selasie
Implementation of Sustainable Soil Management Practices to Improve Crop Production in the Different Ethiopian Agro Systems
- Z128 EGU2012-2255
R. Moratiel Yugueros and R. García Moreno
Evaluation of soil heat flux density as a function of soil management practices

- Z129 EGU2012-2257
R. García Moreno, **M.C. Diaz Alvarez**, A. Saa Requejo, and F. Guerrero López
Comparing soil surface roughness patterns at different colour and organic matter conditions using shadow analysis method
- Z130 EGU2012-3163
I. P. Bruno, V. M. Pinto, and K. Reichardt
Nitrogen balance of a fertigated coffee crop
- Z131 EGU2012-4270
P. Almendros, D. Gonzalez, and J.M. Alvarez
Evolution of residual-Zn available concentrations of Zn-EDTA chelate in two different soils.
- Z132 EGU2012-4296
P. Almendros, D. Gonzalez, A. Obrador, and J.M. Alvarez
Changes in the distribution of Zn applied as a mixture of synthetic chelating agents in two successive flax crops grown in a calcareous soil.
- Z133 EGU2012-6594
P. Afrasiab, **M. Delbari**, and M. Talebzadeh
Salt leaching process in a saline soil through disturbed soil columns
- Z134 EGU2012-10829
E. Gaitán Fernández, R. García Moreno, M. R. Pino Otín, and J. Ribalaygua Batalla
Application of statistical downscaling technique for the production of wine grapes (*Vitis vinifera* L.) in Spain
- Z135 EGU2012-13270
A. Paz González, **E. Vidal Vázquez**, and C. A. de Abreu
Effects of land use on of soil micronutrients at the plot scale in an acid environment

SSS12.3/EOS11 – Geodiversity and geoheritage in university education and research (co-organized) – Orals

Convener: L.H. Cammeraat | Co-Conveners: E. Reynard, H. van den Ancker

Room: 3

Chairperson: n.n.

- 15:30–15:45 EGU2012-236
M. Gray
Integrating research & teaching: the Queen Mary, University of London module in Geodiversity & Geoconservation
- 15:45–16:00 EGU2012-11881
J. Brilha, D. Pereira, and **P. Pereira**
Geoconservation education: the leading role of the University of Minho (Portugal)
- 16:00–16:15 EGU2012-4164
A. Perret, E. Reynard, and J.-J. Delannoy
Glacial heritage: knowledge, inventory and promotion in the Chablais area (France, Switzerland)
- 16:15–16:30 EGU2012-14133
A Roepert, A Zacke, and G Hoffmann
The potential of geotourism to meet the challenges of geoconservation in Oman
- 16:30–16:45 EGU2012-8739
J. Forte, J. Brilha, D. Pereira, and M. Nolasco
Quantitative evaluation of geodiversity: development of methodological procedures with application to territorial management
- 16:45–17:00 EGU2012-5661
M.P.W. Sonneveld
New elements in teaching soil-landscape relationships

SSS12.3/EOS11 – Geodiversity and geoheritage in university education and research (co-organized) – Posters

Convener: L.H. Cammeraat | Co-Conveners: E. Reynard, H. van den Ancker

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- Z136 EGU2012-14084
A Andrasanu
Linking geological Heritage Conservation to Education and Research at the University of Bucharest
- Z137 EGU2012-14280
J.L. Palacio
Geodiversity and geoheritage research and education in Mexico

- Z138 EGU2012-14428
C. Muggler
Raising awareness about soil diversity: The Education Programme of the Earth Sciences Museum Alexis Dorofeef, Minas Gerais, Brazil
- Z139 EGU2012-14008
B.N. Sadry
Geodiversity & Geoheritage Education through Geotourism Textbooks in Iran
- Z140 EGU2012-3740
E. Reynard, A. Perret, L. Grangier, and L. Kozlik
Methodological approach for the assessment, protection, promotion and management of geoheritage
- Z141 EGU2012-9936
A.C. Seijmonsbergen, M.G.G. De Jong, L.W.S. de Graaff, and **N.S. Anders**
Geoconservation mapping using digital geomorphological maps in Vorarlberg, Austria
- Z142 EGU2012-3748
L. Grangier and E. Reynard
Geomorphosite inventories for the promotion of tourism by geoheritage. The case of the Hérens and Réchy valleys (Switzerland)
- Z143 EGU2012-1104
P.D. Jungerius and J. van den Ancker
Landscape paintings of the 17th and 19th century as a tool for coastal zone management
- Z144 EGU2012-11801
D. Pereira, L. Santos, J. Silva, **P. Pereira**, J. Brilha, J. França, and C. Rodrigues
Finding the proper methodology for geodiversity assessment: a recent approach in Brazil and Portugal
- Z145 EGU2012-14041
J.M. van Mourik and A.C. Seijmonsbergen
Increase of geodiversity by historical land use in the Maashorst area (SE-Netherlands)
- Z146 EGU2012-14129
J.A.M. van den Ancker and P.D. Jungerius
Stream valleys and the coast, a reconnaissance soil-landscape analysis
- Z147 EGU2012-3498
Dj.A. Vasiljevi?, S.B. Markovi?, T.A. Hose, T. Luki?, B. Basarin, and M.D. Vuji?i?
How to protect loess-palaeosol sequences? - Proposal of Loess Geopark in Vojvodina Province (North Serbia)
- Z148 EGU2012-14006
J. Sevink and M. van Leusen
The conservation of Holocene sediment archives in the Mediterranean and its relevance for geo-archaeology.
- Z149 EGU2012-14131
E Bregman and I Kant
An Earthscience Research Policy is indispensable for a sound protection of geoheritage values. A case study of the province of Drenthe, the Netherlands
- Z150 EGU2012-1103
J. van den Ancker, P.D. Jungerius, and J. Hartman
Creating dune landscapes for nature and housing - how to assess the designs?
- Z151 EGU2012-11677
P. Pereira, J. Brilha, and D. Pereira
The inventory of the Portuguese geological heritage: a good example of scientific cooperation between universities
- Z152 EGU2012-11772
M. Contessi, L. Cantelli, F. Fanti, G. Gabbianelli, and H. Mohsen
Southern Tunisia as an example of international partnership in cultural and geological heritage conservation
- Z153 EGU2012-5139
M.D. Vuji?i?, Dj.A. Vasiljevi?, S.B. Markovi?, T. Luki?, and B. Basarin
Geodiversity "Engraved"
- Z154 EGU2012-12878
B. Toma, I. Irimus, and D. Petrea
The promotion of geomorphosites on salt from Sovata - Praid and Turda using cultural and scientific tourism
- Z155 EGU2012-14007
J. Sevink, E.R. Khodabux, D. Landsmeer, and G.J. Stoeten
Geo-conservation: an example of the application of its principles in the sanitation of the polluted Laarder Wasmeren area near Hilversum, het Gooi, The Netherlands
- Z156 EGU2012-14087
M Riksen, L. Sparrius, M. Nijssen, and S. Keestra
Preserving inland drift sands in the Netherlands

J. Kuhn, J. L. M. P. de Lima, J. Ries

Room: 3

Chairperson: Manuel Seeger

- 08:30–08:45 EGU2012-9657
P. Ashmore, S. Bennett, and C. McKenna-Neuman
 Laboratory and experimental geomorphology: examples from fluvial and aeolian systems
- 08:45–09:00 EGU2012-5786
M. Houssais and E. Lajeunesse
 Experimental investigation of the influence of the sediment size distribution on bedload transport
- 09:00–09:15 EGU2012-13866
J.B. Ries and T. Iserloh
 Rainfall Simulation: methods, research questions and challenges
- 09:15–09:30 EGU2012-3188
T. Iserloh and J.B. Ries
 Experiments for comparison of small scale rainfall simulators
- 09:30–09:45 EGU2012-3656
J.L.M.P. de Lima, J.M.G.P. Isidoro, V.P. Singh, and M.I.P. de Lima
 A study of the effect of moving storms on hillslope hydrology using laboratory experiments
- 09:45–10:00 EGU2012-4259
E. Long, G.K. Hargrave, J.R. Cooper, B. Kitchener, A.J. Parsons, and J. Wainwright
 New insights into the mechanisms of splash erosion using high speed, three dimensional, particle tracking velocimetry

COFFEE BREAK

Chairperson: Thomas Iserloh

- 10:30–10:45 EGU2012-1912
P. Kinnell
 Erosion mechanisms in rain impacted flows and their effects and interactions
- 10:45–11:00 EGU2012-3995
R. Giménez, M.A. Campo, M. González-Audicana, J. Álvarez-Mozos, and J. Casali
 Water depression storage under different tillage conditions: measuring and modelling
- 11:00–11:15 EGU2012-2183
J.M.G.P. Isidoro, J.L.M.P. de Lima, and J. Leandro
 Evaluating the influence of rooftop connectivity on the rainfall-runoff processes by means of (wind-driven) rainfall simulation.
- 11:15–11:30 EGU2012-2393
 J. Schmidt and **M. von Werner**
 Impact of wind direction and speed on the spatial distribution of soil loss on catchment scale
- 11:30–11:45 EGU2012-7712
H. Samray, G. Erpul, D. Gabriels, and W.M. Cornelis
 The Effects of Wind Driven Rain Vectors on the Stream Power of Thin Flow
- 11:45–12:00 EGU2012-1196
M. Dietze and A. Kleber
 Environmental significance of vesicular sediment structure in arid regions

SSS13.3 – Modeling the experiment, experimenting the models - combining rain and wind to soil erosion – Posters

Convener: Dr. Seeger | Co-Conveners: T. Iserloh, M. Basaran, A. Cerdà, C. Geißler, G. Erpul, W. Fister, D. Gabriels, N.

J. Kuhn, J. L. M. P. de Lima, J. Ries

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Christian Geißler

- Z157 EGU2012-12476
K. Gerke, B. Gartsman, A. Bugayets, and D. Korost
 Solute flow in extremely stony forest soil: case study in Russian Far East
- Z158 EGU2012-9206
H. Hikel, A. Yair, N.J. Kuhn, W. Schwanghart, and U. Hoffmann
 experimental investigation of soil ecohydrology on rocky desert slopes in the Negev Highlands, Israel

- Z159 EGU2012-1373
L. Antronico, O. Terranova, and D. Torri
Investigation on sediment erosion and water runoff by means of simulated rainfall in Calabria (southern Italy)
- Z160 EGU2012-9966
T. Lassu and **M. Seeger**
Set-up and calibration of an indoor nozzle-type rainfall simulator for soil erosion studies
- Z161 EGU2012-2139
J.M.G.P. Isidoro and J.L.M.P. de Lima
Exact solution of the linear KWE for 1D overland flow under moving rainstorms.
- Z162 EGU2012-12574
W. Fister and N.J. Kuhn
A pressure nozzle inventory for rainfall simulations in soil erosion research
- Z163 EGU2012-12676
W. Fister, N.J. Kuhn, N. Itin, S. Tesch, G. Heckrath, and J.B. Ries
Soil erosion rates by wind-driven rain from a sandy soil in Denmark
- Z164 EGU2012-13798
A. Dr. habil. Farsang, M. Bartus, G. Négyesi, K. Barta, and J. Szatmári
Estimation of nutrient movement caused by wind erosion on chernozems based on wind channel experiments
- Z165 EGU2012-13859
A. Cerdà, C. Azorin-Molina, and Th. Iserloh
Wind, rain and soil erosion rates on bare and plant covered agriculture plots at the experimental station of El Teularet -Sierra de Enguera, Eastern Spain
- Z166 EGU2012-6246
M. Marzen, T. Iserloh, M. Seeger, and J.B. Ries
Quantification of Splash and Splash-Saltation
- Z167 EGU2012-7865
S. Deviren Saygin and **G. Erpul**
Interactive assessment of the splash erosion and aggregate breakdown mechanism for the soils of different semi-arid land uses
- Z168 EGU2012-14348
S. Ahn, S. Doerr, P. Douglas, R. Bryant, C. Hamlett, G. McHale, M. Newton, and N. Shirtcliffe
High-Speed Video for Investigating Splash Erosion Behaviour: Obtaining Initial Velocity and Angle of Ejections by Tracking Trajectories.
- Z169 EGU2012-14350
C. A. E. Hamlett, N. J. Shirtcliffe, G. McHale, S. Ahn, S. H. Doerr, R. Bryant, and M. I. Newton
Velocity dependant splash behaviour
- Z170 EGU2012-11179
J. León, M. Seeger, M. Echeverría, D. Badía, and P. Peters
The effect of the fires on gypseous soil properties: changes of the hydrology and splash resistance.
- Z171 EGU2012-5107
S. Jomaa, D.A. Barry, A. Brovelli, B.C.P. Heng, G.C. Sander, and J.-Y. Parlange
Soil erosion and effluent particle size distribution under different initial conditions and rock fragment coverage
- Z172 EGU2012-1428
N. Goldshleger
Using remote sensing method (spectral measurements) for Assessing infiltration rate (IR) induced by structural crust
- Z173 EGU2012-5284
J. Swiechowicz
Rainfall thresholds for soil supply to stream channel in agricultural catchments
- Z174 EGU2012-13024
A. U. Ozcan, **U Oguzhan**, S. Sayg?n Deviren, A.N. Gharahassanlou, F. Youssef, M. Basaran, and G. Erpul
Assessing the effects of the vegetation pattern and topography on the wind-driven sediment flux by GIS and Geostatistics
- Z175 EGU2012-4430
J.A. Gomez, E. Taguas, and F. Licciardello
Hydrological response of a Mediterranean agricultural catchment on a Vertic soil
- Z176 EGU2012-4518
J.A Gomez, EV. Taguas, R. Pérez, and J.L. Ayuso
Carbon losses by water erosion in two small agricultural Mediterranean catchments.
- Z177 EGU2012-10780
E.V. Taguas, M.D. Redel, and J.A. Gómez
Modelling soil erosion using artificial neural networks in an olive orchard microcatchment in Spain
- Z178 EGU2012-8713
T. Dvorakova, T. Dostal, V. David, P. Kavka, J. Krasa, and P. Koudelka
Methodology of C factor verification in conditions of the Czech Republic

- Z179 EGU2012-5453
G. Bussi, X. Rodríguez, F. Francés, G. Benito, Y. Sánchez-Moya, and A. Sopeña
 Reconstruction of the sediment flow regime in a semi-arid Mediterranean catchment using check dam sediment information.
- Z180 EGU2012-9828
T. Maurer, R. Bartsch, A. Schneider, and H.H. Gerke
 Modeling the initial 3D distribution of sediment structures of an artificial hydrological catchment
- Z181 EGU2012-2323
H. Hölzel, B. Diekkrüger, D. Biemelt, and A. Gädeke
 Simulation of hydrological impact of dumped sediment structures in the artificial Chicken Creek catchment, Germany
- Z182 EGU2012-7826
H. Holländer, D. Schoenheinz, and S. Stadler
 Well-controlled experimentation in artificial catchments as the key to better understand natural hydrologic systems?
- Z183 EGU2012-13009
V. D'Agostino, G. Bertoldi, and E. Rigon
 On the measure of large woody debris in an alpine catchment
- Z184 EGU2012-13007
T. Vezmar, M. Kasanin-Grubin, N.J. Kuhn, and D. Milovanovic
 Comparison of rate of physical and chemical decomposition of rocks in weathering by wetting-drying and wetting-freezing-drying cycles

IG1/GMPV2.3/HS2.22/SSP5.1/SSS13.5/TS1.8 – Stable isotopes in geosciences - open session, including blocks of special attention (co-organized) – Posters

Convener: P. De Groot | Co-Conveners: Dr. Bojar, E. Kerstel, J. Smit, D. R. Gröcke, Ph. Negrel, E. Petelet-Giraud

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Ph. Negrel, A-V. Bojar

- A234 EGU2012-13171
 F. Dong, D. Baer, **M. Gupta**, and T. Owano
 Novel Instrumentation for Measurements of Isotopic Carbon Dioxide
- A235 EGU2012-9084
F.-Y. Hu, C.-F. You, H.-C. Liu, H.-C. Chao, B.-S. Wang, C.-A. Huh, and C.-H. Chung
 Sr and Nd Isotopic Compositions as Tracers for Source-to-Sink Pathways of Sediments in the Taiwan Strait
- A236 EGU2012-3301
Y. Zhao, S.W. Lokier, and T. Steuber
 A new stable carbon isotope record for the Cenomanian of the Arabian Plate
- A237 EGU2012-10249
C.V. Ullmann, H.J. Campbell, and C. Korte
 Alteration histories of fossil biogenic calcite as indicated by 87Sr/86Sr ratios
- A238 EGU2012-9878
P.-H. Tsai, C.-F. You, K.-F. Huang, H.-C. Liu, and Y.-B. Sun
 Lithium Isotopic Fractionation during Loess Weathering
- A239 EGU2012-4715
T. Unterweissacher, G. Rantitsch, R. Ehrreich, G. Kienast, and K. Stocker
 Stable isotope evidence for fluid alteration of carbonates during Cretaceous compression and extension in the Graz Paleozoic (Eastern Alps)
- A240 EGU2012-11298
I. Gilmour, C.A. Pearce, D. Jolley, M.A. Sephton, M. Widdowson, and M.A. Gilmour
 Carbon isotope stratigraphy and palynology of an eastern Tethyan Cretaceous-Paleogene boundary section from Sumbar, Turkmenistan
- A241 EGU2012-14372
F. Chabaux, Th. Schaffhausen, M.-C. Pierret, and B. Ambroise
 238U-234U activity ratio as tracer of waterpathway within the watershed substratum: evidence of U data from the Strengbach and Ringelbach research catchments (Vosges, France)
- A242 EGU2012-9587
P. Saccon, A. Leis, A. Marca, J. Kaiser, L. Campisi, M.E. Böttcher, J. Savarino, P. Escher, A. Eisenhauer, and J. Erbland
 Identification and characterisation of potential sources of nitrate pollution in the Marano Lagoon (Italy) applying a multi-isotope approach
- A243 EGU2012-10932
 J. Jaunat, **F. Huneau**, H. Celle-Jeanton, A. Dupuy, and P. Le Coustumer
 Rainwater chemistry and isotopic content in the French Basque Country

- A244 EGU2012-4954
P. Koeniger
 Impacts of sampling resolution on stable isotope characteristics of precipitation and stream flow in large river basins
- A245 EGU2012-10489
 L. Cary, J. Casanova, A. Mekni, N. Gaaloul, C. Guerrot, and **E. Petelet-Giraud**
 Effect of artificial recharge by treated wastewater on the quality of the Korba coastal aquifer (Cape Bon, Tunisia): insights from Boron isotopes.
- A246 EGU2012-2581
L. Gourcy, F. Castres de Paulet, A. Rorive, and J. Bastien
 Isotope tools to support conceptual model building of the Carboniferous limestone aquifer of Northern France and Belgium
- A247 EGU2012-5878
H. Häusler, S. Fran?iškovi?-Bilinski, D. Rank, P. Stadler, and H. Bilinski
 Results from stable isotope investigations of river waters in Western Croatia
- A248 EGU2012-8192
N. Mohammed, H. Celle-Jeanton, F. Huneau, P. Le Coustumer, V. Lavastre, and G Bertrand
 Spatial hydrochemical and isotopic variations within the alluvial aquifer of the Allier River (Massif Central, France)
- A249 EGU2012-8942
Ph. Negrel and W. Kloppmann
 Insight into past hydrological conditions through signatures of stables isotopes in Holocene Loire River fluvial sediments (France)
- A250 EGU2012-8964
Ph. Negrel and E. Petelet-Giraud
 Lead isotopes in sediments of the Loire River (France): natural versus anthropogenic origin
- A251 EGU2012-9110
E. Petelet-Giraud, Ph. Négrel, and C. Guerrot
 Boron and strontium isotopes to assess water origin and anthropogenic inputs during flood events. The Hérault River, S. France.
- A252 EGU2012-9566
 C. Innocent, **E. Petelet-Giraud**, W. Kloppmann, C. Guerrot, F. Bichot, and M. Thinon-Larminach
 Groundwater circulation, connection between aquifers and relation with surface water in a karstified and faulted watershed: Constraint by Sr isotopes in the upper Sèvre-Niortaise basin (western France)

Friday, 27 April

GM2.1 – High definition topography - data acquisition, modelling, interpretation (co-listed) – Orals

Convener: D. Rieke-Zapp | Co-Conveners: A. Reiterer, J. Chandler, D. Vericat, N. Tate, D. M. Powell, J. Brasington, I. Marzloff

Room: 22

Chairperson: J. Brasington

- 08:30–08:45 EGU2012-10924
S. Van-Wier and P. Bernatchez
 Use of a mobile terrestrial laser system to quantify the impact of rigid coastal protective structures on sandy beaches, Quebec, Canada
- 08:45–09:00 EGU2012-2730
D. M. Powell and D. Ackerley
 Characterising the roughness properties of alluvial river banks using terrestrial laser scanning.
- 09:00–09:15 EGU2012-8878
J.M. Nield, G.F.S. Wiggs, J. Leyland, S.E. Darby, J. King, F.D. Eckardt, R.C. Chiverrell, L.H. Vircavs, and B. Jacobs
 Quantifying small-scale temporal surface change on glaciers and salt pans using terrestrial laser scanning: implications for modelling ablation and dust emission
- 09:15–09:30 EGU2012-11944
C. Fey, C. Zangerl, F. Haas, M. Rutzinger, R. Sailer, and M. Bremer
 Rock slide deformation measurements with Terrestrial Laser Scanning in inaccessible high mountain areas
- 09:30–09:45 EGU2012-12284
H. Croft
 Soil surface microtopography from close-range laser data and hyperspectral directional reflectance factors
- 09:45–10:00 EGU2012-13139
S. Filin, R. Arav, A. Mushkin, and O. Katz
 Monitoring coastal-cliff erosion processes using a novel change detection methodology for high-resolution terrestrial laser scanner data

COFFEE BREAK

Chairperson: D. Rieke-Zapp

- 10:30–10:45 EGU2012-4368
 N. Brodu and **D. Lague**
 3D point cloud classification of complex natural scenes using a multi-scale dimensionality criterion: applications in geomorphology
- 10:45–11:00 EGU2012-10317
C. Castagnetti, E. Bertacchini, A. Capra, and A. Corsini
 Critical aspects of integrated monitoring systems for landslides risk management: strategies for a reliable approach
- 11:00–11:15 EGU2012-3775
J. Müller, I. Gärtner-Roer, G. Menz, C. Ginzler, and P. Thee
 How accurate can we be? - An evaluation of airborne digital elevation models in a high mountain environment
- 11:15–11:30 EGU2012-911
S. d'Oleire-Oltmanns and I. Marzloff
 UAV derived data for the monitoring of gully erosion in the Souss Basin, Morocco
- 11:30–11:45 EGU2012-12606
P. Allemand, C. Delacourt, A. Deschamps, A. Quiquerez, P. Grandjean, J. Ammann, G. Ori, F. Cannarsa, R. Sabbadini, I. Dell'Archiprete, and D. Gasperini
 Drelia : an photogrammetric UAV for geomorphology
- 11:45–12:00 EGU2012-4550
M. R. James and S. Robson
 The accuracy of photo-based structure-from-motion DEMs

GM2.2 – Digital Landscapes: Quantitative Interrogation and Use to Examine Geomorphic Processes (co-listed) –

Orals

Convener: J. K. Hillier | Co-Conveners: P. Tarolli, P. Passalacqua, D.C. Mason, S. Conway

Room: 22

Chairperson: Paolo Tarolli

- 13:30–13:45 EGU2012-13881
A. B. Watts and the SONNE 215 Shipboard Scientific Party
 Repeat swath bathymetry surveys and the rates of growth and collapse of active submarine volcanoes
- 13:45–14:00 EGU2012-6079
Q. Li and S. Dehler
 Identify Foot of Continental Slope by singular spectrum and fractal singularity analysis
- 14:00–14:15 EGU2012-10599
M. D. Hurst, S. M. Mudd, and M. Attal
 Hysteresis in transient landscape topography recorded by hillslopes.
- 14:15–14:30 EGU2012-7207
G. Bertoldi, M. Reginato, and V. D'Agostino
 Merging field survey and LiDAR technology for the analysis of debris-flow erosion
- 14:30–14:45 EGU2012-9898
R. Bell and H. Petschko
 Landslide persistence and human impact in Lower Austria assessed by lidar data and aerial photography
- 14:45–15:00 EGU2012-10318
R. Rivola, E. Bertacchini, C. Castagnetti, A. Capra, A. Corsini, F. Ronchetti, and F. Bonacini
 GB-InSAR 3D maps for deformation monitoring: the importance of the digital surface models in data georeferencing and interpretation
- Chairperson: John Hillier
- 15:30–15:45 EGU2012-6988
F. Shahzad and T. A. Ehlers
 Quantification of glacial and ground surface velocities from repeat terrestrial LiDAR scans
- 15:45–16:00 EGU2012-11024
M.J. Westoby, J. Brasington, N.F. Glasser, M.J. Hambrey, and J.M. Reynolds
 Close-range photogrammetric reconstruction of moraine dam failures
- 16:00–16:15 EGU2012-13302
C. Eisank, L. Dr?gu?, and T. Blaschke
 Object-based mapping of drumlins from DTMs
- 16:15–16:30 EGU2012-7816
J.R. Ford, B. Napier, P.R. Wilby, A.H. Cooper, A.J.M. Barron, and L.B. Bateson
 The central role of digital landscapes in virtual field reconnaissance for geological surveying
- 16:30–16:45 EGU2012-9258
S. J. Conway, M. R. Balme, and P. M. Grindrod
 Using Topographic Derivatives of High Resolution Data on Earth and Mars to Determine Active Processes on Mars.
- 16:45–17:00 EGU2012-11180
S. Ferrari, M. Massironi, R. Pozzobon, A. Castelluccio, G. Di Achille, and G. Cremonese
 DTM analysis and displacement estimates of a major mercurian lobate scarp.

HS8.3.3 – Trace gases emissions from soils: Sources, mechanisms and process rates (co-listed) – Orals

Convener: L. Weihermueller | Co-Conveners: M. Lamers, Y. Kuzyakov, P.C. Stolk

Room: 39

Chairperson: Marc Lamers

- 10:30–10:45 EGU2012-3564
S. Blagodatsky and P. Smith
 Coupling biological processes and gaseous transport in models describing GHG emission from soils
- 10:45–11:00 EGU2012-1482
F. Albanito, J. McAllister, P. Smith, and D. Robinson
 Dual-chamber measurements of $\delta^{13}\text{C}$ of soil-respired CO_2 partitioned using a field-based three end-member model
- 11:00–11:15 EGU2012-3055
A. Don, C. R?denbeck, and G. Gleixner
 How energetic and environmental constraints of microorganisms determine the carbon turnover in soils
- 11:15–11:30 EGU2012-1841
A. Keuter
 Nitrogen retention efficiency and nitrogen losses of a managed and phytodiverse temperate grassland

- 11:30–11:45 EGU2012-6636
D.E. Pelster, M.H. Chantigny, P. Rochette, D.A. Angers, C. Rieux, and A. Vanasse
 Two years of gaseous emissions from contrasting soils amended with organic and synthetic nitrogen fertilizers.
- 11:45–12:00 EGU2012-13855
M. Dondini and P. Smith
 Soil C change and GHG emissions after land use change to bioenergy crops

HS8.3.3 – Trace gases emissions from soils: Sources, mechanisms and process rates (co-listed) – Posters

Convener: L. Weihermueller | Co-Conveners: M. Lamers, Y. Kuzyakov, P.C. Stolk

Hall A | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Yakov Kuzyakov and Lutz Weihermüller

- A227 EGU2012-2446
 G. Roth, **A. Giesemann**, R. Well, and H. Flessa
 Elucidating source processes of N₂O fluxes following grassland-to-field-conversion using isotopologue signatures of soil-emitted N₂O
- A228 EGU2012-6630
 P. Rochette, **D.E. Pelster**, M.H. Chantigny, D.A. Angers, C. Liang, G. Belanger, N. Ziadi, E. Charbonneau, and D. Pellerin
 Trace gas emissions following deposition of excreta by grazing dairy cows in eastern Canada
- A229 EGU2012-4252
A. Schindlbacher, C. Brandstätter, W. Borken, C. Spötl, and W. Wanek
 Contribution of inorganic C to the CO₂ efflux from a forest soil on dolomite bedrock
- A230 EGU2012-8439
 E.S. Bicalho, D.B. Teixeira, A.R. Panosso, L.I. Perillo, J.L. Iamaguti, G.T. Pereira, and **N. La Scala Jr.**
 Spatial variability structure of soil CO₂ emission and soil physical and chemical properties characterized by fractal dimension in sugarcane areas
- A231 EGU2012-8471
 A.S.R.S. Bahia, **J. Marques Jr.**, N. La Scala Jr, A.R. Panosso, V. Barron, and J. Torrent
 On the relation between soil CO₂ emission and aspects of soil diffuse reflectance
- A232 EGU2012-8509
 E.B. Figueiredo, A.R. Panosso, and **N. La Scala Jr**
 CO₂-C emissions associated to soil tillage, liming and gypsum applications in sugarcane areas under green and burned harvest
- A233 EGU2012-10582
P. Dörsch, J. Zhu, and J. Mulder
 High N₂O emission in an N-saturated subtropical forest, southwest China
- A234 EGU2012-12768
 E. Tóth, **Cs. Farkas**, Gy. Gelybó, and I. Lagzi
 Effect of inter-row cultivation on soil CO₂ emission in a peach plantation
- A235 EGU2012-13809
 M. Herbst, G. Welp, W. Amelung, **L. Weihermueller**, and H. Vereecken
 Linking soil organic carbon pools with measured fractions
- A236 EGU2012-13839
A. Graf, A. van de Boer, M. Schmidt, and L. Weihermueller
 Description and first tests of a tunnel-shaped flow-through chamber for minimum disturbance net ecosystem flux measurements
- A237 EGU2012-13891
E. Veldkamp, B. Koehler, and M.D. Corre
 Strong indications of nitrogen limited methane uptake in tropical forest soils
- A238 EGU2012-13953
A. Gunina and Y. Kuzyakov
 Carbon dioxide emissions from soils affected by vegetation types
- A239 EGU2012-13954
J. Pausch and Y. Kuzyakov
 Isotopic composition of soil CO₂ to evaluate microbial availability of organic carbon
- A240 EGU2012-13955
 S. Nadeem, S. Hansen, M. Bleken, and **P. Dörsch**
 N₂O emission from organic barley cultivation as affected by green manure treatment

A241 EGU2012-7918

M. Khomik, N. Carvalhais, M. Forkel, M. Reichstein, M. Schruppf, C. Beer, J. Curiel Yuste, I. Janssens, S. Luyssaert, J.-A. Subke, S. Trumbore, and T. Wutzler
Global patterns of increasing soil organic carbon turnover rates with increasing mean surface temperatures, across different forest biomes, are driven by boreal forests.

HS8.3.4 – The role of interfaces in flow and transport in porous media (co-listed) – Orals

Convener: P. Lehmann | Co-Conveners: I. Neuweiler, D. Or, H.-J. Vogel

Room: 39

Chairperson: I. Neuweiler

08:30–08:45 EGU2012-14462

T. Hueckel, B. Mielniczuk, and M. Said El Yousoufi
Evolution and failure of liquid bridges between grains due to evaporation and due to extension

08:45–09:00 EGU2012-13246

S. Jones, I. Cantat, B. Dollet, and **Y. Meheust**
Flow of a two-dimensional aqueous foam in two parallel channels

09:00–09:15 EGU2012-8437

D. Or and S. Assouline
The Drainage Foam Equation - New Formalism for Effective Relative Permeability Linking Unsaturated Flow across Textural Contrasts

09:15–09:30 EGU2012-4224

R. Wallach, M. Margolis, and E.R. Graber
The role of contact angle and water application rate on flow in sub-critical repellent porous media

09:30–09:45 EGU2012-10513

S. Schlüter, J. Vanderborght, and H.-J. Vogel
Hydraulic non-equilibrium during infiltration induced by structural connectivity

09:45–10:00 EGU2012-12924

K. Gerke
Experimental and modeling study of unsaturated solute flow in soils: from classical to discrete approaches

HS8.3.4 – The role of interfaces in flow and transport in porous media (co-listed) – Posters

Convener: P. Lehmann | Co-Conveners: I. Neuweiler, D. Or, H.-J. Vogel

Hall A | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: P. Lehmann

A242 EGU2012-918

M. Karsanina, K. Gerke, R. Vasilyev, and E. Skvortsova
Soil structure modeling with different correlation functions: current results and future perspectives

A243 EGU2012-10146

F. Hoogland, P. Lehmann, A. Yiotis, and D. Or
Evaporation rate from square capillaries limited by corner flow viscous losses

A244 EGU2012-9428

F. Heimann, C. Engwer, P. Bastian, and **O. Ippisch**
Two-phase flow simulations in pore-geometries

A245 EGU2012-12449

A. Ferrari and I. Lunati
Investigation of drainage and imbibition fronts by direct numerical simulations

A246 EGU2012-5926

F. Moebius and D. Or
Fluid front displacement dynamics affecting pressure fluctuations and phase entrapment in porous media

A247 EGU2012-4113

A. Budek, P. Garstecki, A. Samborski, and P. Szymczak
Viscous fingering patterns in rectangular grid geometry

A248 EGU2012-12602

H. Hemmen, Y. Méheust, L. R. Alme, and J. O. Fossum
X-ray studies of interlayer water absorption and mesoporous water transport in a weakly hydrated clay

A249 EGU2012-2573

C.-L. Yeh, W.-C. Lo, C.-D. Jan, and J.-W. Lee
Influence of saturation on the reflection and refraction at the interface between two semi-infinite poroelastic media

- A250 EGU2012-13813
S. Ferraris and P. Savi
Permittivity measurement of sand and clay soil with a capacitive sensor
- A251 EGU2012-8457
M. Sobotkova, M. Snehota, and V. Klipa
Determination of water content by TDR during the infiltration outflow column experiment
- A252 EGU2012-11309
V Luvisotto, G Manoli, O Cainelli, A Bellin, M Marani, and **M Putti**
Two-phase simulation of a variable rate infiltration experiment
- A253 EGU2012-10147
I. Neuweiler, M. Dentz, and D. Erdal
A non-local Richards equation to model infiltration into highly heterogeneous media under macroscopic non-equilibrium pressure conditions
- A254 EGU2012-13478
C. Jackisch and E. Zehe
A Lagrangian Representation of Water Movement in Structured Soils
- A255 EGU2012-4655
M. Leue, H.H. Gerke, and R.H. Ellerbrock
Organic matter composition of matrix-macropore interfaces in structured subsoils
- A256 EGU2012-4192
K. Germer and J. Braun
Water flow in an artificial macropore and interaction at the macropore-matrix interface

SSS4.1 – Digital soil mapping: novel approaches and sensing techniques to the prediction of key soil properties –

Orals

Convener: U. Werban | Co-Conveners: G. Grandjean, H. Reuter, U. Sauer, P. Dietrich, V.L. Mulder, H. Bartholomeus

Room: 6

Chairperson: n.n.

- 08:30–08:45 EGU2012-13025
M. Bock, R. Köthe, U. Schuler, A. Günther, E. Pickert, J. Willer, R. Baritz, J. Zawadzka, T. Mayr, V. L. Mulder, R. Moussadek, and V. van Engelen
Soil and terrain modeling to develop medium to small scale conceptual soil maps
- 08:45–09:00 EGU2012-12771
T. Behrens, K. Schmidt, U. Werban, P. Dietrich, and T. Scholten
Concepts for landscape scale digital soil mapping using field scale geophysical sensor data
- 09:00–09:15 EGU2012-2208
G. Grandjean and the DIGISOIL's Team
Soil properties mapping with the DIGISOIL multi-sensor system
- 09:15–09:30 EGU2012-9162
S. Rudolph, A. Mester, J. van der Kruk, L. Weihermüller, E. Zimmermann, and H. Vereecken
Calibration of EMI derived apparent electrical conductivity based on ERT measurements
- 09:30–09:45 EGU2012-7684
F. Veronesi, R. Corstanje, J. Rickson, and T. Mayr
Landscape scale estimation of soil carbon stock in three-dimensions for creating a carbon loss risk map
- 09:45–10:00 EGU2012-12655
J. Krüger, U. Franko, U. Werban, and J. Fank
Linking geophysics and soil function modelling - biomass production

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2012-9593
T. Wunderlich, H. Petersen, S.A. al Hagrey, and W. Rabbel
Mobile geophysical study of peat deposits in Fuhrberger Field, Germany
- 10:45–11:00 EGU2012-1981
A. Stevens, M. Nocita, P. Panagos, G. Tóth, B. van Wesemael, and L. Montanarella
Prediction of topsoil organic carbon with Vis-NIR reflectance spectroscopy at the European scale: the LUCAS spectral library
- 11:00–11:15 EGU2012-13879
M. Knadel, F. Deng, A. Thomsen, and M.H. Greve
Vis-NIRS sensor fusion for local, regional and global calibrations of SOC content

- 11:15–11:30 EGU2012-6465
C. Gomez, P. Lagacherie, and S. Bacha
 Using an Vis-NIR hyperspectral image to map topsoil properties over bare soil surfaces of the Lebna catchment in Tunisia (300 km²)
- 11:30–11:45 EGU2012-3636
E. Vaudour, J.M. Gilliot, L. Bel, A. De Junet, J. Michelin, D. Hadjar, P. Cambier, S. Houot, and Y. Coquet
 Performance degradation in predicting topsoil organic carbon contents using reflectance spectra from lab, field to SPOT scales over a periurban region
- 11:45–12:00 EGU2012-11311
U. Schuler, M. Bock, R. Baritz, J. Willer, E. Pickert, K. Kardel, and L. Herrmann
 The potential of gamma-ray spectrometry as supplementary information for mapping central European soils

SSS4.1 – Digital soil mapping: novel approaches and sensing techniques to the prediction of key soil properties –

Posters

Convener: U. Werban | Co-Conveners: G. Grandjean, H. Reuter, U. Sauer, P. Dietrich, V.L. Mulder, H. Bartholomeus

Hall X/Y | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: n.n.

- XY531 EGU2012-6935
A.I.J.M. van Dijk, G. Warren, and T. Doody
 Estimating plant available water content from remotely sensed evapotranspiration
- XY532 EGU2012-1610
M. Nocita, A. Stevens, D. De Brogniez, F. Bampa, G. Toth, P. Panagos, B. van Wesemael, and L. Montanarella
 Prediction of SOC content by Vis-NIR spectroscopy at European scale using a modified local PLS algorithm
- XY533 EGU2012-4753
M. Nussbaum, A. Papritz, A. Baltensweiler, and L. Walthert
 Mapping organic carbon stocks of Swiss forest soil
- XY534 EGU2012-12819
M. Steffens, M. Kohlpaintner, and H. Buddenbaum
 High resolution mapping of soil organic matter quality in a Histosol profile with imaging spectroscopy
- XY535 EGU2012-13095
L. Brodský, R. Kodešová, A. Klement, and O. Jakšík
 The potential of soil organic carbon mapping by combined in-situ spectroscopy and WorldView-2 satellite data
- XY536 EGU2012-12289
 S. Hamzeh, A.A. Naseri, S.K. Alavi Panah, **H. Bartholomeus**, B. Mojaradi, J. Clevers, and M. Behzad
 An evaluation of hyperspectral vegetation indices for detecting soil salinity in sugarcane fields using EO-1 Hyperion Data
- XY537 EGU2012-9
E.C. Brevik, J. Heilig, J. Kempenich, J. Doolittle, and M. Ulmer
 Evaluation of Electromagnetic Induction to Characterize and Map Sodium-Affected Soils in the Northern Great Plains of the United States
- XY538 EGU2012-1261
E.C. Brevik
 Analysis of the Representation of Soil Map Units using a Common Apparent Electrical Conductivity Sampling Scheme for the Mapping of Soil Properties
- XY539 EGU2012-7345
A. Brovelli and G. Cassiani
 Contribution of Stern layer and membrane polarization to spectral induced polarization of variably saturated sandy soils
- XY540 EGU2012-4019
E.H. Loonstra
 The role of sensor design in modelling top soil properties with mobile gammaray sensors based on the iSOIL experience
- XY541 EGU2012-8071
 C. Dierke, U. Werban, and **P. Dietrich**
 Use of mobile gammaspectrometry for estimation of texture at regional scale
- XY542 EGU2012-9666
T. Wunderlich, H. Petersen, S.A. al Hagrey, and W. Rabbel
 Comparison of geophysical pedotransfer functions using laboratory measurements
- XY543 EGU2012-9857
T. Wunderlich and W. Rabbel
 Investigating the influence of clay and water content on GPR signals

- XY544 EGU2012-13992
A. Rochat, **G. Grandjean**, O. Cerdan, and K. Samyn
Regional scale soil thickness prediction using digital terrain modeling and seismic data: application to erosion hazard mapping.
- XY545 EGU2012-10063
Dr. H. Aïchi, **Dr. Y. Fouad**, Pr. C. Walter, Pr. M. Sanaa, Dr. Lili Chabaane, Dr. D. Michot, and Pr. H. Nicolas
Prediction performance of "Site specific
- XY546 EGU2012-11397
M. R. Mahmoudzadeh Ardekani, Ph. A. Tran, J. Minet, M. Vanclooster, and S. Lambot
Ground-penetrating radar for temporal soil moisture variability analysis along a land slope
- XY547 EGU2012-11646
F. Castaldi, R. Casa, S. Pascucci, A. Palombo, and S. Pignatti
Estimation of soil textural properties at the field scale from airborne and satellite hyperspectral remote sensing
- XY548 EGU2012-13971
V.L. Mulder, S. de Bruin, and M.E. Schaepman
Soil mapping at regional scale using Remote Sensing - integrating multiple research methods
- XY549 EGU2012-13983
A.R. Bakker and V.L. Mulder
Soil texture prediction at a regional scale with the use of remote sensing
- XY550 EGU2012-14147
U Schuler, M Bock, A Günther, J Willer, E Pickert, K Asch, and R Baritz
The importance of parent material information derived from globally available small scale legacy data for soil mapping at medium scale
- XY551 EGU2012-14150
J Zawadzka, T Mayr, J Hannam, R MacMillan, M Bock, R Köthe, U Schuler, J Willer, R Baritz, T Mulder, R Moussadek, and V van Engelen
Terrain characterisation using automated landscape dissection and slope break analyses: Applications for soil information systems
- XY552 EGU2012-2509
H. Bartholomeus and L. Kooistra
Use of aerial photographs for assessment of soil organic carbon and delineation of agricultural management zones.
- XY553 EGU2012-2954
H. I. Reuter and T. Hengl
Global Soil Information Facilities - Component Worldgrids.org
- XY554 EGU2012-3122
O. Dewitte, A. Jones, S. Horion, H. Elbelrhiti, C. Bosco, and L. Montanarella
Soil mapping in Africa using satellite remote sensing at regional and continental scales
- XY555 EGU2012-4348
J. Cierniewski, **S. Krolewicz**, J. Piekarczyk, C. Kazmierowski, and M. Rymaniak
The BRF of cultivated soils with various roughness and their DSR equivalents

GM6.2/HS9.6/SSS5.21 – Connectivity in water and sediment dynamics: how do we move forwards? (co-organized) –

Posters

Convener: A. Parsons | Co-Conveners: S.D. Keesstra, L. Bracken, J. Wainwright, R. Poepl, D. Dunkerley

Hall XL | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: Poepl/Wainwright

- XL99 EGU2012-664
K. Auerswald, F. Winter, and M. Disse
Statistical approach to a better prediction of surface runoff
- XL100 EGU2012-3358
J. Moody and B. Ebel
Insights into Runoff Provided by Infiltration Measurements made during Different Types of Rainstorms
- XL101 EGU2012-5124
A. Penuela Fernandez, C. Bielders, and M. Javaux
Scale effect on overland flow connectivity, at the interill scale
- XL102 EGU2012-5811
J. Davies and K. Beven
The Multiple Interacting Pathways model - A scale-independent approach to modelling transport and flow in real soils and catchments

- XL103 EGU2012-5836
A. Puttock, R.E. Brazier, J.A.J. Dungait, R. Bol, and C.J.A. Macleod
Vegetation change in dryland environments: understanding changes in fluvial fluxes via changes in hydrological connectivity
- XL104 EGU2012-7023
D. Milledge, S.N. Lane, S. Reaney, and A.L. Heathwaite
Can a static metric for hydrologic connectivity improve predictions of instream water quality?
- XL105 EGU2012-7170
L. Turnbull and **J. Wainwright**
Shrub invasion of desert grassland increases the strength of system feedbacks through enhanced flow-path connectivity
- XL106 EGU2012-8562
P. Kavka, K. Vrana, and T. Dostal
Soil erosion and surface runoff model SMODERP
- XL107 EGU2012-9553
N. Volze, M. Smoorenburg, P. Kienzler, F. Naef, L. Rabenstein, and W. Kinzelbach
Characterising hydrological behaviour of springs draining different alpine formations
- XL108 EGU2012-10483
M. Delmas, C. Gascuel-Oudou, O. Cerdan, D. Arrouays, and J.M. Mouchel
Assessment of phosphorus transfer from agricultural lands to the surface water in France: definition of connectivity indices
- XL109 EGU2012-10841
C. Goulsbra and M. Evans
The connectivity of hydrological pathways in a peatland headwater catchment; models of dynamic catchment connectivity under wet and dry conditions
- XL110 EGU2012-11018
M. Smoorenburg, N. Volze, P.M. Kienzler, and F. Naef
Measuring, mapping and modeling deep subsurface stormflow contribution to the dampened flood response in a mountainous catchment
- XL111 EGU2012-12841
G. Quénéhervé and M. Märker
Assessment of Runoff Generation Processes on Hillslope Scale in semi-arid Environments of Northern Tanzania
- XL112 EGU2012-12881
S.D. Keesstra, L. Wittenberg, A. Voogt, E. Argaman, and D. Malkinson
Post-fire effects on hydrological and erodibility factors in a simulated burn and rainfall experiment
- XL113 EGU2012-13087
D. Korost, K. Gerke, and E. Skvortsova
Structure differences as a possible mechanism for biomat flow
- XL114 EGU2012-13114
W.M. Appels, **P.W. Bogaart**, and S.E.A.T.M. van der Zee
A successive-steady-state approach to integrated surface-subsurface modelling for runoff generation on the field scale
- XL115 EGU2012-13304
B.J. Irvine and M.J. Kirkby
Up-scaling sediment connectivity: a PESERA application
- XL116 EGU2012-13377
P.F. Quinn, G.M. O'Donnell, and M.E. Wilkinson
Connectivity: quantification, simulation and manipulation
- XL117 EGU2012-13961
R. Bertsch, R.E. Poepl, and T. Glade
Longitudinal sediment-connectivity in a dammed river system using fine sediment analyses - a case study in the Kaja river, Lower Austria

SSS7.7 – Molecular and isotopic techniques in terrestrial ecosystem studies – Orals

Convener: B. Jansen | Co-Conveners: I. D. Bull, K. Nierop, R. Bol, C.A. Sierra, D. Derrien, M. W. I. Schmidt, S. Trumbore, LB Wiesenberg

Room: 6

Chairperson: Markus Reichstein, Carlos Sierra, Guido Wiesenberg

- 15:30–15:45 EGU2012-7412
A. Gude, E. Kandeler, and **G. Gleixner**
Input related microbial carbon dynamic of soil organic matter in particle size fractions

- 15:45–16:00 EGU2012-11668
C. Biasi, N.M. Tavi, M. Oinonen, J. Kukkonen, C. Platner, J. Juutilainen, and P. Martikainen
 A novel 14C approach to follow fate of carbon in organic soils
- 16:00–16:15 EGU2012-12966
T. Chiti, G. Certini, F. Marzaioli, and R. Valentini
 Radiocarbon dating of magnetic and non magnetic soil fractions as a method to estimate the heterotrophic component of soil respiration in a primary forest of Ghana.
- 16:15–16:30 EGU2012-8458
B. Ahrens, W. Borken, J. Muhr, K. Savage, T. Wutzler, S. Trumbore, and M. Reichstein
 Bayesian calibration of a soil organic carbon model with radiocarbon measurements of heterotrophic respiration and soil organic carbon as joint constraints
- 16:30–16:45 EGU2012-2304
D. B. Wiedemeier, M. D. Hilf, R. H. Smittenberg, and M. W. I. Schmidt
 Improved quantification of pyrogenic carbon in soils and sediments by a HPLC-DAD method
- 16:45–17:00 EGU2012-158
A. Braun, K. Auerswald, and H. Schnyder
 Quantification of isotopic turnover in agricultural systems

SSS7.7 – Molecular and isotopic techniques in terrestrial ecosystem studies – Posters

Convener: B. Jansen | Co-Conveners: I. D. Bull, K. Nierop, R. Bol, C.A. Sierra, D. Derrien, M. W. I. Schmidt, S. Trumbore, LB Wiesenberg

Hall X/Y | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Markus Reichstein, Carlos Sierra, Guido Wiesenberg

- XY556 EGU2012-1645
M. Griepentrog, S. Bodé, P. Boeckx, and M.W.I. Schmidt
 Amino sugar dynamics in forest soil exposed to increased nitrogen deposition - Composition and turnover in soil density fractions
- XY557 EGU2012-2057
A. Huguet, I. Belmahdi, C. Fosse, V. Grossi, and S. Derenne
 Distribution of archaeal and bacterial glycerol dialkyl glycerol tetraethers in tropical sediments from Guadeloupe (French West Indies): implications for application of the MBT/CBT and TEX86 proxies
- XY558 EGU2012-2977
S. Naeher, P. Schaeffer, P. Adam, and C.J. Schubert
 Maleimides in recent sediments - New insights into chlorophyll degradation and palaeoenvironmental reconstructions
- XY559 EGU2012-4889
R. Hood-Nowotny and B. Vanlauwe
 Priming effects of biochar elucidated using stable isotope techniques.
- XY560 EGU2012-7096
S.M. Fazle Rabbi, Q. Hua, H. Daniel, P.V. Lockwood, B.R. Wilson, and I.M. Young
 Turnover times of soil organic matter in aggregates based on radiocarbon measurements
- XY561 EGU2012-7193
 L Khomo, OA Chadwick, K Rogers, and **S Trumbore**
 Short and long-term controls of SOM dynamics in a South African Landscape
- XY562 EGU2012-7256
G. Hongxiang
 Factors controlling the type of consortia in cold seep environments: a molecular and isotopic investigation on authigenic carbonates from the South China Sea
- XY563 EGU2012-7258
N. Senapati, Q. Hua, P.V. Lockwood, H. Daniel, B.R. Wilson, S. Ghosh, J. Yeluripati, and P. Smith
 Estimating turnover times of soil organic carbon fractions based on natural C-14 abundance
- XY564 EGU2012-7287
M. Zech, T. Krause, S. Meszner, and D. Faust
 Incorrect when uncorrected: Reconstructing vegetation history using n-alkane biomarkers in loess-paleosol sequences - a case study from the Saxonian loess region, Germany
- XY565 EGU2012-8179
J. Petersen
 Use of 15N in the study of inter- and intra-species competition for applied nitrogen
- XY566 EGU2012-8250
C.A. Sierra, S.E. Trumbore, E.A. Davidson, S.D. Frey, K.E. Savage, and F.M. Hopkins
 Predicting decadal trends and transient responses of radiocarbon storage and fluxes in a temperate forest soil

- XY567 EGU2012-8775
S. Meyer, J. Leifeld, and I. Hajdas
Soil microbial degradation continues after soil organic matter stabilization
- XY568 EGU2012-11215
C. I. Blaga, J.W. de Leeuw, D. Verschuren, and J.S. Sinninghe Damsté
A full lipid biomarker based record from Lake Challa, Tanzania
- XY569 EGU2012-11708
G. Umirzakov, F.-K. Barthold, I. Forkutsa, L. Breuer, and H.-G. Frede
Stable isotope approach for estimating phreatic evaporation in irrigated lands of Ferghana Valley (Uzbekistan)
- XY570 EGU2012-11991
C.L. Phillips, K.J. McFarlane, A.R. Desai, and D. Risk
Using radiocarbon as a high-frequency tracer of forest CO₂ emissions sources: preliminary results from a Northern Wisconsin case study
- XY571 EGU2012-13228
F. Dong, **D. Baer**, T. Owano, M. Gupta, and R. Provencal
Novel instrumentation for direct measurements of site-specific isotopic nitrogen and isotopic oxygen in ambient nitrous oxide

SSS8.1 – Ecology and Erosion – Orals

Convener: A. Cerdà | Co-Conveners: M.J. Kirkby, S. Manfreda, J. Mataix-Solera, V. Arcenegui, P. Dlapa

Room: 3

Chairperson: Victoria Arcenegui and Mike Kirkby

- 15:30–15:45 EGU2012-11494
T Mimmo, R Terzano, L Medici, A Lettino, S Fiore, N Tomasi, R Pinton, and S Cesco
Interaction of root exudates with the mineral soil constituents and their effect on mineral weathering
- 15:45–16:00 EGU2012-168
A. Carminati
Root water uptake and rhizosphere dynamics
- 16:00–16:15 EGU2012-629
D. J. Oyedele, R. Pini, E. Sparvoli, and M. Scatena
The dynamics of soil aggregate breakdown in water in response to landuse as measured with laser diffraction technique
- 16:15–16:30 EGU2012-8985
C. Geißler, K. Nadrowski, P. Kühn, M. Baruffol, A.C. Lang, G. von Oheimb, W. Härdtle, and T. Scholten
Soil erosion and biodiversity - Effects of ecological variables on throughfall kinetic energy for different spatial scales
- 16:30–16:45 EGU2012-366
A. Puttock, R.E Brazier, J.A.J Dungait, R. Bol, and C.J.A Macleod
Developing an Understanding of Vegetation Change and Fluvial Carbon Fluxes in Semi-Arid Environments
- 16:45–17:00 EGU2012-4678
R. G. Hilton, A. Galy, A. J. West, N. Hovius, and G. G. Roberts
Geomorphic control on the delta-15N of mountain forest: Implications for N cycling in terrestrial ecosystems

SSS8.1 – Ecology and Erosion – Posters

Convener: A. Cerdà | Co-Conveners: M.J. Kirkby, S. Manfreda, J. Mataix-Solera, V. Arcenegui, P. Dlapa

Hall X/Y | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Pavel Dlapa and Salvatore Manfreda

- XY572 EGU2012-970
A. S. Krivobok
Microorganisms applying for artificial soil regeneration technology in space greenhouses
- XY573 EGU2012-2781
V. Jiménez-Donaire, P. Hueso-González, and J.D. Ruiz-Sinoga
Preliminary study of the short term response of soil properties to forest fire in the South of Spain
- XY574 EGU2012-6427
O. Fernandez-Ugalde, **P. Barré**, F. Hubert, I. Virto, C. Girardin, E. Ferrage, L. Caner, and C. Chenu
To what extent clay mineralogy affect soil aggregation? Insights from fractionation analyses conducted on soils under different land-uses.

- XY575 EGU2012-10809
P. Dlapa, K. Chrenková, A. Hrabovský, and J. Mataix-Solera
The effect of land use changes on water repellency and aggregate stability of soils in the viticulture district of Modra (SW Slovakia)
- XY576 EGU2012-11192
T Repas, **J Germida**, and S Kaminskyj
Phytoremediation of Alberta oil sand tailings using native plants and fungal endophytes
- XY577 EGU2012-11951
D. Termini
Experimental observation of the rule of flexible vegetation on erosion processes
- XY578 EGU2012-3920
Y. Martin, E. Johnson, and O. Chaikina
Investigating the Lack of Pit/Mound Microtopography in Subalpine Forests of the Canadian Rockies
- XY579 EGU2012-1110
M. Jordan, F. Garcia-Orenes, J. Mataix-Solera, and **E. Garcia-Sanchez**
Evaluation of the physical properties, bulk density and aggregate stability of potential substrates in quarry restoration.
- XY580 EGU2012-2812
P. Hueso-González, V. Jiménez-Donaire, and J.D. Ruiz-Sinoga
Relationship soil-water-plant after the dry season in dry Mediterranean areas
- XY581 EGU2012-4827
A. Cerdà, M.F. Jurgensen, and F.A. González-Peñaloza
The litter cover of citrus leaves control soil and water losses in chemically managed orchards
- XY582 EGU2012-9795
A. Bidló, P. Szűcs, A. Horváth, O. Kámán, E. Németh, and P. Juhász
Comparing the methods for determination of carbon in soil
- XY583 EGU2012-3772
A. Cerdà, J. Mataix-Solera, and V. Arcenegui
Aggregate stability in citrus plantations. The impact of drip irrigation
- XY584 EGU2012-96
J. Mataix-Solera, A. Cerdà, V. Arcenegui, A. Jordán, and L.M. Zavala
Fire effects on soil aggregate stability: a review and synthesis
- XY585 EGU2012-2106
B.G. Rawlins, R.M. Lark, and J. Wragg
A novel method for soil aggregate stability measurement by laser granulometry with sonication
- XY586 EGU2012-3023
N. J. Kuhn
Connecting the cycles: impact of farming practices, Carbon and nutrient erosion on GHG emissions

SSS11.7 – “Dynamic Landscapes”: Causality, Interaction and Long Term Modelling of Soil Surface Processes – Orals

Convener: R. Ciampalini | Co-Conveners: S. Follain, T. Peng, F. Gobattoni

Room: 3

Chairperson: R. Ciampalini, S. Follain

- 08:30–09:00 EGU2012-6616
J. Wainwright
Making Other Worlds: Modelling Past Interactions of Agriculture and Erosion
- 09:00–09:15 EGU2012-8152
J.E.M. Baartman, A.J.A.M. Temme, J.M. Schoorl, M.H.A. Braakhekke, and A. Veldkamp
Did tillage erosion play a role in millennial scale landscape development? - an evaluation in SE Spain using a landscape evolution model
- 09:15–09:30 EGU2012-2477
M. Dotterweich
Human impact and past soil erosion dynamics in central Europe
- 09:30–09:45 EGU2012-13141
L.P.H. van Beek, H. Feiken, T.W.J. van Asch, and **M.F.P. Bierkens**
Modelling Landscape Dynamics in a Highland Mediterranean Catchment: Establishing the impact of Climate Variation and Human Activity
- 09:45–10:00 EGU2012-4651
N. Guzel
Agricultural landscapes dynamic at the North-West of Russia

COFFEE BREAK

Chairperson: T. Peng

10:30–10:45 EGU2012-3142

D. Ford

Alvar soils and ecology in the boreal forest and taiga regions of Canada.

10:45–11:00 EGU2012-3347

X.B. Zhang, X.Y. Bai, and Y. Long

Soil movements and surface erosion rates on rocky slopes in the mountain areas of the karst region of Southwest China

11:00–11:15 EGU2012-14335

SH Doerr

Determining soil formation rates in limestone terrain using elemental fingerprinting

11:15–11:30 EGU2012-423

X. Chen, Z.C. Zhang, P. Shi, and Q.B. Cheng

Measurement of soil and rock fractural hydraulic conductivities using falling head infiltration experiment of single-ring permeameter

11:30–11:45 EGU2012-1082

C Zeng and **Z Liu**

The characteristics of water-carbon regime of Banzhai karst subterranean stream system covered by virgin forest with soil deficiency

11:45–12:00 EGU2012-13814

X. Lee, Y. Xing, B. Fang, L. Zhang, F. Yang, and H. Zhou

The potential of Biochar technology in combating rocky desertification in the Karst area of south China*

SSS11.7 – “Dynamic Landscapes”: Causality, Interaction and Long Term Modelling of Soil Surface Processes –

Posters

Convener: R. Ciampalini | Co-Conveners: S. Follain, T. Peng, F. Gobattoni

Hall X/Y | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: F. Gobattoni

XY587 EGU2012-9333

J.M. Schoorl, P.A. Finke, A.J.A.M. Temme, and M.P.W. Sonneveld

Linking soil forming processes, geomorphological dynamics and human activity to understand past and future patterns of landscape change

XY588 EGU2012-13387

S. De Alba

Long-term effects of soil redistribution by tillage on the landscapes transformation

XY589 EGU2012-14343

P. Billi, E. Salemi, and E. Preciso

River response to land use change and sediment control works: the case of the Reno river in Italy

XY590 EGU2012-9109

P. Ondr, M. Koupilová, J. Moravcová, T. Pavlí?ek, J. Pe?enka, and J. Váchal

The development of the size of land blocks affected by the process of land consolidation over a longer time horizon

XY591 EGU2012-622

S. Solodyankina

Land use changing and land use optimization of Lake Baikal basin on the example of two key areas

XY592 EGU2012-12727

J. P. Nunes

Impacts of long-term erosion rates on Portuguese wheat croplands under future climate scenarios

XY593 EGU2012-4610

Y. Chahor, R. Giménez, and J. Casalí

AnnAGNPS model as a potential tool for seeking adequate agriculture land management in Navarre (Spain)

XY594 EGU2012-13037

L.S. Esteves, J. Foord, and H. Draux

A methodological framework to assist decision-making on prioritising conflicting uses in multi-functional environments

XY595 EGU2012-12687

I. Díaz-Carrión, A. Sastre-Merlín, S. Martínez-Pérez, E. Molina-Navarro, and R. Bienes-Allas

Limno-reservoirs as a new landscape, environmental and touristic resource: Pareja Limno-reservoir as a case of study (Guadalajara, Spain)

- XY596 EGU2012-2907
E. Yeshaneh Ayehu, G Blöschl, W Wagner, M Exner-Kittridge, and D Legesse
 Identifying land use and land cover dynamics in the Koga Catchment, Ethiopia, from multi-scale data and implications for environmental change
- XY597 EGU2012-11304
R. Ciampalini, B. Cheviron, S. Follain, and Y. Le Bissonnais
 LandSoil, a model for evaluating soil erosion on mid-term agricultural landscape evolution: Sensitivity analysis
- XY598 EGU2012-11001
F. Kunth and J. Schmidt
 Model-based assessment of erosion risks on man-made slopes in recultivation areas
- XY599 EGU2012-3671
A. Cerdà, S.H. Doerr, and M. Burguet
 Water resources under threat in citrus farms in Spain
- XY600 EGU2012-415
P. Shi, X. Chen, Z.C. Zhang, and S.M. Qu
 A simple semi-distributed hydrological model for karst area
- XY601 EGU2012-489
Z.-c. Zhang
 Study of the hydrodynamic characteristics of hillslope epikarst zone by means of combined time series analysis and field investigation
- XY602 EGU2012-1042
T. Peng
 Multi-scale research on the hydrology processes and soil loss on the karst peak-cluster depression in southwest of China
- XY603 EGU2012-4046
X.Y. Bai and S.J. Wang
 The impacts of karst background on land degradation in China
- XY604 EGU2012-9103
J. Kirstein and R. Gaupp
 Quantifying and timing of long-term carbonate mobilisation in a limestone aquifer
- XY605 EGU2012-14315
 J.Z. Cheng, X.Q. Lee, and **H. Zhou**
 Soil-atmosphere exchange of carbon dioxide, methane and nitrous oxide from a typical karst region under different land use in southwest China
- XY606 EGU2012-14317
D.A. Xiao and H. Xu
 The geochemical characteristics of soil water and epikarst springs and their response to vegetation-soil degradation in a karst area

SSS12.1 – Teaching Soil Science or how to teach that dirt is fascinating – Orals

Convener: A Jordán | Co-Conveners: L. M. Zavala, D. Badía-Villas, J. Liddicoat

Room: 3

Chairperson: Antonio Jordán and Joseph Liddicoat

- 13:30–13:45 EGU2012-29
D. Frink
 Discovering the essence of soil
- 13:45–14:00 EGU2012-1292
M. Trauth and E. Sillmann
 MATLAB® and Design Recipes for Earth Sciences: How to Collect, Process and Present Geoscientific Information
- 14:00–14:15 EGU2012-1723
S. Grand, M. Krzic, C. Crowley, G. Lascu, and J. Rosado
 The fascinating side of dirt: Soil and the global environment course
- 14:15–14:30 EGU2012-2159
P. Ailleris
 Stimulating Interest in Natural Sciences and Training Observation Skills: The UAP Observations Reporting Scheme
- 14:30–14:45 EGU2012-11167
M.W. Anderson, M. FitzPatrick, and J. Truscott
 Peer Assisted Experiential Learning (PAEL) in extending fieldwork practice in the Earth Sciences
- 14:45–15:00 EGU2012-3019
N. J. Kuhn
 Teaching with Tolkien: environmental degradation of a fantasy world

SSS12.1 – Teaching Soil Science or how to teach that dirt is fascinating – Posters

Convener: A Jordán | Co-Conveners: L. M. Zavala, D. Badía-Villas, J. Liddicoat

Hall X/Y | Display Time 08:00–17:00

Author in Attendance: 15:30–17:00

Chairperson: Lorena M. Zavala and David Badía-Villas

- XY607 EGU2012-98
A.M. Luchian, D. Luchian, and N. Luchian
Water and Climate Change in the Classroom in the North-East of Romania
- XY608 EGU2012-768
D. Badía-Villas, C. Martí-Dalmau, and E. Íñiguez-Remón
A multimedia and interactive approach to teach soil science
- XY609 EGU2012-1667
M.R. Retegan
The unseen sides of the teachers work
- XY610 EGU2012-1724
M. Krzic, N. Basiliko, A. Bedard-Haughn, E. Humphreys, G. Price, L. Dampier, **S. Grand**, S. Dynatkar, and C. Crowley
Cyber Shovels in High School: An Online Soil Science Resource for Educators
- XY611 EGU2012-1726
R. Strivelli, M. Krzic, C. Crowley, S. Dyanatkar, A. Bomke, S. Simard, and **S. Grand**
Integration of Problem-Based Learning and Web-Based Multimedia to Enhance Soil Management Course
- XY612 EGU2012-4098
A. Toland and G. Wessolek
The Pedotopia Project: A Transdisciplinary Experiment in Soil Education
- XY613 EGU2012-6584
L. Benciolini and G. Muscio
Drawing rocks at primary school: a tool for emerging misconceptions and promoting conceptual change
- XY614 EGU2012-6734
R. Kopp and **J. Liddicoat**
Film Learning in the Classroom
- XY615 EGU2012-8361
A.Z. Gyongyosi, K. Andre, P. Salavec, A. Horanyi, G. Szepszo, M. Mille, P. Tasnadi, and T. Weidiger
Numerical Weather Prediction Models on Linux Boxes as tools in meteorological education in Hungary
- XY616 EGU2012-9261
I. Moeck, R. Sule, N.M. Saptadji, F. Deon, N.R. Herdianita, E. Jolie, N. Suryantini, and K. Erbas
The Geothermal Field Camp: Capacity building for geothermal energy systems in Indonesia
- XY617 EGU2012-11508
M. Sánchez-Marañón, G. Delgado, J. Párraga, J.M. Martín-García, and R. Delgado
The university gardens: a natural classroom for soil study
- XY618 EGU2012-13959
A Jordán, G Bárcenas-Moreno, and LM Zavala
Soil Science self-learning based on the design and conduction of experiments
- XY619 EGU2012-14010
A. Cerdà and C. Civera
Teaching Physical Geography to students older than 55. The GEOGRANS Project within the NAUGRAN program at the University of Valencia, Spain
- XY620 EGU2012-14313
K. Pearson and **J. Liddicoat**
Fostering Gender Equality and Achievement in Natural Science and Mathematics Instruction in Higher Education

SSS13.2 – Evolution of soil properties in space and time. Soil information for environmental assessment and decision making – Orals

Convener: A Jordán | Co-Conveners: L. M. Zavala, C. Pain, J. Gil, V. Wong, G. Bárcenas-Moreno, M. Muñoz-Rojas, P. Pereira, J. P. Nunes, K.S. Schwärzel, S. Carrick,

Room: 6

Chairperson: n.n.

- 13:30–13:45 EGU2012-8906
D. Golovanov and I. Yamnova
Space-Time Digital Mapping of Gypsic Horizon Morphotypes and Soil Salinity in Tian Shan Old Alluvial Piedmont Plain

- 13:45–14:00 EGU2012-12686
I. Vasenev
 Functional interpretation of representative soil spatial-temporal variability at the Central region of European territory of Russia
- 14:00–14:15 EGU2012-12869
M. Märker and G. Quénéhervé
 Soil Properties Assessment using Apparent Electric Conductivity (ECa) in semi-arid Environments of Northern Tanzania
- 14:15–14:30 EGU2012-1043
B. Xiaoyong
 The spatial pattern of Soil loss tolerance and its impacts on land degradation in karst areas of South China
- 14:30–14:45 EGU2012-5283
M A Abdelfattah and C F Pain
 Soil Spatial Information and Production of Thematic Maps for the Northern Emirates, UAE
- 14:45–15:00 EGU2012-7227
M. Anaya-Romero, M. Muñoz-Rojas, R. Pino, A. Jordan, LM. Zavala, and D. De la Rosa
 CarboSoil, a land evaluation model for soil carbon accounting

SSS13.2 – Evolution of soil properties in space and time. Soil information for environmental assessment and decision making – Posters

Convener: A Jordán | Co-Conveners: L. M. Zavala, C. Pain, J. Gil, V. Wong, G. Bárcenas-Moreno, M. Muñoz-Rojas, P. Pereira, J. P. Nunes, K.S. Schwärzel, S. Carrick,

Hall X/Y | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: J. Gil, V. Wong, G. Bárcenas-Moreno, M. Muñoz-Rojas, S. Carrick

- XY621 EGU2012-369
HM Neto Paixão, FM Granja Martins, LM Zavala, A Jordán, and N Bellinfante
 Mapping soil erosion risk in Serra de Grândola (Portugal)
- XY622 EGU2012-370
FM Granja Martins, HM Neto Paixão, A Jordán, LM Zavala, and N Bellinfante
 Applying the Fuzzy ARTMAP neural network for mapping erosive status in the Ria Formosa catchment (Portugal)
- XY623 EGU2012-439
M Muñoz-Rojas, A Jordán, LM Zavala, D de la Rosa, SK Abd-Elmabod, and M Anaya-Romero
 Spatial analysis for assessing soil organic carbon stocks in southern Spain
- XY624 EGU2012-502
N Alanís González, M Alcalá de Jesús, A Arellano Reyes, A Jordán, and LM Zavala
 Geomorpho-edaphic mapping of Atécuaro catchment (Michoacan, Mexico) and indigenous soil classification
- XY625 EGU2012-1004
C.S.S. Ferreira, T.S. Steenhuis, D. Soares, A.J.D. Ferreira, C.O.A. Coelho, and R.P.D. Walsh
 Spatiotemporal variability of soil hydrological properties and its implication on small catchments hydrology
- XY626 EGU2012-1125
A. Zanella, M. Englisch, J.-F. Ponge, B. Jabiol, G. Sartori, and C. Gardi
 A European Humus Forms Reference Base
- XY627 EGU2012-1294
P. Pereira, V. Cepanko, D. Vaitkute, N. Pundyte, M. Pranskevicius, X. Ubeda, J. Mataix-Solera, and A. Cerda
 Modelling ash thickness spatial distribution after a grassland fire. The effect of sampling distance.
- XY628 EGU2012-1392
P. Pereira, N. Pundyte, D. Vaitkute, V. Cepanko, M. Pranskevicius, X. Ubeda, J. Mataix-Solera, and A. Cerda
 Spatial distribution of soil moisture and hydrophobicity in the immediate period after a grassland fire in Lithuania
- XY629 EGU2012-7355
F-R Meng, Z Zhao, Z Xing, and S Li
 Using Artificial Neural Network model to produce high resolution forest soil property maps
- XY630 EGU2012-8143
S. Sokolowski, Z. Sokolowska, and B. Usowicz
 Spatial variability of specific surface area of arable soils in Poland
- XY631 EGU2012-8413
J. A. Pascual-Aguilar, J. L. Rubio, J. Domínguez, and V. Andreu
 Analyzing existing conventional soil information sources to be incorporated in thematic Spatial Data Infrastructures

- XY632 EGU2012-10071
M. A. Abdelfattah and **C. Pain**
Application of digital soil mapping in traditional soil survey - an approach used for the production of the national soil map of the United Arab
- XY633 EGU2012-10625
M. Johnson, M. Gloor, and J. Lloyd
A first attempt to reproduce basaltic soil chronosequences using a process-based soil profile model: implications for our understanding of soil evolution
- XY634 EGU2012-11111
F. Terribile, A. Basile, A. D'Antonio, C. De Michele, A. Bonfante, M. Colandrea, R. De Mascellis, G. D'Urso, M. Iamarino, G. Langella, P. Manna, L. Marotta, and L. Minieri
Multifunctional soil conservation and land management through the development of a web based spatial decision supporting system
- XY635 EGU2012-11500
M. Leal, V. González-Naranjo, A. de Miguel, V. Martínez-Hernández, and J. Lillo
Soil properties evolution after irrigation with reclaimed water
- XY636 EGU2012-12637
J. M. Santos, S. van Beersum, I. van Hall, **L. Bernard-Jannin**, M. E. Rial-Rivas, J. P. Nunes, and J. J. Keizer
Soil properties in different types of Eucalypt Plantations in a small forested watershed, north-central Portugal
- XY637 EGU2012-12849
D. Sauer, R. Al-Sharif, S. Wagner, F. Scarciglia, H. Brückner, and K. Stahr
Soils on a sequence of eleven marine terraces in the Metaponto area, Gulf of Taranto, S Italy
- XY638 EGU2012-14192
H Bormann
Assessing the soil texture specific sensitivity of simulated soil moisture to projected climate change by SVAT modelling

IG1/GMPV2.3/HS2.22/SSP5.1/SSS13.5/TS1.8 – Stable isotopes in geosciences - open session, including blocks of special attention (co-organized) – Orals

Convener: P. De Groot | Co-Conveners: Dr. Bojar, E. Kerstel, J. Smit, D. R. Gröcke, Ph. Negrel, E. Petelet-Giraud

Room: 42

Chairperson: A-V. Bogar, P. de Groot

- 08:30–08:45 EGU2012-9015
L. Lobo, P. Degryse, and F. Vanhaecke
Exploring antimony isotope ratio variations for provenancing purposes
- 08:45–09:00 EGU2012-12785
A. Stracke, E.T. Tipper, and M. Bizimis
High-temperature, inter-mineral Mg stable isotope fractionation in mantle xenoliths
- 09:00–09:15 EGU2012-11556
S. Açıkalın, J. Smit, ?Ö. Y?lmaz, S. Goderis, H.B. Vonhof, F. Ocakolu, P. Claeys, E. Fornaciari, S. Özkan Altın, and J. Vellekoop
Isotopic and geochemical characterization of the K-Pg boundary sections from Central Sakarya Region, Turkey; a discussion on possible double impact
- 09:15–09:30 EGU2012-523
A. J. Prado-Pérez, M. C. Patón, J. Rodríguez Arévalo, and M. F. Diaz Teijeiro
Tips and tricks to perform reliable stable isotope analysis with a Picarro CRDS
- 09:30–09:45 EGU2012-13328
N. Saad and **J. Hoffnagle**
Online Compound-Specific $\delta^{13}\text{C}$ and $\delta^2\text{D}$ Determinations Using Laser Spectroscopy
- 09:45–10:00 EGU2012-2411
M. Battistel, A. Garone, M. Barbieri, and B. Parisse
Traditional ($\delta^2\text{D}$, $\delta^{18}\text{O}$) and non-traditional (Sr-87/Sr-86) isotopes approach to vertical lake profile study

COFFEE BREAK

Chairperson: Ph. Negrel, E. Petelet-Giraud

- 10:30–10:45 EGU2012-1234
S. Dogramaci, G. Skrzypek, W. Dodson, and P. Grierson
Identifying recharge pattern using stable isotopes of rainfall in semi arid subtropical northwest Australia

- 10:45–11:00 EGU2012-1154
J. Batlle-Aguilar, G.A. Harington, M. Leblanc, and P.G. Cook
Geologic controls on groundwater discharge in large tropical rivers: an environmental tracers approach
- 11:00–11:15 EGU2012-8943
O. Kracht
Isotopic composition (oxygen and hydrogen) of groundwater in Norway - a review of current knowledge and future perspectives
- 11:15–11:30 EGU2012-9507
T.W. Vennemann
Isotopic (H, O, and C-DIC) tracing of Rhone river water and mixing within Lake Geneva determined using the MIR submersibles
- 11:30–11:45 EGU2012-2062
R. Millot, C. Guerrot, E. Petelet-Giraud, A. Brenot, and Ph. Négrel
Hydrogeochemistry of the surface waters of the Ebro River Basin (Spain): a multi-isotopic characterization (H-O-Li-B-Sr isotopes)
- 11:45–12:00 EGU2012-5298
C. Briand, V. Plagnes, M. Sebilo, P. Ribstein, T. Chesnot, and M. Schneider
Characterization of the nitrate source in a karstic spring (southwest of France): use of isotopic biogeochemistry

