### EGU General Assembly 2012

**Programme Group Programme**

**GM – Geomorphology**

#### Monday, 23 April
- ESSI1.6
- CL5.1/GM2.5
- GM7.6
- GM8.3
- GM8.4/OS3.6/TS4.10
- HS9.4

#### Tuesday, 24 April
- CL5.11
- TS4.4/G6.1/GD3.8/GM3.3
- GM5.1
- NH3.3/GM6.3
- GM9.1/CR1.70
- GM9.2
- HS5.9
- HS9.3/SSS5.23
- SSS5.4
- SSS5.8
- SSS7.6

#### Wednesday, 25 April
- GM2.4
- CL5.7/AS4.22/BG6.4/GM2.6
- GMPV4.10/GM2.7
- GM4.2
- GM4.3
- GM4.7
- GM7.1
- HS4.1/GM7.8/NH1.7
- ML32
- NP2.6

#### Thursday, 26 April
- GM2.1
- GM2.2
- GM2.3
- TS4.3/GD3.9/GM3.1
- TS4.1/GM3.5/SSP3.4
- GD3.1/GM3.7/SM4.4/TS1.6
- GM4.4/BG1.8
- GM6.2/HS9.6/SSS5.21
- GM10.1/PS2.8
- ML12
- SSS13.3
- TS1.1

#### Friday, 27 April
- GM7.2/HS9.2
- GM7.3/HS9.7/NH1.9
- GM7.4
- GM7.5/HS10.9
- HS10.2/GM8.2
- SSS8.1
Monday, 23 April

ESSI1.6 – Laser Scanning: 3D Spatial Data, Analysis, and Infrastructures in Geosciences (co-listed) – Orals
Convener: B. Höfle | Co-Conveners: N. Pfeifer, B. Székely, A. Zipf
Room: 32
Chairperson: Bernhard Höfle

08:30–09:00 EGU2012-13998
C. Baru, R. Arrowsmith, C. Crosby, V. Nandigam, M. Phan, and C. Cowart
OpenTopography

09:00–09:15 EGU2012-6324
B. Höfle, M. Forbriger, C. Siart, and E. Nowaczinski
Fusion of terrestrial LiDAR and tomographic mapping data for 3D karst landform investigation

09:15–09:30 EGU2012-5081
M. A. Brovelli, L. Biagi, and G. Zamboni
DTMs: discussion of a new multi-resolution function based model

09:30–09:45 EGU2012-6665
M. Milenković, B. Székely, G. Mandlburger, and N. Pfeifer
Characterization of artificial and natural roughness present in DTMs derived from Airborne Laser Scanning data

09:45–10:00 EGU2012-4372
T. Dewez and J. Costeraste
Global dynamic topography: geoscience communities requirements

10:00–10:05 Wrap Up

COFFEE BREAK

Chairperson: Balazs Szekely

10:30–11:00 EGU2012-8378
G. Mandlburger, M. Pfennigbauer, F. Steinbacher, and N. Pfeifer
Potential of a novel airborne hydrographic laser scanner for capturing shallow water bodies

11:00–11:15 EGU2012-8299
F. Bretar, P. Mériaux, and C. Fauchard
How integrating 3D LiDAR data in the dike surveillance protocol: The French case

11:15–11:30 EGU2012-6411
K. Koenig and B. Höfle
Laser Scanning for 3D Object Characterization: Infrastructure for Exploration and Analysis of Vegetation Signatures

11:30–11:45 EGU2012-5316
I. Davenport, K Fieber, R Gurney, J Ferryman, J Hacker, and J Walker
Extracting vertical foliage profiles of individual Eucalypt trees using last significant return airborne laser altimetry and on-site photography

11:45–12:00 EGU2012-11539
A. Zlinszky, W. Mücke, H. Lehner, C. Briese, and N. Pfeifer
Vegetation mapping from medium-density discrete echo Airborne Laser Scanning data: a case study of the Lake Balaton wetlands

CL5.1/GM2.5 – Advances in Quaternary Geochronology (co-organized) – Orals
Convener: T. Kiefer | Co-Conveners: G. Duller, I. Hajdas, A. Lang, F. Parrenin, EW Wolff
Room: 15
Chairperson: n.n.

08:30–08:45 EGU2012-12790
S. Ivy-Ochs, H. Kerschner, and C. Schlüchter
Timing of deglaciation in the northern Alps based on cosmogenic nuclide data

08:45–09:00 EGU2012-12634
F. von Blanckenburg, J. Bouchez, H. Wittmann, and N. Dannhaus
The Beryllium-10(meteoric)/Beryllium-9 ratio as a new tracer of weathering and erosion rates

09:00–09:15 EGU2012-4854
P. J. Applegate and N. Kirchner
Using cosmogenic exposure dates to evaluate modeled Greenland Ice Sheet behavior
09:15–09:30 EGU2012-3821
R. Pickering
Re-arranging the family tree: the new role of U-Pb dating flowstones

09:30–09:45 EGU2012-10671
Bootstrap-Bayesian OSL approach for poorly-bleached sediment sequences tested with dendrochronological age constraints

09:45–10:00 EGU2012-3732
RC Chiverrell
Bayesian modelling of geomorphic time series: collapse of the marine portion of the Irish Sea Ice Stream

COFFEE BREAK

Chairperson: n.n.

10:30–10:45 EGU2012-13984
S. P. Lund
Paleomagnetic Secular Variation as a Regional- to Global-Scale Chronostratigraphic Tool for Paleoclimate Studies

10:45–11:00 EGU2012-11956
S. Olafsdottir, A. Geirsdottir, G.H. Miller, and J.S. Stoner
Improved Land-Sea Correlations in Iceland Based on Paleomagnetic Secular Variations

11:00–11:15 EGU2012-7054
Towards a complete Holocene tephrochronology for the Faroe Islands

11:15–11:30 EGU2012-9293
D. Fleitmann, A. Borsato, S. Frisia, S. Badertscher, H. Cheng, R.L. Edwards, and O Tüysüz
Speleothems as sensitive recorders of volcanic eruptions - the Bronze Age Minoan eruption recorded in a stalagmite from Turkey

11:30–11:45 EGU2012-13085
J. Stern and L. Lisiecki
Timing of deglacial changes in regional Atlantic benthic ?18O

11:45–12:00 EGU2012-11829
R. De Pol-Holz, M. Mohtadi, and J. Southon
Intermediate water radiocarbon off west Sumatra during the last 45,000 years

LUNCH BREAK

Chairperson: n.n.

13:30–13:45 EGU2012-13849
A common and optimized age scale for Antarctic ice cores

13:45–14:00 EGU2012-7570
H. Toyé Mahamadou Kele, B. Lemieux-Dudon, and E. Blayo
Toward unified ice core chronologies with the Datlice tool

14:00–14:15 EGU2012-7646
Toward an integrated ice core chronology using relative and orbital tie-points

14:15–14:30 EGU2012-8309
K. Kawamura, S. Aoki, T. Nakazawa, K. Suzuki, and F. Parrenin
Accurate age scale of the Dome Fuji ice core, Antarctica from O2/N2 ratio of trapped air

14:30–14:45 EGU2012-10293
J. Freitag, S. Kipfstuhl, M. Hörhold, A. Wegner, F. Wilhelms, and M. Bigler
Impurity controlled firn densification: a new model approach
A 62 ka record from the WAIS Divide ice core with annual resolution to 30 ka (so far)

Addressing geomorphologic uncertainties with terrestrial cosmogenic nuclide dating (TCND) - examples from Holocene moraines in the Southern Alps of New Zealand

10Be production rate calibration in Scotland

How does sediment mixing affect 10Be concentrations in alluvial sediments? A case study from a small catchment of the Alps, Zelbach, Alto Adige, Italy

Geomorphology and landscape evolution at the Chironico landslide (Leventina)

Combining cosmogenic Be, C, Al and Cl - Quantifying depth of glacial erosion and timing of deglaciation

The Lateglacial deglaciation history of the high Alpine Gotthard Pass, Switzerland, based on cosmogenic 10Be and in situ 14C

Mass wasting processes and their control on denudation rates, Matter-Valley, Switzerland

Influence of former glaciations on interglacial landscape evolution: A case study from the LGM nunatak Hörnli, Eastern Switzerland

A comparison of the OSL response of quartz and polynminerai fine grains to alpha and beta radiation

Chronology of landscape evolution during the last centuries in the Campine area, Northern Belgium: integrating geomorphological, palaeobotanical, historical and pollution archives

Using optical dating of beachrock for sea-level reconstruction

Optical dating of late Quaternary deposits preserved beneath the eastern English Channel

Extending the luminescence dating age range using feldspar

OSL-dating of fluvial deposits of the Middle Elbe River Flood Plains using different statistical approaches
Z100  EGU2012-7880
L. Bickel, J. Lomax, and M. Fiebig
Fluvial terrace gravels of the "Hochterrasse" (N-Alpine Foreland, Austria): luminescence characteristics of quartz and feldspar

Z101  EGU2012-6342
R. Mertz-Kraus, W.D. Sharp, and K.R. Ludwig
Precise and accurate measurement of U and Th isotopes via ICP-MS using a single solution

Z102  EGU2012-7255
14C in a stalagmite from NE India: preliminary results of dating near the limit of radiocarbon time scale

Z103  EGU2012-9008
A. Birkholz, M. Gierga, I. Hajdas, R. Smittenberg, L. Wacker, and S.M. Bernasconi
Compound-specific Radiocarbon dating - a tool for dating lake sediments?

Z104  EGU2012-13135
B. Machalett, E.A. Oches, H.M. Roberts, and W.D. McCoy
Deciphering the Geochronological Framework of Serbian Loess Using Amino Acid Stratigraphy and Luminescence Dating

Z105  EGU2012-4572
N. Marwan, K. Rehfeld, B. Goswami, S. F. M. Breitenbach, and J. Kurths
Age models and their uncertainties

Z106  EGU2012-11229
M. Severi, R. Udisti, S. Becagli, B. Stenni, and R. Traversi
Volcanic synchronisation of the EPICA-DC and TALDICE ice cores for the last 42 kyr BP

Z107  EGU2012-792
M. Winstrup, A. Svensson, S. O. Rasmussen, O. Winther, E. Steig, and A. Axelrod
An automated approach for annual layer counting in ice cores

Z108  EGU2012-2866
D. Raynaud, V. Lipenkov, M-F. Loutre, A. Landais, and E. Capron
Dating the 800 ka - long EPICA DC ice core by tuning the air content and ?O2/N2 records on local summer insolation.

Z109  EGU2012-5223
Volcanic synchronisation between the EPICA Dome C and Vostok ice cores (Antarctica) 0-145 kyr BP

Z110  EGU2012-5265
On the Delta-depth along the EPICA Dome C ice core

Z111  EGU2012-14158
F. Parrenin and V. Masson-Delmotte
An Antarctic temperature stack, 0-800 kyr BP

Z112  EGU2012-7179
Direct linking of Greenland and Antarctic ice cores at the Toba eruption (74 ka BP)

Z113  EGU2012-8629
R. C. A. Hindmarsh and C.M. Ritz
How deep do you need to drill through ice to measure the geothermal heat flux?

Z114  EGU2012-10143
The influence of impurities on the densification of firn -a case study from North Greenland

Z115  EGU2012-14153
J. R. Petit, F. Parrenin, and B. Delmonte
A chemical pacemaker to refine chronology for the deep East Antarctic ice cores

GM7.6 – Sedimentary source-to-sink fluxes and sediment budgets – Orals
Convener: A. A. Beylich | Co-Conveners: F. Brardinoni, K. Laute, S. Liermann
Room: 21
Chairperson: Achim A. Beylich & Francesco Brardinoni
15:30–15:45  EGU2012-2753
M. Fort and E. Cossart
Sediment budget in a Himalayan Valley (Middle Kali Gandaki, Nepal)
15:45–16:00  EGU2012-8779  
A. Forzoni, G. de Jager, and J.E.A. Storms  
Impact of external forcing and catchment response on sediment flux

16:00–16:15  EGU2012-8835  
P. Allemand, E. Lajeunesse, O. Devauchelle, and C. Delacourt  
Erosion under extreme climatic events in tropical climates: the case of the storm Helena (1963) in the Guadeloupe island (Lesser Antilles Arc)

16:15–16:30  EGU2012-11542  
D. Staley, T. Wasklewicz, and J. Kean  
Influence of surface form on sediment transport in a recently burned watershed derived from multi-temporal terrestrial laser scanning data

16:30–16:45  EGU2012-11941  
M. Fuchs, M. Will, S. Kreutzer, M. Fischer, and R. Reverman  
The Temporal and Spatial Quantification of Holocene Sediment Dynamics in a meso-scale catchment in northern Bavaria / Germany

16:45–17:00  EGU2012-13710  
J. Estrany and C. Garcia  
An integrated suspended sediment budgeting of the agricultural Can Revull catchment (Mallorca, Spain)

GM7.6 – Sedimentary source-to-sink fluxes and sediment budgets – Posters
Convener: A. A. Beylich  |  Co-Conveners: F. Brardinoni, K. Laute, S. Liermann
Hall XL | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Katja Laute & Susan Liermann

XL239  EGU2012-1494  
A. A. Beylich, S. F. Lamoureux, and A. Decaulne  
The SEDIBUD (Sediment Budgets in Cold Environments) Programme: Current activities and future key tasks

XL240  EGU2012-1809  
K. Laute and A.A. Beylich  
Holocene hillslope processes and deposits in two U-shaped mountain valleys in western Norway

XL241  EGU2012-1829  
F. Brardinoni, D. Maynard, and T. Rollerson  
Landslide Sediment Flux and Forest Management in Northeastern Vancouver Island, Coastal British Columbia

XL242  EGU2012-2895  
A. A. Beylich and U. Molau  
The DYNAFLUX / DYNACOLD Network: Dynamics, Fluxes, Stability, Succession and Landscape Formation in Cold Environments

XL243  EGU2012-4461  
F. Métivier, Y. Liu, J. Gaillardet, B. Ye, P. Meunier, C. Narteau, E. Lajeunesse, and T. Han  
Seasonal mass balance of sediment transport along the upper Urumqi River in Tianshan

XL244  EGU2012-8122  
S. Liermann, A. A. Beylich, and L. Hansen  
Holocene to contemporary fluvial sediment fluxes and budgets of two glacier-fed valley-fjord systems in the Nordfjord area, western Norway

XL245  EGU2012-8618  
A. El Saiy  
Characteristics and historical development of fluvial sediments in the UAE

XL246  EGU2012-9278  
D. Morche, H. Baewart, and K.-H. Schmidt  
Towards a holistic sediment budget in a glacier forefield (Gepatschferner/Austria) - The contribution of fluvial sediment transport

XL247  EGU2012-11280  
G. Stauch and F. Lehmkuhl  
Reconstruction of a sediment cascade on the north eastern Tibetan Plateau

XL248  EGU2012-12012  
L. Kämpf, P. Müller, T. Swierczynski, A. Güntner, B. Plessen, P. Dulski, R. Naumann, and A. Brauer  
Floods and sediment transport into the pre-Alpine Lake Mondsee: A dual monitoring of detrital layer deposition in the lake and sediment dynamics in the catchment

XL249  EGU2012-12696  
M. Geilhausen, D. Morche, J.-C. Otto, and L. Schrott  
Assessment of suspended and solute load in the proglacial Obersulzbach stream (Hohe Tauern, Austria)
Quantifying proglacial morphodynamics and sediment budgets - the PROSA approach

Sediment storage quantification and postglacial evolution of an inner-alpine sedimentary basin (Gradenmoos, Schober Mountains, Austria)

XL252  EGU2012-13232  T. Heckmann, F. Haas, L. Hilger, and M. Becht  
Analysing sediment pathways from rockfaces to a glacier forefield - a contribution to proglacial sediment budgets

XL253  EGU2012-14144  A. Decaulne, O. Eggertsson, K. Laute, and A.A. Beylich  
A 20th century calendar of snow avalanche activity within the Bødalen valley, inner Nordfjord, western Norway

GM8.3 – Coastal zone geomorphologic interactions: natural versus human-induced driving factors – Orals
Convener: M. Stancheva | Co-Conveners: A. Baas, G. Anfuso, H. Tõnisson
Room: 21
Chairperson: Hannes Tõnisson and Margarita Stancheva

08:30–08:45  EGU2012-11105  A. Aiello, F. Canora, R. Pellicani, and G. Spilotro  
Natural and anthropogenic factors in coastal dynamic: two cases in Southern Italy

08:45–09:00  EGU2012-10863  A. Rilo, P. Freire, R. Ceia, R.N. Mendes, J. Catalão, and R. Taborda  
Human effects on estuarine shoreline decadal evolution

09:00–09:15  EGU2012-500  A. Anderson  
Aeolian Coastal Landscapes in changes (a study from Tahkuna, Estonia)

09:15–09:30  EGU2012-5560  G. Alexandrakis and S. Poulos  
The anticipated spatial loss of microtidal beaches in the next 100 years due to sea level rise.

09:30–09:45  EGU2012-5856  J. Curoy, C.A. Moses, and D.A. Robinson  
Longshore Sediment Transport on a Macrotidal Mixed Sediment Beach, Birling Gap, United Kingdom.

09:45–10:00  EGU2012-12815  M. Sedrati and E. J. Anthony  
Chronic erosion in Wissant Bay coast, northern France - Causes and trials of management projects

COFFEE BREAK

Chairperson: Margarita Stancheva and Andreas Baas

10:30–10:45  EGU2012-1652  D.W.T. Jackson  
116 years of misplaced management: Portballintrae, Northern Ireland

10:45–11:00  EGU2012-43  M. O’Shea and Dr. J. Murphy  
Investigating the Hydrodynamics of a Breached Barrier Beach

Morphological developments after a beach and shoreface nourishment at Vlugtenburg beach, the Netherlands

11:15–11:30  EGU2012-11272  L.S. Esteves, J. Foord, and H. Draux  
The shift from hold-the-line to management retreat and implications to coastal change: Farlington Marshes, a case of conflicts

The impact of coastal interventions: between the myth and the reality
EGU General Assembly 2012

11:45–12:00  EGU2012-13767
R. Young and K. Peek
Preparing Coastal Parks for Future Sea Level Rise

GM8.3 – Coastal zone geomorphologic interactions: natural versus human-induced driving factors – Posters
Convener: M. Stancheva | Co-Conveners: A. Baas, G. Anfuso, H. Tõnisson
Hall XL | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Andreas Baas, Margarita Stancheva and Hannes Tõnisson

XL254  EGU2012-10626
J.V. Monnot, J.J. Diez Gonzalez, and S. del Saz Cordero
The wave criteria for coastal zoning

XL255  EGU2012-13772
A. Griffith and R. Young
Observations of coastal systems using low-cost, high-resolution, balloon and kite-based aerial imagery

XL256  EGU2012-538
N. Kopa-Ovdienko, N. Volobueva, and S. Ogorodov
The Ob Estuary (Kara Sea) Coastal Dynamics Interannual Variability Assessment

XL257  EGU2012-2157
H. Tõnisson, K. Orviku, A. Kont, and Ü. Suursaar
Coastal geomorphic processes and their relation to hydrodynamic conditions in Osmussaar Island, Baltic Sea

XL258  EGU2012-3039
A. Palazov, R. Young, M. Stancheva, and H. Stanchev
Changes of Bulgarian Coastal Dune Landscape under Anthropogenic Impact

XL259  EGU2012-3899
K. Al Quraishi, N. Al Balushi, A. Roepert, M. Rupprechter, and G. Hoffmann
Late Quaternary delta evolution on an uplifted coastal area (Wadi Haida Sultanate of Oman, Arabian Peninsula)

XL260  EGU2012-5472
A. Herman, J. Urbañski, and A. Wochna
Numerical modeling of storm-induced morphodynamic changes at a micro-tidal sandy coast

XL261  EGU2012-4898
I. Catianis, C. Ungureanu, and A. Stanica
Preliminary sediments quality assessment of the Midia Port aquatorium - Black Sea - Romania

XL262  EGU2012-9947
J. Trindade and A. Ramos-Pereira
Modeling extreme beach retreat and erosion volumes. A tool for susceptibility analysis.

XL263  EGU2012-7429
R. Mani Murali, P Vethamony, and A.K. Singh
Shoreline and seabed level changes along the central Orissa coast, India

XL264  EGU2012-10044
D. Bertoni, P. Ciavola, E. Grottoli, and G. Sarti
Transport of marked pebbles in short periods of time on a coarse clastic beach (Marina di Pisa, Italy)

XL265  EGU2012-10989
R. Bakhtyar, A. Dastgheib, D. Roelvink, and D.A. Barry
3D modelling of nearshore coastal morphodynamics

XL266  EGU2012-11199
Palaeogeographic evolution of Alykes lagoon, Pydna, Northern Greece during the Holocene, based on geomorphological and sedimentological data.

XL267  EGU2012-619
N. Kosevich
White Sea Islands: contemporary relief dynamics and history of the development.

XL268  EGU2012-8871
A.-D. Spinu and R. Mateescu
Coastal Processes Surveillance - necessary actions towards erosion control

XL269  EGU2012-10097
The changing of coastal landform at Chikou barrier island and lagoon coast, Tainan, Southwestern Taiwan

XL270  EGU2012-10687
The influence of rock resistance on shore platform morphology in Penghu Islands, Taiwan
**Seasonal-scale nearshore morphological evolution of Romanian coast**

K. Mezouar and R. Ciortan

**Quaternary coastal evolution of Oman (Arabian Peninsula) - a quantitative approach**

G. Hoffmann, M. Rupprechter, A. Roepert, K. Al Quraishi, N. Al Balushi, C. Grützner, and K. Reicherter

**Relative impact of sea level rise, wave climate and anthropogenic actions on the recent shoreline changes of the Pacific Islands**

M. Garcin, A. Baills, M. Yates, G. Le Cozannet, T. Bulteau, E. Salai, and J. Sauter

**GM8.4/OS3.6/TS4.10 – Seafloor Expression of Tectonic and Geomorphic Processes (co-organized) – Orals**

*Room: 21*

**3:30–13:45**

**EGU2012-13865**

A. Green, R. Leuci, Z. Thackeray, and J.A.G. Cooper

An overstepped segmented lagoon complex on the KZN continental shelf, South Africa

**13:45–14:00**

**EGU2012-13227**

D. Ridente, D. Di Bucco, F. Foglini, E. Campiani, U. Fracassi, and F. Trincardi

Late Quaternary activity and lateral variability of regional deformation belts in marine foreland settings: the South-Western Adriatic margin case study

**14:00–14:15**

**EGU2012-166**

Ch.L Gong, Y.M Wang, W.G Li, and X.Ch Peng

Interactions between down-slope and along-slope processes on the South China Sea Slope off southwestern Taiwan: Processes, products, and depositional models

**14:15–14:30**

**EGU2012-6838**

P. B. Flemings, I. Song, and D. M. Saffer

Laboratory investigation of coupled deformation and fluid flow in mudrock: implications for slope stability in the Ursa Basin, Gulf of Mexico

**14:30–14:45**

**EGU2012-9425**

A. Bronner, M. Munschy, D. Sauter, J. Carlut, R. Searle, and M. Cannat

Deep-tow geophysical survey above large exhumed mantle domains of the eastern Southwest Indian ridge

**14:45–15:00**

**EGU2012-12418**

C. A. Stein

Depth anomalies in old oceanic lithosphere

**GM8.4/OS3.6/TS4.10 – Seafloor Expression of Tectonic and Geomorphic Processes (co-organized) – Posters**

*Hall XL | Display Time 08:00–19:30*

**Author in Attendance: 17:30–19:00**

**Chairperson: n.n.**

**XL274**

**EGU2012-9585**

I.S. Patina

Seismostartigraphy of the Maykopian clinoforms in the Middle Caspian

**XL275**

**EGU2012-13332**


New discovered Izmir and Busan Mud Volcanoes and Application of Seismic Attributes and AVO Analysis in the Easternmost Black Sea

**XL276**

**EGU2012-40**


2D - 3D high resolution seismic survey on the Sea of Marmara - Western High

**XL277**

**EGU2012-12739**

M. Huuse

3D seismic images of tectonic, sedimentary and fluid flow processes affecting the seafloor offshore West Africa
XL278  EGU2012-8124  
**M. Vrabec**, P. Slavec, S. Poglajen, and M. Busetti  
Geomorphology of submerged river channels indicates Late Quaternary tectonic activity in the Gulf of Trieste, Northern Adriatic

XL279  EGU2012-5240  
**B. Jolly**, L. Lonergan, and A. Whittaker  
The interaction between deepwater channel systems and growing thrusts and folds, toe-thrust region of the deepwater Niger Delta

XL280  EGU2012-6441  
Morphodynamics and slope stability at Mergui Ridge, off western Thailand

XL281  EGU2012-7652  
**L.A. Muller**, A.B. Watts, and the JC066 shipboard scientific party  
The Morphology, Structure and Origin of Seamounts on the South-West Indian Ocean Ridge

XL282  EGU2012-13013  
Volumetric facies analysis of a Late Holocene mudbelt environment on the Galician shelf (NW Spain).

XL283  EGU2012-1628  
Topographic and stratigraphic expression of submerged shorelines in the Irish Sea

### HS9.4 – Sediment transfers and travel times in catchment systems (co-listed) – Orals

Room: 34

Chairperson: M. van der Perk

10:30–10:45  EGU2012-9968  
U-Th-Ra disequilibria in sediments of the Dora Baltea river (Italia)

10:45–11:00  EGU2012-8084  
**S. Liemann** and A. A. Beylich  
Contemporary suspended sediment fluxes and accumulation processes in the small proglacial Sætrevatnet sub-catchment, Bødalen, Western Norway

11:00–11:15  EGU2012-9376  
**N. J. Kuhn**  
Assessing the movement of eroded organic carbon in small agricultural catchments

11:15–11:30  EGU2012-1079  
**K Moschenberg** and S Heise  
Assessing the Impacts of Climate Change on the Fate and Transport of Sediment Sorbed HCB and Cd in the Elbe River Basin (Germany)

11:30–11:45  EGU2012-4281  
Tracing the dispersion of sediment contaminated with fallout radionuclides along the main rivers draining the contaminated plume in Fukushima Prefecture (Japan)

11:45–12:00  EGU2012-6982  
**A. Eder**, P. Strauss, M. Exner-Kitttridge, and G. Bloeschl  
Re-suspension of sediment in the HOAL catchment - results from a flushing experiment

### HS9.4 – Sediment transfers and travel times in catchment systems (co-listed) – Posters

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: U. Scherer & E.L. Petticrew

A276  EGU2012-1214  
Bedload transport rates estimated in two gravel bed streams from NW Spain

A277  EGU2012-9713  
**P. Theuring** and M. Rode  
Sediment sources and its transport pathways in the Kharaa catchment, northern Mongolia
<table>
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<th>A278</th>
<th>EGU2012-1782</th>
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<tr>
<td><strong>A. A. Beylich</strong></td>
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<tr>
<td>Controls of sediment transfers, sedimentary budgets and relief development in cold environments: Results from four catchment systems in Iceland, Swedish Lapland and Finnish Lapland</td>
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<th>A279</th>
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<tr>
<td><strong>H.G. Smith</strong> and <strong>W.H. Blake</strong></td>
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<td>An integrated approach for determining sources and residence times of fine sediment transported through a river network</td>
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<th>A280</th>
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<tr>
<td><strong>A.J. Koiter</strong>, <strong>D.A. Lobb</strong>, <strong>P.N. Owens</strong>, <strong>K.H.D. Tiessen</strong>, and <strong>S Li</strong></td>
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<td>Assessing the sources of suspended sediments in the streams of an agricultural watershed in the Canadian prairies using caesium-137 as a tracer</td>
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<tr>
<td>The use of downstream sediment mini-cores to indicate changes through time in the spatial pattern and process contribution of erosion within a small, selectively logged rainforest catchment in Sabah, Malaysian Borneo</td>
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<th>A282</th>
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<tr>
<td><strong>R. Van den Boomen</strong>, <strong>A.J. Zweers</strong>, and <strong>M. Van der Perk</strong></td>
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<td>Suspended sediment dynamics in the Kromme Rijn river: indication for intense fine sediment exchange between water column and streambed</td>
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<tr>
<td>Pb and Zn and the onset of Anthropocene in floodplain sediments: How and why to quantify weak contamination?</td>
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<tr>
<td><strong>T. Novakova</strong>, <strong>T. Matys Grygar</strong>, <strong>O. Bábek</strong>, <strong>M. Fámra</strong>, <strong>M. Mihaljevi?</strong>, and <strong>L. Strnad</strong></td>
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<td>Human impact on fluvial sediments: distinguishing regional and local sources of heavy metals contamination</td>
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<tr>
<td><strong>A. Reis</strong>, <strong>A. Parker</strong>, and <strong>A. Alenc?o</strong></td>
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<td>Transport of sediment and associated contaminants in dynamic streams: a case study in the River Douro basin (North Portugal)</td>
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<tr>
<td><strong>G.E. Millward</strong>, <strong>W.H. Blake</strong>, <strong>R. Little</strong>, and <strong>L. Couldrick</strong></td>
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<td>Uranium and Its Decay Products in Floodplain Sediments from the River Fal,</td>
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<tr>
<td>Contextualising impacts of logging on tropical rainforest catchment sediment dynamics and source processes using the stratigraphic record of an in-channel bench deposit.</td>
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<tr>
<td><strong>J.A. Joe-Strack</strong> and <strong>E.L. Petticrew</strong></td>
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<td>Use of LH-PCR as a DNA fingerprint technique to trace sediment-associated microbial communities from various land uses</td>
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<td><strong>G. Guzmán</strong>, <strong>J.A. Gómez</strong>, and <strong>J.V. Giráldez</strong></td>
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<td>Use of magnetic iron oxide to determine soil losses in rainfed olive orchard plots</td>
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<tr>
<td><strong>U. Scherer</strong></td>
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<td>Modelling sediment input in large river basins</td>
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<td><strong>S. Loos</strong>, <strong>M. Van der Perk</strong>, <strong>L.P.H. Van Beek</strong>, and <strong>H. Middelkoop</strong></td>
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<td>Modification of the Revised Morgan-Morgan-Finney model for estimating sediment yield in large river basins</td>
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Tuesday, 24 April

**CL5.11 – EuroFORUM 2012: Major achievements and perspectives in scientific ocean and continental drilling (co-listed) – Orals**
**Room:** 16
Chairperson: n.n.

13:30–13:45 EGU2012-2847
**J. Inwood**, S. Morgan, A. Mcgrath, S. Davies, H. Foster, and J. Lofi
Characterization of New Jersey Shelf Sedimentation using geochemical and physical properties: IODP Expedition 313

13:45–14:00 EGU2012-7352
**T. Wiersberg**, M.-L. Doan, A. M. Schleicher, K. Horiguchi, N. Eguchi, and J. Erzinger
In situ gas concentrations in the Kumano forearc basin from drilling mud gas monitoring and sonic velocity data (IODP NanTroSEIZE Exp. 319 Site C0009)

14:00–14:15 EGU2012-9834
A 500,000-Year-Long Sediment Archive of Lake Van in Eastern Anatolia

14:15–14:30 EGU2012-9841
S. Goldstein, **M. Stein**, Z. Ben-Avraham, A. Agnon, D. Ariztegui, A. Brauer, G. Haug, E. Ito, H. Kitagawa, A. Torfstein, and Y. Yasuda
Extreme Dead Sea drying event during the last interglacial from the ICDP Dead Sea Deep Drill Core

14:30–14:45 EGU2012-13385
**W. Clyde**, S. Wing, P. Gingerich and the BBCP Science Team
Bighorn Basin Coring Project (BCBP): High-Resolution Continental Records of Early Paleogene Hyperthermals

14:45–15:00 EGU2012-1824
**R. Stein**, B. Coakley, N. Mikkelsen, M. O’Regan, and C. Ruppel
Future scientific drilling in the Arctic Ocean: Key objectives, areas, and strategies
Chairperson: R. Stein, U. Harms

15:30–15:45 EGU2012-7682
The Baltic Sea IODP project “Paleoenvironmental evolution of the Baltic Sea Basin through the last glacial cycle”

15:45–16:00 EGU2012-8958
The Neogene monsoon and oceanic currents in the Indian Ocean: The Maldives archipelago.

16:00–16:15 EGU2012-5807
> Exploring the Scandinavian Mountain Belt by Deep Drilling (COSC)

16:15–16:30 EGU2012-7104
**C Mevel**, R Gatilff, J Ludden, G Camoin, B Horsfield, and A. Kopf
Towards a distributed infrastructure for research drilling in Europe

16:30–16:45 EGU2012-12592
**B. Esmael**, R Fruhwirth, A. Arnaout, and G. Thonhauser
Operations Recognition at Drill-Rigs

16:45–17:00 EGU2012-14018
IODP Scientific Earth Drilling Information Service

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**CL5.11 – EuroFORUM 2012: Major achievements and perspectives in scientific ocean and continental drilling (co-listed) – Posters**
**Hall Z** | **Display Time 08:30–19:30**
Author in Attendance: 17:30–19:00
Chairperson: C. Escutia
Z105  EGU2012-11635
Middle to Late Eocene Carbonate Accumulation Events in the Equatorial Pacific - new geochemical records
from IODP Exp 320/321 and ODP Leg 199

Z106  EGU2012-5892
Hadzhinova, and DSDDP Scientific Party
The ICDP Dead Sea Deep Drilling Project: An overview and the potential for high-resolution records of floods
and droughts in the Levant

Z107  EGU2012-14264
J Hernandez-Molina, D. Stow, C. Alvarez-Zarikian and the Expedition 339 Scientists Team
Onset, evolution and effects of the Mediterranean Outflow: Preliminary Results of IODP Expedition 339 in the
Gulf of Cadiz

Z108  EGU2012-6207
M. Schreck, J. Matthiessen, and R. Stein
The Neogene of the Iceland Sea - Paleoenvironmental reconstructions using marine palynomorphs

Z109  EGU2012-6718
K. Katsuki, B.K. Khim, and B. Song
Latest Miocene and Pliocene paleoceanographic condition in the Southern Ocean based on silicoflagellate
assemblage

Z110  EGU2012-12680
J.J. Gonzalez, C Escutia, F.J. Espejo, T Williams, R.M. McKay, S. Passhier, T. van de Flierdt, L. Tauxe, H.
Brinkhuis and the Carlota Escutia Team
Records of glacial-interglacial variability during the Pliocene: IODP Expedition 318 - Site U1361

Z111  EGU2012-12607
M. Kobayashi, M. Iwai and the Expedition 318 Scientists Team
Upper Miocene-Pliocene diatoms in the Southern Ocean: IODP Site U1361 on the continental rise off Wilkes
Land, Antarctica

Z112  EGU2012-14473
G.B. Dunbar
Mg/Casea surface temperatures during the Marine Isotope Stage 31 collapse of the Ross Ice Shelf

Z113  EGU2012-7650
B.D.A. Naafs, J Hefter, P Ferretti, R Stein, and G.H. Haug
Sea surface temperatures did not control the first occurrence of Hudson Strait Heinrich Events during MIS 16

Z114  EGU2012-9427
C Ohlendorf, C Gebhardt, and the PASADO Science team
A step towards the identification of eolian input in the 51 ka BP sediment record of Laguna Potrok Aike in
southeastern Patagonia

Z115  EGU2012-12857
A. Fehr, R. Pechnig, J. Inwood, J. Lofi, F.P. Bosch, and C. Clauser
Thermophysical properties derived from lab measurements and downhole logging at New Jersey Shallow
Shelf (IODP Expedition 313)

Z116  EGU2012-9581
M. Python, L. France, B. Abily, N. Abe, J.C. Alt, M.M. Godard, B. Ildefonse, J.H. Koepeke, M.D. Kurtz, R.
Oizumi, B.D. Payot and the Exp. 335 Science Party Team
Petrographical and geochemical characteristics of the sheeted dyke-gabbro transition zone in ODP/IODP Hole
1256D

Z117  EGU2012-6976
N. T. Arndt and the Barberton Drilling Team
Peering into the Cradle of Life: Scientific Drilling in the Barberton Greenstone Belt, South Africa

Z118  EGU2012-3228
J. Trela, E.C. Ferré, J. Deans, R. Anma, A. Morris, and Expedition 335 Scientific Party
Shape-preferred orientation (SPO) of oceanic gabbros at IODP Hole 1256D: Implications for magmatic
processes

Z119  EGU2012-12550
A. Rüggeberg, A. Foubert, A. Vertino, D. Van Rooij, S. Spezzaferri, J.-P. Henriet, W.-C. Dullo, and
COCARDE Science Community
COCARDE: new view on old mounds - an international network of carbonate mound research

Z120  EGU2012-9416
C. Gebhardt, L. Nauds, L. De Mol, and M. De Batist
Seismic investigation of Lake Issyk-Kul, Kyrgyzstan

Z121  EGU2012-7644
H. Lorenz and C. Juhlin
The Swedish Deep Drilling Program - projects and status 2012
Simple, Affordable and Sustainable Borehole Observatories for Complex Monitoring Objectives

J.-E. Rosberg and H. Lorenz
A new scientific drilling infrastructure in Sweden

M. Rothfuss, E. Anders, W. H. Müller, T. Rothenwänder, and D. Wunsch
New tools and applications for the retrieval of cores under in situ pressure

A. Arnaut, R. Fruhwirth, M. Winter, B. Esmael, and G. Thonhauser
Model-Based Hookload Monitoring and Prediction at Drilling Rigs using Neural Networks and Forward-Selection Algorithm

S Tavakoli, S. Poslad, R Fruhwirth, and M. Winter
Using Real-time Event Tracking Sensitivity Analysis to Overcome Sensor Measurement Uncertainties of Geo-Information Management in Drilling Disasters

B. Jandl, M. Winter, R. Fruhwirth, F. Riedel, and H. Zeiner
Rig Side Online Drilling Support System for Prediction and Prevention of Upcoming Crises

N. Slatcher, M. R. James, and G. Hunter
Optimising terrestrial LiDAR field deployment

I. Nichersu, I. Grigoras, A. Constantinescu, M. Mierla, and C. Tifanov
Processing and utilization of LiDAR data as a support for a good management of DDBR

S. Ghuffar, B. Székely, A. Roncat, A. Pocsai, and N. Pfeifer
An investigation of landslide deformation using range flow motion constraint applied on LiDAR data

C. Bews, I. Hartmeyer, M. Keuschnig, and L. Schrott
Semi-automatic discontinuity extraction from rock faces with LiDAR and Photogrammetry. A comparison validated by geotechnical data.

A. Vre?ko, G. Kovacs, T. Podobnikar, and B. Székely
The Effects of the Terrain Variation and Changed Parameters of the Moving Window on the LiDAR DEM Spectrum

P. Dorninger, Z. Koma, and B. Székely
The influence of control parameter estimation on large scale geomorphological interpretation of pointclouds

N. Kamp
Using High-Resolution Airborne LiDAR-Data for Landslide Mapping in the Eastern Alps

Y. S. Hayakawa
Morphological analysis of waterfall cliff face by terrestrial laser scanning

G. Gattolin, M. Franceschi, A. Breda, G. Teza, and N. Preto
Three dimensional modeling of depositional geometries. A case study from Tofane Group (Dolomites, Italy).

T. Knudsen and S. L. Kokkendorff
Updating a national scale LiDAR based height model
A. Mayr, M. Rutzinger, C. Bremer, C. Wiegand, K. Kringer, and C. Geitner
Analysis of shallow landslides by morphometry parameters derived from terrestrial laser scanning point clouds

Zs. Koma, A. Pocsi, B. Székely, P. Dorminger, A. Zámolyi, and A. Roncat
Analysis of multitemporal laserscanned DTMs of an active landslide (Doren, Western Austria) using a robust planefitting segmentation

M. Forbriger, B. Höfle, C. Siart, K. Schittek, and O. Bubenzer
High-resolution Terrestrial Laser Scanning (TLS) on cushion peatlands - a case study from the Peruvian Andes

TS4.4/G6.1/GD3.8/GM3.3 – TOPOEUROPE: Coupled deep earth - surface processes, and their role in shaping Europe's topography (co-organized) – Orals
Convener: S. Cloetingh | Co-Conveners: S. Willett
Room: 12
Chairperson: Cloetingh, S., Willett, S.D.

08:30–08:45 EGU2012-11342
S.D. Willett, M. Fox, P. Sternaï, B.C. Salcher, and F. Herman
Late Cenozoic Exhumation of the Alps

08:45–09:00 EGU2012-4441
F. Schlunegger and K.P. Norton
Headward retreat of streams in the Late Oligocene to Early Miocene Swiss Alps

09:00–09:15 EGU2012-400
G. Kovács and T. Telbisz
Pleistocene alteration of drainage network and diverse surface morphology forced by basement structure in the foreland of the Eastern Alps

09:15–09:30 EGU2012-8524
Z. Erdos, R.S. Huismans, and P. van der Beek
Evaluating balanced section restoration with thermochronological data in the Central Pyrenees

09:30–09:45 EGU2012-14391
C. Fillon, R. Huismans, and P. van der Beek
Numerical modeling of sedimentation controls on the growth of the fold-and-thrust belts

09:45–10:00 EGU2012-6004
K.M. Stange, R.T. van Balen, and J. Carcaillet
External controls on formation and preservation of fluvial terrace staircases in the Southern Pyrenees foreland

COFFEE BREAK

Chairperson: Willett, S.D., Cloetingh, S.

10:30–10:45 EGU2012-12616
L.C. Matenco
On the link between orogenic shortening and back-arc extensional collapse in low topography orogens

10:45–11:00 EGU2012-7991
M. Chertova, T. Geenen, A. P. van den Berg, and W. Spakman
3D subduction modelling of the Betic-Rif Alboran region.

11:00–11:15 EGU2012-14470
I. Midtkandal, R.H. Gabrielsen, J.-P. Brun, and R. Huismans
Along-strike complex geometry of subduction zones - an experimental approach

11:15–11:30 EGU2012-11786
D. Fernández-Blanco and G. Bertotti
Miocene to present kinematics in Cilicia Basin, the link between the Central Anatolia Plateau and the Kyrenia Range

11:30–11:45 EGU2012-4545
M Tesauro, M.K Kaban, and S.A.P.L Cloetingh
Strength and Elastic thickness of the lithosphere and implication on ductile crustal flow in Europe
Upper mantle and crustal structure of southwestern Scandinavia: Results of the TopoScandiaDeep project

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11:45–12:00  EGU2012-7736


A434  EGU2012-2441

T. Duretz, T. V. Gerya, B.J.P. Kaus, and T.B. Andersen

Thermomechanical modelling of slab eduction

A435  EGU2012-8247

S. Mohammadi, T. Geenen, A. P. van den Berg, and W. Spakman

Instantaneous mantle dynamics of the Western Mediterranean region

A436  EGU2012-1902

P.G. Valla, P.A. van der Beek, and J. Braun

Extracting denudation and relief histories from thermochronology data: rethinking sampling strategies?

A437  EGU2012-6315

C. von Hagke, O. Oncken, H. Ortner, and C. Cederbom

Post 12 Ma tectonic activity of the Subalpine Molasse resolved by combining thermochronology and critical wedge analysis

A438  EGU2012-14392

C. Fillon, C. Gautheron, and P. van der Beek

Quantifying the timing and extent of syn-orogenic sedimentation in the southern Pyrenean foreland using low-temperature thermochronology

A439  EGU2012-5293

J. Campanyà, J. Ledo, P. Queralt, A. Marcuello, M. Llesia, J.A. Muñoz, and A.G. Jones

Lithospheric-scale geoelectrical characterisation of a continental collision zone in Pyrenees: preliminary results.

A440  EGU2012-2645

S. Jammes and R.S. Huismans

Factors controlling the tectonic inversion of the Pyrenean mountain belt: from observations to modelling

A441  EGU2012-12632


Geoelectrical characterization of the lithosphere beneath the Cantabrian Mountains and Duero Basin

A442  EGU2012-11992

H. Seillé, A. Garcia, I. Romero, J. Pous, J. Guimerà, and R. Salas

Crustal structure of the Iberian Chain inferred from magnetotelluric data

A443  EGU2012-403

G. Kovács

Pleistocene alterations of drainage network between the Alps and the Pannonian Basin

A444  EGU2012-10455


Horizontal and Vertical Surface Displacements in the Upper Rhine Graben Derived from GNSS and Precise Levelling Data

A445  EGU2012-5357

E.M. Bartel, F. Neubauer, B. Heberer, and J. Genser

Structural similarities and differences north and south of the Periadriatic fault with examples of the Drau Range and Friauli

A446  EGU2012-5096

U. Stojadinovic, L. Matenco, P. Andriessen, M. Tolić, and J. Foeken

The balance between orogenic building and subsequent collapse during the Tertiary evolution of the NE Dinarides: Constraints from low-temperature thermochronology

A447  EGU2012-5060

C.I. Trifan, P.A.M. Andriessen, and L. Matenco

Detrital zircon fission track thermochronology in key stratigraphic formations of the Danube system, Romania: climatic or tectonic signals?
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<td>Thermotectonic evolution of the Apuseni mountains (Romania) based on structural and geothermochronological data</td>
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<td>Neogene exhumation of the Northern Carpathians revealed by low temperature thermochronology.</td>
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<td>A450</td>
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<td>J. Francu, J. Šafanda, V. Cermak, O. Krejci, and P. Andriessen</td>
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<td>Subsidence, erosion and thermal history of the West Carpathian Foredeep Basin, Czech Republic</td>
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<td>I. Munteanu, L. Matenco, C. Dinu, and S. Cloetingh</td>
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<td>Effects of large sea-level variations in connected basins: the Dacian - Black Sea system of the Eastern Paratethys</td>
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<td>J. Petrovszki, B. Székely, and G. Timár</td>
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<td>River Sinuosity Classification - Case study in the Pannonian Basin</td>
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<td>A453</td>
<td>EGU2012-9853</td>
<td>J. Minár, M. Ková?, M. Bielik, J. Hók, S. Králíková, A. Smetanová, M. Šabo, and R. Vojtko</td>
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<td>Neogene and Quaternary development of the Western Carpathian lithosphere: impact on georelief and geohazards</td>
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<td>A. Fioroiu, M Stoica, W. Krijgsman, and I. Vasiliev</td>
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<td>Maetian / Pontian Boundary from the East Carpathian Foredeep (Dacian Basin)</td>
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<td>D. Fernández-Blanco, G. Bertotti, and A. Çiner</td>
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<td>Miocene tectonic motions in the Central Anatolia Plateau interior: a seismo-structural study in the Tuz Gölü Basin</td>
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<td>E. Miccadei, T. Placentini, C. Berti, and F. Davero</td>
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<td>Long term landscape evolution within central Apennines (Italy): Marsica and Peligna region morphotectonics and surface processes</td>
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<td>Rift flank uplift and isostatic response to glacial erosion: Creation of a high-elevation continental margin.</td>
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<td>EGU2012-5573</td>
<td>K. Stüwe and S. Hergarten</td>
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<td>An approximate fluvial equilibrium topography for the Alps</td>
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<td>A459</td>
<td>EGU2012-7397</td>
<td>S. Hergarten and K. Stüwe</td>
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<td>A puzzle about the Scandinavian topography</td>
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<td>A460</td>
<td>EGU2012-1626</td>
<td>A. A. Beylich, K. Laute, and S. Liermann</td>
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<td>Holocene to contemporary source-to-sink fluxes in a valley-fjord system in western Norway: Erdalen and Bedalen site project (SedyMONT - IP Norway)</td>
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<td>Upper mantle P-wave velocity structure beneath southern Scandinavia</td>
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<td>Geophysical investigations of the East Greenland Caledonides using receiver functions, gravity and topography data</td>
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<td>A seismic tomographic study of lithospheric structure under the Norwegian Caledonides</td>
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<td>Cenozoic erosion and flexural isostasy of Scandinavia</td>
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<td>A465</td>
<td>EGU2012-1129</td>
<td>H. M. Küçük, D. Dondurur, and G. Çifçi</td>
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<td>GAS ACCUMULATIONS and WIDE-SPREAD BSRS OBSERVED on CENTRAL BLACK SEA*</td>
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<td>A466</td>
<td>EGU2012-1131</td>
<td>H. M. Küçük, D. Dondurur, and G. Çifçi</td>
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<td>SEDIMENTARY PROCESSES OBSERVED ON OFFSHORE of ZONGULDAK-KOZLU REGION, CENTRAL BLACK SEA*</td>
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</table>
TS9.5/G3.5/GD8.6/GM3.6/GMPV6.20/SM3.5 – Crustal faulting and deformation processes observed by InSAR, GPS and modelling techniques (co-organized) – Orals
Room: 11
Chairperson: Walter / Shirzaei

10:30–10:45 EGU2012-10002
E. Sansosti
The impact of new generation SAR sensors in ground deformation studies

10:45–11:00 EGU2012-13821
New trends in InSAR time series analysis for wide area deformation mapping

11:00–11:15 EGU2012-10784
E. Cetin, Z. Cakir, A.M. Akoglu, S. Ergintav, U. Dogan, H. Ozener, and M. Meghraoui
Persistent Scatterer InSAR time series analysis of the creeping section of the North Anatolian Fault at Ismelpasa

11:15–11:30 EGU2012-12569
K. Hodgkinson, D. Mencin, A. Borsa, O. Fox, C. Walls, and E. Van Boskirk
Recording Plate Boundary Deformation Processes Around The San Jacinto Fault, California

11:30–11:45 EGU2012-10391
G. Ducet, M. P. Doin, R. Grandin, A. Socquet, C. Vigny, M. Métois, and M. Béjar-Pizzaro
Measurement of interseismic strain accumulation in the Southern Andes (25°-35°S) using Envisat SAR data

11:45–12:00 EGU2012-3234
R. Barzaghi, A. Borghi, and A. Kunzle
Statistical inference in comparing DInSAR and GPS data in fault areas

LUNCH BREAK

Chairperson: Zucca / Lanari

13:30–13:45 EGU2012-7144
S. Jónsson
Probing Mechanical Properties of Rock with InSAR

13:45–14:00 EGU2012-3919
Frictional properties of a rapid creeping mega-thrust: a case study of the Chihshang Fault in eastern Taiwan

14:00–14:15 EGU2012-3125
R.A. Bennett, S. Ventkataramani, J.N. McElwaine, and J.M. Restrepo
Geodetic expressions of upper mantle dynamics?

14:15–14:30 EGU2012-10604
K.H. Spans, F. Sigmundsson, S. Hreinsdóttir, and B.G. Ófeigsson
High resolution surface deformation measurements in Iceland's Northern Volcanic Zone: Unraveling multiple deformation sources using InSAR and GPS

14:30–14:45 EGU2012-2331
P. J. González, K. F. Tiampo, M. Palano, F. Cannavò, and J. Fernández
Concurrent tectonic and aquifer-compaction deformation around Lorca (SE, Spain)

14:45–15:00 EGU2012-9635
S. Rieger, N. Adam, and A.M. Friedrich
Quantification of crustal deformation based on analysis of Persistent Scatterer Interferometry of W-Crete

Chairperson: Malservisi / Dixon

15:30–15:45 EGU2012-7409
S. Metzger, S. Jónsson, G. Danielsen, S. Hreinsdóttir, F. Jounanne, and T. Villemin
The accumulated seismic moment of the locked Húsvávik-Flatey fault, North Iceland, derived from an interseismic model using GPS time-series 1997-2010

15:45–16:00 EGU2012-4404
P. Teatini, A. Lovison, C. Janna, and A. Ferretti
Three-dimensional seasonal deformations induced by underground gas storage. Monitoring by PSI and modeling by FE
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<tr>
<th>Time</th>
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<th>Authors</th>
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<tr>
<td>16:00–16:15</td>
<td>Quantifying the success of onshore carbon capture and storage from</td>
<td>N. Gourmelen, A. Shepherd, D. Angus, Q. Fisher, D. Lesnic, and A. Gouldson</td>
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<td>surface deformation measurement and geo-mechanical modeling</td>
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<td>16:15–16:30</td>
<td>3D time dependent thermo-fluid dynamic model of ground deformation</td>
<td>R. Castaldo, P. Tizzani, A. Manconi, M. Manzo, S. Pepe, A. Pepe, and R. Lanari</td>
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<td>at Campi Flegrei caldera</td>
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<td>16:30–16:45</td>
<td>Water induced geohazards measured with spaceborne interferometry</td>
<td>V. Poncos, F. Serban, D. Teleaga, V. Ciocan, M. Sorin, D. Caranda, F. Zamfirescu, M. Andrei, S. Copaescu, M. Radu, and V. Raduca</td>
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<td>techniques</td>
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<td>16:45–17:00</td>
<td>Salt lake deformation detected from space</td>
<td>J. Ruch, J. Warren, F. Risacher, T.R. Walter, and R. Lanari</td>
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**TS9.5/G3.5/GD8.6/GM3.6/GMPV6.20/SM3.6 – Crustal faulting and deformation processes observed by InSAR, GPS and modelling techniques (co-organized) – Posters**

**Convener:** T. R. Walter | **Co-Conveners:** R. Malservisi, R. Lanari, T. Dixon, F. Zucca, M. Shirzaei

**Hall A | Display Time 08:00–19:30**

**Author in Attendance:** 17:30–19:00

**Chairperson:** T. R. Walter, M. Shirzaei, R. Malservisi, R. Lanari, T. Dixon, F. Zucca

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<th>Number</th>
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<tr>
<td>A501</td>
<td>Investigating ground deformation and subsidence in Northern Metro</td>
<td>R. Eco, A.M.F. Lagmay, and M.G. Bato</td>
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<td>Manila, Philippines using Persistent Scatterer Interferometric</td>
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<td>Synthetic Aperture Radar (PSInSAR)</td>
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<td>A502</td>
<td>Present-day Crustal Deformation along the Philippine Fault in Luzon</td>
<td>S.-B. Yu, Y.-J. Hsu, T. Bacolcol, C.-C. Yang, Y.-C. Tsai, and R. Solidum</td>
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<td>Philippines</td>
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<td>A503</td>
<td>Use of Deformation Based Reservoir Monitoring for Early Warning</td>
<td>E. Davis and S. Marsic</td>
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<td>Leak Detection</td>
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<td>A504</td>
<td>Observing crustal deformation and atmospheric signals from COSMO-SKY</td>
<td>S. Zerbin, C. Prati, G. Cappello, M. Errico, and F. Novali</td>
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<td>MED and GPS data</td>
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<td>deformation imaged by DInSAR data, and source modeling</td>
<td>S. Salvi</td>
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<td>A506</td>
<td>3-D FEM derived elastic Green's functions for the coseismic</td>
<td>Y.-J. Hsu, M. Simons, C.A. Williams, and E. Casarotti</td>
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<td>deformation of the 2005 Mw 8.7 Nias-Simeulue, Sumatra</td>
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<td>A507</td>
<td>Differential GPS measurements as a tool to quantify Late Cenozoic</td>
<td>M. Rupprecht, A. Roepert, and G Hoffmann</td>
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<td>crustal deformation (Oman, Arabian Peninsula)</td>
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<td>A508</td>
<td>Interferometric SAR time series analysis for measuring the surface</td>
<td>Y.-A. Chen, C.-P. Chang, and J.-Y. Yen</td>
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<td>deformation caused by the 1999 Chi-Chi earthquake in Taiwan</td>
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<td>A509</td>
<td>Spatial and temporal variations of surface deformation along the</td>
<td>J.-Y. Wen, C.-P. Chang, and Y.-I. Wen</td>
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<td>Longitudinal Valley, eastern Taiwan, observed by Persistent SAR</td>
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<td>Interferometry using ERS, Envisat, and ALOS archives</td>
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<td>A510</td>
<td>The crustal viscosity gradient measured from post-seismic deformation:</td>
<td>T. Yamasaki and G.A. Houseman</td>
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<td>a case study of the 1997 Manyi (Tibet) earthquake</td>
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<td>A511</td>
<td>Strain accumulation across the Aksay segment of Altyn Tagh fault:</td>
<td>W.-J. Huang and K. M. Johnson</td>
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<td>Investigation of the influence of laterally varying</td>
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<td>lithospheric properties and a low-viscosity channel</td>
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A512  EGU2012-5914  
D.U. Sanli, K. Coban, V. Akarsu, and E. Arslan  
Effect of Span of GPS Campaigns on Estimated Static Positioning Velocities

A513  EGU2012-5940  
Tectonic control on the Mw 8.8 2010 Maule Chile earthquake

A514  EGU2012-8444  
C. Völksen and M. Hackl  
Crustal Deformation and Seismicity in Southern Bavaria revealed by GNSS observations

A515  EGU2012-10099  
P. Kourkouli, T. Strozzi, and U. Wegmüller  
Ground-motion monitoring in the Venice Lagoon using combined DInSAR and Persistent Scatterer Interferometry

A516  EGU2012-11035  
R. Barzaghi, A. M. Marotta, R. Splendore, and A. Borghi  
A new procedure to build a model covariance matrix: first results

A517  EGU2012-11308  
C. Bignami, M. Chini, C. Kyriakopoulos, and S. Stramondo  
Seismic swarm detection by satellite DInSAR technique in the south-west Peloponnese, Greece

A518  EGU2012-11474  
A. Schenk and M. Westerhaus  
Upgrading InSAR observations by combination with leveling data to understand small scale deformation processes

A519  EGU2012-13947  
J. Ha, K.-D. Park, J. Won, and M.-B. Heo  
GPS-based Analysis of the Crustal Deformation of the Korean Peninsula due to the Tohoku-Oki Earthquake

A520  EGU2012-12973  
M. Mantovani and H.-G. Scherneck  
Observation of Crustal Deformation around the Pårvie Postglacial Fault, Lapland, Sweden, using InSAR techniques

A521  EGU2012-12176  
A. Gualandi, E. Serpelloni, L. Anderlini, and M.E. Belardinelli  
Space-time evolution of postseismic afterslip following the Mw 6.3, 2009 L’Aquila earthquake (central Italy) from principal component analysis inversion of GPS position time-series.

A522  EGU2012-11428  
C. Bignami, C. A. Brunori, M. Chini, C. Kyriakopoulos, D. Melini, M. Moro, M. Picchiani, M. Saroli, and S. Stramondo  
DInSAR techniques for studying the October 23, 2011, Van earthquake (Turkey), and its relationship with neighboring structures

A523  EGU2012-10733  
K. Wiencke, T. R. Walter, M. Manzo, A. Manconi, G. Solaro, and R. Lanari  
InSAR time series monitoring at Istanbul city shows faulting, landslides and soil compaction

A524  EGU2012-12631  
S. H. Jaramillo, G. Suárez, and P. López-Quiroz  
Subsidence history of the city of Morelia, Mexico based on InSAR images processed as time series

A525  EGU2012-1591  
A. Caporali, F. Neubauer, G. Stangl, and D. Zuliani  
Modeling surface velocities in the Southern and Eastern Alps by finite dislocations at crustal depths

A526  EGU2012-4642  
C.-C. Kang, C.-C. Chang, L.L Siame, and J.-C. Lee  
Recent surface deformation and its geodynamic insights for the Ilan Plain: an extensional basin in northern Taiwan orogenic belt

A527  EGU2012-5130  
Y.-C. Chan, K.-J. Chang, R.-J. Chen, J.-C. Lee, Y.-C. Hsieh, and K.-S. Chen  
Evidence for Active Normal Faulting in Northern Taiwan and its Seismogenic Implications

A528  EGU2012-6802  
G. Lin, W-L Chang, C-Y Chiu, and C-P Chang  
Transition of Ground Uplift and Kinematic Model in Southwestern Taiwan from PSI and GPS Observations

A529  EGU2012-9846  
Z. Mousavi, E. Pathier, A. Walpersdorf, C. Lassere, F. Tavakli, and H. Nankali  
InSAR Time Series Analysis of Interseismic Deformation in Eastern Iran

A530  EGU2012-11011  
Z. Çakir, S. Ergintav, H. Ozener, U. Dogan, A.M. Akoglu, M. Meghraoui, and R. Reilinger  
Fault weakening and onset of aseismic creep on mature strike-slip faults
EGU General Assembly 2012

Realistic Noise Assessment and Strain Analysis of Iranian Permanent GPS Stations

**GM5.1 – Aeolian Processes and Landforms – Orals**

Convener: J.M. Nield | Co-Conveners: J. King

**Room: 21**

Chairperson: J.M. Nield and J. King

15:30–15:45 EGU2012-796
Z. S. Lee and A.C.W Baas
Investigating boundary layer turbulence for aeolian sand transport

15:45–16:00 EGU2012-12842
An integrated coastal model for aeolian and hydrodynamic sediment transport

16:00–16:15 EGU2012-177
J. Roskin, H. Tsoar, N. Porat, and D.G. Blumberg
Palaeoclimatic interpretations of Late Pleistocene vegetated linear dune mobilization episodes: evidence from the northwestern Negev dunefield, Israel

16:15–16:30 EGU2012-6165
T. Barchyn and C. Hugenholz
Predicting vegetation-stabilized dune morphology

16:30–16:45 EGU2012-2814
M. Dluzewski
Baranch dunes morphology dynamics under different environmental conditions

16:45–17:00 EGU2012-876
I. Ashpole and R. Washington
Interannual variability in dust emissions from the western Sahara: links to the West African Monsoon.

**GM5.1 – Aeolian Processes and Landforms – Posters**

Convener: J.M. Nield | Co-Conveners: J. King

**Hall XL | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: J. King and J.M. Nield

**XL232** EGU2012-3134
Sand Transport under Highly Turbulent Airflow on a Beach Surface

**XL233** EGU2012-6201
C. Hugenholz, C. McKenna Neuman, B. Li, T. Barchyn, and S. Sanderson
What drives intermittent aeolian saltation at high-frequency?

**XL234** EGU2012-214
S. de Vries, S.M. Arens, M.J.F. Stive, and R. Ranasinghe
A new modelling concept for aeolian sediment transport on beaches

**XL235** EGU2012-762
L.H. Vircavs, J.M. Nield, J. Leyland, and S.E. Darby
A Comparison of Aerodynamic Roughness and Surface Roughness Measurements Derived from Terrestrial Laser Scanning Over Ice and Sandbar Surfaces

**XL236** EGU2012-8317
J.M. Nield, J.A. Gillies, and W.G. Nickling
Quantifying roughness density of vegetation and nebkha dunes in the Chihuahuan Desert, New Mexico, USA using terrestrial laser scanning

**XL237** EGU2012-5431
P. Vermeesch
A 45-year time series of Saharan dune mobility from remote sensing

**XL238** EGU2012-13165
B. Liu, T.J. Coutthard, and S.J. McLelland
Interaction between sand dunes and rivers, and the impact on geomorphology

**XL239** EGU2012-3546
D. Zhang, C. Narteau, O. Rozier, and S. Courrech du Pont
Morphodynamics of star dunes
XL240  EGU2012-2600
K. Biejat
Possibility of star (pyramid) dune development in the area of bimodal wind regime

XL241  EGU2012-389
N. Bhatt
100 Kyr Old Desert of Western India: Morphodynamics and Environmental Significance

XL242  EGU2012-3969
Y. Ohno, M. Kasai, and T. Marutani
Dune development and migration to damage long established vegetation colonies in the lahar deposition zone of Ruapehu Volcano, New Zealand

XL243  EGU2012-12424
E. Miccadei, T. Piacentini, F. Mascioli, F. Daverio, and R. Di Michele
Geomorphological features of coastal dunes along the central Adriatic coast (Abruzzo, Italy)

XL244  EGU2012-9142
S. Costas, S. Jerez, R. Trigo, R. Goble, and L. Rebolo
Pulses of aeolian activity and westerly winds intensification in the Portuguese coast during cooling climate events

XL245  EGU2012-8326
M. Brook, M. Shepherd, R. Tinkler, and J. Williams
Ground-penetrating radar (GPR) stratigraphy of late-Pleistocene relict foredunes on a coastal barrier: Matakana Island, New Zealand

XL246  EGU2012-176
J. Roskin, O. Rozenstein, H. Tsoar, D. G. Blumberg, and N. Porat
Sand rubification with time? The case of the Sinai - Negev erg

XL247  EGU2012-9779
J. King, G.F.S. Wiggs, F.D. Eckardt, D.S.G. Thomas, R.G. Bryant, and R. Washington
DO4 Models: A new generation of model dust emission schemes based on source area process data

XL248  EGU2012-278
Strategies for Measuring Wind Erosion for Regional Scale Modeling

XL249  EGU2012-6586
S. W?owska and B. Woronko
Potential source regions of dust accumulated in northern Africa

NH3.3/GM6.3 – Rockfalls, rockslides and rock avalanches (co-organized) – Orals
Conveners: JR Moore, Krautblatter | Co-Conveners: A. Volkwein, F. Agliardi, G. Crosta, LKA Dorren
Room: 4
Chairperson: Krautblatter, Moore

08:30–08:45  EGU2012-1567
K. Thoeni, A. Giacomini, C. Lambert, and S.W. Sloan
Numerical and experimental investigation of a rockfall drapery system

08:45–09:00  EGU2012-11022
J. Glover, A. Schweizer, M. Christen, W. Gerber, R. Leine, and P. Bartelt
Numerical investigation of the influence of rock shape on rockfall trajectory

09:00–09:15  EGU2012-12728
A. Volkwein, J. Glover, F. Bourrier, and W. Gerber
A quality assessment of 3D video analysis for full scale rockfall experiments

09:15–09:30  EGU2012-9304
F. X. Yugsi Molina, T. Oppikofer, L. Fischer, R. L. Hermanns, and A. Taurisano
Rockfall hazard assessment integrating probabilistic physically based rockfall source detection (Norddal municipality, Norway).

09:30–09:45  EGU2012-295
L.M. Vick, T.R. Davies, M Villeneuve, and C Massey
Two- and Three-dimensional coseismic rockfall modelling, Christchurch, New Zealand

09:45–10:00  EGU2012-12053
G.M. Stock, B.D. Collins, S.J. Martel, and R.J. Sas
Factors promoting rock falls along sheeting joints

COFFEE BREAK

Chairperson: Moore, Krautblatter
10:30–10:45  EGU2012-6037
A. Abellán, D. Carrea, A. Loye, M. Tonini, M. Jaboyedoff, M. Royan, and A. Pedrazzini
Understanding precursory rockfalls along cracks

10:45–11:00  EGU2012-10659
U. Schwaderer, M. Walter, and M. Joswig
Seismic precursory signals from a rockfall at Rappenlochschlucht, Vorarlberg, Austria

11:00–11:15  EGU2012-12460
M. Bundschuh and K. Thuro
Mechanisms of rock slope failure in conglomerates with variable lithification

11:15–11:30  EGU2012-13223
B.D. Collins and G.M. Stock
Exfoliation-type rock fall triggering from thermally-induced cyclic deformation

11:30–11:45  EGU2012-1413
D. Bakun-Mazor and Y.H. Hatzor
Rockslides in Masada: thermally induced “ratchet” mechanism vs. response to seismic loading

11:45–12:00  EGU2012-12479
Constructing a time series for large landslides in Trentino (Italy) with 36Cl exposure dating

XY203  EGU2012-1108
M. Spadari, A. Giacomini, O. Buzzi, and J. Hambleton
Application of dimensional analysis to predict the performance of rockfall barrier

XY204  EGU2012-5514
A.J.A.M. Temme
Assessing the value of information in climber’s guidebooks to derive spatio-temporal rockfall patterns

XY205  EGU2012-11251
X. Wang, P. Frattini, F. Agliardi, and G.B. Crosta
The influence of slope profile extraction techniques and DEM resolution on 2D rockfall simulation

XY206  EGU2012-10891
B. Sellmeier and K. Thuro
Possibilities and limitations of 2D and 3D rockfall simulations - which kinds of uncertainties do we have to consider?

XY207  EGU2012-12239
F Humair, B Matasci, D Carrea, A Pedrazzini, A Loye, G Pedrozzi, P Nicolet, and M Jaboyedoff
MONTE GENEROSO ROCKFALL FIELD TEST (SWITZERLAND): Real size experiment to constraint 2D and 3D rockfall simulations

XY208  EGU2012-3878
S. Melzner, G.M. Stock, and P. Reichenbach
Back-analysis of rockfall events using 3D trajectory simulation models

XY209  EGU2012-8388
R. Pellicani, G. Spilotro, G. Colangelo, A. Petraglia, and V. Pizzo
Rockfall risk assessment for a road along the coastal rocky slope of Maratea (Basilicata Region, Italy)

XY210  EGU2012-11412
P. Frattini, S. Lari, F. Agliardi, G.B. Crosta, and H. Salzmann
Probabilistic Rockfall Hazard Analysis in the area affect by the Christchurch Earthquakes, New Zealand

XY211  EGU2012-13875
A. Schober, C. Bannwart, and M. Keuschng
Rockfall modelling in high alpine terrain - Validation and limits, Kitzsteinhorn, Hohe Tauern, Austria.

XY212  EGU2012-12348
T. Piacentini, E. Miccadei, G. Boscaino, L. Del Sordo, R. Di Michele, F. Leonardi, and G. Pipponzi
Rock falls landslides in Abruzzo (Central Italy) after recent earthquakes: morphostructural control

XY213  EGU2012-10875
J.M. Reitner, R. Schuster, and A. Geyer
From Rock to Silt: The Auernig Sturzstrom (Eastern Alps/Carinthia/Austria)

XY214  EGU2012-3526
M. Farin, A. Mangeney, O. Roche, I.R. Ionescu, and O. Hungr
Landslide boost from entrainment of erodible material along the slope
Granular flows on erodible layers: type and evolution of flow and deposit structures

Emplacement of rock avalanche material across saturated sediments, Southern Alp, New Zealand

The Oeschinensee rock avalanche: reconstruction and dating of a prehistoric event

Prehistoric rock avalanches at Rinderhorn, Switzerland

The 1946 Rawihorn rock avalanche (Valais, Switzerland) - linking earthquake-induced rock mass damage to seismic amplification

An early Holocene rock avalanche at Obernberg (Brenner Pass Area, Tyrol)

Analogue modelling of rock avalanches and structural analysis of the deposits

Topography-based modeling of large rock avalanches and application to hazard assessment

Large rockslides and slope deformations in active tectonic areas of Adriatic central Italy

Study of the dynamic response of prone-to-fall spurs using seismic noise

LiDAR monitoring of retrogressive processes on the steep rockslope of a large landslide in the Japanese Alps

Rock face stability analysis and potential rockfall source detection in Yosemite Valley

Structural analysis and stability assessment of the West face of the Drus (3733m, Mont Blanc massif)

Reconstruction of the Magnetkoepfl rockfall event - Detecting rock fall release zones using terrestrial laser scanning, Hohe Tauern, Austria

Hillslope erosion and landslide dynamics in the central Himalayas

On the contemporary morphodynamics of an alpine talus cone and the granulometry and morphometry of its surface particles

Effects of tectonism on glacial and paraglacial processes - a New Zealand case study

Lithological and fluvial influences on clast shape measurements in a temperate alpine environment: a case study from Fox Glacier, New Zealand
09:15–09:30  EGU2012-10661  
**C. Godon**, J-F. Buoncristiani, and J-L. Mugnier  
Detrital flux in glacial and peri-glacial domain: the example of the Bossons glacier (Haute Savoie, Mont-Blanc Massif)

09:30–09:45  EGU2012-9900  
**K.S. Lilleøren**, I. Gärtner-Roer, and B. Etzelmüller  
A new assessment of distribution and activity of permafrost landforms in the Tröllaskagi peninsula, northern Iceland

09:45–10:00  EGU2012-9573  
**A. Kellerer-Pirklbauer** and V. Kaufmann  
On the relationship between surface flow velocity and climatic conditions at three rock glaciers in central Austria

**COFFEE BREAK**

Chairperson: Sven Lukas

10:30–11:00  EGU2012-4699  
**M. Krabbendam**  
Bedrock properties and glacial processes and landforms - some principles and examples

11:00–11:15  EGU2012-173  
**C. Lloyd**, C. Clark, and D. Swift  
Controls on the location and geometry of glacial overdeepening

11:15–11:30  EGU2012-446  
**A.J. Geiger**, D. Fabel, and N.F. Glasser  
Thickness constraints of the Patagonian Ice Sheet over the last glacial cycle using surface exposure dating

11:30–11:45  EGU2012-11541  
**T. Hoffmann** and E.A. Johnson  
Interglacial geomorphic dynamics during the Quaternary: Does glacial erosion dominates interglacial adjustment?

11:45–12:00  EGU2012-13086  
**S.-E. Lauritzen**  
Dissolution of calcite in glacial water; evidence of inhibition and consequences for subglacial speleogenensis.

**GM9.1/CR1.70 – Cold Region Geomorphology (co-organized) – Posters**

**Convener:** M. Spagnolo | **Co-Conveners:** I. Gärtner-Roer, S. Lukas

**Hall XL | Display Time 08:00–19:30**

**Author in Attendance:** 17:30–19:00

Chairperson: Isabel Roer

**XL250**  EGU2012-14345  
**MS Spagnolo**, IG-R Gärtner-Roer, and SL Lukas  
Linking glacial, periglacial and paraglacial processes: the challenge of cold regions geomorphology

**XL251**  EGU2012-712  
**I. Szuman**, M. Ewertowski, L. Kasprzak, and J.A. Piotrowski  
Ice sheet - permafrost interactions inferred from the sedimentary record of Weichselian glaciation in Poland

**XL252**  EGU2012-1751  
**A. Amantov** and M. Amantova  
Giant glacial cirques of non-mountainous terrains

**XL253**  EGU2012-11577  
**D. Pearce**, B. Rea, and D McDougall  
Lateglacial geomorphology in the Tweedsmuir Hills, Scotland - Implications for retreat patterns, glacier reconstruction and chronology.

**XL254**  EGU2012-3901  
**X. Wang**, **Y. Martin**, D. Sjogren, and E. Johnson  
Analysis of Glacial Valley Morphology and Erosion Using DEM Data: Kananaskis, Canadian Rockies, Canada

**XL255**  EGU2012-14273  
**S. Lukas**  
Processes of annual moraine formation at a temperate alpine valley glacier: glacier dynamics and climatic controls
XL256  EGU2012-4630
M. Krabbendam, T. Bradwell, and J. Everest
Deep crescentic features caused by subglacial boulder point pressure on jointed rock; an example from Virkisjökull, SE Iceland

XL257  EGU2012-5278
H. Häusler, A. Kopecny, and D. Leber
Are the stair case terraces in the Inylchek Valley (Central Tien Shan, Kyrgyzstan) of neotectonic or sedimentary origin?

XL258  EGU2012-5327
H. Häusler, D. Leber, and A. Kopecny
Is Upper Lake Merzbacher (Central Tien Shan, Kyrgyzstan) the result of a fluctuating glacier?

XL259  EGU2012-12333
Coupling alpine lake sediments with slope deposits using a combined geophysical and sedimentological approach, Leirvatnet, Jotunheimen, southern Norway

XL260  EGU2012-6805
J. Lea, D. Mair, B. Rea, F. Nick, and E. Schofield
Constraining millennial scale dynamics of a Greenland tidewater glacier for the verification of a calving criterion based numerical model

XL261  EGU2012-14272
H. Lovell, E. Fleming, D.I. Benn, and S. Lukas
Debris-rich structures within a High-Arctic tidewater surging glacier: Tunabreen, Svalbard

XL262  EGU2012-9833
M. Margold, K.N. Jansson, J. Kleman, and A.P. Stroeven
Late-glacial ice dynamics of the northeastern sector of the Cordilleran Ice Sheet reconstructed from the glacial landform record

XL263  EGU2012-14270
C.M. Boston and S. Lukas
A Lateglacial plateau icefield in the Monadhliath Mountains, Scotland: reconstruction and palaeoclimatic implications

XL264  EGU2012-1811
K. Laute and A.A. Beylich
Postglacial trends of hillslope development in two glacially formed mountain valleys in western Norway

XL265  EGU2012-6803
Frost weathering; Climate control of regolith production and critical zone evolution

XL266  EGU2012-11661
R. Scotti, F. Brardinoni, S. Alberti, P. Frattini, and G.B. Crosta
A new rock glacier inventory of the Lombardy, Central Alps, Italy

XL267  EGU2012-213
R. Perrier, E. Cossart, C. Virmoux, M. Fort, M. Chenet, and J.F. Cuenot
Evolution of cryo-conditioned landforms since the Little Ice Age and implications on permafrost degradation: a case study from the Lac Rouge rockglacier (Clarée Valley, Southern French Alps)

XL268  EGU2012-9674
S. Monnier and C. Kinnard
From 'true' glaciers to rock glaciers? The case of the LLanos La Liebre rock glacier, dry Andes of Chile.

XL269  EGU2012-12173
E. Bollmann, J. Abermann, K. Krainer, R. Sailer, M. Spross, and J. Stötter
Influence of topographic and climatological characteristics on rock glacier creep rates in the Western Austrian Alps

XL270  EGU2012-10818
J. Saraiva, M. Lousada, P. Pina, L. Bandeira, and G. Vieira
Geometric and Topologic Characterization of Periglacial Polygonal Networks in Adventdalen, Svalbard, Norway

XL271  EGU2012-10655
M. Lousada, M. Jorge, J. Saraiva, P. Pina, and G. Vieira
Micro-relief and geometry of ice-wedge polygons in Adventdalen (Svalbard, Norway)

XL272  EGU2012-9903
C. Klug, R. Sailer, M. Schümberg, and J. Stötter
Airborne laser scanning based quantification of dead-ice melting in recently deglaciated terrain

XL273  EGU2012-10682
D.C. Tanner, J. Igel, T. Günther, C. Brandes, and C.M. Krawczyk
The Quaternary paleotopography in County Kerry, Ireland: Investigation using detailed 3D electrical resistivity tomography and ground-penetrating radar
XL274  EGU2012-10025
N. Micheletti, S.N. Lane, and C. Lambiel
Geomorphic modulation of climate impacts on soil-sediment temperature distributions in Alpine mountain basins

XL275  EGU2012-13586
B. Schreiner
Quantitative analysis of rock slopes in the Turtmanntal (Central Swiss Alps) using HRSC data

GM9.2 – Glacial landforms and palaeoclimatic interpretation – Orals
Convener: S. Winkler | Co-Conveners: T. Davies, M.P. Kirkbride, L. Iturrizaga
Room: 21
Chairperson: Stefan Winkler

13:30–13:45  EGU2012-5435
S. Lukas, A. Graf, S. Coray, and C. Schlüchter
Genesis, stability and preservation potential of large lateral moraines of Alpine valley glaciers - towards a unifying theory

13:45–14:00  EGU2012-3745
N. Andrés and D. Palacios
Interpretation of the past glacial landforms from the present processes: the hypothesis of the secondary moraine

14:00–14:15  EGU2012-910
L. Kasprzak, M. Ewertowski, I. Szuman, and A.M. Tomczyk
Depositional efficiency of the weichselian ice sheet. Central-West Poland.

14:15–14:30  EGU2012-10154
B. Mächtle, A.S. Hein, T. Dunai, and B. Eitel
Geomorphological evidence of warm-humid and cold-dry glaciations in the dry western Cordillera of the tropical Peruvian Andes

14:30–14:45  EGU2012-6256
D. McDougall
Glaciation Style, Paraglacial Reworking and the Geomorphological Record: The Challenges of Reconstructing Younger Dryas Glaciers

14:45–15:00  EGU2012-6316
G. Roe
The Natural Variability of Glaciers

GM9.2 – Glacial landforms and palaeoclimatic interpretation – Posters
Convener: S. Winkler | Co-Conveners: T. Davies, M.P. Kirkbride, L. Iturrizaga
Hall XL | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Stefan Winkler

XL276  EGU2012-12364
P. Fu, J. Harbor, A.P. Stroeven, C. Hättestrand, M.W. Caffee, J. Heyman, and L.P. Zhou
Paleo-glaciations of the Shaluli Shan, southeastern Tibetan Plateau

XL277  EGU2012-5911
D.H. Roberts, B. Rea, T. Lane, C. Schnabel, and A. Rodes
The Uummannaq Ice Stream System, West Greenland

XL278  EGU2012-2459
E. Ravier, J.F. Buoncristiani, S. Clerc, M. Guiraud, and E. Portier
Sedimentological and deformational evidence for a terrestrial deglaciation: Ballyhorsey, eastern Ireland

XL279  EGU2012-2966
Reconstruction of an extensive Younger Dryas glacial stadial in Canton Valais, Switzerland

XL280  EGU2012-3573
Preservation of glacial landforms in the high mountains of Taiwan: Insights from in situ cosmogenic 10Be

XL281  EGU2012-6570
E. Šinknas and P. Šinknas
Sedimentary structures from different proglacial glaciofluvial settings in Lithuania

XL282  EGU2012-8762
P. Šinknas, B. Karmaz, D. Karmazien?, V. Kazakauskas, and R. Waller
Architecture and sedimentation pattern of Skeidarárjökull end moraine at Gigjukvisl gap, Iceland
Study diluvium: general provisions.

J. Alcalá, D. Palacios, and L. Vázquez-Selém

36Cl Exposures Ages and Equilibrium Line Altitude (ELA) of the Ampato Volcanic Complex (Southern Peru).

J. Úbeda, D. Palacios, and L. Vázquez-Selém

Glacial and volcanic evolution on Nevado Coropuna (Tropical Andes) based on cosmogenic 36Cl surface exposure dating

L. García-Sancho, D. Palacios, J.J. Zamorano, A. Green, M. Vivas, and A. Pintado

Recent Deglaciation of Darwin Mountains (Tierra de Fuego) after Little Ice Age: monitoring by photogrammetry, lichenometry, dendrochronology and field studies.

J. Úbeda, C. Giráldez, and D. Palacios

Equilibrium Line Altitudes and paleotemperature reconstructions from Nevado Hualcán (9ºS) and Nevado Coropuna (15ºS), Tropical Andes (Peru).

D. Palacios, N. Andrés, G. Vieira, J. Marcos, and L. Vázquez-Selem

Last Glacial Maximum and deglaciation of the Iberian Central System.

A. Gómez-Ortiz, D. Palacios, B. Palade, L. Vázquez-Selem, F. Salvador-Franch, and L.M. Tanarro

The deglaciation of the Sierra Nevada (southern Spain) and derived landforms

D. Palacios, L. García-Sancho, J.J. Zamorano, N. Andrés, and A. Pintado

The deglaciation of Iztaccihuatl volcano (Mexico) from the Little Ice Age maximum to the present, determined by photogrammetry and lichenometry

A. Perret, E. Reynard, and J.-J. Delannoy

Glacial history of a mid-altitude mountain massif: cartography and dating in the Chablais area (France, Switzerland)

M. Bichler, M. Reindl, H. Häusler, and J. M. Reitner

Chronology of glacial and periglacial deposits in front of the 1850 moraine of the Goldberg-Glacier, Sonnblick area (Salzburg/Austria)

R.A. Shakesby and J.A. Matthews

Pronival ramparts, moraines, rockglaciers or slope failures? Distinctions and palaeoclimatic pitfalls of misidentification.

M. Brook, D. Quincey, and S. Winkler

Moraine formation during an advance/retreat cycle at a temperate alpine glacier

N. Reznichenko, T.R.H. Davies, J. Shulmeister, and S. Winkler

The rock avalanche sediment in moraines and its implication for palaeoclimate reconstruction

L. Iturrizaga

Glacial landform assemblages in the catchment area of the upper Quitarasca valley (Cordillera Blanca, Perú)

I. W. Wolff and N. F. Glasser

The Reconstruction and Climatic Implication of an Independent Palaeo Ice Cap in the Vicinity of the Lago Buenos Aires/Lago Pueyrredón Palaeo Ice Streams, Patagonia.

HS5.9 – Hydrological, ecological, geomorphic and economic implications of Mountain Resort Development (co-listed) – Orals
Convener: C. de Jong | Co-Conveners: B. Wemple
Room: 39
Chairperson: C. de Jong, B. Wemple
**EGU General Assembly 2012**

**10:30–10:45**

B. McGlynn, K. Gardner, and L. Marshall

Quantifying watershed sensitivity to spatially variable N loading from mountain resort development

**10:45–11:00**

S. Gaucherand and I. Mauz

Winter Tourism and mountain wetland management and restoration

**11:00–11:15**

G. David

Effects of mountain resort development on stream geomorphic function in the White River National Forest, Colorado, USA

**11:15–11:30**

R. Ristic, B. Radic, N. Vasiljevic, Z. Nikic, and I. Malusevic

Erosion Processes, Sediment Transport and Hydrological Responses Due to Land Use Changes in Serbian Ski Resorts

**11:30–11:45**

A. L. Shnyparkov, Y. G. Seliverstov, S. A. Sokratov, and K. P. Koltermann

Change in snow avalanche and debris flow hazards in the region of Krasnaya Polyana as the result of anthropogenic activity

**11:45–12:00**

C. Gonseth

The economic aspects of artificial snow production in the perspective of climate change

**Programme Group Programme GM**

**A306**

P. Allamano, P. Claps, and D. Poggi

Reproducing snow making strategies with deterministic modeling and image-based validation

**A307**

M. Bonriposi and E. Reynard

Water use demand in the Crans-Montana-Sierre region (Switzerland)

**A308**

E. Magnier and E. Reynard

Artificial snowmaking and potential water conflicts in mountain resorts. The case of Avoriaz (Haute-Savoie, France)

**A309**

M. Breiling and S. Sokratov

Water demand for ski resort development in the Austrian Alps: an Overview

**A310**

T. Covino, B. McGlynn, R. McNamarra, and K. Gardner

In-stream nutrient uptake kinetics along stream size and development gradients in a rapidly developing mountain resort watershed

**A311**

J. Shanley and B. Wemple

Effects of mountain resort development - a case study in Vermont USA

**A312**

A. del Peral and B. Wemple

Evaluating the effects of mountain resort development on snowmelt and runoff production: a case study from northern New England, USA

**A313**


Multi-level landscape degradation due to tourist-oriented land use changes in Serbian mountainous regions

**A314**

I. Blinova and A. Bredikhin

Assessment of geomorphic risks and attractiveness to recreational systems: a case of Nalychevo Nature Park (Kamchatka, Russia).

**A315**

C. de Jong

Natural hazards in the Alps triggered by ski slope engineering and artificial snow production
A316  EGU2012-14186  
H.P. Rauch, S. Schuler, and M. Oberhammmer  
Monitoring of performance of greening techniques on skiing runs at the skiing region of Montafon/Vorarlberg

A317  EGU2012-14424  
R Imhof  
Tourism and Water: Themes of the Alpine Convention

A318  EGU2012-2694  
S. Piccione, E. Comino, M. Rosso, and I. Chouquet  
Hydrological, geomorphological and ecological river characterization: PELLIDRAC (Alcotra Project)

HS9.3/SSS5.23 – Effects of forest cover loss and land use change on erosion, sediment dynamics and ecosystem health (co-listed) – 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. Regués  
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  
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-listed) – 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. Garcia-Rodriguez  
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
<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
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</thead>
<tbody>
<tr>
<td>A381</td>
<td>Sediment source fingerprinting to quantify fine sediment sources in forested catchments, Chile.</td>
<td>P. Schuller, D.E Walling, A. Iroume, A. Castillo, and C. Quilodran</td>
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<tr>
<td>A382</td>
<td>Role of land use change in landslide-related sediment fluxes in tropical mountain regions</td>
<td>M. Guns, V. Vanacker, and A. Demoulin</td>
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<td>A383</td>
<td>The influence of historical forestry practices and climate forcing on the sediment retention function of wetlands and their ability to protect downstream aquatic ecosystems</td>
<td>K.A. Caley and P.N. Owens</td>
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<tr>
<td>A384</td>
<td>Suitability of field portable XRF for the study of contaminated peat soils</td>
<td>E. L. Shuttleworth, M. G. Evans, J. J. Rothwell, and S. M. Hutchinson</td>
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<tr>
<td>A385</td>
<td>Interrill Erodibility of P and C on conventionally and organically farmed Devon soils</td>
<td>N. J. Kuhn</td>
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<td>A386</td>
<td>Monitoring wildfire impacts on surface water-groundwater interactions in a Coho salmonid stream habitat</td>
<td>T. Russo and A. Fisher</td>
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<td>A387</td>
<td>Urban river restoration: implications on channel sedimentation patterns and associated ecosystem and human health</td>
<td>H. Gibbs, A. Gurnell, K. Heppell, and K. Spencer</td>
</tr>
</tbody>
</table>

**SSS5.4 – Assessment and modeling of concentrated flow erosion (co-listed) – 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


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 (co-listed) – 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
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. Vanwalleghem, 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

XY549  EGU2012-14252
Y. Chahor, J. Casali, and R. Giménez
Testing AnnAGNPS model in predicting ephemeral gully erosion in Navarre (Spain)

SSS5.8 – Models and scaling: Assessing impact of climate change and land management on erosion and sediment dynamics (co-listed) – Orals
Room: 22
Chairperson: Saskia Keesstra

10:30–10:45  EGU2012-6628
Scaling sediment dynamics on hillslopes using particle-based approaches

10:45–11:00  EGU2012-1274
N. Cortesi, J.C. Gonzalez-Hidalgo, M. Brunetti, and J. Martín-Vide
Daily Precipitation Concentration during Europe during 1971-2010

11:00–11:15  EGU2012-4947
I. Tsermegas, M. D?u?ewska, K. Biejat, and A. Szynkiewicz
Degradation of terraced slopes in Mediterranean conditions

11:15–11:30  EGU2012-8132
Addressing the time-scale gap in erosion modelling - comparison of an event-based and a landscape evolution model
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 Northen 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 (co-listed) – Posters
Hall XY | 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
JM Martinez 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 coservation in olive orchards under different agroecological conditions combing 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
Impacts of climate change on soil erosion in Portuguese watersheds with contrasting Mediterranean climates and agroforestry practices

SSS7.6 – Movement and Fate of eroded soil organic matter in terrestrial ecosystems (co-listed) – 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 (co-listed) – 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. Pörsson
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
Wednesday, 25 April

**GM2.4 – Complexity and nonlinearity in Earth surface processes – Concepts, methods and applications – Orals**
Convener: M. Keiler | Co-Conveners: A.J.A.M. Temme, A. Lang, D. Karssenberg
Room: 21
Chairperson: Margreth Keiler, Arnaud Temme

15:30–16:00 EGU2012-11350
A. B. Murray and G. Coco
*Cause and effect in geomorphic systems: Complex-systems perspectives*

16:00–16:30 EGU2012-281
J.D. Phillips
*Thresholds, Mode-Switching, and Emergent Pseudo-Equilibrium in Geomorphic Systems*

16:30–16:45 EGU2012-14472
A. Baldassarri and B. Sapoval
*Statistics of rocky coast erosion and percolation theory*

16:45–17:00 EGU2012-6930
C.J. Thompson, J.C. Croke, and J.R. Grove
*Spatial and temporal patterns of bank failure during extreme flood events: Evidence of nonlinearity and self-organised criticality at the basin scale?*

**GM2.4 – Complexity and nonlinearity in Earth surface processes – Concepts, methods and applications – Posters**
Convener: M. Keiler | Co-Conveners: A.J.A.M. Temme, A. Lang, D. Karssenberg
Hall XL | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Derek Karssenberg

XL115 EGU2012-12653
K. v. Elverfeldt
*Self-organisation in geomorphic systems: criteria and measurability*

XL116 EGU2012-4119
E. Masson
*Toward a new system approach of complexity in geomorphology*

XL117 EGU2012-10242
L. Goren and S. D. Willett
*On the dynamics of stream piracy*

XL118 EGU2012-6100
A. Benaichouche, O. Stab, I. Cojan, J. Brulhet, M. Tijani, and B. Tessier
*Stream-piracy impact on the long-term evolution of the Meuse basin. Physical approach “modeling with GOLEM”*

XL119 EGU2012-7438
E. Giachetta, N. Gasparini, D. Capolongo, A. Refice, and F. J. Pazzaglia
*The role of climate change in drainage network reorganization: insights from numerical experiments*

XL120 EGU2012-7783
J.M. Schoorl, A.J.A.M. Temme, and A. Veldkamp
*Landscape self organisation: Modelling Sediment trains*

XL121 EGU2012-5299
A.J.A.M. Temme and M.J. van de Wiel
*Filtering signals: complexity experiments with LAPSUS*

XL122 EGU2012-9790
D.L. Higgitt and N.J. Rosser
*The Emergence of Order in Clast-Mantled Desert Surfaces*

XL123 EGU2012-5890
O. Rozier and C. Narteau
*A Real Space Cellular Automaton Laboratory (ReSCAL) to analyze complex geophysical systems*

XL124 EGU2012-8796
M. Bock, A Günther, A Ringeler, R Baritz, and J Böhner
*Assessment of soil parent material formation in periglacial environments through medium scale landscape evolution modelling*

XL125 EGU2012-4298
N. J. Kuhn, U. Hoffmann, H. Hikel, and A. Yair
*Interaction of rainfall, runoff and erosion on dryland slopes in the Negev desert*
XL126  EGU2012-14220
N. J. Kuhn, A. Yair, R. B. Bryan, W. Schwanghart, and H. Lavee
Badlands: too complex to be simple landscapes?

XL127  EGU2012-9438
A tool for the estimation of the distribution of landslide area in R

CL5.7/AS4.22/BG6.4/GM2.6 – Instrumental monitoring of caves: the key to understanding anthropogenic impacts and climate-proxy relationships in speleothems (co-organized) – Orals
Convener: D. Mattey | Co-Conveners: C. Spötl, J. Baldini
Room: 16
Chairperson: James Baldini

15:30–15:45  EGU2012-5830
F. Bourges, D. Genty, P. Genthon, A. Mangin, and D. D'Hulst
South-France caves monitoring: present day cave air dynamics characterization, paleoclimatic and archaeological interests

15:45–16:00  EGU2012-13481
J.L. Banner, E.W. James, D. Breecker, R. Casteel, C. Wong, K. Meyer, W. Feng, and B. Cowan
Long-term cave monitoring on the Edwards Plateau of Texas (USA) to advance speleothem paleoclimate proxies

16:00–16:15  EGU2012-12117
P. Allaga and J.P. Bernal
In-situ REE calibration as palaeohydrogeological proxies in stalagmites

16:15–16:30  EGU2012-6704
D.M. Tremaine, B.P. Kilgore, and P.N. Froelich
Calcite Farming at Hollow Ridge Cave: Calibrating Net Rainfall and Cave Microclimate to Dripwater and Calcite Chemical Variability

16:30–16:45  EGU2012-11697
Generation and dispersal of carbon dioxide in the caves and karst of Gibraltar

16:45–17:00  EGU2012-10502
M. Luetscher and P.-Y. Jeannin
Monitoring cave drips in a (partly) controlled hydrological system, Milandre cave, Switzerland

Z150  EGU2012-831
E. Garcia-Anton, S. Cuezva, A. Fernandez-Cortes, S. Sanchez-Moral, and J.C. Canaveras
Multiparametric surveillance of conservation measures at subterranean rock-art sites: case of Altamira cave

Z151  EGU2012-874
S Sanchez-Moral, A Fernandez-Cortes, S Cuezva, E Garcia-Anton, and D Benavente
Balance of pCO2 in the carbonate-bearing unsaturated zone controlling mineral precipitation: Implications for geo-environmental analyses in caves

Z152  EGU2012-4775
Water chemistry and isotope data from a five year monitoring programme of Bunker Cave, NW Germany

Z153  EGU2012-13546
D. Mattey
Continuous multichannel monitoring of cave air carbon dioxide using a pumped non-dispersive infrared analyser

Z154  EGU2012-861
Assessment of aerodynamic processes on subsurface in karst terrains by rapid multi-parametric surveys (case of Castanar Cave, Spain)
Monitoring drip water isotope and element variability: A new device for automatic drip water collection

Daily variations of CO2, d13CO2 and CH4 of cave air controlled by external weather conditions: example of rapid survey in Altamira cave (north of Spain)

Calcium carbonate crystallizations on hypogean mural paintings: a pilot study of monitoring and diagnostics in Roman catacombs

Monitoring of cave air temperature and humidity in the Niedźwiedzia Cave system (Sudetes, Poland) - a key to understanding tourists activity impact to cave environment

Using high-resolution monitoring data to identify the effects of cave and surface conditions on cave drip water hydrochemistry

Monitoring tropical cave environmental parameters: Implications for palaeoclimate reconstruction

Quantitatively structural control of the karst based on speleological cave survey data: Cabeza Llerosos massif (Picos de Europa, Spain)

Characteristics of annual laminae in speleothem from Grotte de Rolande, SW France and relationships to seasonal changes in the cave and surface environment.

Deciphering ENSO periodicity in an annually resolved speleothem from Fiji

Stable carbon and oxygen isotope fractionation processes during speleothem growth: systematic investigation in novel laboratory experiments

Attaining high-resolution eruptive histories for active arc volcanoes with argon geochronology

Multiple explosive rhyolite/trachyte eruptions of alkaline-peralkaline Nemrut and dacite/rhyolite eruptions of neighboring subduction zone-related Süphan volcano over 600 000 years: the East Anatolian tephra province

Reconstructing the architectural evolution of volcanic islands from combined K/Ar, morphologic, tectonic, and magnetic data: the Faial Island example (Azores)

Lava dome morphometry and geochronology of the youngest eruptive activity in Eastern Central Europe: Ciomadul (Csomád), East Carpathians, Romania
16:30–16:45  EGU2012-11879  
**B. Edwards**, B. Oddsson, M.T. Gudmundsson, and R. Rossi  
Field constraints for modeling the emplacement of the 2010 Gígjökull lava flow, southern Iceland: interplay between subaqueous, ice contact and subaerial lava emplacement

16:45–17:00  EGU2012-8573  
Analysis of the fractal dimension of volcano geomorphology through Synthetic Aperture Radar (SAR) amplitude images acquired in C and X band.

GMPV4.10/GM2.7 – Spatio-temporal perspectives on volcanological processes and volcanic landforms (co-organized) – Posters  
Conveners: D. Karátson, H. Tuffen, A. Germa | Co-Conveners: B. Székely  
**Hall XL | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00  
Chairperson: n.n.

**XL250** EGU2012-14334  
**C. Pallares**, X. Quidelleur, J.A. Debreil, P.Y. Gillot, and P. Tchilinguirian  
Spatial and temporal evolution of a back-arc Plio-pleistocene magmatic series: an example of Auca Mahuida and El Tromen volcanoes from Payenian Basaltic Province, Argentina

**XL251** EGU2012-14120  
**A. Germa**, X. Quidelleur, P. Lahitte, S. Labanieh, and C. Chauvel  
Evolution of Martinique Island since the Oligocene inferred from K-Ar dating, geochemical analyses and geomorphological reconstructions

**XL252** EGU2012-12736  
**E. Leocat**, P.-Y. Gillot, and A. Peccerillo  
The western Aeolian Islands volcanoes (South Tyrrhenian Sea): highlight on their eruptive history based on K-Ar dating.

**XL253** EGU2012-12702  
S. Self, **A. Calvert**, A. Pimentel, and R. Gertisser  
The Tempo of Recent Volcanism on Terceira, Azores

**XL254** EGU2012-11514  
A. Hicks, **D.F. Mark**, J. Barclay, and S. Loughlin  
Tristan da Cunha: informing future eruption scenarios using high-precision Ar/Ar dating

**XL255** EGU2012-2108  
The Upper Triassic alkaline magmatism of the western Neo-Tethys (Bajo Ébro, NE Spain): age and geodynamic implications

**XL256** EGU2012-14300  
Geochemical, isotopic (Sr-Nd-Pb) and geochronological (Ar-Ar and U-Pb) constraints on Quaternary bimodal volcanism of the Nigde Volcanic Complex (Central Anatolia, Turkey)

**XL257** EGU2012-12005  
L. Akin, E. Aydar, A. K. Schmitt, and H. E. Çubukçu  
Zircon Chemistry and chronostratigraphy of tephras: case of Cappadocia

**XL258** EGU2012-6053  
**P. Nomikou**, K. Croff Bell, S. Carey, K. Bejelou, M. Parks, and V. Antoniou  
Submarine Volcanic Morphology of Santorini Caldera, Greece

**XL259** EGU2012-13100  
A.V. Zernack, **J.N. Procter**, S.J. Cronin, M.S. Bebbington, R.C. Price, and I.E.M. Smith  
Predicting the timescales of catastrophic stratovolcano collapse - A model based on Mt. Taranaki, New Zealand.

**XL260** EGU2012-3475  
**Zs. Koma**, B. Székely, P. Dorninger, and C. Nothegger  
Geomorphometric analysis of volcanic edifices using a robust plane fitting method

**XL261** EGU2012-8560  
**M. R. James** and N. Varley  
Near-automatic generation of lava dome DEMs from photos

**XL262** EGU2012-12964  
B. **Székely**, D. Karátson, Zs. Koma, P. Dorninger, G. Wörner, M. Brandmeier, and C. Nothegger  
Automated recognition of quasi-planar ignimbrite sheets and paleo-surfaces via robust segmentation of DTM - examples from the Western Cordillera of the Central Andes
XL263  EGU2012-67
A. Forbes, S. Blake, D. McGarvie, and H. Tuffen
Pseudopillow fracture systems: Insights into cooling mechanisms and environments from lava flow fractures

XL264  EGU2012-10218
J. Owen, H. Tuffen, and D.W. McGarvie
What controls the explosivity of subglacial rhyolite in Iceland?

XL265  EGU2012-10295
J. Owen, H. Tuffen, and D.W. McGarvie
Reconstructing palaeo-ice thicknesses: on what type of volcano can the magma degassing technique be used?

GM4.2 – Organic matter export across landscapes: Understanding the rates and controls – 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. Gal, A. Tye, and J. Turowski
Particulate organic carbon export from soil and vegetation in temperate mountain regions

09:30–09:45  EGU2012-9798
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 – 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. Vanwallegem, and J.A. Gomez
Organic carbon fluxes in stemflow, throughfall and rainfall in an olive orchard

XL129  EGU2012-4232
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
Coarse particulate organic matter transport and particle-size distribution in two mountain streams

Transport of particulate organic carbon in the Amazon River: insights from river sediment depth-profiles

Climatic and geomorphic controls on the erosion of biomass from subtropical mountain forest

Do different components of terrestrial sources contribute to the riverine suspended load?

The storage of carbon in Holocene deposits in the Netherlands

Oxidation rates of overbank POC deposition in an eroding peatland

Inferring rates of in-river POC-DOC transformation using radio carbon dating

Structure of dissolved organic matter across 500 boreal lakes analyzed by fluorescence spectroscopy

GM4.3 – Sediment and carbon fluxes under human impact and climate changes – Orals

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

Influence of erosion rates on particle size and carbon export from upland landscapes

Anthropogenic soil erosion over the Holocene: Application of a new dynamic soils module for global vegetation models

Carbon emissions as a result of land use change and accelerated soil erosion: perspectives in time & space.

Episodic Emplacement of Sediment + Carbon within Large Tropical River Basins

Brotherswater, English Lake District: a record of organic and inorganic sediment flux over the past two millenium

GM4.7 – Late Quaternary environments and societies: progress in geoarchaeology – Posters

Convener: H. Brückner | Co-Conveners: M. Engel

Delays in fluvial systems
XL143  EGU2012-8
D. Psomiadis, M. Ghilardi, F. Demory, and D. Delanghe-Sabatier
New insights for the Late Pleistocene to Mid Holocene landscape reconstruction in the Western part of the
Thessaloniki Plain (Greece): evidence for an abrupt transition and consequences on the settling history

XL144  EGU2012-15
M. Ghilardi, D. Psomiadis, F. Longo, V. Amato, F. Demory, D. Delanghe-Sabatier, M. Colleu, L. Sinibaldi, and
N. Carayon
Palaeoenvironmental investigations in the vicinity of Ancient Phaistos (Crete, Greece): preliminary results

XL145  EGU2012-104
When was irrigation first used in Bat (Wadi Sharsah, northwestern Oman)?

XL146  EGU2012-1606
G. Kaufmann, B. Ullrich, and P. Hoelzmann
Multi-geophysical exploration of iron-age settlement sites: From field measurements to model predictions

XL147  EGU2012-2312
M. Martin Seijo, J. Mayo Torné, C. Mayo Torné, and R. Piqué i Huerta
Forest Resources, Chiefdoms and Mortuary Practices in the Neotropics: Preliminary Archaeobotanical
Analysis from El Caño Funerary Complex (Cocle Province, Panamá)

XL148  EGU2012-2481
M. Dotterweich, J. Rodzik, W. Zg?obicki, A. Schmitt, G. Schmidtchen, and H.R. Bork
High resolution studies of gully erosion, sedimentation processes, and land use changes since the late
Pleistocene and future trajectories in the Kazimierz Dolny area (Naj??ciów Plateau, SE-Poland)

XL149  EGU2012-2898
A. Petropoulou
Relation between the Classical Sciences and Geographic Information Systems (GIS).

XL150  EGU2012-6076
Hydroclimatic signal and LBK cultural activity in the Upper and Lower Rhine, inferred from abandoned channel
fill deposits

XL151  EGU2012-7114
E. Eckmeier and R. Gerlach
Characterization of archaeological soils and sediments using VIS-spectroscopy

XL152  EGU2012-9413
V. Heyvaert, D. Kaniewski, M. Sintubin, K. Szkornik, G. Verstraeten, and J. Walstra
Studying the driving forces of landscape change in the surroundings of the Late Bronze Age harbor town Halla
Sultan Tekke, Cyprus.

XL153  EGU2012-9519
J. Walstra, V. Heyvaert, and P. Verkinderen
The role of rivers in ancient societies, or how man transformed the alluvial landscapes of Khuzestan (SW Iran)

XL154  EGU2012-9926
G. Sarti, V. Rossi, A. Amorosi, D. Bertoni, A. Ribolini, I. Sammartino, and G. Zanchetta
Deciphering natural to anthropogenic control on sedimentation: the Late Holocene Magdala (Kinneret Lake,
Israel) harbour history

XL155  EGU2012-11383
M. Forbriger, K. Schittek, B. Höfle, C. Siart, and B. Eitel
Multi-method investigation of cushion peatlands

XL156  EGU2012-11401
C. Cammas, J. Blanchard, P. Broutin, and A. Berga
Pedo-sedimentary record of human-environment interaction in ditches and waterlogged depressions on
tableland (roman and early medieval period): micromorphological cases studies from Marne-la-Vallée area
(Paris Basin, France)

XL157  EGU2012-11729
E. Draganits
Relative sea-level change in the central Cyclades (Greece) since the Early Bronze Age

XL158  EGU2012-13901
S. Sechi-Sapowicz, D. Sebag, B. Laignel, and T. Lepert
The last millennia history of detrital sedimentation in the Lower Seine Valley ecosystem (Normandy, NW
France)

XL159  EGU2012-12033
Q. Borderie, C. Cammas, and C. Petit
The geoarchaeology of urban wastes: from refuges to activities and towns organisation (France, 6th c. BC -
10th c. aD)

GM7.1 – Quantifying fluvial channel processes - New and innovative multidisciplinary approaches – Posters
XL160  EGU2012-136  
A. Braun, K. Auerswald, and J. Geist  
Quantifying heterogeneity in stream ecosystems' hyporheic zone: Benefits for representative sampling

XL161  EGU2012-1816  
A. A. Beylich, K. Laute, and S. Liermann  
Integrating field measurements with flume experiments for analysing fluvial bedload transport in steep mountain streams

XL162  EGU2012-4546  
G. Houbrechts, Y. Levecq, and F. Petit  
Characterisation of sand transport in gravel-bed rivers using iron slag dated by historical studies

XL163  EGU2012-4646  
J. Petrovszki, B. Székely, and G. Timár  
River Sinuosity Classification - The method

XL164  EGU2012-4687  
J. Petrovszki  
Multi-variable connection of slope, discharge and sinuosity in the Pannonian Basin

XL165  EGU2012-6563  
E. Reynard, L. Laigre, and D. Baud  
The use of historical maps for reconstructing landforms before river damming. The case of the Swiss Rhone River

XL166  EGU2012-6945  
J.B.H. Shyu and K.-Y. Du  
The validity of simplified shear-stress incision models in meandering river systems: a case study along the Hsiukuluan River, eastern Taiwan

XL167  EGU2012-8506  
L. Nardi and L. Campo  
A comparison between riverbank erosion models with an evaluation of the risk

XL168  EGU2012-9259  
W. Schwanghart and O. Korup  
Towards quantifying fuzzy stream power

XL169  EGU2012-9982  
I. Per?oiu, N. R?doane, and S. Rusu  
Geologic control of rivers in the perimeter of Somes River Drainage Basin, Romania

XL170  EGU2012-10142  
M. Radoane, F. Obreja, and N. Radoane  
Channel-bed elevation changes for the Eastern Carpathian Rivers from streamflow gage records

XL171  EGU2012-10612  
I. Cristea, M. R?doane, and M. Mindrescu  
Contemporary pattern adjustments of Putna River's channel (South - Eastern Carpathians) reflected by cartographic materials

XL172  EGU2012-10657  
M. Takia, F. Müller, A. Nicolay, A. Raab, T. Raab, H. Rösl, and E. Bönisch  
An early industrial charcoal production area in Lower Lusatia (Germany) - a GIS-based reconstruction of past land use and environmental change

XL173  EGU2012-11596  
A Lower Rhine flood chronology based on the sedimentary record of an abandoned channel fill

XL174  EGU2012-13456  
D. Lague, S. Bonnet, N. Brodu, T. Davies, and J. Leroux  
High precision terrestrial laser scanning : measuring the individual impact of floods and landslides on meandering bedrock river dynamics (Rangitikei river, New-Zealand)

XL175  EGU2012-728  
M. Rusnák, M. Frandofer, and M. Lehotský  
Channel planform evolution: Spatial and temporal aspect

XL176  EGU2012-1739  
D. Pflanz and B.H. Shyu  
Fluvial processes along a tectonically active coast, eastern Coastal Range, Taiwan

XL177  EGU2012-4083  
W.I. van de Lageweg, W.M. van Dijk, and M.G. Kleinhans  
Experimental insights on the effects of varying discharge on fluvial landscape evolution
**HS4.1/GM7.8/NH1.7 – Flash floods: processes, forecasting and risk management (co-organized)** – Orals
Room: 39
Chairperson: Marco Borga

08:30–08:45 EGU2012-8894

F. Pignone, N. Rebora, and F. Silvestro
Estimation of rainfall field by combining radar data and raingauge observations: the modified conditional merging technique

08:45–09:00 EGU2012-11734

F. Marra and E. Nikolopoulos
Radar rainfall estimation as a support for the hydro-meteorological analysis of debris flow and flash flood events

09:00–09:15 EGU2012-4682

P.J. Smith, K. Beven, and L. Panziera
Flash flood forecasting using simplified hydrological models, radar rainfall forecasts and data assimilation

09:15–09:30 EGU2012-13404

E.I. Nikolopoulos, D. Zoccatelli, and E.N. Anagnostou
Mapping storm velocity over catchments: Distribution and scale dependence for flash flood-inducing storms.

09:30–09:45 EGU2012-1619

J. Boardman
Flash Flooding and 'Muddy Floods' on Arable Land

09:45–10:00 EGU2012-12846

K. Larnier, H. Roux, P. Garambois, and D. Dartus
Data assimilation method for real-time flash flood forecasting using a physically based distributed model

**COFFEE BREAK**
10:30–10:45 EGU2012-7145  
D. Defrance, P. Javelle, P. Arnaud, and V. Andréassian  
Flash flood warning at ungauged locations: can proxy data be useful to calibrate the hydrological model used?

10:45–11:00 EGU2012-5721  
A. Bronstert, B Creutzfeldt, T Graeff, I Hajnsek, M Heistermann, S Itzerott, T Jagdhuber, D Kneis, E Lück, D Reusser, and E Zehe  
Potentials and constraints of different types of soil moisture observations for flood simulations in headwater catchments

11:00–11:15 EGU2012-6535  
G. Warren, D. Balin, E. Reynard, and S. N. Lane  
Flash flood hazard assessment through modelling in small semi-arid watersheds. The example of the Beni Mellal watershed in Morocco

11:15–11:30 EGU2012-3045  
M. Calianno, I. Ruin, and JJ. Gourley  
The use of SHAVE and NWS flash flood reports for impact characterization and prediction

11:30–11:45 EGU2012-11730  
G. Brigandi, G.T. Aronica, G. Basile, L. Pasotti, and M. Panebianco  
An experimental operative system for shallow landslide and flash flood warning based on rainfall thresholds and soil moisture modelling

11:45–12:00 EGU2012-6889  
T. Yamakoshi, Y. Nakano, T. Ishizuka, K. Tamura, and Y. Hasegawa  
Time Sequence on the Flash Flood Disaster in the Tsurugi River, Hofu City, in Japan

HS4.1/GM7.8/NH1.7 – Flash floods: processes, forecasting and risk management (co-organized) – Posters  

A139 EGU2012-991  
L. D. Donado, E. Bravo, and R. O. Ortiz  
A proposal for mitigation of floods in main colombian rivers

A140 EGU2012-2768  
J.L. Ruiz-Bellet, J.C. Balasch, J. Tuset, and D. Vericat  
Flash floods reconstruction from historical data in the ungauged Ondara River basin at Tàrrega (NE Iberian Peninsula)

A141 EGU2012-3606  
Z.-Y. Feng, S.-C. Chen, C.-W. Kao, and C.-M. Lo  
A numerical simulation of overflow failure of landslide dams by particle flow technique

A142 EGU2012-3757  
M. Merheb, C. Abdallah, and N. Baghdadi  
Flash flood modeling in semiarid regions - NE Lebanon as a case study

A143 EGU2012-4127  
V.I. Arghius, A. Ozunu, I. Samara, and Gh. Rosian  
Results of the post flash-flood disaster investigation occurred in the Transylvanian Depression during the last decade (2001-2010)

A144 EGU2012-7558  
D. Bertermann, C. Bialas, and A. Zacherl  
An expeditious risk analysis of intense rainfall events in low mountain ranges of Central German Uplands under the aspect of a sustainable and decentralised flood retention

A145 EGU2012-9010  
Estimation of flash floods on SvacenickÁ½ and Debernicky Creeks in Slovakia

A146 EGU2012-7802  
C. Abon, M. Heistermann, D. Kneis, and A. Bronstert  
Hydrologic simulations using rainfall radar data for flood forecasting in Marikina River Basin, Philippines

A147 EGU2012-9148  
J. Moravcová, T. Pavlí?ek, M. Koupilová, P. Ondr, and T. Kvítek  
Modeling of runoff conditions in the pasture sites of small catchments

A148 EGU2012-9437  
C. Ruch, C. Reszler, G Rock, and M Pleschnegger  
Flash Flood Warning System - One Model, Two Methods
A149  EGU2012-11084  
D. Zoccatelli  
Roles of hillslope processes and river network routing in the hydrologic response to spatially variable rainfall fields

A150  EGU2012-11287  
B. Bhattacharya and A. Suman  
Flash flood characterisation of the Haor area of Bangladesh

A151  EGU2012-12112  
F. Ciervo, M.N. Papa, V. Medina, and A. Bateman  
Reconstruction and numerical modelling of a flash flood event: Atrani 2010

A152  EGU2012-12230  
P. Tarolli, G.T. Aronica, D. Penna, M. Borga, and G. Brigandi  
Shallow landslides and debris flows triggering and rainfall thresholds using a quasi-dynamic wetness index: a case study in Sicily

A153  EGU2012-12777  
A. Cavallo, S. Gabellani, R. Rudari, and F. Silvestro  
An Hydrological Description of the 4th November 2011 event in Genoa

A154  EGU2012-13864  
S. Schnabl, M. Brilly, N. Humar, and A Kryžanowski  
Structural measures to cope with floods: KULTURisk case studies

A155  EGU2012-14480  
F. Marra and D. Zoccatelli  
Design of rain gauge networks for flash flood prediction: assessment based on spatial moments of catchment rainfall

A156  EGU2012-13657  
C. Fouchier, P. Javelle, P. Arnaud, and D. Defrance  
Comparison of different routing functions in the AIGA flood forecasting method for ungauged watersheds.

A157  EGU2012-11393  
P-A Garambois, H Roux, K Larrier, and D Dartus  
Flash flood modelling for ungauged catchments

ML32 – Geomorphology Outstanding Young Scientist Award & Penck Lecture by V. Vanacker (co-listed) – Orals 
Convener: A. Lang  
Room: 21  
Chairperson: n.n.

13:30–14:30  EGU2012-14468  
V. Vanacker  
Anthropogenic control on geomorphic process rates: can we slow down the erosion rates?  
(Geomorphology Outstanding Young Scientist Award & Penck Lecture)

NP2.6 – Complex networks: Theory and methods applied to geophysical systems (co-listed) – Orals 
Room: 28  
Chairperson: n.n.

13:30–14:00  EGU2012-4342  
Recurrence network-based time series analysis for identifying tipping points in Plio-Pleistocene African climate

14:00–14:30  EGU2012-6424  
P. Fox  
Scientific Knowledge Discovery in Complex Semantic Networks of Geophysical Systems

14:30–14:45  EGU2012-5346  
I. Petrova and A. Loew  
Structural Interrelationship in the Ecosystem Network Using Method of Complex Networks

14:45–15:00  EGU2012-14274  
J. Hlinka, D. Hartman, M. Vejmelka, and M. Palus  
Non-linear contributions to interactions in climate networks: sources, relevance, nonstationarity

15:00–15:15  EGU2012-4593  
A. Rheinwald, N. Marwan, J. Kurths, and P. Werner  
Boundary effects in network measures of spatially embedded networks - A case study for German rainfall data
NP2.6 – Complex networks: Theory and methods applied to geophysical systems (co-listed) – Posters
Hall X/Y | Display Time 08:00–19:30
Author in Attendance: 15:30–17:00
Chairperson: n.n.

XY395  EGU2012-9286
S. Hage-Packhäuser and M. Dellnitz
Time-Varying Dynamical System Networks in the Light of Hybrid Symmetry

XY396  EGU2012-4099
W. Schwanghart and T. Heckmann
Fuzzy delineation of drainage basins through probabilistic interpretation of diverging flow networks

XY397  EGU2012-4944
H. Ghaffari and R.P Young
Friction Networks: Network-Configurations of Dynamic Friction Patterns

XY398  EGU2012-5073
T. Zerenner and A. Hense
Graph theoretical analysis of climate data

XY399  EGU2012-8397
M. Palus, D. Hartman, J. Hlinka, and M. Vejmelka
Connectivity, topology and dynamics in climate networks

XY400  EGU2012-14275
M. Vejmelka, J. Hlinka, D. Hartman, and M. Palus
Spatiotemporal modes of climatic variability: building blocks of complex networks?

XY401  EGU2012-5098
J. I. Deza, M. Barreiro, and C. Masoller
Detecting long-range tele-connections in the climate network via ordinal pattern analysis

XY402  EGU2012-5705
J. Runge, J.F. Donges, and J. Kurths
Climate networks with causal links

XY403  EGU2012-7577
A. Radebach, R. V. Donner, J. G. B. Runge, J. F. Donges, and J. Kurths
Disentangling different types of El Niño episodes by evolving climate network analysis

XY404  EGU2012-4691
M. Wiedermann, J.F. Donges, J. Heitzig, and J. Kurths
Coupled climate network analysis of multidecadal dynamics in the Arctic

XY405  EGU2012-6415
N. Boers, B. Bookhagen, N. Marwan, and J. Kurths
Investigating Temperature and Rainfall Patterns over the Amazon Region using Complex Networks

XY406  EGU2012-5622
P. Martin, N. Malik, N. Marwan, and J. Kurths
Complex network analysis of high rainfall events during the northeast monsoon over south peninsular India and Sri Lanka

XY407  EGU2012-11674
K. Oluoch, N. Marwan, M. Trauth, A. Loew, and J. Kurths
Complex Networks Dynamics Based on Events-Phase Synchronization and Intensity Correlation Applied to The Anomaly Patterns and Extremes in The Tropical African Climate System

XY408  EGU2012-6483
H. Kutza, J. F. Donges, N. Marwan, R. V. Donner, U. Feudel, and J. Kurths
Pattern recognition in complex networks, based on spatially embedded time series

XY409  EGU2012-14310
K. Steinhaeuser
Knowledge Discovery from Climate Data using Graph-Based Methods

XY410  EGU2012-11187
T. Nocke
Visual Analytics of Climate Networks
Thursday, 26 April

**GM2.1 – High definition topography - data acquisition, modelling, interpretation – Posters**


**Hall XL | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: D. Vericat / N. Tate

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**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**


*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. Delalleux, 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. Valcebre (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 modelling 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. Xinze, 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** – Posters

**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 patters 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
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 Alps

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. Marzolf, 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
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

F. Pirotti, A. Guarnieri, and A. Vettore
Full waveform airborne laser scanning for mapping morphometric parameters in terrain with varying vegetation cover

J. Filski
The State of Health of Nature Reserves: A Case Study using the Fusion of Hyperspectral and Lidar Data

A.C. Seijmonsbergen
Current trends in geomorphological mapping

J. Hjort
Geomorphological mapping and analysis using statistically-based distribution modelling: advantages and pitfalls

D. Loibl
Detailed geomorphological mapping from high resolution DEM data (LiDAR, TanDEM-X): two case studies from Germany and SE Tibet

T. Hoffmann and W. Schwanghart
Geomorphic mapping using pixel-based slope-area plots

Automated geomorphological mapping using Multiple Point Geostatistics

M. Geilhausen and J.-C. Otto
Smart "geomorphological" map browsing - a tale about geomorphological maps and the internet

J. Jasiewicz and T.F. Stepinski
Machine vision approach to auto-generation of high resolution, continental-scale geomorphometric map from DEM

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

E. Miccadei, T. Piacentini, and F. Daverio
Morphotectonic mapping and Quaternary landscape evolution on the eastern Central Apennines and adriatic area (Italy)

M. Thiel, T. Heckmann, and M. Becht
Predictive Mapping of Sediment Cascades in Alpine Geosystems

L. Hilger, T. Heckmann, F. Haas, and M. Becht
Geomorphological mapping of the proglacial zone of the Gepatschferner glacier, Austria

J Goetz and JC Otto
Adapted geomorphological mapping for sediment budget analysis - mapping focus and data base structure
Semi-automated mapping of geomorphological process domains - towards a geomorphological map of the European Alps

An object-based approach to hierarchical classification of the Earth’s topography from SRTM data

A feature-preserving denoising algorithm to improve the quality of geomorphic analysis

Geomorphic map and derived geomorphological evolution model of the Ampato volcanic complex (Southern Peru).

Volcanic and glacial evolution of Chachani-Nocarane complex (Southern Peru) deduced from the geomorphologic map.

(Semi-)Automated landform mapping of the alpine valley Gradental (Austria) based on LiDAR data

GS4/GD3.9/GM3.1 – Orogen-scale coupling between tectonics, erosion and climate (co-organized) – Orals

Convener: F. Mouthereau | Co-Conveners: Dr. Garcia-Castellanos, P.A. van der Beek, F. Herman, J.-D. Champagnac, P. Valla.

Room: 29

Chairperson: F. Mouthereau and P. van der Beek

13:30–13:45 EGU2012-1345

F. Schlunegger and K.P. Norton
Surface control on contrasts in deformation between eastern and western margins of the Central Andes

13:45–14:00 EGU2012-1518

J.-D. Champagnac, P. Molnar, C. Sue, and F. Herman
Tectonics, Climate, and Mountain Topography

14:00–14:15 EGU2012-1893

M. Trauerstein, K. P. Norton, F. Schlunegger, and F. Preusser
Climatic imprint on landscape morphology in the western escarpment of the Andes

14:15–14:30 EGU2012-3242

J.A. McDermott, K.X Whipple, K.V. Hodges, and M.C. van Soest
Plio-Pleistocene N-S extension at the southern margin of the Tibetan Plateau as evidenced from fluvial incision patterns and thermochronology

14:30–14:45 EGU2012-7957

L. M. Mesalles, F. Moutherue, C.P. Chang, M. Bernet, and X. Sengelen
New thermochronological constraints on the exhumational history at the Taiwan subduction-collision transition.

14:45–15:00 EGU2012-10441

L. Goren, S. Castelltort, S. D. Willet, J-D. Champagnac, F. Herman, and J. Braun
Passive advection and dynamic reorganization of mountainous bedrock rivers: A landscape evolution modeling approach

Chairperson: J.-D. Champagnac and D. Garcia-Castellanos

15:30–15:45 EGU2012-6301

G. Roe, R. Headley, and J. Tomkin
Glacier long profiles in regions of active uplift, and their role in orogen dynamics.

15:45–16:00 EGU2012-2627

D. Scherler, B. Bookhagen, and M.R. Strecke
Hillslope-glacier coupling: from debris cover to landscape evolution

16:00–16:15 EGU2012-4433

P. Steer, R. S. Huismans, P. G. Valla, S. Gac, and F. Herman
Recent glacial erosion of fjords and low-relief surfaces in western Scandinavia

16:15–16:30 EGU2012-7305

P. Sternai, F. Herman, J.-D. Champagnac, M. Fox, B. Salcher, and S. D. Willet
Pre-glacial topography of the European Alps
16:30–16:45 EGU2012-4341
V.K. Pedersen and D.L. Egholm
Interactions between glacial erosion, the extent of glaciation, and topography investigated using numerical modeling

16:45–17:00 EGU2012-9478
M. Dühnforth, R.S. Anderson, and W. Colgan
The influence of glacier ice temperature on the long-term evolution of longitudinal valley profiles: Can a landscape escape from the “glacial buzzsaw”?

TS4.1/GM3.5/SSP3.4 – Tectonics, sedimentation and surface processes: from the erosional engine to basin deposition (sponsored by IAS) – Orals
Convener: A. Whittaker | Co-Conveners: S. Castelltort, L. Kirstein, J. Vergés
Room: 29
Chairperson: n.n.

08:30–08:45 EGU2012-3613
U. Ryb, A. Matmon, N. Porat, and O. Katz
From mass-wasting to slope stabilization - putting constrains on the transition in slope erosion mode: A case study in the Judea Hills, Israel

08:45–09:00 EGU2012-1361
M. Vannaecker, A. Kettner, M Van Den Eeckhaut, J Poesen, G Govers, A Mamaliga, G Verstraeten, M Radoane, and J Syvitski
Predicting sediment yield for catchments under pristine conditions: the role of tectonic activity

09:00–09:15 EGU2012-8710
G. de Jager, A. Forzoni, and J.E.A. Storms
Climate, sea level and tectonics signal propagation - an analysis using 2DStratSim: a source-to-sink numerical model

09:15–09:30 EGU2012-14406
G. Duclaux and T. Salles
3D Stratigraphic and geomorphic modelling from source to sink

09:30–09:45 EGU2012-212
E. Garzanti, P. Vermeesch, S. Andó, M. Boni, M. Lustrino, and G. Vezzoli
From Lesotho basaltic highlands to the Namib Sand Sea: long-distance transport and compositional variability in the wind-displaced Orange Delta

09:45–10:00 EGU2012-8951
V. Olivetti, M. L. Balestrieri, F. Rossetti, and F. M. Talarico
Tectonic/climatic control on sediment provenance in the Cape Roberts Project core record (southern Victoria Land, Antarctica): A pulsing late Oligocene/early Miocene signal from south revealed by detrital thermochronology

COFFEE BREAK

Chairperson: n.n.

10:30–10:45 EGU2012-10360
B. Salcher, J. Lomax, B. Meurers, J. Smit, F. Preusser, and K. Decker
Tectonics and Quaternary sequence development of basins along the active Vienna Basin strike-slip fault

10:45–11:00 EGU2012-4230
D. Huyghe, C. Bonnel, B. Nivière, G. Messager, D. Dhour, B. Fasentieux, Y. Hervouët, and J-P Xavier
Tectono-sedimentary evolution of the Neuquén basin (Argentina) between 39°S and 41°S during the Neogene

11:00–11:15 EGU2012-10345
E. Costa, M. Garcés, M. López-Blanco, E. Beamud, M. Gómez-Paccard, and J.C. Larrasoaña
Closing and continentalization of the South Pyrenean Foreland Basin (NE Spain) and its impact on basin fill trends and thrust-belt evolution

11:15–11:30 EGU2012-1657
P.D. Clift and L. Giosan
Sediment Source-to-Sink Processes in the Indus River since the Last Glacial Maximum

11:30–11:45 EGU2012-5741
C. Petit and S. Migeon
Submarine erosion and active tectonics offshore Nice (Southern Alps, France): insights from numerical models
Development of an Intra-Slope Basin Offshore Southwestern Taiwan

GD3.1/GM3.7/SN1.4 – Plate kinematics, mantle convection, paleogeography and sea level (co-organized) –

Posters

Hall XL | Display Time 08:00–19:30
Author in Attendance: 15:30–17:00
Chairperson: n.n.

XL163 EGU2012-5692
B. Guillaume, L. Husson, and G. Choblet
Freeboard, sea level and dynamic topography during aggregation of a supercontinent

XL164 EGU2012-6101
M. Wosińska, T. Niedzielski, I. G. Priede, and P. Migó
On a goodness-of-fit between theoretical hypsometric curve and its empirical equivalents derived for various depth bins from 30 arc-second GEBCO bathymetry

XL165 EGU2012-6897
L. G. Yeo, C. Heine, and R. D. Müller
Using global paleogeographic datasets towards ground-truthing dynamic topography models

XL166 EGU2012-9517
S. M. Masterton, P. Markwick, R. Bailiff, D. Campanile, E. Edgecombe, D. Eue, A. Galsworthy, and K. Wilson
The integration of paleogeography and tectonics in refining plate tectonic models: an example from SE Asia

XL167 EGU2012-5537
E. Ostanciaux, C. Robin, F. Guillocheau, G. Trotin, and L. Husson
The eustatic chimera: isn't the Cenomanian maximum flood a dynamic topography puzzle?

XL168 EGU2012-12121
A. Rozel, T.W. Becker, C. Faccenna, F. Funicello, and L. Husson
Scaling laws of dynamic topography and uplift-rate in 3D spherical geometry

XL169 EGU2012-10926
L. Anderson, F. Ferraccioli, G. Eagles, B. Steinberger, and J. Ritsema
Spatial and Temporal variability in Dynamic Topography in East Antarctica

XL170 EGU2012-4670
L. Quevedo, C. Heine, and R. D. Müller
Reconstructing global grids of oceanic and continental lithospheric thickness

XL171 EGU2012-6981
M. Seton and R.D. Muller
Long-term sea level and the cycle of supercontinent formation and dispersal

XL172 EGU2012-1208
H. Zhang and J.M. Zhao
P-wave velocity structure under Tibetan plateau revealed by seismic tomography

XL173 EGU2012-1219
J.M. Zhao
Where Has the Shortened Lithosphere Gone —Mantle Flow below the Tibet

Hall XL | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: n.n.

XL174 EGU2012-3942
V. Puchkov
Lithospheric response to plume- and plate-tectonic interactions

XL175 EGU2012-4885
S. Brune and C. Heine
3d Numerical Modeling of the Equatorial Atlantic Break-Up

XL176 EGU2012-5433
C. Cadio, M. Ballmer, I. Panet, N. Ribe, and M. Diament
New constraints on the Hawaiian swell origin using wavelet analysis of the geoid to topography ratio

XL177 EGU2012-6145
J. Reyes and L.E. Lara
Juan Fernández ridge (Nazca Plate): petrology and thermochronology of a rejuvenated hot spot trail

XL178 EGU2012-7692
E. Koivisto and R.G. Gordon
A Globally Self-Consistent Model of Plate Motions Relative to the Hotspots for the Past 48 Million Years
Double layering of a thermochemical plume in the upper mantle beneath Hawaii

M. Pearis and C. Lithgow-Bertelloni  
Can plumes collapse?: Experimental results and applications to Iceland.

Evolution of forces on Eurasia since the Miocene

Á. Benediktsdóttir, R.N. Hey, F. Martinez, and Á. Höskuldsson  
Tectonic Evolution of the Reykjanes Ridge During the Past 15 Years

P. Szatmari  
Rifting by continental rotation, mantle flow and hotspot volcanism in the salt-depositing South Atlantic

J. Hooke  
Flood disturbance and regrowth of vegetation in ephemeral channels: conditions and interactions

A.C. Wilcox, P.B. Shafroth, A. Lightbody, J.C. Stella, S. Bywater-Reyes, L. Kiu, and K. Skorko  
Feedbacks among Floods, Pioneer Woody Vegetation, and Channel Change in Sand-Bed Rivers: Insights from Field Studies of Controlled Flood Releases and Models

C. Bilodeau, F. Gob, M.B. Albert, J. Belliard, and J.M. Baudoin  
Quantification of hydromorphological alteration of water courses from regional models across the French territory for their evaluation and their ecological restoration

N. Broothaerts, G. Verstraeten, B. Notebaert, C. Kasse, S. Bohncke, R. Assendelft, and J. Vandenbergh  
Humans reshaped the floodplain ecology in NW Europe through intense agricultural impact

J. Belnap, B. Wilcox, N. Barger, J. Herrick, and M. van Soyoc  
Biological Soil Crusts Influence Hydrologic Function Differently in Various Deserts And Future Climate and Land Use will Affect These Relationships

M.A. Bowker, D.J. Eldridge, and F.T. Maestre  
Runoff source or sink? Biocrust hydrological function strongly depends on the relative abundance of mosses

COFFEE BREAK

Y. Canton, S. Chamizo, E. Rodriguez-Caballero, I. Miralles, R. Lazaro, A. Sole-Benet, and F. Domingo  
Role of Biological Soil Crusts on hydrological cycle drivers of semiarid ecosystems

T. Fischer, A. Yair, and M. Veste  
Infiltration, water holding capacity and growth patterns of biological soil crusts on sand dunes under arid and temperate climates

Effects of sand burial and wind disturbances on moss soil crusts in a revegetated area of the Tennger Desert, Northern China
11:15–11:30  EGU2012-6898  
F. Garcia-Pichel  
Microbial exopolysaccharides as determinants of geomorphological, hydrological and optical properties of soil crusts from the Precambrian till today

11:30–11:45  EGU2012-1182  
F. T. Maestre, C. Escolar, J. L. Quero, M. Ladrón de Guevara, R. Lázaro, V. Ochoa, B. Gozalo, and M. Berdugo  
Will climate change reduce the ability of biological soil crusts to act as a carbon sink in drylands?

11:45–12:00  Toward a Synthesis: Bridging the gap between micro and macro, methodological dilemmas and collaboration between life and earth scientists

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**GM4.4/BG1.8 – Biophysical processes: from biological soil crusts to macro process (co-organized) – Posters**  
Convener: G. J. Kidron | Co-Conveners: B. Büdel, J. Belnap, X. Li, JM Turowski, S. Rice, M. Stoffel, S. Lane  
Hall XL | Display Time 08:00–19:30  
Author in Attendance: 17:30–19:00  
Chairperson: J. Belnap

XL272  EGU2012-2187  
X.R. Li, M.Z. He, X.J. Li, and R.L. Jia  
Cryptogamic communities in biological soil crusts in arid deserts of China: Diversity and their relationships to habitats in different scales

XL273  EGU2012-2191  
X.J. Li  
Effects of patchy distribution of vegetation on infiltration, runoff generation and resources redistribution in Tengger Desert, north China

XL274  EGU2012-4142  
M. Veste, A. Yair, S.-W. Breckle, and T. Littmann  
Ecophysiology of biological soil crusts in arid sand dunes - integration from the micro-scale to the landscape

XL275  EGU2012-6372  
R. Spröte, M. Veste, T. Fischer, T. Raab, O. Bens, and R. F. Hüttl  
Development of biological soil crusts and their influence on soil hydrology in the recultivation area of lignite open-cast mining district in Lower Lusatia (Germany)

XL276  EGU2012-13058  
S. Chamizo, Y. Cantón, R. Lázaro, E. Rodríguez-Caballero, and F. Domingo  
The role of biological soil crusts on soil moisture

XL277  EGU2012-1784  
F. Gil-Sotres, I Miralles, Y. Canton -Castilla, F. Domingo, M.C. Leiros, and C. Trasar-Cepeda  
Influence of biological soil crusts at different successional stages in the implantation of biogeochemical cycles in arid and semiarid zones

XL278  EGU2012-1005  
M. Delgado-Baquerizo, L. Morillas, F. Maestre, and A. Gallardo  
C, N and P ratios modulate the dominance of soil N forms, microbial N transformation processes and microbial functional diversity under biological soil crust in a semi-arid grassland.

XL279  EGU2012-3306  
M. Z. He  
Biological soil crusts are the main contributor to winter soil respiration in a temperate desert ecosystem of China

XL280  EGU2012-9531  
F. Ehrhardt, I. Bertrand, C. Joulian, C. Valentin, G. Alavoine, and O Malam Issa  
Biological soil crusts (BSC) in the Sahelian zone. Can they impact soil C and N cycles?

XL281  EGU2012-6607  
W. Williams, B. Budel, H. Reichenberger, and N. Rose  
Endurance of Australian dry-savannah cyanobacteria regulated by extra-cellular polysaccharides - EPS and environment

XL282  EGU2012-7768  
B. Weber  
Climatically driven distribution patterns of soil crusts and their implications for climate change scenarios

XL283  EGU2012-11040  
J. Bevan, R. Alexander, and R. Lazaro-Suau  
Transplant experiments to examine the habitat exclusivity of lichen dominated soil crust communities in the El Cautivo badlands, SE Spain

XL284  EGU2012-2220  
X. Zhao, Y. Shi, C. Chen, R. Jia, and X. Li.  
The physiology mechanisms on drought tolerance and adaptation of biological soil crust moss Bryum argenteum and Didymodon vinealis in Tenger Desert
XL285  EGU2012-4961  
P. Porada and A. Kleidon  
A Process-based Model of Global Lichen Productivity  

XL286  EGU2012-948  
E. Rodriguez-Caballero, P. Escribano, S. Chamizo, and Y. Canton  
Mapping biological soil crusts for understanding their functional relevance in dryland ecosystems  

XL287  EGU2012-931  
M. Temina  
Distribution patterns of terricolous and saxicolous lichens in extreme desert conditions  

XL288  EGU2012-3533  
I. Grishkan, E. Zaady, and G. Kidron  
Mycobiota of biological soil crusts in the Negev desert, Israel - differences on a regional and local scale  

XL289  EGU2012-416  
G.J. Kidron, H.C. Monger, B. Büdel, A. Vonshak, and W. Conrod  
Runoff initiation versus runoff yield: Understanding the complexity of the hydrological effect of biological soil crusts  

XL290  EGU2012-9502  
N. Bätz, S.N. Lane, A.J.A.M. Temme, and F. Lang  
Understanding the Fluvial Critical Zone  

XL291  EGU2012-3229  
A. Cunnings, E.A. Johnson, and Y.E. Martin  
Riparian seed dispersal: transport and depositional processes  

XL292  EGU2012-2772  
T. Skalski, R. Kedzior, and A. Radecki-Pawlik  
The effect of inundation frequency on ground beetle communities in a channelized mountain stream  

XL293  EGU2012-232  
P. Dieras and J.A. Constantine  
Is there a pattern to oxbow lake geomorphic evolution?  

XL294  EGU2012-5749  
A. Popovici, Gh. Kucicsca, D. Balteanu, I. Sandric, and M. Micu  
Land-use changes as uncertainties in landslide hazard assessment. An application in Vrancea Seismic Region  

XL295  EGU2012-6948  
T. Hong, S.B. Bai, J. Wang, B. Thiebes, and Z.G. Zhang  
Reconstruction of landslide activity by tree-ring analysis - a case study for Jiufangshan landslide, Gansu  

XL296  EGU2012-13248  
P.M. Saco and M. Moreno de las Heras  
Coevolution of Semiarid Hillslopes: Ecogeomorphologic Patterns for Varying Biotic and Abiotic Conditions  

GM4.7 – Late Quaternary environments and societies: progress in geoarchaeology – Orals  
Convener: H. Brückner | Co-Conveners: M. Engel  
Room: 22  
Chairperson: M. Engel & H. Brückner  

13:30–13:45 EGU2012-9975  
Reconstructing past environments and societies - interdisciplinary research in the open cast mine Jänschwalde, Germany  

13:45–14:00 EGU2012-1700  
J. F. Tolksdorf and K. Kaiser  
Are phases of increased Holocene aeolian dynamics in the North European Plain indicating past human induced soil erosion?  

14:00–14:15 EGU2012-1  
Geoarchaeology of Ancient Avlida (Boeotia, Central Greece): a long-term connectivity between human occupation and landscape changes  

14:15–14:30 EGU2012-3700  
K. Nicoll  
Records of urbanism, imperialism, & environmental change in southeastern Turkey  

14:30–14:45 EGU2012-3827  
P.C. Fanning, S.J. Holdaway, J. Shiner, and F. Petchey  
Geoarchaeological approaches to understanding human-environment interactions in Australia’s tropical north: the Weipa shell mounds revisited.
14:45–15:00  EGU2012-921
J. Brancier, C. Cammas, D. Todisco, and E. Fouache
Precolombian settlements in French Guiana: geoarchaeological approach toward a new understanding of the human impact on landscape.

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

GM7.1 – Quantifying fluvial channel processes - New and innovative multidisciplinary approaches – Orals
EGU General Assembly 2012
Room: 21
Chairperson: n.n.

13:30–14:00 EGU2012-12721
H. Wittmann and F. von Blanckenburg
The geological significance of cosmogenic nuclides in sediment of large lowland basins

14:00–14:15 EGU2012-12146
K. Hippe, F. Kober, S. Ivy-Ochs, L. Wacker, P.W. Kubik, and R. Wieler
Quantifying sediment storage using combined cosmogenic in situ 14C-10Be-26Al analysis

14:15–14:30 EGU2012-1820
How does sediment mixing affect 10Be concentrations in alluvial sediments? A case study from a small catchment of the Alps, Zielbach, Alto Adige, Italy

14:30–15:00 EGU2012-7106
S. Castelltort, L. Goren, S.D. Willett, J.-D. Champagnac, F. Herman, and J. Braun
River basins as dynamic markers of crustal deformation

Chairperson: Pierre Valla, Frederic Gob

15:30–15:45 EGU2012-9178
O. Korup, Y. Hayakawa, and T. Oguchi
Flipside coupling of bedrock-river sinuosity and slope-failure size

15:45–16:00 EGU2012-6886
Climatic controls on river network topology

16:00–16:15 EGU2012-10611
J. Braun
A fast, parallel algorithm to solve the basic fluvial erosion/transport equations

16:15–16:30 EGU2012-2466
M. Dotterweich
Perception and research of soil erosion by water until the mid-20th century - examples from central Europe and south-eastern USA

16:30–16:45 EGU2012-12818
A. Hénaff, B. Van Vliet-Lanoë, and E. Le Correc
Improvement of the knowledge in the historical coastal hazards in Brittany by combining archives and geoindicators

16:45–17:00 EGU2012-1528
A. Metzger
A historical climatological point: rebuilding the snow fluctuations from narrative sources, in the XVIth - XVIIIth centuries, in the Netherlands and neighboring regions.

GM10.1/PS2.9 – Planetary Geomorphology (co-organized) – Orals
Convener: S. Conway | Co-Conveners: M. Balme, C. Gallagher
Room: 22
Chairperson: Susan Conway

15:30–15:45 EGU2012-12381
J. Head, J. L. Dickson, J. S. Levy, D. M. H. Baker, and D. R. Marchant
Antarctic Dry Valleys: Geological Processes in Hyperarid, Hypothermal Environments and Implications for Water on Mars

15:45–16:00 EGU2012-10722
E. Hauber, M. Ulrich, D. Reiss, H. Hiesinger, A. Johnsson, M. Balme, and C. Gallagher
Reconstructing the recent climate of Mars: What can we learn from periglacial terrestrial analogues?

16:00–16:15 EGU2012-1045
G Jouannic, J Gargani, F Costard, C Marmo, F Schmidt, O Bourgeois, M Massé, and GG Ori
Morphological characterization of springtime seasonal activity on the Russell dune (Mars)

16:15–16:30 EGU2012-532
M. Gourronc, O. Bourgeois, D. Mége, B. Bultel, and S. Pochat
Valles Marineris: a past glaciated valley landsystem along the Martian equator

16:30–16:45 EGU2012-219
D. G. Blumberg, Y. August, and S.R. Rotman
Measuring geomorphic stability and mobility; Interferomteric coherence data as an indicator for aeolian (wind-blown) dune stability
Characteristics Of Basaltic Sand: Size, Shape, And Composition As A Function Of Transport Process And Distance

A Periglacial Landscape in Acidalia Planitia, Mars?

Formation and evolution of periglacial landforms in context of global warming: Comparison Earth-Mars

Putative crater-floor pingos, paleolakes and periglacial landscapes in north Utopia Planitia, Mars.

The Morphologic Difference between Crater Slopes with and without Gullies on Mars.

How much liquid water was there on Martian dunes?

Evidence of stratabound liquefaction in the formation of fractured topographic margins, cone chains and pit catenas along the Martian Dichotomy Boundary and in Isidis Planitia, Mars.

Decametre scale, spiral-shaped landforms in Elysium Planitia, Mars

Karst terrains in northern Sinus Meridiani, Mars.

Lithostratigraphical analysis in northern Sinus Meridiani, Mars.

Age and erosion rates of sulfate-rich Interior Layered Deposits of Valles Marineris

Airflow modelling over aeolian bedforms, Proctor Crater, Mars

Radar observation of Venus’ terrestrial analogues using TecSAR X-band SAR

Segregation of olivine grains in volcanic sands in Iceland and implications for mineralogy on Mars

A Multifractal Approach to the Analysis of Size-Frequency Distributions of Craters on Planetary Bodies

Feasibility analysis and residual evaluation of automated planar segmentation results of large-scale Martian surface structures

On the calibration of Mars Orbiter Laser Altimeter surface roughness estimates using high-resolution DTMs
19:00–20:00  EGU2012-14445  
G.E. Tucker  
Hillslope, river, and Mountain: some surprises in Landscape evolution (Ralph Alger Bagnold Medal Lecture)

SSS13.3 – Modeling the experiment, experimenting the models - combining rain and wind to soil erosion (co-listed) – Orals


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  
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 (co-listed) – Posters

Convener: Dr. Seeger | Co-Conveners: T. Iserloh, M. Basaran, A. Cerdà, C. Geißler, G. Erpul, W. Fister, D. Gabriels, N.
K. Gerke, B. Gartsmann, A. Bugayets, and D. Korost
Solute flow in extremely stony forest soil: case study in Russian Far East

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

L. Antronico, O. Terranova, and D. Torri
Investigation on sediment erosion and water runoff by means of simulated rainfall in Calabria (southern Italy)

T. Lassu and M. Seeger
Set-up and calibration of an indoor nozzle-type rainfall simulator for soil erosion studies

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.

W. Fister and N.J. Kuhn
A pressure nozzle inventory for rainfall simulations in soil erosion research

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

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

A. Cerdà, C. Azorin-Molina, and Th. Iserlohn
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

M. Marzen, T. Iserloh, M. Seeger, and J.B. Ries
Quantification of Splash and Splash-Saltation

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

High-Speed Video for Investigating Splash Erosion Behaviour: Obtaining Initial Velocity and Angle of Ejections by Tracking Trajectories.

Velocity dependant splash behaviour

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.

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

N. Goldshleger
Using remote sensing method (spectral measurements) for Assessing infiltration rate (IR) induced by structural crust

J. Swiechowicz
Rainfall thresholds for soil supply to stream channel in agricultural catchments

A. U. Ozcan, U Oguzhan, S. Saygın 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
EGU General Assembly 2012

**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. Busso**, X. Rodríguez, F. Francés, G. Benito, Y. Sánchez-Moya, and A Sopena

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. Höfzel**, B. Diekkrüger, D. Blemelt, 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

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**TS1.1 – Open Session: Tectonics and Structural Geology (co-listed) – Posters**

Convener: F. Storti | Co-Conveners: S. Buiter

**Hall A | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Fabrizio Storti and Susanne Buiter

**A413**
**EGU2012-2078**

**I.D. Bastow**, R.S.M. De Plaen, and R.J. Gallacher

The Nature of the Cameroon Volcanic Line: Evidence from Seismic Anisotropy and Receiver Functions

**A414**
**EGU2012-5053**

**H. Otsuka**, J. Ashi, S. Morita, and M. Tanahashi

Attempt to estimate uplift process of outer ridge taking account of distribution and geometry of Foldback Reflectors

**A415**
**EGU2012-9801**

**C.-Y. Hsieh**, K.-M. Yang, and B.-I. Chuang

Trishear model and kinematics of a fault-related structure in the frontal part of Fault-and-thrust belt, NW Taiwan

**A416**
**EGU2012-2555**

**Y.T. Lo** and H.Y. Yen

Gravity data inversion for 3D topography of the Moho discontinuity by separation of sources in Taiwan region

**A417**
**EGU2012-8177**


Development of Tectonostratigraphy in Distal Part of Foreland Basin in Southwestern Taiwan

**A418**
**EGU2012-492**

**J. Ukass**, T. Saks, and K. Popovs

Thickness Reconstruction of Layers by 3D Geometrical Model to Characterize Caledonian Tectonic Complex and Data in Latvia

**A419**
**EGU2012-4846**

**H. Kranis**, E. Skourtos, L. Gouliotis, and S. Lozios

Structural Setting and Upper Quaternary landscape evolution at Delphi, Central Greece
A420  EGU2012-5032
High resolution geophysics reveal a new Neogene basin southeast of the Leitha Mountains - The Winden Syncline (Burgenland, Austria)

A421  EGU2012-5201
**H. Häusler**
Contribution to the discussion of folded Pannonian strata in the Southern Vienna Basin

A422  EGU2012-2623
On the usefulness of sheath folds as kinematic indicators

A423  EGU2012-5359
**L. Rodríguez**, J. Cuevas, and J. M. Tubía
Paleozoic-involving thrust array in the central Sierras Interiores (South Pyrenean Zone, Central Pyrenees): regional implications

A424  EGU2012-5422
**L. Rodríguez**, J. Cuevas, and J. M. Tubía
Structure of the Anayet Permian basin (Axial Zone, Central Pyrenees)

A425  EGU2012-8223
Tectonically controlled magnetic fabrics in the Iberian Triassic basin

A426  EGU2012-10979
**M.R. Barchi**, G. Lena, W. Alvarez, F. Felici, and A. Lupattelli
Mesoscopic S-C fabrics in shallow fault zones: a case history from the Umbria-Marche Apennines (Central Italy)

A427  EGU2012-11423
Low Angle Extensional Faults in a Thrusting/Compressive Regime

A428  EGU2012-7977
**L. Gonzalez** and **O.A. Pfiffner**
The Central Andes of Peru: Structure and Evolution

A429  EGU2012-10923
**J.M. Tubía**, F.D. Hongn, A. Aranguren, and N. Vegas
Inversion tectonics in the pre-andean basement of the Sierra de Cachi (Salta, Argentina)

A430  EGU2012-4811
**O. Bolle**, H. Diet, J. Bascou, and B. Charlier
Anisotropy of magnetic susceptibility in the giant Lac Tio hemo-ilmenite ore body (Quebec Province, Canada): source and geological implications

A431  EGU2012-10272
**T. Torvela**, J. Moreau, R.W.H. Butler, A. Korja, and P. Heikkinen
Toward detailed structural analysis of seismic reflection data from crystalline basement: the seismic attribute approach

A432  EGU2012-3518
**G. Berberich**, D. Klimentz, C. Wöhler, and A. Grumpe
Statistical Correlation between Red Wood Ant Sites and Neotectonic Strike-Slip Faults

A433  EGU2012-9123
Traditional applications and novel approaches in Lu-Hf geochronology

A434  EGU2012-11615
Greenland Expeditions by Alfred Wegener - A photographic window to past
Friday, 27 April

**GM2.1 – High definition topography - data acquisition, modelling, interpretation – Orals**
**Room: 22**
Chairperson: J. Brasington

08:30–08:45 EGU2012-10924
[**S. Van-Wierts** 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
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
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. Marzolff](#)
UAV derived data for the monitoring of gully erosion in the Souss Basin, Morocco

11:30–11:45 EGU2012-12606
Drello : 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 – Orals**
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. Petchko
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

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
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.

TS4.3/GD3.9/GM3.1 – Orogen-scale coupling between tectonics, erosion and climate (co-organized) – Posters
Convener: F. Mouthereau | Co-Conveners: Dr. Garcia-Castellanos, P.A. van der Beek, F. Herman, J.-D. Champagnac, P. Valla
Hall A | Display Time 08:00–17:00
Author in Attendance: 10:30–12:00
Chairperson: P. Valla

A452 EGU2012-1348
M. Boese and D. Wenske
Late Pleistocene to Holocene geomorphological processes in the high mountains of Taiwan

A453 EGU2012-1410
M. Dürst Stucki, F. Schlunegger, F. Christener, J.-C. Otto, and J. Götz
Deepening of inner gorges through subglacial meltwater — An example from the UNESCO Entlebuch area, Switzerland

A454 EGU2012-2253
D. Grabowski, E. Enkelmann, and T. A. Ehlers
Quantifying the spatial distribution of rapid exhumation from glacial detritus, St. Elias Range (Alaska)

A455 EGU2012-2427
G. Hanke, A. Oswald, and K. Stuwe
U-He dating of the highest peak of Sinai: Mt Catherine, Egypt
<table>
<thead>
<tr>
<th>A456</th>
<th>EGU2012-2906</th>
<th>S. Falkowski, E. Enkelmann, and T. A. Ehlers</th>
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<tbody>
<tr>
<td></td>
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<td>Exhumation of the northwestern Fairweather Range, southeast Alaska</td>
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<td>Insights into active structures of the southeastern Central Range in Taiwan: Implications from geomorphic analyses</td>
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<tr>
<th>A458</th>
<th>EGU2012-3625</th>
<th>R.R. Makshaev and A.A. Svitoch</th>
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<tr>
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<td>Neotectonics of the Manych Trough</td>
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<tr>
<th>A459</th>
<th>EGU2012-4358</th>
<th>D. Huyghe, F. Moutheureau, and L. Emmanuel</th>
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<tbody>
<tr>
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<td>Oxygen isotope of mollusc shells record a middle Eocene elevation change in the Pyrenees</td>
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<td>Tectonic activity of the Eastern Central Range front in Taiwan: Perspective from in situ cosmogenic 10Be</td>
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<tr>
<th>A461</th>
<th>EGU2012-6551</th>
<th>P.-Y. Filleaudeau, F. Moutheureau, O. Lacombe, R. Pik, and M.G. Fellin</th>
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<tbody>
<tr>
<td></td>
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<td>The role of rift inheritance during Cenozoic mountain building of the central Pyrenees and geodynamic implications</td>
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<tr>
<th>A462</th>
<th>EGU2012-7474</th>
<th>A. Oswald and K. Stuwe</th>
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<tbody>
<tr>
<td></td>
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<td>Geomorphology in a Rifting Environment. Can Channel Profiles from Arid Sinai, Egypt, Provide Constraints on Tectonics?</td>
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<tr>
<th>A463</th>
<th>EGU2012-8329</th>
<th>J.-D. Champagnac, P. Sternali, F. Herman, B. Guralnik, and F. Beaud</th>
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<tr>
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<td>Fracture density as a controlling factor of postglacial fluvial incision rate, Granite Range, Alaska.</td>
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<th>A464</th>
<th>EGU2012-9009</th>
<th>S. Nagel, M. G. Fellin, S. Castelltort, S. D. Willett, F. Moutheureau, and A. T. Lin</th>
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<tr>
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<td>Provenance evolution of the Western foreland basin and its relationship to the exhumation of source rocks during arc-continent collision</td>
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<td>Active normal faults and river damming: the importance of tectonics and climate in shaping the landscape of the southern Tibetan plateau</td>
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<tr>
<th>A466</th>
<th>EGU2012-12290</th>
<th>A. Carracedo, R. Beucher, C. Persano, J. Jansen, A. Codilean, T. Hoey, and P. Bishop</th>
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<tr>
<td></td>
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<td>Quantifying active tectonic processes in orogenic belts from river analysis of the Sierra Nevada (Spain)</td>
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<th>A467</th>
<th>EGU2012-13220</th>
<th>A. Coudurier Curveur, R. Armijo, and R. Lacassin</th>
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<tr>
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<td>The northern Chile coastal morphology: an interplay between recent tectonic uplift of the west andean margin and precipitation gradient</td>
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<td>Present-day subglacial erosion efficiency inferred from sources and transport of glacial clasts in the North face of Mont Blanc</td>
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<th>A469</th>
<th>EGU2012-4476</th>
<th>C. Thieulot, P. Steer, and R.S. Huismans</th>
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<tr>
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<td>Three-dimensional numerical simulations of crustal systems subjected to convergence and to surface processes</td>
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<th>A470</th>
<th>EGU2012-7540</th>
<th>J. Liu, L. Wen, M. Oskin, and L. Zeng</th>
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<td>Focused modern denudation of the Longmen Shan margin of the eastern Tibetan plateau</td>
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<th>A471</th>
<th>EGU2012-12629</th>
<th>D. L. Egholm and M. F. Knudsen</th>
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<tr>
<td></td>
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<td>Fluvial bedrock erosion by sediment in suspension couples hillslope processes and channel evolution</td>
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<th>A472</th>
<th>EGU2012-4366</th>
<th>J. Babault, J. Van Den Driessche, and A. Teixell</th>
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<td>Longitudinal to transverse drainage network evolution in the High Atlas (Morocco)</td>
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<th>A473</th>
<th>EGU2012-9843</th>
<th>B. Salcher, F. Kober, E. Kissling, and S. Willett</th>
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<tr>
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<td>Glacial conditioning and postglacial erosion of the Central Alps - patterns and magnitude</td>
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<td>Uplift of the southern margin of the Central Anatolian Plateau (Turkey): A record of tectonic and upper mantle processes</td>
</tr>
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A426  EGU2012-4641  
A. Beckers, B. Bovy, and A. Demoulin  
Factors of knickpoint migration on the moderately uplifted Ardennes Plateau, Western Europe

A427  EGU2012-4732  
A. Demoulin, A. Beckers, G. Rixhon, R. Braucher, D. Bourlès, and L. Siame  
A refined model of Quaternary valley downcutting emphasizing the interplay between tectonically triggered regressive erosion and climatic cyclicity

A428  EGU2012-11198  
E. Karymbalis, M. Ferentinou, K. Gaki-Papanastassiou, D. Papanastassiou, and H. Maroukian  
Late Quaternary stream incision rates due to tectonic uplift in North Peloponnesse, Greece

A429  EGU2012-11826  
F. Giaconia, G. Booth-Rea, J.M. Martínez-Martínez, V. Pérez-Peña, and J.M. Azañón  
Geomorphic analysis of the Sierra Cabrera, an active pop-up in the constrict domain of conjugate strike-slip faults: the Palomares and Polopos fault zones (eastern Betics, SE Spain)

A430  EGU2012-12654  
J.M. Azañón, V. Pérez-Peña, F. Giaconia, G. Booth, M.J. Rodríguez-Peces, and C. Ureña  
Uplift and active folding in the western sector of Sierra Nevada (Betics Cordillera, SE Spain).

A431  EGU2012-11883  
F. Giaconia, G. Booth-Rea, J.M. Martínez-Martínez, J.M. Azañón, and I. Villegas  
Fault segment linkage and growth of the Polopos transpressive fault zone and its influence on Pleistocene drainage captures (southeastern Betics).

A432  EGU2012-11819  
D. Gioia, M. Moretti, S. Gallicchio, and M. Schiattarella  
Morphometric analysis of drainage network in the northern sector of the southern Italian foredeep: implications for fluvial denudation processes and Late Quaternary geomorphological evolution

A433  EGU2012-4814  
A. Whittaker, S. Erhardt, A. Norori-McCormac, and F. Knight  
Quantifying the controls on grain size export from tectonically perturbed catchments: Case studies from Sicily, Calabria and Abruzzo, Italy

A434  EGU2012-7786  
F. Mirabella, M. Menichelli, F. Pazzaglia, S. Pucci, L. Melelli, L. Saccucci, and M.R. Barchi  
Tectonic control on extensional basins infill and on rivers incision. Examples from the Northern Apennines of Italy

A435  EGU2012-6966  
T. Salles, G. Duclaux, J. Mansour, P. Rey, and L. Moresi  
Testing basin-scale evolution concepts on a supercomputer at realistic tectonic and sedimentary rates

A436  EGU2012-2733  
M. Collignon, B. Kaus, M. Frehner, S. Castelltort, G. Simpson, and J.P. Burg  
Modeling interactions between tectonics and surface processes in the Zagros Mountains, Iran

A437  EGU2012-9466  
G. Zeilinger, P. Ballato, M. R. Ghassemi, G. Heidarzadeh, H. R. Javadi, and M. Baghernejad  
Structural evolution and internal deformation of the Turkish-Iranian Plateau in northwestern Iran

A438  EGU2012-3394  
A. Bande, E.R. Sobel, A. Mikolaichuk, and R. Teslyuk  
Deciphering intracontinental basin evolution: the Fergana depression example.

A439  EGU2012-4464  
S.-Y. Huang, Y.-G. Chen, T.-K. Liu, C.-H. Lo, G. Yin, and Z. Cao  
Distributed unroofing history in the central and eastern Lhasa Terrane: revealed by multiple thermochronometers on detrital samples

A440  EGU2012-13553  
P. Št?pan?íková, M. Danišík, and N. J. Evans  
Thermochronological record of long term faulting, burial and exhumation history in the Sudetes (Bohemian Massif, Central Europe): a multi-system thermochronological approach

A441  EGU2012-11351  
Constraining the thermal and erosional evolution of the Rwenzori Mtns, Albertine Rift, by detrital thermochronology
A442  EGU2012-394
N. B. Palacios García and M. Martini
Provenance changes for sandstones from the Sierra de los Cuarzos (central Mexico): the possible record of a terrane accretion
A443  EGU2012-8022
M. Genti, J. Malavieille, G. Molli, S. Dominguez, A. Taboada, and A. Vitale-Brovarone
Development of tectono-sedimentary mélanges in accretionary wedges: Insights from analog modeling
A444  EGU2012-13452
L. Mocochain, G. Clauzon, J. Robinet, C. Blanpied, J.P. Suc, C. Gorini, A. Al Abdalla, and F. Azki
Messinian Erosional Surface in the Levant margins: geodynamic implications.
A445  EGU2012-4291
C. Bonnel, D. Huyghe, B. Nivière, G. Messager, D. Dhont, B. Fasentieux, Y. Hervouët, and J-P. Xavier
Characterisation of the sedimentary processes responsible for the filling and excavation of two intra mountainous basins (Agua Amarga and Collon Cura) in the Andes of Neuquén (Argentina) during the Neogene
A446  EGU2012-12694
S. Molliex, M. Rabineau, E. Leroux, D. Aslanian, F. Chauvet, D. Bourlès, S. Révillon, and G. Jouët
Geomorphological feedback between watershed erosion and marine sedimentation in the Gulf of Lion margin (SE France).
A447  EGU2012-8680
Mapping Geological Features in a 3D Seismic Volume for Gas Hydrate Investigation Offshore Southwestern Taiwan
A448  EGU2012-10088
J.J. Ni, C.S. Liu, and S.C. Chen
Sedimentary Processes of a Slope Ridge on the Northern South China Sea Continental Slope
A449  EGU2012-727
M. A. Islam
Depositional Environment of Neogene Reservoir Succession of Bengal Basin, Bangladesh constrain from lithofacies and electrofacies analysis
A450  EGU2012-2376
V. Schuller and U. Herzog
In-Sequence /Out-Of-Sequence Thrusting - Governing Processes and Implications: an Example from the Subalpine Molasse Basin
A451  EGU2012-3123
H. Ortner, A. Kositz, E. Willingshofer, and D. Sokoutis
Fault-related progressive unconformities: Growth strata of the transpressive Northern Calcareous Alps (NCA) fold belt (Austria) in field and analogue model

GD3.1/GM3.7/SM4.4/TS1.6 – Plate kinematics, mantle convection, paleogeography and sea level (co-organized) – Orals
Room: 30
Chairperson: n.n.
08:30–08:45  EGU2012-9803
The Topographic evolution of the African continent, constraints from coupling deep mantle, climate and surface processes models
08:45–09:00  EGU2012-7986
R. D. Müller, N. Flament, and M. Gurnis
The scale and time dependence of surface dynamic topography over the last 200 million years in the Atlantic and Indian ocean domains
09:00–09:15  EGU2012-1087
J.D. Paul, G.G. Roberts, and N. White
Temporal and Spatial Evolution of Dynamic Support From River Profiles: A Framework for Madagascar and Africa
09:15–09:30  EGU2012-7936
X. Robert, P. Reiners, K.X. Whipple, R. Moucha, and A. Forte
Dynamic uplift and erosion history of the Colorado Plateau: New insights from a SW-NE thermochronologic transect
EGU General Assembly 2012

09:30–09:45  EGU2012-11867  
K. Czarnota, M. J. Hoggard, N. White, and J. Winterbourne  
Linking Observations of Dynamic Topography from Oceanic and Continental Realms around Australia

09:45–10:00  EGU2012-4578  
E. Artushkov and P. Chekhovich  
Rapid paleodepth changes in epeiric Paleozoic basins as a consequence of crustal uplift and subsidence

COFFEE BREAK

Chairperson: n.n.

10:30–10:45  EGU2012-5572  
L. Husson  
The dynamics of convergent boundaries over a convecting mantle

10:45–11:00  EGU2012-6181  
C. Facenna and T.W. Becker  
Mantle conveyor beneath the Tethyan collisional belt

11:00–11:15  EGU2012-4977  
The African Plate: A history of oceanic crust accretion and subduction since the Jurassic

11:15–11:30  EGU2012-12689  
S.C. Cande and D.R. Stegman  
Surface expression of the Reunion Plumehead as witnessed by tectonics in the Indian Ocean

11:30–11:45  EGU2012-4084  
R. Ramalho  
The evolution of ocean island volcanoes in a stationary plate environment and its implications concerning hotspot dynamics

11:45–12:00  EGU2012-5745  
N. M. Ribe  
Inferring Properties of the Hawaiian Plume from the Hawaiian Swell

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

EGU2012-11867  
K. Czarnota, M. J. Hoggard, N. White, and J. Winterbourne  
Linking Observations of Dynamic Topography from Oceanic and Continental Realms around Australia

EGU2012-4578  
E. Artushkov and P. Chekhovich  
Rapid paleodepth changes in epeiric Paleozoic basins as a consequence of crustal uplift and subsidence
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-Odoux, 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. Goultsbra 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. Poeppel, and T. Glade  
Longitudinal sediment-connectivity in a dammed river system using fine sediment analyses - a case study in the Kaja river, Lower Austria

GM7.2/HS9.2 – Morphodynamics of Rivers and Estuaries: Sediment Budgets, Monitoring Techniques and Process Dynamics (co-organized) – Orals
Convener: A. Winterscheid | Co-Conveners: RM Frings, G. Erkens, PhD Hudson
Room: 21
Chairperson: Axel Winterscheid

13:30–13:45  EGU2012-2533  
S. Trimble  
The Sediment Budget approach in Erosion and Sediment Studies

13:45–14:00  EGU2012-10930  
M. Tritthart, M. Liedermann, and H. Habersack  
Channel incision at the Danube River east of Vienna: verifying bed-load transport rates by different methods

14:00–14:15  EGU2012-571  
H.E. Reid, R.D. Williams, S. Coleman, and G.J. Brierley  
A Novel Field-Based Approach for Analysing Bar Reworking: Trialled in the Tongariro River, New Zealand

14:15–14:30  EGU2012-8888  
M. Lemoine, J. Deloffre, R. Lafite, P. Le Hir, K. Oberle, and F. Petit  
Contribution of intra-estuarine tributaries to estuarine sediment budget
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<td>EGU2012-10453</td>
<td><strong>S. De Roo</strong>, L. Vanhaute, and P. Troch</td>
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<td>How ship wave action influences the sediment budget of a nature friendly bank protection in a confined, non-tidal waterway</td>
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<td>EGU2012-5971</td>
<td><strong>G. Erkens</strong>, M. Prins, and W. Toonen</td>
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<td>Human impact on the Middle and Late Holocene floodplain sediment characteristics along the River Rhine</td>
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<td>GM7.2/HS9.2 – Morphodynamics of Rivers and Estuaries: Sediment Budgets, Monitoring Techniques and Process Dynamics (co-organized) – Posters</td>
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<td>Author in Attendance: 10:30–12:00</td>
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<td><strong>J. A. Lopez-Tarazon</strong>, R.J. Batalla, and D. Vericat</td>
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<td>The sediment budget of a highly dynamic mountainous catchment</td>
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<td>From source to mouth: the sediment budget of the river Rhine</td>
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<td>XL120</td>
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<td><strong>G. Hillebrand</strong>, P. Heininger, T. Krämer, C. Möhlenkamp, J. Pelzer, D. Schwandt, and E. Claus</td>
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<td>Cohesive Sediments in Groyne Fields along the Elbe River</td>
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<td><strong>W.M. van Dijk</strong>, W.I. van de Lageweg, and M.G. Kleinans</td>
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<td>Experimental rivers: from braided towards meandering by the addition of cohesive floodplain material</td>
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<td><strong>J. Moody</strong> and R. Meade</td>
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<td>Role of Erosion in Shaping Point Bars</td>
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<td><strong>A. Hejduk</strong>, L. Hejduk, and K. Banasik</td>
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<td>Characteristics of suspended sediment grain size in winter events of lowland river</td>
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<td>Channel morphodynamics and habitat recovery in a river reach affected by gravel-mining (River Ésera, Ebro basin)</td>
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<td><strong>A. Nicholas</strong></td>
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<td>Numerical simulation of morphodynamic diversity in the World's largest rivers</td>
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<td><strong>L. Solari</strong>, S. Francalanci, and E. Paris</td>
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<td>Monitoring and modelling sediment transport in Versilia river (Tuscany- Italy)</td>
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<td><strong>D. Oskoruš</strong>, N. Mikovi?, and I. Ljevar</td>
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<td>Monitoring and Risk Identification Caused by High Water, Floods and Erosion Processes in Urban Part of Sava Riverbed</td>
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<td>Unraveling fine sediment transport patterns along the Ohau Channel, NZ, using a dynamic penetrometer</td>
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<td>Improvements on turbidity current models. Application to Adra River (southern Spain)</td>
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<td>Coupling of remote sensing, climate and hydrologic data for assessing coastline changes in R. Sperchios estuary (Maliakos Gulf, Greece).</td>
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<td><strong>A. Nahon</strong>, J.C.B. Da Silva, and P. Freire</td>
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<td>Accurate mapping of a shallow, channelized tidal lagoon: Óbidos Lagoon (Portugal).</td>
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XL133  EGU2012-12190
M. Promny
Sediment budgeting of German waterways

XL134  EGU2012-12308
N. Ohle, I. Entelmann, and A. Winterscheid
Results of a Monitoring Program at a Sediment Trap in the Elbe Estuary near Wedel

XL135  EGU2012-12614
G.A.M. de Almeida and J.F. Rodriguez
Exploring sediment processes in pool-riffle sequences using a simple 1D morphodynamic model.

XL136  EGU2012-1271
R. Aalto, A. Schwendel, and A.P. Nicholas
Morphodynamics of Migration Surveyed at Large Spatial and Temporal Scales

XL137  EGU2012-13522
E. Ferreira, E. Alves, and R. M. L. Ferreira
Mitigation of turbidity currents in reservoirs with passive retention systems: validation of CFD modeling

XL138  EGU2012-13624
PH Hudson, FT Heitmuller, and RH Kesel
Overbank Sedimentation from the 2011 Flood along the Lower Mississippi River: Characterization and Comparison of Two Extreme Events

XL139  EGU2012-14161
S. Baranya, S. Rajmund, and J. Józsa
Hydro-morphological analysis of a sand-bed river in Hungary

GM7.3/HS9.7/NH1.9 – Morphodynamics of steep mountain channels (co-organized) – Orals
Convener: F. Brardinoni | Co-Conveners: JM Turowski, L. Mao, D. Rickenmann, a. Recking
Room: 21
Chairperson: n.n.

10:30–10:45  EGU2012-10163
J.W. Kean, S.W. McCoy, G.E. Tucker, D.M. Staley, and J.A. Coe
Investigating controls on debris-flow initiation and surge frequency at Chalk Cliffs, USA: initial results from monitoring and modeling

10:45–11:00  EGU2012-8498
B.W. McArdell and B. Fritschi
Field measurements of pressure fluctuations on an instrumented wall: implications for channel-bed erosion

11:00–11:15  EGU2012-3964
Debris flows and cosmogenic catchment wide denudation rates

11:15–11:30  EGU2012-1989
L. Marchi
Control works in debris-flow channels: influence on morphology and sediment transfer

11:30–11:45  EGU2012-8590
I. fraccarollo and h capart
Measurements and theory for transport layer structure in intense bed-load

11:45–12:00  EGU2012-1191
F. Mettra, J. Heyman, and C. Ancye
Characterization of bedload transport in steep-slope streams

GM7.3/HS9.7/NH1.9 – Morphodynamics of steep mountain channels (co-organized) – Posters
Convener: F. Brardinoni | Co-Conveners: JM Turowski, L. Mao, D. Rickenmann, a. Recking
Hall XL | Display Time 08:00–17:00
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XL140  EGU2012-54
JM Turowski, A Badoux, J Leuzinger, and R Hegglín
Large floods, alluvial overprint, and bedrock erosion

XL141  EGU2012-3218
A. Iroume, A. Andreoli, H. Ulloa, V. Sandoval, and L.E. Lara
Stream channel morphology, sediment and large wood transport evolution patterns following the 2008 Chaitén volcano eruption, Chile
Architectural analysis and chronology of an Alpine alluvial fan using 3D ground penetrating radar investigation and quantitative outcrop analysis

A new debris-flow monitoring system in an Alpine catchment

Field measurements of bedrock erosion driven by bedload impacts

Controls on the distribution and geometry of postglacial bedrock channels

Sediment mobility and bedload transport rates in a high-elevation glacier-fed stream (Saldur river, Eastern Italian Alps)

On how sediment supply impacts step-pool bedload transport

Comparing the results of bed load transport equations to field measurements in an Alpine river

Photogrammetric analysis of slope failures feeding the head of the Illgraben debris flow channel

The contribution of fluvial and mass wasting processes to sedimentary budget in mountain catchments of the southern Apennines, Italy

Airborne LiDAR investigation of lithological controls on river behavior in a mountainous catchment following a major storm event

Sediment transfer dynamics in the Illgraben

Materosion - Modelling sediment cascade towards prediction of solid mass wasting in steep alpine catchments

Simulation of long-term debris flow sediment transport based on a slope stability and a debris flow routing model

Different approaches to assess the volume of debris-flows deposits: are results comparable?

On the Characteristics of the Upstream Bedrock Erosion in Taiwan

High-resolution seismic monitoring of geomorphic activity in a catchment

Fluvial incision in postglacial rivers: distribution, rates and controls

A sandpile model of grain blocking and consequences for sediment dynamics in step-pool streams

GM7.4 – Braided rivers: insights from new monitoring and modelling techniques – Orals
15:30–15:45  EGU2012-11683
J.T. Gardner and P. Ashmore
Braided river deposit geometry and the morpho-dynamics of confluences

15:45–16:00  EGU2012-103
Y. Storz-Peretz and J.B. Laronde
Hydrological regime as key to the morpho-texture and activity of braided streams

16:00–16:15  EGU2012-5943
A. Nicholas, P. Ashworth, S. Sandbach, M. Amsler, J. Best, R. Hardy, S. Lane, O. Orfeo, D. Parsons, A. Reesink, G. Sambrook Smith, and R. Szupiany
Braid bar and island dynamics of the multi-threaded Rio Paraná, Argentina

16:15–16:30  EGU2012-849
R.D. Williams, J. Brasington, D. Vericat, and D.M. Hicks
Quantifying braided river morphodynamics through a sequence of high-flow events

16:30–16:45  EGU2012-11437
B. Belletti, S. Dufour, and H. Piégay
Regional assessment of braided riverscape multi-decadal changes following large floods (Example of 12 reaches in South East of France)

16:45–17:00  EGU2012-9784
L. Zilliani and N. Surian
Modelling and prediction of channel morphology evolution in a large braided river (Tagliamento River, Italy)

GM7.4 – Braided rivers: insights from new monitoring and modelling techniques – Posters

XL161  EGU2012-2603
P. Leduc, H. Bellot, and A. Recking
Moiré method applied to sediment transport in a small-scale braided river

XL162  EGU2012-3629
M. Welber, W. Bertoldi, and M. Tubino
Braided river morphodynamics as a driver of driftwood dispersal: a flume experiment

XL163  EGU2012-13262
E. Bastianon, A. Dussaillant, and W. Bertoldi
Outburst Floods and Morphology of Colonia and Baker Rivers, Patagonia

XL164  EGU2012-8787
S. Lallias-Tacon, F. Liébault, H. Piégay, and P. Leduc
Study of morphological changes of a gravel-bed braided river with a combined analysis of airborne LiDAR and archive aerial photographs (French Prealps)

XL165  EGU2012-8679
J. Moretto, E. Rigon, L. Mao, F. Delai, L. Picco, and M.A. Lenzi
Morphological changes analysis of gravel beds rivers through comparison of DTMs (DoD): integration of LiDAR data, DGPS survey and aerial photo.

XL166  EGU2012-10484
L. Picco, L. Mao, M. Cavalli, E. Buzzi, and M.A. Lenzi
Short term morphological dynamics along a low impacted braided gravel-bed river

XL167  EGU2012-4989
The Grain-size Patchiness of Braided Gravel-Bed Streams: Example of the Urumqi River (northeast Tian Shan, China)

XL168  EGU2012-11619
J. Tunnicliffe, M. Hicks, P. Ashmore, J. Walsh, J.T. Gardner, and M. Duncan
Use of 2D hydraulic models to develop and improve parameterized 1D models of sediment transport

XL169  EGU2012-757
K. Plesinski, R. Jasek, and A. Radecki-Pawlik
Hydrodynamic parameters in the braided river reach - the Ochotnica River study in Polish Carpathians
**GM7.5/HS10.9 – Dynamic riverine landscapes: the role of ecosystem engineers (co-organized) – Orals**

**Convener:** G.L. Harvey | **Co-Conveners:** W. Bertoldi

**Room:** 21

**Chairperson:** Walter Bertoldi and Gemma Harvey

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<td>08:30–08:45</td>
<td>EGU2012-1359</td>
<td>A.M. Gurnell</td>
<td>Riparian and Aquatic Plants as River Ecosystem Engineers</td>
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<td>EGU2012-1774</td>
<td>S.P. Rice</td>
<td>Impact of benthic fauna on fluvial bed load transport: Challenges of upscaling laboratory experiments to river and landscape scales.</td>
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<td>P. Perona</td>
<td>Vegetation roots and fluvial ecomorphodynamics: processes and related timescales</td>
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<td>09:15–09:30</td>
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<td>S.J. Albers and E.L. Petticrew</td>
<td>Salmon as drivers of physical and biological disturbance in river channels</td>
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<td>09:30–09:45</td>
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<td>D Corenblit, E Tabacchi, J Steiger, E Gonzales, and AM Planty-Tabacchi</td>
<td>Ecosystem engineers modulate exotic invasions in riparian plant communities</td>
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<td>09:45–10:00</td>
<td>EGU2012-9395</td>
<td>M.B. Soons</td>
<td>Vegetation development following stream/river restoration: more natural fluvial dynamics and morphology, return of aquatic and riparian plant species?</td>
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**GM7.5/HS10.9 – Dynamic riverine landscapes: the role of ecosystem engineers (co-organized) – Posters**

**Convener:** G.L. Harvey | **Co-Conveners:** W. Bertoldi

**Hall XL | Display Time 08:00–17:00**

**Author in Attendance:** 15:30–17:00

**Chairperson:** Walter Bertoldi and Gemma Harvey

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<tr>
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<td>The impact of feeding Cyprinids on river bed sediment structures and grain entrainment</td>
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<td>EGU2012-14053</td>
<td>L.E Polvi-Pilgrim and E Wohl</td>
<td>Holocene planform change in broad valleys in the Southern Rocky Mountains: the role of vegetation type and beaver in shaping long-term channel complexity</td>
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