

**EGU General Assembly 2012**  
**Programme Group Programme**  
**ESSI – Earth & Space Science Informatics**

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## Monday, 23 April

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### ESSI1.2/OS4.7 – Informatics in Oceanography and Ocean Science (co-organized) – Orals

Convener: G. M. R. Manzella | Co-Conveners: D. M. A. Schaap, A. Alvarez

**Room: 25**

Chairperson: Dick Schaap

13:30–13:45 EGU2012-1163

**G. Breitbach** and H. Krasemann

Web Services as Building Blocks for an Open Coastal Observing System

13:45–14:00 EGU2012-1258

**C.L. Chandler**, R.C. Groman, M.D. Allison, P.H. Wiebe, D.M. Glover, and S.R. Gegg

Effective Management of Ocean Biogeochemistry and Ecological Data: the BCO-DMO Story

14:00–14:15 EGU2012-1638

M. Fichaut, **D. Schaap**, G. Maudire, and G.M.R. Manzella

SeaDataNet: Pan-European infrastructure for ocean and marine data management

14:15–14:30 EGU2012-1643

**A. Novellino**, D. Schaap, G.M.R. Manzella, S. Pouliquen, and P. Gorringe

EMODnet Physical Parameters (EMODNet PP) Portal

14:30–14:45 EGU2012-4601

H. Glaves and **D. Schaap**

Geo-Seas - building a unified e-infrastructure for marine geoscientific data management in Europe

14:45–15:00 EGU2012-6399

**R. Proctor**, P. Blain, and S. Mancini

Oceans of Data : the Australian Ocean Data Network

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### ESSI1.6 – Laser Scanning: 3D Spatial Data, Analysis, and Infrastructures in Geosciences – 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. Milenkovi?**, 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**

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### COFFEE BREAK

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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. Ziinszky**, 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

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

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

**Room: D**

Chairperson: n.n.

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

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**COFFEE BREAK**

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Chairperson: n.n.

- 10:30–10:45 EGU2012-3335  
**A. Bastos**, C. M. Gouveia, R. M. Trigo, and C. C. DaCamara  
 Vegetation recovery assessment following large wildfires in the Mediterranean Basin
- 10:45–11:00 EGU2012-13785  
**T. Brown**, C. Kolden, and J. Abatzoglou  
 Assessing fuels treatments in the context of climate change
- 11:00–11:15 EGU2012-12648  
**T. Calheiros**, M.G. Pereira, T.J. Calado, C.C. Dacamara, and J.G. Pinto  
 Potential effects of regional climate change on rural fires over Europe
- 11:15–11:30 EGU2012-3852  
**R. Bradstock**, M. Boer, T. Penman, and O. Price  
 Divergent responses of fire to recent climate change: evidence from bio-regional patterns across south-eastern Australia
- 11:30–11:45 EGU2012-1967  
**D. Cane**, C. Wastl, S. Barbarino, L. Renier, C. Schunk, and A. Menzel  
 Evaluation of fire potential in the climatic scenario: an Alpine area perspective
- 11:45–12:00 EGU2012-7340  
**A. Shvidenko** and D. Schepaschenko  
 Wildfire in Northern Eurasia and climate change

Chairperson: n.n.

- 15:30–15:45 EGU2012-3173  
**I. Csiszar**, W. Schroeder, L. Giglio, E. Ellicott, and C.O. Justice  
A comparison of remote sensing of active fires from MODIS and VIIRS
- 15:45–16:00 EGU2012-11107  
**G. Ruecker**, E. Lorenz, A.A. Hoffmann, D. Oertel, and J. Tiemann  
A mission concept for a dedicated Fire Monitoring Constellation of small satellites based on the BIRD heritage
- 16:00–16:15 EGU2012-12485  
**C. C. DaCamara**, R. Libonati, A. Barros, G. Gaspar, and T. J. Calado  
Using MODIS imagery to assign dates to maps of burn scars in Portugal
- 16:15–16:30 EGU2012-8366  
**r. Paugam**, m. Wooster, s. Freitas, s. Gonzi, and p. Palmer  
Parameterization of Fire Injection Height in Large Scale Transport Model
- 16:30–16:45 EGU2012-9558  
**E. Athanasopoulou**, C. Giannakopoulos, H. Vogel, D. Rieger, C. Knote, M. Hatzaki, B. Vogel, and A. Karali  
Fire risk and air pollution assessment during the 2007 wildfire events in Greece using the COSMO-ART atmospheric model
- 16:45–17:00 EGU2012-10521  
**J.W. Kaiser**, A. Benedetti, R. Detmers, A. Heil, J.-J. Morcrette, M.G. Schultz, G.R. van der Werf, M.J. Wooster, and W. Xu  
Assimilation of FRP Observations for Global Fire Emission Estimation in MACC-II

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

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

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

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY281 EGU2012-14135  
N.J. Gonçalves, **M.G. Pereira**, P. Fernandes, C. Loureiro, C.C. DaCamara, and M.T. Calado  
Landscape-structure metrics influence on fire size distribution in Portugal
- XY282 EGU2012-12208  
R. Costa, **M.G. Pereira**, L. Caramelo, C. Vega Orozco, and M. Kanevski  
Spatio-temporal clustering of wildfires in Portugal
- XY283 EGU2012-779  
**E. Íñiguez-Remón**, D. Badía-Villas, and P. Ibarra-Benlloch  
Spatial and temporal changes in land cover and its relation to the wildfire risk in Montes de Zuera (NE-Spain)
- XY284 EGU2012-12737  
**Panagiota Papakosta**, Florian Klein, Simon König, Stefan Peters, and Daniel Straub  
Linking spatio-temporal data to the Fire Weather Index to estimate the probability of wildfire in the Mediterranean
- XY285 EGU2012-11226  
**B. Arca**, G. Pellizzaro, A. Canu, G.V. Pintus, R. Ferrara, and P. Duce  
An analysis on Wildland Urban Interface in North Sardinia
- XY286 EGU2012-9852  
**C.M. Gouveia**, A. Bastos, R.M. Trigo, and C. DaCamara  
Drought impact on vegetation in pre and post fire events in Iberian Peninsula
- XY287 EGU2012-12172  
**V. Bacciu**, G. Pellizzaro, P. Santoni, B. Arca, A. Ventura, M. Salis, T. Barboni, V. Leroy, D. Cancellieri, E. Leoni, L. Ferrat, Y. Perez, P. Duce, and D. Spano  
Fuel type characterization and potential fire behavior estimation in Sardinia and Corsica islands
- XY288 EGU2012-2419  
**D. Cane**, A. Arpacı, M. Conedera, E. Valese, S. Barbarino, H. Vacik, and G.B. Pezzatti  
Suitability of different Fire Weather Indices for alpine conditions: an extensive evaluation with high resolution data
- XY289 EGU2012-8422  
**C. Schunk**, C. Wastl, M. Leuchner, C. Schuster, and A. Menzel  
Forest fire danger indices under extreme meteorological conditions in a complex topography - the situation in the Bavarian Alps in autumn 2011
- XY290 EGU2012-13793  
**K. Koster**, J Pumpanen, and F Berninger  
Recovery of soil carbon and nitrogen pools following forest fires in eastern Lapland, Finland.

- XY291 EGU2012-10307  
**A. Ganteaume**, M. Jappiot, and C. Lampin  
Assessing and ranking the flammability of some ornamental plant species to select firewise plants for landscaping in WUI (SE France).
- XY292 EGU2012-597  
**E. Shvetsov**  
The Correlation Analysis of Fire Energy Release and Weather Conditions
- XY293 EGU2012-13648  
**M. Amraoui**, C.C. DaCamara, and S.L. Ermida  
An algorithm to detect fire activity using Meteosat: fine tuning and quality assesment
- XY294 EGU2012-3196  
**I. Csizar**, C.O. Justice, E. Prins, W. Schroeder, C. Schmidt, and L. Giglio  
Fire Monitoring from the New Generation of US Polar and Geostationary Satellites
- XY295 EGU2012-11870  
**G. Mazzeo**, C. Filizzola, I. Covello, F. Marchese, R. Corrado, T. Lacava, R. Paciello, N. Pergola, and V. Tramutoli  
Performance assessment of a Robust Satellite Techniques (RST-FIRES) for forest fire detection and monitoring
- XY296 EGU2012-1704  
**S. Veraverbeke** and S. Hook  
Evaluating spectral indices and spectral mixture analysis for assessing fire severity and adjusting burning efficiency using Landsat data
- XY297 EGU2012-1705  
**S. Veraverbeke**, S. Hook, and G. Hulley  
A single date SWIR-MIR index (SMI) for rapid fire severity assessments
- XY298 EGU2012-10622  
**T. Thonat**, C. Crevoisier, A. Chédin, R. Armante, L. Crépeau, and N. A. Scott  
Study of biomass burning emissions with Aqua/AIRS and MetOp-A/IASI
- XY299 EGU2012-7916  
C. Kontoes, I. Papoutsis, D. Michail, Th. Herekakis, M. Koubarakis, K. Kyriakos, M. Karpathiotakis, C. Nikolaou, M. Sioutis, G. Garbis, S. Vassos, **I. Keramitsoglou**, M. Kersten, S. Manegold, and H. Pirk  
Wildfire monitoring via the integration of remote sensing with innovative information technologies
- XY300 EGU2012-8868  
**I. Berdufi**, O. Jaupaj, M. Marku, M. Deda, E. Fiori, M. D'Andrea, G. Biondi, P. Fioruci, M. Massabò, P. Zorba, and M. Gjonaj  
Bulletin of Forest Fire risk in Albania- The experience of the Albania National Centre for forecast and Monitoring of Natural Risks
- XY301 EGU2012-525  
**V. Rakitin**, A. Safronov, L. Yurganov, E. Fokeeva, E. Grechko, and A. Dzhola  
CO atmospheric pollution of Moscow area during wild fires in summer 2010, estimates of emissions and their uncertainties
- XY302 EGU2012-1254  
**N. Ursino** and M.C. Rulli  
Hydrological minimal model for fire regime assessment in Mediterranean ecosystem
- XY303 EGU2012-7298  
**O. Stein**, J.W. Kaiser, A. Heil, and M.G. Schultz  
Model sensitivity to global fire emissions: GFED versus GFAS
- XY304 EGU2012-7945  
**M.J.M. Penning de Vries**, O.N.E. Tuinder, T. Wagner, and M. Fromm  
Calculation of smoke plume mass from passive UV satellite measurements by GOME-2 polarization measurement devices
- XY305 EGU2012-10052  
**M. Salis**, B. Arca, A. Ager, C. Fois, V. Bacciu, P. Duce, and D. Spano  
Extreme Wildfire Spread and Behaviour: Case Studies from North Sardinia, Italy
- XY306 EGU2012-6855  
**C.I. Mason**, G.J. Sheridan, H.G. Smith, O. Jones, D. Chong, and K. Tolhurst  
FIRESTORM: Modelling the water quality risk of wildfire.
- XY307 EGU2012-13343  
**M. D'Andrea**, P. Fiorucci, G. Biondi, and D. Negro  
PROPAGATOR: a synchronous stochastic wildfire propagation model with distributed computation engine
- XY308 EGU2012-11419  
**J. Mandel**, A. K. Kochanski, V. Y. Kondratenko, and J. D. Beezley  
Coupled atmosphere-fire modeling with data assimilation for 2007 Santa Ana fires
- XY309 EGU2012-4307  
**V. Khan**  
Long-range forecasting of forest fire danger index based on PLAV model outputs

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**ESSI2.9 – Intelligent geo-Information Management in the Future Internet – Orals**

Convener: Dr. Havlik | Co-Conveners: Z A Sabeur, S. Nativi, W. Schmidt

**Room: 7**

Chairperson: n.n.

15:30–15:45 EGU2012-14355

**Z. A Sabeur**, H Denis, and S Nativi

Advanced situation awareness with localised environmental community observatories in the Future Internet

15:45–16:00 EGU2012-7404

**B. Stollberg**

Development of a Mobile Application for Disaster Information and Response

16:00–16:15 EGU2012-13173

**S. Fritz**, P. Purgathofer, F. Kayali, M. Fellner, M. Wimmer, T. Sturn, G. Triebnig, S. Krause, F. Schindler, M. Kollegger, C. Perger, M. Dürauer, W. Haberl, L. See, and I. McCallum

Landspotting: Social gaming to collect vast amounts of data for satellite validation

16:15–16:30 EGU2012-12902

**B Arbab-Zavar**, A. Chakravarthy, and Z A Sabeur

Geospatial intelligence and visual classification of environmentally observed species in the Future Internet

16:30–16:45 EGU2012-12384

**N. Dawes**, M. Bavay, T. Egger, S. Sarni, A. Salehi, A. Davison, H. Jeung, K. Aberer, and M. Lehning

From sensor networks to connected analysis tools

16:45–17:00 EGU2012-14432

**P. Slusallek**, R. Jochem, K. Sons, and H. Hoffmann

Intelligent Visualization of Geo-Information on the Future Web

17:00–17:15 EGU2012-8430

**M. Plieger**

Automatic visualization of OpenDAP data resources using OGC services.

## Tuesday, 24 April

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### ESSI1.2/OS4.7 – Informatics in Oceanography and Ocean Science (co-organized) – Orals

Convener: G. M. R. Manzella | Co-Conveners: D. M. A. Schaap, A. Alvarez

**Room: 25**

Chairperson: Giuseppe Manzella

- 15:30–15:45 EGU2012-8644  
**G. Griffiths, J. Blower, X. Yang, T. Loubrieu, and K. Haines**  
 Web-based visualisation of ocean data in MyOcean
- 15:45–16:00 EGU2012-9816  
**Y. Sagarminaga, I. Galparsoro, R. Reig, and J.A. Sánchez**  
 Development of ITSAGIS-5D: seeking interoperability between Marine GIS layers and scientific multidimensional data using open source tools and OGC services for multidisciplinary research.
- 16:00–16:15 EGU2012-8517  
**S. Bainbridge**  
 Cloud-based serviced-orientated data systems for ocean observational data - an example from the coral reef community
- 16:15–16:30 EGU2012-7935  
**A. Sokolov, P. Axe, S. Bock, S. Kaitala, O. H. Manscher, M. Rodriguez-Medina, R. Olsonen, I. Priha, and K. Tikka**  
 Access to distributed marine databases on the Baltic Sea
- 16:30–16:45 EGU2012-10503  
**T. Hamre, S. Sandven, A. Leadbetter, V. Gouriou, D. Dunne, M. Grant, M. Treguer, and Ø. Torget**  
 EUMIS - an open portal framework for interoperable marine environmental services
- 16:45–17:00 EGU2012-11036  
**E. Boldrini, B. Broeren, D. M. A. Schaap, S. Nativi, and G. M. R. Manzella**  
 Revision and documentation of the CDI metadata model as a ISO 19115 profile
- 17:00–17:15 EGU2012-10663  
**C. Wosniok, G. Breitbach, and R. Lehfeldt**  
 A Common Metadata System for Marine Data Portals
- 17:15–17:30 EGU2012-11439  
**T. Loubrieu, J. Dorandeu, V. Claverie, K. Cordier, Y. Barzic, O. Lauret, T. Jolibois, and J. Blower**  
 MyOcean Information System : achievements and perspectives

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### ESSI1.2/OS4.7 – Informatics in Oceanography and Ocean Science (co-organized) – Posters

Convener: G. M. R. Manzella | Co-Conveners: D. M. A. Schaap, A. Alvarez

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

Author in Attendance: 17:30–19:00

Chairperson: Giuseppe Manzella

- XL116 EGU2012-12023  
**M. Ouberdous, C. Troupin, A. Barth, A. Alvera-Azcárate, and J.-M. Beckers**  
 Diva software, a tool for European regional seas and Ocean climatologies production
- XL117 EGU2012-14020  
**A. Grigoriev and A.G. Zatsepin**  
 Validation of numerical model of waters dynamics of the Black Sea (Russian zone)
- XL118 EGU2012-7018  
**H. Glaves, S. Miller, and D. Schaap**  
 Mind the Gap: furthering the development of EU-US collaboration in marine geoscience.
- XL119 EGU2012-5662  
**C. Troupin, M. Ouberdous, A. Barth, A. Alvera-Azcárate, D. Sirjacobs, and J.-M. Beckers**  
 Comparison between Optimal Interpolation (OI) and Data-Interpolating Variational Analysis (Diva) for the generation of analysis and error gridded fields
- XL120 EGU2012-13062  
**R. Arko, C. Chandler, P. Clark, A. Milan, and J. Mize**  
 Rolling Deck to Repository (R2R): A "Linked Data" Approach for the U.S. Academic Research Fleet
- XL121 EGU2012-2521  
**A. Jovicic, A. Castelli, and Z. Kljajic**  
 SEA ODC - An Implementation of Web Portal and B2B Services for Managing of Oceanographic Data Sets Collected in South-East Adriatic

- XL122 EGU2012-6247  
**A. Palazov**, V. Slabakova, and V. Marinova  
Post-deployment evaluation of T-S data measured by Argo floats in the Black Sea: Regional approach
- XL123 EGU2012-8622  
**S.-H. Choi**, S.-D. Kim, H.-W. Choi, S.-Y. Park, J.H. Oh, and S.-H. Baek  
Development of KORDI Ocean Data Portal Web Service for Integrated Data Service
- XL125 EGU2012-7083  
**A. Palazov**, A. Stefanov, V. Marinova, and V. Slabakova  
Marine Web Portal as an Interface between Users and Marine Data and Information Sources
- XL126 EGU2012-10550  
**R. Fernandes**, P.C. Leitão, F. Braunschweig, F. Lourenço, P. Galvão, and R. Neves  
Using Numerical Models in the Development of Software Tools for Risk Management of Accidents with Oil and Inert Spills

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**NH1.8/AS4.15/ESSI1.3/HS5.10/HS7.7 – ICT-based hydrometeorology science and natural disaster societal impact assessment (co-organized) – Posters**

Convener: A. Parodi | Co-Conveners: N. Rebora, G.C. Craig, A. Clematis, D. Kranzmueller, M. Schiffers

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

Author in Attendance: 17:30–19:00

Chairperson: Antonio Parodi

- XY168 EGU2012-7308  
**D. D'Agostino**  
An overview of Grid portal technologies for the development of HMR science gateways
- XY169 EGU2012-7622  
**Q. Harpham**  
FluidEarth with OpenMI version 2.0 - Lowering the Barriers to Integrated Hydro-meteorological Modelling
- XY170 EGU2012-9137  
**L. Deki?**, A Mihalovi?, I Jovi?i?, D Vladikovi?, J Jerini?, and M Ivkovi?  
Forecasting river discharge using coupled WRF-NMM meteorological model and HBV runoff model, case studies
- XY171 EGU2012-9794  
**M. Marku**, V. Mustaqi, E. Abazi, K. Zaimi, E. Vako, M. Gjonaj, F. Hoxhaj, M. Deda, E. Fiori, M. Massabò, and F. Castelli  
Meteorological and Hydrogeological Warning Thresholds in the operational bulletins of the Albanian National Centre for Forecast and Monitoring of Natural Risks
- XY172 EGU2012-10960  
**T. Bedrina**, A. Parodi, A. Quarati, A. Clematis, N. Rebora, and D. Laiosa  
Integrating data and mashup concepts in Hydro-Meteorological Research: the torrential rainfall event in Genoa (4th November 2011) case study.
- XY173 EGU2012-11270  
**E. Boldrini**, F. Salas, D. R. Maidment, P. Mazzetti, M. Santoro, S. Nativi, and B. Domenico  
Bridging the gap between Hydrologic and Atmospheric communities through a standard based framework
- XY174 EGU2012-11898  
**L. Mediero**, L. Garrote, A. Requena, and A. Chávez  
Comparison between genetic programming and an ensemble Kalman filter as data assimilation techniques for probabilistic flood forecasting
- XY175 EGU2012-12246  
**V. Bacu**, D. Mihon, T. Stefanut, D. Rodila, P. Cau, S. Manca, C. Soru, and D. Gorgan  
Hydrological Scenario Using Tools and Applications Available in enviroGRIDS Portal
- XY176 EGU2012-12962  
**H.R.A. Jagers**, M. Genseberger, and M.A.F.H. van den Broek  
Using HPC within an operational forecasting configuration
- XY177 EGU2012-13796  
**M. Shapovalov**  
Effect of Severe Weather Processes on the Social and Economic Activity in the North Caucasus Region

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**ESSI1.4 – New Data Paradigms, Modeling, and International Collaboration Strategies for Earth System Sciences (including Ian McHarg Medal Lecture) – Posters**

Convener: D. K. Arctur | Co-Conveners: M. Ramamurthy, M. Petitdidier, B. Lawrence, S. Fiore, K. Lehnert, L. J. Slooten, D. Lunt

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

Author in Attendance: 17:30–19:00

Chairperson: David Arctur

XL127	EGU2012-10066 M. L. Allison, K. T. Gallagher, <b>S.M. Richard</b> , and V. B. Hutchison Strategic Roadmap for the U.S. Geoscience Information Network
XL128	EGU2012-2711 O. Raymond, <b>G. Duclaux</b> , E. Boisvert, C. Cipolloni, S. Cox, J. Laxton, F. Letourneau, S. Richard, A. Ritchie, M. Sen, J-J. Serrano, B. Simons, and J. Vuollo GeoSciML v3.0 - a significant upgrade of the CGI-IUGS geoscience data model
XL129	EGU2012-1456 <b>C. Trabant</b> , T. Ahern, Y. Suleiman, R. Karstens, and B. Weertman Easy access to geophysical data sets at the IRIS Data Management Center
XL130	EGU2012-10136 L. Bydekerke, <b>C. Tote</b> , T. Jacobs, and S. Gilliams Improved agriculture and forest management in Africa through the AGRICAB project
XL131	EGU2012-8483 <b>S. Bernonville</b> , O. Goussev, S. Falke, F. Lindsay, C. S. Lynnes, W. Yang, P. Zhao, and J. Johnson A Community-oriented CEOS Atmospheric Composition Portal (ACP)
XL132	EGU2012-6355 <b>L.M. de Vries</b> , P. Trinchero, and J. Molinero MCPhreec: Extending geochemical modelling with automatic stochastic simulations
XL133	EGU2012-680 <b>D. Jarecka</b> , S. Arabas, M. Fijalkowski, and A. Gaynor On the tradeoffs of programming language choice for numerical modelling in geoscience. A case study comparing modern Fortran, C++/Blitz++ and Python/NumPy.
XL134	EGU2012-4166 <b>D. E. Reusser</b> , W. Buytaert, and C. Vitolo RHydro - Hydrological models and tools to represent and analyze hydrological data in R
XL135	EGU2012-8983 <b>Y. L. Ekinci</b> and E. Yi?itba? GMinterp, A Matlab Based Toolkit for Gravity and Magnetic Data Analysis: Example Application to the Airborne Magnetic Anomalies of Biga Peninsula, NW Turkey
XL136	EGU2012-12938 <b>I. Sandric</b> , P. Ursaru, D. Chitu, B. Mihai, and I. Savulescu Web processing service for landslide hazard assessment
XL137	EGU2012-3346 <b>C. Gokceoglu</b> , N. Yesiloglu-Gultekin, A.S. Keceli, E.A. Sezer, A.B. Can, and H. Bayhan An Experimental Study on the Min-Image Production for Determination of Mineral Percentages
XL138	EGU2012-6341 <b>D. D'Alimonte</b> , T. Kajiyama, and G. Zibordi High-spatial resolution numerical simulations of in-water radiative transfer processes
XL139	EGU2012-759 <b>V Vilarrasa</b> , S Olivella, O Silva, and J Carrera Numerical Simulation of Non-Isothermal CO <sub>2</sub> Injection Using the Thermo-Hydro-Mechanical Code CODE_BRIGHT
XL140	EGU2012-3979 <b>L. Gross</b> , C. Altinay, J. Fenwick, and L. Gao Combining Numerical and Symbolic Computing in Python
XL141	EGU2012-4837 <b>K. Glushak</b> , S. Legutke, H.-D. Hollweg, J. Wegner, H. Widmann, K. Fieg, M. Lautenschlager, M. Giorgetta, J. Jungclaus, and C. Reick The German contribution to the IPCC/AR5 (CMIP5)
XL142	EGU2012-5601 <b>M. Schubert-Frisius</b> , K. Meier-Fleischer, P. Lenzen, K. Keuler, H.-J. Panitz, M. Büchner, and S. Legutke CORDEX experiments with the RCM 'CCLM' using the DKRZ modelling environment IMDI
XL143	EGU2012-7739 <b>I. Santos</b> , <b>D. Dalimonte</b> , and J.P Santos Sky-Radiance Models for Monte Carlo Radiative Transfer Applications
XL144	EGU2012-8625 <b>D. Sidorenko</b> , T. Rackow, T. Semmler, T. Jung, Q. Wang, S. Danilov, J. Schröter, and D. Barbi Coupled FESOM/ECHAM5 setup, strategies and solutions
XL145	EGU2012-9124 <b>G. Föll</b> , T. Weigelt, S. Kindermann, M. Lautenschlager, and F. Toussaint Web Services and Handle Infrastructure - WDCC's Contributions to International Projects
XL146	EGU2012-12983 <b>J. Donners</b> , N. Audiffren, and J.-M. Molines Towards petascaling of the NEMO ocean model

- XL147 EGU2012-13199  
**P. Grzempowski**, B. Kontny, J. Bogusz, and A. K?os  
Using GIS for calculation and visualization of the velocity field

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#### **ESSI1.6 – Laser Scanning: 3D Spatial Data, Analysis, and Infrastructures in Geosciences – Posters**

Convener: B. Höfle | Co-Conveners: N. Pfeifer, B. Székely, A. Zipf

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

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XL148 EGU2012-5743  
**N. Slatcher**, M. R. James, and G. Hunter  
Optimising terrestrial LIDAR field deployment
- XL149 EGU2012-9864  
**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
- XL150 EGU2012-10798  
**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
- XL151 EGU2012-11709  
**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.
- XL152 EGU2012-12954  
**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
- XL153 EGU2012-13722  
**P. Dorninger**, Z. Koma, and B. Székely  
The influence of control parameter estimation on large scale geomorphological interpretation of pointclouds
- XL154 EGU2012-442  
**N. Kamp**  
Using High-Resolution Airborne LiDAR-Data for Landslide Mapping in the Eastern Alps
- XL155 EGU2012-2578  
**Y. S. Hayakawa**  
Morphological analysis of waterfall cliff face by terrestrial laser scanning
- XL156 EGU2012-5131  
**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).
- XL157 EGU2012-9200  
**T. Knudsen** and S. L. Kokkendorff  
Updating a national scale LiDAR based height model
- XL158 EGU2012-9495  
**A. Mayr**, M. Rutzinger, M. Bremer, C. Wiegand, K. Kringer, and C. Geitner  
Analysis of shallow landslides by morphometry parameters derived from terrestrial laser scanning point clouds
- XL159 EGU2012-9742  
**Zs. Koma**, A. Pocsai, B. Székely, P. Dorninger, A. Zámolyi, and A. Roncat  
Analysis of multitemporal laserscanned DTMs of an active landslide (Doren, Western Austria) using a robust planefitting segmentation
- XL160 EGU2012-11485  
**M. Forbriger**, B. Höfle, C. Siart, K. Schittekk, and O. Bubenzer  
High-resolution Terrestrial Laser Scanning (TLS) on cushion peatlands - a case study from the Peruvian Andes

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#### **ESSI2.4 – Full lifecycle of data and large scale data analytics – Orals**

Convener: C. Jacobs | Co-Conveners: S. Fiore, G. Aloisio, D. K. Arctur, P. Fox, B. Lawrence

**Room: 25**

Chairperson: Cliff Jacobs, Giovanni Aloisio

08:30–08:45 EGU2012-11999

- M. Mayernik**, K. Kelly, M. Marlino, and M. Wright  
Bridging data lifecycles: tracking data use via data citations

- 08:45–09:00 EGU2012-3020  
**J. van de Vegte** and W.J. Som de Cerff  
 Preserving & Serving 150 years of KNMI data
- 09:00–09:15 EGU2012-11863  
**R. Cook**, W. Michener, D. Vieglais, A. Budden, and R. Koskela  
 DataONE: A Distributed Environmental and Earth Science Data Network Supporting the Full Data Life Cycle
- 09:15–09:30 EGU2012-7045  
**L. Wyborn**  
 Why the Petascale era will drive improvements in the management of the full lifecycle of earth science data.
- 09:30–09:45 EGU2012-12278  
**S. Worley** and D. Schuster  
 Data Reuse and Transparency in the Data Lifecycle
- 09:45–10:00 EGU2012-10855  
**M. Juckes**, V. Balaji, B.N. Lawrence, M. Lautenschlager, S. Denvil, G. Aloisio, P. Kushner, and D. Waliser  
 ExArch: Climate analytics on distributed exascale data archives
- 10:00–10:15 EGU2012-13278  
**V. D. Mihon**, V. Colceriu, F. Bektas, K. Allenbach, M. Gvilava, and D. Gorgan  
 Spatial Data Exploring by Satellite Image Distributed Processing

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**ESSI2.5 – Metadata, Data Models, and Semantics – Orals**

Convener: A. Woolf | Co-Conveners: S J D Cox, L. Bigagli, P. Diviacco, J.D. Blower

**Room: 25**

Chairperson: n.n.

- 10:30–10:45 EGU2012-2097  
**P. Diviacco**  
 Addressing contrasting cognitive models in scientific collaboration
- 10:45–11:00 EGU2012-14029  
**J. Echterhoff, I. Simonis**, and R. Atkinson  
 Time Varying Feature Data
- 11:00–11:15 EGU2012-6437  
**P. Fox** and A. Maffei  
 Facilitating Next Generation Science Collaboration: Respecting and Mediating Vocabularies with Information Model Driven Semantics in Ecosystems Assessments.
- 11:15–11:30 EGU2012-8327  
**J. Eberle**, S. Hese, and C. Schmullius  
 Linking from Earth Observation Data and Products to executable web-based Algorithms based on Metadata
- 11:30–11:45 EGU2012-12859  
**E. Rozell**, H. Wang, P. West, S. Zednik, and P. Fox  
 Configurable User Interface Framework for Data Discovery in Cross-Disciplinary and Citizen Science
- 11:45–12:00 EGU2012-8945  
**X. Yang**, J. Blower, D. Cornford, J. Maso, A. Zabala, L. Bastin, V. Lush, and P. Diaz  
 A Data Quality Information Model for Earth Observation
- 12:00–12:15 EGU2012-10415  
**M. Lutz**, C. Portele, S. Cox, and K. Murray  
 Code lists for interoperability - Principles and best practices in INSPIRE

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**ESSI2.6 – Uncertainty in Environmental Data and Models – Orals**

Convener: D. Cornford | Co-Conveners: G. Heuvelink, E. Pebesma, S. Nativi

**Room: 25**

Chairperson: Dan Cornford

- 13:30–13:45 EGU2012-13402  
**J. D. Brown**  
 Approaches for quantifying and removing conditional biases from hydrologic ensemble predictions
- 13:45–14:00 EGU2012-4421  
**L.E. Gerharz**, C. Autermann, H. Hopmann, C. Stasch, and E. Pebesma  
 Uncertainty visualisation in the Model Web

- 14:00–14:15 EGU2012-10330  
**J. Radoux** and P. Bogaert  
Size effect on the polygon-based estimation of user's, producer's and overall accuracies
- 14:15–14:30 EGU2012-9319  
**A. K. Steiner** and the RO Trends Intercomparison Team  
Assessing Structural Uncertainty in Climate Data Records from GPS Radio Occultation
- 14:30–14:45 EGU2012-6509  
**R. Jones**, D. Cornford, and A. Boukouvalas  
Sensitivity Analysis in the Model Web
- 14:45–15:00 EGU2012-10374  
**B.R. Denby**, J. Horálek, F. de Leeuw, and P. de Smet  
Uncertainty assessment in European air quality mapping and exposure studies
- 15:00–15:15 EGU2012-1580  
**M. J. Smith**, D. W. Purves, M. C. Vanderwel, V. Lyutsarev, and S. Emmott  
Towards accounting for all known sources of uncertainty in earth system models: fully data-constraining a global terrestrial carbon model

## Wednesday, 25 April

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### **ESSI1.4 – New Data Paradigms, Modeling, and International Collaboration Strategies for Earth System Sciences (including Ian McHarg Medal Lecture) – Orals**

Convener: D. K. Arctur | Co-Conveners: M. Ramamurthy, M. Petitdidier, B. Lawrence, S. Fiore, K. Lehnert, L. J. Slooten, D. Lunt

**Room: 25**

Chairperson: n.n.

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|-------------|--|
| 08:30–08:45 | EGU2012-13563<br><b>M. L. Allison, R. Atkinson, D.K. Arctur, S. Cox, I. Jackson, S. Nativi, and L.A. Wyborn</b><br>International Convergence on Geoscience Cyberinfrastructure |
| 08:45–09:00 | EGU2012-3100<br><b>P. Mazzetti and S. Nativi</b><br>Addressing sustainable contributions to GEO/GEOSS from Science and Technology Communities: the EGIDA Methodology           |
| 09:00–09:15 | EGU2012-13370<br><b>K. Lehnert and J. Klump</b><br>The Geoscience Internet of Things   |
| 09:15–09:30 | EGU2012-2019<br><b>M. Stockhause, H. Höck, M. Kurtz, M. Lautenschlager, and F. Toussaint</b><br>Federated Quality Control Procedure for CMIP5 / IPCC-AR5 Data                  |
| 09:30–09:45 | EGU2012-5663<br><b>N. Bonora, M. Benito, I. Abou El-Magd, P. Mazzetti, and C. Ndong</b><br>Networking environmental metadata: a pilot project for the Mediterranean Region     |
| 09:45–10:00 | EGU2012-13615<br><b>B. L. Bye</b><br>International funding of geoscience: The development of collaborative funding mechanisms of GEOSS   |

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### **COFFEE BREAK**

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Chairperson: n.n.

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|-------------|---|
| 10:30–10:45 | EGU2012-7451<br><b>W. Hugo</b><br>Massive Meta-Data: A New Data Mining Resource   |
| 10:45–11:00 | EGU2012-2840<br><b>I. Honkonen, S. von Alfthan, A. Sandroos, P. Janhunen, and M. Palmroth</b><br>Parallel grid library with adaptive mesh refinement for development of highly scalable simulations |
| 11:00–12:00 | EGU2012-14465<br><b>P. Fox</b><br>The Changing Conduct of Geoscience in a Data Intensive World (Ian McHarg Medal Lecture)   |

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### **EOS6/ESSI2.3 – Modern Geoinformatics and Education (co-organized) – Orals**

Convener: M. Zhilin

**Room: 25**

Chairperson: n.n.

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|-------------|--|
| 13:30–13:45 | EGU2012-10824<br><b>M. Zhilin</b><br>Novices and Experts in Geoinformatics: the Cognitive Gap.   |
| 13:45–14:00 | EGU2012-2390<br><b>S. Nativi</b><br>Lowering Entry Barriers for Multidisciplinary Cyber(e)-Infrastructures   |
| 14:00–14:15 | EGU2012-13196<br><b>C. Baru, L. Allison, P. Fox, C. Keane, R. Keller, and S. Richard</b><br>GET21: Geoinformatics Training and Education for the 21st Century Geoscience Workforce |
| 14:15–14:30 | EGU2012-11224<br><b>P. Fox</b><br>Bringing Data Science, Xinformatics and Semantic eScience into the Graduate Curriculum   |

- 14:30–14:45 EGU2012-2221  
**V. Gershenson**, O. Gershenson, M. Sergeeva, V. Ippolitov, and O. Targulyan  
UniScan technology for innovative laboratory at a university for acquisition data from space in real-time
- 14:45–15:00 EGU2012-12363  
**T. Stefanut**, D. Gorgan, G. Giuliani, and P Cau  
Earth Observation oriented teaching materials development based on OGC Web services and Bashyt generated reports

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**ESSI2.12 – Real Use of Standards and Technologies - Live Demonstrations – Orals**

Convener: J. van de Vegte | Co-Conveners: D. K. Arctur, M. Santoro

**Room: 7**

Chairperson: John van de Vegte

- 15:30–15:45 EGU2012-2989  
**I. Simonis**, N. Alameh, and G. Percivall  
Real World Data and Service Integration: Demonstrations and Lessons Learnt from the GEOSS Architecture Implementation Pilot Phase Four
- 15:45–16:00 EGU2012-3268  
**S. Richard**, L. Allison, R. Clark, C. Coleman, and G. Chen  
US Geoscience Information Network, Web Services for Geoscience Information Discovery and Access
- 16:00–16:15 EGU2012-5734  
**J. de Jesus**, P. Walker, and M. Grant  
Creating OGC Web Processing Service workflows using a web-based editor
- 16:15–16:30 EGU2012-10995  
**M. Santoro**, G. Dubois, M. Schulz, J.O. Skøien, S. Nativi, S. Peedell, and E. Boldrini  
Enhancements of the "eHabitat"
- 16:30–16:45 EGU2012-12250  
**M. Hammitzsch**, S. Reißland, and M. Lendholt  
A Walk through TRIDEC's intermediate Tsunami Early Warning System
- 16:45–17:00 EGU2012-12911  
**J.D. Blower**, G. Griffiths, X. Yang, T. Loubrieu, and K. Haines  
Web-based visualisation of ocean data in MyOcean using Web Map Services
- 17:00–17:15 EGU2012-13490  
**J. Merka**, T. Narock, and A. Szabo  
On the main standards driving the Virtual Magnetospheric and Heliospheric Observatories and their benefits to users

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**ESSI2.12 – Real Use of Standards and Technologies - Live Demonstrations – Posters**

Convener: J. van de Vegte | Co-Conveners: D. K. Arctur, M. Santoro

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

Author in Attendance: 17:30–19:00

Chairperson: David Arctur

- XL45 EGU2012-3213  
**I. Demir**, W.F. Krajewski, R. Goska, R. Mantilla, L.J. Weber, and N. Young  
Iowa Flood Information System: Towards Integrated Data Management, Analysis and Visualization
- XL46 EGU2012-5546  
**M. Plieger**, J. vd Vegte, J.F. Meirink, and R. Roebeling  
Visualization of cloud physical properties derived from Meteosat using OGC Web Map Services.
- XL47 EGU2012-6543  
**J. Gasperi**  
Interoperability And Value Added To Earth Observation Data
- XL48 EGU2012-11266  
**A. Bröring**, S. Sankaran, S. Jirka, and A. Wytzisk  
A Sensor Observation Service Extension for the GeoServices REST API
- XL49 EGU2012-12733  
**M. Rautenhaus** and A. Dörnbrack  
A web service based tool to plan atmospheric research flights
- XL50 EGU2012-13464  
**B. Domenico** and J. Weber  
Demonstration of Data Interactive Publications
- XL51 EGU2012-13873  
M. Craglia, **L Vaccari**, M Santoro, and S. Nativi  
Integrated brokering framework for multi-disciplinary research

XL52 EGU2012-13943

**D. Misev** and P. Baumann

Optimizability of OGC Standards Implementations - a Case Study

## Thursday, 26 April

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### NH5.7/ESSI1.7 – Architecture of Future Tsunami Warning Systems (co-organized) – Orals

Convener: J. Wächter | Co-Conveners: Z A Sabeur, K. Watson, S. Tinti

**Room: 1**

Chairperson: Joachim Wächter

08:30–08:45 EGU2012-8040

**J. Moßgraber**, S. Middleton, M. Hammitzsch, and S. Poslad

A Distributed Architecture for Tsunami Early Warning and Collaborative Decision-support in Crises

08:45–09:00 EGU2012-13958

**R. Tao**, S. Poslad, J. Moßgraber, S. Middleton, and M. Hammitzsch

Scalable and Resilient Middleware to Handle Information Exchange during Environment Crisis

09:00–09:15 EGU2012-2182

**A. I. Chung**, E. S. Cochran, C. Christensen, A. E. Kaiser, and J. F. Lawrence

Results from the Quake-Catcher Network Rapid Aftershock Mobilization Project (QCN-RAMP) in Christchurch, New Zealand and Advances in QCN Rapid Earthquake Detections

09:15–09:30 EGU2012-8052

A. Gailler, **H. Hébert**, A. Loevenbruck, and B. Hernandez

Simulation systems for tsunami wave propagation forecasting within the French tsunami warning center

09:30–09:45 EGU2012-13771

**E. Jones**

Open Standards for Emergency Management

09:45–10:00 EGU2012-13634

**D. K. Arctur**, G. Percivall, and C. Reed

The Role of Geospatial and Sensor Web Standards for Development of Tsunami Warning Systems

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### NH5.7/ESSI1.7 – Architecture of Future Tsunami Warning Systems (co-organized) – Posters

Convener: J. Wächter | Co-Conveners: Z A Sabeur, K. Watson, S. Tinti

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

Author in Attendance: 17:30–19:00

Chairperson: Joachim Wächter

XY550 EGU2012-9955

**R. Häner** and J. Wächter

The TRIDEC System-of-Systems; Choreography of large-scale concurrent tasks in Natural Crisis Management

XY551 EGU2012-2827

**M. Lendholt**, M. Hammitzsch, and M.A. Esbri Palomares

A communication model for interlinking national tsunami early warning systems

XY552 EGU2012-4364

**P. Löwe**, M. Hammitzsch, A. Babeyko, and J. Wächter

The TRIDEC Virtual Tsunami Atlas - customized value-added simulation data products for Tsunami Early Warning generated on compute clusters

XY553 EGU2012-4571

**A. Babeyko** and A. Hoechner

Accuracy of tsunami source inversion with real-time GPS

XY554 EGU2012-5517

**S. Tinti**, **A. Armigliato**, G. Pagnoni, and F. Zaniboni

Building strategies for tsunami scenarios databases to be used in a tsunami early warning decision support system: an application to western Iberia

XY555 EGU2012-7275

**M. Hammitzsch**, O. Necmioglu, S. Reißland, M. Lendholt, M. Comoglu, N.M. Ozel, and J. Wächter

TRIDEC Natural Crisis Management Demonstrator for Tsunamis

XY556 EGU2012-10014

**M. A. Esbri Palomares**, M. Hammitzsch, and M. Lendholt

A hazard-independent approach for the standardised multi-channel dissemination of warning messages

XY557 EGU2012-11967

**S. Gensch**

The Sensor Integration Platform TSB - current status and outlook

XY558 EGU2012-10053

**S. Reißland**, S. Herrnkind, M. Guenther, A. Babeyko, M. Comoglu, and M. Hammitzsch

Experiences integrating autonomous components and legacy systems into tsunami early warning systems

- XY559 EGU2012-11330  
**S. Gensch**, M. Günther, and R. Henneberger  
 Monitoring and Maintenance of the German Indonesian Tsunami Early Warning System (GITEWS)
- XY560 EGU2012-11323  
**L. Lindner**, S. Gensch, R. Henneberger, M. Lendholt, and M. Hammitzsch  
 An Alternative for In-Depth Monitoring of Tsunami Early Warning Systems
- XY561 EGU2012-7735  
**F. Riedel**, F. Chaves, and H. Zeiner  
 Flexible Early Warning Systems with Workflows and Decision Tables
- XY562 EGU2012-12265  
**Z A Sabeur**, J Wächter, S E Middleton, Z. Zlatev, R Häner, M Hammitzsch, and P Loewe  
 Knowledge base and sensor bus messaging service architecture for critical tsunami warning and decision-support
- XY563 EGU2012-12411  
**Z A Sabeur**, B. Arbab-Zavar, R. Samperio, A Armigliato, R Omira, J Wächter, and S Tinti  
 Automated detection of tsunamigenic signatures and reporting using multi-scale offshore in situ measurements for early tsunami warning and critical decision-support
- XY564 EGU2012-12816  
**A. N. Küppers**  
 The Good, the Bad and the Ugly: Remarks on data policies, their influence on system architecture, and the resilience of circumbasin countries against tsunami

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**EOS6/ESSI2.3 – Modern Geoinformatics and Education (co-organized) – Posters**

Convener: M. Zhilin

**Hall A | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A1 EGU2012-786  
**A. Bashev**  
 Open Geoscience Database
- A2 EGU2012-3207  
**I. Demir** and W.F. Krajewski  
 Information Communication using Knowledge Engine on Flood Issues

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**ESSI2.4 – Full lifecycle of data and large scale data analytics – Posters**

Convener: C. Jacobs | Co-Conveners: S. Fiore, G. Aloisio, D. K. Arctur, P. Fox, B. Lawrence

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

Author in Attendance: 17:30–19:00

Chairperson: David Arctur

- XY403 EGU2012-2115  
**S. Fiore** and G. Aloisio  
 The Ophidia Project: Towards Large Scale Climate Data Analytics
- XY404 EGU2012-13136  
 F. Laliberté, P. Kushner, **M. Juckles**, and S. Denvil  
 Can the ExArch framework facilitate the computation of stormtracks statistics in a petabyte archive?
- XY405 EGU2012-11785  
**J. P. Iannaccone**, C. Iasio, F. Ronchetti, S. Schneiderbauer, and A. Corsini  
 Analysis of morpho-dynamics of South Tyrol, using filtered Permanent Scatterers.
- XY406 EGU2012-3216  
**I. Demir** and W.F. Krajewski  
 A Web-based Data Intensive Visualization of Real-time River Drainage Network Response to Rainfall
- XY407 EGU2012-2935  
**A. Leadbetter**, S. Callaghan, R. Lowry, G. Moncoiffé, S. Donnegan, S. Pepler, N. Cunningham, P. Kirsch, L. Ault, P. Bell, R. Bowie, K. Harrison, B. Smith-Haddon, A. Wetherby, D. Wright, and M. Thorley  
 Data publication activities in the Natural Environment Research Council
- XY408 EGU2012-13502  
**R. Jacob**, X. Xu, J. Krishna, S. Mickelson, T. Tautges, M. Wilde, K. Peterson, J. Yin, M. Haley, and D. Brown  
 Parallel Analysis Tools for Ultra-Large Climate Data Sets
- XY409 EGU2012-1552  
**B. Domenico** and J Weber  
 Data Interactive Publications

- XY410 EGU2012-12206  
**M. Pirchiner**, M.S. Assumpção and the IAG-USP Seismology Group Team  
 Lifecycle of Seismological Data at IAG-USP
- XY411 EGU2012-13773  
**A. Griffith**, S. Dosemagen, and J. Warren  
 Complete data lifecycles and citizen science integration via The Public Laboratory
- XY412 EGU2012-7060  
 R. Woodcock and **L. Wyborn**  
 Working Towards New Transformative Geoscience Analytics Enabled by Petascale Computing
- XY413 EGU2012-9594  
**R. Signell** and P. Fox  
 Report on GeoData 2011 Workshop - Data Life Cycle, Integration and Citation
- XY414 EGU2012-11058  
**J. Schopf**  
 The Production Data Approach for Full Lifecycle Management
- XY415 EGU2012-12035  
 F. Fetterer, M. Parsons, **M. Ramamurthy**, J. Moore, and M. Serreze  
 Arctic to Archive: Life Cycle Data Support Services for Arctic Research Data
- XY416 EGU2012-13029  
**I. McCallum**, H.P. Plag, and S. Fritz  
 Data Citation Standard: A Means to Support Data Sharing, Attribution, and Traceability
- XY417 EGU2012-13360  
**N. Ritchey**  
 Lessons Learned from the Application of NOAA's "What to Archive"

**ESSI2.5 – Metadata, Data Models, and Semantics – Posters**

Convener: A. Woolf | Co-Conveners: S J D Cox, L. Bigagli, P. Diviacco, J.D. Blower

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

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY418 EGU2012-13275  
**D. Valentine**, P. Taylor, and I. Zaslavsky  
 WaterML, an Information Standard for the Exchange of in-situ hydrological observations
- XY419 EGU2012-7761  
 X. Qin, **R.D. Müller**, J. Cannon, T.C.W Landgrebe, and C. Heine  
 The GPlates Geological Information Model and Markup Language
- XY420 EGU2012-1021  
**B. D. Gutknecht** and M. R. Alvers  
 GoEarth - performance and challenges of a semantic search engine for CCS literature
- XY421 EGU2012-2943  
**A. Leadbetter**, R. Lowry, and O. Clements  
 The NERC Vocabulary Server: Version 2.0
- XY422 EGU2012-7374  
**M. Ebner**, M. Schiegl, W. Stöckl, and H. Heger  
 From printed geological maps to web-based service oriented data products - strategies, foundations and problems.
- XY423 EGU2012-5872  
**M. Nagni**, S. Ventouras, and G. Parton  
 Implementation of UML Schema to RDBM
- XY424 EGU2012-14005  
**K. Schleidt**, S. Cox, S. Grellet, D. Lowe, M. Lutz, C. Portele, A. Sarretta, and S. Ventouras  
 Observations and Measurements Design Patterns within INSPIRE
- XY425 EGU2012-11652  
 S. Zednik, G. Leptoukh, C. Lynnes, and **P. Fox**  
 A Quality Label Presentation of Product Quality for Aerosol Satellite Data Products
- XY426 EGU2012-12801  
 A. Zabala, **J Masó**, and X. Pons  
 Inheritance rules for Hierarchical Metadata Based on ISO 19115
- XY427 EGU2012-8085  
**A. Zielinski**, U. Bügel, L. Middleton, S. E. Middleton, and L. Tokarchuk  
 Multilingual Analysis of Twitter News in Support of Mass Emergency Events

- XY428 EGU2012-11682  
**T. Loubrieu**, J.C. Donnart, S. Bregent, J. Blower, and G. Griffith  
 Oceanotron server for marine in-situ observations : a thematic data model implementation as a basis for the extensibility
- XY429 EGU2012-13652  
**R. Kottmann**, V. Ratmeyer, A. Pop Ristov, and A. Boetius  
 Collaborative web-based annotation of video footage of deep-sea life, ecosystems and geological processes

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**ESSI2.6 – Uncertainty in Environmental Data and Models – Posters**

Convener: D. Cornford | Co-Conveners: G. Heuvelink, E. Pebesma, S. Nativi

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

Author in Attendance: 17:30–19:00

Chairperson: Dan Cornford

- XY430 EGU2012-2951  
**K. Vogel**, C. Riggelsen, N. Kuehn, and F. Scherbaum  
 Graphical Models as Surrogates for Complex Ground Motion Models
- XY431 EGU2012-4148  
**D. E. Reusser**, H.V. Senaratne, L. Gerharz, T. Sterzel, T. Nocke, and M. Wrobel  
 User preferences for the presentation of uncertainties on web platforms for climate change information
- XY432 EGU2012-4401  
**L.E. Gerharz**, E. Pebesma, and B. Denby  
 Assessing uncertain human exposure to ambient air pollution using environmental models in the Web
- XY433 EGU2012-4617  
**B. Gräler** and C. Stasch  
 Flexible Representation of Spatio-Temporal Random Fields in the Model Web
- XY434 EGU2012-5947  
**T Krueger**  
 Uncertainty in the frequency distribution of water quality parameters: comparing three Bayesian approaches
- XY435 EGU2012-6367  
**S. Bell**, D. Cornford, L. Bastin, and M. Molyneux  
 Uncertainty in User-contributed Weather Data
- XY436 EGU2012-10900  
**S. Krähenmann** and B. Ahrens  
 Spatial gridding of daily maximum and minimum 2-m temperatures backed with satellite observations
- XY437 EGU2012-7806  
**A. K. Runge** and F. Scherbaum  
 The Quantification of Consistent Subjective Logic Tree Branch Weights for PSHA
- XY438 EGU2012-10332  
 M. Hermkes, N. Kuehn, C. Riggelsen, and **K. Vogel**  
 Information Sharing Between Ground Motion Models from Different Regions via Dirichlet Process Priors
- XY439 EGU2012-10352  
**V. Lush**, J. Lumsden, J. Masó, P. Díaz, and I. McCallum  
 GEO Label: User and Producer Perspectives on a Label for Geospatial Data
- XY440 EGU2012-8362  
**J. Masó**, P. Díaz, M. Ninyerola, E. Sevillano, and X. Pons  
 GEOSS Clearinghouse Quality Metadata Analysis

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**ESSI2.7 – Service Architecture challenges for multi-disciplinary systems – Orals**

Convener: S. Nativi | Co-Conveners: W. Som de Cerff, B. Domenico

**Room: 7**

Chairperson: S. Nativi, W. Som de Cerff

- 15:30–15:45 EGU2012-1227  
**C. Jacobs**  
 A vision for, and progress towards EarthCube
- 15:45–16:00 EGU2012-13942  
**P. Baumann**  
 Towards Direct Manipulation and Remixing of Massive Data: The EarthServer Approach
- 16:00–16:15 EGU2012-5263  
**A. Patterson**  
 Using SOA Patterns to promote understanding across disciplines

- 16:15–16:30 EGU2012-6081  
**M.G. Schultz**, R.B. Husar and the GEO Air Quality Community of Practice Team  
 Status and Roadmap of the Global Air Quality Data Network
- 16:30–16:45 EGU2012-6124  
**H.-P. Plag**, G. Foley, S. Jules-Plag, G. Ondich, and J. Kaufman  
 The GEOSS User Requirement Registry (URR): A Cross-Cutting Service-Oriented Infrastructure Linking Science, Society and GEOSS
- 16:45–17:00 EGU2012-8651  
**S. Pascoe**, R. Wilkinson, and P. Kershaw  
 Benchmarking OPeNDAP services for modern ESM data workloads
- 17:00–17:15 EGU2012-12873  
**R.D. Bentley**, D. Berghmans, and A. Csillaghy  
 A Collaborative Research Environment for Heliophysics

**ESSI2.7 – Service Architecture challenges for multi-disciplinary systems – Posters**

Convener: S. Nativi | Co-Conveners: W. Som de Cerff, B. Domenico

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

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY441 EGU2012-5220  
**L. Bigagli**, M. Santoro, R. Roncella, and P. Mazzetti  
 A web service for service composition to aid geospatial modelers
- XY442 EGU2012-5282  
**L. Bigagli, F. Papeschi**, P. Mazzetti, and S. Nativi  
 GeoViQua: quality-aware geospatial data discovery and evaluation
- XY443 EGU2012-5744  
**J. Pearlman**, S Nativi, M Craglia, J Huerta, JM Rubio-Iglesias, and JJ Serrano  
 Advances in Multi-disciplinary Interoperability
- XY444 EGU2012-6057  
**H.-P. Plag**  
 A Geo-Label for Geo-Referenced Information as a Service for Data Users and a Tool for Facilitating Societal Benefits of Earth Observations
- XY445 EGU2012-6168  
**S. Nativi**, L. Vaccari, K. Stock, L. Diaz, and M. Santoro  
 The EuroGEOSS Advanced Operating Capacity
- XY446 EGU2012-8836  
**S. Longo**, S. Nativi, C. Leone, S. Migliorini, and L. Mazari Villanova  
 Italian Polar Metadata System
- XY447 EGU2012-9808  
**A. Spinuso**, L. Trani, L. Frobert, and T. Van Eck  
 Towards a single seismological service infrastructure in Europe
- XY448 EGU2012-11286  
**I. Garcia Gil, R. Perez Moreno**, O. Perez Navarro, and R. Leone  
 Architecture analysis for European Long-Term Archiving EO systems
- XY449 EGU2012-11495  
**I. Garcia Gil**, R. Perez Moreno, O. Perez Navarro, V. Platania, D. Ozerov, and R. Leone  
 Using dCache in Archiving Systems oriented to Earth Observation
- XY450 EGU2012-12742  
**B. Cecconi**, S. Erard, M. Gangloff, P. Le Sidaner, J. Berthier, N. Bourrel, N. André, and C. Jacquey  
 Europlanet-IDIS: Towards a Planetary Virtual Observatory Prototype

**ESSI2.9 – Intelligent geo-Information Management in the Future Internet – Posters**

Convener: Dr. Havlik | Co-Conveners: Z A Sabeur, S. Nativi, W. Schmidt

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

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY451 EGU2012-12534  
**B. L. Bye**, I. McCallum, and J. Maso  
 GEO label: The General Framework for Labeling and Certification
- XY452 EGU2012-13158  
 C.B. Geyer and **D. Havlik**  
 Mobile VGI applications for the Future Internet

- XY453 EGU2012-10157  
**F. Zander** and S. Kralisch  
RBIS - An Environmental Information System
- XY454 EGU2012-9942  
**C. Lussana**, M. Ranci, and F. Ubaldi  
A Quality-Control-Oriented Database for a Mesoscale Meteorological Observation Network
- XY455 EGU2012-10174  
**D. Gaitanaru**, A. Priceputu, and C.R. Gogu  
Geospatial Data Management Platform for Urban Groundwater

**ESSI2.10 – Earth science on Cloud, HPC and Grid – Orals**

Convener: H. Schwichtenberg | Co-Conveners: P. Mazzetti, M. Petitdidier

**Room: 25**

Chairperson: n.n.

- 13:30–13:45 EGU2012-11142  
**S. Brewer** and G. Sipos  
European grid services for global earth science
- 13:45–14:00 EGU2012-7192  
**E. Floros**  
The StratusLab cloud distribution: Use-cases and support for scientific applications
- 14:00–14:15 EGU2012-14149  
**A. Parodi** and the DRIHM Team  
DRIHM: Distributed Research Infrastructure for HydroMeteorology
- 14:15–14:30 EGU2012-12913  
**V. Anantharaj**, B. Mayer, F. Wang, J. Hack, D. McKenna, and R. Hartman-Baker  
Scientific workflow and support for high resolution global climate modeling at the Oak Ridge Leadership Computing Facility
- 14:30–14:45 EGU2012-3989  
**E. Bonomi** and B. Z. Heilmann  
A Cloud-Computing Service for Environmental Geophysics and Seismic Data Processing
- 14:45–15:00 EGU2012-4491  
**P. Lowe**, J. Klump, and J. Thaler  
The FOSS GIS Workbench on the GFZ Load Sharing Facility compute cluster
- 15:00–15:15 EGU2012-8141  
**I. Epicoco**, M. Mirto, S. Mocavero, and G. Aloisio  
A Distributed Infrastructure for Ensemble Experiments

**ESSI2.10 – Earth science on Cloud, HPC and Grid – Posters**

Convener: H. Schwichtenberg | Co-Conveners: P. Mazzetti, M. Petitdidier

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

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY456 EGU2012-11838  
**H. Schwichtenberg**  
Earth Science community support in the EGI-Inspire Project
- XY457 EGU2012-12892  
**M. Petitdidier** and H Schwichtenberg  
Earth Science applications on Grid -advantages and limitations
- XY458 EGU2012-1634  
**M. Paepen**  
Grid enabled Service Support Environment for multi-mission EO Processing
- XY459 EGU2012-12134  
**D. Rodila**, V. Bacu, and D. Gorgan  
Geospatial Applications on Different Parallel and Distributed Systems in enviroGRIDS Project
- XY460 EGU2012-4585  
**K. I. Kholodkov**, I. M. Aleshin, V. N. Koryagin, A. N. Shogin, and O. V. Sukhoroslov  
Implementation of probabilistic approach in solving inverse problems as a grid-backed web service.
- XY461 EGU2012-12128  
**V.C Manea**, M. Manea, M. Pomeran, L. Besutiu, and L. Zlagnean  
High Performance Computing in Solid Earth Sciences

- XY462 EGU2012-11976  
**M. Schoeppner**, W. Plastino, A. Budano, M. De Vincenzi, and F. Ruggieri  
Estimation of the time-dependent radioactive source-term from the Fukushima nuclear power plant accident using atmospheric transport modelling
- XY463 EGU2012-8381  
**I. Epicoco**, S. Mocavero, A. Murli, and G. Aloisio  
NEMO Oceanic Model Optimization
- XY464 EGU2012-7530  
**W. Som de Cerff**, H Schwichtenberg, A. Gemünd, S. Claus, J. Reichwald, S. Denvil, P. Mazetti, and S. Nativi  
Services development toolkit for Open Research Data (Promarket)
- XY465 EGU2012-13008  
**B. Wilson**, G. Manipon, and H. Hua  
Large-Scale, Parallel, Multi-Sensor Data Fusion in the Cloud
- XY466 EGU2012-10569  
**S. Kindermann**, F. Schintke, and B. Fritzsch  
A Collaborative Data Management Infrastructure for Climate Data Analysis
- XY467 EGU2012-14370  
**J. Raciazek**, M. Petitdidier, A. Gemuend, and H. Schwichtenberg  
Earth System Grid and EGI interoperability
- XY468 EGU2012-4835  
**P. J. Kershaw**, M. Curtis, and E. Pechorro  
CEMS: Building a Cloud-Based Infrastructure to Support Climate and Environmental Data Services

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

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

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

Author in Attendance: 17:30–19:00

Chairperson: D. Vericat / N. Tate

- XL206 EGU2012-7714  
A. Wagner, A. Reiterer, P. Wasmeier, **D. Rieke-Zapp**, and T. Wunderlich  
Vision-Based Geo-Monitoring - A New Approach for an Automated System
- XL207 EGU2012-7858  
**R. Berther** and D. Rieke-Zapp  
Geomonitoring for understanding of sediment transport in an Alpine river catchment
- XL208 EGU2012-5566  
**A. Beer**, L. Campana, and D. Rieke-Zapp  
Evaluating sub-millimetre erosion monitoring in a mountain torrent
- XL209 EGU2012-14172  
**P. Marzahn**, D. Rieke-Zapp, and R. Ludwig  
Soil surface roughness characterization for microwave remote sensing applications
- XL210 EGU2012-4952  
**D. Rieke-Zapp**  
Insitu measurement of bedrock erosion
- XL211 EGU2012-12789  
**A. Volkwein**, A. Beer, and L. Egli  
Applications of terrestrial laser scanning in natural hazard sciences
- XL212 EGU2012-10565  
**M. Lo Brutto**  
Automatic reconstruction of 3D models in geomorphology through close-range photogrammetry and 3D web-based services
- XL213 EGU2012-5759  
**J. Gance**, T. Dewez, J.-P. Malet, and A. Stumpf  
Time-lapse stereo-photogrammetry to monitor electrical sounding electrodes on an unstable slope
- XL214 EGU2012-3537  
**H.K. Seo**, Y.H. Noh, J.G. Um, Y.S. Choi, and M.H. Park  
Applicability of digital photogrammetry technique to quantify rock fracture surfaces
- XL215 EGU2012-8167  
**F. Bretar**, M. Pierrot-Deseilligny, D. Schelstraete, O. Martin, and P. Quernet  
Generating High resolution surfaces from images: when photogrammetry and applied geophysics meets
- XL216 EGU2012-936  
**M. Westoby**, J. Brasington, N.F. Glasser, M.J. Hambrey, and J.M. Reynolds  
Structure-from-Motion photogrammetry: a novel, low-cost tool for geomorphological applications

XL217	EGU2012-6261 <b>C. Hugenholtz</b> , 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 <b>C. Wiegand</b> , 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 <b>P. Lamy</b> A new 3D reconstruction technique applied to small solar system bodies
XL220	EGU2012-9765 S. Delalieux, S. Livens, M. Goossens, I. Reusen, and <b>C. Tote</b> Spatial unmixing for environmental impact monitoring of mining using UAS and WV-2
XL221	EGU2012-8875 A Constantinescu, I. Nichersu, <b>C Trifanov</b> , 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 <b>M. Avian</b> First results of repeated Terrestrial Laserscanning monitoring processes at the rock fall area Burgstall/Pasterze Glacier, Hohe Tauern Range, Central Austria
XL223	EGU2012-10081 <b>M. Avian</b> Performance and limits of different long-range TLS-sensors for monitoring high mountain geomorphic processes at different spatial scales
XL224	EGU2012-12400 <b>A. Prokop</b> and M. Chiari Long term monitoring of geomorphological changes caused by torrent activity using terrestrial laser scanning
XL225	EGU2012-10244 <b>D.J. Luscombe</b> , 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 <b>F. Gallart</b> Testing a Terrestrial Laser Scanner for studying badlands forms and erosion rates. Vallcebre (Catalan Pre-Pyrenees)
XL227	EGU2012-2469 <b>M. Dotterweich</b> 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>B.D. Collins</b> , S.C. Corbett, and H.C. Fairley Measuring and modeling high-resolution topographic change at archaeological sites in Grand Canyon National Park, Arizona, U.S.A.
XL229	EGU2012-731 <b>Á. Gómez</b> , 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 <b>D. Vericat</b> , 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 <b>M. Etchebehere</b> , P. Tapponnier, Y. Klinger, J. Van Der Woerd, X. Xu, S. Xinzie, 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 <b>R.M. Frings</b> and S. Vollmer Use of 3D photogrammetry for measurement of river bed porosity
XL233	EGU2012-4785 <b>M. Smith</b> and D. Vericat Evaluating through-water terrestrial laser scanning under a range of flow and suspended sediment conditions

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

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

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

Author in Attendance: 17:30–19:00

Chairperson: Susan Conway

- XL234 EGU2012-4560  
**A.P. Valentine**, L.M. Kalnins, and J. Trampert  
 Hunting for seamounts using neural networks: learning algorithms for geomorphic studies
- XL235 EGU2012-13482  
**VB Ernstsen**, A Lefebvre, J Bartholdy, A Bartholomä, and C Winter  
 On the determination of net bedload transport patterns in a natural tidal inlet system (Knudedyb in the Danish Wadden Sea)
- XL236 EGU2012-13310  
 F. Haas, **T. Heckmann**, L. Hilger, and M. Becht  
 Measuring debris flows in the proglacial area of the Gepatschferner/Austrian Alps using repeat ground-based and airborne LiDAR data
- XL237 EGU2012-5046  
**J. K. Hillier** and M. S. Smith  
 Robust 3D Quantification of Glacial Landforms: A Use of Idealised Drumlins in a Real DEM
- XL238 EGU2012-7660  
**L. Carturan**, S. Calligaro, F. Cazorzi, G.A. Baldassi, D. Moro, A. Carton, G. Dalla Fontana, A. Guarneri, N. Milan, and P. Tarolli  
 Mass balance and surface dynamics of Montasio Occidentale glacier (Eastern Italian Alps) investigated by Terrestrial Laser Scanner
- XL239 EGU2012-10137  
**A. J. Cook**, T. Murray, A. Luckman, and D. G. Vaughan  
 A new 100-m Digital Elevation Model of the Antarctic Peninsula suitable for glacier morphology studies, using ASTER Global DEM
- XL240 EGU2012-9296  
**L. Rieg**, R. Sailer, M. Sproß, M. Rutzinger, and V. Wichmann  
 Comparison of different DTM resolutions for surface change calculations in a high mountain environment
- XL241 EGU2012-8750  
**S. Trevisani**, M. Cavalli, and L. Marchi  
 Reading alpine morphology according to surface texture: two approaches compared
- XL242 EGU2012-13565  
**J. B. Salisbury**, J R. Arrowsmith, T. K. Rockwell, D. Haddad, O. Zielke, and C. Maddugo  
 The Climatic Role in Formation of Fault-Offset Geomorphic Features: Reliable Measurements for Slip-Per-Event Studies
- XL243 EGU2012-215  
**Yu. Yu. Yurchenko** and S.V. Sokolov  
 Experience using of DEM's as a basis for landscapes classification at selection of geochemical methods of prospecting.
- XL244 EGU2012-8510  
**A. Doglioni** and V. Simeone  
 Identification of large geomorphological anomalies based on 2D discrete wavelet transform
- XL245 EGU2012-3422  
**C. W. Lin**, P. Tarolli, C. M. Tseng, and Y. H. Tseng  
 Recognition of large scale deep-seated landslides in vegetated areas of Taiwan
- XL246 EGU2012-5000  
**C.-M. Tseng**, P. Tarolli, and C.-W. Lin  
 Variations of Geomorphic Signatures after a Major Typhoon
- XL247 EGU2012-5035  
**S. Calligaro**, P. Tarolli, M. Mancini, A. Righetto, D. Capraro, G. Mei, and A. Spinazzè  
 Terrestrial Laser Scanner survey of a small headwater basin in the Dolomites
- XL248 EGU2012-6729  
**J.-K. Liu**, M.-S. Yang, M.-C. Wu, and W.-C. Hsu  
 LiDAR DEM for Slope regulations of land development in Taiwan
- XL249 EGU2012-9407  
 L. Cavallari, M. Dierna, M. Gelmini, and **G. P. M. Vassena**  
 Multiresolution and multisensors 3D laser scanner survey of a landslide in the Italian 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. Marzolff, and L. Schrott  
 The use of very high resolution DSMs for the investigation of gully evolution in the Souss Basin, Morocco derived from UAV missions
- XL253 EGU2012-12427  
**J. H. Blöthe**, H. Munack, and O. Korup  
 Sediment storage and stability along the western Tibetan plateau margin
- XL254 EGU2012-3184  
**F. Cazorzi**, A. De Luca, A. Checchinato, F. Segna, and G. Dalla Fontana  
 A LiDAR based analysis of hydraulic hazard mapping
- XL255 EGU2012-4114  
**G. Sofia**, P. Tarolli, and G. Dalla Fontana  
 LiDAR DTMs and anthropogenic feature extraction: testing the feasibility of geomorphometric parameters in floodplains
- XL256 EGU2012-4636  
**M. Della Seta**, J.P. Galve, D. Piacentini, and F. Troiani  
 Computation, validation and sensitivity of the DTM-derived geomorphic parameters: the case of Stream-Length Gradient Index
- XL257 EGU2012-5363  
**K. Fieber**, I. Davenport, J Ferryman, R Gurney, J Walker, and J Hacker  
 Analysis of full-waveform LiDAR pulse properties for vegetation discrimination and characterisation
- XL258 EGU2012-6172  
**F. Pirotti**, A. Guarnieri, and A. Vettore  
 Full waveform airborne laser scanning for mapping morphometric parameters in terrain with varying vegetation cover
- XL259 EGU2012-6345  
**J. Filski**  
 The State of Health of Nature Reserves: A Case Study using the Fusion of Hyperspectral and Lidar Data

## Friday, 27 April

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

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

#### **Room: 22**

Chairperson: J. Brasington

08:30–08:45 EGU2012-10924

**S. Van-Wierds** and P. Bernatchez

Use of a mobile terrestrial laser system to quantify the impact of rigid coastal protective structures on sandy beaches, Quebec, Canada

08:45–09:00 EGU2012-2730

**D. M. Powell** and D Ackerley

Characterising the roughness properties of alluvial river banks using terrestrial laser scanning.

09:00–09:15 EGU2012-8878

**J.M. Nield**, G.F.S. Wiggs, J. Leyland, S.E. Darby, J. King, F.D. Eckardt, R.C. Chiverrell, L.H. Vircavs, and B. Jacobs

Quantifying small-scale temporal surface change on glaciers and salt pans using terrestrial laser scanning: implications for modelling ablation and dust emission

09:15–09:30 EGU2012-11944

**C. Fey**, C. Zangerl, F. Haas, M. Rutzinger, R. Sailer, and M. Bremer

Rock slide deformation measurements with Terrestrial Laser Scanning in inaccessible high mountain areas

09:30–09:45 EGU2012-12284

**H. Croft**

Soil surface microtopography from close-range laser data and hyperspectral directional reflectance factors

09:45–10:00 EGU2012-13139

**S. Filin**, R. Arav, A. Mushkin, and O. Katz

Monitoring coastal-cliff erosion processes using a novel change detection methodology for high-resolution terrestrial laser scanner data

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### **COFFEE BREAK**

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Chairperson: D. Rieke-Zapp

10:30–10:45 EGU2012-4368

N. Brodu and **D. Lague**

3D point cloud classification of complex natural scenes using a multi-scale dimensionality criterion: applications in geomorphology

10:45–11:00 EGU2012-10317

**C. Castagnetti**, E. Bertacchini, A. Capra, and A. Corsini

Critical aspects of integrated monitoring systems for landslides risk management: strategies for a reliable approach

11:00–11:15 EGU2012-3775

**J. Müller**, I. Gärtner-Roer, G. Menz, C. Ginzler, and P. Thee

How accurate can we be? - An evaluation of airborne digital elevation models in a high mountain environment

11:15–11:30 EGU2012-911

**S. d'Oleire-Oltmanns** and I. Marzolff

UAV derived data for the monitoring of gully erosion in the Souss Basin, Morocco

11:30–11:45 EGU2012-12606

**P. Allemand**, C. Delacourt, A. Deschamps, A. Quiquerez, P. Grandjean, J. Ammann, G. Ori, F.

Cannarsa, R. Sabbadini, I. Dell'Archiprete, and D. Gasperini

Drelio : 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

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

## Orals

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

**Room: 22**

Chairperson: Paolo Tarolli

13:30–13:45 EGU2012-13881

**A. B. Watts** and the SONNE 215 Shipboard Scientific Party

Repeat swath bathymetry surveys and the rates of growth and collapse of active submarine volcanoes

13:45–14:00 EGU2012-6079

**Q. Li** and S. Dehler

Identify Foot of Continental Slope by singular spectrum and fractal singularity analysis

14:00–14:15 EGU2012-10599

**M. D. Hurst**, S. M. Mudd, and M. Attal

Hysteresis in transient landscape topography recorded by hillslopes.

14:15–14:30 EGU2012-7207

**G. Bertoldi**, M. Reginato, and V. D'Agostino

Merging field survey and LiDAR technology for the analysis of debris-flow erosion

14:30–14:45 EGU2012-9898

**R. Bell** and H. Petschko

Landslide persistence and human impact in Lower Austria assessed by lidar data and aerial photography

14:45–15:00 EGU2012-10318

**R. Rivola**, E. Bertacchini, C. Castagnetti, A. Capra, A. Corsini, F. Ronchetti, and F. Bonacini

GB-InSAR 3D maps for deformation monitoring: the importance of the digital surface models in data georeferencing and interpretation

Chairperson: John Hillier

15:30–15:45 EGU2012-6988

**F. Shahzad** and T. A. Ehlers

Quantification of glacial and ground surface velocities from repeat terrestrial LiDAR scans

15:45–16:00 EGU2012-11024

**M.J. Westoby**, J. Brasington, N.F. Glasser, M.J. Hambrey, and J.M. Reynolds

Close-range photogrammetric reconstruction of moraine dam failures

16:00–16:15 EGU2012-13302

**C. Eisank**, L. Dr?gu?, and T. Blaschke

Object-based mapping of drumlins from DTMs

16:15–16:30 EGU2012-7816

**J.R. Ford**, B. Napier, P.R. Wilby, A.H. Cooper, A.J.M. Barron, and L.B. Bateson

The central role of digital landscapes in virtual field reconnaissance for geological surveying

16:30–16:45 EGU2012-9258

**S. J. Conway**, M. R. Balme, and P. M. Grindrod

Using Topographic Derivatives of High Resolution Data on Earth and Mars to Determine Active Processes on Mars.

16:45–17:00 EGU2012-11180

**S. Ferrari**, M. Massironi, R. Pozzobon, A. Castelluccio, G. Di Achille, and G. Cremonese

DTM analysis and displacement estimates of a major mercurian lobate scarp.

