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

Monday, 23 April
ESSI1.2/OS4.7
ESSI1.6
NH7.3/AS4.3/BG2.25/ESSI1.8/NP4.6/SSS5.24
ESSI2.9

Tuesday, 24 April
NH1.8/AS4.15/ESSI1.3/HS5.10/HS7.7
ESSI1.4
ESSI2.4
ESSI2.5
ESSI2.6

Wednesday, 25 April
EOS6/ESSI2.3
ESSI2.12

Thursday, 26 April
NH5.7/ESSI1.7
ESSI2.7
ESSI2.10
GM2.1
GM2.2

Friday, 27 April

2 2 3 6 7 8 8 10 11 11 13 13 14 16 16 19 21 22 23 26
Monday, 23 April

ESSI1.2/OS4.7 – Informatics in Oceanography and Ocean Science (co-organized) – Orals
Convener: G. M. R. Manzella | Co-Conveners: D. M. 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
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

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. Milenković, B. Székely, G. Mandlburger, and N. Pfeifer
Characterization of artificial and natural roughness present in DTM 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
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<th>Time</th>
<th>Presentation ID</th>
<th>Title and Authors</th>
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<tbody>
<tr>
<td>11:15–11:30</td>
<td>EGU2012-6411</td>
<td>K. Koenig and B. Höfle</td>
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<tr>
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<td>Laser Scanning for 3D Object Characterization: Infrastructure for Exploration and</td>
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<td>Analysis of Vegetation Signatures</td>
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<td>11:30–11:45</td>
<td>EGU2012-5316</td>
<td>I. Davenport, K Fiebey, R Gurney, J Ferryman, J Hacker, and J Walker</td>
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<td>Extracting vertical foliage profiles of individual Eucalypt trees using last</td>
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<td>significant return airborne laser altimetry and on-site photography</td>
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<td>11:45–12:00</td>
<td>EGU2012-11539</td>
<td>A. Zlinszky, W. Mücke, H. Lehner, C. Brieše, and N. Pfeifer</td>
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<td>Vegetation mapping from medium-density discrete echo Airborne Laser Scanning data:</td>
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<td>a case study of the Lake Balaton wetlands</td>
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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.**

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

**Chairperson: n.n.**

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<td>10:30–10:45</td>
<td>EGU2012-3335</td>
<td>A. Bastos, C. M. Gouveia, R. M. Trigo, and C. C. DaCamara</td>
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<td>Vegetation recovery assessment following large wildfires in the Mediterranean Basin</td>
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<td>10:45–11:00</td>
<td>EGU2012-13785</td>
<td>T. Brown, C. Kolden, and J. Abatzoglou</td>
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<td>Assessing fuels treatments in the context of climate change</td>
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<td>11:00–11:15</td>
<td>EGU2012-12648</td>
<td>T. Calheiros, M.G. Pereira, T.J. Calado, C.C. DaCamara, and J.G. Pinto</td>
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<td>Potential effects of regional climate change on rural fires over Europe</td>
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<td>11:15–11:30</td>
<td>EGU2012-3852</td>
<td>R. Bradstock, M. Boer, T. Penman, and O. Price</td>
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<td>Divergent responses of fire to recent climate change: evidence from bio-regional</td>
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<td>patterns across south-eastern Australia</td>
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<td>Evaluation of fire potential in the climatic scenario: an Alpine area perspective</td>
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<td>11:45–12:00</td>
<td>EGU2012-7340</td>
<td>A. Shvidenko and D. Schepaschenko</td>
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<td>Wildfire in Northern Eurasia and climate change</td>
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I. Csiszar, W. Schroeder, L. Giglio, E. Ellicott, and C.O. Justice  
A comparison of remote sensing of active fires from MODIS and VIIRS

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

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

r. Paugam, m. Wooster, s. Freitas, s. Gonzi, and p. Palmer  
Parameterization of Fire Injection Height in Large Scale Transport Model

E. Athanasopoulou, C. Giannakopoulos, H. Vogel, D. Rieger, K. 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

Assimilation of FRP Observations for Global Fire Emission Estimation in MACC-II
Assessing and ranking the flammability of some ornamental plant species to select firewise plants for landscaping in WUI (SE France).

The Correlation Analysis of Fire Energy Release and Weather Conditions

An algorithm to detect fire activity using Meteosat: fine tuning and quality assessment.

Fire Monitoring from the New Generation of US Polar and Geostationary Satellites

Performance assessment of a Robust Satellite Techniques (RST-FIRES) for forest fire detection and monitoring.

Evaluating spectral indices and spectral mixture analysis for assessing fire severity and adjusting burning efficiency using Landsat data.

A single date SWIR-MIR index (SMI) for rapid fire severity assessments.

Study of biomass burning emissions with Aqua/AIRS and MetOp-A/IASI

Wildfire monitoring via the integration of remote sensing with innovative information technologies.

Bulletin of Forest Fire risk in Albania- The experience of the Albania National Centre for forecast and Monitoring of Natural Risks

CO atmospheric pollution of Moscow area during wild fires in summer 2010, estimates of emissions and their uncertainties

Hydrological minimal model for fire regime assessment in Mediterranean ecosystem

Model sensitivity to global fire emissions: GFED versus GFAS

Calculation of smoke plume mass from passive UV satellite measurements by GOME-2 polarization measurement devices

Extreme Wildfire Spread and Behaviour: Case Studies from North Sardinia, Italy

FIRESTORM: Modelling the water quality risk of wildfire.

PROPAGATOR: a synchronous stochastic wildfire propagation model with distributed computation engine

Coupled atmosphere-fire modeling with data assimilation for 2007 Santa Ana fires

Long-range forecasting of forest fire danger index based on PLAV model outputs
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
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
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**

**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 ITSASGIS-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. Rodríguez-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. Laurent, T. Jolibois, and J. Blower  
MyOcean Information System: achievements and perspectives

**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-Azcarate, 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. Jovinc, 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
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
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/A54.15/ESSI1.3/HS5.10/HS7.7 – ICT-based hydrometeorology science and natural disaster societal impact assessment (co-organized) – Posters**
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
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. Maider, M. 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. Chavez
Comparison between genetic programming and an ensemble Kalman filter as data assimilation techniques for probabilistic flood forecasting

**XY175** EGU2012-12246
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**
Hall XL | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: David Arctur
M. L. Allison, K. T. Gallagher, S. M. Richard, and V. B. Hutchison
Strategic Roadmap for the U.S. Geoscience Information Network

GeoSciML v3.0 - a significant upgrade of the CGI-IUGS geoscience data model

C. Trabant, T. Ahern, Y. Suleiman, R. Karstens, and B. Weertman
Easy access to geophysical data sets at the IRIS Data Management Center

C. Tote, T. Jacobs, and S. Gilliams
Improved agriculture and forest management in Africa through the AGRICAB project

S. Bernonville, O. Goussev, S. Falke, F. Lindsay, C. S. Lynnes, W. Yang, P. Zhao, and J. Johnson
A Community-oriented CEOS Atmospheric Composition Portal (ACP)

L. M. de Vries, P. Trincher, and J. Molinero
MCPfreeqc: Extending geochemical modelling with automatic stochastic simulations

D. Jarecka, 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.

D. E. Reusser, W. Buylaert, and C. Vitolo
RHydro - Hydrological models and tools to represent and analyze hydrological data in R

Y. L. Ekinci 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

I. Sandric, P. Ursaru, D. Chitu, B. Mihai, and I. Savulescu
Web processing service for landslide hazard assessment

C. Gokceoglu, 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

D. D’Alimonte, T. Kajiyama, and G. Zibordi
High-spatial resolution numerical simulations of in-water radiative transfer processes

V Vilarrasa, S Olivella, O Silva, and J Carrera
Numerical Simulation of Non-Isothermal CO2 Injection Using the Thermo-Hydro-Mechanical Code CODE_BRIGHT

L. Gross, C. Altinay, J. Fenwick, and L. Gao
Combining Numerical and Symbolic Computing in Python

The German contribution to the IPCC/AR5 (CMIP5)

M. Schubert-Frisius, K. Meier-Flesicher, P. Lenzen, K. Keuler, H.-J. Panitz, M. Büchner, and S. Legutke
CORDEX experiments with the RCM 'CCLM' using the DKRZ modelling environment IMDI

I. Santos, D. Dalimonte, and J.P Santos
Sky-Radiance Models for Monte Carlo Radiative Transfer Applications

Coupled FESOM/ECHAM5 setup, strategies and solutions

G. Föll, T. Weigelt, S. Kindermann, M. Lautenschlager, and F. Toussaint
Web Services and Handle Infrastructure - WDCC's Contributions to International Projects

J. Donners, N. Audiffren, and J.-M. Molines
Towards petascaling of the NEMO ocean model
Using GIS for calculation and visualization of the velocity field

Optimising terrestrial LiDAR field deployment

Processing and utilization of LiDAR data as a support for a good management of DDBR

An investigation of landslide deformation using range flow motion constraint applied on LiDAR data

Semi-automatic discontinuity extraction from rock faces with LiDAR and photogrammetry. A comparison validated by geotechnical data.

The Effects of the Terrain Variation and Changed Parameters of the Moving Window on the LiDAR DEM Spectrum

The influence of control parameter estimation on large scale geomorphological interpretation of pointclouds

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

Morphological analysis of waterfall cliff face by terrestrial laser scanning

Three dimensional modeling of depositional geometries. A case study from Tofane Group (Dolomites, Italy).

Updating a national scale LiDAR based height model

Analysis of shallow landslides by morphometry parameters derived from terrestrial laser scanning point clouds

Analysis of multitemporal laserscanned DTMs of an active landslide (Doren, Western Austria) using a robust plane-fitting segmentation

High-resolution Terrestrial Laser Scanning (TLS) on cushion peatlands - a case study from the Peruvian Andes

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. Dervil, 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

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

ESSI2.6 – Uncertainty in Environmental Data and Models – Orals  
Convener: D. Cornford | Co-Conveners: G. Heuvelink, E. Peubesma, 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

**ESSI1.4 – New Data Paradigms, Modeling, and International Collaboration Strategies for Earth System Sciences**
*(including Ian McHarg Medal Lecture)* – Orals
Room: 25
Chairperson: n.n.

08:30–08:45  EGU2012-13563
International Convergence on Geoscience Cyberinfrastructure

08:45–09:00  EGU2012-3100
P. Mazzetti and S. Nativi
Addressing sustainable contributions to GEO/GEOSS from Science and Technology Communities: the EGIDA Methodology

09:00–09:15  EGU2012-13370
K. Lehnert and J. Klump
The Geoscience Internet of Things

09:15–09:30  EGU2012-2019
M. Stockhause, H. Höck, M. Kurtz, M. Lautenschlager, and F. Toussaint
Federated Quality Control Procedure for CMIP5 / IPCC-AR5 Data

09:30–09:45  EGU2012-5663
N. Bonora, M. Benito, I. Abou El-Magd, P. Mazzetti, and C. Ndong
Networking environmental metadata: a pilot project for the Mediterranean Region

09:45–10:00  EGU2012-13615
B. L. Bye
International funding of geoscience: The development of collaborative funding mechanisms of GEOSS

**COFFEE BREAK**

Chairperson: n.n.

10:30–10:45  EGU2012-7451
W. Hugo
Massive Meta-Data: A New Data Mining Resource

10:45–11:00  EGU2012-2840
I. Honkonen, S. von Alfthan, A. Sandroos, P. Janhunen, and M. Palmroth
Parallel grid library with adaptive mesh refinement for development of highly scalable simulations

11:00–12:00  EGU2012-14465
P. Fox
The Changing Conduct of Geoscience in a Data Intensive World (Ian McHarg Medal Lecture)

**EOS6/ESSI2.3 – Modern Geoinformatics and Education (co-organized) – Orals**
Convener: M. Zhilin
Room: 25
Chairperson: n.n.

13:30–13:45  EGU2012-10824
M. Zhilin
Novices and Experts in Geoinformatics: the Cognitive Gap.

13:45–14:00  EGU2012-2390
S. Nativi
Lowering Entry Barriers for Multidisciplinary Cyber(e)-Infrastructures

14:00–14:15  EGU2012-13196
C. Baru, L. Allison, P. Fox, C. Keane, R. Keller, and S. Richard
GET21: Geoinformatics Training and Education for the 21st Century Geoscience Workforce

14:15–14:30  EGU2012-11224
P. Fox
Bringing Data Science, Xinformatics and Semantic eScience into the Graduate Curriculum
14:30–14:45 EGU2012-2221
V. Gershenzon, O. Gershenzon, 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

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

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

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

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

XL45 EGU2012-3213
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. Dömbrack
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
D. Misev and P. Baumann
Optimizability of OGC Standards Implementations - a Case Study
Thursday, 26 April

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

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. Hänner 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. Herrmkind, 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

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

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. Juckes, and S. Denvil
Can the ExArch framework facilitate the computation of stormtracks statistics in a petabyte archive?

XY405  EGU2012-11785
J. P. Iannacone, 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
Data publication activities in the Natural Environment Research Council

XY408  EGU2012-13502
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. Serrezze  
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"

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**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. Grellot, 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

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
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. Graer 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  EGU2012-10990
S. Krähennmann 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

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  
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  
The 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. Bourel, N. André, and C. Jacquy  
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
**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. Löwe*, *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. Murl, 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

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. Marzolf
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
In situ 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
C. Hugenholtz, K. Whitehead, 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

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

C. Capanna, L. Jorda, G. Gesquière, and P. Lamy
A new 3D reconstruction technique applied to small solar system bodies

S. Delalleux, S. Livers, M. Goossens, I. Reusen, and C. Tote
Spatial unmixing for environmental impact monitoring of mining using UAS and WV-2

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

M. Avian
First results of repeated Terrestrial Laserscanning monitoring processes at the rock fall area Burgstall/Pasterze Glacier, Hohe Tauern Range, Central Austria

M. Avian
Performance and limits of different long-range TLS-sensors for monitoring high mountain geomorphic processes at different spatial scales

A. Prokop and M. Chiari
Long term monitoring of geomorphological changes caused by torrent activity using terrestrial laser scanning

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

N. Perez-Gallego, T. Francke, J. Latron, S. Werth, S. Werb, and F. Gallart
Testing a Terrestrial Laser Scanner for studying badlands forms and erosion rates. Vallcebre (Catalan Pre-Pyrenees)

M. Dotterweich and S. Bub
Using high resolution morphometric thalweg analyses of dry valleys under woodland to assess land use impact and soil erosion in the late Holocene

B.D. Collins, S.C. Corbett, and H.C. Fairley
Measuring and modeling high-resolution topographic change at archaeological sites in Grand Canyon National Park, Arizona, U.S.A.

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

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

M. Etchebes, P. Tapponnier, Y. Klinger, J. Van Der Woerd, X. Xu, S. Xinzhe, T. Xibin, M. Rizza, and T. Lok Hang
Application of terrestrial LiDAR topographic data to reconstruct offset geomorphic markers along the Fuyun strike-slip fault, Xinjiang, China

R.M. Frings and S. Vollmer
Use of 3D photogrammetry for measurement of river bed porosity

M. Smith and D. Vericat
Evaluating through-water terrestrial laser scanning under a range of flow and suspended sediment conditions
A.P. Valentine, L.M. Kalnins, and J. Trampert
Hunting for seamounts using neural networks: learning algorithms for geomorphic studies

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)

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

J. K. Hillier and M. S. Smith
Robust 3D Quantification of Glacial Landforms: A Use of Idealised Drumlins in a Real DEM

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

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

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

S. Trevisani, M. Cavalli, and L. Marchi
Reading alpine morphology according to surface texture: two approaches compared

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

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.

A. Doglioni and V. Simeone
Identification of large geomorphological anomalies based on 2D discrete wavelet transform

Recognition of large scale deep-seated landslides in vegetated areas of Taiwan

C.-M. Tseng, P. Tarolli, and C.-W. Lin
Variations of Geomorphic Signatures after a Major Typhoon

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

J.-K. Liu, M.-S. Yang, M.-C. Wu, and W.-C. Hsu
LiDAR DEM for Slope regulations of land development in Taiwan

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

P. Tarolli and A. Righetto
Regional scale analysis of the topographic signatures of landslide/debris flow dominated processes
A. Tomczyk and M. Ewertowski
Digital Elevation Models of Differences (DODs): implementation for assessment of soil erosion on recreational trails.

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

J. H. Blöthe, H. Munack, and O. Korup
Sediment storage and stability along the western Tibetan plateau margin

F. Cazorzi, A. De Luca, A. Checchinato, F. Segna, and G. Dalla Fontana
A LiDAR based analysis of hydraulic hazard mapping

G. Sofia, P. Tarolli, and G. Dalla Fontana
LiDAR DTMs and anthropogenic feature extraction: testing the feasibility of geomorphometric parameters in floodplains

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
Friday, 27 April

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

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**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


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
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  
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.