

EGU General Assembly 2011
Programme Group Programme
GI – Geosciences Instrumentation & Data Systems

Monday, 04 April	2
GI-1.....	2
GI-3.....	3
GI-5.....	5
ESSI13/GI-17.....	6
SM1.7/CR11.10/GI-18.....	6
SM1.3/G3.8/GD3.7/GI-19/TS8.7.....	8
ML12.....	9
Tuesday, 05 April	11
GI-9.....	11
Wednesday, 06 April	13
GI-14.....	13
GD3.2/GI-16/SM3.9.....	14
Thursday, 07 April	17
GI-4.....	17
GI-10.....	18
GI-11.....	20
Friday, 08 April	22
GI-6.....	22
GI-12.....	23
GI-15.....	24
GM2.2/NH10.3/PS10.2.....	25

Monday, 04 April

GI-1 – Open Session on Geoscience Instrumentation – Orals

Convener: Håkan Svedhem | Co-Conveners: Ari-Matti Harri, Valery Korepanov

Room: 42

Chairperson: Håkan Svedhem

- 08:30–08:45 EGU2011-4748
Hugh Mortimer
Novel imaging spectrometer for the measurement of atmospheric trace gases
- 08:45–09:00 EGU2011-1825
Thomas Hobiger, Jun Amagai, Masanori Aida, Yasuhiro Koyama, and Tadahiro Gotoh
A low-cost GNSS-R system based on software-defined-radio
- 09:00–09:15 EGU2011-3619
Matthias Drusch, Susanne Mecklenburg, Catherine Bouzinac, and Tania Casal
Calibration and validation activities for ESA's Soil Moisture and Ocean Salinity Mission
- 09:15–09:30 EGU2011-11902
Katrin Jaksch, Rüdiger Giese, and Matthias Kopf
High resolution geophysical exploration ahead and around the drill bit by application of a directional seismic borehole source
- 09:30–09:45 EGU2011-825
Yosep Kusnadi, Tedy Setiawan, and Rachmat Sule
Development of MEMS Bohr-hole Seismometer for Microseismic Monitoring Purpose in Geothermal Fields
- 09:45–10:00 EGU2011-9466
Horst Rademacher, Laurence Withers, Murray McGowan, Chris Pearcey, and Cansun Guralp
A New Instrumental Approach to Earthquake Early Warning

COFFEE BREAK

Chairperson: Valery Korepanov

- 10:30–10:45 EGU2011-4943
Bernd Dachwald, **Changsheng Xu**, Marco Feldmann, and Engelbert Plescher
Development of a Novel Subsurface Ice Probe and Testing of the First Prototype on the Morteratsch Glacier
- 10:45–11:00 EGU2011-1140
David Blake
The development of a hot-water drill to access sub-glacial Lake Ellsworth
- 11:00–11:15 EGU2011-13671
Carl Robinson, Fausto Ferraccioli, Hugh Corr, and Tom Jordan
Exploring the interior of East and West Antarctica with airborne geophysics
- 11:15–11:30 EGU2011-7212
Philippe Ricaud, Christophe Genthon, Jean-Luc Attié, Andrea Pellegrini, Thomas Rose, Yann Courcoux, Jean-François Vanacker, and Lorenzo Moggio
The HAMSTRAD programme at DOME C (CONCORDIA STATION, ANTARCTICA) for monitoring tropospheric water vapour and temperature
- 11:30–11:45 EGU2011-1033
Achim A. Beylich and Scott F. Lamoureux
Sedimentary fluxes and budgets in cold climate environments: The SEDIBUD (Sediment budgets in cold environments) Programme
- 11:45–12:00 EGU2011-12073
Klaus Schleisiek, Dr. Jörg Bialas, Dr. Ingo Klauke, and Dr. Cord Papenberg
Deep Towed Streamer for Seismic Exploration of Shallow Gas-Hydrate Layers

GI-1 – Open Session on Geoscience Instrumentation – Posters

Convener: Håkan Svedhem | Co-Conveners: Ari-Matti Harri, Valery Korepanov

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Ari-Matti Harri

- A60 EGU2011-1074
Huai-Houh Hsu, Jui-Ting Lee, An-Bin Huang, Yen-Te Ho, Che-Ming Hu, and Miao-Jhih Yan
Development of a cone penetrometer using fiber Bragg grating sensors
- A61 EGU2011-2226
Evgenii Panidi
Software instruments for investigation of landscape metric features
- A62 EGU2011-2628
Palangio Paolo Giovanni, Di Lorenzo Cinzia, De Santis Anna, Pietrolungo Manuela, Taccetti Quintilio, Meloni Antonio, Dominici Guido, Lepidi Stefania, and Biasini Fulvio
The new geomagnetic observatory of Duronio, Italy
- A63 EGU2011-1295
Vira Pronenko and Yevhen Vasiliev
Induction magnetometers response speed control
- A64 EGU2011-3355
Bryn Jones, David Meldrum, Alastair James, and **Mike Rose**
Thermoelectric energy harvesting for Polar instrumentation
- A65 EGU2011-9507
Roy Stehle, Martin Grill, and Todd Valentic
A fuel cell power system for remote, autonomous, Arctic instrumentation sites.
- A66 EGU2011-4591
Alberto Behar
Technology for autonomous monitoring and investigations of polar environments
- A67 EGU2011-12778
Bjorn Johns, Seth White, and Tim Parker
Iridium RUDICS Communication Optimized for Remote Autonomous Polar Network Applications
- A68 EGU2011-9521
Martin Grill, Roy Stehle, and Todd Valentic
Reliable automated high-bandwidth data transfers for distributed unmanned instrument clusters in the Arctic.
- A69 EGU2011-4109
Fiodor Sorrentino, Marella de Angelis, Luigi Cacciapuoti, Yu-Hung Lien, Nicola Poli, Marco Prevedelli, Gabriele Rosi, Marco G. Tarallo, Fu-Yuan Wang, and Guglielmo M. Tino
Measurements of gravity acceleration and gravity gradient with cold atom interferometry
- A70 EGU2011-12008
Eric Wapelhorst, Hans-Jürg Jost, James J. Scherer, and Joshua B. Paul
Simultaneous measurements of carbon and oxygen isotopologues of carbon dioxide using a mid-ir laser based platform
- A71 EGU2011-9443
Andreas Wiesmann, Charles Werner, Tazio Strozzi, Andrew Kos, Rafael Caduff, and Urs Wegmüller
Implementation and testing of the second generation portable radar interferometer GPRI-II
- A72 EGU2011-1936
Jean-Christophe Calvet, Clément Albergel, Elena Zakharova, Marie Parrens, Mehrez Zribi, Mickäel Pardé, Monique Dechambre, Jean-Pierre Wigneron, Nathalie Novello, and Yann Kerr
A first assessment of the SMOS data in southwestern France using in situ, airborne and model soil moisture estimates
- A73 EGU2011-5183
Christoph Rüdiger, Jeffrey P. Walker, Yann H. Kerr, Olivier Merlin, Arnaud Mialon, and Edward J. Kim
SMOS L1c and L2 product validation with airborne and in-situ observations over south-eastern Australia
- A74 EGU2011-5782
Adrien Martin, Jacqueline Boutin, Danièle Hauser, Gilles Reverdin, Mickael Pardé, Mehrez Zribi, Pascal Fanise, Monique Dechambre, Xiaobin Yin, Joseph Tenerelli and the CAROLS/SMOS Ocean Validation Team
L-band brightness temperatures measured in the Gulf of Biscay in 2010
- A75 EGU2011-9332
Mehrez Zribi and the CAROLS Team
Description of CAROLS airborne campaigns for SMOS CAL/VAL
- A76 EGU2011-7677
Pardé Mickaël, Fanise Pascal, Zribi Mehrez, and Dechambre Monique
Radio Frequency Interferences Investigation Using the Airborne L-band Full Polarimetric Radiometer CAROLS
- A77 EGU2011-13442
Ernesto Lopez-Baeza and the SMOS_CAROLS@VAS Team
CNES and ESA CAROLS Airborne Campaigns at the Valencia Anchor Station and Los Monegros site in the framework of SMOS Validation

GI-3 – Atmospheric and meteorological instrumentation – Orals

Convener: Jothiram Vivekanandan | Co-Conveners: David Parsons, Mike Rose, Christoph Waldmann

Room: 42

Chairperson: Mike Rose

- 15:30–15:45 EGU2011-5995
Marie-Noëlle Bouin, Dominique Legain, Olivier Traullé, Sophie Belamari, Annie Fiandrino, Franck Lagarde, Joël Barrié, Eric Moulin, and Gilles Bouhours
 Scintillometry: a new tool to retrieve sensible heat fluxes over sea and lakes
- 15:45–16:00 EGU2011-6219
Dominik Michel, Regula Gehrig, Mathias Rotach, and Roland Vogt
 Experimental investigation of birch pollen emissions (MicroPoem) and the influence of sensor orientation and meteorological factors on the inlet sampling characteristics of volumetric bioaerosol samplers
- 16:00–16:15 EGU2011-7890
Wesley Sluis, Marc Allaart, Ankie Pitters, and Lou Gast
 The nitrogen dioxide sonde
- 16:15–16:30 EGU2011-10173
Chris Rella, Colm Sweeney, Wade McGillis, Anna Karion, and Eric Crosson
 Evaluation of the G2301-f Picarro methane and carbon dioxide flux analyzer for micrometeorological applications*
- 16:30–16:45 EGU2011-7990
J?nis Pu??te, Sven Kühl, Tim Deutschmann, Steffen Beirle, Patrick Jöckel, Steffen Dörner, and Thomas Wagner
 Improving 2D tomography for trace gas retrievals combining SCIAMACHY limb and nadir measurements
- 16:45–17:00 EGU2011-8718
Gerrit Maschwitz, Ulrich Löhnert, Susanne Crewell, Thomas Rose, and David D. Turner
 Investigation of gas absorption models from 22 to 183 GHz observed at low water vapor concentrations and 530 hPa in the Atacama Desert in Chile
- 17:00–17:15 EGU2011-8509
J. (Vivek) Vivekanandan, Eric Loew, Scott Spuler, Bruce Morley, Wen-Chau Lee, and Edwin Eloranta
 Airborne Cloud Radar and Lidar for Sensing Aerosol and Clouds

GI-3 – Atmospheric and meteorological instrumentation – Posters

Convener: Jothiram Vivekanandan | Co-Conveners: David Parsons, Mike Rose, Christoph Waldmann

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Christopher Waldmann

- A78 EGU2011-11
George Burba, Jason Hupp, Dayle McDermitt, and Robert Eckles
 Field examination of low temperature control setting for mediating surface heating effect in open-path flux measurements under cold conditions
- A79 EGU2011-12
George Burba, Andres Schmidt, Russell Scott, Gerardo Fratini, James Kathilankal, Beverly Law, Dayle McDermitt, and Chad Hanson
 Comparison of CO₂ and H₂O eddy fluxes derived from density and from mixing ratio measured by an enclosed gas analyzer
- A80 EGU2011-2845
Yung-Yao Lan, Ben-Jei Tsuang, Yu Chi Lin, Mao-Lin Shen, and Sheng Fong Lin
 How to prevent the interference of ship itself exhaust emissions when measurement air pollutants over the South China Sea during 2010
- A81 EGU2011-5333
Jeonghoon Lee
 A Mach Zehnder Interferometer as a Tool for Measuring Aerosol Light Absorption
- A82 EGU2011-8634
Hans-Jürg Jost, James Scherer, and Joshua Paul
 Measurements of carbon monoxide and methane at ppb level using Mid-IR Laser based sensor
- A83 EGU2011-9586
Min-Suk Bae, James Schwab, Wei-Nai Chen, Brian Frank, Aaron Pulaski, Min-Hwa Lim, Ji-Ah Kim, and Kenneth Demerjian
 Thermal Optical Detection of Controlled Combustion Aerosol with a Carbon Analyzer
- A84 EGU2011-11363
Felix Herma, Jochen Seidel, and András Bárdossy
 Measurement of temperature and humidity profiles on a cable car as a tool for the determination of atmospheric stability

- A85 EGU2011-12365
Neil Humpage, John Remedios, Alex Wishart, Thomas McCoy, Hugh Mortimer, Kevin James, and Clive Arthurs
TIDAS-SPU: Development and testing of a system for infrared FTS imaging of the atmosphere
- A86 EGU2011-12862
Dominique Lambert and the CORSiCA Team
CORSiCA: a Mediterranean atmospheric and oceanographic observatory in Corsica within the framework of HyMeX and ChArMEx
- A87 EGU2011-13116
Cecilia Tirelli, Tatiana Di Iorio, Marco Cacciani, Alcide di Sarra, Virginia Ciardini, and Daniele Fuà
A novel MFRSR radiometer calibration approach for accurate aerosol optical depth retrieval: application to urban and maritime test sites.
- A88 EGU2011-13376
Gloria Jacobson, Chris Rella, and Eric Crosson
Measuring CO, CH₄, CO₂ & H₂O Simultaneously; Using New CM-CRDS Technology to Characterize Urban Plumes & the Well-Mixed Atmosphere
- A89 EGU2011-1239
Juan Carlos Gómez Martín, Janis Blahins, Uldis Gross, Trevor Ingham, Andrew Goddard, Anoop Sharad Mahajan, Arnolds Ubelis, and Alfonso Saiz-López
ROFLEX: Resonance and Off-Resonance Fluorescence by Lamp Excitation for in situ detection of atomic and molecular iodine.
- A90 EGU2011-14212
Julia Remmers, Steffen Beirle, Sven Krautwurst, Kornelia Mies, Reza Shaiganfar, and Thomas Wagner
First results from novel 4-azimuth MAX-DOAS measurements in Mainz, Germany

GI-5 – Space Instrumentation, Planetary landers and Rovers – Orals

Convener: Mark Leese | Co-Conveners: Peter Falkner, Lutz Richter, Günter Kargl

Room: 42

Chairperson: Mark Leese

- 13:30–13:45 EGU2011-6054
Ari-Matti Harri, Walter Schmidt, Luis Vázquez, Harri Haukka, and Vladimir Linkin
Autonomous Operation of the MetNet Precursor Mission
- 13:45–14:00 EGU2011-9607
Andrew Steele, Hans Amundsen, Liane Benning, Marilyn Fogel, Nicole Schmitz, and Amase 2010 team
The Arctic Mars Analogue Svalbard Expedition 2010.
- 14:00–14:15 EGU2011-11723
Marek Tulej, Andreas Riedo, Maria Iakovleva, Vera A.S.M. Fernandes, and **Peter Wurz**
A miniature laser ablation time-of-flight mass spectrometer for sub-ppm analysis of planetary surfaces: performance studies
- 14:15–14:30 EGU2011-14094
Juhani Huovelin, **Maria Genzer** and the SIXS Team
An introduction to Solar Intensity X-ray and particle Spectrometer (SIXS) for BepiColombo
- 14:30–14:45 EGU2011-14100
Lauri Alha, Juhani Huovelin, and Hans Andersson
X-ray solar monitor equipped with a concentrator optics
- 14:45–15:00 EGU2011-14101
Om Gupta
Iridium NEXT SensorPODs: Global Access for Earth Observation

GI-5 – Space Instrumentation, Planetary landers and Rovers – Posters

Convener: Mark Leese | Co-Conveners: Peter Falkner, Lutz Richter, Günter Kargl

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Gunter Kargl

- A91 EGU2011-1294
Valery Korepanov and **Fedir Dudkin**
Still one possibility to determine the wave vector onboard one spacecraft
- A92 EGU2011-1800
Glyn Collinson, Thomas Moore, David Durachka, David Olson, David Knudsen, Paul Rozmarynowski, Adrienne Beamer, and Jeffrey Klenzing
The Next Generation of Space Plasma Analyzer - Deployable Radial Imaging for Velocity, Energy, and Density (DRIVEN)

- A93 EGU2011-2122
Serhiy Belyayev and Nickolay Ivchenko
Digital Fluxgate Magnetometers, Trade-off Between Response, Sensitivity and Stability
- A94 EGU2011-6330
Miguel F. Cerdán and Marina D. Michelena
In orbit calibration of COTS AMR magnetic sensor
- A95 EGU2011-6768
Miguel F. Cerdán, Ana B. Fernández, Juan J. Jiménez, and **Marina D. Michelena**
Witnessing variations in the Earth magnetic field by means of Nanosat-1B COTS AMR magnetic sensor
- A96 EGU2011-11562
Manfred Sampl, Thomas Oswald, Helmut O. Rucker, Georg Fischer, Dirk Plettemeier, William S. Kurth, and Wolfgang Macher
First assessment of the JUNO/Waves antenna properties
- A97 EGU2011-10002
Hans Eichelberger, Gustav Prattes, Konrad Schwingenschuh, Ghulam Jaffer, Özer Aydogar, Irmgard Jernej, Bruno Besser, Manfred Stachel, Tetsuya Tokano, and Peter Falkner
Acoustic outdoor measurements with a multi-microphone instrument for planetary atmospheres and surfaces
- A98 EGU2011-9830
Harri Haukka, Walter Schmidt, Ari-Matti Harri, Jyri Heilimo, Maria Genzer, Ignacio Arruego Rodríguez, Héctor Guerrero Padrón, and Joaquín Azcue Salto
High Level Shock Tests for Mars MetNet Penetrator
- A99 EGU2011-11662
Jens Grosse, Caroline Lange, Kay Burrow, and Tim v. Zoest
First Design Concept for a Combined Thermal and Mechanical Penetration Device for Investigations of Icy Planetary Bodies - The 'Cryo-Mole'
- A100 EGU2011-9141
William Denig, Daniel Wilkinson, Janet Green, Robert Redmon, Janet Machol, Juan Rodriguez, and Patricia Mulligan
The Status of U.S. Operational Satellite Space Environmental Datasets

ESS13/GI-17 – Open standards and distributed architectures for the Observation Web: from the sensors to the user (co-organized) – Orals

Convener: Denis Havlik | Co-Conveners: Walter Schmidt, Zoheir Sabeur, Stefano Nativi, Juan M. Tirado

Room: 2

Chairperson: Denis Havlik, Walter Schmidt, Zoheir Sabeur

- 08:30–08:45 EGU2011-5218
Alief Nugraha, Andri Hendriyana, and Rachmat Sule
Speeding Up CRS-Stack Computation Using GPGPU
- 08:45–09:00 EGU2011-5407
Simon Cox, Bruce Simons, and Gavin Walker
Adoption of earth science informatics standards: key factors
- 09:00–09:15 EGU2011-12419
Marcel Ritter, Werner Benger, Frank Steinbacher, Markus Aufleger, Joseph Stoeckl, Donna Delparte, Mike Folk, and Quincey Koziol
Using HDF5 for Cross Disciplinary Data Archival and Highly Performing Processing of Multi-Variant Observational and Computational Data with Simple or Complex Topology
- 09:15–09:30 EGU2011-13533
Thanasis Papaioannou, Sofiane Sarni, Karl Aberer, Mathias Bavay, Michael Lehning, Silvia Simoni, and Marc Parlange
Automated Model-driven Simulation and Visualization of Field Sensor Data
- 09:30–09:45 EGU2011-12300
Zoheir Sabeur, Joachim Wächter, Andreas Küppers, and Kym Watson
Large Environmental Sensor Observation Data and Knowledge Base for Collaborative Decision-support in Crises
- 09:45–10:00 EGU2011-327
John van de Vegte, Maarten Plieger, Rob Roebeling, Jan Fokke Meirink, Paul de Valk, Robert van Versendaal, Ian van der Neut, Henk kalle, Jasper Spit, and Arthur Knopper
Data access to the MSG Cloud Physical Properties (MSG-CPP) products

SM1.7/CR11.10/GI-18 – Challenges of Polar Seismology: Logistics and technology, glacial and tectonic events (co-organized) – Orals

Convener: Trine Dahl-Jensen | Co-Conveners: Vera Schlindwein, Meredith Nettles

Room: 26

Chairperson: n.n.

- 15:30–15:45 EGU2011-13538
Douglas A. Wiens, David Heeszel, Xinlei Sun, Amanda Lough, Andrew Nyblade, Sridhar Anandakrishnan, Richard C. Aster, Audrey Huerta, and Paul Winberry
 Seismic structure and sources of the Antarctic continent determined from large-scale year around deployment of broadband seismographs
- 15:45–16:00 EGU2011-4112
Galina Antonovskaya and Felix Yudakhin
 About necessity of carrying out seismogeodynamic monitoring of the Russian Federation's Arctic zone
- 16:00–16:15 EGU2011-2493
Trine Dahl-Jensen and the GLISN Team
 The Greenland Ice Sheet monitoring Network (GLISN)
- 16:15–16:30 EGU2011-5505
 Morten Langer Andersen, **Tine B. Larsen**, and Meredith Nettles
 Detection and spectral characterization of calving related seismic signals, Helheim Glacier, South East Greenland
- 16:30–16:45 EGU2011-8322
Elena Kozlovskaya and the POLENET/LAPNET Working Group Team
 Analysis of glacial seismic events from Greenland recorded by the POLENET/LAPNET experiment during the IPY 2007-2009
- 16:45–17:00 EGU2011-10337
John Clinton, Marco Olivieri, Jason Amundson, and Fabian Walter
 Counting Calving Events in Greenland using GLISN

SM1.7/CR11.10/GI-18 – Challenges of Polar Seismology: Logistics and technology, glacial and tectonic events (co-organized) – Posters

Convener: Trine Dahl-Jensen | Co-Conveners: Vera Schlindwein, Meredith Nettles

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY680 EGU2011-12765
Elena Kozlovskaya, Alexander Kozlovsky and the POLENET/LAPNET Working Group Team
 Problem of misinterpretation of geomagnetic pulsations recorded by broadband seismometers as seismic signals: possible solutions
- XY681 EGU2011-1895
Bela Assinovskaya and Vladimir Karpinsky
 Unusual Earthquake July 31, 2010 in Lake Ladoga
- XY682 EGU2011-2458
Vera Schlindwein and Christine Läderach
 Seismology on drifting ice floes
- XY683 EGU2011-10457
 Myrto Pirli, Johannes Schweitzer, **Tormod Kværna**, and the IPY Project Consortium
 A year of seismic swarm activity on the Mohns - Knipovich Ridge Bend
- XY684 EGU2011-6325
Andreas Köhler, Anne Chapuis, Christopher Nuth, and Christian Weidle
 Searching for glacier-induced seismic events using a combined approach of STA/LTA triggering and unsupervised pattern recognition
- XY685 EGU2011-8589
Stephan Husen, Fabian Walter, Martin Funk, Martin Lüthi, and John F. Clinton
 Subglacial Controls on the Short Term Dynamics at the Margin of the Greenland Ice Sheet: Seismic Experiments
- XY686 EGU2011-9206
Jason Amundson, John Clinton, Martin Luethi, Emile Okal, Doug MacAyeal, and Marco Olivieri
 Long-period glaciogenic ocean waves revealed by coastal broadband seismometers near Jakobshavn Isbræ, Greenland
- XY687 EGU2011-12191
Giuseppe Falcone, Giuditta Marinaro, Giovanni Battista Cimini, Paolo Favali, Francesco Frugoni, Stephen Monna, and Caterina Montuori
 Seismological observations of the experiment in Antarctica with MABEL seafloor multidisciplinary observatory
- XY688 EGU2011-6137
Fabian Walter, Debi Kilb, Nicolas Deichmann, Martin Funk, and Helen Amanda Fricker
 Surface Seismicity on Gornergletscher, a Swiss Alpine Glacier

SM1.3/G3.8/GD3.7/GI-19/TS8.7 – Improving seismic networks performances: from site selection to data integration (co-organized) – Orals

Convener: Damiano Pesaresi | Co-Conveners: John Clinton, Robert Busby

Room: 26

Chairperson: n.n.

- 12:00–12:15 EGU2011-9669
Frank Vernon, Jennifer Eakins, Robert Newman, Geoff Davis, Brian Battistuz, Juan Reyes, and Luciana Astiz
 Goals, Accomplishments, Realities, and Future Directions for Network Operations Based on the Array Network Facility for the NSF EarthScope USArray Transportable Array.
- 12:15–12:30 EGU2011-6576
Carlo Cauzzi and John Clinton
 Improving waveform quality and data accessibility for the Swiss Strong Motion Network: challenges and issues.
- 12:30–12:45 EGU2011-11536
Ruben Luis, Jens Havskov, Teresa Ferreira, Lars Ottemöller, Rita Marques, Dina Silveira, Rogério Sousa, Ana Medeiros, Nuno Cabral, Rita Carmo and the CVARG Technical Team
 Recent Advances of the CIVISA Seismic Monitoring Network in the Azores Islands

LUNCH BREAK

Chairperson: n.n.

- 13:30–13:45 EGU2011-11252
Antonino D'Alessandro, Gianpaolo Cecere, Alessandro Amato, and Giulio Selvaggi
 Improving the location performance of a seismic network through the SNES method
- 13:45–14:00 EGU2011-5077
Adrien Oth, Maren Böse, Friedemann Wenzel, Nina Köhler, and Mustafa Erdik
 Evaluation and optimization of seismic networks for earthquake early warning - The case of Istanbul (Turkey)
- 14:00–14:15 EGU2011-9022
Christos Evangelidis, Nikolaos Melis, and Ioannis Kalogeras
 Monitoring broadband seismic noise in the Hellenic Unified Seismic Network (HUSN)
- 14:15–14:30 EGU2011-9232
Robert Busby, Frank Vernon, Robert Newman, and Katrin Hafner
 EarthScope's Transportable Array: Concepts and Practice in Managing Quality Control for Seismic Networks
- 14:30–14:45 EGU2011-13202
Reinoud Sleeman, Torild van Eck, and Gert-Jan van den Hazel
 ORFEUS Data Center: addressing Quality Control to obtain high quality seismic waveform data for research.
- 14:45–15:00 EGU2011-8460
Kent Anderson, Peter Davis, and Lind Gee
 The GSN Data Quality Initiative

SM1.3/G3.8/GD3.7/GI-19/TS8.7 – Improving seismic networks performances: from site selection to data integration (co-organized) – Posters

Convener: Damiano Pesaresi | Co-Conveners: John Clinton, Robert Busby

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY660 EGU2011-9484
Katrin Hafner, Robert W. Busby, and Robert Woodward
 EarthScope's Transportable Array: Current State of Evolution
- XY661 EGU2011-9581
Relu Burlacu and the UUSS Team
 Utah's Regional/Urban ANSS Seismic Network—Integrated Multifaceted Monitoring

- XY662 EGU2011-10145
Damiano Pesaresi, Pier Luigi Bragato, Angela Saraò, Paolo Di Bartolomeo, Milton Percy Plasencia Linares, and Giorgio Duri
 Improving the seismic monitoring of North-eastern Italy: the state of the art of the North-eastern Italy (NI)
 Seismic Network run by OGS
- XY663 EGU2011-12781
Luigi Abruzzese, Gianpaolo Cecere, Alberto Delladio, Giovanni De Luca, Alessandro Marchetti, Salvatore Mazza, and Franco Mele
 The INGV Mobile Telemetered Network (Re.Mo.Tel.): long-term monitoring analysis.
- XY664 EGU2011-11943
Vincenzo Cardinale, Angelo Castagnozzi, Gianpaolo Cecere, Ciriaco D'Ambrosio, Luigi Falco, Antonino Memmolo, Felice Minichiello, and Luigi Zarrilli
 A new integrated seismic and GPS mobile network - (test site:
- XY665 EGU2011-6586
 Liliya Dimitrova, **Dimcho Solakov**, Svetlana Nikolova, Stoyan Stoyanov, Stela Simeonova, Leonid Zimakov, and Leonid Khaikin
 Bulgarian seismological network
- XY666 EGU2011-13566
Can Zülfikar, Hakan Alcik, Aydin Mert, and Mustafa Erdik
 The Strong Motion Networks in Istanbul Metropolitan
- XY667 EGU2011-10705
Eser Cakti, Murat Bikce, Oguz Ozel, Cemal Genes, Selcuk Kacin, and Yavuz Kaya
 Antakya basin strong ground motion network
- XY668 EGU2011-9488
Reda Abdel-Fattah, Abdullah Al-Enezi, Farah Al-Jerri, Sheikh Abdul Majeed Ahmad, and Leonid Zimakov
 Kuwait National Seismic Network: Performance and Future Expansion
- XY669 EGU2011-6927
Ludger Kueperkoch, Thomas Meier, Andrea Bruestle, Jimin Lee, Wolfgang Friederich, and The Egelados Working Group
 Automated P- and S-phase arrival time estimation at local and regional distances
- XY670 EGU2011-6950
Maria-Theresia Apoloner, Ewald Brückl, Johanna Brückl, Walter Loderer, Stefan Mertl, and Bernd Schurr
 Location performance of the ALPAACT seismic network
- XY671 EGU2011-8733
Giovanni Romeo
 Whales watching
- XY672 EGU2011-9645
Juan Reyes, Gert-Jan van den Hazel, Frank Vernon, and Robert Newman
 Moment Tensor code for the Antelope Environmental Monitoring System
- XY673 EGU2011-6249
Jörn Groos and Joachim Ritter
 Evaluation of the seismic noise conditions by statistical time series classification for site selection in densely-populated areas
- XY674 EGU2011-13605
 Eser Cakti, **Ebru Harmandar**, and Erdal Safak
 Wave propagation in downtown Istanbul deduced from earthquake records
- XY675 EGU2011-3801
Juan Reyes, Robert Newman, Frank Vernon, and Jamison Steidl
 Web-based display and interaction with high density waveform data recorded by seismic networks as a tool for network diagnostics: the Waveform Server
- XY676 EGU2011-13441
 Gert-Jan van den Hazel, **Reinoud Sleeman**, Torild van Eck, Luca Trani, and Alessandro Spinuso
 Data and related products available at the Orfeus Data Center - the how and what
- XY677 EGU2011-6264
 Jan Michálek, **Jana Doubravová**, and Stefan Mertl
 Usage of SEISMON within the WEBNET seismic network
- XY678 EGU2011-11615
Ruben Luis, Jens Havskov, Lars Ottemöller, Peter Voss, and Teresa Ferreira
 Integrated Access to miniSEED Archives Using SEISAN Earthquake Analysis Software
- XY679 EGU2011-6190
Felix Borleanu, Mihaela Popa, Mircea Radulian, and Shirley Baher
 Calibration of BURAR (Romania) seismic array to estimate location and magnitude for the events occurred in the East and Southeast part of the array

Convener: Ari-Matti Harri

Room: 33

Chairperson: Ari-Matti Harri

19:00–20:00 EGU2011-14173

Martin D. Hürlimann

Seeing the Fluids inside Rocks (Christiaan Huygens Medal Lecture)

Tuesday, 05 April

GI-9 – From artefact to historical site : geoscience and non-invasive methods for the study and conservation of cultural heritage – Orals

Convener: Nicola Masini | Co-Conveners: Monica Alvarez de Buergo, Lev Eppelbaum, Francesco Soldovieri

Room: 42

Chairperson: Monica Alvarez & Nicola Masini

- 08:30–08:45 EGU2011-8434
Cristina Castagnetti, Eleonora Bertacchini, Alessandro Capra, Marco Dubbini, and Carolina Orsini
 GPS potentialities for archaeology: non-invasive investigation and memory of an excavation
- 08:45–09:00 EGU2011-8387
Deodato Tapete, Nicola Casagli, Riccardo Fanti, Chiara Del Ventisette, Roberto Cecchi, and Pia Petrangeli
 Satellite and ground-based radar interferometry for detection and monitoring of structural instability in archaeological sites
- 09:00–09:15 EGU2011-1699
Jean-Paul Derooin, Florian Téreygeol, Pablo Cruz, and Ivan Guillot
 Geomorphological remote sensing in the Sud Lípez mining district, polymetallic belt, Bolivia
- 09:15–09:30 EGU2011-7447
Francesco Soldovieri, Rosario Di Napoli, Ilaria Catapano, Lorenzo Crocco, Adriana Brancaccio, Antonella Aiello, and Fabrizio Pesando
 Microwave Tomography enhanced GPR surveys in Centaur's Domus - Regio IV of Pompeii
- 09:30–09:45 EGU2011-9763
Enzo Rizzo, Rosa Lasaponara, Nicola Masini, Domenico Chianese, and Giuseppe Orefici
 Non invasive techniques on the detection of buried archaeological structures at Tiwanaku (Bolivia)
- 09:45–10:00 EGU2011-2246
Selma Kadioglu, Yusuf K. Kadioglu, and A. Akin Akyol
 Defining Buried Remains in the Eastern Site of the Great Mosque and Hospital of Divrigi, Sivas-Turkey with 3D GPR Imaging

COFFEE BREAK

Chairperson: Monica Alvarez & Nicola Masini

- 10:30–10:45 EGU2011-3559
Christoph Grützner, Birte Ahrens, Jan Bemann, Riccardo Klinger, Norbert Klitzsch, Sven Linzen, Sonja Mackens, Martin Oczipka, Henny Piezonka, and Brigitta Schütt
 Improving archaeological site-analysis: A rampart in the middle Orkhon Valley investigated with combined geoscience techniques
- 10:45–11:00 EGU2011-9314
Ali Akin Akyol, Yusuf Kagan Kadioglu, and Cigdem Ozkan Aygun
 Archaeometrical Analyses of the Artifacts from Hazar Lake Sunken City in Turkey
- 11:00–11:15 EGU2011-7965
Isis Veldeman, Eric Goemaere, Marleen De Ceukelaire, Michiel Duser, Jean-Marc Baele, and Erick Robinson
 Using destructive and non-destructive techniques in characterising raw "hypersiliceous" sedimentary rocks of Belgium used in prehistory and history
- 11:15–11:30 EGU2011-6443
Monica Alvarez de Buergo, Carmen Vazquez-Calvo, and Rafael Fort
 The measurement of surface roughness to determine the suitability of different methods for stone cleaning
- 11:30–11:45 EGU2011-7574
Francesco Paolo Romano, Nicola Masini, Giuseppe Pappalardo, Lighea Pappalardo, and Francesca Rizzo
 The compositional and mineralogical analysis of pigments in Nasca pottery from Cahuachi (Perù) by the combined use of the portable PIXE-alpha and portable XRD techniques
- 11:45–12:00 EGU2011-10408
Raffaele Persico
 GPR prospecting in the Ancient City of Hierapolis in Phrygia (Turkey)

12:00–12:15 EGU2011-12110

Oihana García Mercero, Matija Strlic, and Mikel Zubiaga

Effect of multi-pollutants on conservation treatments exposed to different European environments

GI-9 – From artefact to historical site : geoscience and non-invasive methods for the study and conservation of cultural heritage – Posters

Convener: Nicola Masini | Co-Conveners: Monica Alvarez de Buergo, Lev Eppelbaum, Francesco Soldovieri

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Lev Eppelbaum & Francesco Soldovieri

A92 EGU2011-2125

Lev Eppelbaum

Interpretation of magnetic anomalies produced by archaeological “quasi thick bed bodies

A93 EGU2011-4958

Nicola Masini, Rosa Lasaponara, Gianni Leucci, Enzo Rizzo, Giuseppe Orefici, and Ignacho Alva Meneses
Archaeogeophysics in Peru and in Bolivia: the contribution of Italian CNR with ITACA mission (2007-10).

A94 EGU2011-6110

Giovanni Barbera, **Germana Barone**, Crupi Vincenza, Longo Francesca, Majolino Domenico, Mazzoleni Paolo, and Venuti Valentina

Non-destructive analyses of carbonate rocks: applications and potentiality for museum materials

A95 EGU2011-6901

Petr Martinec, Jiri Scucka, Lucie Augustynkova, and **Martina Perinkova**

Materials in fragments of Gothic masonry found in Staric (Czech Republic)

A97 EGU2011-6183

Giovanni Barbera, **Germana Barone**, Paolo Mazzoleni, and Anastasia Scandurra

Petro-physical characterization of calcareous stones from Scicli (Sicily, Italy): implications for P-waves propagation upon salt crystallization

A98 EGU2011-6552

Giovanni Leucci, Nicola Masini, and Raffaele Persico

The contribution of GPR to investigate damages related to the monumental buildings

A99 EGU2011-12458

Antonella Guida, **Antonello Pagliuca**, and Alessandro Tranquillino Minerva

The “SonReb

A100 EGU2011-13235

Lúcia Rosado, Sara Valadas, António Candeias, António Santos Silva, Inês Cardoso, and José Mirão

Roman mortars from Ammaia archaeological site - an interdisciplinary study

A101 EGU2011-12808

Angela Calia

The A.I.Te.C.H. Project: Applied Innovation Technologies for Diagnosis and Conservation of the Built Heritage

A102 EGU2011-6268

Rosa Coluzzi and **Rosa Lasaponara**

Multitemporal aerial LiDAR data for supporting the monitoring and preservation of archaeological areas

A103 EGU2011-8113

Rosa Coluzzi, **Rosa Lasaponara**, Yvonne Backe Forsberg, Richard Holmgren, and Nicola Masini

LiDAR, Aerial and satellite remote sensing in Vignale

A105 EGU2011-12934

Giuseppe Scardozzi, Giovanni Leucci, Nicola Masini, Raffaele Persico, and Rosa Lasaponara

Integration of archaeological surveys, remote sensing data and geophysical prospecting for the study of rural settlements in the territory of Hierapolis in Phrygia (Turkey)

Wednesday, 06 April

GI-14 – GMES Sentinel Satellites: New Possibilities for Science – Orals

Convener: Michael Berger | Co-Conveners: Josef Aschbacher

Room: 24

Chairperson: n.n.

- 15:30–15:45 EGU2011-9767
Josef Aschbacher, Maria Pilar Milagro-Pérez, Antonio Ciccolella, Thomas Beer, Giancarlo Filippazzo, and Eleni Paliouras
 “GMES Space Component - Programme Overview
- 15:45–16:00 EGU2011-4216
Jose Moreno
 GMES/Sentinels in Land-Surface Earth System Science: temporal series and data synergy
- 16:00–16:15 EGU2011-6213
Hervé Yesou, Francesco Sarti, Nadine Tholey, Antonios Mouratidis, and Stephen Cladillon
 Synergy of Sentinel 1 and 2 for emergency flood mapping and the monitoring of large inland water bodies based on a 10-year experience with active and passive remote sensing from space
- 16:15–16:30 EGU2011-3425
Wolfgang Wagner, Marcela Doubkova, Daniel Sabel, Annett Bartsch, Michael Hornacek, Jean-Pierre Klein, and Stefan Schlaffer
 Global Land Surface Hydrology Monitoring using Sentinel-1: Opportunities and Challenges
- 16:30–16:45 EGU2011-3593
Pieter Levelt, Pepijn Veefkind, and Michiel Weele
 Contribution of sentinel 4, 5 and s5p for further understanding of air quality - climate and ozone layer - climate interactions
- 16:45–17:00 EGU2011-12208
Maria Fabrizia Buongiorno, Pierre Briole, Fabiano Costantini, Francesco Guglielmino, Mattia Marconcini, Antonios Mouratidis, Giuseppe Puglisi, Francesco Sarti, Claudia Spinetti, and Salvatore Stramondo
 Long-term experience gathered on Etna for volcano monitoring using optical and radar remote sensing, in preparation for Sentinel Missions
- 17:00–17:15 EGU2011-642
Claus Zehner
 Sentinel User Requirements from the Application Volcanic Ash Monitoring

GI-14 – GMES Sentinel Satellites: New Possibilities for Science – Posters

Convener: Michael Berger | Co-Conveners: Josef Aschbacher

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A105 EGU2011-13779
Paul Snoeij, Ramon Torres, Malcolm Davidson, Betlem Rosich, and Guido Levrini
 SENTINEL-1 Implementation Status
- A106 EGU2011-3754
 Bianca Hoersch, François Spoto, Philippe Martimort, Omar Sy, Claudia Isola, **Pier Bargellini**, Olivier Colin, Ferran Gascon, Umberto del Bello, Aimé Meygret and the Sentinel-2 Team
 The GMES Sentinel-2 Mission
- A107 EGU2011-14008
Ulf Klein, Bruno Berruti, Craig Donlon, Johannes Frerick, Constantin Mavrocordatos, Jens Nieke, Bernd Seitz, Juergen Stroede, Helge Rebhan, and Nicolas Picot
 Sentinel-3 Mission Status
- A108 EGU2011-11629
J. Pepijn Veefkind, Ilse Aben, Johan de Vries, Gerard Otter, Paul Ingmann, and Pieter Levelt
 TROPOMI on the ESA Sentinel-5 Precursor: Global Observations of the Atmospheric Composition for Climate and Air Quality Applications
- A109 EGU2011-1011
Jochem Verrelst, Luis Alonso, Jesus Delegido, Juan Pablo Rivera, and Jose Moreno
 Gaussian Processes regression for biophysical parameter retrieval from Sentinel-2 and Sentinel-3 data
- A110 EGU2011-8446
Jean-Damien Desjonqueres
 A new tracking mode for altimeters using an on-board digital elevation model

- A111 EGU2011-8982
 Nicolas Picot and **Francois Boy**
 SAR Data over Ocean, CNES Proposed Processing Strategy and Continuity with LRM Data.

GD3.2/GI-16/SM3.9 – Exploring crust and mantle under the oceans: innovative instrumentation, processing and interpretation of ocean-bottom data (co-organized) – Orals

Convener: Wolfram Geissler | Co-Conveners: Marion Jegen, Hisashi Utada, Karin Sigloch, Daisuke Suetsugu

Room: 22

Chairperson: Daisuke Suetsugu, Wolfram Geissler

- 10:30–10:45 EGU2011-5307
Kiyoshi Baba, Hisashi Utada, and Natsue Abe
 Electrical conductivity of old oceanic mantle beneath the northwestern Pacific revealed from seafloor magnetotelluric observations
- 10:45–11:00 EGU2011-9998
Marion Jegen, Tamara Worzewski, Heidrun Kopp, Heinrich Brasse, and Waldo Taylor
 Magnetotelluric Image of the Fluid Cycle in the Costa Rican Subduction Zone
- 11:00–11:15 EGU2011-2821
Yoshihiro Ito, Ryota Hino, Hiromi Fujimot, Daisuke Inazu, Yukihiro Osada, Satoshi Miura, Naoki Uchida, Mako Ohzono, Takeshi Tsuji, Juichiro Ashi and the Tohoku University Team
 Transient slow slip event revealed from ocean-bottom seismic and geodetic observations in the Japan Trench
- 11:15–11:30 EGU2011-7871
Thomas Spenkuch, Nicholas Harmon, and Stephen Turnock
 Understanding current induced noise on broadband ocean bottom seismometers using Computational Fluid Dynamics
- 11:30–11:45 EGU2011-5277
Jon Berger, John Orcutt, Neil Trenaman, Tim Richardson, and Gabi Laske
 An autonomously deployed, deep-ocean, broadband seismic network
- 11:45–12:00 EGU2011-1840
Daisuke Suetsugu, Hajime Shiobara, Tatehi Isse, Hiroko Sugioka, Aki Ito, Kiyoshi Baba, Takafumi Kasaya, Noriko Tada, Dominique Reymond, and Jean-Pierre Barriot
 Ocean bottom geophysical observation on the seafloor near the Society hot spot, French Polynesia

GD3.2/GI-16/SM3.9 – Exploring crust and mantle under the oceans: innovative instrumentation, processing and interpretation of ocean-bottom data (co-organized) – Posters

Convener: Wolfram Geissler | Co-Conveners: Marion Jegen, Hisashi Utada, Karin Sigloch, Daisuke Suetsugu

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Marion Jegen, Karin Sigloch

- A84 EGU2011-2001
Ryota Hino and the Miyagi-Oki Earthquake Research Team
 Continuous offshore seismological and geodetic monitoring in a M 7.5-class megathrust earthquake rupture zone, northeastern Japan forearc
- A85 EGU2011-5263
Kimihiro Mochizuki, Kazuo Nakahigashi, Tomoaki Yamada, Masanao Shinohara, Shin'ichi Sakai, Toshihiko Kanazawa, Kenji Uehira, and Hiroshi Shimizu
 Crustal structure and segmentation of seismicity around the fault boundary of historical great earthquakes along the Nankai Trough, SW Japan, revealed by long-term ocean bottom seismic observation
- A86 EGU2011-12714
Frank Krüger and Johannes Schweitzer
 First results regarding the lithosphere and mantle structure of the oceanic plate between Mohns ridge and the Barents shelf from broadband OBS recordings
- A87 EGU2011-4711
Wolfram Geissler, Flor de Lis Mancilla, Graça Silveira, Luis Matias, and Daniel Stich
 Converted phases from teleseismic and local subcrustal earthquakes observed at broadband ocean bottom seismometers in the Gulf of Cadiz, Eastern Atlantic
- A88 EGU2011-12134
Andreas Schmidt and the Egelados Working Group Team
 Rayleigh wave dispersion analysis using seismic ambient noise data at amphibic networks

- A89 EGU2011-5192
Gabi Laske, Spencer Trinh, Shi Sim, John A Orcutt, and John A Collins
The Hawaiian PLUME Project: A Broadband Seismic Dataset Provides Glimpses into Ocean and Atmosphere Processes
- A90 EGU2011-10718
Antonio Pazos, Jose Martín Davila, Elisa Buforn, Winfried Hanka, Agustin Udias, Mourad Benzeggoud, and Mimoun Harnafi
New OBS's deployments in South Spain: FOMAR network and ALBO Observatory.
- A91 EGU2011-5227
Yozo Hamano, **Hiroko Sugioka**, Takafumi Kasaya, Kiyoshi Baba, Noriko Tada, Hajime Shiobara, Aki Ito, Takehi Isse, and Daisuke Suetsugu
2010 Chile earthquake tsunami observed by the seafloor geophysical observational network in the French Polynesia area
- A92 EGU2011-4735
Chuanchuan Lu, Tianyao Hao, and Qingyu You
An OBS survey line across Bohai Bay
- A93 EGU2011-3955
Hiroko Sugioka, Yoshio Fukao, and Toshihiko Kanazawa
Evidence for infragravity waves-tide resonance in deep oceans
- A94 EGU2011-2588
Mechita Christa Schmidt-Aursch, Wolfram Geissler, and Wilfried Jokat
The ocean bottom seismometer of the German instrument pool for amphibian seismology (DEPAS)
- A95 EGU2011-9308
Cansun Guralp, **Horst Rademacher**, and Chris Pearcey
A new Design for Portable Ocean Bottom Seismometers
- A96 EGU2011-2314
Alexey Sukhovich, Anthony Ogé, Frederik Simons, Anne Deschamps, Yann Hello, and Guust Nolet
A probabilistic approach to the discrimination of underwater acoustic signals due to P-waves generated by teleseismic events
- A97 EGU2011-1877
Qingyu You, Tianyao Hao, and **Chuanchuan Lu**
Broadband Ocean Bottom Seismometer developed by Chinese Academy of Sciences
- A98 EGU2011-12908
Harold T. "Bud" Vincent and **Frederik J. Simons**
Son-O-Mermaid: A Green Instrument Platform for the Blue Ocean
- A99 EGU2011-3959
Hajime Shiobara, Hisashi Utada, Toshihiko Kanazawa, Kiyoshi Baba, Takehi Isse, Masanao Shinohara, Hiroko Sugioka, Noriko Tada, and Aki Ito
Recent developments of ocean bottom seismic and electromagnetic instruments operated by ROV
- A100 EGU2011-12525
Katrin Schwalenberg and Martin Engels
HYDRA - A new towed electromagnetic seafloor system
- A101 EGU2011-2874
Noriko Tada, Kiyoshi Baba, Hisashi Utada, Weerachai Siripunvaraporn, and Makoto Uyeshima
Importance of treating seafloor topography in inversion of 3-D marine MT data
- A102 EGU2011-2407
Hisayoshi Shimizu, Hisashi Utada, and **Kiyoshi Baba**
Measurements of submarine cable electrical voltages to probe the Earth's deep interior
- A103 EGU2011-13340
Sebastian Hölz and **Marion Jegen**
Five years of marine research using EM methods at the IFM-GEOMAR
- A104 EGU2011-5457
Hangilro Jang, Hannuree Jang, Ki Ha Lee, and Hee Joon Kim
Sensitivity analysis of marine CSEM surveys for detecting a gas-hydrate layer

ESSI13/GI-17 – Open standards and distributed architectures for the Observation Web: from the sensors to the user (co-organized) – Orals

Convener: Denis Havlik | Co-Conveners: Walter Schmidt, Zoheir Sabeur, Stefano Nativi, Juan M. Tirado

Room: 19

Chairperson: Juan M. Tirado, Stefano Nativi

- 10:30–10:45 EGU2011-4307
Lorenzo Bigagli, Stefano Nativi, Massimo Argenti, and Vincenzo Giannini
Sensor Web Application to Transport Infrastructures Monitoring

- 10:45–11:00 EGU2011-8689
Sven Schade, Paolo Mazzetti, Zoheir Sabeur, Denis Havlik, **Thomas Usländer**, Arne Berre, and Jose Lorenzo Mon
Towards a Multi-Style Service-Oriented Architecture for Earth Observations
- 11:00–11:15 EGU2011-12906
Mohan Ramamurthy, Tom Yoksas, Steve Emmerson, and Jeff Weber
Unidata: a community-driven facility for distributing real-time meteorological data
- 11:15–11:30 EGU2011-13469
Peter Taylor, Andrew Terhorst, and Simon Cox
RESTful Services for Sensor Data
- 11:30–11:45 EGU2011-13512
Denis Havlik
Environmental Application Scenarios for the Future Internet
- 11:45–12:00 EGU2011-417
Anton Bashev and **Denis Zhilin**
Open Geoscience Database for Geoscience Education

Thursday, 07 April

GI-4 – Instrumentation, measurement strategies and methods for ocean-based geoscience investigations – Orals

Convener: Christoph Waldmann | Co-Conveners: Laura Beranzoli, Ingrid Puillat-Felix

Room: 42

Chairperson: C. Waldmann

08:30–09:00 EGU2011-3687

Richard Lampitt, Kate Larkin, Sue Hartman, Athanasios Gkritzalis, Maureen Pagnani, Corinne Pebody, Henry Ruhl, David Billett, Veit Hühnerbach, Doug Masson, Sven Østerhus, Kostas Nittis, Vasilis Lykousis, George Petihakis, Vanessa Cardin, Manuel Bensi, Fabio Brunetti, Roberto Bozzano, Sara Pensieri, Doug Wallace, Johannes Karstensen, Christian Berndt, Imants Priede, Anne Holford, Tomasz Niedzielski, Lee Hastie, Alan Jamieson, Laurent Coppola, Christian Tamburini, Dominique Lefèvre, Anne Robert, Sylvie Pouliquen, Thierry Carval, Sylvain Ghiron, Octavio Llinás-González, Andrés Cianca, Oscar Melicio, Carlos Santos, Anibal Medina, Pericles Silva, Ivanice Monteiro, Melchor González-Dávila, and Magdalena Santana-Casiano

The EuroSITES open ocean observatory network: Results and future vision

09:00–09:30 EGU2011-5288

John Orcutt, Frank Vernon, Matthew Arrott, Oscar Schofield, Cheryl Peach, Alan Chave, Mark James, and Michael Meisinger

A proposal for an integrated ocean network for long-term climate and seafloor studies

09:30–09:45 EGU2011-9697

John Graybeal, John Orcutt, Frank Vernon, Matthew Arrott, Oscar Schofield, Cheryl Peach, Alan Chave, Mark James, and Michael Meisinger

The design of the NSF Ocean Observatories Initiative Cyberinfrastructure

09:45–10:00 EGU2011-2270

Paolo Favali, Ingv Team, Infn Team, and Tecnomare S.p.A.

NEMO-SN1 (western Ionian Sea, off Eastern Sicily): Example of architecture of a cabled observatory

COFFEE BREAK

Chairperson: L. Beranzoli

10:30–10:45 EGU2011-5517

Pierre Marie Sarradin, Ana Colaço, Mathilde Cannat, Jérôme Blandin, Julien Legrand, Jozée Sarrazin, Javier Escartin, and The Momar d partners

The MOMAR-D-project: a challenge to monitor the Lucky Strike vent field in real-time.

10:45–11:00 EGU2011-9266

Cansun Guralp, Suleyman Tunc, Samim Ada, Chris Pearcey, and **Horst Rademacher**

A New Concept for Multidisciplinary Cabled Ocean Bottom Systems: the Marmara Sea Network

11:00–11:15 EGU2011-5429

Lucie Pautet, Chris Barnes, **Mairi Best**, Benoit Pirenne, and Fern Johnson

NEPTUNE Canada cabled ocean observatory: latest developments and opportunities

11:15–11:30 EGU2011-10060

Jérôme Blandin, Julien Legrand and the MoMAR-D engineering & science (1), (2), (3), (4) Team

Technical Advances in Near Real Time Seafloor Monitoring Implemented for the MoMAR-D Project

11:30–11:45 EGU2011-8529

Anne Deschamps, Dominique Lefèvre and the BJS/TEXREX Team

Multidisciplinary permanent sea floor observation at Antares Site

11:45–12:00 EGU2011-8794

Jean-Yves Royer, Julie Perrot, Claude Guennou, Jean-François D'Eu, and Cédric Brachet

Autonomous-hydrophone arrays: a powerful tool for long-term monitoring of geological processes, biological activity and iceberg tremors over large and remote areas of the ocean

GI-4 – Instrumentation, measurement strategies and methods for ocean-based geoscience investigations – Posters

Convener: Christoph Waldmann | Co-Conveners: Laura Beranzoli, Ingrid Puillat-Felix

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: I. Puillat

- A78 EGU2011-3892
Jurgen Mienert, Stefan Bünz, Benedicte Ferre, Gaurav Dutta, and Vipul Silwal
 Long-Term Seismological Observations of Eruptions of the Håkon Mosby Mud Volcano at the Barents-Sea Continental Margin (ESONET- LOOME Demonstration Mission)
- A79 EGU2011-4666
Eiichi Asakawa, Fumitoshi Murakami, Yoshihiro Sekino, Taku Okamoto, Koji Ishikawa, Hitoshi Tsukahara, Motonori Higashinaka, and Takuya Shimura
 Development of Vertical Cable Seismic System
- A80 EGU2011-10837
Giuseppe Puglisi, Salvatore Gambino, Paolo Favali, and Riccardo Papaleo
 Guidelines for seafloor geodesy nearby of Sicilian active volcanic area
- A81 EGU2011-9678
Claire D'Este, Paulo de Souza, Chris Sharman, and Simon Allen
 Automated Design of a Low-Cost Marine Sensor Network
- A82 EGU2011-5618
Francesco Chierici, Luca Pignagnoli, Davide Embriaco, and Stephen Monna
 The tsumani detector prototype deployed in the Gulf of Cadiz: data collection and functionality evaluation
- A83 EGU2011-5680
Francesco Chierici, Luca Pignagnoli, Davide Embriaco, and Stephen Monna
 The tsumani detector prototype installed on board of SN1-cabled abyssal station.
- A84 EGU2011-10682
Arnulf Schiller, Klaus Klune, David Ottowitz, and Ingrid Schattauer
 On the Ability of Airborne Electro-Magnetic Systems for Areal Indirect Measurement of Seawater Temperature/Salinity with Depth Resolution
- A85 EGU2011-10323
Viviana Piermattei, Marco Marcelli, Alice Madonia, and Umberto Mainardi
 Technological advances in fluorimetric measure: TFLAP upgrade
- A86 EGU2011-1615
Mikhail Smirnov, Svetoslav Marechek, and Mikhail Danilytchev
 Ground based L-band microwave measurements in the Black sea
- A87 EGU2011-943
Dale Green and Francois Leroy
 Adding a spatial and temporal dimension to Multidisciplinary Seafloor Observatories

GI-10 – Electromagnetic sensing techniques and geophysical methods for critical and transport infrastructures monitoring and diagnostics – Orals

Convener: Jean Dumoulin | Co-Conveners: Francesco Soldovieri, Sven Nordebo, Lorenzo Bigagli

Room: 42

Chairperson: Jean Dumoulin and Sven Nordebo

15:30–15:33 **Session Introduction**

15:33–15:48 EGU2011-2510

Philipp Fürholz and Johannes Hugenschmidt

Towards an automated mobile GPR acquisition system for road and bridge monitoring

15:48–16:03 EGU2011-6878

Jan van der Kruk, Alexis Kalogeropoulos, Johannes Hugenschmidt, Sebastian Busch, and Kaspar Merz

Full-waveform inversion of ground penetrating radar data to assess chloride and moisture content in concrete

16:03–16:18 EGU2011-13534

Michele Manunta, Manuela Bonano, Riccardo Lanari, Maria Marsella, and Luca Paglia

The SBAS-DInSAR approach as a tool for monitoring millimetric displacements affecting infrastructures

16:18–16:33 EGU2011-6845

Jon Kristian Hagene and Magnus Pedersen Lohne

Transport infrastructure surveillance: monitoring of land slides, quick clay, rock slides, avalanches and bridge oscillations using an optical displacement monitoring system.

16:33–16:48 EGU2011-13506

Rodolphe Averty and Jean Dumoulin

Development of a low cost uncooled infrared system dedicated to long term monitoring of transport infrastructures

16:48–17:03 EGU2011-4546

Enzo Rizzo, Romeo Bernini, Francesco Soldovieri, Jean Dumoulin, and Stefano Pignatti

New sensing technologies to analyze engineering structures in a validation test site: Hydrogeosite laboratory

17:03–17:13 **Poster Session Introduction**

17:13–17:15 **Session Conclusions**

GI-10 – Electromagnetic sensing techniques and geophysical methods for critical and transport infrastructures monitoring and diagnostics – Posters

Convener: Jean Dumoulin | Co-Conveners: Francesco Soldovieri, Sven Nordebo, Lorenzo Bigagli

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Francesco Soldovieri and Lorenzo Bigagli

- A88 EGU2011-11392
Monica Proto, Francesco Soldovieri, Vincenzo Cuomo, Claudio Moroni and the ISTIMES Team
The dissemination activities of the ISTIMES project
- A89 EGU2011-11659
Mattia Santoro, Fabrizio Papeschi, Enrico Boldrini, and Lorenzo Bigagli
GI-axe - an ICT Solution for Sensor Data Processing
- A90 EGU2011-1742
Lev Eppelbaum, Leonid Alperovich, and Valery Zheludev
Informational and wavelet methodologies for combined analysis of geophysical data within the ISTIMES project
- A91 EGU2011-4927
Sven Nordebo, Mats Gustafsson, and Francesco Soldovieri
Tunnel detection based on data fusion with radio frequency and electrical resistive tomography
- A92 EGU2011-13407
Frederic Bourquin and Alexandre Nassiopoulos
Accurate real-time reconstruction of three-dimensional temperature fields
- A93 EGU2011-2101
Giuseppe Schettini, M. Arshad Fiaz, Fabrizio Frezza, Lara Pajewski, Cristina Ponti, and Nicola Tedeschi
Recent Advances in the Cylindrical-Wave Approach for Electromagnetic Scattering by Subsurface Targets
- A94 EGU2011-12395
Gianfranco Fornaro, **Diego Reale**, Antonio Paucillo, Xiao Xiang Zhu, Richard Bamler, and Francesco Soldovieri
Monitoring of Individual Ground Structures with Very High-Resolution Satellite Synthetic Aperture Radar: Results with the TerraSAR-X System
- A95 EGU2011-13415
Romeo Bernini, Aldo Minardo, Genni Testa, and Luigi Zeni
Distributed fiber optic sensor for structural health monitoring of civil infrastructures
- A96 EGU2011-8365
Antonio Loperte, Francesco Soldovieri, Massimo Bavusi, Rosario Di Napoli, and Vincenzo Lapenna
Application of Ground Penetrating Radar for monitoring the Acerenza dam (Basilicata Region, Southern Italy)
- A97 EGU2011-10848
Massimo Bavusi, Antonio Loperte, Vincenzo Lapenna, Francesco Soldovieri, Rosario Di Napoli, Felice Carlo Ponzo, and Antonio Di Cesare
Comparative processing approach for a 3D Ground Penetrating Radar survey at Musmeci bridge (Potenza, Italy).
- A98 EGU2011-11859
Massimo Bavusi, Antonio Loperte, Francesco Soldovieri, Rosario Di Napoli, Jean Dumoulin, Johannes Huginschmidt, and Philipp Fuerholz
Impact shock damage assessment on a beam and its foundation soil by using Ground Penetrating Radar and Electrical Resistivity Tomography
- A99 EGU2011-1948
Mario Marchetti, **Jean Dumoulin**, Laurent Ibos, Mathieu Moutton, and Stéphane Ludwig
Infrared thermography applied to road networks winter risk evaluation
- A100 EGU2011-12420
Jean Dumoulin, Marion Bost, Erick Merliot, Laurent Dubois, Frédéric Rocher-Lacoste, Louis-Marie Cottineau, and Frédéric Bourquin
Design, conception and realisation of high energetic mechanical impacts on a civil engineering structure to evaluate sensing techniques in ISTIMES project framework
- A101 EGU2011-9867
Simone Pascucci, Angelo Palombo, Cristiana Bassani, Rosa Maria Cavalli, Federico Santini, and Stefano Pignatti
Integrated optical and thermal data analysis for a rapid surface diagnostic of transport infrastructures: the cement beam case study in Montagnole (France).
- A102 EGU2011-8076
Angela Perrone, Erick Merliot, Jean Dumoulin, and Francesco Soldovieri
IBIS-S SAR system for the remote survey of an armed concrete beam: the experiment of Montagnole (French Alps) within ISTIMES project

GI-11 – Geophysical tomography with high-energy particles: recent developments and applications – Orals

Convener: Dominique Gibert | Co-Conveners: Daniele Carbone, Nolwenn Lesparre, Dr. Jacques Marteau, Hiroyuki Tanaka

Room: 42

Chairperson: Dominique Gibert, Daniele Carbone

- 13:30–13:45 EGU2011-2932
Hiroyuki Tanaka, Tomohisa Uchida, and Manobu Tanaka
 Newly Developed Multi-Layered Muon Detection System for the Next Generation of Muon Radiography
- 13:45–14:00 EGU2011-4106
Ryuichi Nishiyama, Akimichi Taketa, and Hiroyuki Tanaka
 The development of infra-free and portable muon counting system with Hamamatsu MPPC
- 14:00–14:15 EGU2011-3191
Daigo Shoji, Kei Kurita, and Hiroyuki Tanaka
 Application of Neutrino Interaction to Icy Satellite Research
- 14:15–14:30 EGU2011-9169
Daniele Carbone, Dominique Gibert, Nolwenn Lesparre, Jacques Marteau, Michael Diamant, Galichet Emmanuelle, Zuccarello Luciano, and Rapisarda Salvatore
 The feasibility of geophysical imaging using cosmic-ray muons. An application to Etna volcano (Italy).
- 14:30–14:45 EGU2011-4515
Nolwenn Lesparre, Dominique Gibert, Jacques Marteau, Bruno Carlus, and Christophe Nussbaum
 Analysis of muon tomography data sets: study of the geological layers above the Mont Terri underground rock laboratory
- 14:45–15:00 EGU2011-4764
Fabio Ambrosino and the MuRay Collaboration Team
 The MU-RAY project: volcanoes radiography with cosmic-ray muons

GI-11 – Geophysical tomography with high-energy particles: recent developments and applications – Posters

Convener: Dominique Gibert | Co-Conveners: Daniele Carbone, Nolwenn Lesparre, Dr. Jacques Marteau, Hiroyuki Tanaka

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Nolwenn Lesparre, Jacques Marteau, Hiroyuki Tanaka

- A103 EGU2011-5955
Seigo Miyamoto, Nicola D'Ambrosio, Giovanni De Lellis, Mitsuhiro Nakamura, Toshiyuki Nakano, Pasquale Noli, Hiroshi Shimizu, Paolo Strolin, Hiromichi Taketa, and Hiroyuki K. M. Tanaka
 The plan imaging the lava dome structure with cosmic-ray muon at Unzen, Japan
- A104 EGU2011-8977
Akitaka Ariga, Tomoko Ariga, Saverio Braccini, Antonio Ereditato, Francesca Giacoppo, Jiro Kawada, Igor Kreslo, Ciro Pistillo, and Paola Scamporrì
 R&D on nuclear emulsion detectors for muon radiography of large objects
- A105 EGU2011-13758
Akimichi Taketa and Hiroyuki Tanaka
 New radiography method for small scale structure using soft component of air shower
- A106 EGU2011-6494
 Pierre Salin, **Stéphane Gaffet**, Ioannis Giomataris, Denis Calvet, Frédéric Druillol, Rui de Oliveira, and Olivier Pizzirusso
 A telescope for rock mass density imaging based on muon TPC* with Micromegas-bulk detector
- A107 EGU2011-3584
Felix Fehr and the TOMUVOL Team
 Towards Tomographic Imaging of the Puy de Dôme with GRPCs
- A108 EGU2011-3983
Dominique Gibert, Nolwenn Lesparre, Jacques Marteau, Florence Nicollin, Bruno Kergosien, Pascal Rolland, and Olivier Coutant
 Muon tomography and Volcanic Risks in the Lesser Antilles: the Example of the Soufrière of Guadeloupe
- A109 EGU2011-5957
Dr. Jacques Marteau, Bruno Carlus, Dr. Yves Déclais, Pr. Dominique Gibert, Bruno Kergosien, Nolwenn Lesparre, and Florence Nicollin
 Design and Operation of a Field Telescope for Cosmic Ray Geophysical Tomography

ESSI13/GI-17 – Open standards and distributed architectures for the Observation Web: from the sensors to the user (co-organized) – Posters

Convener: Denis Havlik | Co-Conveners: Walter Schmidt, Zoheir Sabeur, Stefano Nativi, Juan M. Tirado

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Denis Havlik, Walter Schmidt, Zoheir Sabeur, Juan M. Tirado, Stefano Nativi

- XL238 EGU2011-11506
Daniel Higuero, Juan M. Tirado, and Jesus Carretero
Distributing Data to Scientific Communities
- XL239 EGU2011-13591
Alessandro Oggioni, Dario Manca, Paola Carrara, Monica Pepe, and Mauro Bastianini
SOS in action: various fields of application
- XL240 EGU2011-13639
Denis Havlik, Andrea E. Rizzoli, Alexander Kaufmann, Gerald Schimak, Marcello Donatelli, Jiří Hřebíček, Giuseppe Avellino, Tomas Pariente Lobo, and Pascal Dihé
Distributed meta-information generation and semantic search for environmental resources in TaToo
- XL241 EGU2011-8879
Asher Flaws, Kai-Uwe Hess, Burkhard Schillinger, and Donald Bruce Dingwell
Tomoview: Fast, low-memory-usage software for 3-d imaging and analysis
- XL242 EGU2011-9422
Walter Schmidt, Maria Teresa Capria, and Gérard Chanteur
Europlanet-RI IDIS - Virtual Observatory for Planetary Research
- XL243 EGU2011-10055
Alessio Baldini and the GIIDA Working Group Team
The GIIDA project Initial Operating Capacity
- XL244 EGU2011-13770
Peter Kutschera, Denis Havlik, and Mihai Bartha
OGC SWE compliant implementation of the model web in the climate change domain

Friday, 08 April

GI-6 – Civil Engineering Applications of Ground Penetrating Radar – Orals

Convener: Andrea Benedetto | Co-Conveners: Lara Pajewski, Timo Saarenketo

Room: 42

Chairperson: Andrea Benedetto and Lara Pajewski

- 13:30–13:45 EGU2011-14049
Christina Plati and **Andreas Loizos**
Ground Penetrating Radar as a powerful tool for use in pavement evaluation and overlay design
- 13:45–14:00 EGU2011-3102
Janne Poikajärvi, Anita Narbro, Johan Ullberg, and Kari Peisa
Ground Penetrating Radar application in planning structural evaluation of roads - Nordic actions
- 14:00–14:15 EGU2011-14061
André Costa, Gomes Correia, Paulo Fonseca, and Paulo Pereira
Moisture map of pavement by GPR. An informative case study.
- 14:15–14:30 EGU2011-14149
Lech Krysiński and Jacek Sudyka
Application of an impulse ground penetrating radar in assessment of the interlayer connection condition of the bituminous pavement
- 14:30–14:45 EGU2011-10151
Guido Manacorda
Detecting bridge deck defects with high resolution ground penetrating radar
- 14:45–15:00 EGU2011-6151
Nikos Economou, Antonis Vafidis, Hamdan Hamdan, George Kritikakis, Nikos Andronikidis, and Kleisthenis Dimitriadis
Time varying deconvolution of GPR data in civil engineering

GI-6 – Civil Engineering Applications of Ground Penetrating Radar – Posters

Convener: Andrea Benedetto | Co-Conveners: Lara Pajewski, Timo Saarenketo

Hall A | Display Time 08:00–17:00

Author in Attendance: 15:30–17:00

Chairperson: Lech Krysiński and Lara Pajewski

- A57 EGU2011-7759
Andrea Benedetto
Applications of GPR to road pavement: an overview
- A58 EGU2011-2090
Lara Pajewski, Fabrizio Frezza, Cristina Ponti, and Giuseppe Schettini
CWA Characterization of Buried Infrastructures
- A59 EGU2011-13908
Timo Saarenketo and Pekka Majjala
The Benefit of Integrated Analysis of GPR Data Together with Other Road Survey Data
- A60 EGU2011-12357
Vincent Utsi and Erica Utsi
Use of High Frequency GPR for the detection of construction faults in roads and built structures
- A61 EGU2011-3626
Selma Kadioglu and Emin U. Ulugergerli
Definition of Buried Karstic Cavities with a New 3D GPR Imaging Technique in Akkopru Dam Reservoir Area in Dalaman, Mugla-Turkey
- A62 EGU2011-1618
Jorge Luis Porsani and Yang Boo Ruy
GPR study for subway tunnel construction in São Paulo city, Brazil
- A63 EGU2011-4901
thibault retornaz, jean-michel friedt, sebastien alzuaga, thomas baron, gilles martin, thierry laroche, sylvain ballandras, madeleine griselin, and jean-pierre simonnet
Piezoelectric radiofrequency transducers as passive buried sensors
- A64 EGU2011-7864
Célestin Twizere and Fabio Tosti
Potentiality of GPR for evaluation of clay content in soils
- A65 EGU2011-2093
Simone Meschino, Lara Pajewski, and Giuseppe Schettini
Detection of a Buried Dielectric Object by Means of a Sub-Array Processing Technique

- A66 EGU2011-7057
Andrea Benedetto and Francesco Benedetto
Super resolution signal processing of GPR spectra for pavement engineering applications
- A67 EGU2011-7260
Ilaria Catapano, Rosario Di Napoli, **Francesco Soldovieri**, and Lorenzo Crocco
Detection and characterization of buried layers from holographic GPR data
- A68 EGU2011-14054
Matteo Pastorino, Claudio Estatico, and Andrea Randazzo
A novel regularization scheme for electromagnetic inverse problems

GI-12 – 3D Modelling in Earth Sciences – Orals

Convener: Alexander Lukeneder | Co-Conveners: Susanne Mayrhofer, Ulrike Exner, Robert Marschallinger

Room: 42

Chairperson: Robert Marschallinger

- 08:30–08:45 EGU2011-1213
Adam Maloof, Robert Beach, Sigfus Breidfjord, Basar Girit, Aleksey Lukyanov, Westley Rozen, Bradley Samuels, Catherine Rose, Claire Calmet, and Douglas Erwin
3D models of probable animal body-fossils from pre-Marinoan limestones, South Australia
- 08:45–09:00 EGU2011-4452
Russell Garwood and Mark Sutton
Tomographic reconstruction in palaeontology
- 09:00–09:15 EGU2011-9914
Danièle Gaspard, Benita Putlitz, and Lukas Baumgartner
Micro CT for 3-D reconstruction of brachiopod shells interior: an alternative to destructive serial sections
- 09:15–09:30 EGU2011-2515
Christoph Leitner, Robert Marschallinger, and Franz Neubauer
3D-Modelling of deformed salt cubes: A contribution to paleostress analysis
- 09:30–09:45 EGU2011-5798
Markus Tuller, Carlos M.P. Vaz, Paulo O. Lasso, and Ramaprasad Kulkarni
A New Generation of High-Resolution Benchtop Micro-CT Scanners for Application in Earth Sciences
- 09:45–10:00 EGU2011-7601
Tim Kearsley, Joanne E. Merritt, Mike McCormac, Alison A. Monaghan, Ricky L. Terrington, David J.D. Lawrence, and Seumas D. G. Campbell
Making geological data accessible to non-geoscientists: a 3D model case history from Glasgow, U.K.

COFFEE BREAK

Chairperson: Ulrike Exner

- 10:30–10:45 EGU2011-4177
Peter Wycisk, Tobias Hubert, Ronny Laehne, Michael Wagner, and Wolfgang Gossel
High resolution 3D stratigraphical geological models - concepts and options
- 10:45–11:00 EGU2011-11746
Kenneth McCaffrey, Richard Jones, Jamie Pringle, Alodie Bubeck, Maxwell Wilkinson, and Gerald Roberts
3D structural and stratigraphical models from laser scan outcrop datasets
- 11:00–11:15 EGU2011-12669
Tobias Kurz, Simon Buckley, John Howell, and Danilo Schneider
3D modelling of geological outcrops using combined terrestrial laser scanning and hyperspectral imaging
- 11:15–11:30 EGU2011-7544
Graham Leslie, Mark R. Cooper, Brian McConnell, Sarah L.B. Arkley, Stephen J. Mathers, Benjamin Wood, and Holger Kessler
Toward a 3D crustal-scale, onshore and offshore, geological model of Britain and Ireland.
- 11:30–11:45 EGU2011-7614
Erik Vest Sørensen and Asger Ken Pedersen
Digital multi-model photogrammetric mapping of dyke patterns in the Disko and Nuussuaq region, West Greenland: Methods and results
- 11:45–12:00 EGU2011-8778
Fritz Zobl, Robert Faber, and Robert Marschallinger
Combining solid- and voxel modelling in one 3D modelling framework at a landslide site
-

GI-12 – 3D Modelling in Earth Sciences – Posters

Convener: Alexander Lukeneder | Co-Conveners: Susanne Mayrhofer, Ulrike Exner, Robert Marschallinger

Hall A | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Alexander Lukeneder

- A69 EGU2011-7093
Bradley Samuels, Robert Beach, Sigfus Briedfjord, Basar Girit, Aleksey Lukyanov, Westley Rozen, and Adam Maloof
 The automation of serial grinding, imaging and digital reconstruction of features in samples with weak density contrasts.
- A70 EGU2011-1833
Susanne Mayrhofer and Alexander Lukeneder
 3D modelling in palaeontology - a case study on the Triassic ammonite *Orthocellites* (Carnian, Taurus, Turkey)
- A71 EGU2011-2394
Jeong-Gi Um, Hyeon Kyo Seo, and Young Hwan Noh
 A case study on the 3-D fracture network model of Devonian carbonate reef in Alberta, Canada
- A72 EGU2011-3420
Andrea Schober and Ulrike Exner
 3D structural modelling of an outcrop-scale fold train using photogrammetry and GPS mapping
- A73 EGU2011-7204
Juho Kupila and Jouni Pihlaja
 Geological 3D-models in urban infrastructure construction: studies in Levi ski resort, Finnish Lapland
- A74 EGU2011-5868
Clemens Porpaczy, Dana Homolova, and Kurt Decker
 A 3D basin model of the Budejovice Basin (southern Bohemia) with a special focus on the Hluboká-Fault Zone
- A75 EGU2011-12364
John-Are Hansen and Steffen G. Bergh
 Digital mapping and spatial analysis of planar geological features using ESRI ArcGIS 10
- A76 EGU2011-9204
Alodie Bubeck, Maxwell Wilkinson, Gerald P. Roberts, Kenneth J.W. McCaffrey, and Richard R. Jones
 The Tectono-geomorphic features of Apennine Fault Scarps Mapped Using Combined Ground Penetrating Radar and Terrestrial Laser Scanning
- A77 EGU2011-11056
Gerold Zeilinger, Andreas Bergner, Lutz Ehlert, Matthias Ohrnberger, and Manfred R. Strecker
 Geological 3D model visualization in Cave settings, challenges and limitations
- A78 EGU2011-12256
Richard Haslam, Stuart Clarke, Peter Styles, and Clive Auton
 Structural and stochastic modelling of possible contaminant pathways below nuclear installations
- A79 EGU2011-12498
Radu Constantin Gogu, Dragos Gaitanaru, Zenaida Chitu, Angela Ionita, Marin Palcu, Violeta Velasco, Enric Vasquez-Sune, Loretta Batali, and Ioan Bica
 Sedimentary Media Modelling Platform for Groundwater Management in Urban Areas

GI-15 – Data publishing: paving the way to data-intensive science – Orals

Convener: Michael Diepenbroek | Co-Conveners: Jens Klump, Jan Brase

Room: 25

Chairperson: Jens Klump

- 08:30–08:45 EGU2011-4859
Michael Diepenbroek
 PANGAEA® and the ICSU World Data System (WDS) - towards a global system of data publishers and data libraries
- 08:45–10:00 **Oral presentations of all posters**

GI-15 – Data publishing: paving the way to data-intensive science – Posters

Convener: Michael Diepenbroek | Co-Conveners: Jens Klump, Jan Brase

Hall A | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: n.n.

- A80 EGU2011-14157
Eefke Smit
Taking the Current when it Serves - Research Data from the Publishers' Perspective
- A81 EGU2011-13647
Thies Martin Rasmussen and Sünje Dallmeier-Tiessen
To ensure Availability and Quality of Research Data through Open Access and Public Peer-Review
- A82 EGU2011-11274
Bethan Keall
Innovation in Earth Sciences Publishing
- A83 EGU2011-13614
Fiona Murphy
Data publishing: minefield or opportunity?
- A84 EGU2011-8781
Hans Pfeifferberger
"Earth System Science Data" (ESSD) - A Peer Reviewed Journal
- A85 EGU2011-8152
Sarah Callaghan, Nathan Cunningham, Mark Thorley, Roy Lowry, Gwen Moncoiffe and the NERC Data Citation and Publication Project Team
Data citation and publication by the UK's Natural Environment Research Council's data centres
- A86 EGU2011-1198
Jan Brase
Persistent identifiers & catalogues - A library's perspective
- A87 EGU2011-2142
Adam Leadbetter, Roy Lowry, and Gwenaëlle Moncoiffé
Data publication projects at the British Oceanographic Data Centre
- A88 EGU2011-2859
Martina Stockhause, Michael Lautenschlager, Heinke Höck, and Frank Toussaint
Data Publication and Quality Control Procedure for CMIP5 / IPCC-AR5 Data
- A89 EGU2011-9253
Jeroen Rombouts, Alenka Princic, and Egbert Gramsbergen
Data centre for scientists and institutes in the Netherlands: needs and opportunities
- A90 EGU2011-2385
Oliver Koepler, Janna Neumann, Irina Sens, and Jan Brase
Lessons learned in Chemistry: Building an Embedded Infrastructure for Primary Data from the Scratch - a Concept Study
- A91 EGU2011-3469
Dirk Fleischer, Kai Jannaschk, Hela Mehrstens, Carsten Schirnack, and Pina Springer
A generic data model - from files to database
- A92 EGU2011-10482
Damian Ulbricht and Jens Klump
panMetaDocs - A tool for collecting and managing digital objects in a scientific research environment
- A93 EGU2011-6164
Andreas Hense and Florian Quadt
Acquiring High Quality Research Data for Publication

GM2.2/NH10.3/PS10.2 – Digital Landscapes: From Laser Scanning and High-resolution Measurement Technologies to Quantitative Interrogation of Geomorphic Processes (co-listed) – Orals

Convener: John K. Hillier | Co-Conveners: Sanjeev Gupta, Lara Kalnins, David Mason, Paolo Tarolli, Paola Passalacqua, Dirk Rieke-Zapp, Balázs Székely, Bernhard Höfle, Norbert Pfeifer, Jim Chandler, Alexander Reiterer

Room: 21

Chairperson: n.n.

- 10:30–10:45 EGU2011-633
Elina Kasvi, Hannu Hyypä, Anttoni Jaakkola, Joni Mäkinen, Juha Hyypä, and Petteri Alho
Estimating sediment features and hydraulic parameters on a sand bedded point bar using LiDAR height and intensity and high resolution UAV-based images
- 10:45–11:00 EGU2011-9479
Sarah Derouin and Lucille Piety
Seeing faults through the trees: A case study on using LiDAR in highly vegetated areas to determine fault activity and geomorphology
- 11:00–11:15 EGU2011-4647
Francesco Zucca, Fabio Remondino, Giorgio Agugiaro, Marco Franceschi, Davide Zizioli, and Christian Peloso
Mapping the vertical: Oblique LIDAR acquisition for mapping Dolomites cliff (NE Italy)

- 11:15–11:30 EGU2011-11858
Christoph Siart, Markus Forbriger, and Matthieu Ghilardi
 Fusing surface and subsurface geodata: a case study on Cretan karst landforms
- 11:30–11:45 EGU2011-10198
Robert Barneveld
 Measuring microtopography with Terrestrial Laser Scanning: Aspects of data quality
- 11:45–12:00 EGU2011-7933
Gottfried Mandlbürger, Johannes Otepka, Wilfried Karel, Markus Hollaus, Camillo Ressler, Alexander Haring, Christian Briese, Gabor Molnar, and Bernhard Höfle
 OPALS - a comprehensive laser scanning software for geomorphological analysis

LUNCH BREAK

Chairperson: n.n.

- 13:30–13:45 EGU2011-11459
Jean-Stephane Bailly and Carole Delenne
 Riverbed image simulation for a better exploration of coarse-grained sediment sizing image analysis methods
- 13:45–14:00 EGU2011-3631
Thomas Dewez, Christian Mathon, Hiromi Kobayashi, Aude Nachbaur, Olivier Sedan, Frederic Berger, Emilie Nowak, and Emmanuel Des Gares
 Real-size rockfall trajectory and derived mechanical quantities from close-range stereo video experiment in Tahiti, French Polynesia
- 14:00–14:15 EGU2011-1329
Dirk Rieke-Zapp
 In situ measurement of bedrock erosion
- 14:15–14:30 EGU2011-4479
Rafael Caduff, Fritz Schlunegger, Andrew Kos, Charles Werner, and Andreas Wiesmann
 Assessment of precise spatial and temporal slope deformation with the GAMMA Portable Radar Interferometer in the Illgraben debris flow catchment, Central Swiss Alps
- 14:30–14:45 EGU2011-5193
Chih-Ming Tseng, Ching Weei Lin, and Jin King Liu
 Application of High-resolution LiDAR-derived DEM in Landslide Volume Estimation
- 14:45–15:00 EGU2011-4065
David Hodgetts
 Quantitative geology from digital outcrop data for the characterisation of hydrocarbon reservoirs.

Chairperson: Paola Passalacqua

- 15:30–15:45 EGU2011-10133
Tim Le Bas, Aaron Micallef, and Philippe Blondel
 Use of texture analysis techniques for digital mapping of underwater environments: The case of a submerged karstic landscape offshore Malta.
- 15:45–16:00 EGU2011-5594
Paolo Tarolli and Paola Passalacqua
 The statistical signature of Earth-Surface Processes
- 16:00–16:15 EGU2011-2980
Giulia Sofia, Paolo Tarolli, Federico Cazorzi, and Giancarlo Dalla Fontana
 Channel network identification from high-resolution DTM: a statistical approach.
- 16:15–16:30 EGU2011-7484
John Hillier and Mike Smith
 Testing Quantification Methods with Synthetic Drumlins in a real DEM
- 16:30–16:45 EGU2011-2646
Florent Levavasseur, Jean-Stéphane Bailly, Philippe Lagacherie, Colin François, and Rabotin Michaël
 Uncertainties of water flow-paths in digital cultivated landscape : consequences on overland flows and channel run-off
- 16:45–17:00 EGU2011-9831
Jungrack Kim, ShiYuan Lin, JeongWoo Hong, SangYoon Yun, YougHwi Kim, and HeaWoon Yun
 Very high resolution Martian topographic data processing and its application for virtual reality implementation

GM2.2/NH10.3/PS10.2 – Digital Landscapes: From Laser Scanning and High-resolution Measurement Technologies to Quantitative Interrogation of Geomorphic Processes (co-listed) – Posters

Convener: John K. Hillier | Co-Conveners: Sanjeev Gupta, Lara Kalnins, David Mason, Paolo Tarolli, Paola Passalacqua, Dirk Rieke-Zapp, Balázs Székely, Bernhard Höfle, Norbert Pfeifer, Jim Chandler, Alexander Reiterer

Hall A | Display Time 08:00–17:00

Author in Attendance: 08:30–10:00

Chairperson: n.n.

- A94 EGU2011-923
Susanne Schnitzer
Estimation of mass loss due to soil erosion in the Loess Plateau in China: A comparison of the erosion model
RUSLE, multi-temporal DEMs and GRACE satellite gravimetry.
- A95 EGU2011-12089
Maximilian Sproß, Erik Bollmann, Andrea Fischer, Lorenzo Rieg, Rudolf Sailer, and Johann Stötter
Spatial statistical analysis on glacier surface elevation change based on ALS data
- A96 EGU2011-1147
Stefan Harnischmacher and Harald Zepp
Detection and Quantification of Mining Subsidence in the Ruhr District (Germany) Using Historic Maps and
Digital Elevation Models
- A97 EGU2011-12173
Alberto Guarnieri, Nicola Milan, Antonio Vettore, and Paolo Tarolli
A prototype of landslide observatory in the eastern italian alps
- A98 EGU2011-12225
Alice Ciulli, Gianluca Chessa, Leonardo Disperati, Simone Gadenz, and Massimo Perna
Topographic units mapping from DEM analysis: evaluation of the Upslope Position Index (UPI) in two Tuscany
(Italy) study areas
- A99 EGU2011-12557
Vincenzo D'Agostino and Gabriele Bertoldi
Hazard hierarchization of debris flow sediment source areas
- A100 EGU2011-5309
Paola Passalacqua, Colin P. Stark, Yuichi S. Hayakawa, Zhou Lin, Takashi Oguchi, and Tsuyoshi Hattanji
The objective mapping of channel initiation and landsliding on lidar DTMs in Japan and their interaction with
vegetation
- A101 EGU2011-8188
Marco Cavalli, Sebastiano Trevisani, and Lorenzo Marchi
Geomorphometric assessment of spatial sediment connectivity in small alpine catchments
- A102 EGU2011-8286
Marco Cavalli, Sebastiano Trevisani, Beatrice Goldin, Elena Mion, and Lorenzo Marchi
Derivation of channel network of an alpine region from high-resolution DTM: the example of the Autonomous
Province of Trento (Italy)
- A103 EGU2011-10449
Markus Thiel, Tobias Heckmann, Florian Haas, and Michael Becht
Quantification of coarse sediment connectivity in alpine geosystems
- A104 EGU2011-3804
Federico Cazorzi, Paolo Tarolli, Giulia Sofia, Alberto De Luca, and Giancarlo Dalla Fontana
Surface water storage in alluvial and urbanized plains: the effectiveness of high resolution topography
- A105 EGU2011-12442
Bastiaan Notebaert, Piégay Hervé, and Alber Adrien
Structural properties of floodplain width in the Rhone catchment: methodology and results
- A106 EGU2011-12580
Svetlana Samsonova and Aleksandr Koshkarev
Eco-geomorphological digital model of Moscow city
- A107 EGU2011-11648
Wolfgang Schwanghart, Geoff Groom, Nikolaus J. Kuhn, and Goswin Heckrath
Automatic identification of water-logged agricultural areas using LiDAR DEMs
- A108 EGU2011-398
pradeep Lodha
GIS based critical watershed analysis for soil conservation management using SWAT model
- A109 EGU2011-14048
Domenica Costantino and Maria Giuseppa Angelini
Production of checked DTM by Terrestrial Laser Scanner (TLS)
- A110 EGU2011-4886
Roderick OHara and Gerhard Neukum
Refined elevation models and reflectance for HRSC images
- A111 EGU2011-10908
Luigi Perotti, **Massimo Lanfranco**, Marco Giardino, and Paolo Zamparutti
Creation and test of a mobile GIS application to support field data collection and mapping activities

- A112 EGU2011-1555
Lorenzo Picco, Paolo Vitti, Luca Mao, Diego Ravazzolo, **Emanuel Rigon**, Johnny Moretto, and Mario Aristide Lenzi
Large Woody Debris measurements, in a gravel bed braided river environment, using Terrestrial Laser Scanner: the Piave River study case.
- A113 EGU2011-3570
Thomas Dewez, Aude Nachbaur, Olivier Sedan, Emilie Nowak, and Emmanuel Des Garets
Monitoring the degradation of weathered volcanic man-made escarpments by close-range photogrammetry in Tahiti, French Polynesia
- A114 EGU2011-4378
Greg Hancock and **Garry Willgoose**
Rapid erosion assessment on disturbed site: Quantification of erosion rates using laser scanning and modelling on a mine waste rock dump
- A115 EGU2011-10667
Dave Favis-Mortlock
The role of high-resolution microtopographic grids in validating the RillGrow model
- A116 EGU2011-12718
Michael Winkler, W. Tad Pfeffer, Klaus Hanke, and Georg Kaser
Close range photogrammetry reveals recession pattern of Kilimanjaro ice cliffs
- A117 EGU2011-12931
Muhammad Anggri Setiawan
Evaluation of interpolation methods in tillage surface area
- A118 EGU2011-13663
Inna Stepanova
On the finding of the earth's surface topography with the help of toda-hierachy
- A119 EGU2011-14050
Sierd de Vries, Roderik Lindenbergh, Sylvie Soudarissanane, and Matthieu de Schipper
Monitoring short term aeolian beach sand transport using terrestrial laser scanning
- A120 EGU2011-410
Tanja Vicovac, Alexander Reiterer, and Dirk Rieke-Zapp
Change Detection of Geological Surfaces by Image-Based Sensor Systems
- A121 EGU2011-6204
Luca Carturan, Simone Calligaro, Alberto Guarnieri, Nicola Milan, Paolo Tarolli, Daniele Moro, Giovanni Baldassi, Federico Cazorzi, Antonio Vettore, and Giancarlo Dalla Fontana
Terrestrial Laser Scanner survey of two small glacial formations in the Eastern Italian Alps
- A122 EGU2011-11627
Hubert Lehner, Christian Briese, and Rudolf Sailer
Radiometric calibration of airborne laser scanning data: case study rockglaciers
- A123 EGU2011-6847
Rudolf Sailer, Erik Bollmann, Johann Stötter, Susanna Hoinkes, Lorenzo Rieg, and Maximilian Spross
Quantification of morphodynamic processes in glaciated and recently deglaciated terrain
- A124 EGU2011-10541
Ekaterina Vsemirnova, Richard Jones, Jiulin Guo, and Kenneth McCaffrey
Quantitative characterization of fracture networks using terrestrial lidar data, an example from high porosity sandstones at Appleby, UK
- A125 EGU2011-10815
Luigi Perotti, Marco Bacenetti, Marco Giardino, and Stefano Marta
Geomorphological and geostructural characterisation of Veny Valley (Courmayeur, Italy) using an integrated field-based, Lidar and Remote Sensing techniques
- A126 EGU2011-8362
Petteri Alho, Matti Vaaja, Elina Kasvi, Antero Kukko, Hannu Hyyppä, Juha Hyyppä, Harri Kaartine, Matti Kurkela, and Claude Flener
Multitemporal MLS data and terrestrial photogrammetry in a change detection of point bars
- A127 EGU2011-12268
Markus Forbriger, Karsten Schitteck, Christoph Siart, and Bernhard Höfle
New approaches in vegetation mapping - use of terrestrial laser scanning on high Andean cushion peatlands
- A128 EGU2011-13847
Andreas Roncat, Balázs Székely, Gábor Molnár, András Zámolyi, Angelika Pocsai, and Camillo Ressler
High-resolution terrestrial laser scanning of temporary small-scale terraces in a dynamic landscape - a pilot study at the Doren landslide
- A129 EGU2011-14039
Andreas Roncat, Yuri Dublyansky, Christoph Spötl, Peter Dorninger, and Norbert Pfeifer
A full-3D laser-scan mapping of a hypogene cave: a morphogenetic study of Märchenhöhle, Austria
- A130 EGU2011-10670
Markus Hollaus, Norbert Pfeifer, Andreas Roncat, and Hieu Van Duong
Analyzing ICESat/GLAS derived terrain roughness parameter using airborne LiDAR data

- A131 EGU2011-8673
Martin Rutzinger, Bernhard Höfle, and Korbinian Kringer
 Quality of geomorphological breaklines extracted from airborne laser scanning
- A132 EGU2011-8512
 Cristina Castagnetti, Eleonora Bertacchini, **Alessandro Capra**, Marco Dubbini, Riccardo Rivola, and
 Alessandro Corsini
 Integrating LIDAR and terrestrial laser scanning for a detailed description of landslides geomorphology

