

# EGU General Assembly 2011

## Programme Group Programme

### SM – Seismology

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Monday, 04 April

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**SM1.2/EG11/G6.4/GD1.7/TS1.6 – Large Scale European Research Facilities/Infrastructures: Data acquisition; Data Storage; Data Access (co-organized) – Orals**

Convener: Massimo Cocco | Co-Conveners: Wim Spakman, John Ludden, Torild Eck Van, Paolo Favalli

**Room: 26**

Chairperson: Torild van Eck

- 08:30–08:45 EGU2011-2282  
**Paolo Favali** and Emso Partnership  
 EMSO: European Multidisciplinary Seafloor and water column Observatory: state and plan
- 08:45–09:00 EGU2011-8483  
**Massimo Cocco**, Joern Lauterjung, Domenico Giardini, and the EPOS Consortium  
 The EPOS integration plan for Research Infrastructures in solid Earth Science: working strategy and preliminary achievements
- 09:00–09:15 EGU2011-4616  
**Keith Jeffery**, Jean Pierre Vilotte, and Alberto Michelini  
 The EPOS e-Science Concept and the Planned e-Infrastructure
- 09:15–09:30 EGU2011-8606  
**Torild van Eck**, Remy Bossu, Salvatore Mazza, Nicos Melis, Lars Ottemöller, and Winfried Hanka  
 EPOS and the seismological observational research infrastructure
- 09:30–09:45 EGU2011-11067  
**Giuseppe Puglisi**, Patrick Bachelery, Teresa J.L. Ferreira, Kristín S. Vogfjörð and the EPOS Volcano Observatory working group Team  
 Roadmap for a European volcanological infrastructure within EPOS
- 09:45–10:00 EGU2011-9474  
**Kristine Asch**  
 One Geology, One Europe, One Foundation

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**COFFEE BREAK**

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Chairperson: Massimo Cocco

- 10:30–10:45 EGU2011-6808  
**John Ludden**, Henning Lorenz, and Luca Demicheli  
 A Geologic Baseline and research infrastructure as part EPOS
- 10:45–11:00 EGU2011-11941  
**Luisa Bastos**, Jean-Mathieu Nocquet, and on behalf of WG4 Epos Team  
 Current status of the Geodetic Component of EPOS
- 11:00–11:15 EGU2011-8745  
**Salvatore Stramondo**, Alain Arnaud, Roberto Cossu, Michael Eineder, Paolo Gamba, Steven Hosford, Riccardo Lanari, Luigi Fusco, and Eliana Li Santi  
 EPOS Satellite Information WG: technical activities and objectives

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**SM1.2/EG11/G6.4/GD1.7/TS1.6 – Large Scale European Research Facilities/Infrastructures: Data acquisition; Data Storage; Data Access (co-organized) – Posters**

Convener: Massimo Cocco | Co-Conveners: Wim Spakman, John Ludden, Torild Eck Van, Paolo Favalli

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

Author in Attendance: 17:30–19:00

Chairperson: Russ Evans

- XY640 EGU2011-7830  
**Leo Kriegsman**  
 Natural history collections and (meta)data: an outline of the infrastructure landscape
- XY641 EGU2011-8320  
**Torild van Eck**, Reinoud Sleeman, Gert-Jan van den Hazel, Alessandro Spinuso, Luca Trani and the ORFEUS/NERA/EIDA/VEBSN Team  
 ORFEUS: Seismological waveform data archiving and access in Europe: A NERA service activity
- XY642 EGU2011-8487  
**Emily Delahaye**, Dmitry Storchak, Istvan Bondar, and James Harris  
 International Seismological Centre (ISC): Mission and Status

- XY643 EGU2011-8626  
**Nicola D'Agostino** and the RING Working Group Team  
 The RING GPS network: a research geodetic infrastructure to study plate boundary deformation in the Central Mediterranean
- XY644 EGU2011-8830  
**Josep Gallart** and EPOS-Spain Working Group  
 EPOS-Spain Institutions and Research Infrastructures
- XY645 EGU2011-9190  
**Wojciech Debski**, Grzegorz Mutke, Janusz Mirek, Jerzy Suchcicki, Waldemar Jozwiak, Pawel Wiejacz, and Jacek Trojanowski  
 Polish Geophysical Solid Earth Infrastructure Contributing to EPOS- Current State
- XY646 EGU2011-9481  
**Jochen Woessner**, Domenico Giardini and the NERA-EFEHR Team  
 The European Facility for Earthquake Hazard and Risk (EFEHR): Remote Access to Hazard and Risk Products
- XY647 EGU2011-9527  
**Kuvvet Atakan**, Conrad Lindholm, Valerie Maupin, Lars Ottemöller, Mathilde B. Sørensen, Halfdan P. Kierulf, Jörg Ebbing, Tor Langeland, and Farrokh Nadim  
 The Arctic dimension of the European Plate Observing System (EPOS) and the Norwegian contribution
- XY648 EGU2011-9637  
**Kristín Vogfjörð**, Einar Kjartansson, Ragnar Sigbjörnsson, Símon Ólafsson, Benedikt Halldórsson, Freysteinn Sigmundsson, Sigrún Hreinsdóttir, and Guðmundur Valsson  
 Networking of Icelandic Geophysical Infrastructures
- XY649 EGU2011-9799  
**Linus Kamb**, Laurent Frobert, Gilles Mazet-Roux, and Remy Bossu  
 EMSC Earthquake Information Services: Remote Access to Earthquake Parametric Data and Products - a NERA service activity
- XY650 EGU2011-9860  
**Linus Kamb**, Laurent Frobert, Alessandro Spinuso, Luca Trani, Remy Bossu, and Torild van Eck  
 NERIES Seismology IT Infrastructure
- XY651 EGU2011-10879  
**Jan Zedník** and Pavel Hejda  
 CzechGeo/EPOS - Distributed system of the geophysical observations in the Czech Republic
- XY652 EGU2011-11856  
 Marcello Martini, Sergio Gurrieri, and **Domenico Patanè**  
 Volcano Monitoring of the Italian active Volcanoes
- XY653 EGU2011-11018  
**Filippos Vallianatos** and the GSLab Team  
 The Geophysics and Seismology Unit and the Hellenic Seismological Network of Crete (HSNC): An innovative infrastructure in the front of the Hellenic Arc.
- XY654 EGU2011-10966  
**Robert Barsch**, Moritz Beyreuther, Lion Krischer, Tobias Megies, Yannik Behr, Conny Hammer, Martin van Driel, and Joachim Wassermann  
 ObsPy: A Python Toolbox for Seismology/Seismological Observatories
- XY655 EGU2011-10786  
**Salvatore Mazza**, Giampaolo Cecere, Alberto Delladio, Alfonso Mandiello, Lucia Margheriti, and Giulio Selvaggi  
 The INGV National Earthquake Centre research infrastructure to study the plate boundary deformation in the Central Mediterranean.
- XY656 EGU2011-5593  
**Helle Pedersen** and the RESIF and national French EPOS working groups Team  
 The RESIF project: preparing a the French national infrastructure for EPOS
- XY657 EGU2011-9784  
**Angelo Strollo**, Bertrand Delouis, Aladino Govoni, Sebastian Hainzl, Stephan Husen, Lucia Margheriti, Anne Paul, Catherine Pequegnat, and Monika Sobesiak  
 Networking European Rapid response Networks
- XY658 EGU2011-10227  
**Gérard M. Chanteur**, Maria-Teresa Capria, Walter Schmidt and the The EuroPlaNet/IDIS Team  
 EuroPlaNet/IDIS, a scientific gateway for planetary sciences
- XY659 EGU2011-10914  
**Stefania De Zorzi**, Robert Laurini, Gobe Hobona, Giovanni Rocca, Dolors Barrot, and Maria Pla  
 Definition of a common INSPIRE-driven elevation model and its

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

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**LUNCH BREAK**

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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

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**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

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**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

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**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

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**SM1.11 – Global capacity building efforts in Seismology – Posters**

Convener: Florian Haslinger | Co-Conveners: Susanne Sargeant, Lars Ottemoller

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

Author in Attendance: 17:30–19:00

Chairperson: n.n.

XY689 EGU2011-4322

**Anne Meltzer**, Sergio Barrientos, Noel Barstow, Olga Cabello, Karen Fischer, Art Lerner-Lam, Andy Nyblade, Eric Sandvol, Niyazi Türkelli, and Ray Willemann

Geophysical infrastructure, seismological research, and earthquake hazard assessment: Bridging the gap.

XY690 EGU2011-7872

**Lars Ottemoller** and Jens Havskov

Key to sustainable seismic networks: Skills and operational funding more important than equipment

XY691 EGU2011-9745

**Claus Milkereit** and Peter Bormann

Training Courses on 'Seismology and Seismic Hazard Assessment'

XY692 EGU2011-11969

**Florian Haslinger**, Nicole Keller, and Marco Pagani

Technical Capacity Building, Knowledge Transfer, and Skills Development in Earthquake Hazard and Risk Assessment - the Global Earthquake Model GEM

XY693 EGU2011-12393

john coyne, Belkacem Djermouni, and **Lassina Zerbo**

Capacity Building in the Context of the Comprehensive Nuclear-Test-Ban Treaty

XY694 EGU2011-12406

john coyne, Belkacem Djermouni, **Misrak Fisseha**, Gadi Turyomurugyendo, and Lassina Zerbo

CTBTO Capacity Building Follow-Up Visits in Africa

### **SM3.1 – Seismic Imaging of the Earth's Interior: Theoretical and Methodological Achievements in Seismic imaging – Orals**

Convener: Edi Kissling | Co-Conveners: Jean-Xavier Dessa, Ivan Koulakov, Stefan Buske

**Room: 27**

Chairperson: Ivan Koulakov

08:30–08:45 EGU2011-7298

**James Wookey**

Direct probabilistic inversion of shear-wave data for anisotropy

08:45–09:00 EGU2011-296

**Armstrong Fransiskus Sompotan**, Linus Ampang Pasasa, and Rachmat Sule

Comparing Models GRM, Refraction Tomography and Neural Network

09:00–09:15 EGU2011-5209

**Juan Carlos Afonso**, Yingjie Yang, Javier Fulla, Sergei Lebedev, and Sergio Zlotnik

A 3D multi-observable probabilistic inversion method for the compositional and thermal structure of the lithosphere and sublithospheric upper mantle

09:15–09:30 EGU2011-5234

**Hrvoje Tkalčić**, Thomas Bodin, Malcolm Sambridge, Kerry Gallagher, and Pierre Arroucau

A new Paradigm for Seismic Imaging of the Earth's Crust and Upper Mantle: Transdimensional Inversion of Receiver Functions and Surface Wave Dispersion With Hierarchical Bayes Algorithm

09:30–10:00 EGU2011-2999

**Guust Nolet**, Christophe Zaroli, Jean Charlety, and Diego Mercerat

Seismic tomography: recent developments and new perspectives

### **SM3.1 – Seismic Imaging of the Earth's Interior: Theoretical and Methodological Achievements in Seismic imaging – Posters**

Convener: Edi Kissling | Co-Conveners: Jean-Xavier Dessa, Ivan Koulakov, Stefan Buske

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

Author in Attendance: 17:30–19:00

Chairperson: Jean-Xavier Dessa

XY695 EGU2011-2436

**Yury Kolesnikov** and Evgeny Hoguev

Application of Emission Tomography for Localization of Seismic Sources and Active Zones

XY696 EGU2011-2513

**Genny Giacomuzzi**, Nicola Piana Agostinetti, Claudio Chiarabba, Pasquale De Gori, and Alberto Malinverno

Local Earthquake Tomography by trans-dimensional Monte Carlo sampling

- XY697 EGU2011-3164  
**Ludek Vecsey**, Jaroslava Plomerova, Tuna Eken, and Vladislav Babuska  
Role of seismic anisotropy in isotropic tomographic models of the upper mantle
- XY698 EGU2011-5297  
**Michel foundotos** and Guust Nolet  
Observability of Multiply Reflected P Waves
- XY699 EGU2011-5331  
**Naeun Kwak**, Dong-Joo Min, Youngseo Kim, Ho Seuk Bae, and Ho-Yong Lee  
Reverse time migration in VTI and TTI media
- XY700 EGU2011-6932  
**Naimeh Moghadasi**, Mohammad Reza Gheitanchi, and Hossein Hashemi Shahdani  
Reflection travel time tomography applied in Lorestan
- XY701 EGU2011-6955  
**Maryam Sadat Mirkamali** and Hamid Reza Ramazi  
Detecting faults with using the seismic attributes and neural networks in an oil reservoir
- XY702 EGU2011-13035  
**Nicola Piana Agostinetti**, Alberto Malinverno, Claudio Chiarabba, Leonardo Seeber, Alessandro Amato, Genny Giacomuzzi, Pio Lucente, Irene Bianchi, Massimo Di Bona, and Pasquale De Gori  
Time-evolution of subsurface elastic properties revealed by full 4D seismic tomography: an application to the 2009 L'Aquila earthquake sequence
- XY703 EGU2011-13212  
**Mark Noble**, Alexandrine Gesret, and Nidhal Belayouni  
A fast and accurate 3D finite-difference Eikonal solver using a perturbation method
- XY704 EGU2011-632  
**Diana Nuñez**, Edi Kissling, Diego Cordoba, and Antonio Pazos  
Consistency in CSS phase correlation: Application to CARIBE NORTE data set
- XY705 EGU2011-4539  
**Andri Hendriyana**, Rachmat Sule, Fatkhan Fatkhan, Alfian Bahar, and Alpius Guntara  
An Application of CRS-Based Depth Imaging : Real Data Example
- XY706 EGU2011-2984  
**Christian Weidle**  
Surface wave phase velocity maps from multiscale wave field interpolation
- XY707 EGU2011-1791  
**Christophe Zaroli**, Guust Nolet, Eric Debayle, and Malcolm Sambridge  
Global multiple-frequency SH-wave tomography: refining seismic imaging of the Earth's mantle
- XY708 EGU2011-3030  
**Benoit de Cacqueray**, Philippe Roux, Michel Campillo, Stefan Catheline, Julien Meunier, Thomas Bianchi, and Pierre Boué  
Surface wave study at laboratory scale
- XY709 EGU2011-2857  
**Jacek Stankiewicz**, Trond Ryberg, Christian Haberland, and Michael Weber  
Characteristics of ambient seismic noise used for surface wave tomography

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**SM3.2/GD6.4/TS10.7 – Seismic Imaging of the Earth's Interior: Results of active and passive tomography on local, regional and global scales. (co-organized) – Orals**

Convener: Andrea Morelli | Co-Conveners: Dapeng Zhao, Ivan Koulakov

**Room: 27**

Chairperson: Ivan Koulakov

- 10:30–10:45 EGU2011-4961  
**Cédric Legendre**, Thomas Meier, Sergei Lebedev, Wolfgang Friederich, and the EGELADOS working group  
Shear-wave velocity model of the European Upper Mantle
- 10:45–11:00 EGU2011-8642  
**Michael Wagner**, Edi Kissling, Stephan Husen, and Domenico Giardini  
Combining controlled-source seismology and local earthquake data to derive a consistent three-dimensional model of the crust: Application to the Alpine region
- 11:00–11:15 EGU2011-5006  
**Yong Ren**, Graham Stuart, Gregory Houseman, Ben Dando, Constantin Ionescu, Endre Hegedüs, Slavica Radovanovi?, and South Carpathian Project Working Group  
Upper Mantle structure of the Pannonian-Carpathian region derived from Finite-Frequency Tomography
- 11:15–11:30 EGU2011-2402  
**Jaroslava Plomerova**, Ludek Vecsey, Vladislav Babuska, and Hana Karousova  
Seismic anisotropy imprint on upper mantle velocity structure beneath the north-eastern Bohemian Massif (central Europe)



- 11:30–11:45 EGU2011-12941  
**Tea Mumladze** and Yih-Min Wu  
 Lithospheric Structure of Caucasus Using Joint Inversion Method
- 11:45–12:00 EGU2011-6126  
**Andreas Köhler**, Christian Weidle, and Valerie Maupin  
 Surface wave tomography for southern Norway from ambient seismic noise and earthquake analysis
- 12:00–12:15 EGU2011-6262  
**Ward Stolk**, Mikhail Kaban, Magdala Tesauero, Fred Beekman, and Sierd Cloetingh  
 New Moho estimate and velocity model for Asia

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**LUNCH BREAK**


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Chairperson: Andrea Morelli

- 13:30–13:45 EGU2011-3427  
 Xiaomei Zhang and **Hanneke Paulssen**  
 Geodynamics of the Gulf of California from surface wave tomography
- 13:45–14:00 EGU2011-2785  
**Nicholas Rawlinson**, Hrvoje Tkalcic, Sara Pozgay, and Elizabeth Vanacore  
 Seismic imaging results from a transportable array experiment in southeast Australia
- 14:00–14:15 EGU2011-11651  
**Andrew Schaeffer** and Sergei Lebedev  
 Seismic velocity and anisotropy of the upper mantle and transition zone at global and regional scales imaged using Surface and S waveform tomography
- 14:15–14:30 EGU2011-7571  
**Genyang Tang**, Penny Barton, Simon Dean, Frederik Tilmann, Muhammad Jusuf, Timothy Henstock, Frauke Klingelhoefer, Yusuf Djajadihardja, Lisa McNeill, and Haryadi Permana  
 3-D seismic tomography study of the Sumatra subduction zone near Simeulue island
- 14:30–14:45 EGU2011-6108  
**Andri Dian Nugraha**, Sri Widiyantoro, Awan Gunawan, and Gede Suantika  
 Seismic Tomography Imaging around Guntur Volcano in Indonesia
- 14:45–15:00 EGU2011-2344  
**Ivan Koulakov**, Evgeniy Gordeev, Sergey Senyukov, Valeriy Vernikovskiy, Nikolay Dobretsov, Kayrlı Jaxybulatov, and Andrey Jakovlev  
 4D tomography images reveal migration of magma chambers beneath Kluchevskoy volcano (Kamchatka)

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**SM3.2/GD6.4/TS10.7 – Seismic Imaging of the Earth's Interior: Results of active and passive tomography on local, regional and global scales. (co-organized) – Posters**

Convener: Andrea Morelli | Co-Conveners: Dapeng Zhao, Ivan Koulakov

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

Author in Attendance: 17:30–19:00

Chairperson: Dapeng Zhao

- XY710 EGU2011-1581  
**zeinab jeddi** and mohammad tatar  
 P-phase Arrival Time Local Earthquake Tomography in BAM Region
- XY711 EGU2011-2775  
**Samar Amini** and Hossein Shomali  
 New Constraints on Pn-Velocity Structure of the Iranian Plateau
- XY712 EGU2011-4534  
**Najmieh Mohammadi**, Ahmad Sadidkhouy, and Forough Sodoudi  
 Variation of the Moho depth along the Shooshtar-Damavad profile (Iran) using P receiver functions
- XY713 EGU2011-4554  
**Tayyebi Akbari** and Hossein Shomali  
 Upper crust velocity anomaly resolved using local travel-time tomography, in the Central Alborz, Iran
- XY714 EGU2011-3004  
**Seda Yolsal-Cevikbilen**, C.Berk Biryol, Susan Beck, George Zandt, Tuncay Taymaz, Hande E. Adiyaman, and A.Arda Ozacar  
 3-D Crustal Structure along the North Anatolian Fault Zone in North Central Anatolia from local earthquake tomography

- XY715 EGU2011-11905  
**Berna Tunç**, Deniz Çaka, Süleyman Tunç, Heiko Woith, ?erif Bar??, Birger-Gottfried Lühr, Mithat F?rat Özer, Tahir Serkan Irmak, and Erwin Günther  
 Three Dimensional Velocity Structure of the Armutlu Peninsula
- XY716 EGU2011-10939  
**Hayrullah Karabulut** and Ahu Komec Mutlu  
 Anisotropic Pn Tomography of Turkey and Surrounding regions
- XY717 EGU2011-2404  
**Hana Karousova**, Jaroslava Plomerova, and Ludek Vecsey  
 Velocity structure of the upper mantle beneath the north-eastern Bohemian Massif (central Europe)
- XY718 EGU2011-6131  
**Bogdan Zaharia**, Eugen Oros, Greg Houseman, Graham Stuart, Mihaela Popa, and Mircea Radulian  
 Understanding lithospheric structure from local seismic tomography in western Romania
- XY719 EGU2011-7122  
**Sonja Greve** and Hanneke Paulssen  
 Upper mantle heterogeneity and depth-dependent anisotropy in the Central Mediterranean subduction zone
- XY720 EGU2011-8096  
**Stephen Monna** and Tiziana Sgroi  
 Crustal 3D tomography of the Southern Tyrrhenian Sea: new constraints using passive seismic data from OBS and land stations
- XY721 EGU2011-8501  
 Paola Baccheschi, **Pasquale De Gori**, and Claudio Chiarabba  
 Seismic attenuation tomography beneath the retreating Southern Tyrrhenian Sea subduction system
- XY722 EGU2011-9305  
**Emanuela Matrullo**, Ortensia Amoroso, Raffaella De Matteis, Claudio Satriano, and Aldo Zollo  
 1D versus 3D velocity models for earthquake locations: a case study in Campania-Lucania region (Southern Italy)
- XY723 EGU2011-1361  
**Edoardo Del Pezzo**, Francesca Bianco, and Luca De Siena  
 A scattering Image of Campi Flegrei from the Auto Correlation Functions of Velocity tomograms
- XY724 EGU2011-9968  
**Hanna Silvennoinen**, Elena Kozlovskaya, Eduard Kissling, Tomasz Janik and the POLENET/LAPNET working group Team  
 Compilation of initial 3-D crustal model northern Fennoscandian shield
- XY725 EGU2011-11711  
**Tellervo Hyvönen**, Timo Tiira, Annakaisa Korja, and Kari Komminaho  
 Crustal Structure of the central Baltic Shield highlighted by Seismic Tomography and Anisotropy Studies
- XY726 EGU2011-8675  
**Louis De Barros**, Francesca Martini, Christopher J. Bean, Araceli García Yeguas, and Jesus M. Ibáñez  
 Magmatic storage below Teide volcano from reflected and scattered seismic waves
- XY727 EGU2011-5262  
**Shuhei Hada**, Junichi Nakajima, Naoki Uchida, Erika Hayami, and Norihito Umino  
 Estimation of corner frequency of intraslab earthquakes and whole ray path attenuation term beneath NE Japan
- XY728 EGU2011-313  
**Ekaterina Kukarina** and Ivan Koulakov  
 Two scales of tomographic inversions in Hokkaido (Japan) reveals the link between the volcanic areas and flows in the mantle wedge
- XY729 EGU2011-787  
**David P. Sahara**, Sri Widiyantoro, Andri D. Nugraha, Rachmat Sule, and Birger G. Luehr  
 Determination of Subsurface Velocity Structure and Precise Hypocenters Relocation by using Double-Difference Technique: Case Study of Central Java - Indonesia
- XY730 EGU2011-339  
**Jaxybulatov Kairly** and Koulakov Ivan  
 Shape of the subducted slab beneath the Sunda arc derived from regional tomographic inversion
- XY731 EGU2011-2466  
**Andrey Jakovlev**, Georg Ruempker, and Ivan Koulakov  
 Multi Scale Imaging of Seismic Structure beneath the Western Branch of the East-African Rift
- XY732 EGU2011-316  
**Irina Zabelina** and Ivan Koulakov  
 Block structure of San-Francisco zone from the local earthquake tomography
- XY733 EGU2011-6255  
 Michelle Salmon, Brian Kennett, and **Erdinc Saygin**  
 AuSREM - Australian Seismological Reference Earth Model

XY734 EGU2011-1178

**Heeok Jung**, Yong-seok Jang, and Bong Gon Jo

Upper crust shear wave tomography of South Korea estimated by explosion and earthquake data

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**SM3.3 – The QUEST project: progress on inverting seismic waveforms for sources and Earth's structure using 3-D wave propagation – Orals**

Convener: Heiner Igel | Co-Conveners: Ana MG Ferreira, Jeannot Trampert, Peter Moczo, Jean-Paul Montagner

**Room: 27**

Chairperson: Heiner Igel

15:30–15:45 EGU2011-5524

**Peter Moczo**, Jozef Kristek, Martin Galis, and Emmanuel Chaljub

Why some numerical schemes loose their accuracy with increasing P-wave to S-wave speed ratio?

15:45–16:00 EGU2011-8755

**Andreas Fichtner** and Jeannot Trampert

Quantitative resolution analysis in full seismic waveform inversion

16:00–16:15 EGU2011-4949

**Ana MG Ferreira**, Jennifer Weston, and Gareth J Funning

Global CMT source inversions using 3D Earth models: comparisons with InSAR

16:15–16:30 EGU2011-4851

**Karin Sigloch** and Guust Nolet

Frequency dependence of observed P-wave traveltimes and amplitudes, and their prediction by finite-frequency tomography

16:30–16:45 EGU2011-11554

**Piero Basini**, Tarje Nissen-Meyer, Lapo Boschi, Julie Verbeke, Olaf Schenk, and Domenico Giardini

Ambient-noise tomography of the European lithosphere: numerical calculation of sensitivity kernels for nonuniform noise-source distributions.

16:45–17:00 EGU2011-11924

**Claudio Satriano**, Viviana Dionicio, and Jean-Pierre Vilotte

Imaging the earthquake rupture from the back projection of body waves

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**SM3.3 – The QUEST project: progress on inverting seismic waveforms for sources and Earth's structure using 3-D wave propagation – Posters**

Convener: Heiner Igel | Co-Conveners: Ana MG Ferreira, Jeannot Trampert, Peter Moczo, Jean-Paul Montagner

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

Author in Attendance: 17:30–19:00

Chairperson: Heiner Igel

XY735 EGU2011-1282

**Moritz Bernauer**, Andreas Fichtner, and Heiner Igel

Measurements of translation, rotation and strain: New approaches to seismic processing and inversion

XY736 EGU2011-2689

**Yang Shen** and Wei Zhang

Full-wave ambient noise tomography at local and regional scales

XY737 EGU2011-2887

**Takumi Hayashida**, Fumiko Tajima, Junichi Nakajima, and Jim Mori

Regional Travel-time Inversion and Waveform Modeling for 3D Velocity Structure in Southwestern Japan

XY738 EGU2011-3731

**Simone Cesca**, Torsten Dahm, and Daniela Kühn

Determining the rupture process of the 7 May 2001 M2 4.1 Ekofisk induced earthquake using seismological and deformation data

XY739 EGU2011-4607

Davide Gei, Leo Eisner, Vladimir Grechka, **Geza Seriani**, and Peter Suhadolc

Feasibility of estimation of vertical transverse isotropy from microseismic data recorded by surface monitoring arrays

XY740 EGU2011-4673

**Piero Poli**, Michel Campillo, Helle Pedersen, and Polenet/lapnet Working Group

Emergence of body waves from cross-correlation of short period seismic noise

XY741 EGU2011-5550

**Alan Schiemenz**, Martin Kaeser, Hugues Djikpess, and Heiner Igel

Modeling of Borehole-Guided Waves and Reservoir Formation Reflections with a Discontinuous Galerkin Finite Element Method

- XY742 EGU2011-5682  
**Jozef Kristek**, Peter Moczo, Emmanuel Chaljub, Pierre-Yves Bard, Fabrice Hollender, Peter Franek and the E2VP Team  
 Verification of the 3D numerical methods for modeling seismic motion - the case of the Mygdonian basin, Greece
- XY743 EGU2011-5837  
**Miriam Kristekova**, Martin Galis, Peter Moczo, and Jozef Kristek  
 A posteriori filtration of the slip-rate time histories
- XY744 EGU2011-6319  
**Florian Schumacher** and Wolfgang Friederich  
 Waveform Sensitivity Kernels for 3D Elastic Background Media
- XY745 EGU2011-6858  
**Lubica Valentova**, Frantisek Gallovic, and Josep de la Puente  
 Inversion of Love wave traveltimes in Czech Republic using adjoint method
- XY746 EGU2011-8552  
**Maria Nader**, Heiner Igel, Dieter Kurrle, Ana Ferreira, Joachim Wassermann, and Ulrich Schreiber  
 Observations of Earth's Free Oscillation with Long-Period Rotational Ground Motion Records.ÂÂ
- XY747 EGU2011-8638  
**Piero Poli**, Michel Campillo, Helle Pedersen, and Polenet/Lapnet Working Group  
 Emergence of body waves from cross-correlation of short period seismic noise
- XY748 EGU2011-11181  
**Catherine Gourdin**, Guust Nolet, Guy Masters, and Gaby Laske  
 New mode splitting estimations from recent large earthquakes
- XY749 EGU2011-11227  
**Seyed Kasra Hosseini zad**, Karin Sigloch, Simon Stähler, and Tarje Nissen-Meyer  
 "No Data Left Behind" - Efficient waveform processing for global finite-frequency tomography
- XY750 EGU2011-12737  
**Nian Wang**, Yann Capdeville, Gael Burgos, and Jean-Paul Montagner  
 Separation of intrinsic and artificial anisotropy by using homogenization method
- XY751 EGU2011-12797  
**Tarje Nissen-Meyer** and Alexandre Fournier  
 Fréchet kernel sensitivity

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**SM3.4/TS1.7 – Noise Interferometry: What can we learn from noise ? (co-organized) – Posters**

Convener: Antonio Villaseñor | Co-Conveners: Florent Brenguier, Laurent Stehly, Martin Schimmel

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

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY752 EGU2011-4320  
 Erdinc Saygin and **Brian Kennett**  
 The Crustal Structure of Australian Continent from Seismic Ambient Noise
- XY753 EGU2011-3467  
**Hanneke Paulssen**, Tedi Yudiantira, and Jeannot Trampert  
 Rayleigh wave group velocity tomography of the Netherlands from ambient seismic noise
- XY754 EGU2011-7479  
**Bogdan Grecu**, Yong Ren, Dragos Tataru, Cristian Neagoe, Graham Stuart, Greg Houseman, Mircea Radulian, and Victor Raileanu  
 First results of seismic noise cross-correlations between Romanian permanent broadband network and temporary stations deployed in the western part of Romania
- XY755 EGU2011-12079  
 Abigail Jiménez, Antonio García-Jerez, and **Francisco Luzón**  
 Analysis of surface wave dispersion in Navarra (Northern Spain) from cross-correlation of ambient noise
- XY756 EGU2011-11993  
 Antonio García-Jerez, **Francisco Luzón**, and Abigail Jiménez  
 Inferring the Elastic properties of the Low Andarax River Valley (SE Spain) by Means of Array Analysis of Ambient Noise
- XY757 EGU2011-5853  
**Antonio Villasenor**, Beatriz Gaité, Josep Gallart, and Topo-Iberia Seismic Working Group  
 Ambient noise tomography of the Iberian Peninsula using the IberArray seismic network
- XY758 EGU2011-9501  
 Fabrice Ardhuin, **Romain Husson**, Eleonore Stutzmann, Abel Balanche, Fabrice Collard, and Martin Schimmel  
 Seismic noise related to swells across the Pacific: a joint analysis of satellite, buoy, and seismometer data

- XY759 EGU2011-2846  
**young soo Jeon**, hye seon Kang, seek tae Lee, sun-cheon Park, young-kyun Lee, won young Yun, min kyung Kong, and eun hee Park  
 KMA seismic stations assessment using portable seismometers
- XY760 EGU2011-7085  
**Gregor Hillers**, Michel Campillo, Yen-Yu Lin, and Kuo-Fong Ma  
 Analysis of the high-frequency noise field recorded by a vertical borehole array in Taiwan 1: General properties, and the direct arrival of the ambient noise cross correlation
- XY761 EGU2011-7140  
**Gregor Hillers**, Michel Campillo, Yen-Yu Lin, and Kuo-Fong Ma  
 Analysis of the high-frequency noise field recorded by a vertical borehole array in Taiwan 2: Probing subsurface properties using the coda of ambient noise cross correlation
- XY762 EGU2011-10357  
**Arantza Ugalde**, Beatriz Gaite, David Martí, Sofía Casquero, Antonio Villaseñor, and Ramón Carbonell  
 Monitoring seismic velocity variations at a experimental CO<sub>2</sub> geological storage site in Hontomín (northern Spain)
- XY763 EGU2011-9538  
**Céline Hadziioannou**, Eric Larose, Yosuke Aoki, Tetsuya Takeda, and Michel Campillo  
 Ambient seismic noise monitoring in Chuetsu, Japan and the area affected by wave speed variations
- XY764 EGU2011-11777  
**Luca Trani**, Alessandro Spinuso, Michelle Galea, and Ian Main  
 A novel automated approach to ambient noise data processing using the ADMIRE framework
- XY765 EGU2011-7193  
**Adnand Bitri**, Kévin Samyn, and Gilles Grandjean  
 Seismic surface-wave interferometry using cross-correlation and deconvolution methods
- XY766 EGU2011-2503  
**Laurent Stehly**, Paul Cupillard, and Barbara Romanowicz  
 Computing green functions by simulating seismic noise using the Spectral Element Method
- XY767 EGU2011-6153  
**Jörn Groos**, Sascha Bussat, and Joachim Ritter  
 The unwanted amplification of monochromatic signals in seismic noise cross-correlation functions by spectral whitening
- XY768 EGU2011-3918  
**Martin Schimmel**, Eleonore Stutzmann, and Josep Gallart  
 Efficient Signal Extraction From Ambient Noise Data

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### SM3.7 – Multi-dimensional electromagnetic modelling and inversion – Posters

Convener: Marion Miensopust | Co-Conveners: Pilar Queralt, Colin Farquharson

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

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY769 EGU2011-2953  
**Josef Pek**, Fernando A. M. Santos, and Yuguo Li  
 Magnetotelluric Inversion for 2-D Anisotropic Conductivity
- XY770 EGU2011-4834  
**Marion Miensopust** and Alan G. Jones  
 Artefacts of isotropic inversion applied to anisotropic magnetotelluric data
- XY771 EGU2011-14056  
 Anna Marti, **Pilar Queralt**, Juanjo Ledo, and Colin Farquharson  
 Electrical anisotropy: dimensionality imprints in magnetotelluric responses and effects in isotropic inversion.
- XY772 EGU2011-4746  
**Jan-Philipp Schmoldt** and Alan G. Jones  
 Using anisotropic approaches to realise 2D magnetotelluric inversion of a subsurface with depth-varying geoelectric strike direction - Synthetic model study and application to real data from the PICASSO Phase I project
- XY773 EGU2011-125  
**Kaijun Xu**, Jianping Li, and Zhan Liu  
 Three-dimensional Complex Resistivity Modelling and Inversion with Topography
- XY774 EGU2011-4368  
**Seyedmasoud Ansari** and Colin G. Farquharson  
 3D Finite-element Simulation of Controlled-source EM problems Using Edge and Nodal Interpolation functions

- XY775 EGU2011-6266  
**Ralph-Uwe Börner**, Martin Afanasjew, Stefan Güttel, Oliver G. Ernst, Michael Eiermann, and Klaus Spitzer  
 Three-Dimensional Simulation of Time-Domain Electromagnetic Fields using Krylov Subspace Methods, Finite Elements, and an Exact Boundary Condition
- XY776 EGU2011-6270  
**Antje Franke-Börner**, Ralph-Uwe Börner, and Klaus Spitzer  
 The evaluation of different formulations of the MT boundary value problem for 3D finite element simulation

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**GD5.1/GMPV41/SM4.5/TS6.9 – Subduction zone dynamics from the surface to the lower mantle (co-organized) – Orals**

Convener: Susanne Buitter | Co-Conveners: Francesca Funiciello, Jeroen van Hunen, Marina Manea, Yildirim Dilek, Vlad Constantin Manea, Yujiro Ogawa

**Room: 30**

Chairperson: n.n.

- 08:30–08:45 EGU2011-6189  
**Jeroen van Hunen**  
 Did flat subduction occur in the early Earth?
- 08:45–09:00 EGU2011-7050  
**Vlad Constantin Manea**, Marta Perez-Gussinye, and Marina Manea  
 Overriding plate thickness, trench dynamics and flat-slab subduction
- 09:00–09:15 EGU2011-5413  
**Steven Skinner** and Robert Clayton  
 Flat Slabs in Time and Space
- 09:15–09:30 EGU2011-5149  
**Luca Ferrari** and Maria Teresa Orozco Esquivel  
 Evolution of Flat Subduction in the Central Trans-Mexican Volcanic Belt
- 09:30–09:45 EGU2011-9703  
**Tomoaki Morishita**, Kenichiro Tani, and Yildirim Dilek  
 Melt composition variations in subduction initiation magmatism: constraints from the peridotites of the Izu-Bonin-Mariana forearc and the Eastern Mirdita ophiolite (Albania)
- 09:45–10:00 EGU2011-2919  
**Daniela Hunziker**, Jean-Pierre Burg, Pierre Bouilhol, Sergej Sergeev, and Jafar Omrani  
 Trace element and SHRIMP data from the Remeshk-Mokhtaramabad and Fannuj-Maskutan ophiolites: Evidence for Late Jurassic subduction in N-Makran, SE Iran

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**COFFEE BREAK**


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Chairperson: n.n.

- 10:30–10:45 EGU2011-8687  
**Diane Arcay**, Serge Lallemand, and Arnould Heuret  
 Dynamics of subduction interplate: Influence of lithosphere-asthenosphere interaction in the vicinity of the volcanic arc and possible relations to the interface seismogenic behavior
- 10:45–11:00 EGU2011-1673  
**Alexey Shulgin**, Heidrun Kopp, Dirk Klaeschen, Frederik Tilmann, Ernst Flueh, Dieter Franke, and Yusuf Djajadihardja  
 Subduction offshore Northern Sumatra: crustal structure and earthquake ruptures segmentation.
- 11:00–11:15 EGU2011-6609  
**Teodoro Cassola**  
 Mechanics of formation and evolution of Forearc basins
- 11:15–11:30 EGU2011-8231  
**Joya Tetreault** and Susanne Buitter  
 Sinkers and floaters: Modern analogues of allochthonous accreted terranes
- 11:30–11:45 EGU2011-11929  
**Daniele Regis**, Martin Engi, Daniela Rubatto, James Darling, and Michele Zucali  
 Constraints on scales and rates of tectonic mobility within continental collision zones: Case study from the Sesia Zone (Western Alps, NW-Italy)
- 11:45–12:00 EGU2011-1340  
**Michiel Gademan**, Jaap Verbaas, Herman van Roermund, and Matthijs Hogerwerf  
 Evidence for a Finnmarkian (~500Ma) continental collision/subduction zone in the Central Belt of the Seve Nappe Complex, northern Jämtland-southern Västerbotten, Sweden; Constraints from chemical EMP monazite ages and orogenic mantle wedge garnet peridotite

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**LUNCH BREAK**


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Chairperson: n.n.

- 13:30–13:45 EGU2011-7727  
**Muriel Gerbault**  
 Lithospheric scale rheological properties associated to the normal and flat slab domains along the Chilean Andes, insight from numerical models
- 13:45–14:00 EGU2011-13039  
**Jeffrey Ryan** and Ivan Savov  
 Globally Consistent Recognition of Slab-Derived Components in Volcanic Arcs, with Distinctions Based on Subduction-Zone Thermal Structures
- 14:00–14:15 EGU2011-1806  
**Stéphane Rondenay**, Laurent Montési, and Geoffrey Abers  
 A model for the formation of volcanic gaps by slab advance
- 14:15–14:30 EGU2011-7587  
**Alik Ismail-Zadeh**, Satoru Honda, Igor Tsepelev, and Alex Korotkii  
 Inverse retrospective thermo-mechanical modeling of lithosphere subduction
- 14:30–14:45 EGU2011-2774  
**Benjamin Guillaume**, Monica Moroni, Francesca Funiciello, Claudio Faccenna, and Joseph Martinod  
 Subduction-induced mantle flow and dynamic uplift around the Patagonian slab window: insights from laboratory models
- 14:45–15:00 EGU2011-5007  
**Claudio Faccenna**, Thorsten W. Becker, Serge Lallemand, Yves Lagabriele, Francesca Funiciello, and Claudia Piromallo  
 Subduction-triggered magmatic pulses: A new class of plumes?

Chairperson: n.n.

- 15:30–15:45 EGU2011-4720  
**Stefan Markus Schmalholz**  
 A simple analytical solution for slab detachment
- 15:45–16:00 EGU2011-2744  
**Zhonghai Li** and Neil Ribe  
 Scaling Laws for Free Subduction From 3D Boundary-Element Numerical Simulations
- 16:00–16:15 EGU2011-12447  
**Javier Quinteros** and Stephan V. Sobolev  
 Viscosity in transition zone and shallow lower mantle - Insight from numerical models of subduction
- 16:15–16:30 EGU2011-6769  
**Hana Cizkova** and Arie van den Berg  
 Subducted material at the bottom of the mantle
- 16:30–16:45 EGU2011-3113  
**Bernhard Steinberger**, Trond H. Torsvik, and Thorsten Becker  
 Subduction to the lower mantle: A comparison between geodynamic and tomographic models
- 16:45–17:00 EGU2011-8435  
**Patrizio Petricca** and Eugenio Carminati  
 State of stress in slabs as a function of large-scale plate kinematics: an approach with 2D and 3D numerical models

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**NH4.4/SM5.6 – Earthquake Risk and Loss Estimates: New Directions (co-organized) – Orals**

Convener: Max Wyss | Co-Conveners: Jochen Zschau

**Room: 11**

Chairperson: Max Wyss, Jochen Zschau

- 15:30–15:45 EGU2011-1816  
**Friedemann Wenzel** and Vladimir Sokolov  
 Correlated Ground Motion - Influence on Loss Estimates
- 15:45–16:00 EGU2011-2556  
**Massimiliano Pittore**, Marc Wieland, Dino Bindi, Stefano Parolai, and Jochen Zschau  
 Towards a rapid, integrated, multi-scale assessment of earthquake risk: a case study in Central Asia
- 16:00–16:15 EGU2011-9938  
**Max Wyss**, Goran Trendafiloski, Mikheil Elashvili, Nato Jorjiashvili, and Zurab Javakhishvili  
 The mapping of teleseismic epicenter errors into errors in estimating casualties in real time due to earthquakes worldwide.

- 16:15–16:30 EGU2011-13204  
Mustafa Erdik, **Mine Betül Demircioglu**, and Karin Sesetyan  
Assessment of Seismic Risk in Turkey
- 16:30–16:45 EGU2011-1971  
**Matteo Picozzi**  
Tailor-made earthquake early warning for buildings
- 16:45–17:00 EGU2011-12123  
**Joachim Fischer**, Ingmar Eveslage, Jens-Peter Redlich, Anatolij Zubow, Markus Scheidgen, Jochen Zschau, and Claus Milkereit  
Extended SOSEWIN-Services

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**NH4.4/SM5.6 – Earthquake Risk and Loss Estimates: New Directions (co-organized) – Posters**

Convener: Max Wyss | Co-Conveners: Jochen Zschau

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

Author in Attendance: 17:30–19:00

Chairperson: Max Wyss, Jochen Zschau

- XY465 EGU2011-2039  
Gulum Tanircan, **Nino Tsereteli**, Tamaz Chelidze, Otari Varazanashvili, Emili Tsereteli, and Alexander Gvencadze  
Seismic Hazard Assessment for Georgia
- XY466 EGU2011-2738  
**Arif Akhundov**, Tahir Mammadli, Etibar Garaveliyev, Qurban Yethirmishli, and Gulum Tanircan  
Seismic Hazard Assessment for Azerbaijan
- XY467 EGU2011-3424  
**Dimcho Solakov**, Stela Simeonova, Petya Trifonova, and Irena Alexandrova  
Forecasting scenarios validation - case study for the city of Plovdiv and Ruse
- XY468 EGU2011-3505  
**Licia Faenza** and Alberto Michelini  
Regression Analysis of MCS Intensity and ground motion spectral accelerations, SA, in Italy
- XY469 EGU2011-4934  
**James Daniell** and Gary Gibson  
A review of all Australian Damaging Earthquakes and their contribution to knowledge of earthquake risk in Australia.
- XY470 EGU2011-4948  
**James Daniell**, Bijan Khazai, Aidan Slingsby, and Friedemann Wenzel  
A Country-by-Country Building Inventory and a Building Vulnerability Index for use in different Natural Disaster applications
- XY471 EGU2011-6816  
**Gheorghe Marmureanu**, Carmen Ortanza Cioflan, and Alexandru Marmureanu  
Local seismic hazard map (microzonation) of Bucharest by using probabilistic and deterministic approaches, linear and nonlinear methods
- XY472 EGU2011-8255  
**Assaf Klar** and Oren Lavan  
Liquefaction risk analysis using disaggregation
- XY473 EGU2011-12116  
**Sara Biolchi**, Luca Zini, Paolo Leita, and Petra Malisan  
The Geo-morphotypes Map of the Friuli Venezia Giulia Region (NE Italy): a tool for the evaluation of the local seismic amplification
- XY474 EGU2011-12514  
**Marcello de Michele**, Alain Giros, Hervé Yésou, Didier Treinsoutrot, Hélène de Boissezon, Daniel Raucoules, and Claudie Carnec  
Kal-Haïti: a database for research, risk management and sustainable reconstruction in Haiti.

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**G3.2/AS4.19/CL4.9/GD1.6/NH4.8/SM5.7 – Geodesy and natural and induced hazards: Progress during 30 years of the WEGENER initiative (co-organized) – Orals**

Convener: Susanna Zerbini | Co-Conveners: Robert Reilinger, Mustapha Meghraoui

**Room: 18**

Chairperson: S. Zerbini and D. Mencin

- 15:30–15:45 EGU2011-9002  
**Erricos C. Pavlis**  
GGOS Global Geodetic Networks: Their Impact on WEGENER



- 15:45–16:00 EGU2011-1795  
**Chopo Ma**  
The IVS and its impact on geodesy and geophysics
- 16:00–16:15 EGU2011-3569  
**Carine Bruyninx**, Juliette Legrand, Nicolas Bergeot, and Eric Pottiaux  
Measuring long-term ground deformations using GNSS: Experiences from the EPN
- 16:15–16:30 EGU2011-5865  
**Douglas Cripe**  
GEOSS: Observe, Share, Inform
- 16:30–16:45 EGU2011-1974  
**Frank Flechtner**, Jens Wickert, Srinivas Bettadpur, Byron Tapley, and Mike Watkins  
GRACE: A highly successful satellite mission supporting the goals of the WEGENER project
- 16:45–17:00 EGU2011-11427  
**C.k. Shum** and Chungyen Kuo  
WEGENER Project After Three Decades: Regional and Global Sea-Level Rise

Tuesday, 05 April

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**SM1.4/EG12/G6.5/GD2.10/GM5.8/TS4.8 – TOPOEUROPE, The Evolving Topography of Europe (co-organized) – Orals**

Convener: Sierd Cloetingh | Co-Conveners: Jörg Ebbing, Josep Gallart

**Room: 27**

Chairperson: Sierd Cloetingh

- 10:30–10:45 EGU2011-7071  
**Wim Spakman**, Trond H. Torsvik, Paul Tackley, Taras Gerya, Carlo Doglioni, Thomas Meier, Wolfgang Friederich, and Arie P. van den Berg  
 Mantle forcing of Earth surface evolution in Europe and the Mediterranean: From Past to Present (TOPO-4D)
- 10:45–11:00 EGU2011-3491  
**Mariya Chertova**, Thomas Geenen Geenen, Arie van den Berg, and Wim Spakman  
 Modeling of self-consistent lithosphere subduction dynamics using a composite rheology.
- 11:00–11:15 EGU2011-7959  
 Karin Warners-Ruckstuhl, **Rob Govers**, and Rinus Wortel  
 The Eurasian stress field: important role of topography and mantle flow
- 11:15–11:30 EGU2011-3346  
**giorgio manzoni**  
 GNSS in Eurasian Corridors
- 11:30–11:45 EGU2011-5474  
**Andreas Knöpfner**, Michael Mayer, Frédéric Masson, Patrice Ulrich, and Bernhard Heck  
 The transnational geo-scientific initiative GURN (GNSS Upper Rhine Graben Network) - Recent results and future plans
- 11:45–12:00 EGU2011-7433  
**Søren B. Nielsen** and the TOPOREAL Team  
 TOPOREAL: Topography of the North Atlantic realm

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**LUNCH BREAK**

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Chairperson: Sean Willett

- 13:30–13:45 EGU2011-7384  
**Zoltan Erdos**, Ritske S. Huismans, and Peter van der Beek  
 Evaluating balanced section restoration with thermochronological data
- 13:45–14:00 EGU2011-5849  
**Charlotte Fillon**, Luis Barbero, David Pedreira, Cecile Gautheron, and Peter van der Beek  
 Thermochronological evidence for significant Cenozoic exhumation in the Eastern Cantabrian Mountains
- 14:00–14:15 EGU2011-4063  
**Suzon Jammes** and Ritske S. Huismans  
 Influence of structural inheritance during inversion tectonics at lithospheric scale: the example of Pyrenean-Cantabrian mountain belt
- 14:15–14:30 EGU2011-2763  
**Javier Fernández-Lozano**, Dimitrios Sokoutis, Ernst Willingshofer, Alfonso Muñoz-Martín, Gerardo De Vicente-Muñoz, and Sierd Cloetingh  
 Integration of gravity and topography analyses in analogue modelling: understanding lateral strength variations in Iberia and their influence on intra-plate mountain building.
- 14:30–14:45 EGU2011-5928  
**Enric Suades Sala** and Ana Crespo Blanc  
 Onshore study of syn-orogenic olistostromic deposits in the Gibraltar Arc: a tool to reveal mountain front uplift
- 14:45–15:00 EGU2011-8617  
**Kurt Stüwe**, Nicolas Legrain, Andreas Wölfler, Istvan Dunkl, and Todd Ehlers  
 New U-He ages for the Eastern Alps
- Chairperson: Paola Campus
- 15:30–15:45 EGU2011-10128  
**Andreas Wölfler**, Walter Kurz, Harald Fritz, and Kurt Stüwe  
 Lateral Extrusion in the Eastern Alps: Time constraints and plate tectonic controls during Oligocene to Miocene times

- 15:45–16:00 EGU2011-12938  
**Michał Smigielski**, Piotr Krzywiec, Katarzyna Pisaniec, Finlay Stuart, Cristina Persano, Hugh Sinclair, Nestor Oszczytko, and Katarzyna Sobien  
 Inversion of the Central Carpathian Basin constrained using low temperature thermochronology and its implications for Carpathian orogenesis.
- 16:00–16:15 EGU2011-1287  
**Gilles Lericolais**, Julien Bourget, Paul Jermannaud, Stephan Jorry, Thierry Mulder, and Irina Popescu  
 The active sink of the Danube river Basin: The Danube deep-sea fan
- 16:15–16:30 EGU2011-11100  
**David Fernández-Blanco** and Giovanni Bertotti  
 Neogene vertical movements in the Mut-Ermenek Basin, south Turkey: New insights from structural studies
- 16:30–16:45 EGU2011-1691  
**Giuditta Radeff**, Domenico Cosentino, Taylor F. Schildgen, Güldemin Darba?, and Kemal Gürbüz  
 Differences and similarities in the Late Miocene geohistory of the Mut and Adana basins (southern Turkey): a record of surface uplift of the southeast margin of the Central Anatolian plateau
- 16:45–17:00 EGU2011-625  
**Stella Lucifora**, Francesca Cifelli, Massimo Mattei, Andrew Roberts, Domenico Cosentino, Paola Cipollari, and Elsa Gliozzi  
 Inconsistent magnetic polarities from Upper Messinian greigite-bearing sediments from Adana Basin (Southern Turkey)

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**SM1.4/EG12/G6.5/GD2.10/GM5.8/TS4.8 – TOPOEUROPE, The Evolving Topography of Europe (co-organized) – Posters**

Convener: Sierd Cloetingh | Co-Conveners: Jörg Ebbing, Josep Gallart

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

Author in Attendance: 17:30–19:00

Chairperson: Sierd Cloetingh

- XY725 EGU2011-7682  
**Britta Wawerzinek**, Corinna Roy, and Joachim Ritter  
 Teleseismic Shear-Wave Analysis in Southern Norway
- XY726 EGU2011-1114  
**Jörg Ebbing**, Richard W. England, Toivo Korja, and Maxim Smirnov  
 Insights into the lithospheric structure beneath the Central Scandes from combining different geophysical observations
- XY727 EGU2011-1223  
**Trond Kvarven**, Wanda Stratford, and Rolf Mjelde  
 TopoScandiaDeep: Results from an OBS survey off Møre, mid Norway
- XY728 EGU2011-3144  
**Babak Hejrani**, Bo Holm Jacobsen, Anna Bondo Medhus, and Niels Balling  
 Resolving a deep lithosphere transition between Southern Norway and Southern Sweden
- XY729 EGU2011-9456  
**Sofie Gradmann**, Joerg Ebbing, and Javier Fullea  
 Tracing lithospheric mantle variations underneath Norway and Sweden - An integrated modelling approach with LitMod3D
- XY730 EGU2011-10339  
**Christian Weidle**, Niels Balling, Andy Frassetto, Bo Holm Jacobsen, Andreas Köhler, Valérie Maupin, Anna Bondo Medhus, Joachim Ritter, and Britta Wawerzinek  
 Upper mantle structure of southwestern Scandinavia reveals the rim of cratonic Baltica
- XY731 EGU2011-6921  
 Monika Dec, **Edward Perchuc**, and Blanka Nita  
 A new model of upper mantle structure beneath Polish part of the Precambrian East European Craton
- XY732 EGU2011-9842  
**Shalaleh Mohammadi**, Thomas Geenen, Arie van den Berg, and Wim Spakman  
 Topography response to instantaneous mantle dynamics of the European-Mediterranean region
- XY733 EGU2011-2109  
 Lapo Boschi, **Claudio Faccenna**, and Thorsten Becker  
 Mantle structure and dynamic topography in the Mediterranean Basin
- XY734 EGU2011-3807  
**Nuno Afonso Dias**, Fernando Carrilho, Christian Haberland, Joao Fonseca, Mourad Bezzeghoud, Susana Custodio, Antonio Villasenor, Conceicao Neves, Rui Fernandes and the WILAS Team  
 Closing the Seismic Coverage on Western Iberia: Project WILAS

- XY735 EGU2011-3860  
**Juanjo Ledo**, Alan G Jones, Agata Sinischalchi, Joan Campanyà, Duygu Kiyani, Gerardo Romano, Mohamed Rouai and the TopoMed MT Team  
 The TopoMed broad band magnetotelluric experiment: crustal images of the Atlas mountains of Morocco.
- XY736 EGU2011-4181  
**Benjamin Guillaume**, Francesca Funicello, Claudio Faccenna, and Carlo Doglioni  
 Effects of background mantle flow on subduction dynamics: insights from laboratory models
- XY737 EGU2011-6456  
**Duygu Kiyani**, Alan G. Jones, Javier Fullea, Colin Hogg, Juanjo Ledo, Agata Sinischalchi, Joan Campanyà, Gerardo Romano, Pierpaolo Moretti, Mohamed Rouai and the The TopoMed MT Team  
 Lithospheric-scale geometry of the Atlas Mountains of Morocco revealed by magnetotelluric surveying
- XY738 EGU2011-4217  
**Maria Neves**, Filipe Rosas, Pedro Terrinha, Luis Matias, Marilyn Moulin, and Joaquim Luis  
 Gravitational stresses and tectonic loading near shore: insights from the Gulf of Cadiz.
- XY739 EGU2011-7006  
 Giorgi Khazaradze, **Eva Asensio**, Anna Echeverria and the Topo-Iberia GPS Team  
 Crustal deformation studies in Iberia: Topo-Iberia CGPS network
- XY740 EGU2011-8420  
**Antonio Villaseñor**, Sébastien Chevrot, Mimoun Harnafi, Josep Gallart, and Topo-Iberia Seismic Working Group  
 Seismic structure beneath the Gibraltar Arc, Western Mediterranean region using broadband data from IberArray and permanent networks
- XY741 EGU2011-8811  
**Jaume Pous**, Galindo-Zaldívar, J Ruiz-Constán, A Anahnah, F, Asensio, E Seillé, H, Ibarra, P Pedrera, A, Chalouan, A Benmakhlouf, M Ahmamou, M, Ruano, P López-Garrido, AC Sanz de Galdeano, C, Muñoz, A Olaiz, A De Vicente, G, and González-Cortina, JM Gallastegui, J Pedreira, D  
 On-going Magnetotelluric (MT) activities within the Topo-Iberia project
- XY742 EGU2011-8948  
**Jan-Philipp Schmoldt**, Alan G. Jones, Mark Muller, Duygu Kiyani, Colin Hogg, and Oriol Rosell Novel  
 Geometries and structures within the Iberian lithosphere and asthenosphere beneath the Tajo Basin and Betic Cordillera revealed using magnetotellurics - Results of the PICASSO Phase I project
- XY743 EGU2011-12654  
 Oriol Rosell, Anna Martí, Àlex Marcuello, Juanjo Ledo, **Pilar Queralt**, Eduard Roca, and Joan Campanyà  
 Geoelectrical deep structure of the Betic Cordillera (South Spain) revealed: an evidence of asthenospheric upwelling
- XY744 EGU2011-5875  
**Charlotte Fillon** and Ritske Huismans  
 Coupled tectonic-surface processes modeling of the southern Pyrenean fold and thrust belt
- XY745 EGU2011-7621  
**Jordi Diaz**, David Pedreira, Mario Ruiz, Javier A. Pulgar, and Josep Gallart  
 Mapping the indentation between the Iberian and European crusts between the Pyrenees and the Cantabrian Mountains (N Iberia) from seismic methods.
- XY746 EGU2011-9406  
**Ivar Midtkandal**, Roy Helge Gabrielsen, Jean-Pierre Brun, and Ritske Huismans  
 Modelling compression along an extended plate boundary; the influence of along-strike mantle strength variation on subduction polarity
- XY747 EGU2011-12566  
**David Pedreira**, Javier A. Pulgar, and Juan Carlos Afonso  
 Geophysical-petrological modelling of the lithosphere beneath the Cantabrian Mountains and North-Iberian margin: mantle wedge hydration triggered by eclogitization reactions?
- XY748 EGU2011-1373  
**Christoph von Hagke**, Onno Oncken, Charlotte E. Cederbom, Daniel F. Stöckli, and Hugo Ortner  
 Did thrusting cease in the Northern Alpine Foreland Basin at 12Ma? - Answers from low-temperature thermochronology
- XY749 EGU2011-4147  
**Pietro Sternai**, Frédéric Herman, and Sean Willett  
 Reconstruction of the pre-glacial Alpine topography to address the glacially-induced modifications
- XY750 EGU2011-8639  
**Kurt Stüwe** and Ruedi Homberger  
 The Geology of the Alps from the Air
- XY751 EGU2011-10031  
**Pierre Valla**, Peter van der Beek, David Shuster, Jean Braun, and Frédéric Herman  
 Alpine pre-glacial topography and Quaternary landscape evolution from (U-Th-Sm)/He, 4He/3He thermochronometry and numerical modelling, Western European Alps

- XY752 EGU2011-10101  
**Andreas Wöfler**, Kurt Stüwe, Nicolas Legrain, and Harald Fritz  
Neogene denudation rates in the Eastern Alps as determined by low temperature thermochronology
- XY753 EGU2011-957  
**Csilla Karina Biró** and Balázs Székely  
Historical river avulsion at the Danube Bend - insights from archive shallow boreholes and vertical geoelectric sounding data at Pilismarót
- XY754 EGU2011-12824  
**Gábor Kovács**, Tamás Telbisz, and Balázs Székely  
Quaternary alterations of drainage network in the transition zone between the Alps and the Pannonian Basin
- XY755 EGU2011-13362  
**András Zámolyi**, Martin Olsen, Balázs Székely, Gábor Timár, Gábor Varga and the Húge Hernád Research Team  
Tectonically influenced landscape evolution in the Hernád-valley region (NE Hungary)
- XY756 EGU2011-11246  
**Martin Schmeer**, Michael Schmidt, Benoit Meyssignac, Wouter van der Wal, and Frank Flechtner  
Regional Gravity fields from GRACE observations
- XY757 EGU2011-4032  
**Damien Delvaux**, Sierd Cloetingh, Fred Beekman, Dimitrios Sokoutis, Evgueni Burov, and Michael Kaban  
Basin evolution in a folding lithosphere. Examples from the Altay-Sayan and northern Tien Shan

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**EOS03/GD1.8/NH9.4/SM1.10/TS1.10 – Science in tomorrow's classroom (co-organized) – Posters**

Convener: Phil Smith | Co-Conveners: Stephen Macko, Angelo Camerlenghi, Annegret Schwarz, Jean-Luc Berenguer, Eve Arnold

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

Author in Attendance: 17:30–19:00

Chairperson: Angelo Camerlenghi, Phil Smith

- XL5 EGU2011-13672  
**Eve Arnold**, Friedrich Barnikel, Jean-Luc Berenguer, Anita Bokwa, Angelo Camerlenghi, Francesca Cifelli, Francesca Funicello, Carlo Laj, Stephen Macko, Annegret Schwarz, Phil Smith, Herbert Summesberger and the Eve Arnold Team  
Geoscience Information For Teachers (GIFT) Workshops at the European Geoscience Union
- XL6 EGU2011-1044  
**Alain Sarkissian** and Jan Borm  
International Master Arctic Studies at Versailles University
- XL7 EGU2011-1558  
**Roberto Greco**  
1st edition in Europe of International Earth Science Olympiad
- XL8 EGU2011-2238  
**Carla Cardano** and Ambra Boscaro  
Walking on a carpet of stars under the moonlight
- XL9 EGU2011-2309  
**Jean-Luc Berenguer**, Françoise Courboux, and Audrey Tocheport  
Tuned in to the Earth from the classroom with 'Sismos à l'Ecole'
- XL10 EGU2011-2319  
**Silvia Elisabeth Moraes**  
Building interdisciplinary thinking through thematic projects
- XL11 EGU2011-2536  
**Antoni Cassany**  
Biodiversity around us: El Saler (Valencia)
- XL12 EGU2011-3106  
**Pierluigi Stroppa**  
Complexity pays
- XL13 EGU2011-3130  
**Fulvia Bradassi**, Francesco Cumani, and Guido Bressan  
Ocean Acidification: a school experiment
- XL14 EGU2011-3137  
**Paul Denton** and Aoife O'Mongain  
School Seismology Experiences in the UK
- XL15 EGU2011-3153  
**Dario Carrea**, Marc-Henri Derron, and Michel Jaboyedoff  
Raising awareness of children for landslide hazard using analogical sand box simulation

- XL16 EGU2011-3251  
**Paul Pillot**  
Crystallographic models make geology clear
- XL17 EGU2011-4087  
**Niklas Wästeby**  
Research School for Teachers, an example from Sweden
- XL18 EGU2011-4108  
**Paola Arcaleni**  
Amphibians extinction risk A new learning and teaching methodology to preserve Biodiversity
- XL19 EGU2011-4176  
**Filippo Camerlenghi**, Lezzani Giacomo, and Pasquare' Federico Aligi  
Assessing the effectiveness of the GIFT Strategy: A BSc Dissertation on the 2010 Workshop
- XL20 EGU2011-4257  
**Sandrine Gayraud**  
Oceanides Project - from Venus to Neptune, oceanographic buoys
- XL21 EGU2011-4427  
**Dandrey Guillaume**  
The "Phylogen
- XL22 EGU2011-4856  
**Julie Boyle**  
Practical Lessons Based on Seismology and Meteorology
- XL23 EGU2011-5725  
**Michaela Poppe**, Andreas Zitek, Michael Stelzhammer, Bert Bredeweg, and Susanne Muhar  
How can we increase causal and structural system understanding in environmental science education? First evaluation results of a conceptual modelling software (DynaLearn) in Austria
- XL24 EGU2011-7427  
**Gerda Holzapfel** and Florin Florineth  
WASSERLEBEN - High school students, teachers, students and scientists together in action
- XL25 EGU2011-8260  
**Isabella Marini**  
Ferments of Life: barley, saliva and the enzyme idea.
- XL26 EGU2011-8282  
**Isabella Marini**  
A segment of purine metabolism: an experimental tool for important biochemical concepts.
- XL27 EGU2011-8297  
**Isabella Marini**  
Stress response and evolution
- XL28 EGU2011-9083  
**Britta Bookhagen**, Agnes Mair, and Gertrude Zulka-Schaller  
Teaching Geosciences at the Childrens's University Vienna and the Vienna Natural History Museum
- XL29 EGU2011-9351  
**Simona Safarcikova**  
Microbiology in practice: Are there really any live and active bacteria cultures in yogurts?
- XL30 EGU2011-9355  
Laurence Durand and **Aline Desmorat**  
Darwin, the man who dared ! Science and history project
- XL31 EGU2011-9356  
**Giulia Realdon** and Roberto Greco  
Selection and preparation of a national team for International Earth Science Olympiads (IESO): the Italian case
- XL32 EGU2011-9399  
**Begoña Vendrell** and Josep-Maria Gili  
Bringing the Ocean closer: an example of how to bind Research and Education and Outreach
- XL33 EGU2011-9437  
**Nicole Lengert**  
Training Communication and Method Skills to Enrich Scientific Education
- XL34 EGU2011-9540  
**Bernadette Walter**  
BIOVALLEY- COLLEGE NETWORK (BCN): Trinational Network to Intensify the Teaching of Natural Science at Gymnasia Level in the trinational region near Basel
- XL35 EGU2011-9670  
**Stephen Macko**, Michael Tuite, and Matthew O'Connell  
Enhancing Oceanography understanding with the experiences of "Captive Oceans"
- XL36 EGU2011-10593  
**Francisco Lopes**, Lúcia Dias, Ana Bonifácio, Gonçalo Corigo, Tomás Ramos, and Marcos Rodrigues  
A didactic model of a mountain glacier

- XL37 EGU2011-10752  
**Julie Bénard**  
A charter about the good use of water made by 2 classes of 13 years old pupils
- XL38 EGU2011-11060  
**Elisabeth Einarsson**  
Geology in school
- XL39 EGU2011-11720  
**Luciano Massetti**, Francesca Ugolini, and Antonio Raschi  
Teaching climate effects on plant growth in primary schools of rural areas
- XL40 EGU2011-11869  
**Anca-Catalina Marian** and Aura-Cecilia Harceaga  
Puzzle Universe
- XL41 EGU2011-12344  
Guillermo Meléndez, Georgia Fermeli, Julia Escorihuela, and **Amelia Calonge**  
Defining geotopes as educational tools in Earth Sciences: their use, valuation and protection
- XL42 EGU2011-12417  
**Roberta Johnson**, Ardis Herrold, Missy Holzer, and Michael Passow  
New Collaborative Strategies for Bringing the Geosciences to Students, Teachers, and the Public: Progress and Opportunities from the National Earth Science Teachers Association and Windows to the Universe
- XL43 EGU2011-12596  
**Margarida Agostinho** and Guadalupe Jacome  
SEDEC - from a European project to a teachers training course
- XL44 EGU2011-12659  
**Jean Pennycook**  
Engaging the K-12 community in Adelie Penguin and climate change research using the internet to provide a virtual field trip to Cape Royds, Ross Island, Antarctica.
- XL45 EGU2011-12684  
**Tomas Miler** and Jindriska Svobodova  
Climate literacy for upper primary teachers
- XL46 EGU2011-12690  
**John Moore**  
To Observe the Earth and Visualize the Future
- XL47 EGU2011-12703  
**Buffy Cushman-Patz**  
GRUVEE Broad Impacts: Elements of a Successful Teacher at Sea Experience
- XL48 EGU2011-13178  
**Beatriz Oliveira** and Raquel Costa  
Portuguese "Teacher on Board"
- XL49 EGU2011-13184  
**frederique meunier**  
biodiversity: yesterday and today
- XL50 EGU2011-13189  
**Elisabeta Niculescu**  
Interdisciplinary teaching about crystals
- XL51 EGU2011-13249  
**Georgia Fermeli**, Fritz Steininger, Guillermo Meléndez, Michael Dermitzakis, Amelia Calonge, Carolina D'Arpa, Carolina Di Patti, Anastasia Koutsouveli, Carlos Neto de Carvalho, and Joana Rodrigues  
Geoschools - Teaching geosciences in secondary schools
- XL52 EGU2011-13487  
**Philippe Ailleris**  
Observed a mysterious aerial event that you can't explain? The UAP Observations Reporting Scheme as a tool for demystifying UFOs and stimulating interest in science
- XL53 EGU2011-13668  
**Laura Lukes**  
Combining virtual and real field environments using Google Earth to engage both teachers and students in polar science
- XL54 EGU2011-13950  
**Phil Smith** and Carol Hince  
The Teacher Scientist Network - best practice in local partnerships
- XL55 EGU2011-13953  
**Francisca Guerola** and Alicia Miralles  
Investigative project: Evolution
- XL56 EGU2011-14085  
**Costantina Cossu**  
Science CLIL - water and marine ecosystem

**SM3.4/TS1.7 – Noise Interferometry: What can we learn from noise ? (co-organized) – Orals**

Convener: Antonio Villaseñor | Co-Conveners: Florent Brenguier, Laurent Stehly, Martin Schimmel

**Room: 27**

Chairperson: n.n.

- 08:30–08:45 EGU2011-2870  
**Christoph Sens-Schönfelder** and Eric Larose  
Properties of the Lunar Noise and its Correlations
- 08:45–09:00 EGU2011-9260  
**Andrew Curtis**  
Source-Receiver Interferometry
- 09:00–09:15 EGU2011-5629  
**Shiro Ohmi** and Kazuro Hirahara  
Detecting Subsurface Reflections in the Kinki District, Southwestern Japan, Using Ambient Seismic Noise
- 09:15–09:30 EGU2011-9667  
**Keith Koper**  
Using Arrays to Characterize and Locate Sources of Short Period Seismic Noise
- 09:30–09:45 EGU2011-3762  
**Éléonore Stutzmann**, Martin Schimmel, Fabrice Ardhuin, and Anne Mangeney  
Observing and modeling microseism source distribution
- 09:45–10:00 EGU2011-2702  
**Lucia Zaccarelli**, Nikolai Shapiro, Licia Faenza, Gaia Soldati, and Alberto Michelini  
Co-seismic velocity changes during the 2009, Mw 6.3 L'Aquila earthquake inferred from seismic noise cross-correlations
- 10:00–10:15 EGU2011-9970  
Guénolé Mainsant, **Eric Larose**, Denis Jongmans, Clément Michoud, Cornélia Brönnimann, Laurent Baillet, and Michel Jaboyedoff  
Weather and anthropogenic [1-20 Hz] seismic noise correlations as an indicator for landslide precursor

**ERE2.3/SM3.10 – Geophysical methods applied to geological storage of CO2 (co-organized) – Orals**

Convener: Christopher Juhlin | Co-Conveners: Stefan Buske, Roman Pevzner

**Room: 3**

Chairperson: Chris Juhlin, Roman Pevzner

- 15:30–15:45 EGU2011-3296  
**James White**, Gareth Williams, and Andy Chadwick  
Estimating seismic velocity and thickness of a CO2 layer in the Sleipner plume
- 15:45–16:00 EGU2011-3769  
**Alexandra Ivanova**, Ursula Lengler, Stefan Lueth, and Christopher Juhlin  
Monitoring of CO2 injected at Ketzin using 3D time-lapse seismic data
- 16:00–16:15 EGU2011-265  
**Can Yang**, Christopher Juhlin, Alexandra Ivanova, and Wenfang Fan  
AVO attributes analysis of time-lapse 3D surface seismic data from CO2SINK project site, Ketzin, Germany
- 16:15–16:30 EGU2011-3835  
**Matthias Strahser**, Said Attia al Hagrey, and Wolfgang Rabbel  
Seismic and geoelectric monitoring of CCS - parameter studies in simplified and realistic scenarios
- 16:30–16:45 EGU2011-4939  
**Peter Bergmann**, Cornelia Schmidt-Hattenberger, Dana Kiessling, Tim Labitzke, and Carsten Rücker  
Large-scale DC geoelectric measurements at the CO2 pilot storage Ketzin: Time-lapse inversion and evaluation of imaged volume
- 16:45–17:00 EGU2011-5609  
**Ramon Carbonell**, Juan Alcalde, David Martí, Alcino Calahorrano, Immaculada Palomeras, Puy Ayarza, Arantxa Ugalde, Antonio Villaseñor, and Andrés Pérez-Estaún  
Spanish Research Facility for Geological Storage of CO2. (Hontomín, Spain)

**ERE2.3/SM3.10 – Geophysical methods applied to geological storage of CO2 (co-organized) – Posters**

Convener: Christopher Juhlin | Co-Conveners: Stefan Buske, Roman Pevzner

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

Author in Attendance: 17:30–19:00

Chairperson: n.n.



- XL130 EGU2011-3276  
**Marcus Moeller**, Cornelia Schmidt-Hattenberger, Stephan Schroeder, and Markus Well  
Development of a measurement concept for monitoring brine migration processes in saline aquifers
- XL131 EGU2011-3301  
**Gunther Baumann**, Jan Henniges, and Marco De Lucia  
Sensitivity study of pulsed neutron gamma monitoring to evaluate saturation changes for depleted gas field conditions in the context of CO<sub>2</sub> storage
- XL132 EGU2011-4066  
**Florian Wagner**, Marcus Moeller, Cornelia Schmidt-Hattenberger, Thomas Kempka, and Hansruedi Maurer  
Detection of groundwater salinisation by geoelectric measurements
- XL133 EGU2011-4238  
**Perla Piña**, Cristina Biete, Juanjo Ledo, Pilar Queralt, Eduard Roca, and Pedro Ibarra  
Exploration and characterization of CO<sub>2</sub> storage sites using electromagnetics methods: results of 2D magnetotelluric study at El Hito (Cuenca), Spain.
- XL134 EGU2011-4940  
**Xènia Ogaya**, Pilar Queralt, Juanjo Ledo, and Àlex Marcuello  
2D magnetotelluric characterization of Hontomín (Spain) CO<sub>2</sub> pilot plant
- XL135 EGU2011-6085  
**Magdalena Escalas**, Pilar Queralt, Juanjo Ledo, and Alex Marcuello  
Identification of cultural noise sources in magnetotelluric data: estimating polarization attributes in the time-frequency domain using wavelet analysis
- XL136 EGU2011-6424  
**Juan Alcalde**, David Martí, Alcino Calahorrano, Imma Palomeras, Puy Ayarza, Ramon Carbonell, and Andrés Pérez-Estaún  
3D Seismic characterization of the Spanish Research Facility for storage of CO<sub>2</sub> in Hontomín (Burgos, Spain)
- XL137 EGU2011-7648  
**Alcino Calahorrano**, David Martí, Juan Alcalde, Imma Palomeras, Puy Ayarza, Ramón Carbonell, and Andrés Pérez-Estaún  
Technological laboratory for geologic CO<sub>2</sub> storage in Hontomín (Spain): 2D-3C reflection imaging
- XL138 EGU2011-7688  
Rita Streich, **Michael Becken**, and Oliver Ritter  
Electromagnetic characterization and monitoring of CO<sub>2</sub> sequestration sites: feasibility studies and first field results from Ketzin, Germany
- XL139 EGU2011-10512  
**Rasmus Rasmussen**, Lone Klinkby, and Claus Andersen  
Feasibility study of time lapse seismic monitoring at planned CO<sub>2</sub> storage site

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#### GD2.4/SM4.1/TS10.2 – The Lithosphere-Asthenosphere Boundary (LAB) Dilemma (co-organized) – Orals

Convener: Ulrich Achauer | Co-Conveners: Rainer Kind, Valentin Mikhailov, Alan G. Jones, Jaroslava Plomerova, Stefan Jung

**Room: 37**

Chairperson: n.n.

- 15:30–15:45 EGU2011-1614  
Elena Timoshkina and **Valentin Mikhailov**  
On the role of lithosphere - asthenosphere topography in geodynamics
- 15:45–16:00 EGU2011-1994  
**Rainer Kind**, Prakash Kumar, Benjamin Heit, and Xiaohui Yuan  
How is the seismic LAB observed?
- 16:00–16:15 EGU2011-4755  
Stewart Fishwick, **Alan G. Jones**, and Rob L. Evans  
A comparison of seismological and electromagnetic proxies for the LAB in southern Africa
- 16:15–16:30 EGU2011-9365  
**Alan Levander**, Yongbo Zhai, Kaijian Liu, Jennifer Mackenzie, Robert Poritt, and Richard Allen  
The Lithosphere and the Asthenosphere in the Mendocino Triple Junction Region
- 16:30–16:45 EGU2011-13560  
**Steven Hansen**, Josh Stachnik, and Ken Dueker  
Lithospheric structure of the Colorado Rockies from CREST and TA seismic data
- 16:45–17:00 EGU2011-7010  
**Ulrich Achauer**, Jaroslava Plomerová, Vladia Babuška, Hanka Karousová, Ludek Vecsey, and Michel Granet  
Lithosphere-asthenosphere upwelling or a plume in seismic tomography beneath the western Bohemian Massif?

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#### TS6.3/GD5.5/GMPV34/SM4.4 – The subduction interface: cross-disciplinary views from

**Geodynamics-Geochemistry-Seismology (co-organized) – Orals**

Convener: Philippe Agard | Co-Conveners: Aral Okay, Bradley Hacker, Taras Gerya, José Alberto Padrón-Navarta, Frederik Tilmann, Nina Kukowski, Marco Scambelluri, VICENTE LOPEZ SANCHEZ-VIZCAINO

**Room: 26**

Chairperson: Philippe Agard, Marco Scambelluri

- 10:30–10:45 EGU2011-2133  
**Cristina Malatesta**, Taras Gerya, Marco Scambelluri, Laura Federico, Laura Crispini, and Giovanni Capponi  
 Serpentine channel and the role of serpentine buoyancy for exhumation of HP rocks. Constraints from the HP-Voltri metaophiolites (Western Alps, Italy)
- 10:45–11:00 EGU2011-1457  
**Stephane Guillot**, Fabien Deschamps, Marguerite Godard, Muriel Andréani, Kéiko Hattori, Stéphane Schwartz, and Romain Lafay  
 Serpentinites act as sponges for fluid-mobile elements from abyssal to subduction zone environments
- 11:00–11:15 EGU2011-3324  
**Torgeir B. Andersen**, Håkon O. Austrheim, Natalie Deseta, and Lewis D. Ashwal  
 Is dehydration embrittlement at all important for generating intermediate to deep earthquakes in subduction zones?
- 11:15–11:30 EGU2011-9576  
**Junichi Nakajima** and Akira Hasegawa  
 Seismological constraints on dual plate subduction beneath Kanto, Japan: Role of hydrated oceanic crust and serpentinized mantle in seismicity
- 11:30–11:45 EGU2011-12132  
**Manel Prada**, Valentí Sallarès, Adrià Meléndez, César R. Ranero, Ingo Grevemeyer, and Kirk McIntosh  
 Combined seismic and gravity modeling reveal trench-parallel variations in the degree of mantle serpentinization of the incoming Cocos plate, offshore Nicaragua
- 11:45–12:00 EGU2011-11052  
**Nicolas Brantut**, Alexandre Schubnel, Emmanuel David, Robert W Zimmerman, and Yves Gueguen  
 Dehydration reactions and Vp/Vs ratio anomalies: Insights from experiments on gypsum

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**LUNCH BREAK**


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Chairperson: Bradley Hacker, Frederik Tilmann

- 13:30–13:45 EGU2011-9033  
**Andrew Rathbun** and Chris Marone  
 The Spectrum of Fault Slip Rates, From Creep to Stick Slip in Laboratory Friction Experiments
- 13:45–14:00 EGU2011-4543  
 Toshiya Kanamatsu, **Pierre Henry**, Kyaw Moe and the IODP Expedition 333 Scientists Team  
 Drilling inputs to the Nankai Subduction Zone: heat flow, diagenesis and basement alteration.
- 14:00–14:15 EGU2011-9999  
**Yann Rolland**, Marc Hassig, and Marc Sosson  
 What is the lithological nature of subduction channels? Insights from fossil Caucasus subduction zones
- 14:15–14:30 EGU2011-9016  
**Samuel Angiboust**, Philippe Agard, Ryan Langdon, Dave Waters, and Christian Chopin  
 Exhumation of large volumes of oceanic lithosphere during subduction: Examples from the Western Alps
- 14:30–14:45 EGU2011-12835  
**José Alberto Padrón-Navarta**, Vicente López Sánchez-Vizcaíno, Carlos J. Garrido, and María Teresa Gómez-Pugnaire  
 Metamorphic record of high-pressure dehydration of antigorite serpentine to chlorite harzburgite in a paleo-subduction setting
- 14:45–15:00 EGU2011-3555  
**Idael Francisco Blanco-Quintero**, Taras V. Gerya, Antonio Garcia-Casco, and Antonio Castro  
 Partially molten blocks from eastern Cuba serpentine mélanges: first report of aborted thermal-chemical plumes
- Chairperson: Nina Kukowski, Taras Gerya
- 15:30–15:45 EGU2011-5181  
**Donna Whitney**, Christian Teyssier, Nicholas Seaton, and Erkan Toraman  
 High-pressure petrofabrics near the subduction interface: Sivrihisar, Turkey
- 15:45–16:00 EGU2011-4715  
**Peter E. van Keken**, Bradley R. Hacker, Ellen M. Syracuse, and Geoffrey A. Abers  
 H<sub>2</sub>O and CO<sub>2</sub> devolatilization in subduction zones: implications for the global water and carbon cycles

- 16:00–16:15 EGU2011-5531  
**Stephen Miller** and Yuri Podladchikov  
 The influence of trapped high pressure fluids on the earthquake cycle
- 16:15–16:30 EGU2011-1104  
**Bruno Reynard**, Kenji Mibe, and Bertrand Van de Moortèle  
 Electrical conductivity of the serpentinised mantle and fluid flow in subduction zones
- 16:30–16:45 EGU2011-6302  
**Mohammad Raeesi** and Kuvvet Atakan  
 Inter-plate coupling and two likely future great earthquakes along the South America subduction zone
- 16:45–17:00 EGU2011-13824  
**Mireille Laigle**, Anne Bécel, Marinos Charalampakis, Philippe Charvis, Jordi Diaz, Ernst Flueh, Mikael Evain, Josep Gallart, Audrey Galvé and the SISMANTILLES Team  
 Approach to submerged fore-arc subductions in the Lesser Antilles and Hellenic arcs: integrated marine MCS, refraction, and OBS seismic activity and noise recording.

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### TS6.3/GD5.5/GMPV34/SM4.4 – The subduction interface: cross-disciplinary views from

#### Geodynamics-Geochemistry-Seismology (co-organized) – Posters

Convener: Philippe Agard | Co-Conveners: Aral Okay, Bradley Hacker, Taras Gerya, José Alberto Padrón-Navarta, Frederik Tilmann, Nina Kukowski, Marco Scambelluri, VICENTE LOPEZ SANCHEZ-VIZCAINO

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

Author in Attendance: 17:30–19:00

Chairperson: Aral Okay, José Alberto Padrón-Navarta

- XL304 EGU2011-1687  
**Shuijiong Wang**, Shuguang Li, Shichao An, and Zhenhui Hou  
 Exhumation history of the North Dabie UHP terrain, central China and REE behavior during retrograde metamorphism: Evidence from three episodic growths of metamorphic zircon and REE zoning of garnet in granulite
- XL305 EGU2011-2271  
**Marco Scambelluri**, Elisabetta Rampone, Thomas Pettke, and Eric Reusser  
 Trace element geochemistry of garnet peridotites and chlorite harzburgites from Cima di Gagnone (Central Alps, Switzerland)
- XL306 EGU2011-2296  
**Alexander Simakin** and Tamara Salova  
 COS as an agent of sulfurization of the subduction related magmas.
- XL307 EGU2011-13878  
**Claudio Marchesi**, Carlos J. Garrido, José Alberto Padrón-Navarta, María Teresa Gómez-Pugnaire, and Vicente López Sánchez-Vizcaíno  
 Transfer of lithophile and siderophile elements during high-pressure dehydration of antigorite in subduction settings: new insights from the Cerro del Almiréz (Betic cordillera, S. Spain)
- XL308 EGU2011-2908  
**Daniela Hunziker**, Eric Reusser, Daniel Grolimund, Elisabeth Müller Gubler, Jean-Pierre Burg, Mark Caddick, and Jafar Omrani  
 The influence of ferric/ferrous iron ratios in bulk and mineral chemistry on calculation of metamorphic conditions: Application to the N-Makran blueschists, SE Iran
- XL309 EGU2011-5138  
**Alexis Plunder**, Philippe Agard, Benoit Dubacq, and Christian Chopin  
 Towards continuous P-T paths? Multicalibration approach and application to subduction dynamics (Schistes Lustrés complex, France)
- XL310 EGU2011-5321  
**Yuanxuan Xiao**, Shaun Lavis, Yaoling Niu, Julian A. Pearce, Huaikun Li, Huichu Wang, and Jon Davidson  
 Geochemical consequences of subduction-zone metamorphism: Evidence from ultrahigh pressure metamorphic rocks, Western Tianshan, China
- XL311 EGU2011-5350  
**Satoko Ishimaru**, Shoji Arai, and Tomoyuki Mizukami  
 Methane inclusions in olivine in titanoclinohumite-bearing meta-dunite from the Sanbagawa high-P metamorphic belt, Japan
- XL312 EGU2011-6601  
**Julia de Sigoyer**, Camille François, Alain Cocherie, Manuel Pubellier, Vivien Bailly, and Jean-Claude Rigenbach  
 Very young and fast exhumation, between 8 and 5 Ma, for the high pressure metasediments of Lengguru prism, W-Papua

- XL313 EGU2011-12186  
**Anne Verlaquet**, Bruno Goffé, Fabrice Brunet, Christophe Poinssot, Olivier Vidal, Nathaniel Findling, and Denis Menut  
 Metamorphic veining and mass transfer in a chemically-closed system: a case study in Alpine metabauxites (Western Vanoise)
- XL314 EGU2011-10379  
**Sebastian Weber** and Kurt Bucher  
 Two types of eclogite from the Zermatt-Saas unit (Swiss Alps)
- XL315 EGU2011-10447  
**Diana Dymkova**, Taras Gerya, and Yuri Podladtchikov  
 2D Numerical modelling of fluid and melt transport above slabs with finite differences and marker-in-cell techniques
- XL316 EGU2011-11872  
**Franz Neubauer** and Johann Genser  
 Structure and mode of exhumation of subduction channels in continent-continent and island arc-continent collisional orogens
- XL317 EGU2011-12929  
**José Alberto Padrón-Navarta**, Andréa Tommasi, Carlos J. Garrido, Vicente López Sánchez-Vizcaíno, and María Teresa Gómez-Pugnaire  
 Plastic deformation and development of antigorite crystal preferred orientation in serpentinite
- XL318 EGU2011-13473  
**Tommaso Giovanardi**, Alberto Zanetti, Maurizio Mazzucchelli, Massimo Tiepolo, and Riccardo Vannucci  
 Insights into the geodynamic evolution of the Finero mafic-ultramafic sequence (Southern Alps)
- XL319 EGU2011-1245  
 Bruno Reynard, **Lucile Bezacier**, Jay Bass, Junichi Nakajima, and Hitoshi Kawakatsu  
 Where is serpentinite in subduction? ... And where it is not.
- XL320 EGU2011-9304  
**Sven Wortelkamp**, Stephan Klemme, Timm John, and Jasper Berndt  
 Trace Element Mobility in Subduction Zone Fluids. An Experimental Study.
- XL321 EGU2011-2710  
**Marco Scambelluri** and Sonia Tonarini  
 The boron isotope composition of high-pressure subducted serpentinites: constraints on tectonic setting and implications for arc magmatism
- XL322 EGU2011-4722  
**Kurt Bucher**  
 Subduction zone hydration
- XL323 EGU2011-5275  
**Hiroshi Sato**, Susumu Abe, Takaya Iwasaki, Eiji Kurashimo, David Okaya, Taku Kawanaka, and Naoshi Hirata  
 Characterization of the upper surface of the Philippine Sea plate beneath Kanto, central Japan, revealed by seismic reflection profiling
- XL324 EGU2011-8072  
**Awan Gunawan**, Frederik Tilmann, Dietrich Lange, Rachel Collings, Andreas Rietbrock, Danny Natawidjaja, and Sri Widiyantoro  
 Moho Depth Estimation beneath Sumatera and Mentawai Islands Using Receiver Functions Recorded with a Temporary Array
- XL325 EGU2011-9122  
**Dietrich Lange**, Rachel Collings, Frederik Tilmann, Andreas Rietbrock, Danny Natawidjaja, Jeremy Pesicek, Bambang Suwargadi, and Tim Henstock  
 The Structure of the West Sumatran Subduction Zone Revealed by Local Earthquake Travel Time Tomography
- XL326 EGU2011-12432  
**Adrià Meléndez**, Manel Prada, Valentí Sallarès, César Ranero, Kirk McIntosh, and Ingo Grevemeyer  
 1992 Nicaragua tsunamigenic slow earthquake: Geophysical constraints from seismic modelling
- XL327 EGU2011-5497  
**Peng Han**, Katsumi Hattori, Hisashi Ishikawa, Takuya Hirano, Yuki Ishiguro, and Chie Yoshino  
 ULF electromagnetic phenomena possibly related to the 2002 and the 2007 slow slip events in Boso Peninsula, Japan
- XL328 EGU2011-10014  
**Mathilde Radiguet**, Erwan Pathier, Guillaume Bacques, Michel Campillo, Nathalie Cotte, Fabrice Cotton, Vladimir Kostoglodov, Mathilde Vergnolle, and Andrea Walpersdorf  
 Coupling and kinematic properties of slow slip events in the Guerrero Gap, Mexico.
- XL329 EGU2011-10001  
**Ylona van Dinther**, Taras V. Gerya, Luis A. Dalguer, P. Martin Mai, and Gabriele Morra  
 The long-term seismic cycle in geodynamic, numerical simulations of a subduction zone

- XL330 EGU2011-8094  
**Katharina Vogt**, Taras Gerya, and Antonio Castro  
 Numerical modeling of crustal growth at active continental margins
- XL331 EGU2011-6581  
**ganzhorn anne-céline**, labrousse loic, and prouteau gaelle  
 Rheological impact of partial melting on the subducting continental crust
- XL332 EGU2011-8615  
**Diane Arcay**, Marie-Pierre Doin, Emmanuel Tric, and Romain Bousquet  
 Thermal structure of arc lithosphere in subduction zones: Plate thinning by small-scale convection enhanced in a wet mantle wedge

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**GD5.1/GMPV41/SM4.5/TS6.9 – Subduction zone dynamics from the surface to the lower mantle (co-organized) –**

Posters

Convener: Susanne Buiter | Co-Conveners: Francesca Funicello, Jeroen van Hunen, Marina Manea, Yildirim Dilek, Vlad Constantin Manea, Yujiro Ogawa

**Hall A | Display Time 08:00–19:30**

Author in Attendance: 15:30–17:00

Chairperson: n.n.

- A48 EGU2011-12798  
**Petros Koutsovitis**, Andreas Magganas, Konstantinos Soukis, and Stylianos Lozios  
 Petrological and structural observations on mylonitized intermediate and felsic rocks within the ophiolitic formation of Vrinena - East Othris, Greece.
- A49 EGU2011-5395  
**Yildirim Dilek** and Harald Furnes  
 Magmatic Imprint of Subduction Initiation in the Phanerozoic Ophiolite Record
- A50 EGU2011-1024  
**Tola A. Merza**  
 Distribution of PGE and PGM in Chromitite Rocks of the Mawat Ophiolite Complex, Kurdistan Region, NE Iraq
- A51 EGU2011-33  
**Alexander Rodnikov**, Natalia Sergeyeva, and Ludmila Zabarinskaya  
 Ancient subduction zone in East Sakhalin (Sea of Okhotsk Region)
- A52 EGU2011-13238  
**Ender Sarifakioglu**, Mustafa Sevin, and Yildirim Dilek  
 Geochemical and geological evidence for progressive evolution of subduction initiation magmatism in the Neotethyan ophiolites along the Izmir-Ankara-Erzincan suture zone, Turkey
- A53 EGU2011-3100  
**Yujiro Ogawa**, Naoto Hirano, Ryota Mori, and Toshiaki Tsunogae  
 History and records from Mineoka ophiolitic mélange belt for the idea of initiation and development of Izu-Bonin arc in Western Pacific
- A54 EGU2011-5396  
**Shoji Arai** and Ahmed H. Ahmed  
 Origins of ophiolitic chromitites: magmatic accumulation and deep recycling
- A55 EGU2011-4565  
**Timothy Kusky**, Songbai Peng, and Lu Wang  
 1.0 Ga Ophiolite on North Margin of the Yangtze Craton Clarifies South China's Amalgamation with Rodinia
- A56 EGU2011-4639  
**Lu Wang**, Timothy M. Kusky, Keping Zong, Liang Guo, and Shibao Xiang  
 Partial Melting of Deeply-Subducted Eclogite: Field and Petrographic Evidence from the Sulu UHP orogen, China
- A57 EGU2011-706  
**Quanshu Yan** and Xuefa Shi  
 Petrological evidence for the existence of the late Mesozoic subduction zone in the South China Sea (SCS): I-type granites from the Nansha micro-block
- A58 EGU2011-6546  
**Massimiliano Melchiorre**, Massimo Coltorti, Michel Gregoire, and Mathieu Benoit  
 Petrology of suprasubductive mantle xenoliths from Estancia Sol De Mayo (Central Patagonia, Argentina)
- A59 EGU2011-2330  
**Heidrun Kopp**, Wolfgang Weinzierl, Mireille Laigle, Ernst R. Flueh, Alfred Hirn, Dirk Klaeschen, Cord Papenberg, Trail Team, and Thales Team  
 Composition and deep structure of island arc crust in the central Lesser Antilles: Insights for the formation of continental crust.

- A60 EGU2011-3314  
**Chrystele Verati**, Michel Corsini, and Jean-Marc Lardeaux  
Discovery of Lower Cretaceous syn-metamorphic thrust tectonics in French Lesser Antilles (La Désirade Island, Guadeloupe): Implications for Caribbean geodynamics
- A61 EGU2011-5872  
**Nur Demir**, Hedirun Kopp, Ernst R. Flueh, Dirk Klaeschen, Wolfgang Weinzierl, Alfred Hirn, Mireille Laigle, and Thales Working Group  
The Sedimentary Sequences of the Lesser Antilles Arc South of Guadeloupe From Wide-Angle and Reflection Seismic Data
- A62 EGU2011-8112  
**Mikael Evain**, Audrey Galve, Philippe Charvis, Mireille Laigle, Mario Ruiz, Heidrun Kopp, Wolfgang Weinzierl, Alfred Hirn, Ernst Flueh, and Thales Scientific Party  
Structure of the Lesser Antilles subduction zone from wide-angle seismic tomography
- A63 EGU2011-4788  
Shane McGary, **Stéphane Rondenay**, Rob Evans, Geoffrey Abers, Philip Wannamaker, and Chin-Wu Chen  
A joint geophysical investigation of the Cascadia subduction zone in central Washington using data from dense arrays of passive seismic and magnetotelluric stations
- A64 EGU2011-6881  
**Irene Bianchi**, Nicola Piana Agostinetti, Alessandro Amato, and Claudio Chiarabba  
Fluid migration in continental subduction: new insights on Northern Apennines (Italy) from Receiver Function
- A65 EGU2011-786  
**Thaís Hyppolito** and Caetano Juliani  
Atoll garnet textures in eclogitic rocks of the Diego de Almagro Island, Chilean Patagonia: Genesis and tectono-metamorphic implications
- A66 EGU2011-7110  
**Carlos Marcello Dias Fernandes**, Caetano Juliani, Lena Virgínia Soares Monteiro, Bruno Lagler, and Carlos Mario Echeverri Misas  
Possible arc migration and metallogenetic zoning in the South portion of the Amazonian craton, North of Brazil
- A67 EGU2011-11200  
Yvonne Dzierma, Thorwart Martin, **Mora Cindy**, Rabbel Wolfgang, Siegmund Claudia, Lieser Kathrin, Comte Diana, Bataille Klaus, Iglesia Paula, and Prezzi Claudia  
Seismological and volcanological investigations of the Villarrica-Valdivia region, South-Central Chile
- A68 EGU2011-7070  
**Vlad Constantin Manea** and Marina Manea  
Flat-slab dehydration, non-volcanic tremors and roll-back in Central Mexico
- A69 EGU2011-6995  
**Marina Manea** and Vlad Constantin Manea  
Curie Point depth estimates and correlation with flat-slab subduction in Mexico
- A70 EGU2011-1309  
**Yiseul Lee**, Bumsuk Lee, Heonhak Lim, Cheol Hoon Mo, Youngho Yoon, Gwang Hoon Lee, Young-Seog Kim, and Hai Soo Yoo  
The back-arc closure of the Ulleung Basin, East Sea (Japan Sea) and tectonic implications
- Hall A | Display Time 08:00–19:30**  
Author in Attendance: 17:30–19:00  
Chairperson: n.n.
- A71 EGU2011-4129  
**Emile Okal**, Dominique Reymond, and Sutatcha Hongsresawat  
Focal mechanisms of large historical earthquakes in the Bonin-Mariana subduction zone
- A72 EGU2011-12400  
**Natalie Deseta**, Lewis Ashwal, and Torgeir Andersen  
Geochemistry of blueschist facies mafic and ultramafic pseudotachylytes
- A73 EGU2011-10190  
**Alexandre Schubnel**, Nadège Hilairret, Julien Gasc, Eva Héripré, Fabrice Brunet, and Yanbin Wang  
Seismicity triggered by the olivine-spinel transition: New insights from combined XRD and acoustic emission monitoring during deformation experiments in Mg<sub>2</sub>GeO<sub>4</sub>
- A74 EGU2011-4338  
**Vinnie L. Yu** and Wen-che Yu  
Deep-focus repeating earthquakes in the Tonga-Fiji-Kermadec subduction zone
- A75 EGU2011-9042  
**Robert Myhill**, Dan McKenzie, and Keith Priestley  
Earthquake distributions and their relationship with structural, chemical and thermobaric heterogeneities in subducting slabs
- A76 EGU2011-10679  
**Yvonne Font**, Monica Segovia, Jean-Mathieux Nocquet, and Mohamed Chlieh  
Seismicity distribution and interseismic coupling on the Ecuadorian Seismogenic Zone

- A77 EGU2011-8963  
**Jeanette Di Leo**, James Wookey, James Hammond, and J.-Michael Kendall  
Shear-Wave Splitting beneath Northern Sulawesi and the southernmost Philippines - The Sangihe Subduction Zone
- A78 EGU2011-3730  
**Arnauld Heuret**, Debora Presti, Francesca Funiciello, Claudia Piromallo, and Serge Lallemand  
Unraveling the behavior of subduction zones interplate seismicity using a global statistical approach
- A79 EGU2011-3192  
**Tao Li** and Andrea Hampel  
Preliminary results from numerical subduction zone models investigating the slip behaviour of the plate interface during changes in surface loads
- A80 EGU2011-2776  
**Giampiero Iaffaldano**, Erika Di Giuseppe, Fabio Corbi, Francesca Funiciello, Claudio Faccenna, and Hans-Peter Bunge  
Variable mechanical coupling along the Andes and implications for trench curvature, shortening, and topography
- A81 EGU2011-5714  
**Laurent Husson**, Benjamin Guillaume, Francesca Funiciello, Claudio Faccenna, and Leigh Royden  
Unravelling topography around subduction zones from laboratory models
- A82 EGU2011-2771  
Robert Bialas, **Francesca Funiciello**, and Claudio Faccenna  
Subduction and exhumation of continental crust: insights from laboratory models
- A83 EGU2011-5165  
David Boutelier, Matthias Rosenau, Thomas Ziegenhagen, Franck Neumann, Onno Oncken, and **Alexander Cruden**  
Subduction orogeny along a seaward-concave plate boundary in the Central Andes: insights from 2D numerical and 3D thermo-mechanical laboratory experiments
- A84 EGU2011-1030  
**Andrew Bottrill**, Jeroen van Hunen, and Mark Allen  
Can surface topography at continental collision zones be used to detect slab break off?
- A85 EGU2011-7654  
**Susanne Buiter** and Susan Ellis  
The role of the initiation phase in numerical subduction models
- A86 EGU2011-4047  
**Valentina Magni**, Jeroen van Hunen, Francesca Funiciello, and Claudio Faccenna  
3D numerical models of trench migration for lateral heterogeneous subducting plate
- A87 EGU2011-4454  
**Guizhi Zhu**, Taras Gerya, Boris Kaus, and Paul Tackley  
Three-Dimensional Plume Patterns Rising from Subducting Slabs
- A88 EGU2011-6298  
**Jeroen van Hunen**, Claudio Faccenna, and Mark Allen  
Slab break-off and applications to Tethys subduction
- A89 EGU2011-6334  
**Thibault Duretz** and Stefan M. Schmalholz  
Thermo-mechanical and analytical models of slab detachment: calibration of an effective slab flow law
- A90 EGU2011-9127  
Laura Hebert and **Laurent Montesi**  
Implications of deep transport of slab-adjacent hydrated material at subduction zones
- A91 EGU2011-11106  
**Aurélien Beaumais**, Gilles Chazot, Hervé Bertrand, Laure Dosso, Bleuenn Gueguen, and Claude Robin  
Crustal contamination and mantle source variations in an intra-oceanic arc: geochemistry of the Lopevi volcano lavas, Vanuatu, SW Pacific.

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**G3.2/AS4.19/CL4.9/GD1.6/NH4.8/SM5.7 – Geodesy and natural and induced hazards: Progress during 30 years of the WEGENER initiative (co-organized) – Orals**

Convener: Susanna Zerbini | Co-Conveners: Robert Reilinger, Mustapha Meghraoui

**Room: 18**

Chairperson: M. Meghraoui and P. Briole

- 08:30–08:45 EGU2011-12696  
**Andrew Hooper**, David Bekaert, and Mahmut Arikan  
Radar interferometry for measuring regional-scale processes

- 08:45–09:00 EGU2011-12096  
**Ziyadin Cakir**, Mustapha Meghraoui, Esra Cetin, Ahmet Akoglu, and Samir Belabbes  
 Postseismic Hanging-wall Subsidence of the 2003 Zemmouri (Mw=6.9, Algeria) Thrust Earthquake From InSAR Time Series
- 09:00–09:15 EGU2011-11725  
**Jean-Mathieu Nocquet**, Andrea Walpersdorf, François Jouanne, Frédéric Masson, Jean Chéry, and Philippe Vernant  
 Slow deformation in the Western Alps from a decade of Continuous GPS measurements
- 09:15–09:30 EGU2011-13090  
 Pierre Briole  
 Ground deformation monitoring in the Corinth rift laboratory, Greece
- 09:30–09:45 EGU2011-4840  
**Athanassios Ganas**, Kostas Chousianitis, George Drakatos, Marios Papanikolaou, Panagiotis Argyrakis, Maria Kolligri, Panagiota Petrou, Evagelia Batsi, and Christina Tsimi  
 NOANET: High-rate GPS Network for Seismology and Geodynamics In Greece
- 09:45–10:00 EGU2011-2324  
**Ugur Dogan**, Semih Ergintav, Baki Karaboce, Gokhan Arslan, Ayse Selendi (1), Deniz Oz, Cuneyt Aydin (1), Azer Ilgar, Rahsan Cakmak (2), Alpay Belgen, Enver Sad?koglu, Eyup Bilgic, and Ahmet Direnc  
 Long-term Crustal Deformations Based on Gravity and GPS Measurements (2006 - 2010) in Marmara Region, Turkey

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**COFFEE BREAK**

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Chairperson: R. Reilinger and A. Hooper

- 10:30–10:45 EGU2011-11359  
**Philippe Vernant**  
 Interseismic strain across strike slip faults, what can we learn from ~20 years of GPS measurements ?
- 10:45–11:00 EGU2011-11222  
**Cecilia Sciarretta**, Vincenza Luceri, Roberto Lanotte, Rosa Pacione, Brigida Pace, and Giuseppe Bianco  
 Velocity field in Mediterranean area from ASI-CGS GPS, SLR and VLBI solutions: the ASIMed solution
- 11:00–11:15 EGU2011-3512  
**Roberto Sabadini**, Gabriele Cambiotti, and Yanick Ricard  
 New insights on Mantle Convection and Ice Age True Polar Wander
- 11:15–11:30 EGU2011-8013  
**Johannes Boehm**, Peter Steigenberger, Robert Heinkelmann, and Harald Schuh  
 Troposphere delay modeling in VLBI and GNSS analysis
- 11:30–11:45 EGU2011-6503  
**Luce Fleitout**, Jean-Didier Garau, Georges Cailletaud, Christophe Vigny, Wim Simons, Boujewin Ambrosius, Itthi Trisiratayawong, and Chalermchon Satirapod  
 Modeling the post-seismic deformations of the Aceh, Nias and Benkulu earthquakes
- 11:45–12:00 EGU2011-9723  
**Tonie van Dam**, Xavier Collilieux, Zuheir Altamimi, and James Ray  
 A review of GPS and GRACE estimates of surface mass loading effects

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**G3.2/AS4.19/CL4.9/GD1.6/NH4.8/SM5.7 – Geodesy and natural and induced hazards: Progress during 30 years of the WEGENER initiative (co-organized) – Posters**

Convener: Susanna Zerbini | Co-Conveners: Robert Reilinger, Mustapha Meghraoui

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

Author in Attendance: 17:30–19:00

Chairperson: M. Becker, L. Bastos, M.E. Aksoi and R. Fernandes

- XL184 EGU2011-1743  
**Hiromi Fujimoto**, Motoyuki Kido, and Yukihito Osada  
 Some improvements in the GPS/Acoustic seafloor positioning
- XL185 EGU2011-2283  
**Simone Dellagnello** and the SCF (INFN-LNF) Team  
 SCF-Test of LAGEOS and the GNSS for geodesy and navigation applications



- XL186 EGU2011-2540  
**Vadim Milyukov**, Vladimir Zharov, Alexey Mironov, Mark Kaufman, and Dmitry Duev  
Development of the Northern Caucasus GPS/GLONASS network: progress during 18 years (observations and results)
- XL187 EGU2011-2818  
**Yusaku Ohta**, Tatsuya Kobayashi, and Satoshi Miura  
Long term stabilities and its noise properties of the middle to long baseline RTK-GPS time series for the earthquake size rapid determination
- XL188 EGU2011-3180  
Tim Wright, Hua Wang, **Carolina Pagli**, and Matthew Garthwaite  
Mapping Tectonic Strain on a Global Scale with InSAR
- XL189 EGU2011-8862  
**M Meghan Miller**  
UNAVCO Event response capabilities: Four 2010 earthquakes that advanced hazards science
- XL190 EGU2011-11370  
**Graham Appleby**, Georg Kirchner, Jan McGarry, Carey Noll, Erricos Pavlis, and Michael Pearlman  
High Quality Products from Satellite Laser Ranging
- XL191 EGU2011-11708  
**Luisa Bastos**, Machiel Bos, and Rui M.S Fernandes  
An investigation of monument stability of GPS stations in Iberia
- XL192 EGU2011-13026  
Machiel Bos, Odair Tavares, **Luísa Bastos**, and Rui Fernandes  
An online GPS time-series analysis provider at GEODAC
- XL193 EGU2011-227  
**Haluk Ozener**, Asli Dogru, and Bulent Turgut  
Contemporary Results of GPS Observations in Ismetpaşa Creeping Region of North Anatolian Fault Zone (NAFZ), Turkey
- XL194 EGU2011-365  
**Radia Mir**, Salem Kahlouche, and Said Touam  
Crustal deformations using GPS data and the Kalman filter: preliminary results
- XL195 EGU2011-1378  
**Susanna Zerbini**, Claudio Prati, Giovanni Cappello, Maddalena Errico, Fabrizio Novali, and Silvia Scirpoli  
Combination of INSAR and GPS to measure ground motions and atmospheric signals
- XL196 EGU2011-2707  
**M. Ersen Aksoy**, Mustapha Meghraoui, Matthieu Ferry, Ziyadin Çakır, and Gülsen Uçarku?  
Short-term and long-term slip rate estimations along the Ganos Fault using stream offsets and paleo-climatic changes (North Anatolian Fault, Turkey)
- XL197 EGU2011-3962  
**Stathis C. Stiros**, Fanis Moschas, Lujia Feng, and Andrew V. Newman  
Constraints to the 2008 Patras (Greece) seismic fault: Evidence from historical triangulation and morphotectonic data.
- XL198 EGU2011-4785  
**Stefano Tinti**, Alberto Armigliato, and Gianluca Pagnoni  
The role of GPS observations in a Tsunami Early Warning System suitable for near-shore tsunami detection and forecast.
- XL199 EGU2011-5439  
**Kamil Eren**, Turgut Uzel, Engin Gulal, Ibrahim Tiryakioglu, Ahmet Anil Dindar, and Haluk Yilmaz  
Tectonic Studies in Turkey Using CORS-TR Observations
- XL200 EGU2011-5777  
**Marc-Andre Gutscher**  
Tectonics of the Gibraltar subduction and its relation to recent kinematics
- XL201 EGU2011-6742  
Matthias Becker, **Mohamed Saleh**, Mohamed Rashwan, Sayed Mohamed Abd el-Monem, Salah Mahmoud, Hassan Khalil, Awad Omran, and Mostafa Yousef  
Regional and local deformation analysis results from the Nile River Valley and its relation to seismicity
- XL202 EGU2011-7357  
**Mohamed Chlieh**, Hernando Tavera, Jean-Mathieu Nocquet, Juan-Carlos Villegas, Hugo Perfettini, and Jean-Philippe Avouac  
Interseismic Coupling maps in South America subduction zone as indicator of future large Megathrust Earthquakes
- XL203 EGU2011-8062  
**Joaquim Sousa**, Luisa Bastos, Antonio Ruiz, Ramon Hanssen, and Andy Hooper  
Terrain Deformation Monitoring in Granada Basin Area Using Persistent Scatterers Interferometry (PSI)

- XL204 EGU2011-9179  
**Yasser Mahmoud**, Frederic Masson, Mustapha Meghraoui, Ziyadin Cakir, Abd elmotaleb Alchalbi, Hakan Yavasoglu, Onder Yönlü, Mohamed Daoud, Semih Ergintav, and Sedat Inan  
 GPS velocity field in SE Turkey and NW Syria derived from 2009 and 2010 measurements
- XL205 EGU2011-9721  
**Yüksel Altiner**  
 Another view on the study of Earth's crust deformations applied in Adriatic plate
- XL206 EGU2011-12464  
**Aggeliki Marinou**, Xanthos Papanikolaou, Dimitris Paradissis, Dimitris Anastasiou, Vangelis Zacharis, Panayiotis Tzavaras, Kalliopi Papazissi, and Christiana Mitsakaki  
 Estimating of tectonic velocities in the Ionian region.
- XL207 EGU2011-11998  
**Rui Fernandes**, José Quembo, Jorge Miranda, and Damien Delvaux  
 Present-Day Kinematics of Mozambique derived from Episodic GPS data
- XL208 EGU2011-12149  
**Robert King**, Simon McClusky, Philippe Vernant, Semih Ergintav, Galaktion Hahubia, Fakhraddin Kadirov, Samir Mammadov, Ruben Stepanyan, Tamara Guseva, and Vadim Milyukov  
 New GPS velocity field for the Arabian-Eurasian collision zone
- XL209 EGU2011-12720  
**Dimitris Anastasiou**, Aggeliki Marinou, Xanthos Papanikolaou, Vangelis Zacharis, Dimitris Paradissis, Kalliopi Papazissi, and Christiana Mitsakaki  
 Deformation studies using GPS data for South Peloponnisos
- XL210 EGU2011-12775  
**Juan Carlos Villegas Lanza**, Jean-Mathieu Nocquet, Hernando Tavera, Mohamed Chlieh, and Francis Bondoux  
 A new GPS velocity field from Central Peru to northern Ecuador
- XL211 EGU2011-8122  
**Oliver Boyd**, Yuehua Zeng, and Leonardo Ramirez-Guzman  
 Modeling surface deformation in the New Madrid seismic zone
- XL212 EGU2011-9330  
**Tilo Schöne**, Julia Illigner, Cornelia Zech, Cecep Subarya, Pak Khafid, Wahyu Pandoe, Imam Mudita, and Roman Galas  
 GNSS in Support of Sea Level Monitoring: Early Warning to Long-Term Corrections
- XL213 EGU2011-13129  
**David Mencin**, Selwyn Sacks, Alan Linde, and Michael Gladwin  
 Borehole Strainmeters and Natural Hazards

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**TS2.1 – Fault zone structure, mechanics and evolution in nature and laboratory (co-listed) – Orals**

Convener: Fabrizio Agosta | Co-Conveners: Robert Holdsworth, Steven Smith, Renaud Toussaint

**Room: 28**

Chairperson: n.n.

- 08:30–08:45 EGU2011-1099  
**Martin Schöpfer**, Conrad Childs, Tom Manzocchi, and John Walsh  
 Conceptual and mechanical models for evolution of the three-dimensional structure of fault zones
- 08:45–09:00 EGU2011-11049  
**Lionel Sonnette**, Jacques Angelier, Thierry Villemin, and Françoise Bergerat  
 Surface expression, spatial distribution and temporal propagation of the faulting and fissuring in the Thingvellir Fissure Swarm, Iceland
- 09:00–09:15 EGU2011-13110  
**Thomas Mitchell**  
 Damage Structure, Permeability and Seismic Properties of Fault Zones in the Seismic Cycle in Nature and the Laboratory
- 09:15–09:30 EGU2011-8860  
**Luisa Valoroso**, Lauro Chiaraluce, Raffaele Di Stefano, Davide Piccinini, David P. Schaff, and Felix Waldhauser  
 Can seismicity image the complexity of fault architecture? A radiography of the 2009 MW 6.1 L'Aquila normal fault system (Central Italy).
- 09:30–09:45 EGU2011-6142  
**Frantz Maerten** and Roger Soliva  
 Three dimensional failure envelopes for complex fault systems. A numerical investigation
- 09:45–10:00 EGU2011-5983  
**Cristiano Collettini**, André Niemeijer, Steven A.F. Smith, Cecilia Viti, and Chris Marone  
 Fault Structure, Frictional Properties and the Spectrum of Fault Slip Behaviour

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**COFFEE BREAK**


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Chairperson: n.n.

- 10:30–10:45 EGU2011-4956  
**Mai-Linh Doan**, Andrea Billi, Virginie d'Hour, and Gérard Gary  
 Dynamic damage of rocks : from single fracturing to pulverization
- 10:45–11:00 EGU2011-1293  
**Steffen Abe** and Karen Mair  
 DEM Modelling of Comminution Processes in Fault Gouge
- 11:00–11:15 EGU2011-5537  
**Sebastian Langer**, Dion Weatherley, and Louise Olsen-Kettle  
 Asymmetric normal and shear stresses along bimaterial interfaces
- 11:15–11:30 EGU2011-4155  
**Jean-Pierre Gratier**  
 The role of pressure solution in aseismic creep and the dynamic equilibrium between fracturing and sealing processes in active faults
- 11:30–11:45 EGU2011-1158  
**Sebastien Boutareaud**, Takehiro Hirose, Mai-Linh Doan, Muriel Andreani, Dan-Gabriel Calugaru, Matej Pec, Anne-Marie Boullier, Karsten Kunze, and Benoit Cordonnier  
 Talc lubrication of faults at seismic velocities: an experimental approach
- 11:45–12:00 EGU2011-13003  
**Lori Kennedy** and Nathan Clevett  
 The role of dolomite content on the mechanical strength in dolomite-limestone composites

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**TS2.1 – Fault zone structure, mechanics and evolution in nature and laboratory (co-listed) – Posters**

Convener: Fabrizio Agosta | Co-Conveners: Robert Holdsworth, Steven Smith, Renaud Toussaint

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

Author in Attendance: 17:30–19:00

Chairperson: Agosta, Toussaint

- XL247 EGU2011-330  
**Rachael Ellen**, Zoe Shipton, and Rebecca Lunn  
 Predicting the Internal Structure of Fault Zones in Basalt and its Effect on Along Fault-Fluid Flow
- XL248 EGU2011-1335  
**David Tanner**, Steffi Burchardt, and Charlotte M. Krawczyk  
 Architecture of the damage zone of a fault from the Irish Variscides; distribution and growth of fractures
- XL249 EGU2011-4187  
**Fabrizio Agosta**, Patricia Ruano, Andrea Rustichelli, Emanuele Tondi, Carlos Sanz de Galdeano, and Jesus Galindo-Zaldivar  
 Permeability structure of a >40 m-throw normal fault crosscutting a carbonate multilayer (SE Granada Basin, Betic Cordilleras, Spain)
- XL250 EGU2011-6403  
**Dorothea Reyer**, Johanna F. Bauer, and Sonja L. Philipp  
 Fault zone architecture and fracture systems in sedimentary rocks of the North German Basin
- XL251 EGU2011-1518  
**Sebastien Boutareaud** and Santanu Misra  
 Mechanical behaviour and microstructure of talc sheared at high strain rates (10<sup>-4</sup> and 10<sup>-3</sup> s<sup>-1</sup>) in torsion
- XL252 EGU2011-2199  
**Giulio Viola**, Horst Zwingmann, Jussi Mattila, and Asko Käpyaho  
 Direct dating of Mesoproterozoic brittle fault reactivation by K-Ar gouge ages
- XL253 EGU2011-2413  
**Tamaz Chelidze**, Teimuraz Matcharashvili, Natalia Zhukova, and Ekaterine Mepharidze  
 Transitions in dynamics of acoustic emission at stick-slip movement of rock samples at different stiffness of spring-block system
- XL254 EGU2011-2486  
**Sonja L. Philipp**, Dorothea Reyer, and Johanna F. Bauer  
 Estimation of effective Young's moduli of sedimentary rocks in fault zones
- XL255 EGU2011-2897  
**Christian Brandes**, David Tanner, Ulrich Polom, and Jutta Winsemann  
 Deformation bands in Pleistocene sediments related to basement tectonics

- XL256 EGU2011-4192  
**Giovanni Camanni**, Dennis Brown, Joaquina Alvarez-Marron, Martin Schimmel, and Yih-Min Wu  
Strain partitioning along the Shuilikeng transpressive Fault System (Central Taiwan fold-and-thrust belt)
- XL257 EGU2011-4270  
**Giacomo Prosser**, Jörn Kruhl, Domenico Liotta, Tim Yilmaz, and Sabine Volland  
Vein patterns and quartz crystallization in the Pfahl shear zone (Bavarian Forest, Germany): clues to understanding interaction of tectonics and fluid flow in a fossil hydrothermal system
- XL258 EGU2011-4875  
**Ernie Rutter**, Raymond Burgess, and Daniel Faulkner  
The structure and history of the Carboneras Fault Zone, S.E. Spain
- XL259 EGU2011-5003  
**Rochelle L. Taylor**, Ernest H. Rutter, Kate Brodie, Daniel R. Faulkner, Stuart Nippres, Andreas Rietbrock, and Christian Haberland  
Ground-truthing in-situ seismic data against geological data: the Carboneras Fault Zone, S.E. Spain
- XL260 EGU2011-7821  
**Stuart Nippres**, Andreas Rietbrock, Daniel Faulkner, Ernest Rutter, Christian Haberland, and Teresa Teixido  
The shallow velocity structure of the Carboneras fault zone from first arrival traveltimes tomography
- XL261 EGU2011-5425  
**Dion Weatherley** and Yehuda Ben-Zion  
Numerical Simulations of Conditions Leading to Dynamic Pulverization of Rocks
- XL262 EGU2011-5601  
**Gernot Michlmayr**, Denis Cohen, and Dani Or  
Acoustic Emissions Characteristics During Shearing of Granular Media
- XL263 EGU2011-5683  
**Giovanni Luca Cardello** and Neil Mancktelow  
Oblique normal faulting and veining in limestones at the brittle-ductile transition: examples from the Rawil Depression (SW Switzerland)
- XL264 EGU2011-7490  
**Erik Rybacki**, Christoph Janssen, Richard Wirth, Kai Chen, Hans-Rudolf Wenk, and Georg Dresen  
Microstructural analysis of deformed calcite veins of SAFOD core samples with implications for the San Andreas Fault rheology
- XL265 EGU2011-7660  
**Michele Fondriest**, Steven Smith, Dario Zampieri, and Giulio Di Toro  
Field and microstructural investigations of an exhumed fault zone in dolostones (Southern Alps, Italy)
- XL266 EGU2011-9591  
**Joseph Clancy White**, Lori A. Kennedy, Jennifer C. Haywood, and Dan R. Faulkner  
Grain-scale Response and Aggregate Deformation Processes in Experimentally Deformed Carbonate and Shale Gouges
- XL267 EGU2011-9896  
**Antonino Cilona**, Emanuele Tondi, Fabrizio Agosta, Patrick Baud, and Sergio Vinciguerra  
A first comparison of natural and artificial shear bands in porous carbonate grainstones
- XL268 EGU2011-10127  
**David Sagi**, Nicola De Paola, Kenneth Mccaffrey, Robert Holdsworth, and Richard Jones  
3D Modeling of Fracture Density and Connectivity Within Faulted Chalk Reservoirs - A Case Study From Flamborough Head, UK
- XL269 EGU2011-10144  
**David Sagi**, Nicola De Paola, Kenneth Mccaffrey, and Robert Holdsworth  
Fracture Pattern Variations Across a Seismically Active Fault Zone - A Case Study from the Regional scale Gubbio Fault, Central Italy
- XL270 EGU2011-11205  
**Emilio Casciello**, John Cosgrove, Massimo Cesarano, and Jaume Vergés  
Patterns of Illitization in a Large-Scale Fault Zone of the Southern Apennines: Inferences on Shear Zone Evolution
- XL271 EGU2011-11253  
**Fernando Calamita** and Sara Satolli  
The S-C tectonites in the Northern Apennines (Italy) thrust shear zone: Implication for mode and timing of deformation
- XL272 EGU2011-11791  
**Edouard Le Garzic**, Yves Géraud, and Marc Diraison  
Scaling and geometric properties of extensional fracture systems in the Proterozoic basement of Yemen
- XL273 EGU2011-12093  
**Steven Smith** and the USEMS Team  
Fracture Network Characteristics and Velocity Structure of a Seismic Fault Zone

- XL274 EGU2011-12210  
**Andrea Bistacchi**, W. Ashley Griffith, Steven A. F. Smith, Giulio Di Toro, Richard Jones, Stefan Nielsen, Silvia Mitterpergher, and Elena Spagnuolo  
Fault roughness evolution at seismogenic depths
- XL275 EGU2011-12558  
Emmanuel Lecomte, **Laetitia Le Pourhiet**, Olivier Lacombe, and Laurent Jolivet  
Gouge compaction as softening process? Clues from analytical solution and 2D mechanical modelling.
- XL276 EGU2011-13279  
**Renaud Toussaint**, Michael J. Niebling, Jan Ludvig Vinningland, Jean Schmittbuhl, Berthilde-Maud Schelstraete, Øistein Johnsen, Anke Lindner, Eric Clement, Knut Jørgen Maløy, and Eirik G. Flekkøy  
Channel formation in gouges and grains due to seeping fluid: overpressurization and depressurization dynamics
- XL277 EGU2011-13443  
**Martin Rittner** and Wolfgang Müller  
Dating Brittle Deformation with the U-Pb method
- XL278 EGU2011-14071  
Liran Goren, Einat Aharonov, David Sparks, and **Renaud Toussaint**  
Liquefaction of fluid-saturated granular material under shear

## Wednesday, 06 April

### GM1.1 – Geophysical monitoring of surface processes (EGU-AGU Geomorphology Symposium) (co-listed) – Orals

Convener: Michael Ellis | Co-Conveners: Arnaud Burtin

**Room: 21**

Chairperson: Michael Ellis, Arnaud Burtin

15:30–15:35 **Introduction**

15:35–16:05 EGU2011-1759

Dieter Rickenmann, **Jens M. Turowski**, Jonathan B. Laronne, Ronel Barzilai, Helmut Habersack, and Hugo Seitz

Experience from an indirect bedload transport measuring system with geophone sensors

16:05–16:35 EGU2011-5109

**Colin Stark** and Goran Ekstrom

Landslide Force History inversion: Measuring the dynamics of catastrophic landslides using seismology and satellite remote-sensing

16:35–16:50 EGU2011-838

Aleš Létal, **Libor Burian**, and Anna Smetanová

Mapping erosion-accumulation forms using electromagnetic conductivity

16:50–17:00 **Discussion**

### TS6.1/G3.3/GD5.4/SM1.5 – The Alpine-Himalayan convergence zone: from the Mediterranean to SE Asia (co-organized) – Orals

Convener: Rob Govers | Co-Conveners: Claudio Faccenna, Alastair Robertson, Zohar Gvirtzman, Uri Schattner, Laurent Jolivet

**Room: 28**

Chairperson: n.n.

08:30–08:45 EGU2011-3397

**Rinus Wortel**, Rob Govers, and Marzieh Baes

Plate boundary reorganization in the western-central Mediterranean: Initiation of subduction along the southern boundaries?

08:45–09:00 EGU2011-3157

**Ana Crespo-Blanc**, Juan Carlos Balanyá, María Luján, Inmaculada Expósito, Manuel Díaz-Azpiroz, and Enric Suades

Large-scale crescent-like structures in the western Mediterranean ultimate arc (Gibraltar arc orogenic system)

09:00–09:15 EGU2011-7661

**Pierre-Yves Filleaudeau** and Frédéric Mouthereau

Kinematics of an orogen and mass transfer during its growth: insights from a new balanced and restored cross-section across the Pyrenees

09:15–09:30 EGU2011-10148

Guilhem Barruol, **Mickael Bonnin**, Helle Pedersen, Goetz Bokermann, and Christel Tiberi

Toroidal asthenospheric flow beneath the western Alps from seismic anisotropy

09:30–09:45 EGU2011-11004

**Abdelkrim Aoudia**, Alessandra Borghi, Valentina Barletta, Letizia Cannizzaro, Andrea Walpersdorf, Christof Voelksen, Riccardo Barzaghi, and Roberto Sabadini

Horizontal and Vertical CGPS Velocity Fields and the Active Deformation of the European Alps

09:45–10:00 EGU2011-8317

**László Fodor**, Frank Horváth, Emő Márton, Kamil Ustaszewski, and Endre Dombrádi

Constraints for the extrusion tectonics and back-arc extension in the Pannonian basin: a state of the art

### COFFEE BREAK

Chairperson: Alastair Robertson and Zohar Gvirtzman

10:30–10:45 EGU2011-9446

**Gregory Houseman**, Graham Stuart, Ben Dando, Yong Ren, Ewald Brückl, Endre Hegedüs, Slavica Radovanovic, and Cbp Working Group

Detachment of mantle downwelling beneath the Pannonian Basin caused lithospheric extension?

- 10:45–11:00 EGU2011-8894  
**Ferenc Horváth** and Claudio Faccenna  
Central Mediterranean mantle flow system and the formation of the Pannonian basin
- 11:00–11:15 EGU2011-9981  
**Nuno Simão**, Nicolas Chamot-Rooke, Alain Rabaute, and Corné Kreemer  
Relative convergence of the Nubia Plate towards the Eurasia Plate: the case of the lack of seismicity in the Algerian-Tyrrhenian Trough
- 11:15–11:30 EGU2011-7711  
**Eugénie Pérouse**, Nicolas Chamot-Rooke, Alain Rabaute, and Pierre Briole  
A new model to link the present-day kinematics of the Central Mediterranean and the Eastern Mediterranean
- 11:30–11:45 EGU2011-4015  
**Kamil Ustaszewski**, Daniel Bernoulli, Bernhard Fügenschuh, Liviu Matenco, Roland Oberhänsli, Senecio Schefer, and Stefan M Schmid  
Tracing the closure of Neotethys from the Alps to Western Turkey I: The Sava-Izmir-Ankara suture zone
- 11:45–12:00 EGU2011-12497  
**Thomas Meier**, Brigitte Endrun, Sergei Lebedev, Celine Tirel, and Wolfgang Friederich  
Layered deformation within the Aegean continental crust and mantle revealed by seismic anisotropy

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### LUNCH BREAK

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Chairperson: Zohar Gvirtzman and Uri Schattner

- 13:30–13:45 EGU2011-8951  
**Laetitia Le Pourhiet**, Benjamin Huet, and Laurent Jolivet  
The shape of metamorphic core complexes, an indicator for paleo-step faults? Insights from 3D numerical modelling.
- 13:45–14:00 EGU2011-4689  
**Aral Okay**  
A regional olistostrome- mélange belt formed along a major strike-slip tear fault: Bornova Flysch Zone, western Turkey
- 14:00–14:15 EGU2011-13053  
**Altug Hasözbe**, Burhan Erdogan, Erhan Akay, Muharrem Satir, Wolfgang Siebel, and Gullu Deniz Dogan  
Progressive Magmatism in Western Anatolia (Turkey)
- 14:15–14:30 EGU2011-12007  
**Ilaria Mazzini**, Marianna Ková?ová, Peter Joniak, Bora Rojay, and Nuretdin Kaymakci  
Late Miocene to Quaternary evolution of the Çankiri Basin (Central Anatolia, Turkey)
- 14:30–14:45 EGU2011-10438  
**Côme Lefebvre**, Maud J.M. Meijers, Nuretdin Kaymakci, Cor G. Langereis, Douwe J.J. van Hinsbergen, and Reinoud L.M. Vissers  
Reconstructing the geometry of Central Anatolia during the Late Cretaceous, a rotational paleomagnetic study on granitoids.
- 14:45–15:00 EGU2011-1519  
**Alastair Robertson**, Gillian McCay, Kemal Tasl?, Isabella Raffi, Robert Ellam, Kroon Dick, and Mehmet Necdet  
Episodic tectonic reactivation of S Neotethys in the E Mediterranean as evidenced from the Kyrenia (Girne) Range, Cyprus

Chairperson: Claudio Faccenna and Rob Govers

- 15:30–15:45 EGU2011-1857  
**Christian Huebscher**, G. Ali Dehghani, Axel Ehrhardt, Jeremy Hall, Marion Jegen, Jim Mechie, and Michael Weber  
Incipient Continent-Continent Collision between the Eratosthenes Seamount and Cyprus / Eastern Mediterranean
- 15:45–16:00 EGU2011-4638  
**Oded Bar**, Zohar Gvirtzman, Shimon Feinstein, and Ezra Zilberman  
Late Tertiary Vertical motions in the Arabia-Mediterranean Transition Zone: Tectonics versus Counteracting Sedimentary Loading Effects
- 16:00–16:15 EGU2011-12842  
**Uri Schattner**  
Spatial and temporal constraints for the eastern Mediterranean Levant margin reactivation during the last interglacial

- 16:15–16:30 EGU2011-2070  
**Zohar Gvirtzman** and Josh Steinberg  
 Arabia's northwest plate boundary prior to its localization along the Dead Sea Transform
- 16:30–16:45 EGU2011-7496  
**Maud Meijers** and the Brigitte Smith, Marc Sosson, Yann Rolland, Cor G. Langereis, Mark J. Dekkers, Douwe J.J. van Hinsbergen, Nuretdin Kaymakci, Demir Altiner, Araig Gregoryan, Ara Avagyan, Carla Muller Team  
 Constraining the closure of the Neo-Tethys: a paleolatitude reconstruction of the Anatolide-Tauride and South Armenian Blocks
- 16:45–17:00 EGU2011-10081  
**Thomas François**, Evgueni Burov, Philippe Agard, and Bertrand Meyer  
 Thermomechanical modelling of the Zagros collision: clues to the formation of the Iranian plateau.

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**TS6.1/G3.3/GD5.4/SM1.5 – The Alpine-Himalayan convergence zone: from the Mediterranean to SE Asia (co-organized) – Posters**

Convener: Rob Govers | Co-Conveners: Claudio Faccenna, Alastair Robertson, Zohar Gvirtzman, Uri Schattner, Laurent Jolivet

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

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XL289 EGU2011-4011  
**Flavio Giaconia**, Guillermo Booth-Rea, José-Miguel Martínez-Martínez, and José-Miguel Azañón  
 Extensional transfer faults versus transcurrent faults in the eastern Betics, an example from the Sorbas basin (SE Spain)
- XL290 EGU2011-9433  
 Walter Austmann, **Rob Govers**, and Rinus Wortel  
 Subduction initiation along the inherited weakness zone at the edge of a slab: a parameter study
- XL291 EGU2011-11599  
 Jeffrey Poort, Christian Gorini, Marina Rabineau, and **Damien Do Couto**  
 Inventory of geophysical data, survey metadata and publications for the Western Mediterranean: the MEDGEOGIS-database
- XL292 EGU2011-12644  
**Rob Govers**, Rinus Wortel, and Marzieh Baes  
 Initiation of the post-Oligocene subduction phase in the Western Mediterranean
- XL293 EGU2011-12946  
**Alain Rabaute**, Nicolas Chamot-Rooke, and Nuno Simão  
 Neotectonic map of the Nubia-Eurasia plate boundary from Algeria to Calabria
- XL294 EGU2011-3904  
**Joan Campanyà**, Juanjo Ledo, Pilar Queralt, Alex Marcuello, Montserrat Liesa, and Josep Anton Muñoz  
 Lithospheric-scale magnetotelluric characterization of the West-Central Pyrenees: preliminary results
- XL295 EGU2011-6735  
**Eva Asensio**, Giorgi Khazaradze, and Anna Echeverria  
 Present-day crustal deformation in Pyrenees by CGPS measurements
- XL296 EGU2011-2587  
**Pierre Lanari**, Stéphane Guillot, Stéphane Schwartz, Olivier Vidal, Pierre Tricart, and Nicolas Riel  
 Tectono-metamorphic evolution of the Zone briançonnaise (Western Alps) in Eocene-Oligocene times using thermodynamical modelling and RSCM methods
- XL297 EGU2011-8388  
**Mathieu Bellanger**, Romain Augier, Thierry Baudin, Nicolas Bellahsen, Olivier Beyssac, Charles Gumiaux, and Laurent Jolivet  
 3D geodynamic evolution of a section between Grenoble and St Jean de Maurienne (External Western Alps)
- XL298 EGU2011-2453  
 Kevin Norton and **Andrea Hampel**  
 Postglacial rebound promotes glacial re-advances - a case study from the European Alps
- XL299 EGU2011-4787  
**Benedetta Andreucci**, Leszek Jankowski, Stefano Mazzoli, Peter Reiners, Rafal Szaniawski, and Massimiliano Zattin  
 The Neogene Evolution of polish Outer Carpathians: relationship between exhumation and deep geodynamic processes as constrained by low temperature thermochronology
- XL300 EGU2011-7262  
 Dariusz Botor, **István Dunkl**, Marta Rauch, and Hilmar von Eynatten  
 Timing of tectonic subsidence, accretion and exhumation of the Western Carpathian Flysch by apatite fission track and (U-Th)/He thermochronology



- XL301 EGU2011-2580  
**Alexandre Kounov** and Stefan Schmid  
Alpine thermotectonic evolution of the Apuseni Mountains (Romania)
- XL302 EGU2011-8170  
**Marco Pastore**, Giovanni Pezzati, Filippo D'Oriano, Paola Vannucchi, and Nevio Zitellini  
Evidence of post-rift compressional tectonics in the North-Eastern Tyrrhenian Basin.
- XL303 EGU2011-10640  
**Carmelo Angelica**, Alessandro Bonforte, Giovanni Distefano, Enrico Serpelloni, and Giuseppe Puglisi  
Strain field on the Sicily-Calabria (Southern Italy) from seismic and geodetic data
- XL304 EGU2011-7736  
**Mirko Carlini**, Andrea Artoni, Massimo Bernini, Paolo Vescovi, Francesca Remitti, Giuseppe Bettelli, Paola Vannucchi, Maria Laura Balestrieri, Sveva Corrado, and Luca Aldega  
Regional and local trends of maximum burial and exhumation timing in the Northern Apennines of Italy: a new updated dataset of low-temperature thermal and thermochronological data integrated with geological constraints
- XL305 EGU2011-1892  
**Dennis Brown**, Joaquina Alvarez-Marron, Martin Schimmel, and Yih-Min Wu  
Structure and kinematics of the central Taiwan thrust belt: Insights from geological, seismic energy release, and earthquake focal mechanism mapping
- XL306 EGU2011-2586  
**Nicolas Riel**, Stéphane Guillot, Etienne Jaillard, Jean-Emmanuel Martelat, Jean-Louis Paquette, Pierre Lanari, Emilie Janots, and Philippe Goncalves  
Metamorphic and geochronological study of a newly recognized paired metamorphic belt in Ecuador: implications for HT-LP metamorphism in a suprasubduction zone
- XL307 EGU2011-3965  
**Stathis C. Stiros**, Fanis Moschas, and Villy Kontogianni  
Evidence of recent faulting along the NE Adriatic coast
- XL308 EGU2011-11700  
**Davide Scrocca**, Marco Cuffaro, Federica Riguzzi, Fabrizio Antonioli, Eugenio Carminati, Michele Livani, and Carlo Doglioni  
Geodynamics of the northern Adriatic plate
- XL309 EGU2011-6386  
Gallais Flora, **Gutscher Marc-André**, Graindorge David, Chamot-Rooke Nicolas, and Klaeschen Dirk  
The Ionian Abyssal Plain - a key region for understanding the formation of the central Mediterranean domain
- XL310 EGU2011-4000  
**Stefan Schmid**, Daniel Bernoulli, Bernhard Fügenschuh, Liviu Matenco, Senecio Schefer, Roland Oberhänsli, and Kamil Ustaszewski  
Tracing the closure of Neotethys from the Alps to Western Turkey II: Similarities and differences between Dinarides, Hellenides and Anatolides-Taurides.
- XL311 EGU2011-7023  
Gwenaëlle Salaun, **Anne Paul**, Helle Pedersen, Fabien Hubans, Hayrullah Karabulut, Ahu Komec Mutlu and the Simbaad Team  
Seismic structure and anisotropy of the upper mantle beneath the Aegean and Anatolia: images of a very complex subduction system
- XL312 EGU2011-2074  
**Andrea Bruestle**, Ludger Kueperkoch, Thomas Meier, Wolfgang Friederich and the EGELADOS working group Team  
Seismicity of the SE Aegean observed by the temporary EGELADOS network
- XL313 EGU2011-3194  
**Kenan Akbayram**, Aral Okay, and Ercan Özcan  
Paleontological and Stratigraphical Evidence for the Late Cretaceous-Early Tertiary Post-Collisional Tectonism along the Intra-Pontide Suture Zone, Northwestern Turkey
- XL314 EGU2011-6125  
**Mesut Aygül** and Aral Okay  
Possible Paleozoic magmatism in the western Sakarya Zone, Biga Peninsula, NW Turkey
- XL315 EGU2011-2384  
**Firat ?engün**, Erdinç Yigitba?, O. Ersin Koralay, and ?Onur Tunç  
Geochemistry and LA-ICPMS zircon geochronology of the pre-Alpine rocks in the Biga Peninsula, NW Anatolia
- XL316 EGU2011-2920  
**Semih Can Ülgen** and Aral I. Okay  
Tectonic Setting of the Ophiolitic Melanges South of the Marmara Sea Between the Izmir-Ankara and Intra-Pontide Sutures

- XL317 EGU2011-8957  
**Heather King**, Ezgi Ç?nar, Jeremy Hall, Ali Aksu, Sava? Gurçay, and Günay Çifçi  
 The Miocene to Recent evolution of the western Antalya Basin and its linkage with the Anaximander Mountains and Isparta Angle
- XL318 EGU2011-10733  
**Sibel Tatar Erkül** and Fuat Erkül  
 Petrology and petrogenesis of syn-extensional granitoids in the Menderes metamorphic core complex, western Turkey - geodynamic implications for Aegean extension
- XL319 EGU2011-7948  
**Mehmet Cihat Alcicek** and Johan H. ten Veen  
 Neogene palaeogeography of SW Anatolia: A case study inferred from Tectonic-Sedimentation-Climate interactions in an array of evolving orogen-top basins
- XL320 EGU2011-4256  
**Ezgi Ç?nar**, Heather King, Ali Aksu, Jeremy Hall, Sava? Gurçay, and Günay Çifçi  
 The Miocene to Recent evolution of an active transform fault at the junction of Hellenic and Cyprus Arcs, eastern Mediterranean: the linkage between the western Antalya Basin and Finike Basin and Anaximander Seamounts
- XL321 EGU2011-10329  
**kenan akbayram**, aral okay, and muharrem sat?r  
 Evidence for Existence of Strandja Massif along the Intra-Pontide suture zone, between Istanbul and Sakarya Terranes
- XL322 EGU2011-12391  
**Tamás Mikes**, Andreas Mulch, Bora Rojay, Tina Lüdecke, and Fabian Schemmel  
 Neogene topography and precipitation patterns of the Central Anatolian Plateau
- XL323 EGU2011-10326  
**Jeroen Bartol**, Rob Govers, and Rinus Wortel  
 The Central Anatolian Plateau: relative timing of uplift and magmatism
- XL324 EGU2011-4998  
**Bahar Kurtbo?an**, Susan Walsh, Tiffany Piercey, Selin Akhun, Ali Aksu, Jeremy Hall, and Günay Çifçi  
 Neogene sedimentary history of the Cilicia Basin, eastern Mediterranean: a contribution to the TopoEurope VAMP project
- XL325 EGU2011-2071  
**Josh Steinberg**, Zohar Gvirtzman, Yehoshua Folkman, and Zvi Garfunkel  
 The origin and nature of the rapid Late Tertiary filling of the Levant Basin
- XL326 EGU2011-7691  
 Clément Hardy, **Catherine Homberg**, Éric Barrier, and Yehuda Eyal  
 A numerical model of the evolution of the Dead Sea transform during the Neogene
- XL327 EGU2011-7401  
**Yehuda Eyal**  
 The Syrian Arc Fold system: Age and rate of folding
- XL328 EGU2011-7462  
**Marc Hässig**, Yann Rolland, Marc Sosson, and Ghazar Galoyan  
 New P-T-t data on the metamorphic sole of the Amasia ophiolites and implications for the geodynamical process, NW of the Sevan-Akera suture zone, Lesser Caucasus (Armenia)
- XL329 EGU2011-5053  
**Alexei L. Sobissevitch**, Yuri P. Masurenkov, Dmitriy V. Likhodeev, Irina N. Pouzich, and Ninel I. Laverova  
 The modern hydrothermal system of the crust-mantle origin related to fluid-magmatic activity of volcanic centers in Northern Caucasus
- XL330 EGU2011-715  
**Adam Forte**, Eric Cowgill, and Ibrahim Murtuzayev  
 Plio-Pleistocene Stratigraphy of the Kura Basin, Azerbaijan: Implications for the Formation of the Greater Caucasus and Kura Fold-Thrust Belt
- XL331 EGU2011-348  
**Fuad Aliyev**  
 Seismic hazard assessment of Azerbaijan territory using new seismological and GPS data
- XL332 EGU2011-7996  
**Daniel Reif**, Kurt Decker, Bernhard Grasemann, and Herwig Peresson  
 Fracture patterns and generations in the simply folded part of the Zagros fold-and-thrust belt, Northern Iraq
- XL333 EGU2011-7037  
**Antonio Castro** and Mehraj Aghazadeh  
 Post-collisional monzonitic magmatism from the Zagros hinterland. Implications on lithospheric processes
- XL334 EGU2011-9040  
**Samuel Angiboust**, Philippe Agard, Cees-Jan De Hoog, and Jafar Omrani  
 Nature and structure of the Sistan « mélange » ophiolitic belt (Eastern Iran): Insights on deep accretionary wedge and subduction channel processes

- XL335 EGU2011-10926  
**Ivone Jiménez-Munt**, Manel Fernàndez, Eduard Saura, Jaume Vergés, Daniel Garcia-Castellanos, and Antonio Villaseñor  
3D lithospheric structure and regional/residual bouguer anomalies from Arabia-Eurasia collision in Iran
- XL336 EGU2011-6657  
**Giuseppe Pezzo**, Simone Atzori, and Andrea Antonioli  
The 2008 Balochistan sequence and its relationships with the CFF
- XL337 EGU2011-2347  
**Ivan Koulakov**  
High-frequency P and S seismic anomalies in the upper mantle beneath the Alpine-Himalayan orogenic belt reveal mechanisms of the lithosphere recycling due to collision
- XL338 EGU2011-8040  
**Ceri Nunn**, Frederik Tilmann, Keith Priestley, Steven Roecker, Ross Heyburn and the INDEPTH IV and ASCENT Team  
P-wave tomographic structure of NE Tibet
- XL339 EGU2011-4683  
**Tai-Lin Tseng** and Wang-Ping Chen  
Constraints on Upper Mantle Velocities beneath Tibet and Stable Continents using Shear-coupled P waves
- XL340 EGU2011-12456  
**Jan Vozar**, Alan G. Jones, Florian Le Pape, Wei Wenbo and the INDEPTH MT Team  
The lithospheric mantle and crust in the central Tibetan Plateau from INDEPTH electromagnetic data
- XL341 EGU2011-6889  
Florian Le Pape, Alan G. Jones, **Jan Vozar**, Wenbo Wei and the INDEPTH MT Team  
Northern Tibet crustal and lithospheric mantle structures inferred from INDEPTH magnetotelluric data
- XL342 EGU2011-1662  
**Pierre Bouilhol**, Oliver Jagoutz, Francis O. Dudas, and John M. Hanchar  
Dating the India-Eurasia collision through arc magmatic records

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**SM1.8/G3.7/GD1.10/NH4.9/TS8.4 – Recent Large Earthquake and Tsunami Activity (co-organized) – Orals**

Convener: Ramon Carbonell | Co-Conveners: Fabrizio Storti, Stefano Tinti, Mourad Bezzeghoud

**Room: 26**

Chairperson: n.n.

- 15:30–15:45 EGU2011-304  
**narges khajavi**, mark quigley, kevin furlong, amir rezanejad, and tim davies  
Ground-Motion Intensity Inferred From Upthrow of Boulders and Rock Falls during the 2010 Darfield Earthquake, Port Hills, New Zealand
- 15:45–16:00 EGU2011-2252  
**Ingo Grevemeyer**, Ernst Flueh, Ivonne Arroyo, and Anke Dannowski  
Rupture zone of the Mw=8.8 2010 Maule earthquake constrained by aftershock seismicity and teleseismic moment tensor inversion of large aftershocks
- 16:00–16:15 EGU2011-4356  
Kazuki Koketsu, Yusuke Yokota, Yasuyuki Kawazoe, Sunhe Yun, and **Satoko Oki**  
Source process of the 2010 Yushu, China, earthquake in the eastern Tibetan plateau
- 16:15–16:30 EGU2011-8350  
**Stefano Lorito**, Fabrizio Romano, Simone Atzori, Xiaopeng Tong, Antonio Avallone, John McCloskey, Massimo Cocco, Enzo Boschi, and Alessio Piatanesi  
Limited overlap between the Darwin gap and co-seismic slip of the great 2010 Chile earthquake
- 16:30–16:45 EGU2011-9398  
**Jimin Lee**, Wolfgang Friederich, and Thomas Meier  
Moment magnitude estimation of large earthquakes using source time function inversion in real-time
- 16:45–17:00 EGU2011-9512  
**Hermann M. Fritz**, Jose C. Borrero, Bambang Suwargadi, Li LinLin, Qiu Qiang, Ignatius Ryan Pranantyo, Vassilis Skanavis, and Costas E. Synolakis  
Reconnaissance of the 25 October 2010 Mentawai Islands Tsunami in Indonesia
- 17:00–17:15 EGU2011-12772  
**Costas E. Synolakis**, Hermann M. Fritz, Catherine M. Petroff, Robert Weiss, Patricio A. Catalan, Rodrigo Cienfuegos, Patricio Winckler, Nikos Kalligeris, Carl Ebeling, and Sergio Barrientos  
The Chile tsunami of 27 February 2010: Field survey and modeling

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**SM1.8/G3.7/GD1.10/NH4.9/TS8.4 – Recent Large Earthquake and Tsunami Activity (co-organized) – Posters**

Convener: Ramon Carbonell | Co-Conveners: Fabrizio Storti, Stefano Tinti, Mourad Bezzeghoud

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

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY661 EGU2011-13095  
Dietrich Lange, **Frederik Tilmann**, Susan Beck, Andreas Rietbrock, Jean-Pierre Vilotte, Sergio Barrientos, Diana Comte, Klaus Bataille, Pascal Methe and the Chile Aftershocks Team  
Preliminary aftershock distributions of the 27 February 2010 Mw 8.8 Maule Earthquake from International Aftershock Survey data
- XY662 EGU2011-1826  
**Wen-Yen Chang**, Ruey-Der Hwang, Tzu-Wei Lin, Jo-Pan Chang, and Hui-Nei Chuang  
Estimates of Source Parameters of the 2010 ML 6.4 JiaSian (Taiwan) Earthquake from Teleseismic P-wave Inversion
- XY663 EGU2011-2576  
**Yunus Emre Bulbul**, Barbaros Cetiner, and Gülüm Tan?rcan  
Source Modelling of the 2010 Elazig / Turkey Earthquake
- XY664 EGU2011-2838  
**Won Young Yun** and Sun-Cheon Park  
Early estimation of magnitude and moment tensor analysis of large regional earthquakes around the Korean peninsula
- XY665 EGU2011-2958  
**Yesim Cubuk**, Seda Yolsal-Cevikbilen, and Tuncay Taymaz  
Source Parameters of March 8, 2010 Karakocan (Elazig, SE Turkey) Earthquakes: Synthesis of Time Domain Regional Moment Tensor and Teleseismic Body-Waves Inversions
- XY666 EGU2011-5617  
Frauke Klingelhoefer, Chao-Shing Lee, **Marc-Andre Gutscher**, Jing-Yi Lin, and Chin-Wei Liang  
The rupture zone of the Feb. 2010 M8.8 Maule Chile earthquake : preliminary relocation of aftershocks from a temporary marine seismic network and numerical modeling of forearc thermal structure
- XY667 EGU2011-6021  
**Kuo-Jen Chang**, Rou-Fei Chen, Jian-Zhong Li, Yuping Liu, Chia-Yu Lu, and Chih-Tung Chen  
Preliminary analysis of active deformation in Chengdu foreland basin, China
- XY668 EGU2011-8845  
**Anne Deschamps**, Bernard Mercier de Lépinay, Marie Paule Bouin, Julie Perrot, Frauke Klingelhoefer, Valérie Clouard, Philippe Charvis, Boris Marcaillou, and David Graindorge  
A new insight on the HAITI event : aftershock study.
- XY669 EGU2011-9088  
**Denis Lombardi**, Thierry Camelbeeck, Thomas Lecocq, Giovanni Rapagnani, and Michel Van Camp  
Preliminary data analysis from a permanent seismic station newly installed in the Sør Rondane Mountains, East Antarctica
- XY670 EGU2011-10653  
**Muzli Muzli**, Joachim Saul, Guenter Asch, Rongjiang Wang, and Frederik Tilmann  
Coseismic displacement of the 2010, Mw 7.8 Mentawai earthquake obtained from Strong Motion Data
- XY671 EGU2011-12780  
**Anke Dannowski**, Ingo Grevemeyer, Ernst R. Flueh, Martin Thorwart, and Wolfgang Rabbel  
Crustal structure from teleseismic P-wave receiver function analysis in the Maule Region, Central Chile
- XY672 EGU2011-12170  
**Ivonne Arroyo**, Ingo Grevemeyer, Ernst Flueh, Helene Kraft, Eduardo Moscoso, Diana Comte, Martin Thorwart, Yvonne Dzierma, and Wolfgang Rabbel  
3-D Velocity Structure and Seismotectonics prior to the 2010 Chile Earthquake (Mw 8.8) from an Amphibious Seismological Network
- XY673 EGU2011-11303  
**frederick boudin**, Sebastien Allgeyer, Pascal Bernard, Hélène Hébert, Manuel Olcay, and Raul Madariaga  
Near Field data analysis of the Maule event by c omparison between tide gauges, long base tiltmeters and broad band seismometers.

**TS5.1/GD4.4/GMPV35/SM2.9 – Continental rifting & mid-ocean ridges : the role and mechanisms of tectonics, mantle dynamics, sedimentation and magmatism (co-organized) – Orals**

Convener: Gwenn Peron-Pinvidic | Co-Conveners: Sylvie Leroy, Cecile Robin, Kay Achenbach, Richard Katz, Arjan Dijkstra

**Room: 27**

Chairperson: Gwenn Peron-Pinvidic and Sylvie Leroy

- 08:30–08:45 EGU2011-7509  
**Geoffroy Mohn**, Gianreto Manatschal, Emmanuel Masini, Marco Beltrando, Othmar Müntener, and Nick Kuszniir  
 Unraveling crustal thinning processes at magma-poor rifted margins: Evidence from the Alpine Tethys margins
- 08:45–09:00 EGU2011-12172  
**Marta Perez-Gussinye** and Cesar R. Ranero  
 A tectonic model for sequential faulting, crustal thinning, and the development of asymmetric rifted margins
- 09:00–09:15 EGU2011-5426  
**Gideon Rosenbaum**, Klaus Regenauer-Lieb, Roberto Weinberg, Yaron Finzi, and Hans Mühlhaus  
 Continental rifts: complex dissipative patterns from simple boundary conditions
- 09:15–09:30 EGU2011-9147  
 Yuriy Elesin, Irina Artemieva, and **Hans Thybo**  
 Depth of continental rifts
- 09:30–09:45 EGU2011-9139  
**Christian Heine**, Jasper Zouthout, Rosie Fletcher, Rob Hunsdale, and Eric J.-P. Blanc  
 Integrating lithospheric deformation and plate tectonic models: The evolution of South Atlantic conjugate margins revisited
- 09:45–10:00 EGU2011-3776  
**K. W. Helen Lau**, Keith E. Loudon, Yue Wu, and Mladen Nedimovic  
 Asymmetrical crustal structure across the non-volcanic Nova Scotia-Morocco continental margin conjugates

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**COFFEE BREAK**


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Chairperson: Cecile Robin and Kay Achenbach

- 10:30–10:45 EGU2011-1427  
**Jennifer Totterdell**, George Gibson, Andrew Stacey, Cameron Mitchell, Michael Morse, Goutam Nayak, and Nick Kuszniir  
 Structural architecture of Australia's 4000 km-long southern rifted continental margin
- 10:45–11:00 EGU2011-2299  
**Po Wan Wong**, Manuel Pubellier, Nicolas Chamot-Rooke, Lung-sang Chan, Franke Dieter, Florian Meresse, Dimitri Savva, Marie Sarré, and Benoit Mouly  
 Reappraisal of Cenozoic crustal evolution of the northern margin of the South China Sea by Land-Sea correlation
- 11:00–11:15 EGU2011-11884  
**Natasha Stanton**, Sergio Fontes, Jean-Marie Flexor, and Cosme Neto  
 The Tectonic Framework of Santos Basin: an approach from aeromagnetic data
- 11:15–11:30 EGU2011-4289  
**Taras Gerya**  
 Development of transform faults at mid-ocean ridges: plate fragmentation vs. plate growth origin
- 11:30–11:45 EGU2011-8263  
**Laurent Montesi** and Laura Hebert  
 Tectonic controls on magma extraction at mid-ocean ridges at the 100km scale
- 11:45–12:00 EGU2011-4611  
**Harro Schmeling**, Gabriele Marquart, and Robert Orendt  
 Crustal thickness variations at plume - ridge interaction spreading centres: dynamic models of crust accretion with hydrothermal cooling

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**TS5.1/GD4.4/GMPV35/SM2.9 – Continental rifting & mid-ocean ridges : the role and mechanisms of tectonics, mantle dynamics, sedimentation and magmatism (co-organized) – Posters**

Convener: Gwenn Peron-Pinvidic | Co-Conveners: Sylvie Leroy, Cecile Robin, Kay Achenbach, Richard Katz, Arjan Dijkstra

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

Author in Attendance: 17:30–19:00

Chairperson: Kay Achenbach and Gwenn Peron-Pinvidic

- XL248 EGU2011-9198  
**Ritske S. Huismans** and Christopher Beaumont  
 Rifted Continental Margins: The Case for Depth-Dependent Extension

- XL249 EGU2011-5095  
**Charmaine Thomas**  
Passive margin formation through continental extension: Constraining numerical modelling with geophysical data, a case study from the Browse Basin, northwest Australia.
- XL250 EGU2011-6240  
**Dimitri Savva**, Florian Meresse, Kenny Wong, Manuel Pubellier, Nicolas Chamot Rooke, Dieter Franke, Stephan Steuer, and Benoit Mouly  
Stratigraphic correlation of Paleozoic to Neogene sediments from the South China margin to Reed Bank and Palawan.
- XL251 EGU2011-9235  
Louise Watremez, **Evguenii Burov**, Elia d'Acremont, Sylvie Leroy, and Benjamin Huet  
Mantle densities and rupture criterion: thermo-mechanical modelling applied to the Eastern Gulf of Aden
- XL252 EGU2011-3643  
**Volkmarr Damm**, Axel Ehrhardt, Tabea Altenbernd, Kai Berglar, Martin Block, Ingo Heyde, Michael Schnabel, and Bernd Schreckenberger  
Structure and evolution of the West Greenland continental margin
- XL253 EGU2011-10415  
**Mohamed Mansour Abdelmalak**, Laurent Geoffroy, and Charles Aubourg  
From sedimentary basins to volcanic passive margins: a tectonic and thermal comparison between the Disko-Svartenhuk and Vøring passive margins
- XL254 EGU2011-11623  
**Sönke Reiche**, Ian Reid, and Hans Thybo  
Crustal structure of the Greenland-Iceland Ridge inferred from wide-angle seismic data
- XL255 EGU2011-5938  
**Gwenn Peron-Pinvidic**, Laurent Gernigon, and Carmen Gaina  
Insights from the Jan Mayen system in the Norwegian-Greenland Sea: architecture of a microcontinent
- XL256 EGU2011-11606  
**Chris J. Cooper** and Nick J. Kusznir  
Density-depth Relationship of Serpentinised Mantle on the Iberian, Newfoundland and Nova Scotia Margins from Comparison of Seismic and Gravity Inversion Moho Depths
- XL257 EGU2011-1756  
**Emilie Sutra** and Gianreto Manatschal  
Where, when and how, does the continental crust thin in a hyper-extended rifted margin: insights from the Iberia margin.
- XL258 EGU2011-6902  
**Lope Ezquerro**, Aránzazu Luzón, Carlos Liesa, and Jose Luis Simón  
An approach to the allocyclical factors controlling the sedimentary fill in the northern sector of the Neogene Teruel half-graben (Spain).
- XL259 EGU2011-6991  
Tomás Sanz, Marceliano Lago, Andrés Gil, Andrés Pocovi, **Teresa Ubide**, Carlos Galé, Patricia Larrea, and Pablo Tierz  
Evidence of crust-doming in the Mesozoic rifting of the north-western Iberian Chain (Spain)
- XL260 EGU2011-12423  
**Emmanuel Masini**, Manatschal Gianreto, Mohn Geoffroy, Tugend Julie, and Unternehr Patrick  
The tectono-sedimentary record of hyper-extended rift basins: new observations from the Samedan basin (Central Alps) and Mauléon basin (Western Pyrenees)
- XL261 EGU2011-12054  
**Frédéric Mouthereau** and Raphael Pik  
Mesozoic exhumation in the Pyrenees revealed by double zircon U/Pb and (U-Th)/He dating
- XL262 EGU2011-2278  
**Lidia Rodríguez**, Julia Cuevas, José Julián Esteban, José María Tubía, Sergey Sergeev, and Alexander Larionov  
New age constraints on the Permian magmatism in the Sallent area (Axial Zone, central Pyrenees)
- XL263 EGU2011-8712  
**Julie Tugend**, Emmanuel Masini, Gianreto Manatschal, and Isabelle Thinon  
What is the tectono-sedimentary evolution of sag basins in hyper-extended rift-settings: the example of the Early Cretaceous Bay of Biscay-NW Pyrenean rift basins
- XL264 EGU2011-558  
**Sara Mana**, Godwin F. Mollel, Michael J. Carr, Tanya Furman, and Carl C. Swisher III  
Magmatic History and Rift Initiation in the North Tanzanian Divergence Zone, East African Rift System
- XL265 EGU2011-5818  
**Sarah Medynski**, Raphaël Pik, Charlotte Vye, and Peter Burnard  
Interplay between tectonics and magmatism during the last stages of continental breakup: the Dabbahu rift segment, Afar, Ethiopia.

- XL266 EGU2011-512  
**Nadezhda Priyatkina** and Oleg Andrievskiy  
 Kimozero massive of diamondiferous rocks: formation of Early Proterozoic rift-related magmatism in Karelia, NW Russia
- XL267 EGU2011-929  
**Kay Achenbach**, Michael Cheadle, Henry Dick, and Susan Swapp  
 Olivine LPO in Abyssal Peridotites: Does the Presence of Melt During Deformation Determine the Seismic Anisotropy of the Oceanic Lithosphere?
- XL268 EGU2011-4360  
**Tao Zhang**, Jinyao Gao, Zhaocai Wu, Lihong Zhao, Chunguo Yang, Zhongyan Shen, and Zhiyuan Zhou  
 The spreading history and paleo-ridge segmentation of the northwestern sub-basin of the South China Sea
- XL269 EGU2011-8515  
**Anne Deschamps**, Arnaud Agranier, Bérangère Mougél, and Jérôme Dymont  
 Axial morphology of the East-Pacific Rise crest in the vicinity of its intersection with the Mathematician hot-spot: results of the PARISUB'2010 cruise.
- XL270 EGU2011-12864  
**Julia Mahlke**, Colin Devey, Kaj Hoernle, and Dieter Garbe-Schönberg  
 Geochemistry of volcanic rocks from the Woodlark Basin
- XL271 EGU2011-5367  
**Wen-Hao Liao**, Ling-Yun Chiao, and Bou-jou Huang  
 Cold spots along mid-ocean ridges revealed by anomalously low subsidence rates
- XL272 EGU2011-13199  
**Anke Dannowski**, Ingo Grevemeyer, and Cesar R. Ranero  
 Oceanic Core Complex die off and generation of enhanced mantle upwelling on the Mid-Atlantic Ridge - 22° N

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### SM3.5/GD2.13/TS8.5 – Active seismic investigations of the Earth's crust (co-organized) – Orals

Convener: Alireza Malehmir | Co-Conveners: Stefan Buske

**Room: 27**

Chairperson: Alireza Malehmir

- 15:30–15:45 EGU2011-5264  
**Hiroshi Sato**, Susumu Abe, Nobuo Kawai, Naoko Kato, Hideo Saito, Kazuya Shiraishi, Tatsuya Ishiyama, Takaya Iwasaki, Eiji Kurashimo, and Mitsuru Inaba  
 Imaging of the seismogenic source fault in the fold-and-thrust belt, Niigata back-arc basin, central Japan
- 15:45–16:00 EGU2011-5031  
**Emil Lundberg**, Alireza Malehmir, Magnus Andersson, and Christopher Juhlin  
 Reflection seismic investigations and integration with geological and geophysical data in the Bergslagen Ore District, Sweden
- 16:00–16:15 EGU2011-2210  
 Stine Gutjahr and **Stefan Buske**  
 Seismic images of the tremor region at the San-Andreas-Fault system around Cholame
- 16:15–16:30 EGU2011-2192  
**Michal Malinowski**, Stephane Operto, and Alessandra Ribodetti  
 Seismic attenuation imaging from full-waveform inversion: an onshore case study
- 16:30–16:45 EGU2011-2539  
**Bohuslav Ruzek**  
 Joint inversion of gravity data together with Pg traveltimes from shots and Pg/Sg onsets from earthquakes in the Western Bohemia/Vogtland swarm region
- 16:45–17:00 EGU2011-2228  
**Rafael Bartolomé**, Juanjo Dañobeitia, François Michaud, Diego Cordoba, Luis A. Delgado-Argote, and Francisco Núñez-Cornú  
 Seismic crustal structure of the Rivera subduction zone (western Mexican margin) between 19°N and 21°N

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### SM3.5/GD2.13/TS8.5 – Active seismic investigations of the Earth's crust (co-organized) – Posters

Convener: Alireza Malehmir | Co-Conveners: Stefan Buske

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

Author in Attendance: 17:30–19:00

Chairperson: Stefan Buske

- XY674 EGU2011-140  
**Sagynbek Orunbaev**, Ulan Abdybachaev, Christian Haberland, Zoya Kalmetyeva, James Mechie, Aleksandr Meleshko, Bolot Moldobekov, Vitaliy Bragin, Bernd Schurr, and Sheyshenaly Usupaev  
 Active seismic investigation of December 22, 2009 detonation at Kambarata (Kyrgyzstan) site for a dam fill construction
- XY675 EGU2011-982  
**Ramin Kiamehr** and Noshin Faegh  
 Calibration of the Gravimetric Crustal Depth Model in Iran Based on the Sparse Seismologic Data
- XY676 EGU2011-3304  
**Elham Mohammadi**, Forough Sodoudi, and Ahmad Sadidkhouy  
 A Receiver Function Study in Kope-Dagh (Iran) Using Short Period Data
- XY677 EGU2011-1414  
**Benjamin Loidl**, Michael Behm, and Hans Thybo  
 Application of stacking techniques to 3-D wide-angle reflection and refraction data from Southern Norway
- XY678 EGU2011-2521  
**Peter Hedin**, Christopher Juhlin, and Alireza Malehmir  
 Reflection seismic investigations of the Scandinavian Caledonides to help unravel its orogenic history
- XY679 EGU2011-6966  
**Piotr Sroda**  
 Models of the seismic crustal anisotropy beneath the East European Craton and adjacent Palaeozoic terranes in Southern Poland - results of 3-D tomographic inversion
- XY680 EGU2011-4967  
**Fatemeh Sharifi Brojerdi**, Christopher Juhlin, Alireza Malehmir, and Mahdieh Dehghannejad  
 Reflection seismic studies in the Forsmark site, central Sweden
- XY681 EGU2011-11371  
**Stephan Steuer**, Dimitri Savva, Florian Meresse, Dieter Franke, Manuel Pubellier, and Benoit Mouly  
 Offshore-onshore correlation across Palawan Island, Philippines
- XY682 EGU2011-11142  
**Reza Entezari** and Hamidreza Ramazi  
 Low Velocity Layer Survey in 3D Seismic Acquisitions (In an oil field, Iran)
- XY683 EGU2011-10519  
**Pavla Hrubcova** and Piotr Sroda  
 From the Variscan to the Alpine Orogeny: crustal structure at the contact of the Bohemian Massif and the Western Carpathians in the light of seismic refraction data
- XY684 EGU2011-2827  
**Byoung Yeop Kim**, Ho Young Lee, Young Jun Kim, Nam Hyung Koo, and Dong Geun Yoo  
 2-D Crustal Structure Model of the Southwestern Margin of the East Sea from Wide-angle Seismic Data
- XY685 EGU2011-346  
**Morvarid Saki**, Gholam J. Doloei, and Ahmad Sadidkhouy  
 On the Seismic Wave Anisotropy in the Upper Crust of Bam Area in South Eastern Iran
- XY686 EGU2011-4005  
**Naoko Kato**, Hiroshi Sato, Susumu Abe, Tatsuya Ishiyama, and Shin Koshiya  
 Development of active folding in the back-arc thrust belt, eastern part of the Niigata Basin, central Japan
- XY687 EGU2011-6630  
**Mariusz Majdanski**  
 3D crustal structure of central Europe by Kriging interpolation of models along wide-angle refraction profiles.
- XY688 EGU2011-8506  
**Soazig Simon**, Jean-Xavier Dessa, Marie-Odile Beslier, Anne Deschamps, Nicole Béthoux, Stefano Solarino, Elena Eva, Françoise Sage, Gabriele Ferretti, and Claudio Eva  
 3D Crustal Analysis of the North-Ligurian Margin from Refraction Tomography and Microseismic Monitoring
- XY689 EGU2011-221  
**Fengjiao Zhang** and Christopher Juhlin  
 Fracture zones or mafic sills: modeling and inversion using seismic waveform tomography at the Forsmark nuclear waste repository, eastern central Sweden.
- XY690 EGU2011-216  
**Magnus Andersson**, Alireza Malehmir, and Lutz Kübler  
 Reflection seismic and potential field studies of the Alnö alkaline and carbonatite complex - preliminary results
- XY691 EGU2011-261  
**Saeid Cheraghi**, Alireza Malehmir, and Gilles Bellefleur  
 Reflection seismic profiling and its correlation with surface geological observations in the Brunswick No. 6 area, Bathurst Mining Camp, New Brunswick, Canada
- XY692 EGU2011-9109  
**Suvi Heinonen**, Marcello Imaña, Timo Mäki, Pekka Heikkinen, and Ilmo Kukkonen  
 Reflection seismics for structural 3D modeling of Pyhäsalmi mining area



- XY693 EGU2011-10775  
**Antonio Pazos**, Diana Núñez, Diego Córdoba, José Martín Davila, Andrés Carbó, José Luis Granja, and Pilar Llanes  
 Crust and upper mantle structure across the Beata Ridge (Hispaniola Island) from a wide angle seismic profile.
- XY694 EGU2011-5285  
**Tae-Kyung Hong**, Hoseon Choi, Xiaobo He, Kiwook Lee, Dong Geun Ji, and Eunyoung Jo  
 Crustal structure and seismicity of the far-eastern Eurasian continental margin around the Korean Peninsula

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**SM3.6/SSP2.4/SSS5.8/TS4.5 – Imaging the shallow subsurface with seismic and GPR methods (co-organized) – Orals**

Convener: Lars Nielsen | Co-Conveners: Klaus Holliger, Hansruedi Maurer, Matthew Yedlin

**Room: 26**

Chairperson: L NIELSEN

- 08:30–08:45 EGU2011-9517  
**Robert Ferguson**, Adam Pidlisecky, and Colin Rowel  
 Shot record depth migration of georadar data
- 08:45–09:00 EGU2011-13422  
**Walter Wheeler**, Björn Heincke, Giuliana Rossi, and Niklas Allroggen  
 GPR, seismic and geo-electric investigation of a paleokarst breccia pipe field, Svalbard
- 09:00–09:15 EGU2011-5845  
**Jens Tronicke**, Hendrik Paasche, and Urs Böniger  
 Inversion of crosshole traveltimes using particle swarm optimization
- 09:15–09:30 EGU2011-7882  
**Giovanni Angelo Meles**, Stewart Greenhalgh, Jan van der Kruk, Hansruedi Maurer, and Alan Green  
 GPR Full Waveform Sensitivity Analysis using a FDTD Adjoint Method
- 09:30–09:45 EGU2011-1302  
**CharLotte Krawczyk**, Ulrich Polom, Stefan Trabs, and Torsten Dahm  
 High-resolution imaging of sinkhole structures in the city of Hamburg by urban shear-wave reflection seismics
- 09:45–10:00 EGU2011-4532  
**Stewart Greenhalgh**, Bing Zhou, and Mark Greenhalgh  
 Wavenumber sampling strategies for 2.5D frequency-domain seismic modelling in general anisotropic media

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**SM3.6/SSP2.4/SSS5.8/TS4.5 – Imaging the shallow subsurface with seismic and GPR methods (co-organized) –**

Posters

Convener: Lars Nielsen | Co-Conveners: Klaus Holliger, Hansruedi Maurer, Matthew Yedlin

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

Author in Attendance: 17:30–19:00

Chairperson: M YEDLIN; K HOLLIGER

- XY695 EGU2011-10297  
**Lasse Lambrecht** and Wolfgang Friederich  
 Simulation of seismic wave propagation for reconnaissance as part of an interaction model in machined tunneling
- XY696 EGU2011-2679  
**Rolf Sidler**, German Rubino, and Klaus Holliger  
 Comparison of numerical simulations of seismic wave propagation in heterogeneous porous media and corresponding visco-elastic equivalent solid composites
- XY697 EGU2011-2655  
 German Rubino and **Klaus Holliger**  
 Wave-induced fluid flow effects related to porous rocks containing spatially continuous variations of the physical properties
- XY698 EGU2011-4241  
**Matthew Yedlin** and Jean Virieux  
 Uniform Asymptotic Expansions for Vector Waves
- XY699 EGU2011-5729  
**Kévin Samyn**, Adnand Bitri, and Gilles Grandjean  
 Imaging near-surface feature using cross-correlation analysis of multi-channel surface-wave data
- XY700 EGU2011-4737  
**Ariesty Asikin**, Andri Hendriyana, and Rachmat Sule  
 Application of Partial Crs-Stack Method to Enhance Gas Reservoir Characterization in a Complex Geological Structure: Synthetic Case Study

- XY701 EGU2011-12533  
**Javier Olona**, Javier A. Pulgar, Gabriela Fernández-Viejo, Carlos López-Fernández, and Juan M. González-Cortina  
 Seismic and electrical methods applied to the evaluation of subsidence risk derived from mining works
- XY702 EGU2011-1634  
**SanLinn. I. Kaka**, Abdalla El-Amin, Aymen Al-Lehyani, and Mohammad Aqel  
 Near-surface seismic refraction method applied to characterize subsurface in Eastern Saudi Arabia
- XY703 EGU2011-5534  
**Kerim Martínez** and José Alfredo Mendoza  
 Seismic refraction survey to identify faults along a planned viaduct site in Constantine, Algeria: Application and comparison of tomography and generalized reciprocal method interpretations.
- XY704 EGU2011-2842  
**Ho-Young Lee**, Nam-Hyung Koo, Keun-Pil Park, Dong-Geun Yoo, Dong-Hyo Kang, Young-Gun Kim, Gab-Seok Seo, and Kyu-Duk Hwang  
 High-resolution shallow marine seismic survey off Yeosu, Korea using an air gun and 8 channel streamer cable
- XY705 EGU2011-5775  
**Jehanne Demand** and François Marillier  
 Example of shear-wave velocity variations along a 2D seismic profile revealed by surface-wave analysis.
- XY706 EGU2011-5635  
**Vassilis Karastathis**, Athanassios Ganas, Petros Karmis, George Drakatos, and Kostas Makropoulos  
 Application of seismic velocity modelling at footwall escarpment areas in Greece
- XY707 EGU2011-13151  
 Jenneke G. Bakker, **Jan van der Kruk**, Jutta Bikowski, Colby M. Steelman, Anthony L. Endres, and Harry Vereecken  
 Multi-layer inversion of freezing induced dispersive Ground Penetrating Radar data
- XY708 EGU2011-1353  
**Jens Buchner**, Alexander Kühne, Benny Antz, Ute Wollschläger, and Kurt Roth  
 Evaluating surface GPR measurements on a layered soil model using a ray path approach and the full solution of Maxwell's equations
- XY709 EGU2011-10936  
**Matthias Leopold** and Jörg Völkel  
 Application of GPR within an artificial water catchment in NE Germany
- XY710 EGU2011-7694  
**Jorrit Fahlke**, Jens Buchner, Olaf Ippisch, Kurt Roth, and Peter Bastian  
 Comparison of 3D ground-penetrating radar simulations with measurements on the ASSESS-GPR test site
- XY711 EGU2011-8636  
 Aránzazu Luzón, Óscar Pueyo, **Antonio Pérez**, and Arsenio Muñoz  
 GPR application to the study of tufa constructions: a tool for hydrocarbon exploration
- XY712 EGU2011-5530  
**Lars Nielsen** and Lars B. Clemmensen  
 Constraints on relative sea-level fluctuations at the island of Anholt, Kattegat Sea, from AD ~1000 to the beginning of the 20th century based on interpretation of GPR reflection data

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**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

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**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 Bufo, Winfried Hanka, Agustin Udias, Mourad Benzzegehoud, 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

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**GD2.4/SM4.1/TS10.2 – The Lithosphere-Asthenosphere Boundary (LAB) Dilemma (co-organized) – Orals**

Convener: Ulrich Achauer | Co-Conveners: Rainer Kind, Valentin Mikhailov, Alan G. Jones, Jaroslava Plomerova, Stefan Jung

**Room: 22**

Chairperson: n.n.

- 08:30–09:00 EGU2011-7672  
**David Eaton**, Ian Bastow, Michael Kendall, and Claire Perry  
Isopycnicity, Thermal State and Secular Evolution of Cratonic Mantle Keels
- 09:00–09:15 EGU2011-9203  
**Ulrich Faul**, Colleen Dalton, and Ian Jackson  
Lithospheric Structure from Combined Seismological and Experimental Models
- 09:15–09:45 EGU2011-12710  
**Toivo Korja**  
Fennoscandian lithosphere-asthenosphere boundary - electromagnetic constraints
- 09:45–10:00 EGU2011-12312  
**Jan Vozar**, Javier Fullea, and Alan G. Jones  
Electromagnetic and petro-physical investigations of the lithosphere-asthenosphere boundary in Tibet and Central Europe

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**GD2.4/SM4.1/TS10.2 – The Lithosphere-Asthenosphere Boundary (LAB) Dilemma (co-organized) – Posters**

Convener: Ulrich Achauer | Co-Conveners: Rainer Kind, Valentin Mikhailov, Alan G. Jones, Jaroslava Plomerova, Stefan Jung

**Hall A | Display Time 08:00–19:30**

Author in Attendance: 15:30–17:00

Chairperson: Ulrich Achauer

- A67 EGU2011-6937  
**Edward Perchuc**, Monika Dec, Michal Malinowski, and Blanka Nita  
Significant differences between upper mantle models for tectonically active and stable part of North America
- A68 EGU2011-766  
**Ozcan Cakir** and Murat Erduran  
P and S receiver functions used for inverting the one-dimensional upper mantle shear-wave velocities beneath Anatolian Peninsula

- A69 EGU2011-5071  
**Mohammad Youssof**, Alan Levander, Max Bezada, and Hans Thybo  
Structure and extent of the southern African cratons: Integrated images from receiver functions and teleseismic tomography
- A70 EGU2011-4739  
**Mark Muller**, Javier Fullea, and Alan Jones  
Reconciling Electromagnetic, Seismic and Xenolith Constraints on Lithospheric Thickness and Composition of the Kaapvaal Craton, South Africa
- A71 EGU2011-8787  
Javier Fullea, **Mark Muller**, Alan Jones, Juan Carlos Afonso, and Sergio Zlotnik  
Imaging the lithosphere-asthenosphere boundary of southern Africa integrating elevation, surface heat flow, magnetotelluric and petrological data
- A72 EGU2011-7739  
**Britta Wawerzinek** and Joachim Ritter  
Teleseismic S Receiver Function Analysis in Southern Norway
- A73 EGU2011-9464  
**Wolfram Geissler**, Horst Kämpf, Zuzana Skácelová, Jaroslava Plomerová, Vladislav Babuška, and Rainer Kind  
Lithosphere structure of the NE Bohemian Massif (Sudetes) - A teleseismic receiver function study
- A74 EGU2011-2410  
**Jaroslava Plomerova** and Vladislav Babuska  
European LAB constrained from seismic anisotropy
- A75 EGU2011-13072  
**Nicola Piana Agostinetti** and Meghan Miller  
The Lithosphere-Asthenosphere Boundary beneath Italy from S receiver function analysis
- A76 EGU2011-13358  
**Jan-Philipp Schmoldt**, Alan G. Jones, Javier Fullea, Mark Muller, Colin Hogg, and Oriol Rosell Novel  
Magnetotelluric investigation of the lithosphere-asthenosphere boundary beneath the Tajo Basin contrasted with results from seismic and thermal modelling studies - Results of the PICASSO Phase I project in the Iberian Peninsula
- A77 EGU2011-8114  
**David Khoza**, Alan Jones, Mark Muller, Sue Webb, and Marion Miensopust  
The electrical lithosphere in Archean cratons
- A78 EGU2011-11541  
**Gael Burgos**, Jean-Paul Montagner, Eric Beucler, Jeannot Trampert, Michael H Ritzwoller, Yann Capdeville, and Nikolai Shapiro  
Global mapping of Lithosphere Asthenosphere Boundary from surface wave tomography
- A79 EGU2011-1996  
Lucas Moreira and **Michael Friedel**  
Joint inversion of receiver function, surface wave dispersion, and magnetotelluric data for 2D crustal modeling
- A80 EGU2011-11683  
**Eric Mandolesi** and Alan G. Jones  
New constraints in magnetotelluric inversion.
- A81 EGU2011-5507  
**Valiya Hamza** and Roberto Cardoso  
Finite Half Space Model: Implications for the dilemma of the Lithosphere - Asthenosphere Boundary
- A82 EGU2011-1677  
**Irina Artemieva**  
TBL, RBL, and CBL vs LAB: physics vs semantics
- A83 EGU2011-2395  
**Nina S. C. Simon**  
A phase change model for (one of) the LAB(s)

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**SM4.2/GD2.11/GMPV49/TS10.6 – Thermal, chemical, and rheological boundary layers: How do they relate to each other? (co-organized) – Orals**

Convener: Irina Artemieva | Co-Conveners: Nicholas T. Arndt, Lev Vinnik

**Room: 26**

Chairperson: Lev Vinnik, Irina Artemieva, Nick Arndt

- 10:30–10:45 EGU2011-5876  
**Evgueni Burov**, Anthony Watts, and Thomas Francois  
Mechanical thickness of the lithosphere and its relation to its seismic, rheological and thermal structure
- 10:45–11:00 EGU2011-12700  
**Frederik J. Simons**, Sofia C. Olhede, and Dong V. Wang  
Mechanical Thickness of the Continents Worldwide: A Re-Analysis

- 11:00–11:15 EGU2011-12784  
**Joanne Adam** and Sergei Lebedev  
 Layering of seismic anisotropy and deformation beneath South Africa from the upper crust to the asthenosphere
- 11:15–11:30 EGU2011-11064  
**Lev Vinnik**, Sergei Oreshin, Sergei Kiselev, Shyam Rai, Kudumu Suryaprakasam, and Alexandr Treussov  
 The Indian shield from the upper crust to the lower mantle: boundary layers and the fast drift
- 11:30–11:45 EGU2011-8723  
**Alan Levander** and Meghan S. Miller  
 Evolutionary Aspects of Lithosphere Discontinuity Structure in the Western U.S.
- 11:45–12:00 EGU2011-13208  
**Stephan Sobolev** and Alexander Sobolev  
 How to destroy thick cratonic lithosphere?

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**SM4.2/GD2.11/GMPV49/TS10.6 – Thermal, chemical, and rheological boundary layers: How do they relate to each other? (co-organized) – Posters**

Convener: Irina Artemieva | Co-Conveners: Nicholas T. Arndt, Lev Vinnik

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

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY713 EGU2011-610  
**Hatice Yeziz**, Nurdan Sayin, and Zeynep Ozbey  
 Thermal Structure of Continental Crust in Central Anatolia
- XY714 EGU2011-1676  
**Irina Artemieva**  
 Boundary layers in the continental upper mantle constrained by geophysical data

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**SM5.5/AS4.21 – Research and Development in Nuclear Explosion Monitoring (co-organized) – Orals**

Convener: Andreas Becker | Co-Conveners: Martin Kalinowski, Lars Ceranna, David Brown, Yan Jia

**Room: 27**

Chairperson: David Brown

- 13:30–13:45 EGU2011-1736  
**Martin Kalinowski**  
 Characterisation of Prompt and Delayed Atmospheric Radioactivity Releases from Underground Nuclear Tests at Nevada as a Function of Release Time
- 13:45–14:00 EGU2011-8913  
**Tormod Kvaerna**, David B. Harris, and Steven J. Gibbons  
 Matched Field Detection of Variable Seismic Sources
- 14:00–14:15 EGU2011-11660  
**Nicolai Gestermann**, Christian Bönemann, and Lars Ceranna  
 The National Data Centres Preparedness Exercises (NPE) - Independent performance assessment by simulated CTBT violation scenarios
- 14:15–14:30 EGU2011-12363  
**John Coyne**, Jeffrey Given, Patrick Grenard, Georgios Haralabus, Julien Marty, Pierrick Mialle, and Lassina Zerbo  
 Infrasound Calibration in the Eastern Mediterranean
- 14:30–14:45 EGU2011-1748  
**Yefim Gitterman** and Rami Hofstetter  
 GT0 Explosion Sources for IMS Infrasound Calibration, Winter 2011
- 14:45–15:00 EGU2011-5786  
**Heoncheol Chi**, Geunyoung Kim, Il-Young Che, and Jungho Park  
 Regional Source Scaling of North Korea Underground Explosions: Yield and Burial-Depth Relationship

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**SM5.5/AS4.21 – Research and Development in Nuclear Explosion Monitoring (co-organized) – Posters**

Convener: Andreas Becker | Co-Conveners: Martin Kalinowski, Lars Ceranna, David Brown, Yan Jia

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

Author in Attendance: 17:30–19:00

Chairperson: Martin Kalinowski

- XY715 EGU2011-12486  
**Andreas Becker**, Ole Ross, and Lars Ceranna  
 On the potential of public available gridded precipitation re-analysis and monitoring products to access the wet-deposition impact on PTS radionuclide monitoring capability
- XY716 EGU2011-6226  
**Frederik Postelt** and Mika Nikkinen  
 The Potential of Radionuclide Ratios for Spectrum Categorization Algorithms
- XY717 EGU2011-3156  
**Gerhard Wotawa** and Ulrike Mitterbauer  
 Exercise Scenario and combined Radionuclide/Seismic/Infrasound data analysis in Austria during the Preparedness Exercise 2010 of the National Data Centres
- XY718 EGU2011-4076  
**Yuri Starovoit** and Pavel Martysevich  
 Dynamical calibration of MB2000/5 microbarometer widely used in the IMS infrasound Network
- XY719 EGU2011-5547  
**Pierrick Mialle**, Bittner Paulina, Brachet Nicolas, Brown David, and Given Jeffrey  
 One Year of Infrasound Event Analysis into the IDC Operations
- XY720 EGU2011-5669  
**Michael Schoeppner**, Martin Kalinowski, Wolfango Plastino, and Gerhard Wotawa  
 Radioxenon analysis methods and atmospheric transport modeling to distinguish anthropogenic from nuclear explosion signals
- XY721 EGU2011-5710  
**Carsten Riggelsen** and Matthias Ohrnberger  
 Improving Automatic Detections at IMS Seismic Stations via Machine Learning: Current Status and Future Directions
- XY722 EGU2011-8814  
**Tormod Kvaerna**, Frode Ringdal, and Jeffrey Given  
 Application of Detection Probabilities in the IDC Global Phase Association Process
- XY723 EGU2011-9780  
**Ivan Kitov**, Dmitry Bobrov, and John Coyne  
 Recurrence curves from the IDC catalog
- XY724 EGU2011-11463  
**Ole Ross**, Gernot Hartmann, Nicolai Gestermann, Thomas Plenefisch, Lars Ceranna, and Christian Bönnemann  
 National Data Center Preparedness Exercise 2010: Localization capability of Atmospheric Transport Modelling and analysis of wave-form signals
- XY725 EGU2011-5322  
**Tae-Kyung Hong** and Seunggu Rhee  
 Seismic investigation of a South Korean warship sinking and two North Korean nuclear explosions

Thursday, 07 April

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**GMPV4 – Signals from subsurface mass transport beneath volcanoes (co-listed) – Orals**

Convener: Gilberto Saccorotti | Co-Conveners: Eleonora Rivalta, Gareth O'Brien, Roberto Scarpa

**Room: 20**

Chairperson: n.n.

- 08:30–08:45 EGU2011-10854  
**Bo Galle** and the NOVAC Team  
 NOVAC - Network for Observation of Volcanic and Atmospheric Change, an early warning network for volcanic gas emission
- 08:45–09:00 EGU2011-8382  
**Torsten Dahm**, Tomas Fischer, and Toni Kraft  
 Using arrival time difference to estimate Poisson ratio variations in the source region of earthquake swarms
- 09:00–09:15 EGU2011-12427  
**Chris Bean**, Louis De Barros, Ivan Lokmer, Gareth O'Brien, and Shane Murphy  
 Long Period events: An unreliable indicator of conduit processes?
- 09:15–09:30 EGU2011-12402  
**Ivan Lokmer**, Gareth O'Brien, Louis De Barros, and Christopher Bean  
 Mapping of alternative long-period sources into moment-tensor solutions
- 09:30–09:45 EGU2011-13575  
**Kristín Vogfjörð**, Sigurlaug Hjaltadóttir, and Ragnar Slunga  
 Seismic Activity and Magma Movements at Icelandic Volcanoes
- 09:45–10:00 EGU2011-12833  
**Martin Hensch**, Bryndis Brandsdottir, Thora Arnadóttir, Sigrun Hreinsdottir, Jon Tarasewicz, and Bergthora Thorbjarnardottir  
 Intrusive activity beneath Eyjafjallajökull heralding the 2010 flank and summit eruptions: An analysis of earthquake and geodetic data

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**GMPV4 – Signals from subsurface mass transport beneath volcanoes (co-listed) – Posters**

Convener: Gilberto Saccorotti | Co-Conveners: Eleonora Rivalta, Gareth O'Brien, Roberto Scarpa

**Hall A | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A160 EGU2011-13046  
 Mauro Palo and **Paola Cusano**  
 Wavefield analysis of the background seismic signal recorded at Volcán de Colima, Mexico
- A161 EGU2011-16  
 Raul Arámbula-Mendoza, Denis Legrand, Philippe Lesage, Carlos Valdes-Gonzalez, Nick Varley, and **Gabriel Reyes-Davila**  
 Existence and non existence of correlations between different broad band seismic signals of vulcanian explosions of the 2005 Volcan de Colima, Mexico
- A162 EGU2011-5174  
**Haruhisa Nakamichi**, Hiroshi Aoyama, Takeshi Nishimura, Hiroshi Yakiwara, Yusaku Ohta, and Masato Iguchi  
 Array Analyses of Tremor and Explosion Earthquakes Recorded at Suwanosejima Volcano, Southwest Japan
- A163 EGU2011-6557  
**Luciano Zuccarello**, Gilberto Saccorotti, Jean-Philippe Métaxian, Christopher J. Bean, and Domenico Patanè  
 Array analysis of volcanic tremor during the 2008 Etna eruption.
- A164 EGU2011-6515  
 Marco Aliotta, Andrea Cannata, Carmelo Cassisi, Giuseppe Di Grazia, Placido Montalto, Luciano Zuccarello, and **Domenico Patanè**  
 Recent developments of seismo-volcanic monitoring systems for magma dynamics investigation and eruptive precursors characterization at Mt. Etna.
- A165 EGU2011-6663  
**Luciano Zuccarello**, Daniele Carbone, Andrea Cannata, Giuseppe Di Grazia, Placido Montalto, and Domenico Patanè  
 Localization of volcanic tremor at Stromboli volcano, using seismic amplitude distribution.
- A166 EGU2011-8844  
**Megan Zecevic**, Louis De Barros, Gareth S. O'Brien, Christopher J. Bean, and Florent Brenguier  
 Analysis of Source Characteristics of LP events at Piton de la Fournaise, La Réunion



- A167 EGU2011-8859  
**Thomas Eyre**, Gareth S. O'Brien, Francesca Martini, Christopher J. Bean, Mauricio M. Mora, Javier F. Pacheco, and Gerardo J. Soto  
Investigating seismic source mechanism at Turrialba volcano, Costa Rica
- A168 EGU2011-12326  
**Gilberto Saccorotti**, Micol Todesco, Antonio Pio Rinaldi, and Chiara Montagna  
Modelling Seismological Observables Associated With The Dynamics of Hydrothermal Systems
- A169 EGU2011-12850  
**Kristin Jonsdottir**, Chris Bean, Kristin Vogfjord, and Maurizio Ripepe  
The source of volcanic tremor investigated during the Eyjafjallajökull eruption 2010
- A170 EGU2011-12949  
**Janire Prudencio**, Edoardo Del Pezzo, Araceli García-Yeguas, and Jesús Ibáñez  
Intrinsic and scattering attenuation image of Teide volcanic complex from an active seismic experiment
- A171 EGU2011-13941  
**Francesco Obrizzo**, Ida Aquino, Giuseppe Brandi, Andrea D'Alessandro, Carlo Del Gaudio, Prospero De Martino, Mario Dolce, Ciro Ricco, Vincenzo Sepe, Claudio Serio, and Umberto Tammaro  
Ischia island: strain field by GPS and Levelling data.
- A172 EGU2011-8791  
**Filippo Greco**, Gilda Currenti, Rosalba Napoli, Antonio Pistorio, and Ciro Del Negro  
Continuous microgravity variations accompanying the onsets of the last flank eruptions at Etna volcano (Italy)
- A173 EGU2011-4821  
**Daniele Carbone** and Michael P. Poland  
First analysis of data from two continuously recording gravimeters at Kilauea Volcano, Hawai'i
- A174 EGU2011-4088  
**Enrique Cabral-Cano**, Alejandra Arciniega-Ceballos, Jose Manuel Alvarez-Nieves, Francisco Rodriguez-Valenzuela, Luis Salazar Tlaczani, Hugo Delgado-Granados, and Gabriel Reyes-Dávila  
Broadband seismic and geodesic deployment in Volcan de Fuego, Colima, in central Mexico
- A175 EGU2011-6327  
**Mario Mattia**, Flavio Cannavò, Alessandro Aiuppa, and Ripepe Maurizio  
I2: Detecting the unrest of an active volcano through High Rate GPS data
- A176 EGU2011-12794  
Takashi Maeda and **Tadashi Takano**  
Further analysis of the 2008 Chaiten eruption toward early warning method for volcanic activity using microwave radiometer
- A177 EGU2011-8650  
**Alessandro Bonaccorso**, Andrea Cannata, Rosa Anna Corsaro, Giuseppe Di Grazia, Salvatore Gambino, Filippo Greco, Lucia Miraglia, and Antonio Pistorio  
Multi-disciplinary investigation on a lava fountain preceding a flank eruption: the 10 May 2008 Etna case
- A178 EGU2011-2160  
**Sonia Calvari**, Letizia Spampinato, Alessandro Bonaccorso, Clive Oppenheimer, Eleonora Rivalta, and Enzo Boschi  
Lava effusion — A slow fuse for paroxysms at Stromboli volcano?
- A179 EGU2011-14127  
**Antonius Ratdomopurbo**, C. Widiwidjajanti, A. Baguet, C.M. Lyou, and Chris Newhall  
Worldwide Database of Volcanic Unrest (WOVOdat): Progress of 2010

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## NP5.2 – Inverse Problems and Data Assimilation in Geosciences (co-listed) – Orals

Convener: Olivier Talagrand | Co-Conveners: Jeannot Trampert, Peter Jan van Leeuwen

**Room: 18**

Chairperson: n.n.

- 08:30–08:45 EGU2011-2054  
**Pierre Del Moral**  
Particle Methods for nonlinear filtering and uncertainty propagation analysis
- 08:45–09:00 EGU2011-13157  
**Robert Miller**, Ethan Atkins, Alexandre Chorin, Matthias Morzfeld, Yvette Spitz, and Brad Weir  
Implementation of the Implicit Particle Filter for a Model of Nearshore Circulation
- 09:00–09:15 EGU2011-542  
**Matthias Morzfeld**, Ethan Atkins, and Alexandre Chorin  
Geomagnetic data assimilation with an implicit particle filter into a one-dimensional sparsely observed MHD system
- 09:15–09:30 EGU2011-3310  
Melanie Ades and **Peter Jan van Leeuwen**  
Efficient Particle Smoothers for large-dimensional problems

- 09:30–09:45 EGU2011-2383  
**Marc Bocquet**  
 Ensemble Kalman filtering without the intrinsic need for inflation
- 09:45–10:00 EGU2011-1594  
**Victor Shutyaev**, Igor Gejadze, and Francois-Xavier Le Dimet  
 Optimal solution error covariances in nonlinear problems of variational data assimilation

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**COFFEE BREAK**


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Chairperson: n.n.

- 10:30–10:45 EGU2011-7349  
**Cristina Prates**, Stefano Migliorini, Stephen English, and Ed Pavelin  
 Remote sounding of temperature and humidity in the presence of clouds
- 10:45–11:00 EGU2011-8394  
**Anna Teruzzi**, Gianpiero Cossarini, Cosimo Solidoro, and Srdjan Dobricic  
 A 3Dvar Assimilation Scheme Of Satellite Chlorophyll In A Complex Biogeochemical Model Of The Mediterranean Sea
- 11:00–11:15 EGU2011-2474  
**Kuan Li**, Andrew Jackson, and Philip Livermore  
 Progress towards the adjoint dynamo problem
- 11:15–11:30 EGU2011-12776  
**Muhammad Umer Altaf**, Arnold W. Heemink, Martin Verlaan, and Ibrahim Hoteit  
 Parameter estimation in a large scale Dutch Continental Shelf Model by Proper Orthogonal Decomposition
- 11:30–11:45 EGU2011-12185  
**Adriana Coman**, Gilles Foret, Matthias Beekmann, Maxim Eremenko, Gaelle Dufour, Benjamin Gaubert, Anthony Ung, Gilles Bergametti, and Jean-Marie Flaud  
 Assimilation of tropospheric ozone from the IASI instrument using an Ensemble Kalman Filter coupled with the regional Chemical Transport Model (rCTM) CHIMERE
- 11:45–12:00 EGU2011-11048  
**Heikki Järvinen**, Petri Räisänen, Marko Laine, Johanna Tamminen, Pirkka Ollinaho, Alexander Ilin, Erkki Oja, Antti Solonen, and Heikki Haario  
 Advanced uncertainty evaluation of climate models and their future climate projections

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**LUNCH BREAK**


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Chairperson: n.n.

- 13:30–13:45 EGU2011-9155  
**Andrew Curtis**  
 Fast, nonlinear, probabilistic inversion of large Geophysical problems
- 13:45–14:00 EGU2011-2570  
**Emmanuel Cosme**, Jacques Verron, Pierre Brasseur, Jacques Blum, and Didier Auroux  
 Smoothing problems in a Bayesian framework and their linear Gaussian solutions
- 14:00–14:15 EGU2011-2501  
**Alberto Carrassi** and Stephane Vannitsem  
 Treatment of model error in sequential data assimilation
- 14:15–14:30 EGU2011-7700  
**Mohamed Jardak** and Olivier Talagrand  
 Ensemble Variational Assimilation as an ensemble estimator
- 14:30–14:45 EGU2011-11237  
**Jochen Broecker**  
 Sensitivity and out-of-sample error in data assimilation
- 14:45–15:00 EGU2011-13286  
**Ross Hoffman**, Karen Cady-Peira, Janusz Eluszkiewicz, Daniel Gombos, Jean-Luc Moncet, Steven Greybush, Kayo Ide, Eugenia Kalnay, Matthew Hoffman, and R. John Wilson  
 A strategy to optimize the use of retrievals in data assimilation

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**SM1.1/G3.9/TS1.2 – Open Session on Seismology (including Beno Gutenberg Medal Lecture) (co-organized) – Orals**  
 Convener: Ramon Carbonell | Co-Conveners: CharLotte Krawczyk

**Room: 26**

Chairperson: Charlotte Krawczyk

- 13:30–13:45 EGU2011-11910  
**Alice Gabriel**, Jean-Paul Ampuero, Luis A. Dalguer, and P. Martin Mai  
 Transition Of Dynamic Rupture Modes In Elastic Media
- 13:45–14:00 EGU2011-12532  
**Pierre Arroucau**, Gordana Vlahovic, and Chris Powell  
 Potential Field Investigations in the Eastern Tennessee Seismic Zone
- 14:00–14:15 EGU2011-9020  
**Zacharie Duputel**, Luis Rivera, Yukitoshi Fukahata, and Hiroo Kanamori  
 Error estimations for seismic source inversions
- 14:15–14:30 EGU2011-7807  
**Iva Dasovic**, Marijan Herak, and Davorka Herak  
 Coda attenuation analysis of Zagreb area, Croatia
- 14:30–14:45 EGU2011-5789  
**Mario La Rocca**, Danilo Galluzzo, Luisa Anna Formisano, Edoardo Del Pezzo, and Roberto Scarpa  
 Coherent body waves in the coda of earthquakes recorded by an underground array
- 14:45–15:00 EGU2011-7790  
**Alireza Alinaghi** and Frank Krueger  
 Constraining the depth of earthquakes in Iran and Central Asia using a combination of Array techniques and waveform modeling at regional and teleseismic distances
- Chairperson: Ramon Carbonell
- 15:30–15:45 EGU2011-8104  
**Paola Cusano**, Simona Petrosino, Norma Damiano, Mauro Antonio Di Vito, Sandro De Vita, and Edoardo Del Pezzo  
 Shallow crustal structure of Solfatara volcano from seismic noise analysis
- 15:45–16:00 EGU2011-11587  
**Antonino D'Alessandro**, Giorgio Mangano, Giuseppe D'Anna, and Dario Luzio  
 Palermo 2010 - Underwater seismic monitoring of the epicenter area of the 6 September 2002 Palermo Earthquake
- 16:00–16:15 EGU2011-26  
**alireza seifollahi**  
 Optical Seismograph
- 16:15–17:15 EGU2011-14185  
**Thomas Guy Masters**  
 Free oscillations for fun and profit (Beno Gutenberg Medal Lecture)

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**TS6.1/G3.3/GD5.4/SM1.5 – The Alpine-Himalayan convergence zone: from the Mediterranean to SE Asia (co-organized) – Orals**

Convener: Rob Govers | Co-Conveners: Claudio Faccenna, Alastair Robertson, Zohar Gvirtzman, Uri Schattner, Laurent Jolivet

**Room: 28**

Chairperson: Uri Schattner and Alastair Robertson

- 08:30–08:45 EGU2011-5046  
**Philippe Agard**, Jafar Omrani, Laurent Jolivet, Hubert Whitechurch, Bruno Vrielynck, Wim Spakman, Patrick Monié, Bertrand Meyer, and Rinus Wortel  
 Subduction and orogenic build-up in the Zagros
- 08:45–09:00 EGU2011-4555  
**Jean-Christophe Wrobel-Daveau**, Jean-Claude Ringenbach, Geoffrey M. H. Ruiz, Finlay M. Stuart, and Dominique Frizon de Lamotte  
 Vertical movements and Cenozoic propagation of the deformation in the Zagros belt: insights from sections balancing and detrital low temperature thermochronology (AHe and ZHe)
- 09:00–09:15 EGU2011-4731  
 Massimo Mattei, **Francesca Cifelli**, Giovanni Muttoni, Andrea Zanchi, Fabrizio Berra, Fathollah Mossavvari, and Eshraghi Safar Ali  
 Neogene block-rotation in Central Iran: evidence from paleomagnetic data
- 09:15–09:30 EGU2011-5884  
**Kristen Cook**, Leigh Royden, Clark Burchfiel, Yuan-Hsi Lee, and John Suppe  
 Cenozoic cooling history of the southwestern Longmen Shan
- 09:30–09:45 EGU2011-4183  
**Anne Replumaz**, Stéphane Guillot, and Ana Negredo  
 Indian and Asian continental subduction episodes during collision : tectonic context and slab dynamics

09:45–10:00 EGU2011-1888

**Mark Allen** and Howard Armstrong

Shifts in the Intertropical Convergence Zone and the tectonics and climate of the India-Eurasia collision

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**TS6.2/GD5.9/GMPV46/SM1.6 – Geodynamics of the Westernmost Mediterranean and Northwest Africa (co-organized)**

– Orals

Convener: Carlos J. Garrido | Co-Conveners: Bodinier Jean-Louis, Manel Fernandez, Laurent Jolivet, Guillermo Booth-Rea, Philippe Vernant

**Room: 28**

Chairperson: Carlos J. Garrido & Manel Fernández

10:30–10:45 EGU2011-13586

**Christian Gorini**, François Bache, Ferran Estrada, Belén Alonso, Abdellah Ammar, Daniel Aslanian, Damien Do Couto, Antonio Tadeu Dos Reis, Mohammed Elabbassi, Gemma Ercilla, Marga Garcia, Julien Gargani, Pol Guennoc, Laurent Jolivet, Gwenael Jouannic, Agnes Maillard, Ludovic Mocochain, Speranta-Maria Popescu, Marina Rabineau, Jean Loup Rubino, and Jean-Pierre Suc  
Messinian Events In The Mediterranean: A review from the offshore basins

10:45–11:00 EGU2011-5693

**Jordi Diaz Cusí**, Josep Gallart, and Topolberia Seismic Working Group  
Seismic anisotropy pattern beneath Iberia and Northern Morocco: first results from the second Topolberia-IberArray deployment

11:00–11:15 EGU2011-3274

**Valentí Sallarès**, Audrey Gailler, Marc-André Gutscher, Rafael Bartolomé, Jordi Díaz, Eulàlia Gràcia, and David Graindorge  
Seismic evidence for the presence of Jurassic oceanic crust in the Gulf of Cádiz (SW Iberia)

11:15–11:30 EGU2011-13558

**Juan Carlos Afonso**, Javier Fullea, Manel Fernández, Jaume Vergés, and Hermann Zeyen  
The lithosphere-sublithospheric upper mantle system beneath the Atlantic-Mediterranean Transition Region: advances and limitations from recent multidisciplinary approaches

11:30–11:45 EGU2011-4924

David Pesquer, **Ingo Grevemeyer**, Cesar Ranero, and Josep Gallart  
Slab rollback and continental break-up in a convergent setting - seismic structure of passive continental margins in the Western Mediterranean

11:45–12:00 EGU2011-4034

**Jacques Précigout**, Frédéric Gueydan, Carlos J. Garrido, and Guillermo Booth-Rea  
Deformation and Exhumation of the sub-Continental Mantle: Insight from the Ronda Peridotite (Spain)

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**TS6.2/GD5.9/GMPV46/SM1.6 – Geodynamics of the Westernmost Mediterranean and Northwest Africa (co-organized)**

– Posters

Convener: Carlos J. Garrido | Co-Conveners: Bodinier Jean-Louis, Manel Fernandez, Laurent Jolivet, Guillermo Booth-Rea, Philippe Vernant

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

Author in Attendance: 17:30–19:00

Chairperson: G. Booth-Rea, L. Jolivet, J.-L. Bodinier & P. Vernant

XL348 EGU2011-8401

**Damien Do Couto**, Jean-Pierre Suc, Noémie Lebre, Charles Gumiaux, Laurent Jolivet, Christian Gorini, Georges Clauzon, Gwénaél Jouannic, and Ferran Estrada  
Impacts of the Messinian Salinity Crisis on the Spanish margin of the Alboran Sea, Western Mediterranean

XL349 EGU2011-481

**Youssef Timoulali**  
Geodynamic evolution in the West Alboran Sea: New evidence

XL350 EGU2011-9927

**Manel Fernández**, Ivone Jiménez-Munt, Jaume Vergés, Daniel Garcia-Castellanos, Javier Fullea, Marta Pérez-Gussinyé, and Juan Carlos Afonso  
Decoupled crust-mantle accommodation of Africa-Eurasia convergence in the NW-Moroccan margin

XL351 EGU2011-6461

**Stephen Monna**, Giovanni B. Cimini, Caterina Montuori, Wolfram H. Geissler, Luis M. Matias, and Paolo Favali  
Upper mantle structure of the SW Iberian Margin and Alboran Sea: new insights from 3D teleseismic tomography integrating OBS and land stations data

- XL352 EGU2011-8902  
**Meghan S. Miller**, Amir Allam, Lisa A. Alpert, and Thorsten W. Becker  
 Mantle structure and dynamics beneath the Western Mediterranean constrained by seismic anisotropy and global flow models
- XL353 EGU2011-1231  
**Edoardo Del Pezzo**, Jose Morales, Jesus Ibanez, Daniel Stich, and Francesca Bianco  
 Attenuation for P and S waves in the upper mantle beneath Iberian peninsula in the frequency range 0.2 - 8 Hz from Broad-Band recordings of the (600 km) deep  $\bar{A}$  earthquake of April 11, 2010.
- XL354 EGU2011-11270  
**Süleyman Dündar**, Rainer Kind, Xiaohui Yuan, Fatih Bulut, Xueqing Li, Forough Sodoudi, Ben Heit, Prakash Kumar, Winfried Hanka, and Flor de Lis Mancilla  
 Lessons learned from receiver function analysis: Variation of the seismic discontinuities along the Alboran Sea region
- XL355 EGU2011-4930  
**Ingo Grevemeyer**, Antonio Villasenor, and Wiebke Leuchters  
 Seismotectonics of the Alboran domain, Western Mediterranean - active shallow tectonics and deep-seated shadows of the past
- XL356 EGU2011-13745  
**Jean Roger**, Alain Rabaute, Nuno Simão, and Nicolas Chamot-Rooke  
 High energy seismic ruptures offshore the Iberian Peninsula: state of the art
- XL357 EGU2011-8111  
 Angélique Leprêtre, **David Graindorge**, Frauke Klingelhoeffer, Philippe Schnurle, Rabah Bracène, Abdelkarim Yellès, and Jacques Déverchère  
 How atypical is the Algerian passive margin? First results from structures imaged by seismic data off Tipaza, central Algerian margin
- XL358 EGU2011-11185  
**Daniel Garcia-Castellanos** and Antonio Villaseñor  
 Tectonic uplift at the Gibraltar Arc and the Mediterranean salt pan. Towards a mechanistic model for the Messinian Salinity Crisis
- XL359 EGU2011-13075  
**Achraf Koulali Idrissi**, Driss Ouazar, Abdelilah Tahayt, Robert.W King, Philippe Vernant, Robert Reilinger, Simon McClusky, Taoufiq Mourabit, J.Martín Davila, and Nabil Amraoui  
 New GPS constraints on deformation along the Africa-Iberia plate boundary
- XL360 EGU2011-8005  
**Anna Echeverria**, Giorgi Khazaradze, Jorge Garate, Eva Asensio, Eulàlia Masana, and Emma Suriñach  
 Present-day GPS crustal deformation rates in the Eastern Betics (SE Spain)
- XL361 EGU2011-4290  
**Ana Ruiz-Constán**, Jesús Galindo-Zaldívar, and Antonio Pedrera  
 Stress distribution in a continental collision: the northwestern Betic Cordillera transect
- XL362 EGU2011-4829  
 Antonio Pedrera, **A. Ruiz-Constán**, **J. Galindo-Zaldívar**, A. Chalouan, C. Sanz de Galdeano, C. Marín-Lechado, P. Ruano, M. Benmakhlouf, M. Akil, A.C. López-Garrido, A. Chabli, and M. Ahmamou, L. González-Castillo  
 Pliocene to Present-day stress field along the western Gibraltar orogenic arc and geodynamics implications
- XL363 EGU2011-12712  
**Alejandra Staller**, Belén Benito, José Jesús Martínez-Díaz, Jorge Gárate, and Laura Wallace  
 Kinematic model of crustal deformation in the Ibero-Maghreb region: Insights from geodetic, geophysical and geologic data.
- XL364 EGU2011-3822  
**Guillermo Booth-Rea**, Lahcen Asebriy, Antonio Jabaloy, Ali Azdimousa, Mercedes Vázquez-Vílchez, and José Miguel Martínez-Martínez  
 What is the fate of STEP faults? The disappearing Nekor fault in the Eastern Rif, Morocco
- XL365 EGU2011-4040  
**Antonio Jabaloy Sánchez**, Ali Azdimoussa, Guillermo Booth-Rea, Lahcen Asebriy, Mercedes Vázquez-Vílchez, and José Miguel Martínez-Martínez  
 Extensional detachments in the external Rif: a mode of upper-crustal extension during oblique collision (Temsamane units, eastern Rif, Morocco)
- XL366 EGU2011-13741  
 Mercedes Vázquez, **Antonio Jabaloy**, Luis Barbero, and Finlay M. Stuart  
 Differential exhumation of the Nevado-Filábride Complex (Betic Cordillera, Southern Spain): evidence from apatite (U-Th)/He thermochronology and apatite fission tracks

- XL367 EGU2011-13984  
 María Teresa Gómez-Pugnaire, Daniela Rubatto, Juan Manuel Fernández-Soler, Antonio Jabaloy, **Vicente López Sánchez-Vizcaíno**, Francisco González-Lodeiro, Jesús Galindo-Zaldívar, and José Alberto Padrón-Navarta  
 U-Pb zircon geochronology of gneisses of the Betic Cordillera, Spain: Evidences of recycled Variscan crust during the Alpine orogeny
- XL368 EGU2011-2991  
**Carlos J. Garrido**, Frédéric Gueydan, Guillermo Booth-Rea, Jacques Precigout, Karoly Hidas, José Alberto Padrón-Navarta, and Claudio Marchesi  
 Garnet Lherzolite and Garnet-spinel mylonite in the Ronda Peridotite: Vestiges of Oligocene Back-arc mantle lithospheric extension in the Western Mediterranean
- XL369 EGU2011-4027  
**Karoly Hidas**, Guillermo Booth-Rea, Carlos J. Garrido, and José Miguel Martínez-Martínez  
 Folding and shearing of the lithospheric mantle prior to Ronda peridotite intracrustal emplacement
- XL370 EGU2011-8141  
**Erwin Frets**, Carlos Garrido, Andrea Tommasi, Jean-Louis Bodinier, Isma Amri, and Kamal Targuisti  
 Structural Petrology of the Beni Bousera Peridotite (Betic-Rif Belt, N Morocco)
- XL371 EGU2011-4894  
**Zoltan Konc**, Carlos J. Garrido, Andrea Tommasi, Karoly Hidas, Claudio Marchesi, and Csaba Szabo  
 Deformation Record of Upper Mantle Peridotite Xenoliths from SE Iberian Volcanic Province (Spain)
- XL372 EGU2011-3987  
**Claudio Marchesi**, Carlos J. Garrido, Delphine Bosch, Jean-Louis Bodinier, Karoly Hidas, José A. Padrón-Navarta, and Fernando Gervilla  
 A Late Oligocene supra-subduction setting for the Westernmost Mediterranean revealed by andesite-derived mantle pyroxenite in the Ronda peridotite (S Spain)
- XL373 EGU2011-12655  
 Elisabetta Rampone, Reinoud L.M. Vissers, and **Alberto Zanetti**  
 Evidence for silica-saturated melts in the Tallante mantle xenoliths (SE Spain): Inferences on their origin and geodynamic significance
- XL374 EGU2011-9295  
 Antonio Álvarez-Valero, **Leo Kriegsman**, Youssef Driouch, Mohamed Dahire, Ali Moukadiri, Ahmed Ntarmouchant, Stéphanie Duchene, and Jean-Luc Severac  
 Xenoliths as constraints on crustal architecture and melting levels in southern Spain and northern Morocco

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**GD6.1/GMPV55/SM1.12/TS4.6 – Whole mantle dynamics: Linking surface and deep processes (co-organized) – Orals**

Convener: Trond Torsvik | Co-Conveners: Rob Van der Voo, Clinton Conrad, Mike Gurnis

**Room: 22**

Chairperson: T.H. Torsvik and C. Gaina

- 08:30–08:45 EGU2011-4392  
**Allen McNamara** and Edward Garnero  
 Long Lived Compositional Reservoirs: Their Evolution in a Cooling Earth and Hypothesis Tests for their Existence
- 08:45–09:00 EGU2011-4850  
**Reidar G. Trønnes**  
 Composition, mineral physics and origin of thermochemical piles in the D" zone
- 09:00–09:15 EGU2011-12247  
**Marcus Beuchert**, Harro Schmeling, and Meysam Shahraki  
 Influence of Large Low Shear Velocity Provinces in the lower mantle on the geoid
- 09:15–09:30 EGU2011-2591  
**Rob Van der Voo** and Trond H Torsvik  
 Linking surface and deep processes in the Paleozoic
- 09:30–09:45 EGU2011-958  
**John Crowley** and Richard O'Connell  
 An analytic model for thermal convection with plates and the implications for plate-mantle coupling and the thermal evolution of the Earth
- 09:45–10:00 EGU2011-2381  
**Stephanie C. Werner** and Kevin Burke  
 Distribution of volcanism, topographic and geoid highs on terrestrial bodies: A comparison

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**COFFEE BREAK**


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Chairperson: R. Van der Voo and A. McNamara

- 10:30–10:45 EGU2011-3216  
**Bernhard Steinberger** and Trond H. Torsvik  
 A geodynamic model of plumes from the margins of Large Low Shear Velocity Provinces
- 10:45–11:00 EGU2011-3676  
**Peter Webb**, Huw Davies, and Rhodri Davies  
 Identifying the origin of seismic anomalies using 300Myr plate motion history in mantle circulation models
- 11:00–11:15 EGU2011-3849  
**Julian Lowman**, Scott King, and Sean Trim  
 The influence of plate boundary motion on mantle planform and heat flux in viscously stratified convection models
- 11:15–11:30 EGU2011-2438  
**Clinton Conrad**, Bernhard Steinberger, and Trond Torsvik  
 Past Mantle Dynamics Revealed by Net Characteristics of Surface Plate Motions
- 11:30–11:45 EGU2011-5704  
**Laurent Husson**, Clinton P. Conrad, and Claudio Faccenna  
 On the consistency between Andean dynamics and mantle flow in the South Atlantic
- 11:45–12:00 EGU2011-4492  
**Carmen Gaina**, Trond H. Torsvik, Steven Cande, Marcel Croon, and Pavel V. Dubrovine  
 Global Plate Circuits at Paleocene-Eocene time

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**SM2.1/GD2.12/TS8.6 – New developments and Results on Seismotectonics (co-organized) – Orals**

Convener: Mourad Bezzeghoud | Co-Conveners: Elisa Buforn

**Room: 26**

Chairperson: Mourad Bezzeghoud and Elisa Buforn

- 08:30–08:45 EGU2011-1790  
**Ulrich Schreiber** and Gabriele Berberich  
 Red Wood Ant Mounds as Biological Indicators for Earthquake-bearing Fault Systems
- 08:45–09:00 EGU2011-1785  
**Gabriele Berberich**, Martin Berberich, and Ulrich Schreiber  
 First Results of 1 Year Monitoring of Red Wood Ant Behaviour as Short-term (> 1h) Indicators for Earthquake Prediction
- 09:00–09:15 EGU2011-2930  
**Youssef Timoulali** and Mustapha Meghraoui  
 3-D crustal structure in the Agadir region (SW High Atlas, Morocco)
- 09:15–09:30 EGU2011-9852  
**Kevin Manchuel**, Nicole Béthoux, Marc Régnier, Yvonne Font, and Bertrand Delouis  
 Interseismic active deformation and stress fields along the North Ecuadorian - South Colombian margin
- 09:30–09:45 EGU2011-9781  
**José Borges**, Bento Caldeira, João Carvalho, and Mourad Bezzeghoud  
 Three-dimensional seismic ground motion modelling in Lower Tagus Valley from Finite difference simulations
- 09:45–10:00 EGU2011-13419  
**João Rocha**, Mourad Bezzeghoud, Bento Caldeira, José Borges, Nuno Dias, Luís Matias, and Alexandre Araújo  
 Microseismicity in the Algarve region (southern Portugal) and its seismotectonic implications

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**SM2.1/GD2.12/TS8.6 – New developments and Results on Seismotectonics (co-organized) – Posters**

Convener: Mourad Bezzeghoud | Co-Conveners: Elisa Buforn

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

Author in Attendance: 17:30–19:00

Chairperson: José Fernando Borges

- XY689 EGU2011-84  
**Ahmed Hosny**  
 Source Moment Tensors of the earthquake Swarm in Abu-Dabbab area, South-East Egypt : Evidence of transient Igneous activity.
- XY690 EGU2011-808  
**Emanuela Matrullo**, Luis Rivera, Raffaella De Matteis, and Aldo Zollo  
 Stress inversion from initial polarities of a population of earthquakes: application to the Irpinia region (Southern Apennines)

- XY691 EGU2011-3088  
**Quetzalcoatl Rodríguez-Perez** and Lars Ottemöller  
 Stochastic finite-fault ground-motion simulation and source characterization of the 4 April 2010 (Mw 7.2), El Mayor-Cucapah earthquake.
- XY692 EGU2011-10600  
**Ruey-Juin Rau**, Jian-Cheng Lee, Kuo-En Ching, Yuan-Hsi Lee, Timothy Byrne, and Rong-Yuh Chen  
 Subduction-continent collision in southwestern Taiwan: the 2010 Jiashian earthquake sequence
- XY693 EGU2011-9551  
**Sergio Llana-Funez**, Carlos López Fernández, and Juan Manuel González Cortina  
 Seismic swarms piercing through the seismogenic zone in moderately stressed upper crust of NW Iberia
- XY694 EGU2011-4376  
**Satoshi Matsumoto**, Kenji Uehira, Takeshi Matsushima, and Hiroshi Shimizu  
 Modeling deviatoric stress field around the hypocentral area of the 2005 Fukuoka earthquake (M7.0) using focal mechanisms
- XY695 EGU2011-4889  
**Fatih Bulut**, Marco Bohnhoff, Tuna Eken, Christoph Janssen, Tu?bay K?l?ç, and Georg Dresen  
 Seismicity of the East Anatolian Fault Zone: Insights into structural variation and fault kinematics
- XY696 EGU2011-8363  
**Tiziana Sgroi**, Rita de Nardis, and Giusy Lavecchia  
 Seismotectonic implications in central Sicily (Southern Italy): new constraints from crustal seismicity
- XY697 EGU2011-5348  
**Tuna Eken**, Fatih Bulut, Marco Bohnhoff, Birsan Can, Mustafa Aktar, and Gerog Dresen  
 Monitoring microseismicity at the Princes Islands segment of the North Anatolian Fault Zone: Recent results from the PIRE network
- XY698 EGU2011-6031  
**Konstantinos Konstantinou**, Shiann-Jong Lee, Yvonne Font, and Honn Kao  
 The 18 December 2001 (Mw 6.8) earthquake offshore eastern Taiwan: Rupture at the landward flank of a subducted ridge
- XY699 EGU2011-3032  
 Efthimios Sokos, Jiri Zahradnik, Anastasia Kiratzi, **Jaromir Jansky**, Frantisek Gallovic, Oldrich Novotny, Anna Serpetsidaki, and Akis-G. Tselentis  
 The January 2010 Efpalio earthquake sequence interpreted in terms of the tectonics of western Corinth Gulf
- XY700 EGU2011-4544  
**Ali Rezaei Nayeh** and Hossein Shomali  
 An Application of Relative Moment Tensor Inversion to 14 local earthquakes occurred in southern Iran, Fin region
- XY701 EGU2011-5217  
**Chau-Huei Chen** and Chi-Chia Tang  
 Find Low-Frequency Earthquakes in Southern Taiwan Triggered by the 2005 Mw8.6 Nias Earthquake from Micro-Tremor Records
- XY702 EGU2011-5922  
**Sebastiano D'Amico** and Pauline Galea  
 Moment Tensor solutions in the Sicily channel

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## SM2.2 – Earthquake source processes: source parameter scaling relations, and outstanding issues – Orals

Convener: Rebecca M. Harrington | Co-Conveners: Grzegorz Kwiatek, Joachim Ritter

**Room: 26**

Chairperson: Rebecca Harrington and Grzegorz Kwiatek

- 10:30–10:45 EGU2011-4121  
**Danilo Galluzzo**, Mario La Rocca, Edoardo Del Pezzo, and Roberto Scarpa  
 Source scaling of aftershocks following the 2009 Mw 6.3 L'Aquila earthquake (Central Italy) recorded at an underground array
- 10:45–11:00 EGU2011-6608  
**Aldo Zollo**, Antonella Orefice, and Vincenzo Convertito  
 Scaling Relationships for Earthquake Source Parameters Down to Decametric Fracture Lengths
- 11:00–11:15 EGU2011-10900  
**Grzegorz Kwiatek**, Katrin Plenkers, and Georg Dresen  
 Static and dynamic scaling relations from cm- to m- scale: A case study from in-situ geomechanical laboratory at Mponeng deep gold mine, South Africa
- 11:15–11:30 EGU2011-5506  
**Rebecca Harrington** and Philip Benson  
 Empirical Green's Functions Analysis of Volcanic Hybrid Earthquakes Simulated in the Laboratory



11:30–11:45 EGU2011-9987

**Stella Pytharouli**, Rebecca J. Lunn, Rachel E. Abercrombie, and Aderson F. do Nascimento  
Are existing models adequate to describe the source dimensions of small, shallow earthquakes?

11:45–12:00 EGU2011-13237

**Tomas Fischer**, Josef Horalek, Hanka Cermakova, and Jan Michalek  
Does stress drop of small earthquakes depend on non-shear components?

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## SM2.2 – Earthquake source processes: source parameter scaling relations, and outstanding issues – Posters

Convener: Rebecca M. Harrington | Co-Conveners: Grzegorz Kwiatek, Joachim Ritter

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

Author in Attendance: 17:30–19:00

Chairperson: Joachim Ritter

XY703 EGU2011-6848

**Bálint Süle** and Zoltán Wéber

Spectral estimation of source parameters for local earthquakes in the Pannonian basin

XY704 EGU2011-9603

**Anna Dobrynina**

Baikal rift earthquakes source parameter scaling relations

XY705 EGU2011-6348

**Jan Michálek**, Hana ?ermáková, Josef Horálek, and Tomáš Fischer

Static source parameters of the West Bohemia/Vogtland earthquake swarms

XY706 EGU2011-450

**Hossein Hassani** and Mehdi Zare

A Comparison of ML/MW Relationship for Natural Earthquakes and Mining Explosions in Tehran Region

XY707 EGU2011-8068

**Marco Walter** and Manfred Joswig

The influence of natural and anthropogenic noise to seismic detection capacities of events  $M_I < 0.0$

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## TS4.1/G3.4/GMPV27/SM2.10 – Crustal faulting and deformation processes observed by interferometric synthetic aperture radar (InSAR) (co-organized) – Posters

Convener: Manoochehr Shirzaei | Co-Conveners: Thomas R. Walter, Riccardo Lanari

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

Author in Attendance: 17:30–19:00

Chairperson: Shirzaei/Walter/Lanari

XL311 EGU2011-5976

**Simone Atzori**, Roberto Devoti, and Stefano Salvi

A new algorithm to correct DInSAR maps with GPS data

XL312 EGU2011-3554

**Sergey Samsonov**, Kristy Tiampo, Pablo Gonzalez, Jose Fernandez, and Nicolas d'Oreye

Processing methodology for calculation of ground deformation rates along Hayward fault, northern California, from RADARSAT-2 synthetic aperture radar images acquired during 2008-2011

XL313 EGU2011-9070

**Zahra Mousavi**, Erwan Pathier, Andrea Walpersdorf, Isabelle Manighetti, Mathilde Vergnolle, Farokh

Tavakoli, and Hamidreza Nankali

Investigation of interseismic deformation of active faults in eastern Iran: contribution of Spaceborn radar Interferometry

XL314 EGU2011-6982

**Giuseppe Pezzo**, Cristiano Tolomei, Simone Atzori, Yassaman Farbod, Esmaeil Shabanian, Stefano Salvi, Olivier Bellier, and Claudio Faccenna

Interseismic strain accumulation on the Western Doruneh fault, Northern Iran, by multitemporal SBAS - DInSAR technique

XL315 EGU2011-282

**Asli Dogru**, Haluk Ozener, Bulent Turgut, and Asli Sabuncu

Investigation of Crustal Deformation in Eastern Turkey Using InSAR

XL316 EGU2011-2242

**Hannes Bathke** and Thomas R. Walter

Volcano and earthquake deformation at Ararat and Tendurek, Eastern Turkey, shown by InSAR time series

XL317 EGU2011-11243

Eugenio Sansosti, Giovanni Zeni, Antonio Pepe, Giuseppe Solaro, Nicolas d'Oreye, Christelle Wauthier, Francois Kervyn, Sergey Samsonov, José Fernández, and **Pietro Tizzani**

Analysis of tectonic and magmatic activity at Virunga volcanic Province (Congo) revealed by SBAS-DInSAR analysis

- XL318 EGU2011-13711  
**Xiaoying Cong**, Michael Eineder, Stefan Gernhardt, and Richard Bamler  
Detection of the Volcanic Deformation with Multi-Stack Persistent Scatterer Interferometry using TerraSAR-X Data
- XL319 EGU2011-3568  
**Sergey Samsonov**, John Beavan, Pablo Gonzalez, Kristy Tiampo, and Jose Fernandez  
Ground deformation in the Taupo Volcanic Zone, New Zealand, observed by ALOS PALSAR interferometry
- XL320 EGU2011-5177  
**Jiun-Yee Yen** and Chung-Pai Chang  
Preliminary investigation of surface deformation in the mountainous and vegetated regions of central Taiwan using Persistent Scatterer SAR Interferometry
- XL321 EGU2011-5602  
**Kuan-Chuan Lin**, Jyr-Ching Hu, Johann Champenois, Tzay-Chyn Shin, Benoit Deffontaines, and Erwan Pathier  
Modeling the Crustal deformation from Continuous GPS, leveling and PS-InSAR in eastern Taiwan
- XL322 EGU2011-8106  
**Johann Champenois**, Bénédicte Fruneau, Erwan Pathier, Kuan-Chuan Lin, and Jyr-Ching Hu  
Monitoring of the Longitudinal Valley Fault (Eastern Taiwan) using PS-InSAR method with ALOS data
- XL323 EGU2011-5824  
**Chih-Heng Lu**, Chung-Pai Chang, Jiun-Yee Yen, Yi-An Chen, and Wei-Chia Hung  
Monitoring seasonal and long-term surface displacement of Choushui River Fluvial Plan in the central Taiwan Using PSI and DInSAR
- XL324 EGU2011-3663  
**Yang Liu**, Caijun Xu, Zhenhong Li, and Yangmao Wen  
Interseismic Slip Rate of the Garze-Yushu Fault Belt in the Tibetan Plateau from C-band InSAR observations between 2003 and 2010
- XL325 EGU2011-7017  
**Yousuke Miyagi** and Taku Ozawa  
Two Solomon Islands Earthquakes in 2007 (M8.1), 2010 (M7.1), and Seismic Gap along the Subduction Zone, Revealed by ALOS/PALSAR
- XL326 EGU2011-7497  
**Pablo Euillades**, Leonardo Euillades, María Laura Velez, Sebastián Balbarani, and Alberto Caselli  
Long-Term Crustal Deformation Monitoring in South America by DinSAR Techniques: a Study of Feasibility
- XL327 EGU2011-9300  
**Henriette Sudhaus**, Frank Krüger, and Thomas R. Walter  
Source model resolution of the 2010 Haiti earthquake - What can we learn by combining geodetic, seismologic and geologic data?
- XL328 EGU2011-9597  
**Tomonori Deguchi**, Yoshihiro Kinugasa, and Katsumi Kurita  
Monitoring of Land Deformation around Active Fault in the Metro Manila, the Philippines
- XL329 EGU2011-12955  
**Manuela Bonano**, Fabiana Calò, Francesco Casu, Riccardo Lanari, Michele Manunta, Mariarosaria Manzo, and Antonio Pepe  
A two-scale analysis of surface deformation affecting the L'Aquila (Italy) area performed through the advanced SBAS-DInSAR technique
- XL330 EGU2011-13260  
John Beavan, **Sergey Samsonov**, and Mahdi Motagh  
PRELIMINARY SOURCE MODEL FOR Mw 7.1 DARFIELD, NEW ZEALAND, EARTHQUAKE FROM GPS AND INTERFEROMETRIC SATELLITE RADAR OBSERVATIONS
- XL331 EGU2011-3037  
**Zhenhong Li**, William Hammond, Geoffrey Blewitt, Corné Kreemer, and Hans-Peter Plag  
InSAR and GPS time series analysis: Crustal deformation of the Southern Walker Lane, western Great Basin, United States
- XL332 EGU2011-13750  
**Kanika Goel**, Nico Adam, and Christian Minet  
Ground deformation monitoring of Gardanne coal mine (France) exploiting eleven years of ERS-SAR data
- XL333 EGU2011-7954  
**Alberto Refice**, Fabio Bovenga, Guido Pasquariello, Domenico Denora, Maria Dolores Fidelibus, and Giuseppe Spilotro  
Bulging of the salt dome of Lesina Marina (Gargano, Southern Italy) revealed by DInSAR techniques
- XL334 EGU2011-9257  
**Andreas Schenk** and Malte Westerhaus  
Integration of displacement observations from InSAR and leveling to obtain horizontal displacements associated with surface uplift in the City of Staufen (Germany)

**GD6.2/GMPV50/SM4.3 – Whole mantle and transition zone structure, dynamics and evolution: multidisciplinary perspectives (co-organized) – Orals**

Convener: Paul Tackley | Co-Conveners: Sergio Speziale, Lapo Boschi, Andreas Stracke, Huw Davies, FUMIKO TAJIMA, Heiner Igel, Hitoshi Kawakatsu, Fenglin Niu

**Room: 22**

Chairperson: Paul Tackley and Fumiko Tajima

- 13:30–13:45 EGU2011-3744  
**Ilaria Mosca**, Laura Cobden, Carolina Lithgow-Bertelloni, Arwen Deuss, Jeroen Ritsema, Lars Stixrude, and Jeannot Trampert  
 Thermo-chemical structures in the lower mantle from body wave, surface wave and normal-mode data
- 13:45–14:00 EGU2011-9081  
**Ulrich Hansen** and Sabine Dude  
 Dynamical mechanisms behind Reservoir formation
- 14:00–14:15 EGU2011-5444  
**Andreas Stracke**, Jon E. Snow, Eric Hellebrand, Anette von der Handt, Bernard Bourdon, Karin Birbaum, and Detlef Günther  
 Extreme mantle depletion identified by Hf isotope ratios in abyssal peridotites
- 14:15–14:30 EGU2011-8731  
 Frédéric Deschamps, **Paul Tackley**, and Edouard Kaminski  
 Deep mantle primitive reservoirs as a partial source of Ocean Island Basalt
- 14:30–14:45 EGU2011-13626  
**Finlay Stuart**  
 Helium isotope evolution of the Iceland plume
- 14:45–15:00 EGU2011-8312  
**Cai Durbin**, M. Hosein Shahnas, William R. Peltier, and John H. Woodhouse  
 Mantle Convection Models Constrained by Seismic Tomography
- Chairperson: Fumiko Tajima and Paul Tackley
- 15:30–15:45 EGU2011-4592  
**Tobias Rolf** and Paul Tackley  
 Stability of Archaean cratons and their influence on the global strength of the lithosphere
- 15:45–16:00 EGU2011-3652  
**J. Huw Davies** and Martin Wolstencroft  
 What role have phase changes played in mantle evolution?
- 16:00–16:15 EGU2011-12012  
**David A. Thompson**, George Helffrich, Ian D. Bastow, and J.-Michael Kendall  
 Limits on lateral thermal and chemical gradients under the Canadian Shield
- 16:15–16:30 EGU2011-13310  
**Michael Kendall**, Andy Nowacki, James Wookey, and Asher Pemberton  
 Transition zone anisotropy near regions of subduction
- 16:30–16:45 EGU2011-6157  
**Luciana Bonatto**, Martin Schimmel, Josep Gallart, and José Morales  
 Mapping the Upper Mantle Transition Zone beneath the Iberian Peninsula and North Africa
- 16:45–17:00 EGU2011-6825  
**Simon Stähler**, Karin Sigloch, Fumiko Tajima, and Heiner Igel  
 Sampling the mantle transition zone beneath North America with regional P-waves from the USArray

**GD7.1/EMR12/GMPV18/SM4.6 – Structure, Composition and Dynamics of the Deep Earth (co-organized) – Posters**

Convener: Jon Mound | Co-Conveners: Arwen Deuss, Michael Ammann, Hauke Marquardt

**Hall A | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Jon Mound and Hauke Marquardt

- A69 EGU2011-692  
**Stefanie Hempel**, Christine Thomas, and Razvan Caracas  
 The lowermost mantle beneath Bering Sea - P wave study and inversion for mineralogy of D
- A70 EGU2011-9238  
**Dmitry Krasnoshchekov** and Vladimir Ovtchinnikov  
 PKiKP/PcP amplitude ratios interpreted in terms of core-mantle boundary reflecting properties
- A71 EGU2011-12930  
**Daniele Antonangeli**, Julien Siebert, Chantel M. Aracne, Daniel L. Farber, Alexey Bosak, Moritz Hoesch, Michael Krisch, Frederick J. Ryerson, Guillaume Fiquet, and James Badro  
 Spin Crossover in Ferroperricite at High Pressure: A Seismologically Transparent Transition?

- A72 EGU2011-12508  
**Hauke Marquardt**, Arianna Gleason, Katharina Marquardt, Sergio Speziale, Lowell Miyagi, Gregor Neusser, Hans-Rudolf Wenk, and Raymond Jeanloz  
 Elastic Properties of Nano-crystalline MgO Powder to High Pressures by Brillouin Light Scattering
- A73 EGU2011-2925  
**Junkee Rhie**, Tae-Gyu Yee, and Seongryong Kim  
 The velocity structure of the core constrained by joint analysis of differential travel times and differential ray parameters of PKP(BC)-PKP(DF)
- A74 EGU2011-6715  
**Jon Mound**  
 Inter-Annual Torsional Oscillations and Angular Momentum Exchange
- A75 EGU2011-8847  
**Luis Silva**  
 Core flow estimates and inner-core growth patterns
- A76 EGU2011-11517  
**Tobias Trümper**, Martin Breuer, and Ulrich Hansen  
 Numerical simulations of thermo-chemically driven convection and geodynamos
- A77 EGU2011-12565  
**Julien Roch**, Eric Clévéde, Geneviève Roult, Jean Paul Montagner, and Philippe Lognonné  
 Deep structure of the Earth : from the lower mantle to the inner core

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#### NH4.3/SM5.1 – Seismic hazard evaluation, precursory phenomena and reliability of prediction (co-organized) – Orals

Convener: Michael E. Contadakis | Co-Conveners: Jochen Zschau, Thomas Xenos, Pier Francesco Biagi

**Room: 11**

Chairperson: Michael Contadakis

- 15:30–15:45 EGU2011-4540  
**Gerassimos Papadopoulos**, Boris Di Fiore, and George Minadakis  
 Short-Term Foreshocks and the Prediction of Mainshock in the Aftermath of L' Aquila Earthquake: A Global Review
- 15:45–16:00 EGU2011-9105  
**Sergey Pulinets** and Dimitar Ouzounov  
 Lithosphere-Atmosphere-Ionosphere Coupling (LAIC) model - an unified concept for earthquake precursors validation
- 16:00–16:15 EGU2011-11626  
**Valerio Tramutoli** and the PRE-EARTHQUAKES Team  
 PRE-EARTHQUAKES, an European FP7 Project for Integrating Observations and Knowledge for Earthquake Precursors Studies: preliminary results and perspectives.
- 16:15–16:30 EGU2011-3160  
 m.e. Contadakis, c. Skeberis, d.t. Xenos, **t.d. Xenos**, and d.t. Arabelos  
 Normalization and processing of VLF signals for the detection of seismic-ionospheric precursor phenomena using the Empirical Mode Decomposition Method and Neural Networks.
- 16:30–16:45 EGU2011-5598  
**Katsumi Hattori**, Simpei Kon, and Masahide Nishihashi  
 Ionospheric anomalies possibly associated with M 6.0 Earthquakes in Japan area : Statistical analysis during 1998-2010 and some case studies
- 16:45–17:00 EGU2011-1744  
**Gulum Tanircan**, Nino Tsereteli, Etibar Garaveliev, Bilge Siyahi, Otari Varazanashvili, Tahir Mammadli, Qurban Yethirmishli, Tamaz Cehlidze, Arif Axundov, and Erdal Afak  
 Seismic Hazard Assessment for Southern Caucasus-Eastern Turkey Energy Corridor

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#### NH4.3/SM5.1 – Seismic hazard evaluation, precursory phenomena and reliability of prediction (co-organized) – Posters

Convener: Michael E. Contadakis | Co-Conveners: Jochen Zschau, Thomas Xenos, Pier Francesco Biagi

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

Author in Attendance: 17:30–19:00

Chairperson: Michael Contadakis, Thomas Xenos, Jochen Zschau, Pier Francesco Biagi

- XY426 EGU2011-185  
**Savas Karabulut** and Oguz Ozel  
 Determination of Local Site Effect and 3-D Shear Wave Velocity Structure for City of Istanbul
- XY427 EGU2011-1184  
**Ioan Ionescu** and Darko Volkov  
 Could we detect earthquake nucleation from surface observations ?

- XY428 EGU2011-2154  
**Maria-Dolors Martinez** and Xavier Lana  
Patterns of the seismic generation rate detected by the Southern California seismic network (SCSN).
- XY429 EGU2011-2249  
Elena V. Liperovskaya, Alexandra S. Silina, Victor A. Liperovsky, and **Claudia-Veronika Meister**  
Midnight variations of Es-spread in the ionosphere before earthquakes
- XY430 EGU2011-2387  
**Maling Yang**, Daqing Chen, Yuanmin Huang, and Huiling Gong  
Abnormal gas wells' pressure before and after the Wenchuan earthquake of Zhongba gas field in Sichuan province
- XY431 EGU2011-3075  
**Renata Gazdova**, Oldrich Novotny, Jiri Malek, Jan Valenta, Milan Broz, and Petr Kolinsky  
Groundwater level variations in the seismo-active region of western Bohemia in the years 2005-2010
- XY432 EGU2011-3852  
**Tatyana A. Smaglichenko**, Andrey V. Gorbatiykov, Alexander V. Smaglichenko, and Aleksey V. Nikolaev  
The role of seismic tomography for the Earthquake Early Warning system
- XY433 EGU2011-5372  
**Sin Mei Ng**  
Earthquake intensity scale problem in Taiwan as revealed by damaging events in the past decade
- XY434 EGU2011-5807  
**Andrea Antonioli**, Simone Atzori, and Giuseppe Pezzo  
Coseismic stress evolution, different patterns from different slip distributions
- XY435 EGU2011-6290  
**Elias Tsiapas**, Despina Soumelidou, and Christos Tsiapas  
EARTHQUAKES - VOLCANOES(Causes - Forecast - Counteraction)
- XY436 EGU2011-6517  
Marco Amanti, Giuseppe Di Capua, Silvia Peppoloni, **Carlo Cipolloni**, Giovanni Conte, Danilo Avola, and Andrea Del Buono  
The SEE-GeoForm WebGIS: a tool for seismic data and hazard analysis
- XY437 EGU2011-6639  
**Margarita Moisi**, Derek Rust, Stephen Kershaw, Pantelis Soupios, Filippou Vallianatos, and Sabatino Piscitelli  
Geological and geophysical evidences for seismic hazard assessment of northwestern and southwestern Crete (Greece)
- XY438 EGU2011-7875  
**Tensay Berhe** and Wei Wu  
Effect of valley shape on the seismic response of earthfill dam - a 3D numerical parametric study
- XY439 EGU2011-10588  
Demetrios Pliakis, Taxiarchis Papakostas, and **Filippou Vallianatos**  
A first principles approach to understand the physics of precursory accelerating seismicity
- XY440 EGU2011-10645  
**Filippou Vallianatos**, Alexis Cartwright-Taylor, and Peter Sammonds  
A spatiotemporal non-extensive approach to investigate seismicity of 6th April 2009, ML5.8, L'Aquila (Central Italy) earthquake.
- XY441 EGU2011-10690  
**Filippou Vallianatos**, George Michas, George Papadakis, and Peter Sammonds  
A non extensive statistical physics view to the June 1995, Aigion earthquake (M6.2) aftershock sequence (West Corinth rift).
- XY442 EGU2011-10723  
**Filippou Vallianatos** and Peter Sammonds  
Non-extensive thermodynamics applied to global seismicity before and after the Sumatran mega-earthquake.
- XY443 EGU2011-10810  
**Filippou Vallianatos**, George Hloupis, and Ilias Papadopoulos  
The Hellenic Seismological Network of Crete (HSNC): operation results and review of real time processing schemes. A contribution to seismic Hazard evaluation.

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#### NH4.1/SM5.8 – Seismo electro-magnetic phenomena and earthquakes precursors (co-organized) – Orals

Convener: Pier Francesco Biagi | Co-Conveners: Masashi Hayakawa, Oleg Molchanov, Tommaso Maggipinto

**Room: 10**

Chairperson: Pier Francesco Biagi

08:30–08:45 EGU2011-2358

**Michel Parrot**

Analysis of the DEMETER data related to seismic activity bringing Chile area into focus

- 08:45–09:00 EGU2011-13143  
**Jan Blecki**, Michel Parrot, Ma?gorzata Ko?cieszka, and Roman Wronowski  
 Statistical analysis of the ELF turbulence registered in the ionosphere over the regions of the strong earthquakes by DEMETER satellite
- 09:00–09:15 EGU2011-10473  
**Mohammed Y. Boudjada**, Konrad Schwingenschuh, Emad Al-Haddad, Michel Parrot, Patrick Galopeau, Bruno Besser, Günter Stangl, and Wolfgang Voller  
 Effect of solar and geomagnetic activities on the reception of sub-ionospheric VLF transmitter signals by DEMETER micro-satellite
- 09:15–09:30 EGU2011-1511  
**Masashi Hayakawa**, Yasushi Kasahara, Takashi Nakamura, Yasuhide Hobara, Shinichirou Asai, and Toru Inaba  
 Observation of Doppler shifts of subionospheric VLF/LF signals and the seismic effect
- 09:30–09:45 EGU2011-1292  
**Valery Korepanov**, Fedir Dudkin, Masashi Hayakawa, and Olha Leontyeva  
 Local lithospheric magnetic activity before selected earthquakes in Japan
- 09:45–10:00 EGU2011-5195  
**Dimitar Ouzounov**, Katsumi Hattori, Sergey Pulnits, Tiger Liu, Michel Parrot, Menas Kafatos, Patrick Taylor, Frank Yang, Kaori Oyama, and Shimpei Kon  
 Integrated Sensing, Analysis and Validation of Atmospheric Signals Associated with Major Earthquakes

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**COFFEE BREAK**

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Chairperson: Masashi Hayakawa/Tommaso Maggipinto

- 10:30–10:45 EGU2011-1772  
**Oleg Molchanov** and Alexander Schekotov  
 To predict something is better than nothing
- 10:45–11:00 EGU2011-11575  
 Mariano Lisi, Carolina Filizzola, Nicola Genzano, Nicola Pergola, and **Valerio Tramutoli**  
 Reducing atmospheric effects on RST analysis by exploiting TIR split windows channels on MSG/SEVIRI satellite sensor: the case of Abruzzo earthquake (April 6, 2009; M<sub>L</sub>~5.8)
- 11:00–11:15 EGU2011-4777  
**Francesco Mancini** and Angelo Galeandro  
 Assessing the ionospheric Total Electron Content (TEC) from GPS measurements as a possible precursor of high magnitude earthquakes
- 11:15–11:30 EGU2011-5987  
**Gerald Duma**, Friedemann Freund, Max Lazarus, Taha Rabeh, and Robert Dahlgren  
 New results on the solar impact on global seismicity
- 11:30–11:45 EGU2011-11007  
**Konrad Schwingenschuh**, Alexander Rozhnoi, Maria Solovieva, Massimo Vellante, Umberto Villante, Petko Nenovski, Victor Wertzergom, Pier Francesco Biagi and the SEM Team  
 Coordinated ground-based ULF and sub-ionospheric VLF seismo-electromagnetic investigations in Europe
- 11:45–12:00 EGU2011-4379  
**Yasuhide Hobara**, Tasku Kamo, and Masashi Hayakawa  
 Statistical property of the ULF magnetic emissions in relation with Izu Island earthquake swarm in Japan

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**NH4.1/SM5.8 – Seismo electro-magnetic phenomena and earthquakes precursors (co-organized) – Posters**

Convener: Pier Francesco Biagi | Co-Conveners: Masashi Hayakawa, Oleg Molchanov, Tommaso Maggipinto

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

Author in Attendance: 17:30–19:00

Chairperson: Pier Francesco Biagi/Masashi Hayakawa/Oleg Molchanov/Tommaso Maggipinto

- XY403 EGU2011-235  
**Alexander Rozhnoi**, Maria Solovieva, Pier Francesco Biagi, Konrad Schwingenschuh, and Masashi Hayakawa  
 LF signal spectrum analysis for strong earthquakes
- XY404 EGU2011-13698  
**Masha Solovieva**, Alexander Rozhnoi, Michel Parrot, Konrad Schwingenschuh, Masashi Hayakawa, and Pier Francesco Biagi  
 Correlation of VLF/LF variations from ground and satellite observations with magnetic activity and outer-zone particles

- XY405 EGU2011-264  
**Pier Francesco Biagi**, Flavia Righetti, Tommaso Maggipinto, Anita Ermini, Iren Moldovan, Adrian Moldovan, Aydin Buyuksarac, Hugo da Silva, Mourad Bezzeghoud, and Michael Contadakis  
 Analysis of the LF data collected by the European radio network during one year
- XY406 EGU2011-7444  
**Hugo Gonçalves da Silva**, Cláudia Serrano, António Domingos Heitor Silva Reis, Mourad Bezzeghoud, Rui Namorado Rosa, José Fernando Borges, Bento Caldeira, Mouhaydine Tlemçani, and Pier Fransesco Biagi  
 Influence of seismic activity in the atmospheric electrical field in Lisbon (Portugal) from 1961 until 1991
- XY407 EGU2011-2376  
**Iren-Adelina Moldovan**, Adrian Moldovan, Pier Francesco Biagi, Constantin Ionescu, Anica Otilia Placinta, Tommaso Maggipinto, Konrad Schwingenschuh, and Mohammed Y. Boudjada  
 Present status and preliminary results obtained by the Romanian VLF/LF radio monitoring system as part of the INFREP European Network
- XY408 EGU2011-6669  
**Iren-Adelina Moldovan**, Constantin Ionescu, Anica Otilia Placinta, Angela Constantin, Emilia Popescu, and Adrian Septimiu Moldovan  
 Geomagnetic anomalies recorded at Muntele Rosu (Romania) seismic observatory and their statistical correlation with earthquake occurrence and solar magnetic storms
- XY409 EGU2011-2166  
**Palangio Paolo Giovanni** and Di Lorenzo Cinzia  
 Transient electromagnetic phenomena associated with L'Aquila earthquake
- XY410 EGU2011-2602  
**Palangio Paolo Giovanni** and Di Lorenzo Cinzia  
 Eulerian component of secular variation associated with the Mw 6.3 L'Aquila earthquake sequence of April 2009
- XY411 EGU2011-10502  
**Angelo De Santis**, Gianfranco Cianchini, Cinzia Di Lorenzo, Domenico Di Mauro, Manuele Di Persio, Barbara Iezzi, Paolo Palangio, Enkelejda Qamili, and Lixin Wu  
 Analysis of the geomagnetic field transfer functions during the 2009 L'Aquila seismic sequence
- XY412 EGU2011-1510  
**Masashi Hayakawa**  
 On the fluctuation spectra of seismo-electromagnetic phenomena
- XY413 EGU2011-2713  
 Florian Fülbert, **Claudia-Veronika Meister**, Steffen Hauf, Uwe Bonnes, Peter Dziendziel, and Dieter H.H. Hoffmann  
 The Darmstadt VLF radiophysical station VADAR for the detection of possible earthquake precursors
- XY414 EGU2011-12199  
**Claudia-Veronika Meister**, Benjamin Mayer, and Dieter H.H. Hoffmann  
 Modeling of ionospheric electromagnetic earthquake precursors
- XY415 EGU2011-10107  
**Gustav Prattes**, Konrad Schwingenschuh, Hans Eichelberger, Manfred Stachel, Werner Magnes, Massimo Vellante, Umberto Villante, and Petko Nenovski  
 Epicenter location determination by an ULF magnetic field polarization technique analyzing the 2009 L'Aquila earthquake
- XY416 EGU2011-13608  
**Panagiotis Kyriazis**, Ilias Stavrakas, Cimon Anastasiadis, Dimos Triantis, and John Stonham  
 Mechanically stimulated electric signals modelled as extreme micro-current distributions
- XY417 EGU2011-6469  
**Dimos Triantis**, Cimon Anastasiadis, Ilias Stavrakas, and Filippas Vallianatos  
 Electric signal emissions from rock samples used as failure predictors
- XY418 EGU2011-13528  
 Anatoliy Kotsarenko, Vladimir Grimalsky, **Vsevolod Yutsis**, Roman Perez Enriquez, Svetlana Koshevaya, Gustavo Urquiza Beltran, Luis Ivan Medina Perez, Carlos Valdes Gonzales, and Ana Gabriela Bravo Osuna  
 Final results of the Radon concentration study in volcano Popocatepetl area, Mexico, Dec 2007 - Dec 2009
- XY419 EGU2011-9666  
**Alejandro Ramírez-Rojas**, Luciano Telesca, and Fernando Angulo-Brown  
 Study of entropy in the natural time domain of geoelectrical time series monitored in Guerrero-Oaxaca, México.
- XY420 EGU2011-375  
**Ioseb Turazashvili** and Nino Kachakhidze  
 Problem of Identity of Acoustic and Electromagnetic Emission Area
- XY421 EGU2011-590  
**Kenichi Yamazaki**  
 Variations in the magnetic field arising from the propagation of teleseismic waves in magnetized crust with finite conductivity

- XY422 EGU2011-800  
**Vikram Singh** and Birbal Singh  
Ground observation of electromagnetic emissions related to clusters of earthquakes
- XY423 EGU2011-2075  
**Yury Yasyukevich**, Yury Bashkuev, Mikhail Dembelov, Vladimir Kovalenko, Vladimir Kurkin, Andrey Loukhnev, Natalia Perevalova, Ravil Rakhmatulin, Vladimir Sankov, Gelii Zherebtsov, Viktor Aleshkov, Sergey Ashurkov, Darima Buyanova, Yury Lipko, Sergey Molodykh, Idam Naguslaeva, Olga Pirog, Nelly Polekh, and Sergey Voeykov  
Coordinated measurements of ionospheric, electromagnetic and geodynamic parameters in the Baikal rift system in summer of 2009 and 2010
- XY424 EGU2011-6371  
**Tatsuo Onishi**, Jean-Jacques Berthelier, and Masashi Kamogawa  
Critical analysis of plasma wave disturbances over the Sichuan region in a period encompassing the May 12, 2008 EQ
- XY425 EGU2011-13610  
**Victor Novikov**  
Towards Earthquake Prediction Based on Electromagnetic Triggering Phenomena



Friday, 08 April

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**NP5.2 – Inverse Problems and Data Assimilation in Geosciences (co-listed) – Posters**

Convener: Olivier Talagrand | Co-Conveners: Jeannot Trampert, Peter Jan van Leeuwen

**Halls X/Y | Display Time 08:00–17:00**

Author in Attendance: 10:30–12:00

Chairperson: n.n.

- XY335 EGU2011-541  
**Ethan Atkins**, Matthias Morzfeld, and Alexandre Chorin  
Implicit Particle Filters: a Numerical Case Study Using the Lorenz Attractor
- XY336 EGU2011-874  
**Brad Weir**, Robert Miller, and Yvette Spitz  
Novel particle filter approaches to parameter estimation for ecological models
- XY337 EGU2011-1563  
**Valery Agoshkov**  
Method of "fictitious controls" and solution of inverse problems of the geophysical hydrodynamics using variational data assimilation
- XY338 EGU2011-3429  
**Lin Wu**, Marc Bocquet, and Frédéric Chevallier  
Bayesian design of control space in inverse modelling: Application to mesoscale carbon dioxide inversion
- XY339 EGU2011-7939  
**Helaine Furtado**, Haroldo Fraga de Campos Velho, and Elbert E N Macau  
Data assimilation by variational method in partial differential equations
- XY340 EGU2011-676  
Claire Chauvin, François-Xavier Le Dimet, **Maelle Nodet**, Innocent Souopgui, Olivier Titaud, and Arthur Vidard  
Assimilation of Lagrangian Data in a Variational framework
- XY341 EGU2011-8078  
**Aimei Shao** and Chongjian Qiu  
Comparative experiments on the effect of several forms of background error covariance on 3DVar
- XY342 EGU2011-3422  
Mohamed Berrada, **Julien Brajard**, Charles Deltel, Michel Crépon, Fouad Badran, and Sylvie Thiria  
Variational data assimilation in NEMO using YAO.
- XY343 EGU2011-10424  
**Houda Yahi**, Sylvie Thiria, Michel Crepon, Alain Weill, and Richard Santer  
Atmospheric particulate matter (PM10) estimation from optical ground measurements
- XY344 EGU2011-909  
**Dominik Jacques** and Isztar Zawadzki  
Efficient implementation of inverse variance-covariance matrices in variational data assimilation systems
- XY345 EGU2011-3404  
**Emmanuel Kpemlie**, Emmanuel Cosme, Nicolas Freychet, Jean-Michel Brankart, and Pierre Brasseur  
Adaptive parameterisation of error statistics in ensemble or reduced order square root filters
- XY346 EGU2011-1039  
**Georg Gottwald**, Lewis Mitchell, and Sebastian Reich  
A variance limiting Kalman filter: Controlling overestimation of error covariance in ensemble Kalman filters with sparse observations
- XY347 EGU2011-4278  
Dmitri Kondrashov, Yuri Shprits, and **Michael Ghil**  
Split-Operator Kalman Filter as an efficient data assimilation method for the radiation belts
- XY348 EGU2011-9719  
**Genta Ueno**  
An iterative algorithm for estimating the observation error covariance matrix for ensemble-based filters
- XY349 EGU2011-3880  
**Juan Ruiz** and Manuel Pulido  
GCM Parameter estimation based on LETKF
- XY350 EGU2011-6803  
**Tijana Janjic**, Lars Nerger, Alberta Albertella, Jens Schroeter, and Sergey Skachko  
Domain localization in ensemble based Kalman filter algorithms
- XY351 EGU2011-3338  
**Lars Nerger**, Tijana Janjic, Jens Schroeter, and Wolfgang Hiller  
On the relation of the SEIK and ETKF filter methods

- XY352 EGU2011-1118  
**Anna Leonenko**, Peter North, and Sietze Los  
Information Measures of Divergence, M-estimates and Minimum Contrast Estimation Approach and Its Application to Biophysical Parameter Estimation.
- XY353 EGU2011-13135  
**Pierre P.F.J. Lermusiaux**, Themistoklis P. Sapsis, Thomas Sondergaard, and Mattheus P. Ueckermann  
Partial Differential Equations for Ocean Uncertainty Prediction and Nonlinear Data Assimilation
- XY354 EGU2011-13245  
**Matthias Grzeschik**, Thomas Wöhling, and Thomas Schwitalla  
Contribution of different observation types to data assimilation
- XY355 EGU2011-7714  
**Haroldo Fraga de Campos Velho**, Fabricio Harter, Rosangela Rosangela Cintra, and Helaine Helaine Furtado  
Some experiments with artificial neural networks in data assimilation
- XY356 EGU2011-6708  
**Andrea Storto**, Srdjan Dobricic, Simona Masina, Pierluigi Di Pietro, Ida Russo, and Antonio Navarra  
The INGV/CMCC global ocean variational analysis system: applications, developments and perspectives
- XY357 EGU2011-1490  
**Eugene Parmuzin**, Valery Agoshkov, and Natalia Zakharova  
Study and numerical solution of the inverse and variational data assimilation problem on finding the heat flux in the ocean dynamics model
- XY358 EGU2011-280  
**Natalia Zakharova**, Valery Agoshkov, and Evgeny Parmuzin  
Inverse problem on the reconstruction of the vertical heat exchange coefficient in a model of World Ocean hydrodynamics
- XY359 EGU2011-276  
**Anna Semenenko**, Valery Agoshkov, and Sergey Kostrikin  
Inverse and "velocity image" assimilation problems for a model of magnetic hydrodynamics
- XY360 EGU2011-12843  
**Valery Yudin**  
Aspects of the resolution-sensitive chemical data assimilation in the upper troposphere and lower stratosphere
- XY361 EGU2011-6106  
**Svetlana Dubinkina**, Hugues Goosse, Yoann Sallaz-Damaz, Elisabeth Crespín, and Michel Crucifix  
Testing a particle filter to reconstruct climate changes over the past centuries
- XY362 EGU2011-6919  
**Zoltán Bus**, Zoltán Wéber, and Gyöngyvér Szanyi  
A genetic algorithm based focal parameter and seismic velocity estimation procedure
- XY363 EGU2011-12585  
Bento Caldeira, **Vladimir Bushenkov**, José Borges, Gueorgui Smirnov, and Mourad Bezzeghoud  
On the determination of space-time slip distribution with a regularized constraints inversion algorithm.
- XY364 EGU2011-8066  
**Elsa Stephan**, Jean Chery, Bijan Mohammadi, Michel Peyret, and Michel Cueur  
Joint optimization of elastic parameters and velocity boundary conditions for the estimation of plate rigidity using geodetic data.
- XY365 EGU2011-6962  
**Jan Saynisch** and Maik Thomas  
Assimilation of Earth rotation observations with a global ocean model
- XY366 EGU2011-13064  
**Balasubramanya Nadiga** and William Casper  
Estimating the mean ocean circulation
- XY367 EGU2011-281  
**Mathieu Coustau**, Sophie Ricci, Andrea Piacentini, Olivier Thual, Arthur Marchandise, Christophe Bouvier, and Valérie Borrell-Estupina  
Calibration of a rainfall-runoff hydrological model and flood simulation using data assimilation
- XY368 EGU2011-5723  
**Dmytro Martynenko**, Thomas Holzer-Popp, Lars Klueser, Julian Meyer-Arne, and Christoph Bergemann  
Data assimilation of IASI mineral dust observations in an advanced chemistry transport model

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**SM1.1/G3.9/TS1.2 – Open Session on Seismology (including Beno Gutenberg Medal Lecture) (co-organized) – Posters**

Convener: Ramon Carbonell | Co-Conveners: CharLotte Krawczyk

**Halls X/Y | Display Time 08:00–17:00**

Author in Attendance: 10:30–12:00

Chairperson: Ramon Carbonell

- XY475 EGU2011-1843  
**Young-Fo Chang**, Chih-Hsiung Chang, Li-Chung Sun, and Chia-Lung Chung  
 Physical modeling studying the travel times and reflection points of SH-waves reflected from transversely isotropic media with a tilted symmetry axis
- XY476 EGU2011-1850  
**Woo-Dong Lee**, Bong-Gon Jo, Sat-Byul Jung, Min-Seok Ko, and Seok-Tae Lee  
 Effects of typhoons on microseisms observed from the short period array records
- XY477 EGU2011-3076  
**Jaromir Jansky**, Oldrich Novotny, Jiri Zahradnik, and Efthimios Sokos  
 Problematic earthquake location from P-arrival times jointly used at near and distant stations
- XY478 EGU2011-3215  
**Bo Holm Jacobsen** and Lasse Svenningsen  
 Robust receiver function interpretation by comparative processing and imaging
- XY479 EGU2011-3973  
**Kim Bak Olsen** and Bo Holm Jacobsen  
 Spatial Variability of Ground Motion Amplification From Low-Velocity Sediments Including Fractal Inhomogeneities with special reference to the Southern California Basins
- XY480 EGU2011-9048  
**Ortensia Amoroso**, Nils Maercklin, and Aldo Zollo  
 S-wave identification by polarization filtering and waveform coherence analysis
- XY481 EGU2011-4135  
**Chih-Hsiung Chang**, Young-Fo Chang, and Po-Yen Tseng  
 Surveying a dome structure from a transversely isotropic medium
- XY482 EGU2011-4337  
**Wen-che Yu**, Teh-Ru Alex Song, and Paul Silver  
 Temporal velocity changes in the deep crust driven by aseismic afterslip of the great Sumatra earthquakes
- XY483 EGU2011-4396  
**Laetitia Mozziconacci**, Bertrand Delouis, Nicole Béthoux, and Bor-Shouh Huang  
 Coseismic slip distribution of the second main event (Mw 6.0) of the April 2006 Taitung crisis (SE Taiwan)
- XY484 EGU2011-4688  
**Aurelie Guilhem** and Douglas S. Dreger  
 Rapid detection of large subduction zone earthquakes using quasi-finite-source Green's functions in moment tensor inversion
- XY485 EGU2011-5437  
**Teruyuki Kato** and Takuji Ebinuma  
 Dynamic Characteristics of High-Rate GPS Observations for Seismology
- XY486 EGU2011-5910  
**Shiann-Jong Lee**, Hui-Wen Cheng, and Wen-Tzong Liang  
 Real-time computational seismology earthquake report: An example from Taiwan
- XY487 EGU2011-5985  
**Sebastiano D'Amico**, Domenico Caccamo, Fabio M. Barbieri, Caterina Lagana, and Francesco Parrillo  
 Time clustering of seismicity: case of the Chile-Peru seismic sequences
- XY488 EGU2011-6119  
**Bogdan Grecu**, Cristian Neagoe, Dragos Tataru, Constantin Ionescu, and Alexandru Marmureanu  
 Seismic Noise Characteristics at the Romanian Broadband seismic stations
- XY489 EGU2011-6202  
**Hana ?ermáková**, Jan Michálek, Josef Horálek, Gunnar B. Guðmundsson, Steinunn S. Jakobsdóttir, and Hjörleifur Sveinbjörnsson  
 Earthquake swarms - comparison between West Bohemia and southwest Iceland
- XY490 EGU2011-6283  
**Dragos Tataru**, Bogdan Grecu, Victor Raileanu, Graham Stuart, and Gregory Houseman  
 Crustal structure of the Transylvanian Basin and South Carpathian mountains, Romania, from receiver function analysis
- XY491 EGU2011-6485  
 Salvatore Alparone, Salvatore D'Amico, Vincenza Maiolino, and **Andrea Ursino**  
 Mt. Etna seismicity (1988-2010): evidence of the space-time evolution of seismic activity
- XY492 EGU2011-7090  
**Maxime Godano**, Jean Charléty, Françoise Courboux, Anne Deschamps, Perrine Deshayes, Gabriele Ferretti, Christophe Larroque, Thomas Romero, Jerome Salichon, and Daniele Spallarossa  
 The October-November 2010 seismic crisis near Sampeyre (Piemonte Region, Italian Alps) - Preliminary results.
- XY493 EGU2011-7624  
**Maxime Godano**, Sophie Lambotte, Anne Deschamps, Hélène Lyon-Caen, and Pascal Bernard  
 Analysis of the earthquakes swarms during the 2001-2009 period in the western part of the Corinth rift (Greece)

- XY494 EGU2011-7794  
**Andreas Hoechner** and Stephan V. Sobolev  
Deriving Earthquake Rupture Timing from GPS observations
- XY495 EGU2011-9582  
Martonni Alves Bomfim Santos and **Wilson Mouzer Figueiró**  
Seismological Modeling of Traveltime Curves with Global Velocity Field Parameterized by Trigonometric Series
- XY496 EGU2011-10997  
**Kasper D. Fischer** and the Egelados Working Group Team  
Static displacements and stress changes of the Kythira 2006 Earthquake
- XY497 EGU2011-11636  
**Giada Adelfio**, Marcello Chiodi, Antonino D'Alessandro, and Dario Luzio  
GLM-based automatic picking of waveforms
- XY498 EGU2011-11673  
**Ruben Luis**, Rita Marques, Rogério Sousa, Ana Medeiros, Nuno Cabral, Rita Carmo, Teresa Ferreira, João Gaspar, and Nicolau Wallenstein  
Recent Seismic Activity in the Mid-Atlantic Ridge at the Azores Region
- XY499 EGU2011-11806  
**Alice Gabriel**, Jean-Paul Ampuero, Luis A. Dalguer, and P. Martin Mai  
Macroscopic Source Properties From Dynamic Rupture Simulations With Off-Fault Plasticity
- XY500 EGU2011-11952  
**Simona Colombelli**, Antonio Emolo, and Aldo Zollo  
Peak-Duration magnitude for the Irpinia Seismic Network, Southern Italy
- XY501 EGU2011-1683  
**Lucian Besutiu**  
New considerations on the intermediate depth seismicity of the Vrancea zone: the unstable triple-junction
- XY502 EGU2011-2504  
**Yan Jia** and Wolfgang Lenhardt  
Peak Ground Acceleration and Station Site Effect in Austria
- XY503 EGU2011-6559  
**Lukasz Rudzinski** and Wojciech Debski  
Extending the Double Difference location technique for mining applications: Numerical study.
- XY504 EGU2011-2743  
**Jiri Vackar** and Jiri Zahradnik  
Fast long-period waves in near-regional records of a shallow earthquake
- XY505 EGU2011-4642  
**Iktri Madrinovella**, Sri Widiyantoro, and Irwan Meilano  
Hypocenter relocation of the September 30th 2009 Padang Earthquake using Hypo-DD

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**GD6.1/GMPV55/SM1.12/TS4.6 – Whole mantle dynamics: Linking surface and deep processes (co-organized) –**

Posters

Convener: Trond Torsvik | Co-Conveners: Rob Van der Voo, Clinton Conrad, Mike Gurnis

**Hall A | Display Time 08:00–17:00**

Author in Attendance: 10:30–12:00

Chairperson: C. Conrad

- A24 EGU2011-2828  
**Masaki Yoshida**  
Future supercontinent assembled in the northern hemisphere: Insight from a numerical model of mantle convection
- A25 EGU2011-3795  
**Gillian Foulger**  
Upper mantle mechanisms for the formation of melting anomalies
- A26 EGU2011-4358  
**Andrew N. Grushinsky**  
Modeling of some transitional processes in Earth's mantle
- A27 EGU2011-5476  
**Xavier Robert**  
An integrated model for the post-Laramide evolution of the Grand Canyon and the Colorado Plateau
- A28 EGU2011-6893  
**Blanka Nita**, Magdala Tesauro, Sierd Cloetingh, Mikhail Kaban, and Edward Perchuc  
Regional mantle structure below the European continent resulting from complex lithospheric geodynamic processes

- A29 EGU2011-8397  
**Romain Beucher**, Roderick Brown, Cristina Persano, Finlay Stuart, and Kerry Gallagher  
 New insights into the age of the first-order topography of southern Africa from apatite (U-Th)/He and fission track dating of a deep borehole sequence through the Kaapvaal craton
- A30 EGU2011-8588  
**Flora Bajolet**, Javier Galeano Prieto, Ana-María Negredo, Francesca Funicello, Monica Moroni, and Claudio Faccenna  
 Continental delamination: Insights from laboratory models
- A31 EGU2011-8748  
**Manuel Combes**, Cécile Grigné, Laurent Husson, Sébastien Le Yaouanq, Marc Parenthoën, Chantal Tisseau, and Jacques Tisseau  
 MACMA : Multiagent simulation of mantle convection with evolutive plate boundaries and continents.
- A32 EGU2011-10369  
**Giancarlo Scalera**  
 Comparing the Andean volcano-seismic events to secular PM and TPW
- A33 EGU2011-10897  
**Juan-Luis Valera**, Ana M. Negredo Moreno, and Ivone Jiménez-Munt  
 Deep and near-surface consequences of root removal by asymmetric continental delamination: comparison from different initial scenarios
- A34 EGU2011-11075  
**Fabio Crameri**, Paul Tackley, Irena Meilick, Taras Gerya, Boris Kaus, and Tobias Keller  
 One-sided subduction in self-consistent models of global mantle convection: the importance of a free surface and a weak crustal layer
- A35 EGU2011-11838  
**Laurent Husson**, Stephane Pochat, Antoine Bezos, and Jean Van den Driessche  
 Dynamic topography, endoreism, and the  $^{87}\text{Sr}/^{86}\text{Sr}$  curve
- A36 EGU2011-12912  
**István Kovács**, Beatrix Udvardi, Károly Hidas, Lászlóné Kutassy, Pál Lendvay, György Falus, and Csaba Szabó  
 Re-evaluating the concentration of water in olivines from the shallow upper mantle with a uniform FTIR protocol and a unique international spectral database: PULI
- A37 EGU2011-13444  
**Nick J. Kusznir** and Trond H. Torsvik  
 A Lithospheric Attractor of Mantle Plume Volcanism in the NW Indian Ocean

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**TS8.1/SM2.5 – Earthquake Geology and the imprint of seismic cycles (co-organized) – Orals**

Convener: Riccardo Caputo | Co-Conveners: Spyros Pavlides, Mustapha Meghraoui, Ziyadin Cakir, Javed Malik

**Room: 28**

Chairperson: Caputo R., Pavlides S.

- 10:30–10:45 EGU2011-12599  
**Mustapha Meghraoui**, Ziyadin Cakir, Frédéric Masson, Yasser Mahmood, Semih Ergintav, Abdulmutalib Alchalbi, Sedat Inan, Mohamad Daoud, Onder Yonlu, and Erhan Altunel  
 Kinematic modelling at the triple junction between the Anatolian, Arabian, African plates (NW Syria and in SE Turkey).
- 10:45–11:00 EGU2011-5767  
**Akin Kurcer** and Y. Ergun Gokten  
 Paleoseismic Trenching on the southern part of Tuzgölü Fault Zone, Central Anatolia, Turkey.
- 11:00–11:15 EGU2011-3198  
**Erhan Altunel**, Volkan Karabacak, and Ziyadin Çakir  
 Monitoring aseismic surface creep along the North Anatolian Fault (Turkey) using ground-based LIDAR
- 11:15–11:30 EGU2011-13082  
**Laureen Drab**, Aurélia Hubert Ferrari, Sabine Schmidt, Julie Carlut, Elisabeth Michel, Philippe Martinez, and Jean-Luc Schneider  
 The earthquake sedimentary record of the Marmara Sea, Turkey
- 11:30–11:45 EGU2011-4824  
**Athanassios Ganas**, Nikos Palyvos, George Mavrikas, Vassilios Karastathis, George Drakatos, and Kostas Makropoulos  
 Recognition and Characterisation of Neotectonic Faults in Heraklion City area (Crete, Greece): a multidisciplinary approach
- 11:45–12:00 EGU2011-3399  
**Matthieu Ferry**, Mustapha Meghraoui, Najib Aboukaraki, and Masdouq Al-Taj  
 Long-term and short-term earthquake behavior along the Dead Sea Fault (Jordan) from geomorphology, paleoseismology and archeoseismology

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**LUNCH BREAK**


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Chairperson: Meghraoui M., Furlong K.P.

- 13:30–13:45 EGU2011-6607  
**Maxwell Wilkinson**, Kenneth McCaffrey, Gerald Roberts, Patience Cowie, and Richard Phillips  
 Postseismic Deformation of the 2009 L'Aquila Earthquake (M6.3) Surface Rupture Measured Using Repeat Terrestrial Laser Scanning
- 13:45–14:00 EGU2011-6135  
**Maria Filomena Loreto**, Fabrizio Zgur, Franco Pettenati, Lorenzo Facchin, Umberto Fracassi, and Isabella Tomini  
 Active tectonics and potential seismogenic behavior of newly imaged structures in the Gulf of Santa Eufemia (southern Italy)
- 14:00–14:15 EGU2011-11348  
**Esther Hintersberger**, Kurt Decker, and Johanna Lomax  
 Paleoseismological investigations within the Vienna Basin (Austria) excavate the largest earthquake north of the Alps
- 14:15–14:30 EGU2011-3680  
**Marie Etchebes**, Yann Klinger, Paul Tapponnier, Xiwei Xu, Jérôme Van Der Woerd, Clément Narteau, and Neta Wechsler  
 Geometry, Slip distribution and Segmentation of the 11/08/1931 Fuyun Earthquake (Ms 7.9), Xinjiang, China, from satellite image analyses and field observations.
- 14:30–14:45 EGU2011-13859  
**Javed Malik**, Mahendrasinh Gadhavi, Khalid Ansari, Chiranjeeb Banerjee, Falguni Bhattacharjee, and Ashok Singhvi  
 Paleoseismic evidence from trenches excavated across Allah Bund Fault and archaeological site in mesoseismal zone of 1819 Allah Bund earthquake, Great Rann of Kachchh, Gujarat, Western India
- 14:45–15:00 EGU2011-6056  
 Tina Dura, **Charles Rubin**, Harvey Kelsey, Ben Horton, Andrea Hawkes, Candace Grand Pre, Mudrik Daryono, Tyler Ladinsky, Christopher Vane, and Sarah Bradley  
 Preservation of Holocene Earthquakes, Sungai Pinang, Western Sumatra
- Chairperson: Caputo R., Malik J.
- 15:30–15:45 EGU2011-8204  
**Jean Chery**  
 On the use of tiltmeters for a better determination of fault strain at depth
- 15:45–16:00 EGU2011-4759  
**Rita Carmo**, José Madeira, Ana Hipólito, and Teresa Ferreira  
 Paleoseismology trenching in central S. Miguel Island (Azores): the Altiprado faults
- 16:00–16:15 EGU2011-4298  
**Kevin P. Furlong**, Gavin P. Hayes, Mark Quigley, and Harley Benz  
 Tectonic-seismology of the Mw 7.1 2010 Darfield (Canterbury NZ) Earthquake
- 16:15–16:30 EGU2011-11140  
**Stéphane Baize**, Laurence Audin, Thierry Winter, Alexandra Alvarado, Luis Pilatasig, Paul Kauffmann, Mercedes Taipei, and Pedro Reyes  
 Paleoseismicity of the Pallatanga Fault and seismic hazard implications
- 16:30–16:45 EGU2011-3298  
 Joaquín Cortés, Gabriel Gonzalez, Steve Binnie, Ruth Robinson, and Sheng Xu  
 Paleoseismology of the Mejillones Fault, northern Chile
- 16:45–17:00 EGU2011-13843  
**Wayne Thatcher** and Jerry Svarc  
 GPS Networks Bringing Interior Western U. S. Deformation into Focus

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**TS8.1/SM2.5 – Earthquake Geology and the imprint of seismic cycles (co-organized) – Posters**

Convener: Riccardo Caputo | Co-Conveners: Spyros Pavlides, Mustapha Meghraoui, Ziyadin Cakir, Javed Malik

**Hall XL | Display Time 08:00–17:00**

Author in Attendance: 08:30–10:00

Chairperson: Caputo R., Pavlides S., Meghraoui M., Cakir Z., Malik J.

- XL233 EGU2011-135  
**Kür?ad Kadir Eri?**, Nam?k Ça?atay, and Christian Beck  
 Seismo-tectonic influences on post-glacial sedimentary fills of the Sea of Marmara (Ä°stanbul, Turkey); evidences from high-resolution seismic and core studies

- XL234 EGU2011-523  
**Shahar Shani-Kadmiel**, Michael Tsesarsky, Zohar Gvirtzman, and John N. Louie  
Ground Motion Analysis in the Geometrically Complex Sedimentary Basins of the Dead Sea Transform
- XL235 EGU2011-549  
**Riccardo Caputo**, Tejpal Singh, and Arun Awasthi  
Thrust related relief development and seismicity of the Indian Sub-Himalaya: A critical taper model perspective for the regional seismic hazard
- XL236 EGU2011-1603  
**Ling-Yun Chang**, Chien-Chih Chen, Ya-Ting Lee, Kuo-Fong Ma, Yen-Yu Lin, and Wen-Yen Chang  
Power spectral analysis of micro-earthquake sequence recorded by the Taiwan Chelungpu-fault Drilling Project
- XL237 EGU2011-1740  
**Cahit Caglar Yalciner**, Erhan Altunel, Maksim Bano, Mustapha Meghraoui, Volkan Karabacak, and H. Serdar Akyuz  
Identification of buried normal faults with GPR: a case study in the Büyük Menderes Graben, Western Turkey
- XL238 EGU2011-1811  
**Fabrizio Storti**, Fabrizio Balsamo, and Marco Tallini  
Evidence for Quaternary strong paleo-earthquakes in the epicentral area of the April 6th 2009 L'Aquila earthquake, Italy
- XL239 EGU2011-2293  
**José Madeira**, António Brum da Silveira, Rita Carmo, and Ana Hipólito  
Trenching in S. Jorge (Azores): the Cume da Fajã do Belo fault zone
- XL240 EGU2011-2439  
**Roman Nepop**, Anna Agatova, and Grigory Kvasov  
Geological and statistical aspects of seismically triggered landslide investigation for the sake of paleoseismicity study and estimating earthquake induced topography changes
- XL241 EGU2011-2831  
**Zhongyan Shen**, Jinyao Gao, Chunguo Yang, Yong Yang, Tao Zhang, and Zhaocai Wu  
Quaternary faulting of the Qianliyan Uplift in the northern South Yellow Sea and its relationship with the earthquake hazard
- XL242 EGU2011-2847  
**Chang-Bock Im**, Chun-Joong Chang, and Taek-Mo Shim  
Estimating of the Earthquake Magnitudes from the Parameters of Seismogenic faults in Korea
- XL243 EGU2011-2872  
**Min-Hung Shih**, Bor-Shouh Huang, Wen-Tzong Liang, Lupei Zhu, Chien-Ying Wang, Horng-Yuan Yen, David Okaya, Francis T. Wu, Chau-Huei Chen, and Tao-Ming Chang  
Detail examination of the March 4, 2008 Taoyuan earthquake sequence from Regional Network and the TAIGER Short-period Array Observations
- XL244 EGU2011-3331  
**Erhan Altunel**, Volkan Karabacak, Önder Yönlü, Mustapha Meghraoui, Hüsnü Serdar Akyüz, and Nafiye Güneç K?yak  
Field observations for Holocene earthquake activity on the Gölba?i-Türkoglu segment of the East Anatolian Fault Zone, Turkey
- XL245 EGU2011-3357  
**Mustapha Meghraoui**, Francisco Gomez, Matthieu Ferry, Reda Sbeinati, Abdulmutalib Alchalbi, Abdunasser Darkal, Mohamad Daoud and the NECS and HIESR Team  
Long-term faulting history along the Missyaf - Ghab segment (Syria) of the Dead Sea Fault from paleoseismology
- XL246 EGU2011-3581  
**Christoph Grützner**, Klaus Reicherter, Jonas Winandy, Thomas Wiatr, Peter Fischer, and Thomas Ibeling  
Paleoseismological studies in the Lower Rhine Embayment - The Rurrand fault responsible for the 1756 Düren earthquakes?
- XL247 EGU2011-4041  
**Stathis C. Stiros**, Fanis Moschas, and Stella Pytharouli  
Recent coastal uplift and subsidence along the Ionian front of Greece mainland - observations and significance
- XL248 EGU2011-4213  
**Mohammad Mahdi Khatib**, Mohammad Hosein Zarrinkoub, and Hesam Yazdanpanah  
Investigation of active blind fault by aeromagnetic data in North of Birjand, east of Iran
- XL249 EGU2011-4710  
Tadashi Yamasaki and **Gregory A. Houseman**  
Signature of depth-dependent crustal viscosity in post-seismic deformation
- XL250 EGU2011-5702  
**Akin Kurcer**, Y. Ergun Gokten, Hayrettin Karzaoglu, Korhan Kose, Erdener Izladi, Sinem Aykac, Rezzan Ozerk, Tolga Alkevi, and Yahya C?ftci  
The Tuzgölü Fault Zone in the Light of Geological and Geophysical Data, Central Anatolia, Turkey

- XL251 EGU2011-6602  
**Olga Trubienko**, Luce Fleitout, and Jean-Didier Garaud  
Interpretation of intersismic deformations and the seismic cycle associated with large subduction earthquakes
- XL252 EGU2011-7153  
Valeria Paoletti, Daniela Tarallo, **Robert Supper**, and Antonio Rapolla  
Strategies for seismic hazard mitigation in landslide-prone regions
- XL253 EGU2011-7657  
**Shin Koshiya**, Hiroshi Sato, Naoko Kato, Fumiko Watahiki, Eiji Kurashimo, Susumu Abe, Kazuya Shiraishi, and Motonori Higashinaka  
Inversion structure constraining the focal area of the Iwate-Miyagi Nairiku Earthquake in 2008, northeast Honshu, Japan
- XL254 EGU2011-7991  
**Louise W Bjerrum**, Mathilde B Sørensen, Torunn Lutro, and Kuvvet Atakan  
Impact of geological information on scenario based hybrid ground motion simulations in Izmir, Turkey
- XL255 EGU2011-8486  
**Chang Liu**, Bojing Zhu, and Yaolin Shi  
Numerical Modeling of Recurrence Interval of Wenchuan Earthquake Based on Visco-elasticity
- XL256 EGU2011-9229  
**Roy H. Gabrielsen**, Jan Inge Faleide, Karen A. Leever, and Ivar Grunnaleite  
Strike-slip related inversion- tectonics of the southwestern Barents Sea (Norwegian Shelf) in a plate tectonic perspective
- XL257 EGU2011-9498  
**Taylan Sançar**, Cengiz Zabc?, and H. Serdar Akyüz  
Quaternary Activity of Varto Fault Zone (Eastern Anatolia) and New Ideas About 1966 Varto Earthquake
- XL258 EGU2011-11602  
**Angela Landgraf**, Kanatbek Abdrakhmatov, Atyr Djumabaeva, Manfred R. Strecker, and J. Ramon Arrowsmith  
Paleoseismological investigations in the northern Tien Shan near Bishkek, Kyrgyzstan
- XL259 EGU2011-12241  
**Petra Jamšek**, Lucilla Benedetti, Marko Vrabec, and Miloš Bavec  
Geomorphological evidence for recent activity of the Vodice fault and its potential for seismic hazard in Ljubljana basin (Slovenia)
- XL260 EGU2011-12355  
**Ximena Contardo-Berrios** and Nina Kukowski  
Bathymetric and seismic evidences of a regional strike slip system fault (ASF) along the submarine forearc of Central Chile and their potential link on generation of giant earthquakes
- XL261 EGU2011-12746  
**Alexandros Chatzipetros**, Spyros Pavlides, Vasilios Marinos, Efstratios Delogkos, and Theodoros Tsapanos  
Ground rupturing in Mavropigi, northern Greece due to mining and active tectonics
- XL262 EGU2011-13118  
**Andrés Carbó-Gorosabel**, José Luis Granja Bruña, Pilar Llanes Estrada, Alfonso Muñoz-Martín, María Druet, María Gómez Ballesteros, José Martín-Dávila, Antonio Pazos, Manuel Catalán, and Uri ten Brink  
Marine geophysical research helps to asses the seismic hazard at the Hispaniola island
- XL263 EGU2011-13888  
**Natalia P. Bulatova**  
Spatio-temporal analysis of seismic activity in the 20th century on the planetary scale

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**TS4.1/G3.4/GMPV27/SM2.10 – Crustal faulting and deformation processes observed by interferometric synthetic aperture radar (InSAR) (co-organized) – Orals**

Convener: Manoochehr Shirzaei | Co-Conveners: Thomas R. Walter, Riccardo Lanari

**Room: 27**

Chairperson: Shirzaei/Lanari

- 08:30–08:45 EGU2011-8777  
**Sara Del Conte**, Andrea Tamburini, Alfio Fumagalli, and Fabrizio Novali  
Active fault analysis and tectonic setting assessment with SqueeSAR
- 08:45–09:00 EGU2011-3997  
**Eugenio Sansosti**  
Deformation time series via space-borne radar interferometry: a second generation tool for Earth's surface displacement analysis
- 09:00–09:15 EGU2011-4582  
**Yukitoshi Fukahata**, Luis Rivera, and Tim Wright  
Estimation of correlation length of InSAR data error based on ABIC: Importance of modeling error in seismic source inversion



- 09:15–09:30 EGU2011-9704  
**Sigurjon Jonsson** and Zhong Lu  
 Estimating Tensile Rock Strength from InSAR Observations
- 09:30–09:45 EGU2011-4071  
**Simone Atzori** and Andrea Antonioli  
 Optimizing the model resolution in the inversion of geodetic data
- 09:45–10:00 EGU2011-4405  
 Pablo J. Gonzalez, **Jose Fernandez**, and Kristy F. Tiampo  
 Multiple geodetic data combination to obtain 3D displacement fields: the 1999 Hector Mine earthquake case.

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**COFFEE BREAK**


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Chairperson: Lanari/Walter

- 10:30–10:45 EGU2011-12489  
 Francesco Casu, Andrea Manconi, **Mariarosaria Manzo**, Antonio Pepe, Giuseppe Solaro, and Riccardo Lanari  
 Selected case studies in advanced DInSAR analysis of seismogenic areas
- 10:45–11:00 EGU2011-2353  
**Semih Ergintav**, Ziyadin Cakir, Ugur Dogan, and Mustafa Bas  
 Monitoring Surface Deformation in Istanbul and Western Termination of the 1999 Izmit Earthquake Rupture (Turkey) Using PSInSAR and GPS Measurements
- 11:00–11:15 EGU2011-12410  
**Marcello de Michele**, Daniel Raucoules, Paulino Feitio, Pierre Briole, and Joao Fonseca  
 The Machaze (Mw 7, 2006, Mozambique) Earthquake: co- and post-seismic surface displacement characterisation using multiband InSAR.
- 11:15–11:30 EGU2011-11613  
**Manoochehr Shirzaei**, Thomas R. Walter, James Foster, and Benjamin Brooks  
 Aseismic block movement of southern flank of Kilauea revealed by wavelet analysis of InSAR and GPS time series
- 11:30–11:45 EGU2011-10938  
**Panagiotis Elias**, Pierre Briole, and Olga Sykioti  
 Synergy of SAR acquisitions for ground deformation monitoring by means of PSI, SBAS and DInSAR. Case study of western rift of Corinth, Greece
- 11:45–12:00 EGU2011-6553  
**Miguel Caro Cuenca** and Ramon Hanssen  
 On the origin of the recent surface deformation observed in the Roer Valley Rift System, the southern Netherlands, after spaceborne radar time series analysis

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**SM2.12/G3.10/GD2.16/TS8.8 – Intraplate faulting and seismicity with special reference to the Fennoscandian postglacial fault province (co-organized) – Orals**

Convener: Ilmo T. Kukkonen | Co-Conveners: Maria Ask, Odleiv Olesen

**Room: 26**

Chairperson: Maria V.S. Ask

- 15:30–15:45 EGU2011-8029  
**Ilmo T. Kukkonen**, Odleiv Olesen, and Maria V.S. Ask  
 Introduction to Postglacial Faults and the ICDP Drilling Project (PFDP)
- 15:45–16:00 EGU2011-10399  
**Björn Lund**, Peter Schmidt, Mark D. Zoback, Jens-Ove Näslund, and Raymond Munier  
 Stress evolution and fault stability during the Weichselian glacial cycle with special focus on the Fennoscandian endglacial faults
- 16:00–16:15 EGU2011-2329  
**Odleiv Olesen**, Conrad Lindholm, and Halfdan Pascal Kierulf  
 Postglacial faulting in Norway: A review
- 16:15–16:30 EGU2011-2819  
**Christopher Juhlin** and Björn Lund  
 Reflection seismic imaging of the Pärvie and Burträsk end-glacial faults in northern Sweden
- 16:30–16:45 EGU2011-9825  
**Eva Lindblom**, Björn Lund, Christopher Juhlin, Reynir Bödvarsson, Ari Tryggvason, Marja Uski, and Tormod Kvaerna  
 Microearthquake activity on the Pärvie endglacial fault system, northern Sweden

- 16:45–17:00 EGU2011-7141  
**Elena Kozlovskaya**, Olga Usoltseva and the POLENET/LAPNET Working Group Team  
 Studying local seismic events in the Fennoscandian postglacial fault province using the data of the POLENET/LAPNET project
- 17:00–17:15 EGU2011-12986  
**Erik Ivins**, Richard Gross, Xiaoping Wu, and Tony Song  
 Ocean Load Induced Crustal Stress on Milankovic to Sub-annual Time Scales

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**SM2.12/G3.10/GD2.16/TS8.8 – Intraplate faulting and seismicity with special reference to the Fennoscandian postglacial fault province (co-organized) – Posters**

Convener: Ilmo T. Kukkonen | Co-Conveners: Maria Ask, Odleiv Olesen

**Halls X/Y | Display Time 08:00–17:00**

Author in Attendance: 10:30–12:00

Chairperson: Ilmo T. Kukkonen

- XY506 EGU2011-10016  
**Michele MC Carafa**, Juerg Hauser, Salvatore Barba, and Hilmar Bungum  
 Fennoscandian strain rates and seismicity
- XY507 EGU2011-13496  
**Maria Ask** and Daniel Ask  
 Validating hydraulic fracturing data from the Lansjärv postglacial fault, North Sweden
- XY508 EGU2011-8868  
**Mikhail L. Kopp**  
 Neotectonic intraplate faulting of the eastern East European craton and the Urals and its relation to collisional stresses come from the southern margin of the Eurasian lithospheric plate
- XY509 EGU2011-2892  
**Christian Brandes**, Julia Roskosch, Janine Meinsen, Jutta Winsemann, Manfred Frechen, and David Tanner  
 Reactivation of the Osning Thrust in Central Europe: ice-sheet and lithosphere interactions during the LGM
- XY510 EGU2011-847  
**Rebekka Steffen**, David W. Eaton, and Patrick Wu  
 Moment tensors, state of stress and their relation to postglacial rebound in northeast Canada
- XY511 EGU2011-5965  
**Mathilde Sørensen**, Lars Ottemöller, and Jens Havskov  
 Earthquake swarms in northern Norway

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**GD6.2/GMPV50/SM4.3 – Whole mantle and transition zone structure, dynamics and evolution: multidisciplinary perspectives (co-organized) – Posters**

Convener: Paul Tackley | Co-Conveners: Sergio Speziale, Lapo Boschi, Andreas Stracke, Huw Davies, FUMIKO TAJIMA, Heiner Igel, Hitoshi Kawakatsu, Fenglin Niu

**Hall A | Display Time 08:00–17:00**

Author in Attendance: 10:30–12:00

Chairperson: n.n.

- A38 EGU2011-11809  
 Jesus Casal Berbel and **Christine Thomas**  
 New insights into the D" layer beneath the central Pacific
- A39 EGU2011-8593  
**Paul Tackley**  
 The 3-D dynamics of compositionally-stratified slabs entering a "slab graveyard"
- A40 EGU2011-8635  
**Paul Tackley** and Takashi Nakagawa  
 Effects of low-viscosity post-perovskite on thermo-chemical mantle convection in a 3-D spherical shell
- A41 EGU2011-12434  
 Frédéric Deschamps, **Paul Tackley**, Yang Li, and Takashi Nakagawa  
 The nature and dynamics of deep mantle thermo-chemical reservoirs
- A42 EGU2011-10795  
 Hein van Heck and **Paul Tackley**  
 The limited effect of toroidal flow on mixing efficiency in 3-D spherical mantle convection.
- A43 EGU2011-3989  
**Claudia Stein** and Ulrich Hansen  
 Evolution in plate-mode mantle convection: Implications for plumes and thermochemical piles
- A44 EGU2011-9941  
**Tiffany Barry** and J. Huw Davies  
 A look at what happened to Tethyan mantle during closure of Neo-Tethys

- A45 EGU2011-3012  
Philip Heron and **Julian Lowman**  
Modelling the thermal evolution of the mantle post-supercontinent formation: insulation effects and timescales
- A46 EGU2011-1643  
**Shoichi Yoshioka** and Aya Naganoda  
Numerical simulations on fall of stagnant slabs into the lower mantle
- A47 EGU2011-1787  
**Fumiko Tajima** and Eiji Ohtani  
Seismic observation and numerical modeling for the mantle transition zone with stagnant slabs
- A48 EGU2011-2412  
**Hitoshi Kawakatsu** and Shoichi Yoshioka  
Direct imaging of the metastable olivine wedge for a deep dry cold slab beneath southwest Japan
- A49 EGU2011-785  
**Stephan Lessing**, Christine Thomas, and Sebastian Rost  
Seismic investigation of upper mantle discontinuities under the Indian-Asian collision zone with PP precursors
- A50 EGU2011-411  
**Mélanie Drilleau**, Eric Beucler, Antoine Mocquet, and Olivier Verhoeven  
Bayesian approach to infer temperature and mineralogical composition of the transition zone from seismic waveforms
- A51 EGU2011-9077  
**Fenglin Niu** and Xinling Wang  
Imaging the mantle transition zone beneath eastern and central China with CEArray receiver functions
- A52 EGU2011-8864  
Alessandra Correale, **Mauro Martelli**, Antonio Paonita, Andrea Rizzo, Lorenzo Brusca, and Vittorio Scribano  
Metasomatism and degassing processes in the Hyblean heterogeneous mantle, as inferred from noble gas investigation of ultramafic xenoliths
- A53 EGU2011-2490  
**Christoph Hauzenberger** and Juergen Konzett  
Melt triggered deformation of the upper mantle: examples from xenoliths from Kimberley, South Africa and the Letseng-la-Terae kimberlite, Lesotho (UNESCO IGCP 557)
- A54 EGU2011-6747  
**Igor Ashchepkov**, Theodoros Ntaflos, Dmitri Ionov, Lyudmila Pokhilenko, Nikolai Vladykin, Sergey Kuligin, Sergey Mityukhin, and Stanislav Plessky  
Mantle structure and composition beneath Udachnaya pipe reconstructed by mantle xenoliths from the brown breccia
- A55 EGU2011-6595  
**Barbara Faccini**, Massimiliano Melchiorre, Massimo Coltorti, and Costanza Bonadiman  
Nature and evolution of Northern Victoria Land subcontinental lithospheric mantle (Antarctica)
- A56 EGU2011-10429  
**Igor Ashchepkov**, Hilary Downes, Nikolai Vladykin, Roger Mitchell, Stanislav Palessky, and Elena Nigmatulina  
Mantle sequences beneath Colorado from xenocrysts from Sloan and Kelsey lake kimberlites.

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**GD7.1/EMR12/GMPV18/SM4.6 – Structure, Composition and Dynamics of the Deep Earth (co-organized) – Orals**

Convener: Jon Mound | Co-Conveners: Arwen Deuss, Michael Ammann, Hauke Marquardt

**Room: 22**

Chairperson: Jon Mound and Hauke Marquardt

- 13:30–13:45 EGU2011-3592  
**Renaud Deguen**, Thierry Alboussière, Philippe Cardin, and Mickael Melzani  
Convection, melting and the structure of the inner core and lowermost outer core
- 13:45–14:00 EGU2011-11177  
**Chris Finlay**  
A geomagnetic perspective on core structure and dynamics
- 14:00–14:15 EGU2011-2631  
**Seiki Asari** and Vincent Lesur  
Radial vorticity constraint in the core flow modeling
- 14:15–14:30 EGU2011-3068  
**Pavel Hejda** and Alexander P. Anufriev  
Compressibility effects in the Earth's core convection
- 14:30–14:45 EGU2011-7944  
**Phil Livermore** and Rainer Hollerbach  
An excitation mechanism for torsional oscillations on the tangent cylinder

- 14:45–15:00 EGU2011-7159  
**Alexandre Fournier**, Julien Aubert, and Erwan Thébault  
 A proposal for the selection of numerical dynamo models for data assimilation practice  
 Chairperson: Hauke Marquardt and Jon Mound
- 15:30–15:45 EGU2011-11437  
**George Helffrich** and Satoshi Kaneshima  
 Outer core compositional stratification
- 15:45–16:00 EGU2011-5442  
**Dmitry Krasnoshekov**, Vladimir Ovtchinnikov, and Petr Kaazik  
 Observational evidence for cylindrical anomaly of seismic velocity in the Earth's outer core
- 16:00–16:15 EGU2011-1480  
**Andrew Walker**, Andrew Nowacki, Alessandro Forte, James Wookey, and J-Michael Kendall  
 Can seismic anisotropy in D" be used to constrain flow patterns in the lowermost mantle?
- 16:15–16:30 EGU2011-5066  
**Nico De Koker**  
 Thermal Conductivity of the Lowermost Mantle
- 16:30–16:45 EGU2011-5380  
 Gabriele Morra, **Dave Yuen**, and Fabio Cammarano  
 Necking of Plume Conduits and Severing of Plumeheads due to Non-Monotonic Plume Structure and Density Structure
- 16:45–17:00 EGU2011-11666  
 Nicola Tosi and **David Yuen**  
 Branching of plumes at 660 km discontinuity and bounds on lateral viscosity contrast in the lower mantle

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**SM5.2/NH4.7 – Time-dependent earthquake occurrence and seismic hazard: physics and statistics (co-organized) – Orals**

Convener: Gert Zöller | Co-Conveners: Sebastian Hainzl, Massimo Cocco, Mark Naylor

**Room: 26**

Chairperson: Gert Zöller

- 08:30–09:00 EGU2011-4954  
**Clément Narteau**, Peter Shebalin, and Matthias Holschneider  
 Probing the state of stress using early aftershocks
- 09:00–09:15 EGU2011-948  
**Denise De Gaetano**, John McCloskey, and Suleyman Nalbant  
 The systematic study of the stability of forecasts in the rate- and state-dependent model
- 09:15–09:30 EGU2011-5005  
**Marco Mucciarelli** and Dario Albarello  
 Empirical testing of earthquake recurrence models at source and site
- 09:30–09:45 EGU2011-4917  
**Stanislaw Lasocki**  
 Clustering of seismic events in equivalent dimension hyperspaces - premonitory effects of M8.8 Chile earthquake of February 27, 2010
- 09:45–10:00 EGU2011-12502  
**Renata Rotondi** and Elisa Varini  
 Statistical tests for the retrospective detection of space-time clusters of seismic events

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**COFFEE BREAK**

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Chairperson: Sebastian Hainzl

- 10:30–11:00 EGU2011-9019  
**Hugo Perfettini**, Jean-Philippe Avouac, Hernando Tavera, Mohamed Chlieh, Jean-Mathieu Nocquet, Dominique Remy, Kositsky Andrew, and Anthony Sladen  
 Seismic and aseismic slip on the central Peru megathrust
- 11:00–11:15 EGU2011-10366  
 Michel Bouchon, Hayrullah Karabulut, Mustafa Aktar, Serdar Özalaybey, **Jean Schmitzbuhl**, and Marie-Paule Bouin  
 Observation of repeating earthquakes during the nucleation of the 1999 Mw 7.6 Izmit earthquake
- 11:15–11:30 EGU2011-8463  
**Virginie Durand**, Michel Bouchon, David Marsan, and Nikos Theodoulidis  
 Seismic interactions in Greece following the M=6.4, 2008, Achaia earthquake

- 11:30–11:45 EGU2011-3660  
**Matthias Holschneider**, Gert Zöller, and Sebastian Hainzl  
 Estimation of the maximum magnitude in the framework of a doubly-truncated Gutenberg-Richter model:  
 Limits of statistical inference from earthquake catalogs
- 11:45–12:00 EGU2011-4653  
**Seok Goo Song**  
 Earthquake source statistics inferred from earthquake source physics - Toward developing an extended  
 earthquake rupture forecast model

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**SM5.2/NH4.7 – Time-dependent earthquake occurrence and seismic hazard: physics and statistics (co-organized) –**

Posters

Convener: Gert Zöller | Co-Conveners: Sebastian Hainzl, Massimo Cocco, Mark Naylor

**Halls X/Y | Display Time 08:00–17:00**

Author in Attendance: 15:30–17:00

Chairperson: Massimo Cocco

- XY512 EGU2011-1845  
**Haikun Jiang**, Maling Yang, Xuejun Sun, Jian Lv, Chuanhen Yan, and Qiong Wu  
 A typical locally triggered seismicity in Southwest of China, following the large rainfall event of June 2010
- XY513 EGU2011-2053  
**Alessandro Caporali**, Salvatore Barba, Michele Carafa, Roberto Devoti, Grazia Pietrantonio, and Federica Riguzzi  
 Static stress drop as determined from geodetic strain rates and statistical seismicity
- XY514 EGU2011-3765  
**Pierre Dublanchet**, Pascal Bernard, and Pascal Favreau  
 Cycle and triggering of a rate-and-state asperity model.
- XY515 EGU2011-7014  
**Gregor Hillers** and Yehuda Ben-Zion  
 Modeling Tectonic Tremor and Slow Slip Events with rate-and-state friction close to critical zero weakening
- XY516 EGU2011-11265  
**Gilbert Brietzke**, Sebastian Hainzl, Gert Zöller, and Matthias Holschneider  
 Quasi-Dynamic Simulations on Multiple Fault Systems
- XY517 EGU2011-5847  
**Hongjun Si**, Akemi Noda, Michiharu Ikeda, Kazuki Ogiyama, Naoki Nishizaka, and Yuki Ohno  
 A study on rupture propagation between the segments on the MTL based on the simulation of dynamic rupture process
- XY519 EGU2011-2987  
**Christoph Bach** and Sebastian Hainzl  
 Aftershock modeling based on Coulomb stress-triggering and ground shaking
- XY520 EGU2011-8347  
**Sebastian Hainzl**, Gert Zöller, Gilbert B. Brietzke, Lifeng Wang, and Matthias Holschneider  
 A stochastic fault-based earthquake simulator for short- and long-term seismicity
- XY522 EGU2011-7460  
**Beata Orlecka-Sikora**, Stanislaw Lasocki, Grzegorz Lizurek, and ?ukasz Rudzi?ski  
 Response of seismic activity in mines to the stress changes due to mining induced strong seismic events
- XY523 EGU2011-623  
**Samira Maghsoudi**, Simone Cesca, Sebastian Hainzl, Dirk Becker, Torsten Dahm, Diethelm Kaiser, and Volker Oye  
 Statistical Tools for Seismicity Analysis in Mining Environments
- XY524 EGU2011-6912  
**Andrew Bell**, Sarah Touati, Mark Naylor, and Ian Main  
 The nature and origin of the interevent-time distribution of volcanic earthquakes
- XY525 EGU2011-8949  
**Amir Hossein Hakimhashemi**, Gottfried Gruenthal, Holger Schelle, and Christian Bosse  
 Time-Dependent Seismic Hazard Assessment in the Dead Sea Fault Zone
- XY526 EGU2011-4946  
 Katalin Gribovszki, Péter Varga, and **Ferenc Schulek-Tóth**  
 Deterministic Seismic Hazard Assessment of the inner town of Budapest
- XY527 EGU2011-10274  
**Hayrullah Karabulut**, Jean Schmittbuhl, Michel Bouchon, Serdar Özalaybey, Olivier Lengliné, Guillaume Daniel, Ahu Kömeç, Virginie Durand, and Marie-Paule Bouin  
 Seismicity in the Cinarcik basin, East Marmara: changes due to the 1999 Izmit Earthquake and present-day activity

- XY528 EGU2011-2036  
**Elena Sasorova**, Andreeva Marina, and Levin Boris  
Spatial-temporal distributions of earthquakes of the Kuril Island arc
- XY529 EGU2011-4259  
Emmanouil Katsifarakis, **Antonios Konstantaras**, Emmanuel Maravelakis, Emmanouil Skounakis, and Martin Varley  
Seismic clustering algorithms
- XY530 EGU2011-2523  
**Yan Jia**, Edmund Fiegweil, Christiane Freudenthaler, Rita Meurers, and Wolfgang Lenhardt  
Overview of Austrian Seismic Monitoring in 2010
- XY531 EGU2011-12120  
Emmanouil Skounakis, **Anthony Konstantaras**, Emmanouil Katsifarakis, Emmanuel Maravelakis, Konstantinos Banitsas, and Martin Varley  
Seismic data clustering management system

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### SM5.3 – Advancements in Passive Seismic Monitoring of Induced Seismicity – Orals

Convener: Roland Gritto | Co-Conveners: Marco Bohnhoff, Philippe Jousset

**Room: 26**

Chairperson: Roland Gritto, Philippe Jousset

- 13:30–13:45 EGU2011-12609  
**Junlun Li**, H. Sadi Kuleli, Haijiang Zhang, and M. Nafi Toksoz  
Focal Mechanism Determination of Induced Microearthquakes in an Oil Field Using Full Waveforms from Shallow and Deep Monitoring Networks
- 13:45–14:00 EGU2011-1817  
**Friedemann Wenzel** and Sergei Shapiro  
Tectonic and Induced Seismicity - the Basel (2006) Case
- 14:00–14:15 EGU2011-10734  
**Joern Kummerow**, Anton Reshetnikov, Serge A. Shapiro, Hiro Asanuma, and Markus O. Häring  
Application of a Waveform Similarity- Based Location Algorithm to the Basel 1 Microseismic Data
- 14:15–14:30 EGU2011-11769  
**Ngoc-Tuyen Cao**, Isabelle Contrucci, Emmanuelle Klein, and Pascal Bigarré  
Evolution of microseismic activity prior to a salt cavern collapse
- 14:30–14:45 EGU2011-12076  
**Anna Tramelli**, Claudia Troise, Giuseppe De Natale, and Massimo Orazi  
Optimization and testing of microseismic monitoring networks: least-squares vs. Bayesian approach
- 14:45–15:00 EGU2011-3308  
**Serge Shapiro**, Oliver Krüger, Carsten Dinske, and Cornelius Langenbruch  
Magnitudes of induced earthquakes versus geometric parameters of stimulated volumes

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### SM5.3 – Advancements in Passive Seismic Monitoring of Induced Seismicity – Posters

Convener: Roland Gritto | Co-Conveners: Marco Bohnhoff, Philippe Jousset

**Halls X/Y | Display Time 08:00–17:00**

Author in Attendance: 15:30–17:00

Chairperson: Roland Gritto, Philippe Jousset

- XY532 EGU2011-482  
**Francesco Grigoli**, Simone Cesca, and Torsten Dahm  
Optimized detection and location of microearthquakes using a single vertical array in a deep borehole
- XY533 EGU2011-635  
**Ali Tolga Sen**, Simone Cesca, Monika Bischoff, Torsten Dahm, and Thomas Meier  
Moment Tensor Inversion of Coal Mining Induced Seismicity
- XY534 EGU2011-2205  
**Alexandrine Gesret**, Mark Noble, Thomas Romary, and Nicolas Desassis  
Microseismic monitoring: new accurate estimate of velocity model uncertainties and consequences on location uncertainties
- XY535 EGU2011-3533  
**Jaromir Jansky** and Vladimir Plicka  
Location of microseismic events using joint data from surface and monitoring well receivers. Synthetic test.
- XY536 EGU2011-3602  
**Marco Calo**, Catherine Dorbath, François H. Cornet, and Michel Frogneux  
Time-resolved seismic tomography and its contribution in the EGS geothermal reservoir of Soultz-Sous-Forêts (France) during hydraulic stimulations

- XY537 EGU2011-5440  
**Shi-feng Xue**, Bin Zhou, Feng Sun, Haikun Jiang, and Xiaodong Zhang  
The reservoir-induced seismic activity and the fault hydrodynamics - A case study of Zipingpu Reservoir, China
- XY538 EGU2011-8209  
**Thomas Plenefisch**, Ulrich Wegler, Matthias Keyser, Edgar Wetzig, and Christian Bönnemann  
Monitoring of microseismic activity around the GeneSys deep geothermal drilling site, Hannover (Germany)
- XY539 EGU2011-10821  
**Grzegorz Kwiatek** and Fatih Bulut  
Induced seismicity at Berlín geothermal field, El Salvador: Spatiotemporal characteristics of microearthquakes down to MW - 0.5
- XY540 EGU2011-13045  
**Antonio Troiano**, Maria Giulia Di Giuseppe, Zaccaria Petrillo, Claudia Troise, and Giuseppe De Natale  
Modelling Coulomb stress changes due to fluid injection and withdrawal: relations to induced seismicity
- XY541 EGU2011-13477  
**Dirk Kraaijpoel**, Jasper Kwee, and Bernard Dost  
Microseismic monitoring of an underground gas storage facility in the Netherlands
- XY542 EGU2011-14214  
**Vincenzo Convertito**, Nils Maercklin, Nitin Sharma, Emanuela Matrullo, Mauro Caccavale, Antonella Orefice, and Aldo Zollo  
From induced seismicity to direct time-dependent seismic hazard

