

EGU General Assembly 2012
Programme Group Programme
GD – Geodynamics

Monday, 23 April	2
GD1.1/PS2.7.....	2
GD2.2/GMPV6.5/SM3.7/TS3.8.....	2
GD2.3/GMPV6.8/SM3.6/TS9.8.....	4
GD2.5/GMPV6.12/SM4.3/TS10.9.....	4
GMPV2.1/GD2.7/SM4.2/TS1.4.....	5
SM2.0/GD2.10/NH4.10/TS8.8.....	7
GD3.7/G3.2/TS9.9.....	8
GD4.1/GMPV6.16.....	10
TS5.1/GD4.3.....	10
GD8.1/TS9.6.....	13
TS9.1/GD8.5.....	14
Tuesday, 24 April	18
SM2.1/GD1.3/NH4.9/TS8.5.....	18
GD2.1/SSP5.5/TS4.8.....	20
GD3.6/GMPV6.11/SM4.1/TS1.3.....	21
TS4.4/G6.1/GD3.8/GM3.3.....	22
G3.1/CR1.80/GD3.11.....	25
GD4.2/SM2.8/TS5.3.....	27
TS6.3/GD5.2/GMPV6.1.....	30
GMPV1.2/GD5.3/TS6.6.....	32
TS9.5/G3.5/GD8.6/GM3.6/GMPV6.20/SM3.5.....	32
Wednesday, 25 April	36
TS3.1/EMRP2.9/GD2.8.....	36
TS7.1/GD3.12.....	37
TS6.1/GD5.5.....	39
GD6.1/GMPV6.13/SM4.5.....	42
GMPV1.3/GD6.2.....	43
GD8.2/GMPV6.6/TS9.7.....	44
ML11.....	47
Thursday, 26 April	48
GMPV1.1/GD2.6.....	48
GD3.1/GM3.7/SM4.4/TS1.6.....	48
GD3.3/TS1.5.....	49
GD3.5/SM2.7/TS10.8.....	50
TS4.3/GD3.9/GM3.1.....	51
TS10.2/GD3.10/GMPV6.19/SM2.10.....	52
GD5.1/GMPV6.2/SM2.2/TS6.5.....	54
TS10.4/GD5.7/SM2.9.....	55
SM1.1.....	58
TS1.1.....	58
TS10.1.....	60
Friday, 27 April	62
TS6.2/GD5.4.....	70
GD7.1/EMRP1.9/SM4.6.....	71

Monday, 23 April

GD1.1/PS2.7 – Planetary Geodynamics (co-organized) – Orals

Convener: S. C. Werner | Co-Conveners: D. Breuer, S. Buiter

Room: 30

Chairperson: Susanne Buiter, Doris Breuer, Stephanie Werner

- 08:30–08:45 EGU2012-5522
M. T. Zuber and D. E. Smith
 The Interior Structures of the Moon and Mercury from Recent Data
- 08:45–09:00 EGU2012-6321
A. Davaille, E. Di Giuseppe, and E. Mittelstaedt
 Dynamic regims and evolution of planetary mantles: insights from laboratory experiments with complex rheology fluids
- 09:00–09:15 EGU2012-14118
 B Steinberger and **SC Werner**
 On the possible deep origin of long-wavelength gravity anomalies on the Moon and Mercury
- 09:15–09:30 EGU2012-9422
L. Elkins-Tanton and S. Tikoo
 Delivery of volatiles to terrestrial planets during accretion: Setting the stage for plate tectonics
- 09:30–09:45 EGU2012-11940
 B.J. Foley and **D. Bercovici**
 Conditions for Plate Tectonics on Super-Earths: Inferences From Convection Models With Damage
- 09:45–10:00 EGU2012-13059
A.-C. Plesa and D. Breuer
 The Efficiency of Magma Ocean Cumulate Overturn using a strong temperature-dependent Viscosity

GD1.1/PS2.7 – Planetary Geodynamics (co-organized) – Posters

Convener: S. C. Werner | Co-Conveners: D. Breuer, S. Buiter

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Doris Breuer, Susanne Buiter, Stephanie Werner

- XL161 EGU2012-14236
L. Angheluta, M Assaf, and N Goldenfeld
 Dynamics of large-scale circulation in turbulent convection
- XL162 EGU2012-8572
P. J. Tackley, T. Nakagawa, and M. Armann
 The Strong Influence of Magmatic Heat Transport on Terrestrial Planetary Evolution
- XL163 EGU2012-14126
K. Burke, B Steinberger, TH Torsvik, SC Werner, and J Wilkinson
 Why are the Geoid and the Areoid so similar?
- XL164 EGU2012-10987
I. Karachevtseva, J. Oberst, ?. Konopikhin, K. Shingareva, E. Gusakova, A. Kokhanov, M. Baskakova, O. Peters, F. Scholten, M. Wählisch, and M. Robinson
 Mapping of the Lunokhod-1 Landing Site: A Case Study for Future Lunar Exploration
- XL166 EGU2012-12831
D. Mimoun, Ph Lognonné, S. Deraucourt, M. Urvoy, R. Zweifel, P. Mance, T. Garcia, O. Robert, T. Gabsi, S. Tillier, M. Wieczorek, T. Nébut, B. Lecomte, O. Pot, M. Bierwirth, and R. Roll
 Planetary Seismometers for the Moon, Mars and Asteroids
- XL167 EGU2012-6590
C. Schiffer and S. B. Nielsen
 Modelling of the Global Geopotential Energy & Stress Field
- XL168 EGU2012-5021
L. Ostrihansky and P. Kalenda
 Confirmation of the extraterrestrial forces decisive effect on earthquake triggering and lithospheric plates movement.

GD2.2/GMPV6.5/SM3.7/TS3.8 – Crustal Dynamics vs Anisotropy (co-organized) – Orals

Convener: I. Bianchi | Co-Conveners: M. Miensopust, B. Grasemann, Y. Gueguen, W Rabbel

Room: 30

Chairperson: n.n.

- 13:30–13:45 EGU2012-2542
N. Rawlinson, P. Arroucau, M. Young, M. Salmon, and B. L. N. Kennett
 Seismic anisotropy and heterogeneity in the crust beneath southeast Australia from ambient noise tomography
- 13:45–14:00 EGU2012-8759
J.-M. Kendall, J. P. Verdon, D. Keir, and A. Baird
 Monitoring dyke injection and strain field evolution using shear-wave splitting.
- 14:00–14:15 EGU2012-5733
X.-q. Wang, A Schubnel, J Fortin, Y Gueguen, and H.-q. Ge
 Vp/Vs Ratio: Dispersion and Anisotropy Effects in Cracked Rocks
- 14:15–14:30 EGU2012-823
E. Izquierdo Llavall, A. Casas Sainz, and B. Oliva Urcia
 Magnetic fabrics in overthrustured terrains: example from the Buntsandstein Facies in the southern edge of the Axial Zone (Nogueres unit, Central Pyrenees)
- 14:30–14:45 EGU2012-8009
A. Korja, T. Tiira, T. Hyvönen, T. Kilpeläinen, and T.M. Lammi
 Lateral spreading of the Svecofennian Orogen imaged by average lineations and residual velocity anisotropy
- 14:45–15:00 EGU2012-12830
D. Okaya, S. E. Johnson, S. S. Vel, W. J. Song, and N. I. Christensen
 The role of length scales in bridging the gap between rock CPO and seismic signals of crustal anisotropy

GD2.2/GMPV6.5/SM3.7/TS3.8 – Crustal Dynamics vs Anisotropy (co-organized) – Posters

Convener: I. Bianchi | Co-Conveners: M. Miensoopust, B. Grasemann, Y. Gueguen, W Rabbel

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XL169 EGU2012-4842
I. M. Aleshin
 Seismic anisotropy derived from joint inversion of SKS and P-to-S converted phases
- XL170 EGU2012-4906
E. Duesterhoeft, R. Bousquet, H. Wichura, and R. Oberhänsli
 Metamorphic density changes as key process to form anorogenic plateaus
- XL171 EGU2012-13561
E. Mandolesi and A. G. Jones
 Magnetotelluric Inversion in a 2D Anisotropic Environment
- XL172 EGU2012-9091
A. Martí, O. Rosell, P. Queralt, J. Ledo, and A. Marcuello
 Identification of anisotropic geoelectric structures using dimensionality analysis of magnetotelluric data. Application to the Spanish Betic Chain
- XL173 EGU2012-6909
T.-Y. Huang, Y.-N. Chen, Y. Gung, W.-T. Liang, and L.-Y. Chiao
 3D isotropic/anisotropic crustal models of Taiwan using ambient seismic noises
- XL174 EGU2012-2970
 T. Yudistira, **H. Paulssen**, and J. Trampert
 Radial anisotropy in the crust beneath the Netherlands from ambient seismic noise
- XL175 EGU2012-5850
W Rabbel and C Eckhardt
 Regional domains of crustal seismic anisotropy in the central European Variscides
- XL176 EGU2012-9679
I. Bianchi, G. Bokermann, and K. Shiomi
 Crustal Anisotropy across Northern Japan by Receiver Functions
- XL177 EGU2012-8549
D. Giannopoulos, E. Sokos, K. Konstantinou, A. Lois, and G-A Tselentis
 Temporal variation of shear-wave splitting parameters related to Movri Mountain earthquake in northwest Peloponnese (Greece)
- XL178 EGU2012-8287
L. Cristiano, T. Meier, C. Weidle, and F. Krüger
 Automated determination of P-wave polarization at the GRSN
- XL179 EGU2012-11162
 G. Polat, **S. Lebedev**, P. W. Readman, B. M. O'Reilly, and F. Hauser
 Anisotropic Rayleigh-wave tomography of Ireland's crust: Implications for crustal accretion and evolution within the Caledonian Orogen

XL180 EGU2012-12661

W. J. Song, S. S. Vel, S. E. Johnson, and D. Okaya
Effect of fold structures on seismic anisotropy in continental crust

XL181 EGU2012-13521

J. M. Walter, **M. Stipp**, K. Ullemeyer, H. Klein, B. Leiss, B.T. Hansen, and W.F. Kuhs
POWTEX Neutron Diffractometer at FRM II - New Perspectives for In-Situ Rock Deformation Analysis

GD2.3/GMPV6.8/SM3.6/TS9.8 – Heat flow and thermal regime of the lithosphere: Deep and surface processes (co-organized) – Orals

Convener: A. Vaughan | Co-Conveners: I.M. Artemieva, I. Rogozhina, I. T. Kukkonen, N. Kuznir

Room: 22

Chairperson: n.n.

08:30–08:45 EGU2012-14378

JH Davies and DR Davies
Revised Estimate of Earth's Surface Heat Flow: 47 +/- 2 TW

08:45–09:00 EGU2012-10762

T. A. Jordan, F. Ferraccioli, and R. C. Hindmarsh
Rifting, heat flux, and water availability beneath the catchment of Pine Island Glacier

09:00–09:15 EGU2012-7411

S. Umino and A. Okugawa
A New Geothermometer Using Crystal Size Variations of the Sheeted Dikes: Insight Into the Thermal Structure of The Upper Oceanic Crust

09:15–09:30 EGU2012-9338

F. Schütz and A. Förster
Surface heat flow of southern Israel based on new borehole data

09:30–09:45 EGU2012-6942

I. T. Kukkonen, V. Rath, L. Kivekäs, J. Šafanda, and V. ?ermak
Geothermal Studies of the Outokumpu Deep Drill Hole, Finland: Vertical variation in heat flow and palaeoclimatic implications

09:45–10:00 EGU2012-13626

M. Purucker
Heat flow inferred from satellite magnetic data over the Antarctic

GD2.3/GMPV6.8/SM3.6/TS9.8 – Heat flow and thermal regime of the lithosphere: Deep and surface processes (co-organized) – Posters

Convener: A. Vaughan | Co-Conveners: I.M. Artemieva, I. Rogozhina, I. T. Kukkonen, N. Kuznir

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

XL182 EGU2012-4499

M.T Tesauro, M.K Kaban, S.C Cloetingh, and W.M Mooney
A New thermal and compositional model of the North American lithosphere

XL183 EGU2012-8095

A.P.M. Vaughan, N. Kuznir, F. Ferraccioli, and T.A.R.M. Jordan
Regional Heat-flow Prediction for Antarctica using Gravity Inversion Mapping of Crustal Thickness and Lithosphere Thinning

XL184 EGU2012-7277

V. Spichak, O. Zakharova, and A. Goidina
3D thermal structure of the Hengill geothermal area (Iceland) revealed from electromagnetic sounding data and temperature well logs

XL185 EGU2012-9895

I. Rogozhina, J. M. Hagedoorn, Z. Martinec, K. Fleming, and M. Thomas
Applicability and limitations of large-scale ice-sheet modeling for constraining subglacial geothermal heat flux

XL186 EGU2012-13345

R Klenner and **W Gosnold**
Heat Flow and the Pleistocene Ice Margin

XL187 EGU2012-9216

Y. Popov, R. Romushkevich, D. Gorobtsov, and D. Korobkov
Vertical Variations In Heat Flow Inferred From Experiments In Deep Boreholes

GD2.5/GMPV6.12/SM4.3/TS10.9 – The tale of Laurasia cratons: new geophysical and geochemical evidence from

Europe, Siberia, Greenland, and North America (co-organized) – Posters

Convener: I.M. Artemieva | Co-Conveners: S. V. Bogdanova, M. Kopylova

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: I.M. Artemieva, S.V. Bogdanova

- XL188 EGU2012-8627
J. Plomerova, L. Vecsey, V. Babuska, and LAPNET Working Group
 Domains of Archean mantle lithosphere deciphered by seismic anisotropy - inferences from the LAPNET array in northern Fennoscandia
- XL189 EGU2012-8566
H. Silvennoinen, E. Kozlovskaya, E. Kissling, G. Kosarev and the POLENET/LAPNET Working Group Team
 Compilation of Moho boundary map for northern Fennoscandian shield
- XL190 EGU2012-10695
I.M. Artemieva and H. Thybo
 Crustal structure of Europe, Greenland, and North Atlantic: Synthesis and analysis
- XL191 EGU2012-6452
 S. Reiche, **H. Thybo**, I. Reid, and A. Shulgin
 Crustal structure beneath Central-Eastern Greenland
- XL192 EGU2012-4624
M. Dec, M. Malinowski, B. Nita, and E. Perchuc
 An upper mantle model for a western rim of the East European Craton
- XL193 EGU2012-10102
I. Vejelyte, S. Bogdanova, K. Yi, and M. Cho
 New SHRIMP zircon age constraints on the evolution of crystalline basement in Eastern Lithuania (East European Craton)
- XL194 EGU2012-10738
G Skridlaite, S Bogdanova, L. Taran, and J. Wiszniewska
 The Palaeoproterozoic accretionary crustal growth: implications from new age data on the crystalline basement in Lithuania, NW Belarus and N Poland (the East European Craton)
- XL195 EGU2012-4143
 O.B. Gintov and **S.V. Mychak**
 The Ingul block of the Ukrainian Shield (the East European Craton): multiple stress changes during the Palaeoproterozoic tectonic evolution
- XL196 EGU2012-11762
S. V. Bogdanova, A.V. Postnikov, and E.V. Bibikova
 The Volga-Don orocline stitching Volgo-Sarmatia
- XL197 EGU2012-7895
D. Gladkochub, T. Donskaya, and A. Mazukabzov
 Crustal growth in southern Siberia: a Nd-isotope synthesis
- XL198 EGU2012-12162
Yu. Cherepanova and I.M. Artemieva
 Linking crustal heterogeneity to the tectonic history: the case study of the Siberian craton and West Siberian Basin based on new regional crustal model
- XL199 EGU2012-2693
N. Bushenkova, V. Chervov, and I. Koulakov
 Recent upper mantle structure beneath Siberia and surrounding areas according to a seismic tomography and numerical thermogravitational convection modeling data
- XL200 EGU2012-8870
M. Youssof, I. Artemieva, H. Thybo, and A. Frassetto
 The crust and mantle beneath the Siberian provinces: a preliminary model based on new receiver function analysis
- XL201 EGU2012-8901
F. Cammarano, I.M. Artemieva, and H. Thybo
 Effect of composition on the seismic structure of the Siberian lithosphere

GMPV2.1/GD2.7/SM4.2/TS1.4 – Geochemical, petrological and physical discontinuities in the lithospheric mantle: supporting evidence and hypotheses for their origin (co-organized) – Orals

Convener: I. Ashchepkov | Co-Conveners: C. Szabo, J. van Hunen

Room: 27

Chairperson: n.n.

- 08:30–08:45 EGU2012-1727
G. M. Yaxley, A. J. Berry, A. B. Woodland, V. S. Kamenetsky, D. Paterson, M. D. de Jonge, and D. L. Howard
 Application of Fe K-edge XANES determinations of Fe³⁺/totalFe in garnet to peridotite xenoliths from the Udachnaya Kimberlite
- 08:45–09:00 EGU2012-4669
A. Woodland
 Ferric iron budget of Kaapvaal cratonic mantle peridotite
- 09:00–09:15 EGU2012-12791
R. Meyer and L.T. Elkins-Tanton
 Experimental petrology constrains on melting conditions of high-potassium melts under the Central Sierra Nevada, California, USA
- 09:15–09:30 EGU2012-12120
Zs. Pintér, I. Kovács, J. Mihály, Cs. Németh, and Cs. Szabó
 An FTIR study on nominally anhydrous minerals in mantle xenoliths with diverse textures from the central Carpathian-Pannonian region (Bakony-Balaton Highland Volcanic Field, Hungary)
- 09:30–09:45 EGU2012-3986
E Vasyukova
 Geochemical data of Early Mesozoic lamprophyres and associated syenites (SE Altay-NW Mongolia)
- 09:45–10:00 EGU2012-4509
E. Artyushkov
 The Moho discontinuity in superdeep sedimentary basins as a top of the layer of deeply metamorphosed mafic rocks in the lower crust

GMPV2.1/GD2.7/SM4.2/TS1.4 – Geochemical, petrological and physical discontinuities in the lithospheric mantle: supporting evidence and hypotheses for their origin (co-organized) – Posters

Convener: I. Ashchepkov | Co-Conveners: C. Szabo, J. van Hunen

Hall XL | Display Time 08:00–19:30

Author in Attendance: 10:30–12:00

Chairperson: n.n.

- XL284 EGU2012-1166
 I.V. Ashchepkov, **S.S. Kuligin**, V.P. Afanasiev, N.V. Vladyskin, S.I. Kostrovitsky, M.I. Lelyukh, M.A. Vavilov, E.N. Nigmatulina, and S.V. Palessky
 Deep seated inclusions in kimberlites from Kharamai field and some kimberlite fields of Priabarie.
- XL285 EGU2012-1195
 I.V. Ashchepkov, **K.N. Egorov**, M.A. Vavilov, E.I. Nikolenko, V.P. Afanaseiv, E.N. Nigmatulina EN, and S.V. Palessky
 Cr-Pyropes and other mantle diamond-associated minerals from placers on Tumanshet river (Birysa basin).
- XL286 EGU2012-1205
I.V. Ashchepkov, S.S. Kuligin, N.V. Vladyskin, A.P. Smelov, V.P. Afanasiev, T. Ntaflos, M.I. Lelyukh, S.I. Kostrovitsky, N.S. Tychkov, A.M. Agashev, Yu.I. Ovchinnikov, E.N. Nigmatulina, and O.S. Khmelnikova
 Lithospheric mantle transects through the fields of kimberlitic magmatism in Siberian Craton.
- XL287 EGU2012-1686
I. Ashchepkov, T. Ntaflos, A. Logvinova, A. Smelov, N. Vladyskin, S. Kostrovitsky, S. Lelyukh, V. Afanasiev, S. Kuligin, V. Minin, H. Downes, O. Khmelnikova, E. Nigmatulina, N. Tychkov, M. Skvortsova, and A. Rotman
 Variations of the Fe# of garnet, olivine and other peridotite minerals in the mantle columns beneath the Yakutian kimberlites.
- XL288 EGU2012-2978
 I. Ashchepkov, **Yu Stegnitsky**, V. Minin, A. Tolstov, N. Vladyskin, A. Rotman, S. Palessky, A. Agashev, O. Khmelnikova, and M. Skvortsova
 Structure and evolution of the mantle column beneath the Nakyn kimberlite field.
- XL289 EGU2012-3552
V Prihodko, I. Ashchepkov, T. Ntaflos, A. Barkar, S. Vysotsky, S. Esin, V. Kutolin, and A. Prussevich
 Composition and structure of mantle lithosphere in the Russian Far East according to xenoliths study.
- XL290 EGU2012-1682
I. Ashchepkov
 Single grain estimations of oxygen fugacity in subcratonic mantle lithosphere using compositions of Ilmenite, Chromite, Garnet and Pyroxenes.
- XL291 EGU2012-5667
J. Globig and H. Sommer
 Phase relationships of a lherzolite from the Roberts Victor Mine, South Africa: A study of chemical and physical parameters in the Kaapvaal Craton.

- XL292 EGU2012-1211
I.V. Ashchepkov, N.V. Vladykin, S.S. Kuligin, A.P. Smelov, T. Ntaflos, S.I. Kostrovitsky, M.I. Lelyukh, A.Ya. Rotman, V.P. Afanasiev, N.S. Tychkov, E.V. Malygina, Yu.I. Ovchinnikov, S.V. Palessky, I.V. Nikolaeva, O.S. Khmelnikova, and E.N. Nigmatulina
 Variations of the SCLM structures and geochemical features of the peridotites in different mantle terranes beneath Siberian craton.
- XL293 EGU2012-12991
S. Fishwick, H.A. Pedersen, D.B. Snyder, and J. Fulla
 Highlighting seismic velocity variations in cratonic lithosphere from the consistent analysis of surface wave dispersion.
- XL294 EGU2012-3325
S. Sablukov, L. Sablukova, Yu. Stegnitskiy, and M. Karpenko
 Origin of the mantle rocks with green garnets (isotope and trace element study of the mantle xenoliths from Newlands dyke, South Africa and Nyurbinskaya pipe, Yakutia)
- XL295 EGU2012-6764
S. Kostrovitsky, D. Yakovlev, and Z. Spetsius
 Titanium in garnets as indicator of inhomogeneous composition of lithosphere mantle
- XL296 EGU2012-7917
X. Chen and L. Liu
 Geochemistry Study of Cenozoic Wangtian'e Volcano in Northeast China
- XL297 EGU2012-8370
A.M. Agashev, D.A. Ionov, N.P. Pokhilenko, A.V. Golovin, E. A. Surgutanova, and I.S. Sharygin
 Measured vs Calculated WR Geochemical Composition of Deformed Peridotite Xenoliths: Inferences About Metasomatism in Cratonic Mantle
- XL298 EGU2012-10633
A. Goncharov and D. Ionov
 Redox state of cratonic and off-craton lithospheric mantle: new Mossbauer data from garnet and spinel peridotites
- XL299 EGU2012-13509
Y.A. Balashov and E.V. Martynov
 Issues of oxygen excess in the crust and upper mantle lithosphere
- XL300 EGU2012-8297
I. Chuvashova, A. Mikolaichuk, and S. Rasskazov
 Lithospheric low-volume volcanism in the Middle-Amur basin and Tien Shan: Inherited geochemical signatures of terrains originated in closed paleocean structures
- XL301 EGU2012-13597
N. Kudryashov and A. Mokrushin
 Mesoarchean Gabbroanorthosite Magmatism of the Kola Region
- XL302 EGU2012-3691
N. Alymova
 Picroilmenite xenoliths and xenocrysts in Yakutian kimberlites.
- XL303 EGU2012-7599
K. Kanayama, S. Umino, and O. Ishizuka
 Eocene volcanism during the incipient stage of Izu-Ogasawara arc: Geology and petrology of the Mukojima Island Group, the Ogasawara Islands
- XL304 EGU2012-2556
S. Rasskazov and I. Chuvashova
 Hard processing vs. episodic underplating of a terrain: isotopic signatures of mantle and crustal magmatic sources from the sub-continental lithosphere
- XL305 EGU2012-13948
L. Solovjeva, A. Goncharov, and T. Kalashnikova
 The influence of Middle Paleozoic Yakutian plume on the geochemical modification of Siberian craton lithosphere
- XL306 EGU2012-8696
V. Babuska, J. Plomerova, and S.I. Karato
 Continental growth by successive accretion of oceanic lithosphere: Evidence from tilted seismic anisotropy
- XL307 EGU2012-10186
L.S. Doucet, D.A. Ionov, G.P. Brey, A.V. Golovin, and I.V. Ashchepkov
 Origin of garnet peridotites in the lithospheric mantle beneath the Siberian craton

SM2.0/GD2.10/NH4.10/TS8.8 – The 23 October 2011 Van Earthquake - Losses and Lessons (co-organized) – Orals

Convener: M. Erdik | Co-Conveners: F. Wenzel

Room: 26

Chairperson: Mustafa Erdik and Friedemann Wenzel

- 15:30–15:45 EGU2012-11361
P. Albini, M.B. Demircioglu, M. Locati, **A. Rovida**, K. Sesetyan, M. Stucchi, and D. Viganò
Revising the historical seismicity of the region of Van
- 15:45–16:00 EGU2012-14409
S. Altuncu Poyraz, M. Alper ?engül, and A. P?nar
Source Rupture Process And Seismotectonic Implication Of Van Tabanlı Earthquake, October 23, 2011
- 16:00–16:15 EGU2012-12139
A. M. Akoglu, S. Jonsson, Z. Cakir, S. Ergintav, U. Dogan, G. Feng, and C. Zabc?
The Surface Deformation and Source Parameters of the October 23rd, 2011, Mw 7.1 Van (Turkey) Earthquake from InSAR, GPS and Field Observations
- 16:15–16:30 EGU2012-14393
E. Harmandar and **M. Erdik**
Strong Ground Motion Data from the October 23 and November 9, 2011 Van, Turkey Earthquakes
- 16:30–16:45 EGU2012-13931
Y. Kamer, A. C. Zulfikar, M. B. Demircioglu, C. Tuzun, K. Sesetyan, and M. Erdik
Post-Earthquake Rapid Loss Estimation for the October 23, 2011 Van Earthquake
- 16:45–17:00 EGU2012-14403
E. Uckan
Damage to industry and utilities during the October (Mw=7.2) and November (M=5.6), Van Lake Earthquakes, Eastern Turkey

SM2.0/GD2.10/NH4.10/TS8.8 – The 23 October 2011 Van Earthquake - Losses and Lessons (co-organized) – Posters

Convener: M. Erdik | Co-Conveners: F. Wenzel

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Mustafa Erdik and Friedemann Wenzel

- XY496 EGU2012-5040
G. Ameri, **F. Gallovi?**, A. Askan, and J. Zahradník
Broadband Ground Motion Simulations of the 23 October 2011 Van (Eastern Turkey) Earthquake
- XY497 EGU2012-14411
N. Meral Ozel and A. Kusmezer
2011 Van earthquake (Mw=7.2) aftershocks using the source spectra an approach to real-time estimation of moment magnitude
- XY498 EGU2012-14401
H. Ozener, U. Dogan, Z. Çakir, S. Ergintav, R. Reilinger, R. Cakmak, B. Turgut, A. Akoglu, M.A. Floyd, and D. Oz
The Postseismic deformation of the October 23, 2011, Mw 7.2 Van (Turkey) Earthquake from GPS and InSAR
- XY499 EGU2012-254
A. Tan, H. Eyidogan, V. Gecgel, and A. Yoruk
Recent Seismotectonics Implications Of The East Anatolian Fault Zone Close to Van, Eastern Turkey
- XY500 EGU2012-6956
A. Akinci and A. Antonioli
Observations and Modeling of Strong Ground Motions for the 23 October 2011 Mw 7.1 Van, Turkey, Earthquake
- XY501 EGU2012-9424
S. Pulinets, D. Ouzounov, G. Giuliani, K. Tsybulya, and I. Yudin
Results of short-term earthquake precursors multiparameter monitoring during preparation phase of Van earthquake as manifestation of the crust, surface, atmospheric and ionospheric processes synergy
- XY502 EGU2012-2791
Y. Altiner, W. Söhne, and C. Güney
The geodetic impact of the Van earthquake from 23 October 2011
- XY503 EGU2012-5565
J.E. Daniell, B. Khazai, F. Wenzel, T. Kunz-Plapp, A. Vervaeck, B. Muehr, and M. Markus
A discussion of the socio-economic losses and shelter impacts from the Van, Turkey Earthquakes of October and November 2011
- XY504 EGU2012-13905
M. Erdik, M. B. Demircioglu, Y. Kamer, K. Sesetyan, C. Tuzun, and A. C. Zulfikar
Rapid Earthquake Hazard and Loss Assessment with ELER© Software

GD3.7/G3.2/TS9.9 – Integrating geodetic and geological studies of active crustal deformation (co-organized) – Orals

Convener: M. Westerhaus | Co-Conveners: M. Becker, A. Demoulin, C. Hwang, W B Shen, T. Wright

Room: 30

Chairperson: Malte Westerhaus

- 10:30–10:45 EGU2012-13740
A. M. Friedrich
 Broadband Approach To Quantification Of Lithospheric Deformation On Scales Ranging From Earthquakes To Fault Systems
- 10:45–11:00 EGU2012-13200
O. Trubienko, L. Fleitout, JD Garaud, and C. Vigny
 The far-field deformations associated with the seismic cycle: The lessons from the postseismic deformations of the recent giant subduction earthquakes
- 11:00–11:15 EGU2012-9726
 A. Walpersdorf, I. Manighetti, F. Tavakoli, **Z. Mousavi**, M. Vergnolle, A. Jadidi, D. Hatzfeld, A. Aghamohammadi, Y. Djamour, H. Nankali, M. Sedighi, and L. Lutz
 New insights on the recent and current deformation in Central-Eastern Iran, derived from a combined tectonic and GPS analysis
- 11:15–11:30 EGU2012-10328
T. Fuhrmann, M. Westerhaus, K. Zippelt, and B. Heck
 Vertical Displacements in the Upper Rhine Graben Area Derived from Precise Levelling Data
- 11:30–11:45 EGU2012-6839
C. Hwang and Y.N. Lo
 TOPEX/Poseidon observation of ice thinning over Mt. Tanggula, Tibet
- 11:45–12:00 EGU2012-3345
W B Shen and J C Han
 Investigations of the gravity profile below the Tibetan plateau

GD3.7/G3.2/TS9.9 – Integrating geodetic and geological studies of active crustal deformation (co-organized) – Posters

Convener: M. Westerhaus | Co-Conveners: M. Becker, A. Demoulin, C. Hwang, W B Shen, T. Wright

Hall XL | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: WenBin Shen

- XL202 EGU2012-13089
J. van der Woerd
 Kinematics of strike-slip faults: the geological perspective
- XL203 EGU2012-6785
 C. Kreemer, W. C. Hammond, **G. Blewitt**, A. A. Holland, and R. A. Bennett
 A Geodetic Strain Rate Model for the Pacific-North American Plate Boundary, western United States
- XL204 EGU2012-13005
A. Dapo, B. Pribicevic, M. Herak, and E. Prelogovic
 Geodetic, Geologic and Seismic Interdisciplinary Research of Tectonically Caused Movements in the Wider Area of the City of Zagreb
- XL205 EGU2012-2940
G. Pezzo, C. Tolomei, S. Atzori, and S. Salvi
 New kinematic constraints of the western Doruneh fault (Central-Eastern Iran), from interseismic deformation analysis
- XL206 EGU2012-3340
E. Cetin, M. Meghraoui, Z. Cakir, O. Mimouni, S. Belabbes, A. Akoglu, S. Bouraoui, and M. Chebbah
 Seven years of postseismic deformation in the Mw=6.8, 2003 Zemmouri (Algeria) earthquake area from PS-InSAR
- XL207 EGU2012-3905
W.C. Chung and J.C. Hu
 Analysis of Active Crustal Deformation in Chiayi Area, Southwestern Taiwan by Continues GPS network and numerical modeling
- XL208 EGU2012-10124
 E. Serpelloni, **L. Anderlini**, B. Mastrolembo, A. Cavaliere, P. Baldi, and M. E. Belardinelli
 Geodetic slip-rates from block-modeling of a dense GPS velocity field in Italy: comparison with geological slip-rates and seismic moment release
- XL209 EGU2012-7047
M. Mayer, A. Knöpfner, F. Masson, P. Ulrich, and B. Heck
 Determination of 3D surface displacement rates in the Upper Rhine Graben based on GURN (GNSS Upper Rhine Graben Network)
- XL210 EGU2012-6832
A. Fadil, R. Tenzer, and P. Denys
 Vertical motions in New Zealand from dense GNSS network

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: WenBin Shen

- XL211 EGU2012-3314
A. Ganas, K. Chousianitis, M. Papanikolaou, P. Argyrakis, G. Drakatos, and K. Makropoulos
 Velocity profiles along continuous GPS stations in central and western Greece: Comparison with geological data
- XL212 EGU2012-5072
F. Nilfouroushan, P. Hodacs, C. Talbot, H. Koyi, and L. Sjöberg
 Geodetic horizontal velocity and strain rate fields around Lake Vänern (SW Sweden) derived from GPS measurements between 1997 and 2011
- XL213 EGU2012-12158
O. Ewiak, P. Victor, T. Ziegenhagen, and O. Oncken
 Investigating the deformation of upper crustal faults at the N-Chilean convergent plate boundary at different scales using high-resolution topography datasets and creepmeter measurements
- XL214 EGU2012-3343
 P. Schindler, **T. Jahr**, G. Jentzsch, and N. Kukowski
 High resolution strain observations: Installation and first results of new laser strainmeters at the Geodynamic Observatory Moxa/Germany
- XL215 EGU2012-3448
H.H. Wang, C.K. Shum, Z.C. Luo, and K.H. Tseng
 Lake Level Variations of Ngangzi Co Lake in Tibetan Plateau from Retracked TOPEX and Jason-1 data
- XL216 EGU2012-5242
Z.C. Luo, Q. Li, B. Zhong, and H.H. Wang
 Terrestrial water storage variations in China from GRACE
- XL217 EGU2012-5036
Q. Li, Z.C. Luo, H.H. Wang, and B. Zhong
 Satellite-based estimates of the Mass variations over Tibet-plateau
- XL218 EGU2012-1728
X. Jiang and Y. Jin
 The Rheological Structure of the East Tibetan Plateau
- XL219 EGU2012-6133
R. Kiamehr
 Monitoring of Fault Patterns Based on the Deflection of the Vertical Components, a Case Study in Zagros Belt

GD4.1/GMPV6.16 – Mid-ocean ridge processes and their consequences: melting and melt extraction from a heterogeneous mantle (co-organized) – Orals

Convener: R. Katz | Co-Conveners: A. Stracke, C.J. Lissenberg, M. Godard

Room: 30

Chairperson: Andreas Stracke

- 15:30–15:45 EGU2012-124
H. J. B. Dick and H. Zhou
 Mantle Sources Beneath the SW Indian Ridge - Remelting the African Superplume
- 15:45–16:00 EGU2012-6494
V. Salters
 The effect of variable mantle composition on melt generation and extraction at mid-ocean ridges
- 16:00–16:15 EGU2012-7326
L. Dosso, C. Hamelin, B. Hanan, M. Thirlwall, and S. Silantiev
 Contrasting depleted mantle signatures along the northern mid-atlantic ridge (10-50°N)
- 16:15–16:45 EGU2012-2125
RF Katz and S. Weatherley
 Coupled magma/mantle dynamics in a heterogeneous mantle beneath mid-ocean ridges
- 16:45–17:00 EGU2012-2116
O. Plümper, A. Røyne, A. Malthe-Sørenssen, H.E. King, and B. Jamtveit
 Reaction-induced fracturing during olivine serpentinization: A mechanistic investigation at the interface scale
- 17:00–17:15 EGU2012-11269
L. Ruepke, S. Theissen-Krah, K. Iyer, and JP Morgan
 Crustal accretion and hydrothermal convection patterns at fast-spreading ridges

TS5.1/GD4.3 – Rifted margins and onshore analogues: mechanisms of deformation, sedimentation, and magmatism (co-organized) – Orals

Convener: G. Peron-Pinvidic | Co-Conveners: J. Autin, G.D. Karner, G. Manatschal, P. T. Osmundsen

Room: 12

Chairperson: J. Autin, P.T. Osmundsen

- 08:30–08:45 EGU2012-4355
D. Franke
 Rifting and volcanism: Examples from volcanic rifted and magma-poor margins based on multichannel seismic data
- 08:45–09:00 EGU2012-1666
H. Schmeling and H Wallner
 The role of melt induced lithospheric weakening on the dynamics of continental rifting
- 09:00–09:15 EGU2012-3886
G. Manatschal and G.D. Karner
 Inter-relationship between the Tectonic and Magmatic Evolution of Hyper-extended Margins and Break-up
- 09:15–09:30 EGU2012-552
J.D. Eccles, R.S. White, and P.A.F. Christie
 North Atlantic Margins: Case studies of Magmatic Continental Breakup
- 09:30–09:45 EGU2012-4862
S. Brune and C Heine
 Numerical Models of Multi-Velocity Rift Evolution
- 09:45–10:00 EGU2012-8851
R. S. Huismans and C. Beaumont
 Depth-dependent extension, two-stage breakup and depleted lithospheric counterflow at rifted margins

COFFEE BREAK

Chairperson: J.Autin, G.Manatschal

- 10:30–10:45 EGU2012-1564
T. Redfield and P.T. Osmundsen
 Crustal thinning and tectonic geomorphology: redefining the passive margin
- 10:45–11:00 EGU2012-10008
E. Masini, G. Manatschal, G. Mohn, and J. Tugend
 Tectono-sedimentary processes at hyper-extended rifted margins: the Alpine and Pyrenean analogues
- 11:00–11:15 EGU2012-2036
T.B. Andersen, F. Corfu, L. Labrousse, and P.T. Osmundsen
 Evidence for hyper - extension in the Pre-Caledonian continental margin of Baltica
- 11:15–11:30 EGU2012-1756
L. Jolivet, C. Gorini, F. Bache, J. Smit, and S. Leroy
 Continental Break-up and the dynamics of rifting in backarc basins : the Gulf of Lions margin
- 11:30–11:45 EGU2012-13065
C. R. Ranero, V. Sallarés, I. Grevemeyer, N. Zitellini, M. Guzman, M. Prada, S. Moeller, R. de Franco, and T h e MEDOC Cruise Party
 Rifting of the Tyrrhenian Basin, a complex interaction among faulting , magmatism and mantle exhumation.
- 11:45–12:00 EGU2012-7638
D. Savva, F. Meresse, M. Pubellier, N. Chamot-Rooke, D. Franke, S. Steuer, F. Sapin, and J.L. Auxietre
 Seismic evidence for hyper-stretched crust and mantle exhumation offshore Vietnam.

TS5.1/GD4.3 – Rifted margins and onshore analogues: mechanisms of deformation, sedimentation, and magmatism (co-organized) – Posters

Convener: G. Peron-Pinvidic | Co-Conveners: J. Autin, G.D. Karner, G. Manatschal, P. T. Osmundsen

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: J.Autin, G.Manatschal, P.T.Osmundsen

- A423 EGU2012-9058
N. Stanton, G. Manatschal, M. Maia, A. Viana, J. Tugend, and J. Autin
 What are the Geophysical Fingerprints of hyper-extended Crustal Domains ?
- A424 EGU2012-9753
L. Jeannot, N. Kusznir, and G. Manatschal
 How does the lithosphere deformation mode during continental breakup affect mantle exhumation and subsidence history?

- A425 EGU2012-628
D. Cukur, S. Horozal, G.H. Lee, D.C. Kim, and H.C. Han
 The distribution and characteristics of the igneous complexes in the northern East China Sea shelf basin and their implications for hydrocarbon potential
- A426 EGU2012-2065
I.D. Bastow and D. Keir
 The Protracted Development of the Continent-Ocean Transition in Afar
- A427 EGU2012-5381
G. Corti, M. Philippon, F. Sani, and D. Keir
 Stress and slip partitioning during oblique rifting: comparison between data from the Main Ethiopian Rift and laboratory experiments
- A428 EGU2012-5512
G. Corti, F. Sani, S. Agostini, M. Philippon, D. Sokoutis, E. Willingshofer, and T. Abebe
 Quaternary volcano-tectonic activity of the western rift margin in the Soddo region, southern Main Ethiopian Rift
- A429 EGU2012-6354
C. Baurion, C. Gorini, S. Leroy, F. Lucazeau, and S. Migeon
 Evolution of post-rift sediment transport on a young rifted margin : Insights from the eastern part of the Gulf of Aden
- A430 EGU2012-9285
J. Robinet, P. Razin, J. Serra Kiel, A. Gallardo Garcia, C. Grelaud, J. Roger, S. Leroy, and M. Malaval
 Oligo-Miocene syn-rift and Miocene post-rift sedimentary records: the tectono-stratigraphic development of the northern proximal margin of the Gulf of Aden
- A431 EGU2012-7219
J. Autin, N. Bellahsen, S. Leroy, M.-O. Beslier, E. d'Acremont, and L. Husson
 Analogue models of oblique rifting in a pre-structured lithosphere
- A432 EGU2012-4311
G. Peron-Pinvidic and L. Gernigon
 Spatial and temporal reconstruction of the Norwegian-Greenland Sea: insights from the Jan Mayen system
- A433 EGU2012-7974
M. Block, C. Reichert, K. Berglar, M. Schnabel, F. Klingelhoefer, and P. Schnurle
 The ocean-continent transition along the NW Moroccan margin - A new insight
- A434 EGU2012-8937
A. Quiquerez, P. Allemand, S. Sarih, and J-P Garcia
 Tectono-sedimentary history of the Early Liassic basins of the Central High Atlas (Morocco)
- A435 EGU2012-8987
A. M. Baracco, C.R. Ranero, N.G. Direen, and H. Stagg
 Tectonic structure of the continent-ocean transition along two conjugate profiles from South Australian and East Antarctic magma-poor rifted margins.
- A436 EGU2012-9012
B. Petri, G. Mohn, G. Manatschal, J. Wijbrans, and K. Schulmann
 Formation and exhumation of Permian granulites: case study from the polyphase Campo Unit (Central Alps)
- A437 EGU2012-5463
D. Roberts, S. Chand, and L. Rise
 A concealed half-graben along the Trollfjorden-Komagelva Fault Zone in Varangerfjorden, N.Norway: a new element in the fault reactivation story
- A438 EGU2012-9831
C. Clerc, A. Chauvet, Y. Lagabrielle, J.-Y. Reynaud, P. Boulvais, R. Bousquet, A. Lahfid, A. Vauchez, and S. Mahé
 From crustal thinning to mantle exhumation: what the Pyrenean breccia formations tell us.
- A439 EGU2012-7495
P. T. Osmundsen, A. Braathen, and H. Maher
 The geology of Svalbard: structural, stratigraphic and geomorphic response to the formation of two passive margins
- A440 EGU2012-11017
V.H. Pinto, G. Manatschal, A. Viana, A.M. Karpoff, E. Masini, P. Szatmari, H. Penteado, A. Svartman, and D. Lemarchand
 Fluids in hyper-extended rifted margins: Examples from the paleomargins in the eastern Alps and west Pyrenees and present-day Iberia rifted continental margin.
- A441 EGU2012-3760
J. Tugend, G. Manatschal, N. J. Kuszniir, E. Masini, and I. Thinon
 What is the crustal architecture of hyper-extended domains at rifted continental margins: The Bay of Biscay-Western Pyrenees example

- A442 EGU2012-5984
A. M. Baracco and C.R. Ranero
 The continent-ocean transition of the south west Iberia margin imaged on re-processed multichannel seismic data
- A443 EGU2012-6416
C. Baurion, S. Zaragosi, C. Gorini, S. Leroy, F. Lucazeau, and S. Migeon
 Turbidite system architecture and recent sedimentary processes along the Northern margin of the eastern Gulf of Aden
- A444 EGU2012-6724
T.-K. Hong, H. Choi, and Y. Lee
 Paleo-rifted margin and its neo-seismotectonic evolution: a case study for the Korean Peninsula
- A445 EGU2012-10440
V. Sallarès, S. Martinez-Loriente, M. Prada, A. Gailler, M.-A. Gutscher, R. Bartolome, and E. Gracia
 Thrusting between exhumed mantle blocks at the Gorringe Bank (SW Iberian margin): Evidence from combined seismic and gravity modeling
- A446 EGU2012-13867
M. Nemcok, A. Henk, R. Allen, P.J. Sikora, and C. Stuart
 Continental break-up along strike-slip fault zones; observations from Equatorial Atlantic.

GD8.1/TS9.6 – Recent advances in computational geodynamics (co-organized) – Orals

Convener: B.J.P. Kaus | Co-Conveners: A. Popov, M. Dabrowski

Room: 22

Chairperson: Boris Kaus and Anton Popov

- 10:30–10:45 EGU2012-12014
D. A. May
 Advances in three-dimensional, finite-element based marker-in-cell methods applied to geodynamics
- 10:45–11:00 EGU2012-8842
T. Gerya, T. Duretz, and D.A. May
 New 2D adaptive mesh refinement algorithm based on conservative finite-differences with staggered grid
- 11:00–11:15 EGU2012-679
H. Samuel
 Time-domain parallelization for geodynamic modeling
- 11:15–11:30 EGU2012-7110
Y. Podladchikov
 Nonlinear waves and rheologies
- 11:30–11:45 EGU2012-12237
 L. Liu and **D.R. Stegman**
 Techniques to achieve geodynamic self-consistency in data-assimilation models of mantle convection
- 11:45–12:00 EGU2012-7805
F. Cramer, P.J. Tackley, I. Meilick, T.V. Gerya, and B.J.P. Kaus
 A free plate surface and weak oceanic crust produce single-sided subduction on Earth

GD8.1/TS9.6 – Recent advances in computational geodynamics (co-organized) – Posters

Convener: B.J.P. Kaus | Co-Conveners: A. Popov, M. Dabrowski

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Boris Kaus and Anton Popov

- XL220 EGU2012-833
A.-C. Plesa, N. Tosi, and C. Hüttig
 Thermo-chemical convection in planetary mantles: advection methods and magma ocean overturn simulations
- XL221 EGU2012-4524
E. Mulyukova, M. Dabrowski, and B. Steinberger
 Numerical Modeling of the Deep Mantle Convection: Accuracy of the Tracer Methods
- XL222 EGU2012-5559
W.F. Austmann and R.M.A. Govers
 The effect of elastic compressibility in geodynamic models using a benchmark of a sinking cylinder in a bounded medium
- XL223 EGU2012-5581
T. Baumann, B. Kaus, and A. Popov
 Data-driven forward modeling using a direct search approach

- XL224 EGU2012-5905
J. Weismüller, M. Mohr, and H.-P. Bunge
A new axis-symmetric, multigrid based Stokes solver for compressible flow
- XL225 EGU2012-6035
A. A. Popov and B. J. P. Kaus
Implementation of Newton-Raphson iterations for parallel staggered-grid geodynamic models
- XL226 EGU2012-6070
T. Rolf, F. Cramer, and P. J. Tackley
Combining floating continents and a free surface in a 3D spherical mantle convection model with self-consistent plate tectonics
- XL227 EGU2012-7008
N. Fernandez and B.J.P. Kaus
Wavelength selection and evolution in high-resolution 3D numerical models of multilayer detachment folding
- XL228 EGU2012-7528
S. Buiter and S. Ellis
SULEC: Benchmarking a new ALE finite-element code
- XL229 EGU2012-8690
S. Omlin, V. Keller, and Y. Podladchikov
Performance of Basic Geodynamic Solvers on BG/p and on Modern Mid-sized CPU Clusters
- XL230 EGU2012-9075
L. Noack and N. Tosi
Influence of the Geometry on Mantle Convection Models
- XL231 EGU2012-9100
C. Stein, J.P. Lowman, and U. Hansen
A comparison of mantle convection models featuring plates
- XL232 EGU2012-9939
F. Zaussinger, A. Plesa, C. Egbers, and D. Breuer
Mantle Convection in a Spherical Shell: Comparison of Numerical Simulations with the GeoFlow Experiment on the ISS
- XL233 EGU2012-10945
A. G. Petrunin, M. K. Kaban, I. Rogozhina, and V.P. Trubetsyn
Revising the spectral method as applied to the mantle dynamics modeling.
- XL234 EGU2012-4523
C. Thieulot
A new way to recover pressure in Finite Element geodynamics codes based on the penalised pressure formulation
- XL235 EGU2012-12519
S. Zavialov and V. Zakharov
Calculation of Tectonic Block Rotation Parameters from GPS Data
- XL236 EGU2012-12640
M. Krotkiewski and M. Dabrowski
An Efficient Stencil Implementation for Modern GPUs
- XL237 EGU2012-14113
D.A. May
Generating volumetric composition maps from particle based computational geodynamic simulations.
- XL238 EGU2012-14116
B.J.P. Kaus, A Popov, and D.A. May
Recent progress in modelling 3D lithospheric deformation

TS9.1/GD8.5 – Recent advances in analogue and numerical modeling of tectonic processes (co-organized) – Orals

Convener: M. Frehner | Co-Conveners: M. Rosenau, G. Schreurs, D. Weatherley, E. Aharonov, S. Abe

Room: 12

Chairperson: M. Frehner & M. Rosenau

- 13:30–13:45 EGU2012-4294
N. S. Mancktelow
Behaviour of a rimmed elliptical inclusion in 2D slow incompressible viscous flow
- 13:45–14:00 EGU2012-2616
J. E. Reber, O. Galland, M. Dabrowski, D. W. Schmid, and P. R. Cobbold
A combined analytical and experimental study on the formation of sheath folds
- 14:00–14:15 EGU2012-12003
M. Adamuszek, D.W. Schmid, and M. Dabrowski
LAF: Theoretical Model of Large Amplitude Folding of a Single Viscous Layer

- 14:15–14:30 EGU2012-6536
P. Souloumiac, B. Mary, J. Herbert, B. Maillot, and M. Cooke
 Study of the friction variation of shear bands in analogue models of accretionary wedges.
- 14:30–14:45 EGU2012-10357
B. C. L. Mary, Y. M. Leroy, and B. Maillot
 Temporal and spatial organisation of faulting in frictional wedges
- 14:45–15:00 EGU2012-5094
A. Massmeyer, A. Davaille, T. Rolf, P. Tackley, and E. Di Giuseppe
 Combined Laboratory and Numerical Study on Thermal Plumes in Yield-Stress Fluids : Implications for Mid-ocean-Ridge Systems
- Chairperson: M. Rosenau & S. Abe
- 15:30–15:45 EGU2012-8166
C. Faccenna
 Subduction dynamics - an interdisciplinary approach
- 15:45–16:00 EGU2012-2147
M. von Tscharner and S. Schmalholz
 3D FEM modeling of fold nappe formation in the Western Swiss Alps
- 16:00–16:15 EGU2012-11728
M.P.J. Schöpf, C. Childs, E.P. Holohan, and J.J. Walsh
 Applications of the Distinct Element Method in Structural Geology: A critical review of common practices in model presentation and suggestions for a more quantitative approach
- 16:15–16:30 EGU2012-8850
A. Rathbun and F. Renard
 Numerical investigation of fault zone roughness: Interplay between fault geometry and friction
- 16:30–16:45 EGU2012-718
M. Griffo, B. Ferdowsi, J. Carmeliet, E.G. Daub, R.A. Guyer, P.A. Johnson, and C. Marone
 Mesoscopic scale analysis of deformation patterns for dynamically triggered slip in sheared granular layers: insights into the granular mechanics of dynamic earthquake triggering via Discrete Element Method numerical simulations
- 16:45–17:00 EGU2012-10942
L. Goren, E. Aharonov, D. Sparks, R. Toussaint, and E. Marder
 Shearing fluid-filled granular media: A coupled discrete element - continuous approach

TS9.1/GD8.5 – Recent advances in analogue and numerical modeling of tectonic processes (co-organized) – Posters

Convener: M. Frehner | Co-Conveners: M. Rosenau, G. Schreurs, D. Weatherley, E. Aharonov, S. Abe

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A447 EGU2012-7943
S. Abe, D. Weatherley, and T. Ayton
 Generation of Random Particle Packings for Discrete Element Models
- A448 EGU2012-7996
 V. Boros, **D. Weatherley**, and S. Abe
 Performance benchmarking results for a parallel implementation of the discrete element method
- A449 EGU2012-7667
T. Santimano, M. Rosenau, M. Morlock, and O. Oncken
 On the precision of sandbox experiments - insight from test-retest variability
- A450 EGU2012-2298
M. Rosenau, T. Santimano, and O. Oncken
 Ain't Enough Enough? Constraints on the uncertainty and repeatability of sandbox experiments from probabilistic modelling
- A451 EGU2012-6826
F. Hofmann, M. Rosenau, G. Schreurs, and A. M. Friedrich
 Quantifying the effects of material properties on analog models of critical taper wedges
- A452 EGU2012-687
F. Albert, N. Kukowski, A. Tassara, and O. Oncken
 Understanding Subduction Erosion Through Scaled Sandbox Analogue Experiments
- A453 EGU2012-6539
D.A. Boutelier, A.R. Cruden, and O. Oncken
 Plate deformation at the transition between collision and subduction: insights from 3D thermo-mechanical laboratory experiments

- A454 EGU2012-2245
A. Pons and Y.M. Leroy
Stability of accretionary wedges with heterogeneous basal pressure and frictional properties
- A455 EGU2012-6150
A. Pons and R. Mourgues
Effect of fluid overpressure on thrust wedges deformation - insight from sandbox models
- A456 EGU2012-8970
L. Wenk and K. Huhn
Numerical simulation to investigate the influence of a viscous layer on the mechanics and kinematics of accretionary wedges
- A457 EGU2012-6815
N. Makedonska, D. W. Sparks, and E. Aharonov
Discrete Element Modeling of Rock Deformation via Pressure Solution (PSDEM)
- A458 EGU2012-8294
D. Weatherley and T. Ayton
Numerical investigations on the role of micro-cracks in determining the compressive and tensile strength of rocks
- A459 EGU2012-7426
S. Virgo, S. Abe, and J.L. Urai
DEM modeling of fracture propagation in veined rock
- A460 EGU2012-7488
O. I. Ulven, H. Storheim, M. Dabrowski, H. Austrheim, and A. Malthe-Sørenssen
Modelling of fracture initiation during volume increasing reactions in rocks
- A461 EGU2012-8643
A. Hafver, ME Kobchenko, A Malthe-Sørenssen, and P Meakin
Fracturing driven by gas exsolution
- A462 EGU2012-4810
M. Kettermann, H. W. van Gent, and J. L. Urai
Modeling the effect of preexisting joints on normal fault geometries using a brittle and cohesive material
- A463 EGU2012-5717
M. Rosenau and O. Oncken
On the earthquake potential of creeping faults: Insights from lab-scale fault analogues
- A464 EGU2012-11715
L. Bonini, G. Toscani, and S. Seno
The investigation of blind continental earthquake sources through analogue and numerical models
- A465 EGU2012-2395
M. Frehner and U. Exner
Do foliation refraction patterns around buckle folds represent finite strain?
- A466 EGU2012-2646
S. Abe and J.L. Urai
Discrete Element Modelling of Boudinage in 3D
- A467 EGU2012-9645
C.-Y. Lu, J. Malavieille, and C. H. Huang
Large scale overturned structures in the Central Range of Taiwan: Insight from sandbox models
- A468 EGU2012-9883
L. Vynnytska, D. Stegman, and S. Clark
The Afar Region: Numerical Modeling Using Geological Data
- A469 EGU2012-10015
Y. Nestola, C. Cavozi, A. Cappelletti, G. Davoli, M. Meda, F. Salvi, G. Spadini, and F. Storti
High- to low-angle normal faulting and sag basin evolution in analogue modeling of orthogonal rifting
- A470 EGU2012-10085
Y. Nestola, C. Cavozi, M. Cella, C. Magistroni, F. Salvi, G. Spadini, and F. Storti
Sandbox analogue modeling of strike-slip crustal shear zones involving structural inheritance
- A471 EGU2012-2232
L.W Wei, C.M. Lo, C.F. Lee, H.T. Chou, and M.L. Lin
A kinematic model of the Suao landslide calibrated to the morphology of the landslide deposit
- A472 EGU2012-6922
W.-K. Huang, H.-K. Chu, C.-M. Lo, and M.-L. Lin
The Hungtsaiping landslide: A kinematic model based on morphology
- A473 EGU2012-2931
A. D. Christensen, D. L. Egholm, J. A. Piotrowski, and S. Tulaczyk
Discrete element modelling of subglacial sediment deformation
- A474 EGU2012-9671
M. Kis, G. Detzky, and A. Koppán
3D Finite Element Modelling for the investigation of the cavity effect in extensometric rock-deformation measurements

- A475 EGU2012-8760
L. Torbahn and K. Huhn
Numerical analysis of granular soil fabrics
- A476 EGU2012-8333
D. Weatherley, B. Wruck, W. Hancock, and G.P. Chitombo
Investigations on comminution of sheared prismatic granular materials using the discrete element method
- A477 EGU2012-13288
W. Hancock, D. Weatherley, B. Wruck, and G.P. Chitombo
Numerical investigations on flow dynamics of prismatic granular materials using the discrete element method
- A478 EGU2012-4117
O. Katz and J.K. Morgan
Stress analysis during slope failure from DEM simulations

Tuesday, 24 April

SM2.1/GD1.3/NH4.9/TS8.5 – Large Earthquake and Tsunami Activity (co-organized) – Orals

Convener: M. Bezzeghoud | Co-Conveners: E. Bufo, H. Hebert, H. M. Fritz

Room: 26

Chairperson: n.n.

- 08:30–08:45 EGU2012-4596
S. Stiros and P. De Jevonois Acillona
 The AD 365 giant earthquake and tsunami in the Eastern Mediterranean
- 08:45–09:00 EGU2012-8111
C. Larroque, O. Scotti, M. Ioualalen, V. Hassoun, and S. Migeon
 Reappraisal of the 1887 Ligurian earthquake (western Mediterranean) from macroseismicity, active tectonics and tsunami modelling
- 09:00–09:15 EGU2012-2634
E. Bufo, C. Pro, M. Bezzeghoud, and A. Udias
 Mechanism of 2003, 2007 and 2009 earthquakes (S. Vicente Cape) and implications for the 1755 Lisbon earthquake.
- 09:15–09:30 EGU2012-13242
R. M. L. Ferreira, D. Conde, R. Canelas, and M. A. Baptista
 Mathematical modeling of a tsunami propagating over the mobile bed reaches of the Tagus-Coia estuary
- 09:30–09:45 EGU2012-13267
S. Riquelme, S. Ruiz, Y. Yamazaki, and J. Campos
 Fault Parameters of the 1868 and 1877 earthquakes, inferred from historical records: Run-up measurements, Isoseismals and coseismic deformation
- 09:45–10:00 EGU2012-3638
Z. Zarifi and M. Raeesi
 Revisiting the November 27, 1945 Makran (Mw=8.2) interplate earthquake

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2012-10297
A. Fuenzalida, H. Lyon-Caen, M. Lancieri, A. Rietbrock, and R. Madariaga
 The 2010 Maule earthquake: How far south did it break?
- 10:45–11:00 EGU2012-3844
C.-S. Lee, F. Klingelhoefer, M. Gutscher, M. Miller, and V. Gallardo
 The Aftershock Analyses of 27 February 2010 Chile M=8.8 Mega Earthquake
- 11:00–11:15 EGU2012-5501
M. Ando, M. Ishida, Y. Nishikawa, C. Mizuki, and Y. Hayashi
 What caused a large number of fatalities in the Tohoku earthquake?
- 11:15–11:30 EGU2012-3542
K. Satake, Y. Fujii, T. Harada, and Y. Namegaya
 Tsunami source model of the 2011 Tohoku earthquake and comparison with the 1896 Sanriku and 869 Jogan earthquakes
- 11:30–11:45 EGU2012-4273
Y. Ohta, R. Hino, D. Inazu, M. Ohzono, M. Mishina, J. Nakajima, Y. Ito, T. Sato, Y. Tamura, H. Fujimoto, K. Tachibana, T. Demachi, Y. Osada, M. Shinohara, and S. Miura
 Co- and postseismic slip distribution for the 2011 March 9 earthquake based on the geodetic data: Role on the initiation of the 2011 Tohoku earthquake
- 11:45–12:00 EGU2012-13168
H. M. Fritz, D.A. Phillips, A. Okayasu, T. Shimozone, H. Liu, F. Mohammed, V. Skanavis, C.E. Synolakis, and T. Takahashi
 2011 Japan tsunami survivor video based hydrograph and flow velocity measurements using LiDAR

SM2.1/GD1.3/NH4.9/TS8.5 – Large Earthquake and Tsunami Activity (co-organized) – Posters

Convener: M. Bezzeghoud | Co-Conveners: E. Bufo, H. Hebert, H. M. Fritz

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: n.n.

XY467 EGU2012-11641

D. Tappin

The impact of the 2011 Tōhoku tsunami in the Sendai area: interpretations of time series satellite images and videos.

XY468 EGU2012-11588

A. Yalciner, F. Imamura, E. Mas, I. Necmioğlu, C. Ozer, A. Zaytsev, S. Takahashi, T. Tomita, G. Yon, N. Kalligeris, H. Fritz, V. Skanavis, C. Synolakis, and N. Meral Ozel

Field survey of the coastal impact of the March 11, 2011 great East Japan tsunami

XY469 EGU2012-10999

V.E. Kunitsyn, I. A. Nesterov, S.L. Shalimov, B.Yu. Krysanov, A.M. Padokhin, and D. Rekenthaler

Japan Tohoku Earthquake of March 11, 2011: GPS-TEC Evidence for the Ionospheric Disturbances with Application for Early Warning

XY470 EGU2012-8986

H. Shimazu

Geomorphic impacts of the 2011 tsunami on the lower reaches of the R. Natori, northeast Japan

XY471 EGU2012-7238

J.S. Hwang, D.H. Lee, H.S. Yun, and B.I. Min

Seismic Displacement Analysis of GPS Permanent Stations due to the Tohoku-Oki Mega-thrust Earthquake in Korea and Asian Regions

XY472 EGU2012-6577

T. Harada and K. SatakeA New View on the Space-Time Pattern of $M > 7$ Earthquakes in the Northern Japan to Kurile Subduction Zones

XY473 EGU2012-3916

A. Nishiyama, K. Satake, T. Yata, A. Urabe, and Y. Maejima

The trial edition of historical earthquake data base in Japan

XY474 EGU2012-11402

F. Waldhauser, D.P. Schaff, T.C. Diehl, and E.R. Engdahl

Splay faults imaged by fluid-driven aftershocks of the 2004 Mw 9.2 Sumatra-Andaman earthquake

XY475 EGU2012-2363

J.-Y. Lin, C.-L. Lo, J.-C. Sibuet, and S.-K. Hsu

Crustal gravitational potential energy change induced by the Great Sumatra-Andaman earthquake of 26 December 2004

XY476 EGU2012-3854

H. Haridhi, S. Rizal, M. Ridha, and C.S. Lee

A Seismic Gap Study in the western offshore of Sumatra, Indonesia

XY477 EGU2012-182

W. Renteria

Tsunami Forecast for Galapagos Islands

XY478 EGU2012-3588

P.-Y. Lai, B. F. Chao, E. T.-Y. Chang, and T.-R. Wu

The Seismic Sources of the 2009 Samoa Earthquake from Tsunami Simulation

XY479 EGU2012-4910

M. A. Baptista, J.M. Miranda, J. Batlo, and H. Ferreira

Tsunami flooding along Tagus estuary, Portugal, the 1531 event

XY480 EGU2012-8821

S. Allgeyer, C. Daubord, H. Hébert, A. Loevenbruck, F. Schindelé, and R. Madariaga

Could a 1755-like tsunami reach the French Atlantic coastline? Constraints from 20th century observations and numerical modeling.

XY481 EGU2012-5829

G. Kulikova and F. KrügerThe 1911 Chon-Kemin ($M 8.3$) earthquake in the Tien-Shan region*: preliminary investigation results by means of historical data.

XY482 EGU2012-11649

M. Karpytchev, C. Daubord, H. Hébert, and G. Woppelmann

Re-analysis of the Krakatoa Tsunami Records along the European Atlantic Coast

XY483 EGU2012-12291

K. Hodgkinson, **D. Mencin**, A. Borsa, B. Henderson, and W. Johnson

Tsunami Signals Recorded By Plate Boundary Observatory Borehole Strainmeters

XY484 EGU2012-10

S. Nakamura

Note to Energy Source of Tsunami Earthquake on the Planet Earth

XY485 EGU2012-4969

L. Ostrihansky

Earthquake triggering, Earth's rotation variations, Meton's cycle and torques acting on the Earth.

GD2.1/SSP5.5/TS4.8 – Basin Dynamics (co-organized) – Orals

Convener: M. Scheck-Wenderoth | Co-Conveners: F. Roure

Room: 30

Chairperson: Magdalena Scheck-Wenderoth, Francois Roure

15:30–15:45 EGU2012-3329

Y Elesin, I Artemieva, and **H Thybo**

Factors controlling depth of continental rift zones

15:45–16:00 EGU2012-10868

P. Holt, M.B. Allen, and J Van Hunen

Thermally-driven subsidence of large platformal basins: linking growth of the lithosphere subsidence patterns on the surface

16:00–16:15 EGU2012-12586

J. I. Faleide and the PETROBAR & BarMod Team

Barents Sea crustal architecture and basin development

16:15–16:30 EGU2012-4863

M. Scheck-Wenderoth, Y. Maystrenko, M. Cacace, B. O. Kaiser, V. Noack, and Y. Cherubini

Models of the thermal field in the North German Basin

16:30–16:45 EGU2012-8898

S. Nagel, S. Castelltort, S. D. Willett, F. Mouthereau, A. T. Lin, D. Granjeon, and B. Kaus

Paleoenvironmental evolution in a steady state foredeep, Taiwan

16:45–17:00 EGU2012-9479

S. Rougier, C. Gautheron, J. Barbarand, Y. Missenard, H. Zeyen, R. Pinna, B. Bonin, J.-P. Liégeois, A. Ouabadi, and D. Frizon de Lamotte

Meso-Cenozoic morphological evolution of NW Africa, the case of the Tuareg swell.

GD2.1/SSP5.5/TS4.8 – Basin Dynamics (co-organized) – Posters

Convener: M. Scheck-Wenderoth | Co-Conveners: F. Roure

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Francois Roure, Magdalena Scheck-Wenderoth

XL161 EGU2012-542

D. Osipova, R. Vafin, R. Surmashev, and O. Bondareva

Super viscous oil reservoir formations of Ufa unit of Republic of Tatarstan and their properties

XL162 EGU2012-807

S. Usmanov, B. Sharipov, A. Akhmetov, and A. Delev

Geo-information approach to the study of Romashkino oil field geodynamics

XL163 EGU2012-661

A. Malz, St. Donndorf, and J. Kley

Hidden inversion tectonics in the Thuringian Basin (central Germany) - Structural analysis of the Schlottheim graben as an example of an inversion structure

XL164 EGU2012-1299

C. Brandes, L. Pollok, C. Schmidt, V. Wilde, and J. Winsemann

Subsidence and basin-fill architecture of a lignite-bearing salt rim syncline: insights into rim syncline evolution and salt diapirism

XL165 EGU2012-2805

A. Souche, M. Dabrowski, T. B. Andersen, and S. Medvedev

Heat transfer and fluid flow modelling in supra-detachment basins: a case study of the Devonian basins of western Norway

XL166 EGU2012-5103

P. Klitzke, J. I. Faleide, J. Sippel, and M. Scheck-Wenderoth

A lithosphere-scale 3D-structural model of the Barents Sea and Kara Sea region

XL167 EGU2012-10037

A. Lahfid, B. Lacroix, G. Hoareau, F. Meresse, K. Michel, and M. Buatier

Thermal evolution of the syn-tectonic Ainsa-Jaca basin (South Pyrenean Zone). New constraints from a multiproxy approach.

XL168 EGU2012-5467

L. Rodriguez, J. Cuevas, and J. M. Tubía

Inversion tectonics in the Anayet Permian basin (Axial Zone, Central Pyrenees)

- XL169 EGU2012-9073
R Mastouri, R Marchant, M Jaboyedoff, S Bouaziz, and F Marillier
Structure and evolution of the Kerkennah high (eastern Tunisia) based on 3D seismic
- XL170 EGU2012-4462
A. Argnani and S. Rogledi
Inversion tectonics in the Neogene basins of Tuscany (Northern Apennines, Italy): Insights from the Pisa-Viareggio basin.
- XL171 EGU2012-2856
E. Rossello and S. Cossey
What is the evidence for subduction in the Caribbean Margin of Colombia?
- XL172 EGU2012-9614
F.M. Davila and **C. Lithgow-Bertelloni**
Basin dynamics in the Pampas Plain, Argentina
- XL173 EGU2012-12950
A. Garcia, N Orihuela, and A. Espeso
Gravity anomalies over Orinoco Oil Belt
- XL174 EGU2012-3115
W.A. Sonibare, **M. Scheck-Wenderoth**, J. Sippel, and D. Mikeš
BASIN ANALYSIS AND PETROLEUM SYSTEM CHARACTERISATION OF WESTERN BREDASDORP BASIN, SOUTHERN OFFSHORE OF SOUTH AFRICA: INSIGHTS FROM A 3D CRUST-SCALE BASIN MODEL - (Phase 1)
- XL175 EGU2012-10602
R.H.C. Bruijn, B.S.G. Almqvist, P.M. Benson, and A.M. Hirt
The role of stress on chemical compaction of illite shale: An experimental study
- XL176 EGU2012-5235
G. Han, F. Neubauer, Y. Liu, J. Genser, W. Li, and C. Liang
Formation mechanisms of the Songliao basin, China and its relationships to the exhumation of an Upper Jurassic to Lower Cretaceous metamorphic core complex
- XL177 EGU2012-402
I. Sidorova
Integrated geophysical GIS&RS model of the Amu Darya basin in Western Uzbekistan
- XL178 EGU2012-3598
I. Plotnikova, F. Nosova, N. Pronin, J. Nosova, and T. Budkevich
Geochemical Aspects of Formation of Large Oil Deposits in the Volga-Ural Sedimentary Basin
- XL179 EGU2012-3600
R. Muslimov and **I. Plotnikova**
About the Relation Between Geodynamics of the Sedimentary Basin and the Properties of Crude Oil

GD3.6/GMPV6.11/SM4.1/TS1.3 – The lithosphere-asthenosphere boundary (LAB) depth paradox (co-organized) –
Orals

Convener: U. Achauer | Co-Conveners: J. Plomerova, M. Ballmer

Room: 30

Chairperson: Ballmer, Plomerova

- 13:30–14:00 EGU2012-1188
S. Karato and T. Ougboji
On the origin of the asthenosphere
- 14:00–14:15 EGU2012-6947
J. C. Afonso, J. Fullea, Y. Yang, A. G. Jones, W. L. Griffin, J.A.D. Connolly, S. Y. O'Reilly, and S. Lebedev
The compositional and thermal structure of the lithosphere from thermodynamically-constrained multi-observable probabilistic inversion
- 14:15–14:30 EGU2012-6735
R J M Farla, **I Jackson**, J D Fitz Gerald, U H Faul, and M E Zimmerman
Dislocation Damping and Anisotropic Seismic-wave Attenuation in the Earth's Upper Mantle
- 14:30–14:45 EGU2012-11738
M. D. Long
Understanding the nature of the lithosphere, asthenosphere, and the boundary between them: Constraints from seismic anisotropy
- 14:45–15:00 EGU2012-7549
C A Rychert
SS Precursor and Receiver Function Imaging of the Lithosphere Asthenosphere Boundary

GD3.6/GMPV6.11/SM4.1/TS1.3 – The lithosphere-asthenosphere boundary (LAB) depth paradox (co-organized) –

Posters

Convener: U. Achauer | Co-Conveners: J. Plomerova, M. Ballmer

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Achauer

- XL180 EGU2012-2063
F. Sodoudi, E. Kaestle, and R. Kind
 Imaging the Lithosphere-Asthenosphere Boundary beneath South Africa and Madagascar using S receiver functions
- XL181 EGU2012-3273
M. D. Ballmer, C. P. Conrad, and E. I. Smith
 Basaltic continental intraplate volcanism as sustained by shear-driven upwelling
- XL182 EGU2012-4994
N. Mohammadi, F. Sodoudi, and M.S Mirkamali
 Estimation of LAB depth in Zagros, Central Iran and Alborz zones using S receiver function method
- XL183 EGU2012-7832
 A. Souriau, L. Rivera, A. Maggi, and **J.-J. L  v  que**
 Attenuation in the Australian-Antarctic region from multiple ScS waves
- XL184 EGU2012-8860
L. Vecsey, J. Plomerova, V. Babuska, and PASSEQ working group
 Mantle lithosphere fabrics around the TESZ
- XL185 EGU2012-12358
A. Levander, K. Liu, R. Porritt, R. Allen, and Y. Yang
 The Seismic Structure of the Mantle Wedge under Cascade Volcanoes, Northwestern U.S.A.
- XL186 EGU2012-4996
R. Kind, P. Kumar, X. Yuan, J. Mechie, F. Sodoudi, and B. Heit
 The lithosphere-asthenosphere boundary observed with USArray receiver functions and comparison with other regions
- XL187 EGU2012-7381
G. Burgos, J.-P. Montagner, E. Beucler, J. Trampert, M. H. Ritzwoller, Y. Capdeville, and N. M. Shapiro
 Lithosphere/Asthenosphere Boundary depth inferred from global surface wave tomography
- XL188 EGU2012-8782
J. Plomerova, V. Babuska, L. Vecsey, and PASSEQ working group
 Lithosphere - asthenosphere boundary (LAB) around the Trans-European Suture Zone (TESZ)
- XL189 EGU2012-10191
J.R.R. Ritter, C. Seiberlich, and B. Wawerzinek
 The lithosphere-asthenosphere and crust-mantle boundaries in the region of the Upper Rhine Graben as seen by S-wave receiver functions
- XL190 EGU2012-10899
L. Fleitout, O Trubienko, J-D Garaud, and GEOTECDI team
 Far away motions associated with giant subduction earthquakes and the mechanical properties of the lithosphere-asthenosphere system

TS4.4/G6.1/GD3.8/GM3.3 – TOPOEUROPE: Coupled deep earth - surface processes, and their role in shaping Europe's topography (co-organized) – Orals

Convener: S. Cloetingh | Co-Conveners: S. Willett

Room: 12

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

- 08:30–08:45 EGU2012-11342
S.D. Willett, M. Fox, P. Sternai, B.C. Salcher, and F. Herman
 Late Cenozoic Exhumation of the Alps
- 08:45–09:00 EGU2012-4441
F. Schlunegger and K.P. Norton
 Headward retreat of streams in the Late Oligocene to Early Miocene Swiss Alps
- 09:00–09:15 EGU2012-400
G. Kov  cs and T. Telbisz
 Pleistocene alteration of drainage network and diverse surface morphology forced by basement structure in the foreland of the Eastern Alps
- 09:15–09:30 EGU2012-8524
Z. Erdos, R.S. Huismans, and P. van der Beek
 Evaluating balanced section restoration with thermochronological data in the Central Pyrenees

- 09:30–09:45 EGU2012-14391
C. Fillon, R. Huismans, and P. van der Beek
 Numerical modeling of sedimentation controls on the growth of the fold-and-thrust belts
- 09:45–10:00 EGU2012-6004
K.M. Stange, R.T. van Balen, and J. Carcaillet
 External controls on formation and preservation of fluvial terrace staircases in the Southern Pyrenees foreland

COFFEE BREAK

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

- 10:30–10:45 EGU2012-12616
L.C. Matenco
 On the link between orogenic shortening and back-arc extensional collapse in low topography orogens
- 10:45–11:00 EGU2012-7991
M. Chertova, T. Geenen, A. P. van den Berg, and W. Spakman
 3D subduction modelling of the Betic-Rif Alboran region.
- 11:00–11:15 EGU2012-14470
 I. Midtkandal, R.H. Gabrielsen, J.-P. Brun, and **R. Huismans**
 Along-strike complex geometry of subduction zones - an experimental approach
- 11:15–11:30 EGU2012-11786
D. Fernández-Blanco and G. Bertotti
 Miocene to present kinematics in Cilicia Basin, the link between the Central Anatolia Plateau and the Kyrenia Range
- 11:30–11:45 EGU2012-4545
M Tesauero, M.K Kaban, and S.A.P.L Cloetingh
 Strength and Elastic thickness of the lithosphere and implication on ductile crustal flow in Europe
- 11:45–12:00 EGU2012-7736
A. Köhler, N. Balling, J. Ebbing, R. England, A. Frassetto, S. Gradmann, B.H. Jacobsen, T. Kvarven, V. Maupin, A. Bondo Medhus, R. Mjelde, J. Ritter, J. Schweizer, W. Stratford, H. Thybo, B. Wawerzinek, and C. Weidle
 Upper mantle and crustal structure of southwestern Scandinavia: Results of the TopoScandiaDeep project

TS4.4/G6.1/GD3.8/GM3.3 – TOPOEUROPE: Coupled deep earth - surface processes, and their role in shaping Europe's topography (co-organized) – Posters

Convener: S. Cloetingh | Co-Conveners: S. Willett

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

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

- A434 EGU2012-2441
T. Duretz, T. V. Gerya, B.J.P. Kaus, and T.B. Andersen
 Thermomechanical modelling of slab eduction
- A435 EGU2012-8247
S. Mohammadi, T. Geenen, A. P. van den Berg, and W. Spakman
 Instantaneous mantle dynamics of the Western Mediterranean region
- A436 EGU2012-1902
P.G. Valla, P.A. van der Beek, and J. Braun
 Extracting denudation and relief histories from thermochronology data: rethinking sampling strategies?
- A437 EGU2012-6315
C. von Hagke, O. Oncken, H. Ortner, and C. Cederbom
 Post 12 Ma tectonic activity of the Subalpine Molasse resolved by combining thermochronology and critical wedge analysis
- A438 EGU2012-14392
C. Fillon, C. Gautheron, and P. van der Beek
 Quantifying the timing and extent of syn-orogenic sedimentation in the southern Pyrenean foreland using low-temperature thermochronology
- A439 EGU2012-5293
J. Campanyà, J. Ledo, P. Queralt, A. Marcuello, M. Liesa, J.A. Muñoz, and A.G. Jones
 Lithospheric-scale geoelectrical characterisation of a continental collision zone in Pyrenees: preliminary results.

- A440 EGU2012-2645
S. Jammes and R.S. Huisman
Factors controlling the tectonic inversion of the Pyrenean mountain belt : from observations to modelling
- A441 EGU2012-12632
H. Seillé, J. Pous, **D. Pedreira**, J. Gallastegui, J.A. Pulgar, J.M. González-Cortina, and E. Asensio
Geoelectrical characterization of the lithosphere beneath the Cantabrian Mountains and Duero Basin
- A442 EGU2012-11992
H. Seillé, A. Garcia, I. Romero, J. Pous, J. Guimerà, and R. Salas
Crustal structure of the Iberian Chain inferred from magnetotelluric data
- A443 EGU2012-403
G. Kovács
Pleistocene alterations of drainage network between the Alps and the Pannonian Basin
- A444 EGU2012-10455
T. Fuhrmann, A. Knöpfler, F. Masson, M. Mayer, P. Ulrich, M. Westerhaus, K. Zippelt, and B. Heck
Horizontal and Vertical Surface Displacements in the Upper Rhine Graben Derived from GNSS and Precise Levelling Data
- A445 EGU2012-5357
E.M. Bartel, F. Neubauer, B. Heberer, and J. Genser
Structural similarities and differences north and south of the Periadriatic fault with examples of the Drau Range and Friauli
- A446 EGU2012-5096
U. Stojadinovic, L. Matenco, P. Andriessen, M. Tolji?, and J. Foeken
The balance between orogenic building and subsequent collapse during the Tertiary evolution of the NE Dinarides: Constraints from low-temperature thermochronology
- A447 EGU2012-5060
C.I. Trifan, P.A.M. Andriessen, and L. Matenco
Detrital zircon fission track thermochronology in key stratigraphic formations of the Danube system, Romania: climatic or tectonic signals?
- A448 EGU2012-4278
M. K. Reiser, B. Fügenschuh, and R. Schuster
Thermotectonic evolution of the Apuseni mountains (Romania) based on structural and geothermochronological data
- A449 EGU2012-12063
M. ?migielski, F.M. Stuart, P. Krzywiec, C. Persano, H.D. Sinclair, K. Pisaniec, and K. Sobien
Neogene exhumation of the Northern Carpathians revealed by low temperature thermochronology.
- A450 EGU2012-11800
J. Francu, J. Šafanda, V. Cermak, O. Krejci, and P. Andriessen
Subsidence, erosion and thermal history of the West Carpathian Foredeep Basin, Czech Republic
- A451 EGU2012-13197
I. Munteanu, L. Matenco, C. Dinu, and S. Cloetingh
Effects of large sea-level variations in connected basins: the Dacian - Black Sea system of the Eastern Paratethys
- A452 EGU2012-4562
J. Petrovski, B. Székely, and G. Timár
River Sinuosity Classification - Case study in the Pannonian Basin
- A453 EGU2012-9853
J. Minár, M. Ková?, M. Bielik, J. Hók, S. Králiková, A. Smetanová, M. Šabo, and R. Vojtko
Neogene and Quaternary development of the Western Carpathian lithosphere: impact on georelief and geohazards
- A454 EGU2012-9409
A. Floroiu, M. Stoica, W. Krijgsman, and I. Vasiliev
Maeotian / Pontian Boundary from the East Carpathian Foredeep (Dacian Basin)
- A455 EGU2012-12244
D. Fernández-Blanco, G. Bertotti, and A. Çiner
Miocene tectonic motions in the Central Anatolia Plateau interior: a seismo-structural study in the Tuz Gölü Basin
- A456 EGU2012-12472
E. Miccadei, T. Piacentini, C. Berti, and F. Daverio
Long term landscape evolution within central Apennines (Italy): Marsica and Peligna region morphotectonics and surface processes
- A457 EGU2012-8661
E. D. McGregor, S. B. Nielsen, R. A. Stephenson, O. R. Clausen, K. D. Petersen, and D. I. M. Macdonald
Rift flank uplift and isostatic response to glacial erosion: Creation of a high-elevation continental margin.
- A458 EGU2012-5573
K. Stüwe and S. Hergarten
An approximate fluvial equilibrium topography for the Alps

- A459 EGU2012-7397
S. Hergarten and K. Stüwe
A puzzle about the Scandinavian topography
- A460 EGU2012-1626
A. A. Beylich, K. Laute, and S. Liermann
Holocene to contemporary source-to-sink fluxes in a valley-fjord system in western Norway: Erdalen and Børdalen site project (SedyMONT - IP Norway)
- A461 EGU2012-7400
A.B. Medhus, **N. Balling**, B.H. Jacobsen, R.W. England, R. Kind, C. Weidle, P. Voss, and H. Thybo
Upper mantle P-wave velocity structure beneath southern Scandinavia
- A462 EGU2012-4322
C. Schiffer, B. H. Jacobsen, N. Balling, and S. B. Nielsen
Geophysical investigations of the East Greenland Caledonides using receiver functions, gravity and topography data
- A463 EGU2012-4334
B. Hejrani, B. H. Jacobsen, N. Balling, and R. W. England
A seismic tomography study of lithospheric structure under the Norwegian Caledonides
- A464 EGU2012-2813
B. Gołdowski, D.L. Egholm, **O.R. Clausen**, and S.B. Nielsen
Cenozoic erosion and flexural isostasy of Scandinavia
- A465 EGU2012-1129
H. M. Küçük, D. Dondurur, and G. Çifçi
GAS ACCUMULATIONS and WIDE-SPREAD BSRs OBSERVED on CENTRAL BLACK SEA*
- A466 EGU2012-1131
H. M. Küçük, D. Dondurur, and G. Çifçi
SEDIMENTARY PROCESSES OBSERVED ON OFFSHORE of ZONGULDAK-KOZLU REGION, CENTRAL BLACK SEA*

G3.1/CR1.80/GD3.11 – Glacial Isostatic Adjustment, Mantle Viscosity and Ice Sheet Fluctuations (co-organized) – Orals

Convener: M. Poutanen | Co-Conveners: W. Fjeldskaar, T. James, V. Klemann, H. Steffen, B. Vermeersen

Room: 17

Chairperson: Willy Fjeldskaar, Volker Klemann

- 15:30–15:45 EGU2012-3620
L.M. Cathles
Requirements for extracting mantle viscosity from glacial isostatic adjustment
- 15:45–16:00 EGU2012-9773
G. Spada, **V. R. Barletta**, V. Klemann, W. van der Wal, T.S. James, K. Simon, R.E.M. Riva, Z. Martinec, P. Gasperini, B. Lund, D. Wolf, L.L.A. Vermeersen, and M.A. King
Benchmarking and testing the “Sea Level Equation”
- 16:00–16:15 EGU2012-904
R. Steffen, P. Wu, D.W. Eaton, and H. Steffen
Effects of changes in frictional strength and mantle viscosity on the stress behaviour in northeastern Canada
- 16:15–16:30 EGU2012-8451
R. Dietrich, A. Groh, and H. Ewert
Geodetic observations to estimate ice mass changes and GIA in Antarctica
- 16:30–16:45 EGU2012-11356
S. Pagiatakis and M. El-Diasty
Improved g-dot signature in Canada by terrestrial gravity inversion
- 16:45–17:00 EGU2012-1431
W. Fjeldskaar and A. Amantov
Tilting of post-glacial Fennoscandian shorelines requires a low-viscosity asthenosphere

G3.1/CR1.80/GD3.11 – Glacial Isostatic Adjustment, Mantle Viscosity and Ice Sheet Fluctuations (co-organized) – Posters

Convener: M. Poutanen | Co-Conveners: W. Fjeldskaar, T. James, V. Klemann, H. Steffen, B. Vermeersen

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Markku Poutanen, Holger Steffen

- Z186 EGU2012-2279
H. Konrad, I. Sasgen, V. Klemann, E. R. Ivins, and **Z. Martinec**
Re-assessing the influence of glacial-isostatic adjustment on Antarctic ice-mass balance estimated from GRACE
- Z187 EGU2012-7563
L. Metivier and M. Greff-Lefftz
The static contribution of Glacial Isostatic Adjustment on the Geoid
- Z188 EGU2012-8862
G. Ruggieri, R. Tenzer, G. Spada, and A. Fadil
Geophysical implications of present-day and late Pleistocene ice melting across New Zealand
- Z189 EGU2012-12605
N. Gomez, D. Pollard, J. X. Mitrovica, P. Huybers, and P. U. Clark
Evolution of a Coupled Marine Ice Sheet - Sea Level Model
- Z190 EGU2012-2559
S. Rasskazov and E. Chebykin
Glaciation control of melting rates in the mantle: U-Th systematics of young basalts from Southern Siberia and Central Mongolia
- Z191 EGU2012-7924
E. Kozlovskaya and the POLENET/LAPNET Working Group Team
Temporal and spatial distribution of glacial earthquakes in Greenland during the IPY 2007-2009
- Z192 EGU2012-6545
J. Mäkinen, J. Näränen, H. Koivula, and M. Poutanen
Gravity change and vertical motion in Dronning Maud Land: implications for models of Glacial Isostatic Adjustment
- Z193 EGU2012-2679
G. A. Nield, P. L. Whitehouse, M. A. King, P. J. Clarke, and M. J. Bentley
The effect of recent accumulation changes in the Antarctic Peninsula upon Glacial Isostatic Adjustment
- Z194 EGU2012-6877
J. Okuno, H. Miura, and Y. Nogi
Effect of glacial isostasy on the depth of Antarctic continental margin
- Z195 EGU2012-7012
H. Jürgenson, A. Liibusk, and T. Kall
Height Connections and Land Uplift Rates in West-Estonian Archipelago
- Z196 EGU2012-9658
T. Klügel, R. Falk, G. Liebsch, E. Kühmstedt, C. Plötz, A. Reinhold, P. Steigenberger, R. Wojdziak, and H. Wziontek
Vertical uplift rates measured by different geodetic techniques at GARS O'Higgins, Antarctic Peninsula
- Z197 EGU2012-2825
A. Barnhoorn, W. van der Wal, and M.R. Drury
Upper mantle viscosity and lithospheric thickness under Iceland determined from a microphysical modelling approach of mantle rheology
- Z198 EGU2012-13638
W. Van der Wal, A. Barnhoorn, P. Stocchi, P. Wu, M. Drury, and L.L.A. Vermeersen
Constraints on upper mantle rheology from a 3D GIA model for Fennoscandia
- Z199 EGU2012-12858
H. Steffen and P. Wu
Determination of mantle viscosity in Fennoscandia from multiple datasets
- Z200 EGU2012-13078
P. Wu, H.S. Wang, and H. Steffen
The role of thermal effect on mantle seismic anomalies from observations of GIA
- Z201 EGU2012-10781
A. Auriac, F. Sigmundsson, K. H. Spaans, A. J. Hooper, P. Schmidt, and B. Lund
Rheology beneath Iceland: new insights from InSAR measurements and finite element modeling of uplift due to ice load changes around Vatnajökull ice cap

GD4.1/GMPV6.16 – Mid-ocean ridge processes and their consequences: melting and melt extraction from a heterogeneous mantle (co-organized) – Posters

Convener: R. Katz | Co-Conveners: A. Stracke, C.J. Lissenberg, M. Godard

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Marguerite Godard

- XL191 EGU2012-13633
S. Kanjilal
1D and 2D Benchmark of Two phase flow In Geodynamics

- XL192 EGU2012-7371
M. Ulrich, C. Hémond, P. Nonnotte, and **KP. Jochum**
OIB/seamount recycling as an alternative process for E-MORB genesis
- XL193 EGU2012-9541
S.M. Weatherley and R.F. Katz
Predicted transit times of melt extraction at a mid-ocean ridge compared with observed U-series disequilibria
- XL194 EGU2012-1950
M. D. Ballmer, C. P. Conrad, N. Harmon, and E. I. Smith
Off-axis volcanism as fueled by shear-driven upwelling near the East Pacific Rise
- XL195 EGU2012-6005
L. Luquot, M. Andreani, M. Godard, P. Gouze, and B. Gibert
Serpentinization of sintered olivine during seawater percolation experiments
- XL196 EGU2012-12598
M. Andreani, B. Menez, A. Delacour, V. Pasini, AL. Auzende, and D. Brunelli
Micro-scale investigation of carbonation process in partially serpentinized peridotites
- XL197 EGU2012-10978
S. Titarenko and A. M. McCaig
Modelling the Lost City Hydrothermal System
- XL198 EGU2012-5416
M. Munoz, O. Vidal, C. Marcaillou, S. Pascarelli, O. Mathon, and F. Farges
Fe K-edge XANES and pre-edge polarization dependence for the determination of the oxidation state of iron in antigorite and other phyllosilicates
- XL199 EGU2012-9641
C. Arcilla, W R Alexander, E Vargas, M Honrado, T Sato, K Fujii, M Yamakawa, J Argayosa, J Lazaro, C Pascua, and I G McKinley
Hyperalkaline Springs, Serpentinized Ultramafics, Bentonite Reaction, Exotic Life Forms and Natural Carbon Sequestration: Preliminary Studies from the Philippines
- XL200 EGU2012-5258
K.u.r.t. Bucher
The two endmember types of serpentinization

GD4.2/SM2.8/TS5.3 – Evolution of the North and South Atlantic, adjacent continents, and passive continental margins, in general (co-organized) – Orals

Convener: U. A. Glasmacher | Co-Conveners: Dr.scient. Japsen, P. C. Hackspacher, H.-P. Bunge, M. Scheck-Wenderoth, R.B. Trumbull, A. O. B. Franco-Magalhaes, F. Guillocheau

Room: 30

Chairperson: n.n.

- 08:30–08:45 EGU2012-10670
R.H. Gabrielsen, J.I. Faleide, and E.M. Jarsve
The evolution of the passive continental margin of Norway and its adjacent mainland - using the sub-Cambrian peneplain as a reference surface.
- 08:45–09:00 EGU2012-4177
N.M. Sushchevskaya, B.V. Belyatsky, and E.P. Dubinin
Mantle heterogeneity under spreading zones of polar regions of the Atlantic Ocean: sources and formation
- 09:00–09:15 EGU2012-6308
L. Colli, A. Fichtner, and H.-P. Bunge
Full waveform tomography of the South Atlantic upper mantle
- 09:15–09:30 EGU2012-6810
N. Flament, M. Gurnis, S. Williams, M. Seton, R. D. Müller, and J. Skogseid
A deep mantle origin for the asymmetry of the South Atlantic margins
- 09:30–09:45 EGU2012-4133
Y. P. Maystrenko, M. Scheck-Wenderoth, A. Hartwig, Z. Anka, A.B. Watts, K.K. Hirsch, S. Fishwick, H.-J. Goetze, and C. Reichert
Regional structure of the Southwest African continental margin based on results of lithosphere-scale 3D gravity and thermal modelling
- 09:45–10:00 EGU2012-10576
N. Baristead, Z. Anka, R. di Primio, J. F. Rodriguez, D. Marchal, and F. Dominguez
Tectono-stratigraphic analysis of the Malvinas Basin, offshore the southernmost Argentinean continental margin

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2012-14206
R. D. Müller, N. Herold, and M. Huber
 The Miocene Atlantic Ocean
- 10:45–11:00 EGU2012-6498
F. Guillocheau and O. Dauteuil
 Post-rift uplift, paleorelief and sedimentary fluxes: the case example of the African margin of the South Atlantic
- 11:00–11:15 EGU2012-7659
P. Japsen, P.R. Cobbold, J.A. Chalmers, P.F. Green, and J.M. Bonow
 Changes in plate motion and vertical movements along passive continental margins
- 11:15–11:30 EGU2012-7267
U. A. Glasmacher and P.C. Hackspacher
 Postrift exhumation caused by movement along faults, shear, and fracture zones on both sides of the South Atlantic continental margins, an overview
- 11:30–11:45 EGU2012-11275
M.C. Bianchi, S. Clark, M. Smethurst, and H.-P. Bunge
 Opening of the South Atlantic: Rate estimation for different models
- 11:45–12:00 EGU2012-3355
J. O'Connor, W. Jokat, A. le Roex, C. Class, J. Wijbrans, S. Keßling, K. Kuiper, and O. Nebel
 Synchronous age progressive hotspot trails on the African Superswell

GD4.2/SM2.8/TS5.3 – Evolution of the North and South Atlantic, adjacent continents, and passive continental margins, in general (co-organized) – Posters

Convener: U. A. Glasmacher | Co-Conveners: Dr.scient. Japsen, P. C. Hackspacher, H.-P. Bunge, M. Scheck-Wenderoth, R.B. Trumbull, A. O. B. Franco-Magalhaes, F. Guillocheau

Hall XL | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Guillocheau, Franco-Magalhaes

- XL201 EGU2012-1635
L. Pinna and T. Dahl-Jensen
 Relocated local earthquakes in SE Greenland align on old geological boundaries and structures
- XL202 EGU2012-3543
E. Le Breton, P.R. Cobbold, and A. Zanella
 Cenozoic right-lateral slip on the Great Glen Fault, Scotland: Additional Evidence and Possible Causes
- XL203 EGU2012-13090
R. Meyer, L. Schultz, B.W.H. Hendriks, D. Harbor, J. van Wijk, and C. Connors
 Central Appalachian Valley and Ridge Province Cenozoic igneous activity and their relation in space and time with the Late Jurassic rift to drift related alkalic dikes.
- XL204 EGU2012-10992
R. Nerlich, S. R. Clark, and H.-P. Bunge
 The Scotia Sea - no asthenosphere outlet from under the Pacific
- XL205 EGU2012-5866
 M. Seht, **U. A. Glasmacher**, D. F. Stockli, O. Kluth, and H. Jabour
 Variscan to Neogene thermal and exhumation history at the Moroccan passive continental margin assessed by low temperature thermochronology
- XL206 EGU2012-4916
S. Brune, S. V. Sobolev, and A. A. Popov
 The Thermo-Mechanical Impact of Plume Arrival on Continental Break-Up
- XL207 EGU2012-5995
T. C. Chust, G. Steinle-Neumann, and H.-P. Bunge
 Effects of Mineralogical Thermodynamics in Geodynamic Models
- XL208 EGU2012-8332
C. Heine, S. Brune, A. Young, J. Zoethout, N. Flament, and R. D. Müller
 Kinematics of the South Atlantic rift
- XL209 EGU2012-4719
 J. Freymark, J. Sippel, **M. Scheck-Wenderoth**, H.-J. Götze, and C. Reichert
 Data based 3D modelling of the southwest African continental margin
- XL210 EGU2012-12072
R. B. Trumbull, D. Franke, W. Jokat, Y. Maystrenko, M. Scheck-Wenderoth, M. Schnabel, and B. Schreckenberger
 Comparative anatomy of volcanic rifted margins in the South Atlantic, with emphasis on the high-velocity lower crust

- XL211 EGU2012-7502
F. Strozzyk, S. Back, and P.A. Kukla
Comparative analysis of post-breakup basin evolution along the South-American and South-African margins, southern Atlantic
- XL212 EGU2012-4896
H. Koopmann, A. Hartwig, H. Schulz, B. Schreckenberger, and D. Franke
New findings on the aspect of margin segmentation along the South African margin
- XL213 EGU2012-6689
E. Rossello, O.R. López-Gamundí, G. Veroslavsky, and H. de Santa Ana
The Santa Lucia-Aiguá-Merin rifting (Uruguay): an early aborted branch of the South Atlantic break-up
- XL214 EGU2012-7203
V.F. Sachse, Z. Anka, R. di Primio, O. Almendra, H. Belotti, and M. Cagnolatti
Meso- to Cenozoic seismostratigraphic units of the Austral Basin, southern Argentina
- XL215 EGU2012-4268
J. Gruetzner, G. Uenzelmann-Neben, and D. Franke
Seismic reflection imaging of a canyon system at the Argentine continental margin to identify changes in sediment transport und ocean circulation
- XL216 EGU2012-6489
A.C. Chaboureau, **F. Guillocheau**, C. Robin, S. Rohais, M. Moulin, and D. Aslanian
Palaeogeographic evolution of the central segment of the South Atlantic during Early Cretaceous times: palaeotopographic and geodynamic implications
- Hall XL | Display Time 08:00–19:30**
Author in Attendance: 17:30–19:00
Chairperson: Trumbull, Bunge
- XL217 EGU2012-12726
A. Døssing, P. Japsen, T. Nielsen, H. Thybo, and T. Dahl-Jensen
Link between Mid-Ocean Ridge kinematics and uplift of passive continental margins
- XL218 EGU2012-6654
P. C. Hackspacher, I.A. Souza, S.H. Almeida, and U.A. Glasmacher
Tectonic relations between shallow and deep crust in the southeastern Brazilian continental margin: low temperature thermochronology, gravimetry and seismic reflection
- XL219 EGU2012-592
A. O. B. Franco-Magalhaes, U. A. Glasmacher, I. A. De Souza, A. R. Saad, and P. C. Hackspacher
Tectonically driven differentiated exhumation along S-SE Brazilian “Passive “ Continental Margin
- XL220 EGU2012-4001
M.P. Karl, **U.A. Glasmacher**, P.C. Hackspacher, D.F. Stockli, and A.O.B. Franco-Magalhaes
Evolution of the South Atlantic passive continental margin in Southern Brazil derived from zircon and apatite (U-Th-Sm)/He and fission-track data
- XL221 EGU2012-5881
N. Cogné, K. Gallagher, P.R. Cobbold, and C. Riccomini
Thermochronological evidence for polyphase post-rift reactivation in SE Brazil
- XL222 EGU2012-867
J. de Souza Silva, U. Glasmacher, and P. Hackspacher
Denudation history of Cretaceous intrusions on both sides of the South Atlantic, Brazil - Namibia.
- XL223 EGU2012-887
D.F. Godoy, P.C. Hackspacher, and U.A. Glasmacher
Pre-rifting evolution of Neoproterozoic to Cambrian low to high grade metamorphic rocks of the South Atlantic passive continental margin, as revealed by 40Ar/39Ar and Zircon Fission-Track thermochronology, SE Brazil
- XL224 EGU2012-4025
S. Kollenz, **U. A. Glasmacher**, E. A. Rossello, and R. Pereyra
Thermal history and evolution of the South Atlantic passive continental margin in eastern Argentina based on different geochronometers and 2D- and 3D-modelling
- XL225 EGU2012-11071
E. Salomon, D. Koehn, C.W. Passchier, P.C. Hackspacher, and U.A. Glasmacher
Shear zone reactivation during South Atlantic rifting in NW Namibia
- XL226 EGU2012-4006
M.P. Karl, M.J. Perner, **U.A. Glasmacher**, P.C. Hackspacher, and G. Schneider
Exhumation rates and long-term landscape evolution, Northwest Namibia
- XL227 EGU2012-11434
F.U. Bauer, U.A. Glasmacher, U. Ring, M. Starz, R.W. Grobe, and V.S. Mambo
Initial rifting and long-term landscape evolution of the Albertine Rift in East Africa
- XL228 EGU2012-7309
U. A. Glasmacher, F.U. Bauer, S. Kollenz, and D. Delvaux
Evolution of the Congo Basin

- XL229 EGU2012-6160
J. Julià, I.D. Bastow, R. Nascimento, A.F. Nascimento, M.P. Rocha, J.M. Ferreira, and R.A. Fuck
 Unraveling the Structure and Dynamics of the Borborema Province, NE Brazil, With Broadband Seismology
- XL230 EGU2012-10073
G. Kapinos, O. Ritter, U. Weckmann, and M. Jegen-Kulcsar
 On/offshore deep electrical conductivity structure to investigate the Walvis Ridge magmatism and its interaction with the Kaoko Mobile Belt in northern Namibia (ELCONA)
- XL231 EGU2012-12413
J.K. Keiding, O. Frei, A. Renno, I.V. Veksler, and R.B. Trumbull
 Magma storage and evolution in the Henties Bay-Outjo dyke swarm, Namibia -feeder systems of the Etendeka lavas

TS6.3/GD5.2/GMPV6.1 – What is the nature of the subduction interface? Cross-disciplinary views from Geodynamics-Geochemistry-Seismology (co-organized) – Orals

Convener: P. Agard | Co-Conveners: T. Gerya, O. Oncken, M. Scambelluri

Room: 20

Chairperson: O. Oncken, P. Agard

- 13:30–13:45 EGU2012-2976
 M. Métois, A. Socquet, and C. Vigny
 Interseismic coupling, segmentation and mechanical behavior of the Central Chile subduction zone.
- 13:45–14:00 EGU2012-12420
J. Bedford, M. Moreno, M. Keiding, O. Heidbach, O. Oncken, D. Lange, J.C. Baez, and The Maule GPS Team
 Investigating the postseismic deformation of the 2010 Maule Chile megathrust; insights from kinematic inversions
- 14:00–14:15 EGU2012-10264
V. Sallarès, A. Meléndez, M. Prada, C. R. Ranero, K. McIntosh, and I. Grevemeyer
 Overriding plate structure of the Nicaragua convergent margin: Constraints on the limits of the seismogenic zone and the 1992 tsunami earthquake
- 14:15–14:30 EGU2012-3442
W. Heise, T.G. Caldwell, G.J. Hill, S.L. Bennie, E. Wallin, and E.A. Bertrand
 Magnetotelluric imaging of fluid processes at the Subduction Interface of the Hikurangi Margin, New Zealand
- 14:30–14:45 EGU2012-6801
I. Wada
 Nature of the slab-mantle wedge interface: Clues from geophysical observations and thermal and petrologic modeling
- 14:45–15:00 EGU2012-5964
B. Reynard
 The serpentinized plate interface: detection and controls on subduction zone deformation
- Chairperson: T. Gerya, M. Scambelluri
- 15:30–15:45 EGU2012-10187
W. Friederich, L. Lambrecht, B. Stöckhert, and C. Moos
 Is a deep subduction channel detectable by seismic observations?
- 15:45–16:00 EGU2012-10884
A. García-Casco
 Dynamics of convergent plate boundaries: Insights from subduction-related serpentinite melanges from the northern edge of the Caribbean plate
- 16:00–16:15 EGU2012-10265
S. Sandmann, T.J. Nagel, D. Herwartz, and R.M. Kurzawski
 Nappe scale coherent block exhumation from eclogite-facies conditions revealed by Lu-Hf garnet chronometry - the Adula Nappe (Central Alps)
- 16:15–16:30 EGU2012-9689
S. Wassmann and B. Stöckhert
 Rheology of the plate interface - the rock record
- 16:30–16:45 EGU2012-7750
C. J. Garrido, J. A. Padrón-Navarta, V. López-Sánchez-Vizcaíno, M.T. Gómez-Pugnaire, C. Marchesi, and A. Tommasi
 Dynamics of fluid expulsion during high-pressure devolatilization of serpentinite in subduction settings: field, petrological and textural constraints from the Almirez ultramafic massif.
- 16:45–17:00 EGU2012-9455
D. Dymkova, T. Gerya, and Y. Podladchikov
 2D numerical modelling of fluid percolation in the subduction zone

TS6.3/GD5.2/GMPV6.1 – What is the nature of the subduction interface? Cross-disciplinary views from Geodynamics-Geochemistry-Seismology (co-organized) – Posters

Convener: P. Agard | Co-Conveners: T. Gerya, O. Oncken, M. Scambelluri

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: O. Oncken, T. Gerya

- A467 EGU2012-4045
M. Scambelluri and S. Tonarini
Serpentinites and Boron Isotope Evidence for Shallow Fluid Transfer Across Subduction Zones
- A468 EGU2012-8522
M. Scambelluri, E. Rampone, T. Pettke, and E. Reusser
Garnet peridotites and chlorite harzburgites from Cima di Gagnone (Central Alps, Switzerland): remnants of dehydrated serpentinites from the slab-mantle interface
- A469 EGU2012-14293
S. Angiboust, **P. Agard**, and T. Pettke
Channelized Fluid Flow and Metasomatism in Subducted Oceanic Lithosphere recorded in an Eclogite-facies Shear Zone (Monviso Ophiolite, Italy)
- A470 EGU2012-12766
J.A. Padrón-Navarta, M.T. Gómez-Pugnaire, V. López Sánchez-Vizcaíno, **C.J. Garrido**, and C. Marchesi
The fate of metaclinopyroxenite during serpentinite subduction
- A471 EGU2012-4813
S. Angiboust, **P. Agard**, P. Yamato, and H. Raimbourg
Breaking the Crust: Intermediate-depth Subduction Earthquakes Recorded by Eclogite Breccias
- A472 EGU2012-6776
I. Song, H. Lee, and J. Kim
Application of slip-line analysis to the mechanical model of active accretionary wedge
- A473 EGU2012-7907
M. Campione, N. Malaspina, A. Borghesi, and G. C. Capitani
Frictional anisotropy of antigorite and its impact on thrust-fault mechanics at subduction zones
- A474 EGU2012-8185
M. Moreno, C. Haberland, O. Oncken, A. Rietbrock, and O. Heidbach
Are seismic and aseismic slip patches influenced by the late-interseismic physical state of a megathrust? Results from the southern end of the 2010 Maule Chile earthquake
- A475 EGU2012-12754
D. Lange, M. Moreno, F. Tilmann, J. Bedford, E. Contreras Reyes, J.C. Baez, S. Barrientos and the Maule GPS Team
The Relation Between Aftershock Seismicity of the 27 February 2010 Maule Earthquake to Postseismic Displacements from GPS
- A476 EGU2012-9957
M. Palo and **P. Capuano**
Polarization analysis of non-volcanic tremor at Guerrero subduction zone (Mexico)
- A477 EGU2012-11312
T. Sagiya and H. Okazaki
Complementary distribution of Coseismic slip, Afterslip, and Slow Slip on the Nankai Trough Plate Boundary
- A478 EGU2012-11798
M. Keiding, O. Heidbach, M. Moreno, J. C. Baez, D. Melnick, and N. Kukowski
Estimates of stress changes from the 2010 Maule, Chile earthquake: the influence on crustal faults and volcanos
- A479 EGU2012-12036
A. Krohe, S. Grigull, S. Wassmann, and B. Stöckhert
Block-in-matrix structures of the Franciscan Subduction Complex: Do they reflect the properties of an active subduction channel?
- A480 EGU2012-12195
Y. Soda, T. Morishita, and H.-R. Wenk
The deformation micro-structures and the relationships of crystal orientation between olivine and antigorite in serpentinitized peridotite from Toba area, SW Japan
- A481 EGU2012-13486
A. Vitale Brovarone, J. Malavieille, M. Beltrando, O. Beyssac, G. Molli, D. Herwartz, D. Rubatto, P. Monié, C. Groppo, R. Compagnoni, J. Hermann, L. Martin, Y. Lagabrielle, and F. Meresse
Structural heterogeneity in mountain belts: rift- vs. subduction-related control.
- A482 EGU2012-6027
S. W. Faryad, V. Kachlík, R. Jedlicka, and H. Klápvová
Variscan sutures and exhumation of high- to ultrahigh-pressure metamorphic rocks in the Bohemian Massif

- A483 EGU2012-6496
P. Agard, S. Angiboust, S. Guillot, and A. Garcia-Casco
 Long-term coupling along the subduction plate interface: insights from exhumed rocks and models
- A484 EGU2012-4826
 S. Angiboust, S. Wolf, **P. Agard**, E. Burov, and P. Yamato
 Effect of fluid release on intermediate depth subduction processes: Insights from fully-coupled numerical modelling
- A485 EGU2012-14296
 K Vogt and **T Gerya**
 Terrain accretion along the subduction interface: numerical modeling
- A486 EGU2012-14299
 B Baitsch-Ghirardello and **T Gerya**
 Fluid and melt weakening along subduction interface defines geodynamic regimes of intra-oceanic subduction

GMPV1.2/GD5.3/TS6.6 – Subduction processes: geochemical inputs and outputs (co-sponsored by the European Association of Geochemistry (EAG)) (including AGU Kuno lecture) (co-organized) – Orals

Convener: C. Chauvel | Co-Conveners: O. Jagoutz, K. Kelly

Room: 20

Chairperson: Jagoutz, Kelley

- 10:30–10:45 EGU2012-2401
T. Plank and J. Vervoort
 Hot and Cold Slabs: Effects on Hf and Nd
- 10:45–11:00 EGU2012-7108
C. Chauvel, S. Labanieh, and M. Carpentier
 What does the Lesser Antilles arc tell us about the fate of subducted slabs?
- 11:00–11:15 EGU2012-8798
C. J. Garrido, J.C. Alt, W.C. Sanks, A. Turchyn, J.A. Padrón-Navarta, V. López-Sánchez-Vizcaíno, M.T. Gómez-Pugnaire, and C. Marchesi
 Tracing the Recycling of Water, Carbon, and Sulfur during Subduction Metamorphism of Seafloor Serpentinites:
- 11:15–11:30 EGU2012-7516
N. Malaspina, F. Langenhorst, and S. Poli
 Slab-to-mantle "oxidation" transfer: insights from subduction peridotites metasomatised by C-bearing fluids
- 11:30–12:00 EGU2012-877
K. A. Kelley and E. Cottrell
 The oxidation state of Fe in subduction zone basalts and implications for mantle oxygen fugacity

TS9.5/G3.5/GD8.6/GM3.6/GMPV6.20/SM3.5 – Crustal faulting and deformation processes observed by InSAR, GPS and modelling techniques (co-organized) – Orals

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

Room: 11

Chairperson: Walter / Shirzaei

- 10:30–10:45 EGU2012-10002
E. Sansosti
 The impact of new generation SAR sensors in ground deformation studies
- 10:45–11:00 EGU2012-13821
 R.F. Hanssen, **M. Caro Cuenca**, A. Hooper, P. Mahapatra, M. Arikan, and D. Bekaert
 New trends in InSAR time series analysis for wide area deformation mapping
- 11:00–11:15 EGU2012-10784
E. Cetin, Z. Cakir, A.M. Akoglu, S. Ergintav, U. Dogan, H. Ozener, and M. Meghraoui
 Persistent Scatterer InSAR time series analysis of the creeping section of the North Anatolian Fault at Ismetpasa
- 11:15–11:30 EGU2012-12569
K. Hodgkinson, D. Mencin, A. Borsa, O. Fox, C. Walls, and E. Van Boskirk
 Recording Plate Boundary Deformation Processes Around The San Jacinto Fault, California
- 11:30–11:45 EGU2012-10391
G. Ducret, M. P. Doin, R. Grandin, A. Socquet, C. Vigny, M. Métois, and M. Béjar-Pizarro
 Measurement of interseismic strain accumulation in the Southern Andes (25°–35°S) using Envisat SAR data

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

LUNCH BREAK

Chairperson: Zucca / Lanari

- 13:30–13:45 EGU2012-7144
S. Jónsson
 Probing Mechanical Properties of Rock with InSAR
- 13:45–14:00 EGU2012-3919
J.-C. Lee, H. T. Chu, S. H. Chang, W. J. Huang, C. H. Mu, and H. Y. Chen
 Frictional properties of a rapid creeping mega-thrust: a case study of the Chihshang Fault in eastern Taiwan
- 14:00–14:15 EGU2012-3125
R.A. Bennett, S. Ventkataramani, J.N. McElwaine, and J.M. Restrepo
 Geodetic expressions of upper mantle dynamics?
- 14:15–14:30 EGU2012-10604
K.H. Spaans, F. Sigmundsson, S. Hreinsdóttir, and B.G. Ófeigsson
 High resolution surface deformation measurements in Iceland's Northern Volcanic Zone: Unraveling multiple deformation sources using InSAR and GPS
- 14:30–14:45 EGU2012-2331
P. J. González, K. F. Tiampo, M. Palano, F. Cannavò, and J. Fernández
 Concurrent tectonic and aquifer-compaction deformation around Lorca (SE, Spain)
- 14:45–15:00 EGU2012-9635
S. Rieger, N. Adam, and A.M. Friedrich
 Quantification of crustal deformation based on analysis of Persistent Scatterer Interferometry of W-Crete
- Chairperson: Malservisi / Dixon
- 15:30–15:45 EGU2012-7409
S. Metzger, S. Jónsson, G. Danielsen, S. Hreinsdóttir, F. Jouanne, and T. Villemin
 The accumulated seismic moment of the locked Húsavík-Flatey fault, North Iceland, derived from an interseismic model using GPS time-series 1997-2010
- 15:45–16:00 EGU2012-4404
P. Teatini, A. Lovison, C. Janna, and A. Ferretti
 Three-dimensional seasonal deformations induced by underground gas storage. Monitoring by PSI and modeling by FE
- 16:00–16:15 EGU2012-5510
N. Gourmelen, A. Shepherd, D. Angus, Q. Fisher, D. Lesnic, and A. Gouldson
 Quantifying the success of onshore carbon capture and storage from surface deformation measurement and geo-mechanical modeling
- 16:15–16:30 EGU2012-2946
R. Castaldo, P. Tizzani, A. Manconi, M. Manzo, S. Pepe, A. Pepe, and R. Lanari
 3D time dependent thermo-fluid dynamic model of ground deformation at Campi Flegrei caldera
- 16:30–16:45 EGU2012-4654
 V. Poncos, **F. Serban**, D. Teleaga, V. Ciocan, M. Sorin, D. Caranda, F. Zamfirescu, M. Andrei, S. Copaescu, M. Radu, and V. Raduca
 Water induced geohazards measured with spaceborne interferometry techniques
- 16:45–17:00 EGU2012-9299
J. Ruch, J. Warren, F. Risacher, T.R. Walter, and R. Lanari
 Salt lake deformation detected from space

TS9.5/G3.5/GD8.6/GM3.6/GMPV6.20/SM3.5 – Crustal faulting and deformation processes observed by InSAR, GPS and modelling techniques (co-organized) – Posters

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

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

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

- A501 EGU2012-1064
R. Eco, A.M.F. Lagmay, and M.G. Bato
Investigating ground deformation and subsidence in Northern Metro Manila, Philippines using Persistent Scatterer Interferometric Synthetic Aperture Radar (PSInSAR)
- A502 EGU2012-1395
S.-B. Yu, Y.-J. Hsu, T. Bacolcol, C.-C. Yang, Y.-C. Tsai, and R. Solidum
Present-day Crustal Deformation along the Philippine Fault in Luzon, Philippines
- A503 EGU2012-2176
E. Davis and S. Marsic
Use of Deformation Based Reservoir Monitoring for Early Warning Leak Detection
- A504 EGU2012-2463
S. Zerbini, C. Prati, G. Cappello, M. Errico, and F. Novali
Observing crustal deformation and atmospheric signals from COSMO-SKYMED and GPS data
- A505 EGU2012-2483
C. Tolomei, E. Trasatti, S. Atzori, J. Merryman, A. Antonioli, G. Pezzo, and S. Salvi
The Mw 7.2 Van Earthquake (2011): co-seismic and post-seismic deformation imaged by DInSAR data, and source modeling
- A506 EGU2012-3479
Y.-J. Hsu, M. Simons, C.A. Williams, and E. Casarotti
3-D FEM derived elastic Green's functions for the coseismic deformation of the 2005 Mw 8.7 Nias-Simeulue, Sumatra earthquake
- A507 EGU2012-3895
M. Ruppichter, A. Roepert, and G. Hoffmann
Differential GPS measurements as a tool to quantify Late Cenozoic crustal deformation (Oman, Arabian Peninsula)
- A508 EGU2012-3992
Y.-A. Chen, C.-P. Chang, and J.-Y. Yen
Interferometric SAR time series analysis for measuring the surface deformation caused by the 1999 Chi-Chi earthquake in Taiwan
- A509 EGU2012-4159
J.-Y. Yen, C.-P. Chang, and Y.-I. Wen
Spatial and temporal variations of surface deformation along the Longitudinal Valley, eastern Taiwan, observed by Persistent SAR Interferometry using ERS, Envisat, and ALOS archives
- A510 EGU2012-4329
T. Yamasaki and G.A. Houseman
The crustal viscosity gradient measured from post-seismic deformation: a case study of the 1997 Manyi (Tibet) earthquake
- A511 EGU2012-2209
W.-J. Huang and K. M. Johnson
Strain accumulation across the Aksay segment of Altyn Tagh fault: Investigation of the influence of laterally varying lithospheric properties and a low-viscosity channel
- A512 EGU2012-5914
D.U. Sanli, K. Coban, V. Akarsu, and E. Arslan
Effect of Span of GPS Campaigns on Estimated Static Positioning Velocities
- A513 EGU2012-5940
M. Moreno, D. Melnick, M. Rosenau, J. C. Baez, J. Klotz, O. Oncken, A. Tassara, J. Chen, K. Bataille, M. Bevis, A. Socquet, C. Vigny, B. Brooks, I. Ryder, B. Smalley, M. Bartsch, V. Grund, and H. Hase
Tectonic control on the Mw 8.8 2010 Maule Chile earthquake
- A514 EGU2012-8444
C. Völksen and M. Hackl
Crustal Deformation and Seismicity in Southern Bavaria revealed by GNSS observations
- A515 EGU2012-10099
P. Kourkoulis, T. Strozzi, and U. Wegmüller
Ground-motion monitoring in the Venice Lagoon using combined DInSAR and Persistent Scatterer Interferometry
- A516 EGU2012-11035
R. Barzaghi, **A. M. Marotta**, R. Splendore, and A. Borghi
A new procedure to build a model covariance matrix: first results
- A517 EGU2012-11308
C. Bignami, M. Chini, C. Kyriakopoulos, and S. Stramondo
Seismic swarm detection by satellite DInSAR technique in the south-west Peloponnese, Greece
- A518 EGU2012-11474
A. Schenk and **M. Westerhaus**
Upgrading InSAR observations by combination with leveling data to understand small scale deformation processes

- A519 EGU2012-13947
J. Ha, K.-D. Park, J. Won, and M.-B. Heo
 GPS-based Analysis of the Crustal Deformation of the Korean Peninsula due to the Tohoku-Oki Earthquake
- A520 EGU2012-12973
M. Mantovani and H.-G. Scherneck
 Observation of Crustal Deformation around the Pärvie Postglacial Fault, Lapland, Sweden, using InSAR techniques
- A521 EGU2012-12176
A. Gualandi, E. Serpelloni, L. Anderlini, and M.E. Belardinelli
 Space-time evolution of postseismic afterslip following the Mw 6.3, 2009 L'Aquila earthquake (central Italy) from principal component analysis inversion of GPS position time-series.
- A522 EGU2012-11428
C. Bignami, C. A. Brunori, M. Chini, C. Kyriakopoulos, D. Melini, M. Moro, M. Picchiani, M. Saroli, and S. Stramondo
 DInSAR techniques for studying the October 23, 2011, Van earthquake (Turkey), and its relationship with neighboring structures
- A523 EGU2012-10733
K. Wiencke, T. R. Walter, M. Manzo, A. Manconi, G. Solaro, and R. Lanari
 InSAR time series monitoring at Istanbul city shows faulting, landslides and soil compaction
- A524 EGU2012-12631
S. H. Jaramillo, G. Suárez, and P. López-Quiroz
 Subsidence history of the city of Morelia, Mexico based on InSAR images processed as time series
- A525 EGU2012-1591
A. Caporali, F. Neubauer, G. Stangl, and D. Zuliani
 Modeling surface velocities in the Southern and Eastern Alps by finite dislocations at crustal depths
- A526 EGU2012-4642
C.-C. Kang, C.-C. Chang, L.L Siame, and J.-C. Lee
 Recent surface deformation and its geodynamic insights for the Ilan Plain: an extensional basin in northern Taiwan orogenic belt
- A527 EGU2012-5130
Y.-C. Chan, K.-J. Chang, R.-J. Chen, J.-C. Lee, Y.-C. Hsieh, and K.-S. Chen
 Evidence for Active Normal Faulting in Northern Taiwan and its Seismogenic Implications
- A528 EGU2012-6802
G. Lin, W-L Chang, C-Y Chiu, and C-P Chang
 Transition of Ground Uplift and Kinematic Model in Southwestern Taiwan from PSI and GPS Observations
- A529 EGU2012-9846
Z. Mousavi, E. Pathier, A. Walpersdorf, C. Lassere, F. Tavakli, and H. Nankali
 InSAR Time Series Analysis of Interseismic Deformation in Eastern Iran
- A530 EGU2012-11011
Z. Çakir, S. Ergintav, H. Ozener, U. Dogan, A.M. Akoglu, M. Meghraoui, and R. Reilinger
 Fault weakening and onset of aseismic creep on mature strike-slip faults
- A531 EGU2012-12517
S.M Razeghi, A.A Amiri Simkooei, and M.A Sharifi
 Realistic Noise Assessment and Strain Analysis of Iranian Permanent GPS Stations

Wednesday, 25 April

TS3.1/EMRP2.9/GD2.8 – Deformation and strain localization from micro- to lithospheric scales (co-organized) – Orals

Convener: L. Menegon | Co-Conveners: F. Füsseis

Room: 29

Chairperson: Luca Menegon

- 13:30–13:45 EGU2012-188
M. Bestmann, G. Pennacchioni, S. Nielsen, M. Göken, and H. de Wall
 Deformation and ultrafine recrystallization of quartz in pseudotachylyte-bearing brittle faults: A matter of a few seconds
- 13:45–14:00 EGU2012-10812
M. Pe?, H. Stünitz, R. Heilbronner, M. Drury, and C. De Capitani
 Origin of Pseudotachylites during slow creep experiments
- 14:00–14:15 EGU2012-11959
J. Schmatz, D. Kempin, J.K. Becker, and P.D. Bons
 Grain Growth in presence of mobile second phase particles - a microstructural simulation in Elle
- 14:15–14:30 EGU2012-4376
M. Herwegh, J. Linckens, A. Ebert, A. Berger, and S. Brodhag
 The role of second phases for controlling microstructural evolution in polymineralic rocks
- 14:30–14:45 EGU2012-4894
X. Maeder, S. Schmalholz, and A. Bauville
 Control of temperature, pressure gradient and flow law on the formation of crustal-scale shear zones: results from 1D thermo-mechanical modeling
- 14:45–15:00 EGU2012-4953
A. Bauville, J.L. Epard, and S. M. Schmalholz
 A simple thermo-mechanical crustal-scale shear zone model applied to the Morcles nappe (Switzerland)
- Chairperson: Florian Füsseis and Marco Herwegh
- 15:30–15:45 EGU2012-231
W.M. Behr and J.P. Platt
 Style of exhumation and rheological evolution of a Mediterranean subduction complex
- 15:45–16:00 EGU2012-10237
M. Maggi, F. Rossetti, G. Ranalli, and T. Theye
 Feedback between fluid flow and rheology during the evolution of the East Tenda Shear Zone (Haute Corse, France).
- 16:00–16:15 EGU2012-6433
P. Nasipuri, H. Stünitz, L. Menegon, and A. Berger
 Interplay between water infiltration, metamorphic reactions and strain localization during subduction of gabbro from the basement rocks of the Lofoten anorthosite complex
- 16:15–16:30 EGU2012-11807
A. Putnis, H. Austrheim, C.V. Putnis, T. John, and H. Mukai
 The direct correspondence between shear zones and fluid-rock reactions from the outcrop to the nanoscale
- 16:30–16:45 EGU2012-11420
J.-C. Poilvet, P. Goncalves, and D. Marquer
 Shear zone broadening driven by metasomatism: an example from the Roffna metarhyolite (Suretta nappe, eastern central Alps)
- 16:45–17:00 EGU2012-10668
H. Koyi, H. Schmeling, S. Burchardt, C. J. Talbot, S. Mukherjee, H. Sjöström, and Z. Chemia
 Shear zones between rock units with no relative movement

TS3.1/EMRP2.9/GD2.8 – Deformation and strain localization from micro- to lithospheric scales (co-organized) –

Posters

Convener: L. Menegon | Co-Conveners: F. Füsseis

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Aurora Menegon & Rosa Astleithner

- A410 EGU2012-330
L. Fuchs* and H. Schmeling
 Numerical models of diapiric structures - analysis of the finite strain distribution

- A411 EGU2012-1212
Z. Wang
Structural heterogeneities in the Southeast Tibetan plateau: Implications for crustal deformation
- A412 EGU2012-4760
S.V. Mudruk, V.V. Balagansky, I.A. Gorbunov, and A.B. Raevsky
A Palaeoproterozoic Super-Large Synformal Sheath Anticline: an example from the Keivy Terrane, northeastern Baltic Shield
- A413 EGU2012-5608
Ho gong-ruei and Lo Wei
The deformation path partitioning within the multiply deformation area, Tananao complex, Taiwan
- A414 EGU2012-11571
D.C. Yi and C.W. Lin
A mega shear zone in the Central Range of Taiwan and its implication for the Late Mesozoic subduction of the paleo-Pacific plate
- A415 EGU2012-7764
T. Eberlei, G. Habler, B. Grasemann, and M. Thöni
Pre-Alpine and Alpine microfabrics in the Austroalpine crystalline basement (Matsch Unit, Italy)
- A416 EGU2012-6040
K. Hidas, C.J. Garrido, A. Tommasi, J.A. Padrón Navarta, Z. Konc, E. Frets, C. Marchesi, and G. Booth-Rea
Phase transformation induced strain localization in mantle pyroxenite from the Ronda Peridotite Massif (Betic Cordillera, Southern Spain)
- A417 EGU2012-916
L. G. F. Viegas, C. J. Archanjo, and A. Vauchez
Fabrics of migmatites and relationships between partial melting and deformation in high-grade transpressional shear zones: the Patos anatexite (Borborema Province, NE Brazil)
- A418 EGU2012-3210
S. Mei, A. M. Suzuki, L. Xu, D. L. Kohlstedt, N. A. Dixon, and W. B. Durham
The influence of water on the Peierls stress of olivine at high pressures
- A419 EGU2012-6457
L. Menegon, H. Stünitz, P. Nasipuri, R. Heilbronner, and H. Svahnberg
Brittle-viscous transition in granulite-facies perthites: implications for lower crustal strength
- A420 EGU2012-6178
M. A. López-Sánchez, S. Llana-Fúnez, A. Marcos, and F. J. Martínez
Deformation of quartz and feldspar at mid-crustal depths in an extensional normal fault (Viveiro Fault, NW Spain)
- A421 EGU2012-7771
M. Thielmann, A. Rozel, B.J.P. Kaus, and Y. Ricard
Grain size in lithospheric-scale shear zones: Chicken or Egg?
- A422 EGU2012-9555
F. Fousseis, C.E. Schrank, and J. Liu
Thermal damage in Westerly granite investigated by means of Synchrotron radiation based microtomography
- A423 EGU2012-11758
E. Rybacki, L.F.G. Morales, and G. Dresen
Strain localization in carbonate rocks experimentally deformed in the ductile field
- A424 EGU2012-12067
R. Kilian, R. Heilbronner, and H. Stünitz
Low angle boundaries in dry quartz
- A425 EGU2012-12090
R. Kilian, R. Heilbronner, and H. Stünitz
Quartz CPO in a polymineralic ultramylonite
- A426 EGU2012-5996
M. Negrini, H. Stünitz, and A. Berger
The effect of deformation on the TitaniQ geothermobarometer
- A427 EGU2012-6110
P. Wehrens, R. Baumberger, and M. Herwegh
Structural Evolution in the Aar Massif (Central Alps): First attempts of linking the micron- to the kilometer-scale
- A428 EGU2012-199
M. Peters and M. Herwegh
Spatial distribution of quartz recrystallization microstructures across the Aar massif (Swiss Central Alps)
- A429 EGU2012-14207
A. Bistacchi, M. Massironi, L. Menegon, F. Bolognesi, and F. Zago
Interconnected weak layers of micas in fault rocks, and implications for the mechanics of misoriented faults

Convener: Z. Garfunkel | Co-Conveners: D. Cunningham, K. Leever

Room: 29

Chairperson: Z. Garfunkel, D. Cunningham

10:30–10:45 **Session overview**

10:45–11:00 EGU2012-9522

D. C. Tanner, S. Pruefer, D. Kuhn, and C. M. Krawczyk

Scales of deformation caused by fault zone complexity within a compressional flower structure

11:00–11:15 EGU2012-5015

K.A. Leever and O. Oncken

Erosion controls transpressional wedge kinematics

11:15–11:30 EGU2012-5236

M. Devès, G.C.P. King, Y. Klinger, and A. Agnon

Localised and distributed deformation in the lithosphere: Modelling the Dead Sea region in 3 dimensions

11:30–11:45 EGU2012-10448

D. Zampieri, A. A. Gutierrez, M. Massironi, and R. Mon

Reconciling opposite strike-slip kinematics in the transpressional belt of the Sierras Pampeanas (Argentina)

11:45–12:00 EGU2012-10713

L. Gregory, C. Mac Niocaill, G. Bayasgalan, A. Bayasgalan, and R. Walker

Patterns of active faulting and paleomagnetic data suggest recent (last 5 m.y.) onset of deformation in the eastern Mongolian Altay

TS7.1/GD3.12 – Structural evolution of continental transform boundaries and transpressional fault systems (co-organized) – Posters

Convener: Z. Garfunkel | Co-Conveners: D. Cunningham, K. Leever

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Z. Garfunkel, K.A. Leever

A470 EGU2012-240

k. akbayram and a. okay

The cumulative offset of North Anatolian Fault in the Marmara region, northwest Turkey

A471 EGU2012-1207

M.M. Abdeen and A. A. Abdelghaffar

Syn- and Post-Accretionary Structures in the Neoproterozoic Central Allaqi-Heiani Suture Zone, Southeastern Egypt

A472 EGU2012-1998

O. Atg?n, G. Çifçi, C. Sorlien, L. Seeber, M. Steckler, D. Sillington, H. Kurt, D. Dondurur, S. Okay, S. Gürçay, H. Sar?ta?, and H.M. Küçük

INVESTIGATION OF ÇINARCIK BASIN AND NORTH ANATOLIAN FAULT WITHIN THE SEA OF MARMARA WITH MULTICHANNEL SEISMIC REFLECTION DATA

A473 EGU2012-3014

D. Cunningham

Mountain building processes in intraplate, intracontinental oblique deformation belts: Lessons from the Gobi Altai, Mongolia

A474 EGU2012-3354

E. Aylan, K. Akbayram, and C. ?mren

Structural and seismic data on a new branch of the North Anatolian Fault: A reworked Tertiary thrust fault in northwestern Turkey

A475 EGU2012-3530

T. Santimano and U. Riller

The kinematic relationship between thrusting, reverse faulting and transpression: An example from the Sudbury Basin, Canada

A476 EGU2012-4809

N. Lom, O. Tüysüz, S.C. Genç, U. Tar?, C. ?mren, and Ö. Teke?in

Investigation Of Active Faults In Antakya (Southeastern Turkey) And Its Surroundings

A477 EGU2012-9000

K. Aubele, V. Bachtadse, G. Muttoni, A. Ronchi, and M. Durand

European Sedimentary Basins: Deciphering Palaeozoic intra-Pangea Wrench Faulting

A478 EGU2012-9511

U. Kirscher, D. Alexeiev, A. Mikolaichuk, and V. Bachtadse

Constraints on the structural evolution of the southern segment of the Central Asian Orogenic Belt by Paleomagnetic data

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

Convener: C. Faccenna | Co-Conveners: Dr Govers, A. Robertson, Dr. Schattner, L. Jolivet, L.V. Eppelbaum, E. Sharkov, A. L. Sobisevich

Room: 12

Chairperson: n.n.

- 08:30–08:45 EGU2012-1899
G. Mohn and G. Manatschal
How far the convergence in Alpine-type orogens is controlled by rift inheritance?
- 08:45–09:00 EGU2012-2638
S. Jammes and R.S. Huismans
Influence of the strength of the crust on mountain building processes
- 09:00–09:15 EGU2012-2846
F. Kirst, N. Froitzheim, T. Nagel, B. Leiss, and J. Pleuger
Extraction faulting and out-of-sequence thrusting in collisional orogeny - An example from the Swiss-Italian Western Alps
- 09:15–09:30 EGU2012-9508
A. Walpersdorf, C. Sue, S. Baize, L. Thirard, N. Cotte and the Briançon Team
Repeated GPS measurements spanning 15 years to study the extensional deformation regime in the inner southwestern Alps (Briançon region, France)
- 09:30–09:45 EGU2012-12319
Y. Ren, G. W. Stuart, G. A. Houseman, B. Dando, C. Ionescu, E. Hegedus, S. Radovanovic, and South Carpathian Project Working Group
Upper mantle structures beneath the Carpathian-Pannonian region: Implications for the geodynamics of continental collision
- 09:45–10:00 EGU2012-1255
A.H.F. Robertson
Late Palaeozoic-Cenozoic assembly of the Tethyan orogen in the light of evidence from Greece and Albania

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2012-6626
S. Lebedev, E. Neenan, B. Knapmeyer-Endrun, T. Meier, M. R. Agius, A. J. Schaeffer, C. Tirel, and W. Friederich
Lithospheric dynamics in eastern Mediterranean: Insights from seismic structure and anisotropy
- 10:45–11:00 EGU2012-2688
S. Rondenay, F.D. Pearce, J.-A.L. Olive, and M.D. Behn
A detailed seismic investigation of the transition from oceanic to continental subduction in the Western Hellenic Subduction Zone
- 11:00–11:15 EGU2012-11778
J. Bartol, R Govers, and M. J. R Wortel
Mantle delamination as the cause for the Miocene-Recent evolution of the Central and Eastern Anatolian Plateau
- 11:15–11:30 EGU2012-827
A.D Bottrill, J van Hunen, and M.B Allen
The use of surface topography at continental collision zones to understand the dynamics of collision and break-off
- 11:30–11:45 EGU2012-12748
Dr. M. Keskin, Dr. E.V. Sharkov, Dr. V.A. Lebedev, Dr A.V. Chugaev, Dr. V. Oyan, Dr. S.C. Genc, E. Unal, and Dr. N. Aysal
Miocene to Recent Magmatism and Geodynamics of Eastern Turkey
- 11:45–12:00 EGU2012-5651
R. Wortel and P.Th. Meijer
The role of continental collision in the separation of Arabia from Africa and the formation of the Dead Sea Fault

LUNCH BREAK

Chairperson: n.n.

- 13:30–13:45 EGU2012-2903
M. Frehner, D. Reif, and B. Grasemann
 Mechanical versus kinematical shortening reconstructions of the Zagros High Folded Zone (Kurdistan Region of Iraq)
- 13:45–14:00 EGU2012-4549
S. Tavakoli, D. Frizon de Lamotte, J.-C. Ringenbach, and J.-F. Ballard
 Geometry and Kinematics of the High Zagros Belt (Iran)
- 14:00–14:15 EGU2012-12669
J. Austermann, G. Iaffaldano, and H. Bunge
 The competing roles of Zagros orogeny and Tethys slab-break-off in slowing down Arabia/Eurasia convergence since ~5 Ma
- 14:15–14:30 EGU2012-7059
F. Cifelli, M. Mattei, H. Alimohammadian, J. Sabouri, H. Rashid, and M. Ghassemi
 The role of block rotations and oroclinal bending in Iran during the Cenozoic Arabia-Eurasia shortening
- 14:30–14:45 EGU2012-7812
M.B. Allen, I. Neill, M. Kheirkhah, J. van Hunen, J.P. Davidson, Kh. Meliksetian, and M.H. Emami
 Orogenic plateau magmatism of the Arabia-Eurasia collision zone
- 14:45–15:00 EGU2012-2500
A. L. Sobisevich, Yu. P. Masurenkov, I. N. Pouzich, and N. I. Laverova
 Fluid-magmatic systems and volcanic centers in Northern Caucasus
- Chairperson: n.n.
- 15:30–15:45 EGU2012-1341
L.V. Eppelbaum
 Geophysical Investigations in the Caucasus (1925 - 2012): Initial, Basic and Modern Stages
- 15:45–16:00 EGU2012-2670
E. Sharkov
 Features of the Caucasian segment of the Alpine-Himalayan-Indonesian Convergence Zone
- 16:00–16:15 EGU2012-2095
D.J.J. van Hinsbergen, P.C. Lippert, G. Dupont-Nivet, N. McQuarrie, P. Doubrovine, W. Spakman, and T.H. Torsvik
 The Greater India Basin Hypothesis: Closing the Gap between India-Asia Crustal Shortening and Lithospheric Convergence Records
- 16:15–16:30 EGU2012-6538
F. Bajolet, A. Replumaz, C. Faccenna, and R. Lainé
 Curved orogen and syntaxes formation during subduction and collision
- 16:30–16:45 EGU2012-10796
X. Shi, E. Kirby, K. P. Furlong, E. Wang, K. Meng, F. M. Phillips, R. Robinson, and S. Marrero
 Preliminary constraints on rheology of the deep crust beneath central Tibet from Late Pleistocene - Early Holocene shorelines
- 16:45–17:00 EGU2012-4234
S. Guillot and A. Replumaz
 Importance of India and Asia subductions for the growth of the Tibetan plateau

TS6.1/GD5.5 – The Alpine-Himalayan convergence zone: from the Mediterranean to SE Asia (co-organized) – Posters
 Convener: C. Faccenna | Co-Conveners: Dr Govers, A. Robertson, Dr. Schattner, L. Jolivet, L.V. Eppelbaum, E. Sharkov, A. L. Sobisevich

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: A. L. Sobisevich

- A430 EGU2012-5486
A. Gil, J. Díaz, and J. Gallart
 New Pn and Sn tomographic images of the uppermost mantle beneath the Mediterranean region
- A431 EGU2012-10615
J. Pleuger and Y. Podladchikov
 A new restoration of the NFP20-East cross section and possible tectonic overpressure in the Penninic Adula Nappe (Central Alps)
- A432 EGU2012-8968
H. Munzarova, J. Plomerova, L. Vecsey, and H. Karousova
 Anisotropy of the upper mantle beneath the Northern Apennines based on data from the passive seismic experiment RETREAT (Italy)

- A433 EGU2012-8981
J. Schnyder, G. L. Cardello, and A. M. Hirt
 A structural and Anisotropy of Magnetic Susceptibility study from the Paleozoic basement, the Mesozoic-Tertiary sedimentary cover and the Pleistocene lavas from the Island of Zannone (Tyrrhenian Sea, Italy).
- A434 EGU2012-8707
A. Vitale Brovarone, D. Herwartz, D. Castelli, and J. Malavieille
 On the timing of high-pressure metamorphism in Alpine Corsica: the first Lu-Hf garnet and lawsonite ages
- A435 EGU2012-12931
T. Scheiber, O.A. Pfiffner, and G. Schreurs
 Structural evolution and finite geometry of the Siviez-Mischabel nappe, Valais, Swiss Alps
- A436 EGU2012-7553
G. L. Cardello and N.S. Mancktelow
 Syn-sedimentary tectonics in the Cretaceous succession of the Wildhorn nappe (SW Switzerland)
- A437 EGU2012-6939
 L.C. Matenco and **D. Radivojevic**
 On the formation and evolution of the Pannonian basin: constraints derived from the orogenic collapse recorded at the junction between Carpathians and Dinarides
- A438 EGU2012-1130
H. M. Küçük, D. Dondurur, G. Çifçi, S. Gürçay, J. Hall, C. Yaltırak, and A.E. Aksu
 NEOGENE TECTONICS of PART of THE JUNCTION of CYPRUS and HELLENIC ARCS in THE EASTERN MEDITERRANEAN SEA
- A439 EGU2012-9609
A. Vitale Brovarone, P. Agard, P. Monié, and A. Chauvet
 Detailed thermal fingerprinting of obduction-related processes: insights from Northern New Caledonia
- A440 EGU2012-4558
L. Kaislaniemi, J. van Hunen, and M. B. Allen
 Numerical modeling of continental collision magmatism on Turkish-Iranian plateau
- A441 EGU2012-13254
 E. Mposkos, A. Krohe, **N. Wawrzenitz**, and R. L. Romer
 From an active continental plate margin to continental collision: New constraints from the petrological, structural and geochronological record of the (ultra) high-P metamorphic Rhodope domain (N-Greece)
- A442 EGU2012-12474
S. C. Ülgen, A.I. Okay, E. Özcan, A.M.C. Tüngen, and K. Akbayram
 Regional Implications of Ypresian Flysch Sequence From South of Marmara Sea: Structural, Stratigraphic and Paleontological Data
- A443 EGU2012-8600
L. Tunini, I. Jiménez-Munt, and M. Fernández
 Deep structure of the Zagros Mountains and the Iranian plateau: results from petrological and geophysical modelling
- A444 EGU2012-10386
T. François, P. Agard, B. Meyer, M. Zarrinkoub, S.L. Chung, and E. Burov
 Uprising of the Iranian plateau: Inferences from (U-Th)/He and AFT thermochronology
- A445 EGU2012-5195
I. Albino, W. Cavazza, M. Zattin, A.I. Okay, S. Adamia, and N. Sadradze
 Apatite fission-track analysis of the tectonic effects of the Arabia-Eurasia collision
- A446 EGU2012-12073
C. Ducassou and C. Robin
 The depositional environments of the Muti Formation (Upper Cretaceous), a key to understand the obduction in the Oman Mountains
- A447 EGU2012-6388
G. Göçmengil, G. Topuz, Ö.F. Çelik, ?E. Altın?, and M. Özkan
 Geochemical features of metabasic rocks from an Early to Middle Jurassic Accretionary Complex (Refahiye metamorphics, Eastern Pontides, NE Turkey): Implications for Late Jurassic-Early Cretaceous magmatic lull
- A448 EGU2012-9996
B. Andreucci, M. Zattin, S. Mazzoli, R. Szaniawski, and L. Jankowski
 Variable thermal histories along the northern Outer Carpathians: new thermochronological and thermal maturity data from Ukraine
- A449 EGU2012-10542
W. Stolk, M. Kaban, F. Beekman, M. Tesauro, and S. Cloetingh
 Moho depth and crustal velocities from the Bosphorus to S.E. Asia
- A450 EGU2012-12004
R. Akdoğan, M. Turan, and A. Dokuz
 Geochemical properties and provenance characteristics of the Early-Middle Jurassic sandstone and shales, NE Turkey

- A451 EGU2012-157
M. Aygöl and A. I. Okay
Blueschist-facies metamorphic rocks in the Central Pontides, Northern Turkey
- A452 EGU2012-2043
C. Huebscher, A. McGrandle, G. Scaife, R. Spoors, and T. Stieglitz
A new plate tectonic concept for the eastern-most Mediterranean
- A453 EGU2012-10091
M. L. Kopp
Strike-slip and extrusion tectonics of the Greater Caucasus-Kopetdag region
- A454 EGU2012-4657
V. Kovalevsky and A. Sobisevitch
Monitoring of low-energy seismic activity in Elbrus volcanic area with the use of underground seismic array
- A455 EGU2012-1827
V. Milyukov and A. Myasnikov
Monitoring the resonant properties of the magmatic structures of Elbrus volcano based on observation of lithospheric deformations by the Baksan laser interferometer - strainmeter
- A456 EGU2012-2501
A. L. Sobisevich, A. N. Ovsuychenko, L. E. Sobisevitch, and I. N. Pouzich
Mud volcanoes in North-Western Caucasus: deep seated structures and scenarios of activity
- A457 EGU2012-3356
D.V. Likhodeev
The results of studies of temperature fields in the Elbrus volcanic center
- A458 EGU2012-4299
R.A. Zhostkow, Yu.P. Masurenkov, Z.I. Dudarov, A.V. Shevchenko, S.M. Dolov, and K.B. Danilov
Deep structure of the Pyatigorsk volcanic center (Northern Caucasus)
- A459 EGU2012-4917
A. Dokuchaev, S. Bubnov, O. Bogatkov, and Yu. Goltsman
Main peculiarities of N-Q magmatism of the Greater Caucasus
- A460 EGU2012-6912
T. Verkholtantseva, D. Shulakov, P. Butyrin, F. Verkholtantsev, and I. Gabsatarova
The results of microseismic observations in the Baksan Neutrino Observatory, Russia
- A461 EGU2012-14139
M. G. Daniyalov and O. A. Saidov
Information value of underground water-gas systems parameters in connection with earthquakes precursors search
- A462 EGU2012-14276
M. G. Daniyalov and A. I. Suleymanov
The variations of geomagnetic field in the region of the Sulaksky cascade of hydro-electric power station
- A463 EGU2012-14278
D. G. Taimazov, **T. I. Sharapudinov**, M. G. Magomed-Kasumov, and M. S. Sultanakhmedov
About the ways of hydrodynamic observations informativity enhancement
- A464 EGU2012-3639
V. Kovalevsky, B. Glinsky, M. Khairtdinov, and D. Karavaev
Experimental investigations of mud volcano Karabetova Gora and the results of mathematical modeling
- A465 EGU2012-7222
C.-C. Wang, J.B.H. Shyu, Y. Wang, C.-C. Shen, H.-W. Chiang, S. Min, O. Than, and S. T. Tun
Paleoseismological investigations in northern Ramree Island, western Myanmar (Burma)
- A466 EGU2012-8242
T. Chelidze, G. Gugunava, N. Gamkrelidze, P. Mindeli, J. Kiria, S. Ghonghadze, and O. Janovskaya
The Deep Structure and 3D Thermo-geodynamics of the Caucasus by Geophysical Data.
- A467 EGU2012-11802
Y. L. Lin, M. W. Yeh, C. H. Lo, T. Y. Lee, and P. Charusiri
In-situ ⁴⁰Ar/³⁹Ar Laser Probe Dating of Micas from Mae Ping Shear Zone, Northern Thailand
- A468 EGU2012-5609
T. Berthet, G. Hetényi, R. Cattin, C. Champollion, E. Doerflinger, S. Sapkota, D. Drukpa, and J. Chopel
Lateral variations of gravity anomalies in the Eastern Himalayas: preliminary results and interpretations
- A469 EGU2012-11644
F. Meresse, D. Savva, M. Pubellier, S. Steuer, D. Franke, F. Cordey, C. Muller, F. Sapin, B. Mouly, and J-L. Auxière
Late tectonic uplift of an inverted oceanic basin in South East Asia: the case of Palawan Island (western Philippines)

GD6.1/GMPV6.13/SM4.5 – Whole mantle and transition zone structure, dynamics and evolution: multidisciplinary perspectives (co-organized) – Orals

Convener: P. Tackley | Co-Conveners: C. Thomas, J. H. Davies

Room: 30

Chairperson: n.n.

- 13:30–13:45 EGU2012-9145
N. Coltice, T. Rolf, P.J. Tackley, and S. Labrosse
Dynamic causes of the relation between area and age of the ocean floor
- 13:45–14:00 EGU2012-1513
S. King and H. Samuel
Combine Effects of Plate Motions and Small-Scale Convection on Mantle Stirring Efficiency
- 14:00–14:15 EGU2012-13811
T. Geenen, T. Heister, A.P. van den Berg, M. Jacobs, and W. Bangerth
3D high resolution mineral phase distribution and seismic velocity structure of the transition zone: predicted by a spherical-shell compressible mantle convection model.
- 14:15–14:30 EGU2012-7220
T. Nakagawa and P. Tackley
Influence of magmatism on mantle cooling, surface heat flow and Urey ratio
- 14:30–14:45 EGU2012-4700
P. J. Webb, J. H. Davies, and D. R. Davies
Using high-resolution mantle circulation models to understand the origin of fast seismic anomalies in the Tethyan mantle.
- 14:45–15:00 EGU2012-5101
H. Cizkova, A.P. van den Berg, W. Spakman, and C. Matyska
The viscosity of Earth's lower mantle inferred from sinking speed of subducted lithosphere
- Chairperson: n.n.
- 15:30–15:45 EGU2012-5288
F. Touthou, **A. Davaille**, G. Brandeis, I. Kumagai, and J. Vatterville
Transient mantle plumes: hot heads and cold stems
- 15:45–16:00 EGU2012-3359
H. Samuel and N. Tosi
The influence of post-perovskite strength on mantle thermo-chemical evolution
- 16:00–16:15 EGU2012-6309
R. Gassmüller and B. Steinberger
Modelling the interaction between subducted slabs and thermo-chemical piles
- 16:15–16:30 EGU2012-8630
S. Hempel, T. Nissen-Meyer, and C. Thomas
Lateral heterogeneities in the lowermost mantle - To what detail can we resolve them seismically?
- 16:30–16:45 EGU2012-10467
H. L. M. Benthām and S. Rost
Deep mantle seismic heterogeneities in Western Pacific subduction zones
- 16:45–17:00 EGU2012-6500
M.K. Young, **H. Tkalcic**, and T. Bodin
Short-scale Heterogeneity in the Lowermost Mantle Revealed Through Partition Modeling of Seismic Body Waves

GMPV1.3/GD6.2 – Deep mantle mineralogy, geochemistry and geodynamics (co-sponsored by the European Mineralogical Union (EMU) and by the European Association of Geochemistry (EAG)) (including Robert Wilhelm Bunsen Medal Lecture) (co-organized) – Orals

Convener: M. Walter | Co-Conveners: R. Tronnes

Room: 31

Chairperson: Michael Walter

- 08:30–08:45 EGU2012-9032
P. Tarits, S. Hautot, C. Grigne, M. Maia, and K. Baba
The three-dimensional electrical upper mantle beneath the EPR - 18 S
- 08:45–09:00 EGU2012-4980
F. Gaillard
Which geodynamic roles for volatile-rich low melt fractions in the Earth's mantle?
- 09:00–09:15 EGU2012-6952
C.C.M. Robin-Popieul, **N.T. Arndt**, C. Chauvel, G. Byerly, A.V. Sobolev, and A. Wilson
Extraction of magma from deep in the upper mantle: a model for the formation of Barberton komatiites
- 09:15–09:30 EGU2012-1189
K. Otsuka and **S. Karato**
Transcrystalline Migration of Metallic Melt in (Mg,Fe)O: Implications for the Core-Mantle Interaction

09:30–09:45 EGU2012-8571

R.G. Tronnes, D. Andrault, Z. Konopkova, W. Morgenroth, and H.-P. Liermann

Phase relations of aluminous silica to 120 GPa and lowermost mantle dynamics

09:45–10:00 EGU2012-12679

B.S.A. Schuberth, C. Zaroli, and G. Nolet

Synthetic seismograms for a synthetic Earth: long-period P- and S-wave traveltimes can be explained by temperature alone

COFFEE BREAK

Chairperson: Reidar Tronnes

10:30–10:45 EGU2012-8441

C. McCammon, L. Dubrovinsky, V. Potapkin, K. Glazyrin, A. Kantor, I. Kuppenko, C. Prescher, R. Sinmyo, G. Smirnov, A. Chumakov, and R. Rüffer

Iron spin transitions in the lower mantle

10:45–11:00 EGU2012-12893

R. Caracas

Spin transition in Fe-bearing perovskite

11:00–12:00 EGU2012-8431

W. McDonough

Geoneutrinos and heat production in the Earth: constraints and implications (Robert Wilhelm Bunsen Medal Lecture)

GMPV1.3/GD6.2 – Deep mantle mineralogy, geochemistry and geodynamics (co-sponsored by the European Mineralogical Union (EMU) and by the European Association of Geochemistry (EAG)) (including Robert Wilhelm Bunsen Medal Lecture) (co-organized) – Posters

Convener: M. Walter | Co-Conveners: R. Tronnes

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Michael Walter

XL186 EGU2012-531

A.V. Spivak, L.S. Dubrovinsky, and Yu.A. Litvin

ORIGIN OF ULTRA-DEEP DIAMONDS: CHEMICAL INTERACTION OF Ca-CARBONATE AND THE EARTH'S LOWER MANTLE MINERALS

XL187 EGU2012-613

Dr Butvina

Destruction of the peridotite-eclogite liquidus barrier during mantle magma differentiation (experiment at 7.0 GPa).

XL188 EGU2012-2201

S. Ono

Garnet-Perovskite transformation in CaGeO₃

XL189 EGU2012-10316

S. A. Hunt, A. M. Walker, and D. P. Dobson

Thermal diffusivity of oriented serpentinite at elevated pressures and temperatures by X-radiography

XL190 EGU2012-10869

D. Sifre and F. Gaillard

Electrical Conductivity Measurements on Hydrous Carbonate Melts at Mantle Pressure

XL191 EGU2012-732

N. Solopova, A. Spivak, I. Kuppenko, Yu. Litvin, and L. Dubrovinsky

High-pressure ¹³C-diamond-forming reaction of decomposition of Na₂13CO₃ melt at 20 - 60 GPa

XL192 EGU2012-9623

F.M. Stuart, N. Rogers, I. Parkinson, and M. Davies

Constraints on the source of mantle plumes from the geochemistry of the first picrites erupted Ethiopian flood basalt province

XL193 EGU2012-11850

M. D. Long and X. He

Constraints on seismic anisotropy at the base of the mantle from combined S, ScS, SKS, and SKKS splitting analysis

GD8.2/GMPV6.6/TS9.7 – Long-term rheological behavior of the lithosphere inferred from observations and models at

laboratory and geological time and spatial scales (co-organized) – Orals

Convener: E. Burov | Co-Conveners: A. Watts, Y. Podladchikov, L. Jolivet, P. H. Leloup

Room: 30

Chairperson: n.n.

- 08:30–08:45 EGU2012-3612
E. Burov, A.B. Watts, T. Francois, and M. Tesaro
 Links between the mechanical, seismic and thermal thickness, rheological structure and mechanical stability of the continental lithosphere.
- 08:45–09:00 EGU2012-6984
B.-D. So, D.A Yuen, K. Regenauer-Lieb, and S.-M. Lee
 The Role played by Shear Modulus Contrast in Earth Materials on Facilitating Shear Localization in the Lithosphere
- 09:00–09:15 EGU2012-2456
B. Evans
 Constraining strength/depth profiles using laboratory experiments and field structural observations
- 09:15–09:30 EGU2012-6397
E. Boutonnet, P.H. Leloup, C. Sassier, V. Gardien, and Y. Ricard
 Ductile strain rates measurements reveal continental crust long-term deformation modes
- 09:30–09:45 EGU2012-6603
V.M. Yarushina and Y.Y. Podladchikov
 Shear-enhanced compaction in viscoplastic rocks
- 09:45–10:00 EGU2012-13398
Y. Fialko and C. Takeuchi
 Stress in Continental Lithosphere: Constraints from numerical models of earthquake cycle with laboratory-derived rheologic laws

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2012-9381
J.-P. Brun, C. Tirel, M. Philippon, E. Burov, C. Faccenna, F. Gueydan, and S. Lebedev
 On the role of horizontal displacements in the exhumation of high pressure metamorphic rocks
- 10:45–11:00 EGU2012-12151
D. Bercovici and Y. Ricard
 Mechanisms for lithospheric shear localization and the generation of plate tectonics by two-phase grain-damage and pinning
- 11:00–11:15 EGU2012-12221
J.A. Hunter, A.B. Watts, and SO 215 Shipboard Scientific Party
 Gravity and Flexure Modelling of Subducting Plates
- 11:15–11:30 EGU2012-11832
F. Mouthereau, A.B. Watts, and E. Burov
 Linkage between crustal shortening in collisional orogens and the long-term strength of the continental lithosphere
- 11:30–11:45 EGU2012-8703
T. Gerya
 Lithospheric rheology controls on oceanic spreading patterns
- 11:45–12:00 EGU2012-8893
 V. Allken, **R.S. Huismans**, and C. Thieulot
 Three-dimensional numerical modeling of extensional basin formation

GD8.2/GMPV6.6/TS9.7 – Long-term rheological behavior of the lithosphere inferred from observations and models at laboratory and geological time and spatial scales (co-organized) – Posters

Convener: E. Burov | Co-Conveners: A. Watts, Y. Podladchikov, L. Jolivet, P. H. Leloup

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Leloup, H., Burov, E., Jolivet, L.

- XL86 EGU2012-2854
J. Kirby and C. Swain
 Long wavelength resolution of wavelet and multitaper-Fourier spectra: application to the isostatic admittance

- XL87 EGU2012-7167
S. Wienecke and E. Lundin
A short notice on the importance of the Young's modulus on the interpretation of crustal strength
- XL88 EGU2012-12755
A. Døssing and A.B. Watts
Lithospheric failure and intra-plate volcanism in response to intense yielding: An example from the Greenland Fracture Zone, North Atlantic
- XL89 EGU2012-4033
E.R. Lundin and A.G. Doré
Large-scale crustal folding as a consequence of weakening by hyperextension and partial serpentinization of the mantle
- XL90 EGU2012-9279
J.H.W. Smit, S.A.P.L. Cloetingh, E. Burov, D. Sokoutis, M. Kaban, M. Tesauro, and J.-P. Burg
Interference of lithospheric folding in Central Asia by simultaneous Indian and Arabian plate indentation
- XL91 EGU2012-2448
T. Duretz and T. V. Gerya
Crust rheology, slab detachment and topography
- XL92 EGU2012-4343
I.E. van Gelder, E. Willingshofer, and D. Sokoutis
Is lateral extrusion in the Eastern Alps influenced by the back-arc extension in the Pannonian Basin? Insights from analogue crustal scale models.
- XL93 EGU2012-10759
E. Calignano, D. Sokoutis, E. Willingshofer, and J.P. Burg
Lateral rheological lithospheric heterogeneities in the tectonic evolution of intra-plate deformation
- XL94 EGU2012-10283
T. François, E. Burov, P. Agard, and B. Meyer
Evaluating the effect of rheology on the evolution of continental collision: Application to the Zagros orogen.
- XL95 EGU2012-14258
T. Francois, E. Burov, B. Meyer, and P. Agard
Surface topography as key constraint on thermo-rheological structure of cratons
- XL96 EGU2012-6955
G. Duclaux, N. Thébaud, K. Gessner, and M. Doublier
Dome and Keel dynamics in the hot Archaean lithosphere, a numerical approach
- XL97 EGU2012-4623
H. Wang, J. van Hunen, M. Allen, and W. Bai
Geodynamic modelling of the thinning of cratonic lithosphere
- XL98 EGU2012-6650
E. Neenan, A. J. Schaeffer, M. R. Agius, and **S. Lebedev**
The North Anatolian Fault and lithospheric deformation in eastern Mediterranean: A seismic surface-wave study
- XL99 EGU2012-983
S. Duprat-Oualid and P. Yamato
Syn-deformational inverted metamorphism: Insights from 2D Thermo-kinematic numerical models
- XL100 EGU2012-6161
F. Chopin, K. Schulmann, P. Štípská, J.E. Martelat, P. Pitra, O. Lexa, and B. Petri
Microstructural and metamorphic evolution of a high pressure granitic orthogneiss during continental subduction (Sudetes, European Variscan belt)
- XL101 EGU2012-13307
K. D. Petersen, S.B. Nielsen, R. Stephenson, and **T. Gerya**
Continental rifting and upper mantle strength
- XL102 EGU2012-12395
C. Gumiaux, N. Charles, R. Augier, Y. Chen, and M. Faure
Can metamorphic core complexes develop within a previously non-thickened crust? Insights from the North China Late Mesozoic continental extension
- XL103 EGU2012-9203
L. Labrousse, B. Huet, L. Le Pourhiet, E. Burov, and L. Jolivet
The roles of heritage vs thermal state of the lithosphere in the localization of detachment zones : insights from Mediterranean Core Complexes and numerical experiments.
- XL104 EGU2012-7585
A.C. Ganzhorn, L. Labrousse, L. Arbaret, R. Champallier, J.C. Vrijmoed, and T.B. Andersen
Chemical, petrological and structural analysis of syn-kinematic migmatites: insights from the Western Gneiss Region, Norway.
- XL105 EGU2012-8900
N. Traore, L. Le Pourhiet, J. Frelat, F. Rolandone, and B. Meyer
Viscoelastic properties combined with relevant boundary conditions can produce the arctangent shape of the geodetic displacement field

- XL106 EGU2012-12853
E. Oliot, P. Goncalves, K. Schulmann, D. Marquer, and O. Lexa
 Mid-crustal shear zone formation in granitic rocks: constraints from quantitative textural and crystallographic preferred orientations analyses
- XL107 EGU2012-11822
 S. M. Schmalholz and **X. Maeder**
 Strain localization due to linkage of pinches in viscoplastic multilayers
- XL108 EGU2012-11032
E. Burov, T. Francois, and J. Leguille
 Strain localization in models and nature: bridging the gaps.
- XL109 EGU2012-7978
P. H. Leloup, E. Boutonnet, N. Arnaud, J.L. Paquette, W.J. Davis, and K. Hattori
 Synkinematic magmatism, heterogeneous deformation, and progressive strain localization in a strike-slip shear zone. The case of the right-lateral Karakorum fault.
- XL110 EGU2012-8634
E. Boutonnet, P.H. Leloup, A. Rozel, N. Arnaud, and J.L. Paquette
 Strain localization across main continental strike-slip shear zones : a multi-methods approach for the case of the Karakorum shear zone
- XL111 EGU2012-8732
B. Huet, P. Yamato, and B. Grasemann
 Physically consistent viscosity of polyphase rocks: a new method and its validation
- XL112 EGU2012-10235
P. H. Leloup, X.B Liu, G. Mahéo, J.L. Paquette, and X.H. Liu
 Quantification of progressive deformation localization below the STD shear zone (Himalaya)
- XL113 EGU2012-13016
M. Stipp
 Stress Measurements in the Earth's Crust - Recrystallized Grain Size Piezometry Revisited
- XL114 EGU2012-14477
S. El Arem, H. Lyon-Caen, P. Bernard, J.D. Garaud, F. Rolandone, and P. Briole
 Deformation rates and localization of an active fault system in relation with rheological and frictional slip properties: The Corinth Rift case

ML11 – Augustus Love Medal Lecture by Yanick Ricard (co-listed) – Orals

Convener: J. H. Davies

Room: 30

Chairperson: n.n.

19:00–20:00 EGU2012-14444

Y. Ricard

Mantle convection: consensus and queries (Augustus Love Medal Lecture)

Thursday, 26 April

GMPV1.1/GD2.6 – Origin, evolution of Earth's crust and the formation of a habitable planet (co-sponsored by the European Association of Geochemistry (EAG)) (co-organized) – Posters

Convener: M. Boyet | Co-Conveners: B. Dhuime, Jeff Vervoort, J. van Hunen, J. Tarduno, K.O. Konhauser

Hall Z | Display Time 08:00–19:30

Author in Attendance: 13:30–15:00

Chairperson: Bruno Dhuime, Maud Boyet

- Z1 EGU2012-2438
A. Slabunov
4-D model of the Archaean crustal evolution of the Fennoscandian Shield based on geological data
- Z2 EGU2012-3495
U. Schreiber and C. Mayer
Deep Reaching Gas-permeable Tectonic Faults of the Early Earth as Habitats for the Origin of Life
- Z3 EGU2012-3320
C. Stremtan, J. Ryan, I. Balintoni, and C. Balica
Thermo-tectonic history of Variscan post-collisional plutons from the Danubian domain (Romanian Southern Carpathians) as recorded by zircon trace element geochemistry and thermometry
- Z4 EGU2012-5136
C. François, P. Philippot, and P. Rey
Formation and exhumation mechanisms of high-grade rocks: Sagduction and Subduction processes during the Archean
- Z5 EGU2012-11919
H.K. Brueckner
The Subduction of Continental Crust, the Variscan Evolution of the Bohemian Massif, and the Origin of PO Granitoids
- Z6 EGU2012-3549
L. Saha, A. Hofmann, and H. Xie
Style of Palaeoarchaeon tectonics from the SE Kaapvaal and Singhbhum Cratons: Constraints from Metamorphic Studies and Zircon Geochronology
- Z7 EGU2012-164
E. Nitkina
Isotope U-Pb dating of the Ingozero TTG complexes (Kola Peninsula).
- Z8 EGU2012-9113
P. Serov, N. Ekimova, and T. Bayanova
Isotope-geochemical Nd-Sr evidence of Palaeoproterozoic plume magmatism in Fennoscandia and mantle-crust interaction on stages of layered intrusions formation
- Z9 EGU2012-11521
A. P. Martin, D. J. Condon, A. R. Prave, A. Lepland, and V. A. Melezhik
Age constraints from northwest Russia on the global accumulation of carbon during the Palaeoproterozoic Shunga event

GD3.1/GM3.7/SM4.4/TS1.6 – Plate kinematics, mantle convection, paleogeography and sea level (co-organized) – Posters

Convener: R. D. Müller | Co-Conveners: H.-P. Bunge, J. Golonka, M. Seton, S. Brune, L. Quevedo, G. Helffrich, G. Laske, Y. Ricard

Hall XL | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: n.n.

- XL163 EGU2012-5692
B. Guillaume, L. Husson, and G. Choblet
Freeboard, sea level and dynamic topography during aggregation of a supercontinent
- XL164 EGU2012-6101
M. W?osi?ska, T. Niedzielski, I. G. Priede, and P. Migo?
On a goodness-of-fit between theoretical hypsometric curve and its empirical equivalents derived for various depth bins from 30 arc-second GEBCO bathymetry
- XL165 EGU2012-6897
L. G. Yeo, C. Heine, and R. D. Müller
Using global paleogeographic datasets towards ground-truthing dynamic topography models

- XL166 EGU2012-9517
S. M. Masterton, P. Markwick, R. Bailiff, D. Campanile, E. Edgecombe, D. Eue, A. Galsworthy, and K. Wilson
 The integration of palaeogeography and tectonics in refining plate tectonic models: an example from SE Asia
- XL167 EGU2012-5537
 E. Ostanciaux, C. Robin, F. Guillocheau, G. Trotin, and **L. Husson**
 The eustatic chimera: isn't the Cenomanian maximum flood a dynamic topography puzzle?
- XL168 EGU2012-12121
A. Rozel, T.W. Becker, C. Faccenna, F. Funiciello, and L. Husson
 Scaling laws of dynamic topography and uplift-rate in 3D spherical geometry
- XL169 EGU2012-10926
L. Anderson, F. Ferraccioli, G. Eagles, B. Steinberger, and J. Ritsema
 Spatial and Temporal variability in Dynamic Topography in East Antarctica
- XL170 EGU2012-4670
L. Quevedo, C. Heine, and R. D. Müller
 Reconstructing global grids of oceanic and continental lithospheric thickness
- XL171 EGU2012-6981
M. Seton and R.D. Muller
 Long-term sea level and the cycle of supercontinent formation and dispersal
- XL172 EGU2012-1208
H. Zhang and J.M. Zhao
 P-wave velocity structure under Tibetan plateau revealed by seismic tomography
- XL173 EGU2012-1219
J.M. Zhao
 Where Has the Shortened Lithosphere Gone —Mantle Flow below the Tibet
- Hall XL | Display Time 08:00–19:30**
 Author in Attendance: 17:30–19:00
 Chairperson: n.n.
- XL174 EGU2012-3942
V. Puchkov
 Lithospheric response to plume- and plate-tectonic interactions
- XL175 EGU2012-4885
S. Brune and C. Heine
 3d Numerical Modeling of the Equatorial Atlantic Break-Up
- XL176 EGU2012-5433
 C. Cadio, M. Ballmer, **I. Panet**, N. Ribe, and M. Diament
 New constraints on the Hawaiian swell origin using wavelet analysis of the geoid to topography ratio
- XL177 EGU2012-6145
 J. Reyes and **L.E. Lara**
 Juan Fernández Ridge (Nazca Plate): petrology and thermochronology of a rejuvenated hot spot trail
- XL178 EGU2012-7692
E. Koivisto and R.G. Gordon
 A Globally Self-Consistent Model of Plate Motions Relative to the Hotspots for the Past 48 Million Years
- XL179 EGU2012-3262
M. D. Ballmer, G. Ito, C. J. Wolfe, C. Cadio, and S. C. Solomon
 Double layering of a thermochemical plume in the upper mantle beneath Hawaii
- XL180 EGU2012-8537
M. Pears and C. Lithgow-Bertelloni
 Can plumes collapse?: Experimental results and applications to Iceland.
- XL181 EGU2012-8601
R. Govers, K. Warners-Ruckstuhl, C. Hochard, P. Webb, R. Wortel, G. Stampfli, C. van Oosterhout, and H. Davies
 Evolution of forces on Eurasia since the Miocene
- XL182 EGU2012-8930
Á. Benediktsdóttir, R.N. Hey, F. Martinez, and Á. Höskuldsson
 Tectonic Evolution of the Reykjanes Ridge During the Past 15
- XL183 EGU2012-11400
P. Szatmari
 Rifting by continental rotation, mantle flow and hotspot volcanism in the salt-depositing South Atlantic

GD3.3/TS1.5 – Tectonic reconstructions with deforming plates (co-organized) – Posters

Convener: C. Heine | Co-Conveners: D. van Hinsbergen, N. Flament

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Douwe v.Hinsbergen

- XL184 EGU2012-2625
O.-H. Kwon, H.-B. Cheong, and Y.-W. Lee
GIS-based Reconstruction of Pangaea with Recent Progresses in Plate Tectonics
- XL185 EGU2012-5879
D. Delvaux, M.L. Kipata, and A.S. Macheyeki
Late Pan-African and early Mesozoic brittle compressions in East and Central Africa: lithospheric deformation within the Congo-Tanzania Cratonic area
- XL186 EGU2012-9277
C. Sue, M. Branellec, A. Mazuel, M. Ghiglione, and M. Maia
Scotia Plate Dynamics: insights from seismotectonics and numerical modeling
- XL187 EGU2012-10247
C. D. J. Lin, J. Wu, and J. Suppe
Seismic tomographic constraints on the India-Asia collision using the 3D geometries of mapped and unfolded subducted slabs
- XL188 EGU2012-13857
M. Palzer, **J. Österle**, and U. Klötzli
Lithological and structural investigations of the Finero back thrust
- XL189 EGU2012-7590
V. Acocella, A. Gudmundsson, and G. Norini
Magma-induced oblique spreading in the rift zones of Iceland and Ethiopia
- XL190 EGU2012-10019
J. Wu, J. Suppe, and R.V.S. Kanda
Constraints on the extrusion of SE Asia from subducted slabs of the Indian, Australian, Philippine Sea and Molucca Sea plates
- XL191 EGU2012-6903
G. Shephard, C. Heine, and R.D. Müller
: Integrating lithosphere deformation into plate kinematic models for the Arctic
- XL192 EGU2012-10256
F. Wobbe, K. Gohl, A. Chambord, and R. Sutherland
Morphology and kinematics of the rifted margin of West Antarctica in relation to separation from Zealandia and Bellingshausen plate motion

GD3.5/SM2.7/TS10.8 – The Circum-Arctic region: Interplays between plate motions, mantle dynamics and the evolution of basins, margins and microcontinents (co-organized) – Orals

Convener: C. Gaina | Co-Conveners: R. D. Müller, J. Knies, K. Sigloch

Room: 30

Chairperson: Carmen Gaina and Jochen Knies

- 08:30–08:45 EGU2012-4752
V.A. Vernikovskiy, D.V. Metelkin, A.E. Vernikovskaya, N.Yu. Matushkin, L.I. Lobkovsky, and E.V. Shipilov
The Neoproterozoic-Paleozoic Arctic Margins: early stages of geodynamic evolution and plate reconstructions
- 08:45–09:00 EGU2012-5390
M. Tuchkova
Triassic and Jurassic-Cretaceous deposits in the Western Chukotka: geodynamic implications, provenance studies and deformation
- 09:00–09:15 EGU2012-7707
V. Verzhbitsky, N. Kosenkova, R. Murzin, V. Vasilyev, S. Malysheva, D. Komissarov, V. Ananyev, Yu. Roslov, and A. Khudoley
Tectonic structure, seismic stratigraphy and hydrocarbon potential of the North Kara Basin (Russian Arctic)
- 09:15–09:30 EGU2012-13474
S. Drachev, V. Pease, and R. Stephenson
The Arctic lithosphere: an overview
- 09:30–09:45 EGU2012-9608
K. Piepjohn, W. von Gosen, and F. Tessensohn
The structure of Ellesmere Island - a 400 km long transect across the northern margin of North America
- 09:45–10:00 EGU2012-6281
E.L. Miller, T. Dumitru, K. Brumley, E. Gottlieb, K. Meisling, and V. Akinin
Propagating Atlantic rifts and Pacific slabs battle it out in the Arctic: A summary of extensional provinces in the Alaskan-Russian Arctic

COFFEE BREAK

Chairperson: Dietmar Müller and Karin Sigloch

- 10:30–10:45 EGU2012-1649
T. Dahl-Jensen, T.B Larsen, and P Voss
 Sedimentary thickness from Receiver Function analysis - a simple approach. Case study from North Greenland.
- 10:45–11:00 EGU2012-1447
T. Hermann and W. Jokat
 Crustal structure of the Boreas Basin formed at ultraslow spreading Knipovich Ridge - Northern North Atlantic
- 11:00–11:15 EGU2012-12868
A. Døssing, H.R. Jackson, J. Matzka, I. Einarsson, A.V. Olsen, J.M. Brozena, and T.M. Rasmussen
 New aerogeophysical results from the Lomonosov Ridge (Greenland side) and adjoining Amerasia and Eurasia Basins
- 11:15–11:30 EGU2012-3145
I. Koulakov, N.L. Dobretsov, A. Jakovlev, and N. Bushenkova
 Regional tomography reveals mantle traces of tectonic processes in the Circum-Arctic region
- 11:30–11:45 EGU2012-8302
E. Halvorsen, R. Løvlie, A. Andresen, S. Polteau, H. Walderhaug, and J. Faleide
 Complete Cenozoic remagnetization of Cretaceous sills and lavas from the High Arctic Large Igneous Province (HALIP) on Svalbard imposed during faulting and burial/ uplift.
- 11:45–12:00 EGU2012-7006
O. Petrov, N. Sobolev, A. Morozov, G. Grikurov, S. Shokalsky, S. Kashubin, and E. Petrov
 Modern Geodynamic Model of the Arctic Ocean

TS4.3/GD3.9/GM3.1 – Orogen-scale coupling between tectonics, erosion and climate (co-organized) – Orals

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

Room: 29

Chairperson: F. Mouthereau and P. van der Beek

- 13:30–13:45 EGU2012-1345
F. Schlunegger and K.P. Norton
 Surface control on contrasts in deformation between eastern and western margins of the Central Andes
- 13:45–14:00 EGU2012-1518
J.-D. Champagnac, P. Molnar, C. Sue, and F. Herman
 Tectonics, Climate, and Mountain Topography
- 14:00–14:15 EGU2012-1893
M. Trauerstein, K. P. Norton, F. Schlunegger, and F. Preusser
 Climatic imprint on landscape morphology in the western escarpment of the Andes
- 14:15–14:30 EGU2012-3242
J.A. McDermott, K.X Whipple, K.V. Hodges, and M.C. van Soest
 Plio-Pleistocene N-S extension at the southern margin of the Tibetan Plateau as evidenced from fluvial incision patterns and thermochronology
- 14:30–14:45 EGU2012-7957
L. M. Mesalles, F. Mouthereau, C.P. Chang, M. Bernet, and X. Sengelen
 New thermochronological constraints on the exhumational history at the Taiwan subduction-collision transition.
- 14:45–15:00 EGU2012-10441
L. Goren, S. Castelltort, S. D. Willett, J.-D. Champagnac, F. Herman, and J. Braun
 Passive advection and dynamic reorganization of mountainous bedrock rivers: A landscape evolution modeling approach
- Chairperson: J.-D. Champagnac and D. Garcia-Castellanos
- 15:30–15:45 EGU2012-6301
G. Roe, R. Headley, and J. Tomkin
 Glacier long profiles in regions of active uplift, and their role in orogen dynamics.
- 15:45–16:00 EGU2012-2627
D. Scherler, B. Bookhagen, and M.R. Strecker
 Hillslope-glacier coupling: from debris cover to landscape evolution
- 16:00–16:15 EGU2012-4433
P. Steer, R. S. Huisman, P. G. Valla, S. Gac, and F. Herman
 Recent glacial erosion of fjords and low-relief surfaces in western Scandinavia

- 16:15–16:30 EGU2012-7305
P. Sternai, F. Herman, J.-D. Champagnac, M. Fox, B. Salcher, and S. D. Willett
 Pre-glacial topography of the European Alps
- 16:30–16:45 EGU2012-4341
V.K. Pedersen and D.L. Egholm
 Interactions between glacial erosion, the extent of glaciation, and topography investigated using numerical modeling
- 16:45–17:00 EGU2012-9478
M. Dühnforth, R.S. Anderson, and W. Colgan
 The influence of glacier ice temperature on the long-term evolution of longitudinal valley profiles: Can a landscape escape from the "glacial buzzsaw"?

TS10.2/GD3.10/GMPV6.19/SM2.10 – Geodynamics of the westernmost Mediterranean and NW Africa (co-organized) –

Posters

Convener: C. J. Garrido | Co-Conveners: G. Booth-Rea, J. Galindo-Zaldivar, A. Chalouan, R. Carbonell, A. Levander, C. R. Ranero, V. Sallares, R. de Franco, N. Zitellini

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: G.V. Sallares, Galindo-Zaldivar, A. Chalouan, A. Levander, R. de Franco, N. Zitellini

- A455 EGU2012-4793
F. Mancilla, D. Stich, J. Morales, J. Julià, J. Diaz, A. Pazos, D. Córdoba, J. A. Pulgar, P. Ibarra, M. Harnafi, and F. Gonzalez-Lodeiro
 Crustal Thickness in the Ibero-Maghrebian region I: Northern Morocco
- A456 EGU2012-11349
 F. Mancilla, D. Stich, **J. Morales**, R. Martin, J. Diaz, A. Pazos, D. Córdoba, J. A. Pulgar, P. Ibarra, M. Harnafi, and F. Gonzalez-Lodeiro
 Crustal Thickness in the Ibero-Maghrebian region II: Southern Iberia Peninsula
- A457 EGU2012-8281
I. Jiménez-Munt, M Fernandez, and S. Zlotnik
 Combined underthrusting and mantle dripping - lateral dragging controlling the lithosphere structure of the NW-Moroccan margin and the Atlas Mountains
- A458 EGU2012-5607
 A. Siniscalchi, **G. Romano**, A. Jones, J. Ledo, J. Campanyà, and D. Kiyan
 Electrical signature of the Marrakech High Atlas: new insights from the TopoMed broad band magnetotelluric experiment.
- A459 EGU2012-7105
D. Bosch, R. Maury, M. El Azzouzi, F. Parat, and H. Bellon
 Neogene-Quaternary Middle Atlas basaltic province (Morocco): Isotope constraints
- A460 EGU2012-7294
A. M. Alvarez-Valero, O. Jagoutz, and C. Manthei
 Rapid crustal exhumation and mantle-melt extraction: Where has the crust gone?
- A461 EGU2012-3893
J.M González-Jiménez, C Marchesi, W.L. Griffin, R Gutiérrez-Narbona, J.-P Lorand, S.Y O'Reilly, C.J. Garrido, F Gervilla, and N.J. Pearson
 A 1-Ga history of melting in the western Mediterranean Subcontinental Lithospheric Mantle recorded in chromitites from the Ojén Ultramafic Massif (SW Spain)
- A462 EGU2012-12929
Z. Konc, C. Marchesi, C. J. Garrido, J. M. González-Jiménez, W. L. Griffin, O. Alard, K. Hidas, S. Y. O'Reilly, and N. Pearson
 Provenance and evolution of the western Mediterranean lithospheric mantle beneath the eastern Betics (S. Spain): insights from in-situ analyses of Os isotopes and platinum-group elements in sulphides from the Tallante mantle xenoliths
- A463 EGU2012-9056
Z. Konc, C. J. Garrido, A. Tommasi, J. A. Padron Navarta, K. Hidas, D. Bosch, C. Marchesi, and Cs. Szabó
 Age, origin and significance of SKS splitting in SE Iberia: insights from mantle xenoliths from Neogene alkaline basalts
- A464 EGU2012-2545
 L. Alpert, **T.W. Becker**, M. Miller, and A. Allam
 Mantle structure beneath the Alboran Sea from shear wave splitting
- A465 EGU2012-7719
A. Martí, O. Rosell, P. Queralt, J. Ledo, A. Marcuello, and E. Roca
 Are the geoelectric structures of the Betics lithosphere anisotropic? Insights from a complete dimensionality analysis of magnetotelluric data

- A466 EGU2012-2004
L. Bonatto, M. Schimmel, J. Gallart, and J. Morales
Using Cross-Correlation to Detect Upper Mantle Phases beneath Spain and Morocco
- A467 EGU2012-8387
A. Carballo, M. Fernández, and I. Jiménez-Munt
A lithospheric cross-section in the Western Mediterranean: from the Aquitanian/Ebro basins to north Algeria
- A468 EGU2012-5847
J. Gallart, R. Carbonell, J. Diaz, A. Gil, M. Ruiz, M. Harnafi, L. Elmoudnib, D. ElOuai, A. Levander, I. Palomeras, D. Cordoba, and F.J. Alonso-Chaves
Crustal structure beneath the Rif Cordillera, North Morocco, from active seismic profiling
- A469 EGU2012-6474
A. Villaseñor, M. Maceira, J. Gallart, and TOPO-IBERIA Working Group
Crustal structure of the Iberian Peninsula and Morocco obtained by joint inversion of seismic and gravity data
- A470 EGU2012-9114
L. Cowie and N. Kusznir
Crustal Thickness and the Distribution of Oceanic Lithosphere in the Western Mediterranean from Gravity Inversion
- A471 EGU2012-12180
F. Mancilla, **B. Heit**, D. Stich, X. Yuan, J. Morales, and R. Kind
HiRe: a High Resolution seismological project to study the crustal structure variations underneath Sierra Nevada Mountains and the surrounding areas, Betic range, Southern Spain.
- A472 EGU2012-10323
M. Prada, V. Sallares, C.R. Ranero, M. Guzman, N. Zitellini, I. Grevemeyer, R. de Franco, and MEDOC Cruise Party
Deep structure of the Tyrrhenian basin from 2-D joint refraction and reflection travel-time tomography of wide angle seismic data
- A473 EGU2012-12990
C. R. Ranero, E. Gràcia, and T h e Geomargen-I cruise party
Tectonic Structure of the Imbricated Wedge of the Gulf of Cadiz (Gibraltar Arc) revealed from new seismic images of the Geomargen-I cruise.
- A474 EGU2012-13023
C. R. Ranero, E. Gràcia, and T h e TOPOMED-GASSIS cruise party
Imaging the Gibraltar Arc system across the Alboran Sea and South Balearic Basin (South Iberia): Results of the TOPOMED-GASSIS cruise
- A475 EGU2012-8795
I. Grevemeyer, **C.R. Ranero**, D. Pesquer, and J. Gallart
Slab rollback and continental break-up in a convergent setting - seismic structure of passive continental margins in the Western Mediterranean Sea
- A476 EGU2012-11994
F. Giaconia, M. Guzman Vendrell, G. Booth-Rea, C.R. Ranero, E. Gràcia, C. Lo Iacono and the TOPOMED survey party Team
Structure of the Palomares margin from preliminary results of the TOPOMED-GASSIS seismic survey (Algero-Balearic basin, Western Mediterranean)
- A477 EGU2012-6159
G. Booth-Rea, F. Giaconia, J.M. Martínez-Martínez, J.M. Azañón, and C. R. Ranero
Late Miocene east- to southeast-directed extension in the Betics and its role in the development of the Algero-Balearic basin (Southeastern Betics).
- A478 EGU2012-6083
K. Hidas, C.J. Garrido, G. Booth-Rea, J.M. Martínez-Martínez, J.A. Padrón-Navarta, Z. Konc, F. Giaconia, E. Frets, and C. Marchesi
Backarc basin inversion leading to folding, shearing and intracrustal emplacement of the subcontinental lithospheric mantle: a structural study from the Ronda Peridotite Massif (Betic Cordillera, Southern Spain)
- A479 EGU2012-7792
A. Jabaloy Sánchez, G. Booth-Rea, A. Azdimousa, L. Asebriy, M. Vázquez-Vílchez, J. M. Martínez-Martínez, and J. Gabites
40Ar/39Ar constraints on the activity of the Temsamane extensional detachment (eastern Rif, Morocco)
- A480 EGU2012-9783
E. d'Acremont, C. Gorini, M. El Abbassi, M. Farran, S. Leroy, B. Mercier de Lépinay, S. Migeon, **J. Poort**, A. Ammar, J. Smit, D. Do Couto, G. Ercilla, and B. Alonso
Past and present active sedimentation and tectonics in the South Alboran Sea
- A481 EGU2012-12746
D. Do Couto, C. Gorini, L. Jolivet, J. Letouzey, J. Smit, E. d'Acremont, J.L. Auxietre, L. Le Pourhiet, F. Estrada, M. Elabassi, A. Ammar, H. Jabour, and B. Vendeville
Evolution of a Miocene sag basin in the Alboran Sea

- A482 EGU2012-12306
F. J. González, L. Somoza, T. Medialdea, R. León, T. Torres, J. E. Ortiz, and J. A. Martín-Rubí
 Discovery of ferromanganese hydrocarbon-related nodules associated with the Meknes mud volcano (Western Moroccan margin)
- A483 EGU2012-7180
C. Caricchi, L. Aldega, F. Cifelli, S. Corrado, M. Mattei, and F. Speranza
 First results from paleomagnetic and paleothermal analyses on internal Tertiary deposits (Tuscan Unit) of the Northern Apennines Chain

GD5.1/GMPV6.2/SM2.2/TS6.5 – Subduction dynamics from surface to deep mantle (co-organized) – Orals

Convener: S. Buiter | Co-Conveners: F. Funiciello, J. van Hunen

Room: 30

Chairperson: Susanne Buiter and Jeroen van Hunen

- 13:30–13:45 EGU2012-5291
S. Goes, F.A. Capitanio, G. Morra, and L. Fourel
 Subduction dynamics: effects of downgoing-plate density and strength
- 13:45–14:00 EGU2012-11837
M. D. Long, K. Paczkowski, L. Montesi, C. Lynner, and B. Foley
 Mantle flow beneath subducting slabs from seismological observations and geodynamical models
- 14:00–14:15 EGU2012-2913
A. Paul, G. Salaün, H. Karabulut, H.A. Pedersen, and A. Kömec Mutlu
 Traces of subduction and their relation to seismic anisotropy beneath Greece and Turkey: new evidences and questions from seismic tomography
- 14:15–14:30 EGU2012-11873
W. Stratford, C. Peirce, T. Knight, A. Watts, I. Grevemeyer, M. Paulatto, D. Bassett, J. Hunter, and L. Kalnins
 Louisville Ridge subduction at the Tonga-Kermadec trench: preliminary velocity models from wide-angle seismics
- 14:30–14:45 EGU2012-3385
R. Klemd, T. John, E.E. Scherer, S. Rondenay, and J. Gao
 Changes in dip of subducted slabs at great depth: Petrological and geochronological evidence from oceanic eclogite-facies rocks in the Chinese Tianshan
- 14:45–15:00 EGU2012-7615
R. Khabbaz Ghazian and S. Buiter
 A numerical investigation of the sensitivity of continental collision styles
- Chairperson: Francesca Funiciello and Susanne Buiter
- 15:30–15:45 EGU2012-14232
A. Rietbrock
 Structure, seismogenic properties, and aftershock distribution in the rupture area of the 2010 Maule, Chile, earthquake
- 15:45–16:00 EGU2012-2308
F. Corbi, F. Funiciello, M. Moroni, Y. van Dinther, and C. Faccenna
 Scaled models of the subduction interplate seismic cycle
- 16:00–16:15 EGU2012-9766
M. Thielmann and B.J.P. Kaus
 Shear heating induced lithospheric localization: Does it result in subduction?
- 16:15–16:30 EGU2012-3875
TW Becker, LA Alpert, IW Bailey, and MS Miller
 Slab deformation and seismicity
- 16:30–16:45 EGU2012-11690
K. P. Furlong and R. Govers
 Partitioning subduction deformation throughout the earthquake cycle: Why Pre-earthquake and co-earthquake deformation patterns don't agree.
- 16:45–17:00 EGU2012-5511
B. Guillaume, C. Gautheron, T. Simon-Labric, J. Martinod, M. Roddaz, and E. Douville
 Relief evolution above Patagonian slab window inferred from low-temperature thermochronology: subduction or climate?

GMPV1.2/GD5.3/TS6.6 – Subduction processes: geochemical inputs and outputs (co-sponsored by the European Association of Geochemistry (EAG)) (including AGU Kuno lecture) (co-organized) – Posters

Convener: C. Chauvel | Co-Conveners: O. Jagoutz, K. Kelly

Hall Z | Display Time 08:00–19:30

Author in Attendance: 13:30–15:00

Chairperson: Chauvel, Kelley

- Z10 EGU2012-6097
B. Reynard
Geophysical imaging of water from the slab to the mantle wedge
- Z11 EGU2012-1155
J. Berger and J.-P. Burg
Physical and chemical consequences of crustal melting in fossil mature intra-oceanic arcs
- Z12 EGU2012-6638
W.-S. Lyu, W. Lo, and S.-R. Song
Geochemical Characteristics of Metavolcanics in the Area from Slate Formations of Southern Central Range, Taiwan
- Z13 EGU2012-4807
A. De La Rupelle, J.C. Thouret, H.E. Cubukcu, B. Jicha, E. Bréard, M.-C. Gerbe, J.-L. Le Pennec, H. Diot, and P. Boivin
New stratigraphic, chronologic, and magnetic fabric constraints for Neogene and Quaternary ignimbrites in the Central Andes (South Peru)
- Z14 EGU2012-11365
H. E. Çubukçu, M.-C. Gerbe, J.-C. Thouret, A. de la Rupelle, and P. Boivin
Petrological characteristics of Plio-Quaternary 'Sencca' Ignimbrites, Western Cordillera of the Central Andes in Peru
- Z15 EGU2012-3545
B. Debret, M. Andreani, M. Godard, C. Nicollet, and S. Schwartz
Trace element behaviour during serpentinisation/deserpentinisation of an eclogitised oceanic lithosphere: a LA-ICPMS study of the Lanzo ultramafic massif (Western Alps)
- Z16 EGU2012-12273
M.-F. Chu, M. Scambelluri, W. L. Griffin, S. Y. O'Reilly, and N. J. Pearson
Li isotopic constraints from the Erro-Tobbio serpentinites on Alpine subduction processes
- Z17 EGU2012-13619
A. Fedotova, E. Khain, A. Razumovskiy, M. Anosova, and A. Orlova
An exposed slab window margin: the eastern part of the Neoproterozoic Baikal-Muya belt, Russia
- Z18 EGU2012-8046
T. Donskaya, D. Gladkochub, A. Mazukabzov, and A. Ivanov
Evidences of the Late Paleozoic - Mesozoic subduction beneath the southern margin of the Siberian continent
- Z19 EGU2012-12949
H. E. Çubukçu, I. Ulusoy, E. Aydar, E. Sen, O. Ersoy, and A. Gourgaud
Peralkaline volcanism in a continental collisional setting: Mount Nemrut volcano, Eastern Anatolia
- Z20 EGU2012-1213
H. Çoban, N. Hoang, M.F.J. Flower, O. Parlak, ?. Caran, L. Dallai, Ö. Çakır, and M. Erduran
Metasomatic overprint of CO₂-rich fluids/melts from altered oceanic crust and subducted Triassic plume-influenced volcanics via shallow oceanic subduction of Cyprus arc, and remobilization of EM-II type mantle metasomes beneath Isparta Angle, SW Turkey
- Z21 EGU2012-6130
S. Corman and **A. Temel**
Petrological and geochemical characteristics of Yenice volcanics, South of Ankara, Turkey
- Z22 EGU2012-7341
G. Atabek and S. Altunkaynak
Geology and Petrogenesis of Bigadic-Sindirgi Volcanites, Western Turkey
- Z23 EGU2012-7894
Kh. Meliksetian, I. Neill, **M.B. Allen**, G. Navarsardyan, and S. Karapetyan
Pliocene-Quaternary syn-collision volcanism of the Javakheti Ridge, NW Armenia: impact on models of magma generation in the Arabia-Eurasia collision zone
- Z24 EGU2012-190
M. Kheirkhah, M.B. Allen, I. Neill, M.H. Emami, and C. McLeod
Mantle amphibole control on arc and within-plate chemical signatures: Quaternary lavas from Kurdistan Province, Iran

TS10.4/GD5.7/SM2.9 – Structure and evolution of the greater Alpine area (co-organized) – Orals

Convener: G. Hetényi | Co-Conveners: A. Paul, S. Schmid

Room: 20

Chairperson: Anne Paul, Stefan Schmid

- 08:30–08:45 EGU2012-6391
M. Wagner, E. Kissling, and **S. Husen**
A new crustal model of the western Alpine region derived by combining controlled-source seismology and local earthquake tomography data
- 08:45–09:00 EGU2012-8432
E. Kissling, R. Bousquet, M. Ford, and S. Schmid
Formation of the arc of the Western Alps and Alps-Appennines transition in the light of new geophysical data on the lithospheric architecture around the Ligurian knot
- 09:00–09:15 EGU2012-5455
S. Favaro, M. R. Handy, A. Scharf, R. Schuster, and G. Pestal
Exhumation structures in the Tauern Window and their relation to present-day crust-mantle structure in the Eastern Alps
- 09:15–09:30 EGU2012-7657
P. Hrubcova, P. Sroda, and Celebration 2000 and Sudetes 2003 Working Groups
Contact of the Western Carpathians with the European Platform in the light of seismic refraction data
- 09:30–09:45 EGU2012-9176
M.R. Handy, K. Ustaszewski, E. Kissling, W. Spakman, and C.L. Rosenberg
Kinematic model for decoupling orogenic crust from upper mantle during a switch in subduction polarity at the junction of the Alps, Carpathians and Dinarides
- 09:45–10:00 EGU2012-10178
F. Horváth, O. Sztanó, A. Uhrin, L. Fodor, A. Balázs, M. Kóbor, and G. Wórum
Towards a dynamic model for the formation of the Pannonian basin

TS10.4/GD5.7/SM2.9 – Structure and evolution of the greater Alpine area (co-organized) – Posters

Convener: G. Hetényi | Co-Conveners: A. Paul, S. Schmid

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: György Hetényi

- A484 EGU2012-2786
U. Blaha, H. v. Rochow, M. Freimoser, and U. Teipel
Reconstruction of the Tectonic Evolution of the Helvetic Zone between Lake Chiemsee and Saalach River, East Upper Bavaria, Germany
- A485 EGU2012-7378
S. Cao, F. Neubauer, J. Liu, and J. Genser
Microfabrics and textures of the Rechnitz window, Eastern Alps
- A486 EGU2012-7443
M. Schulz, H. Pomella, M. Zerlauth, H. Ortner, and B. Fügenschuh
The Helvetic nappes in the boundary area between Eastern and Western Alps
- A487 EGU2012-7579
D. Egli and N. Mancktelow
Neogene Tectonic Evolution of the Mont Blanc Area
- A488 EGU2012-8435
S. P. Jourdan, M.B. Bernet, T.D. Dumont, **S.G. Guillot**, S.S. Schwartz, and P.T. Tricart
Oligocene - early Miocene evolution of the Western Alps drainage divide: constraints from multidisciplinary provenance analysis
- A489 EGU2012-8520
J. Pleuger, H. Zwingmann, N. Mancktelow, and M. Manser
K-Ar age data of clay fault gouges from some major Neoalpine faults
- A490 EGU2012-10371
S. Favaro, R. Schuster, M.R. Handy, A. Scharf, and G. Pestal
The Mallnitz synform and its relation to the Mölltal fault (Tauern Window, Eastern Alps, Austria)
- A491 EGU2012-11096
T. Dumont, V. Franzi, and S. J. Matthews
Gravity sliding in basinal setting, a surficial record of tectonic and geodynamic evolution; examples from the southern W. Alps and their foreland
- A492 EGU2012-4317
S. Kilian, M. Bischof, C. Garber, A. Kositz, J. Mackowitz, P. Sommer, H. Ortner, and B. Fügenschuh
Structural synthesis of the western Northern Calcareous Alps
- A493 EGU2012-5360
N. Vouillamoz, **C. Sue**, J.D. Champagnac, and P. Calcagno
3D cartography of the Alpine Arc
- A494 EGU2012-12402
S. Lloyd and G. Bokelmann
Ambient Noise Classification in the Vienna Basin

- A495 EGU2012-13391
C. Baranaba, A. Saraò, and M. Plasencia Linares
Seismicity of North East Italy and data quality of the broadband network managed by OGS
- A496 EGU2012-12383
Y. Ren, B. Grecu, G. W. Stuart, G. A. Houseman, C. Ionescu, E. Hegedus, S. Radovanovic, and South Carpathian Project Working Group
Ambient noise tomography in the Carpathian-Pannonian region
- A497 EGU2012-10058
G. Hetényi and the AlpArray Working Group
AlpArray - an initiative to advance understanding of Alpine geodynamics
- A498 EGU2012-9077
J. Plomerova, V. Babuska, L. Vecsey, H. Munzarova, and H. Karousova
Regional models of the upper mantle structure in the greater Alpine area
- A499 EGU2012-7888
E. Márton, V. ?osovi?, and D. Zampieri
The Northern segment of the External Dinarides (Croatia) in relation to stable Adria: paleomagnetic constraints
- A500 EGU2012-8527
J. Stipcevic, Lj. Vucic, **M. Herak**, and D. Herak
Structure of the crust and upper mantle in the Southern External Dinarides as derived from receiver function analysis
- A501 EGU2012-9965
M. Trajanova
Neogene evolution of the Slovenj Gradec Basin, Northern Slovenia (preliminary results)
- A502 EGU2012-8478
E. Brueckl, J. Brueckl, G.R. Keller, and B. Dando
Coherent features of the Alpine mantle slabs imaged by recent seismic tomography studies
- A503 EGU2012-4413
G. Giacomuzzi, M. Civalleri, P. De Gori, and C. Chiarabba
Vs and Vp/Vs models of the upper mantle beneath Italy: Insight into the geodynamics of central Mediterranean

GD6.1/GMPV6.13/SM4.5 – Whole mantle and transition zone structure, dynamics and evolution: multidisciplinary perspectives (co-organized) – Posters

Convener: P. Tackley | Co-Conveners: C. Thomas, J. H. Davies

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XL193 EGU2012-9256
C. Thomas
Lower mantle scattering observations at temporary arrays
- XL194 EGU2012-12020
P. J. Tackley
The Death of Slabs and Segregation of Basalt at the Core Mantle Boundary: Influence of Crustal Thickness, Viscosity and Thermal Conductivity
- XL195 EGU2012-11466
U. Hansen and S. Dude
Self organized layering in the Earth's mantle, phase- and compositional boundary layers
- XL196 EGU2012-6310
J. Dannberg and S.V. Sobolev
Dynamics of thermo-chemical mantle plumes and their influence on surface topography
- XL197 EGU2012-7776
N. Tosi, D. Yuen, R. Wentzcovich, and N. deKoker
Mantle Dynamics Studied with Parameterized Prescription From Mineral Physics Database
- XL198 EGU2012-5664
A. Biggin, B. Steinberger, J. Aubert, N. Suttie, R. Holme, T. Torsvik, D. van der Meer, and D. van Hinsbergen
Long term geomagnetic variations and whole-mantle convection processes
- XL199 EGU2012-3182
J. Julià and A.A. Nyblade
Probing the upper mantle transition zone under Africa with P520s conversions: Implications for temperature and composition.
- XL200 EGU2012-7903
L. Vinnik, G. Silveira, S. Kiselev, V. Farra, M. Weber, and E. Stutzman
Architecture of the Cape Verde hotspot: implications for properties of the transition zone

- XL201 EGU2012-10045
B. Knapmeyer-Endrun, F. Krüger, and PASSEQ Working Group
 Changes in the mantle transition zone from central Europe to the East European Craton as seen by receiver functions
- XL202 EGU2012-4606
M. Dec, M. Malinowski, B. Nita, and E. Perchuc
 Seismic imaging of the upper mantle beneath the border of the North American Craton based on USArray data
- XL203 EGU2012-7740
F. Cramer, P.J. Tackley, I. Meilick, T.V. Gerya, and B.J.P. Kaus
 Slab-mantle interactions in simulations of self-consistent mantle convection with single-sided subduction
- XL204 EGU2012-6051
T. Rolf, N. Coltice, and P. J. Tackley
 Linking continental drift, plate tectonics and the thermal state of the Earth's mantle
- XL205 EGU2012-2170
M.F. Osmaston
 Did clockwise rotation of Antarctica cause the break-up of Gondwanaland? An investigation in the 'deep-keeled cratons' frame for global dynamics

SM1.1 – Open Session on Seismology (including Beno Gutenberg Medal Lecture) (co-listed) – Orals

Convener: C.M. Krawczyk | Co-Conveners: M. Cocco

Room: 27

Chairperson: CharLotte Krawczyk and Massimo Cocco

- 13:30–13:45 EGU2012-7050
T. Fischer, J. Horálek, F. Bouchaala, A. Boušková, H. ?ermáková, and J. Michálek
 Earthquake swarm 2011 in West Bohemia - new insights to the old problems
- 13:45–14:00 EGU2012-7142
I. tiberi, g. costa, and p. suhadolc
 Ground shaking scenarios for historical earthquakes in the southeastern Alps
- 14:00–14:15 EGU2012-8761
M. Yousof, H. Thybo, A. Levander, and I. Artemieva
 Why is the Kaapvaal different from other cratons?
- 14:15–14:30 EGU2012-4450
Nasim Karamzadeh, Gholam D. Javan, and Peter H. Voss
 Automatic earthquake detection and P- and S- phase picking for local seismic networks
- 14:30–14:45 EGU2012-6752
P. Arroucau, J. Davies, T. Bodin, M. Sambridge, and G. Vlahovic
 A Bayesian transdimensional algorithm for earthquake location and 1D velocity model determination
- 14:45–15:00 EGU2012-3219
A. Mignan
 The Earthquake Frequency-Magnitude Distribution Functional Shape

Chairperson: CharLotte Krawczyk and Massimo Cocco

- 15:30–15:45 EGU2012-1883
M. Obrebski, F. Arduin, M. Schimmel, and E. Stutzmann
 Location, size and shape of ocean sources for Rayleigh and compressional (P) waves contained in microseisms.
- 15:45–16:00 EGU2012-11535
F. Arduin, T. H. C. Herbers, L. Marié, J. Y. Royer, M. Obrebski, E. Stutzmann, and M. Schimmel
 Low frequency noise generated by ocean waves: a consistent theory from surface gravity waves to seismic Rayleigh and waves.
- 16:00–17:00 EGU2012-14460
M. Campillo
 To what extent can seismology image the structures and the continuous deformation of the Earth? (Beno Gutenberg Medal Lecture)

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

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

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Fabrizio Storti and Susanne Buiter

- A413 EGU2012-2078
I.D. Bastow, R.S.M. De Plaen, and R.J. Gallacher
The Nature of the Cameroon Volcanic Line: Evidence from Seismic Anisotropy and Receiver Functions
- A414 EGU2012-5053
H. Otsuka, J. Ashi, S. Morita, and M. Tanahashi
Attempt to estimate uplift process of outer ridge taking account of distribution and geometry of Foldback Reflectors
- A415 EGU2012-9801
C.-Y. Hsieh, K.-M. Yang, and B.-I. Chuang
Trishear model and kinematics of a fault-related structure in the frontal part of Fault-and-thrust belt, NW Taiwan
- A416 EGU2012-2555
Y.T. Lo and H.Y. Yen
Gravity data inversion for 3D topography of the Moho discontinuity by separation of sources in Taiwan region
- A417 EGU2012-8177
K.-M. Yang, J.-C. Wu, E.-W. Cheng, Y.-R. Chen, W.-C. Huang, C.-C. Tsai, J.-B. Wang, and H.-H. Ting
Development of Tectonostratigraphy in Distal Part of Foreland Basin in Southwestern Taiwan
- A418 EGU2012-492
J. Ukass, T. Saks, and K. Popovs
Thickness Reconstruction of Layers by 3D Geometrical Model to Characterize Caledonian Tectonic Complex and Data in Latvia
- A419 EGU2012-4846
H. Kranis, E. Skourtsos, L. Gouliotis, and S. Lozios
Structural Setting and Upper Quaternary landscape evolution at Delphi, Central Greece
- A420 EGU2012-5032
J. Scheibz, H. Haeusler, F. Kohlbeck, W. Chwatal, and C. Koenig
High resolution geophysics reveal a new Neogene basin southeast of the Leitha Mountains - The Winden Syncline (Burgenland, Austria)
- A421 EGU2012-5201
H. Häusler
Contribution to the discussion of folded Pannonian strata in the Southern Vienna Basin
- A422 EGU2012-2623
J. E. Reber, O. Galland, M. Dabrowski, D. W. Schmid, and P. R. Cobbold
On the usefulness of sheath folds as kinematic indicators
- A423 EGU2012-5359
L. Rodriguez, J. Cuevas, and J. M. Tubía
Paleozoic-involving thrust array in the central Sierras Interiores (South Pyrenean Zone, Central Pyrenees): regional implications
- A424 EGU2012-5422
L. Rodriguez, J. Cuevas, and J. M. Tubía
Structure of the Anayet Permian basin (Axial Zone, Central Pyrenees)
- A425 EGU2012-8223
C. García-Lasanta, B. Oliva-Urcia, T. Román-Berdiel, A. Casas-Sainz, I. Gil-Peña, Y. Sánchez-Moya, and A. Sopeña
Tectonically controlled magnetic fabrics in the Iberian Triassic basin
- A426 EGU2012-10979
M.R. Barchi, G. Lena, W. Alvarez, F. Felici, and A. Lupattelli
Mesoscopic S-C fabrics in shallow fault zones: a case history from the Umbria-Marche Apennines (Central Italy)
- A427 EGU2012-11423
F. Bucci, R. Novellino, I. Adurno, E. Gueguen, F. Guzzetti, M. Cardinali, E. Tavarnelli, P. Guglielmi, and G. Prosser
Low Angle Extensional Faults in a Thrusting/Compressive Regime
- A428 EGU2012-7977
L. Gonzalez and **O.A. Pfiffner**
The Central Andes of Peru: Structure and Evolution
- A429 EGU2012-10923
J.M. Tubía, F.D. Hongn, A. Aranguren, and N. Vegas
Inversion tectonics in the pre-andean basement of the Sierra de Cachi (Salta, Argentina)
- A430 EGU2012-4811
O. Bolle, H. Diot, J. Bascou, and B. Charlier
Anisotropy of magnetic susceptibility in the giant Lac Tio hemo-ilmenite ore body (Quebec Province, Canada): source and geological implications

- A431 EGU2012-10272
T. Torvela, J. Moreau, R.W.H. Butler, A. Korja, and P. Heikkinen
 Toward detailed structural analysis of seismic reflection data from crystalline basement: the seismic attribute approach
- A432 EGU2012-3518
G. Berberich, D. Klimetzek, C. Wöhler, and A. Grumpe
 Statistical Correlation between Red Wood Ant Sites and Neotectonic Strike-Slip Faults
- A433 EGU2012-9123
D. Herwartz, T.J. Nagel, S. Sandmann, A. Vitale Brovarone, S. Rexroth, Y. Rojas-Agramonte, N. Froitzheim, A. Kröner, S.G. Skublov, and C. Münker
 Traditional applications and novel approaches in Lu-Hf geochronology
- A434 EGU2012-11615
M. Leitner, S. Tschürtz, G. Kirchengast, H. Kranzelbinder, B. Prügger, R.A. Krause, M. Kalliokoski, and E. Thórhallsdóttir
 Greenland Expeditions by Alfred Wegener - A photographic window to past

TS10.1 – Geodynamic, tectonic and paleoenvironmental evolution of the Eastern Mediterranean: from Dinarides to Turkey (co-listed) – Posters

Convener: L. Le Pourhiet | Co-Conveners: A. Okay, D. J. J. van Hinsbergen, N. Chamot-Rooke, K. Ustaszewski, B. Huet

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A435 EGU2012-8818
B. Rojay, E. Özsay?n, and A. Çiner
 Post-Miocene Tectonics from Black Sea to Mediterreanean Sea along Central Anatolian Plateau
- A436 EGU2012-5650
E. Bozdog, H. Zhu, D. Peter, and J. Tromp
 Tectonic History of Anatolia from Adjoint Tomography
- A437 EGU2012-1256
A.H.F. Robertson, O. Parlak, and T. Ustaömer
 New Mesozoic-Cenozoic palaeotectonic maps used to shed light on Tethyan geological development (Eastern Mediterranean, Taurides and Arabian margin)
- A438 EGU2012-1257
A.H.F. Robertson, Y. Metin, O. Parlak, O. Vergili, K. Tasl?, N ?nan, and H Soykan
 Role of carbonate platforms, continental margin sediments/volcanics and oceanic units in Tethyan assembly: evidence from the Eastern Taurides, Turkey
- A439 EGU2012-1253
 N. Yildirim, **O. Parlak**, and A. Robertson
 Geochemistry and tectonic significance of the Koçali ophiolite and the related Koçali melange, Adiyaman region, SE Turkey
- A440 EGU2012-1251
O. Parlak, F. Karao?lan, M. Thöni, A. Robertson, A. Okay, and F. Koller
 Geochemistry, geochronolgy and tectonic significance of high-temperature meta-ophiolitic rocks: possible relation to Eocene South-Neotethyan arc magmatism (Malatya area, SE Anatolia)
- A441 EGU2012-7440
 A. Plunder, **P. Agard**, C. Chopin, and A.I. Okay
 New petrological insights from the Tav?anlı zone (Izmir-Ankara suture, Western Anatolia)
- A442 EGU2012-2497
E.J. Catlos, T.A. Shin, P. Speciale, G.O. Yildiz, and K. Black
 Linked magmatic events in central Turkey: geochemistry and geochronology of the Beypazari and Sivrihisar granitoids
- A443 EGU2012-2096
D. van Hinsbergen and S.M. Schmid
 Map-view restoration of the Aegean back-arc
- A444 EGU2012-814
K. N. Black, E. J. Catlos, T. Oyman, and M. Demirbilek
 Relationships between subduction and extension in the Aegean region: evidence from granite plutons of the Biga Peninsula, NW Turkey
- A445 EGU2012-2997
F. ?engün, ?.O. Tunç, and E. Yi?itba?
 Geochemical, geochronological characterization and tectonic setting of the metamorphic rocks from the Biga Peninsula, NW Turkey

- A446 EGU2012-7573
S. Cao and F. Neubauer
 The lateral boundary of a metamorphic core complex: the Moutsounas shear zone on Naxos, Cyclades, Greece
- A447 EGU2012-11830
A. H. N. Rice, B. Huet, B. Grasemann, K. Soukis, and C. Tschegg
 SSW-directed low-angled extension on Makronisos, Western Cyclades, Greece
- A448 EGU2012-3051
A. Menant, L. Jolivet, R. Augier, and N. Skarpeis
 The North Cycladic Detachment System and associated mineralization, Mykonos, Greece: insights on the evolution of stress regime in the Aegean domain
- A449 EGU2012-4978
B.I. Kleine, B. Huet, and A.D.L. Skelton
 Fluid-induced Blueschist Preservation on Syros, Cyclades, Southern Greece
- A450 EGU2012-8319
E. Skourtsos, I. Fountoulis, S. Mavroulis, and H. Kranis
 Late Cenozoic extensional faulting in Central-Western Peloponnesus, Greece
- A451 EGU2012-5638
M. Anti?, I. Peytcheva, A. von Quadt, A. Kounov, B. Trivi?, T. Serafimovski, G. Tasev, and I. Gerdjikov
 Protholith age and geochemistry of magmatic rocks from the Serbo-Macedonian massif (south Serbia, southwest Bulgaria and east Macedonia)
- A452 EGU2012-7759
A. Ehrhardt, M. Schnabel, and V. Damm
 The Eratosthenes Seamount - Eastern Mediterranean
- A453 EGU2012-1479
A. Kioka, J. Ashi, S. Muraoka, T. Sato, Y. Nakamura, and H. Tokuyama
 Origin and burial depth of Médée-Hakuho Mud Volcano in the Eastern Mediterranean Sea
- A454 EGU2012-5446
F. Donda, D. Civile, V. Volpi, E. Forlin, and L. De Santis
 New insights on the geological setting of the Northern Adriatic sea

Friday, 27 April

GMPV1.1/GD2.6 – Origin, evolution of Earth's crust and the formation of a habitable planet (co-sponsored by the European Association of Geochemistry (EAG)) (co-organized) – Orals

Convener: M. Boyet | Co-Conveners: B. Dhuime, Jeff Vervoort, J. van Hunen, J. Tarduno, K.O. Konhauser

Room: 31

Chairperson: John Tarduno, Maud Boyet

- 08:30–08:45 EGU2012-11698
S. J. Daines, J. R. Clark, and T. M. Lenton
Oxygenation of the surface ocean, global methanotrophy, and the Great Oxidation
- 08:45–09:00 EGU2012-6351
P. Driscoll and D. Bercovici
Stabilizing planetary evolution through the coupling of magnetic field, surface tectonics, and atmosphere
- 09:00–09:15 EGU2012-3644
P. Philippot, M. van Zuilen, and C. Rollion-Bard
Episodes of massive felsic volcanism between 3.5 and 3.2 Ga deposited sulfate on early Earth
- 09:15–09:30 EGU2012-1766
M. Reitsma, U. Schaltegger, R. Spikings, A. Ulianov, A. Gerdes, and M. Chiaradia
Relating geodynamic setting to periods of crustal growth and reworking as illustrated by the Phanerozoic granitoids of the Eastern Cordillera of South Peru
- 09:30–09:45 EGU2012-4483
S. Claesson, E. Bibikova, L. Shumlyanskyy, and C.J. Hawkesworth
Early Archean crust in the Ukrainian Shield - U-Pb and Hf isotopic constraints
- 09:45–10:00 EGU2012-2073
I.D. Bastow, D.A. Thompson, J-M. Kendall, G. Helffrich, J. Wookey, D. Snyder, D. Eaton, and F. Darbyshire
HuBLE-UK: the Hudson Bay Lithospheric Experiment: Insights into the Formation of the Canadian Shield From Broadband Seismology

COFFEE BREAK

Chairperson: Bruno Dhuime, Jeff Vervoort

- 10:30–11:00 EGU2012-3792
M.J. Van Kranendonk
EAG Eminent Speaker: Two types of Archean continental crust: plume and plate tectonics on early Earth
- 11:00–11:15 EGU2012-663
O. Laurent, H. Martin, R. Doucelance, and J.F. Moya
Diversity of late-Archean high-K granitoids record the evolution of crustal growth processes
- 11:15–11:30 EGU2012-8217
J.E. Hoffmann, C. Münker, T.J. Nagel, T. Næraa, A. Polat, and M.T. Rosing
The tholeiite-TTG connection during Eoarchean crust formation in Isua, southern West Greenland: the role of subduction processes
- 11:30–11:45 EGU2012-10217
T. J. Nagel, J. E. Hoffmann, and C. Münker
Eoarchean TTGs derived from thickened mafic arc crust
- 11:45–12:00 EGU2012-808
H. Rizo, M. Boyet, J. Blichert-Toft, M. Rosing, and J.L. Paquette
Variation in $^{142}\text{Nd}/^{144}\text{Nd}$ of Archean rocks from southwest Greenland : Implications for early Earth mantle dynamics

LUNCH BREAK

Chairperson: Jeroen van Hunen, Jeff Vervoort

- 13:30–13:45 EGU2012-11135
M. Boyet, R. Carlson, L. Borg, J. Connelly, and M. Horan
Early differentiation of the silicate Earth : new constraints from isotopic investigation of rocks from the lunar highlands

- 13:45–14:00 EGU2012-12498
J.D. Vervoort, A.I.S. Kemp, and P.J. Patchett
 Evolution of the depleted mantle and growth of the continental crust: improving on the imperfect detrital zircon record
- 14:00–14:15 EGU2012-3794
M.J. Van Kranendonk and C.L. Kirkland
 The stepwise growth of tectonic plates across Earth's evolving supercontinent cycle
- 14:15–14:30 EGU2012-799
C. Spencer, P. Cawood, C. Hawkesworth, and B. Dhuime
 Not all supercontinents are created equal: Nd and Hf depleted mantle model ages reveal fundamental differences in the assembly of Rodinia and Gondwana
- 14:30–14:45 EGU2012-5395
B. Dhuime, C.J. Hawkesworth, and P.A. Cawood
 Timing, rates and geodynamical conditions of continental crust generation, destruction and reworking
- 14:45–15:00 EGU2012-3062
R.L. Rudnick and X.M. Liu
 Constraints on continental crustal mass loss via chemical weathering using lithium and its isotopes

GD3.1/GM3.7/SM4.4/TS1.6 – Plate kinematics, mantle convection, paleogeography and sea level (co-organized) –

Orals

Convener: R. D. Müller | Co-Conveners: H.-P. Bunge, J. Golonka, M. Seton, S. Brune, L. Quevedo, G. Helffrich, G. Laske, Y. Ricard

Room: 30

Chairperson: n.n.

- 08:30–08:45 EGU2012-9803
J. Braun, R. Moucha, A. M. Forte, A. B. G. Bush, D. B. Rowley, N. Insel, F. Guillocheau, S. Robin, and D. Rouby
 The Topographic evolution of the African continent, constraints from coupling deep mantle, climate and surface processes models
- 08:45–09:00 EGU2012-7986
R. D. Müller, N. Flament, and M. Gurnis
 The scale and time dependence of surface dynamic topography over the last 200 million years in the Atlantic and Indian ocean domains
- 09:00–09:15 EGU2012-1087
J.D. Paul, G.G. Roberts, and N. White
 Temporal and Spatial Evolution of Dynamic Support From River Profiles: A Framework for Madagascar and Africa
- 09:15–09:30 EGU2012-7936
X. Robert, P. Reinert, K.X. Whipple, R. Moucha, and A. Forte
 Dynamic uplift and erosion history of the Colorado Plateau: New insights from a SW-NE thermochronologic transect
- 09:30–09:45 EGU2012-11867
K. Czarnota, M. J. Hoggard, N. White, and J. Winterbourne
 Linking Observations of Dynamic Topography from Oceanic and Continental Realms around Australia
- 09:45–10:00 EGU2012-4578
 E. Artyushkov and **P. Chekhovich**
 Rapid paleodepth changes in epeiric Paleozoic basins as a consequence of crustal uplift and subsidence

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2012-5572
L. Husson
 The dynamics of convergent boundaries over a convecting mantle
- 10:45–11:00 EGU2012-6181
C. Faccenna and T.W. Becker
 Mantle conveyor beneath the Tethyan collisional belt
- 11:00–11:15 EGU2012-4977
C. Gaina, T. H. Torsvik, C. Labails, D. van Hinsbergen, S. Werner, and S. Medvedev
 The African Plate: A history of oceanic crust accretion and subduction since the Jurassic

- 11:15–11:30 EGU2012-12689
S.C. Cande and **D.R. Stegman**
Surface expression of the Reunion Plumehead as witnessed by tectonics in the Indian Ocean
- 11:30–11:45 EGU2012-4084
R. Ramalho
The evolution of ocean island volcanoes in a stationary plate environment and its implications concerning hotspot dynamics
- 11:45–12:00 EGU2012-5745
N. M. Ribe
Inferring Properties of the Hawaiian Plume from the Hawaiian Swell

GD3.3/TS1.5 – Tectonic reconstructions with deforming plates (co-organized) – Orals

Convener: C. Heine | Co-Conveners: D. van Hinsbergen, N. Flament

Room: 30

Chairperson: Christian Heine, Nicolas Flament

- 13:30–13:45 EGU2012-9101
M.R. Handy and K. Ustaszewski
Reconstructing plate motion paths where plate tectonics doesn't strictly apply
- 13:45–14:00 EGU2012-11455
N. McQuarrie and D.J.J. van Hinsbergen
Retrodeforming the Arabia-Eurasia collision zone : Age of collision and magnitude of continental subduction
- 14:00–14:15 EGU2012-7784
J. Suppe, J. Wu, R. V. S. Kanda, R. Lu, and C. D. J. Lin
New constraints of subducted mantle lithosphere on plate-tectonic reconstructions of deformed continental blocks
- 14:15–14:30 EGU2012-5779
J.G Watson, C.T. Glover, A.C. Adriasola Munoz, J.P. Harris, and M. Goodrich
A combined rigid/deformable plate tectonic model for the evolution of the Indian Ocean
- 14:30–14:45 EGU2012-7354
E. Le Breton, P.R. Cobbold, and O. Dauteuil
Palinspastic reconstruction of the opening of the NE Atlantic: differential sea-floor spreading and resulting deformation of the NW European Margin
- 14:45–15:00 EGU2012-6830
S. Williams, **N. Flament**, C. Heine, M. Hosseinpour Vazifeshenas, M. Seton, M. Gurnis, and R. D. Müller
Geodynamic modeling of passive margin systems from tectonic reconstructions with deforming plate boundaries

GD3.5/SM2.7/TS10.8 – The Circum-Arctic region: Interplays between plate motions, mantle dynamics and the evolution of basins, margins and microcontinents (co-organized) – Posters

Convener: C. Gaina | Co-Conveners: R. D. Müller, J. Knies, K. Sigloch

Hall XL | Display Time 08:00–17:00

Author in Attendance: 08:30–10:00

Chairperson: Karin Sigloch

- XL35 EGU2012-6896
G. Shephard, R.D. Müller, and C. Heine
Testing the kinematics and timing of the opening of the Amerasia Basin through a new coupled plate kinematic and mantle convection model
- XL36 EGU2012-1561
K. Sigloch
Circum-Arctic mantle structure from global P-wave tomography - how consistent is it with plate-tectonic reconstructions?
- XL37 EGU2012-7228
S. Shokalsky, A. Morozov, O. Petrov, B. Belyatsky, P. Rekant, S. Shevchenko, and S. Sergeev
Detrital zircons of deep-sea sediments of the Arctic ocean - key to the understanding of High Polar Arctic tectonics
- XL38 EGU2012-11069
C. Tegner, M. Storey, P. M. Holm, S. B. Thorarinsson, X. Zhao, S. Tappe, L. Heaman, and M. F. Knudsen
Magmatism and Eureka deformation in the High Arctic Large Igneous Province: Age constraints from North Greenland

- XL39 EGU2012-7490
S. Suckro, K. Gohl, T. Funck, I. Heyde, A. Ehrhardt, B. Schreckenberger, and V. Damm
The evolution of Davis Strait, a polar gateway - seismic data and tectonic modelling
- XL40 EGU2012-6077
V. Damm, M. Block, K. Berglar, A. Ehrhardt, I. Heyde, M. Schnabel, B. Schreckenberger, **T. Altenbernd**, and S. Suckro
Crustal structure of the West Greenland margin in North Baffin Bay
- XL41 EGU2012-2826
P. Guarnieri
Late Cretaceous-Paleocene strike-slip faults along the East Greenland margin (63°N to 75°N): constraints for the North East Atlantic opening
- XL42 EGU2012-1621
M.F. Osmaston
Recognition of Intermediate Crust (IC), its construction and its distinctive epeirogenic behaviour: an exciting new tool for plate kinematic analysis (PKA) of the Arctic margins and western Siberia
- XL43 EGU2012-8197
S. Malysheva, V. Vasilyev, V. Verzhbitsky, V. Ananyev, R. Murzin, D. Komissarov, N. Kosenkova, and Yu. Roslov
Petroleum Systems of South Kara Basin: 3D stratigraphic simulation and basin modeling results

COFFEE BREAK

Hall XL | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: Jochen Knies

- XL44 EGU2012-5536
D. Franke, K. Piepjohn, C. Gaedicke, C. Brandes, N. Sobolev, and B. Mouly
On- Offshore correlation around the New Siberian Islands, Laptev and East Siberian Seas, Russian Arctic
- XL45 EGU2012-8507
C. Brandes and K. Piepjohn
Structural evolution and paleostress pattern of the New Siberian Islands and De Long Islands, NE Russia
- XL46 EGU2012-5026
C. Gaina and T. H. Torsvik
Relative and Absolute Plate Motions, Mantle Plumes and Volcanism in the Arctic region
- XL47 EGU2012-7819
K. Piepjohn, C. Brandes, C. Gaedicke, D. Franke, S. Mrugalla, N. Sobolev, and T. Tolmacheva
The tectonic evolution of the New Siberian Islands
- XL48 EGU2012-6240
K. brumley, E.L. Miller, L.A. Mayer, J. Wooden, and M. Grove
U-Pb zircon geochronology of Caledonian age orthogneisses dredged from the Chukchi Borderland, Arctic Ocean.
- XL49 EGU2012-2322
M.V. Luchitskaya, S.D. Sokolov, and A.V. Moiseev
Stages of Late Mesozoic granitoid magmatism of Chukotka (NE Russia)
- XL50 EGU2012-11876
E.S. Gottlieb, V.L. Pease, E.L. Miller, and V.V. Akinin
U-Pb zircon ages of Neoproterozoic granitoid magmatism on the Arctic coast of Chukotka and Wrangel Island
- XL51 EGU2012-3876
V.V. Akinin, E.L. Miller, E. Gottlieb, and G. Polzunenkov
Geochronology and geochemistry of Cretaceous magmatic rocks of Arctic Chukotka: An update of GEOCHRON2.0
- XL52 EGU2012-6195
G.V. Ledneva, B.A. Bazylev, D. Kuzmin, A. Ishiwatari, N.N. Kononkova, and S.D. Sokolov
Plutonic ultramafic-mafic complexes of the Vel'may terrane, eastern Chukotka (Russia): first petrological results and preliminary geodynamic interpretations

TS4.3/GD3.9/GM3.1 – Orogen-scale coupling between tectonics, erosion and climate (co-organized) – Posters
Convener: F. Mouthereau | Co-Conveners: Dr. Garcia-Castellanos, P.A. van der Beek, F. Herman, J.-D. Champagnac, P. Valla

Hall A | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: P. Valla

- A452 EGU2012-1348
M. Boese and D. Wenske
Late Pleistocene to Holocene geomorphological processes in the high mountains of Taiwan
- A453 EGU2012-1410
M. Dürst Stucki, F. Schlunegger, F. Christener, J.-C. Otto, and J. Götz
Deepening of inner gorges through subglacial meltwater — An example from the UNESCO Entlebuch area, Switzerland
- A454 EGU2012-2253
D. Grabowski, E. Enkelmann, and T. A. Ehlers
Quantifying the spatial distribution of rapid exhumation from glacial detritus, St. Elias Range (Alaska)
- A455 EGU2012-2427
G. Hanke, A. Oswald, and K. Stuewe
U-He dating of the highest peak of Sinai: Mt Catherine, Egypt
- A456 EGU2012-2906
S. Falkowski, E. Enkelmann, and T. A. Ehlers
Exhumation of the northwestern Fairweather Range, southeast Alaska
- A457 EGU2012-3520
S.-H. Wang, C.-P. Chang, J.-H. Hung, and C.-C. Kang
Insights into active structures of the southeastern Central Range in Taiwan: Implications from geomorphic analyses
- A458 EGU2012-3625
R.R. Makshaev and A.A. Svitoch
Neotectonics of the Manych Trough
- A459 EGU2012-4358
D. Huyghe, F. Mouthereau, and L. Emmanuel
Oxygen isotope of mollusc shells record a middle Eocene elevation change in the Pyrenees
- A460 EGU2012-4566
C.-C. Kang, L.L. Siame, C.-C. Chang, D.L. Bourlès, and L. Léanni
Tectonic activity of the Eastern Central Range front in Taiwan: Perspective from in situ cosmogenic ^{10}Be
- A461 EGU2012-6551
P.-Y. Filleaudeau, **F. Mouthereau**, O. Lacombe, R. Pik, and M.G. Fellin
The role of rift inheritance during Cenozoic mountain building of the central Pyrenees and geodynamic implications
- A462 EGU2012-7474
A. Oswald and K. Stüwe
Geomorphology in a Rifting Environment. Can Channel Profiles from Arid Sinai, Egypt, Provide Constraints on Tectonics?
- A463 EGU2012-8329
J.-D. Champagnac, P. Sternai, F. Herman, B. Guralnik, and F. Beaud
Fracture density as a controlling factor of postglacial fluvial incision rate, Granite Range, Alaska.
- A464 EGU2012-9009
S. Nagel, M. G. Fellin, S. Castelltort, S. D. Willett, F. Mouthereau, and A. T. Lin
Provenance evolution of the Western foreland basin and its relationship to the exhumation of source rocks during arc-continent collision
- A465 EGU2012-11051
E. Kali, **J. van der Woerd**, J. Liu-Zeng, M. LeBéon, P.-H. Leloup, G. Mahéo, P. Tapponnier, and R. Thuzat
Active normal faults and river damming: the importance of tectonics and climate in shaping the landscape of the southern Tibetan plateau
- A466 EGU2012-12290
A. Carracedo, **R. Beucher**, C. Persano, J. Jansen, A. Codilean, T. Hoey, and P. Bishop
Quantifying active tectonic processes in orogenic belts from river analysis of the Sierra Nevada (Spain)
- A467 EGU2012-13220
A. Coudurier Curveur, R. Armijo, and R. Lacassin
The northern Chile coastal morphology: an interplay between recent tectonic uplift of the west andean margin and precipitation gradient
- A468 EGU2012-9885
J.L. Mugnier, C. Godon, J.F. Buoncristiani, J.L. Paquette, and E. Trouvé
Present-day subglacial erosion efficiency inferred from sources and transport of glacial clasts in the North face of Mont Blanc
- A469 EGU2012-4476
C. Thieulot, P. Steer, and R.S. Huismans
Three-dimensional numerical simulations of crustal systems subjected to convergence and to surface processes
- A470 EGU2012-7540
J. Liu, L. Wen, M. Oskin, and L. Zeng
Focused modern denudation of the Longmen Shan margin of the eastern Tibetan plateau

- A471 EGU2012-12629
D. L. Egholm and **M. F. Knudsen**
Fluvial bedrock erosion by sediment in suspension couples hillslope processes and channel evolution
- A472 EGU2012-4366
J. Babault, J. Van Den Driessche, and A. Teixell
Longitudinal to transverse drainage network evolution in the High Atlas (Morocco)
- A473 EGU2012-9843
B. Salcher, F. Kober, E. Kissling, and S. Willett
Glacial conditioning and postglacial erosion of the Central Alps - patterns and magnitude
- A474 EGU2012-12157
T. F. Schildgen, D. Cosentino, B. Bookhagen, H. Echtler, B. Rojay, M.R. Strecker, and C. Yildirim
Uplift of the southern margin of the Central Anatolian Plateau (Turkey): A record of tectonic and upper mantle processes

TS10.2/GD3.10/GMPV6.19/SM2.10 – Geodynamics of the westernmost Mediterranean and NW Africa (co-organized) –

Orals

Convener: C. J. Garrido | Co-Conveners: G. Booth-Rea, J. Galindo-Zaldivar, A. Chalouan, R. Carbonell, A. Levander, C. R. Ranero, V. Sallares, R. de Franco, N. Zitellini

Room: 29

Chairperson: C.J. Garrido & R. Carbonell

- 08:30–08:45 EGU2012-8716
P. Ayarza, R. Carbonell, A. Teixell, A. Kchikach, M. Harnafi, D. Marti, I. Palomeras, A. Levander, J. Gallart, M.L. Arboleya, M. Charroud, and M. Amrahr
Constraints on the topography of the Moroccan High Atlas: Contribution of the SIMA (Seismic Imaging across the Moroccan Atlas) project
- 08:45–09:00 EGU2012-11915
D. Kiyan, A. Jones, J. Ledo, J. Fulla, A. Sinischalchi, G. Romano, J. Campaña and the TopoMed MT Team
3D structures of the crust and upper mantle in Atlas Mountains of Morocco from magnetotelluric data
- 09:00–09:15 EGU2012-12969
E. Gracia, C. R. Ranero, I. Grevemeyer, and T h e WestMed, TopoMed, and Geomargen-1 cruise parties
Seismic Images and Wide-angle Velocity constraints of the structure and geodynamic origin of the Gibraltar Arc system: A geological interpretation of the Gulf of Cadiz imbricated wedge, the western and eastern Alboran basins, and the South-Balearic basin.
- 09:15–09:30 EGU2012-11961
I. Palomeras, S. Thurner, A. Levander, E. Humphreys, M.S. Miller, R. Carbonell, and J. Gallart
PICASSO: Lithosphere Structure in the Western Mediterranean from Ps Receiver Functions and Rayleigh Wave Tomography
- 09:30–09:45 EGU2012-10197
X. Garcia, R. Evans, J. Elsenbeck, and M. Jegen
Imaging the Alboran Domain from a marine MT survey
- 09:45–10:00 EGU2012-5538
J. Diaz Cusí, J. Gallart and the Topolberia Seismic Working Group Team
Progress on the seismic anisotropy knowledge beneath Iberia and northern Morocco: the contribution of the second Topoiberia-Iberarray deployment

COFFEE BREAK

Chairperson: G. Booth-Rea & C. Ranero

- 10:30–10:45 EGU2012-14170
D. Garcia-Castellanos
Tectonic uplift competing with erosion along the Betic-Rifean corridors: regulating the Messinian Salinity Crisis
- 10:45–11:00 EGU2012-12094
C. Gorini, E. d'Acremont, M. El Abbassi, D. Do Couto, S. Migeon, A. Ammar, F. Estrada, G. Ercilla, B. Alonso, J. Poort, and H. Jabour
Giant slide in the South Alboran margin: Upper Miocene margin inversion or Messinian sea level fall?
- 11:00–11:15 EGU2012-13977
J. Vergés and M. Fernández
Tethys-Atlantic Interaction along the Iberia-Africa Plate Boundary: the Betic-Gibraltar-Rif System

- 11:15–11:30 EGU2012-7940
L. Le Pourhiet, D. Do Couto, R. Labayed, E. d'Acremont, J. Smitt, A. Ammar, H. Jabour, and C. Gorini
 Formation and deformation of the Alboran-Rif system? Insights from 3D thermo-mechanical modelling.
- 11:30–11:45 EGU2012-5185
G. Tango, R. de Franco, G. Caielli, G. Biella, G. Boniolo, A. Corsi, A. Morrone, A. Tento, and MEDOC group
 Wide angle reflection/refraction seismic data processing and imaging of HG-MEDOC line in southern Tyrrhenian sea: evidences of a transitional Moho boundary?
- 11:45–12:00 EGU2012-13681
M.G. Vendrell, C.R. Ranero, V. Sallarès, M. Prada, S. Moeller, I. Grevemeyer, and N. Zitellini
 The tectonic and sedimentary structures of the Tyrrhenian rifted basin from multichannel seismic images

GD5.1/GMPV6.2/SM2.2/TS6.5 – Subduction dynamics from surface to deep mantle (co-organized) – Posters

Convener: S. Buiter | Co-Conveners: F. Funiciello, J. van Hunen

Hall XL | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: Jeroen van Hunen, Francesca Funiciello and Susanne Buiter

- XL53 EGU2012-1680
C. Schmelzbach, J. Kummerow, P. Wigger, A. Reshetnikov, and S. A. Shapiro
 Microseismic reflection imaging of the Precordillera crust, forearc of the North-Chilean subduction
- XL54 EGU2012-2447
I. Wölbern and G. Rümper
 Seismic anisotropy of the Central Andean subduction zone derived from shear-wave splitting
- XL55 EGU2012-6017
W. Rabbet, Y. Dzierma, M. Thorwart, T. Wunderlich, I. Koulakov, K. Hoernle, and H. Wehrmann
 Seismic evidence of a link between subducted oceanic faults and volcanism: A case study from South Central Chile
- XL56 EGU2012-2960
N.W. Bloch, J. Kummerow, P. Wigger, S.A. Shapiro, and P. Salazar
 Crustal and Slab Related Seismicity in the Northern Chilean Coastal Cordillera
- XL57 EGU2012-13761
M. Contreras, A. Tassara, R. Araya, and K. Bataille
 Interseismic strain accumulation at the Mw8.8 2010 Maule earthquake by means of finite element modeling
- XL58 EGU2012-2291
F. Funiciello, F. Corbi, A. Heuret, Y. van Dinther, D. Presti, L. Sandri, W. Marzocchi, M. Moroni, T. Gerya, M. May, L. Dalguer, C. Piromallo, S. Lallemand, C.P. Conrad, V. Acocella, G. Ranalli, and C. Faccenna
 Five years of EURYI project on subduction and interplate seismicity: What have we learnt?
- XL59 EGU2012-2286
W. Marzocchi, L. Sandri, A. Heuret, and F. Funiciello
 On the frequency-magnitude distribution of subduction interplate earthquakes
- XL60 EGU2012-2281
A. Heuret, C.P. Conrad, F. Funiciello, S. Lallemand, and L. Sandri
 Relation between subduction megathrust earthquakes, trench sediment thickness and upper plate strain
- XL61 EGU2012-2277
D. Presti, A. Heuret, F. Funiciello, and C. Piromallo
 A new database on subduction seismicity at the global scale
- XL62 EGU2012-8088
 Y. van Dinther, T. Gerya, **F. Corbi**, F. Funiciello, P. M. Mai, and L. A. Dalguer
 The seismic cycle at subduction thrusts: benchmarking geodynamic numerical simulations and analogue models
- XL63 EGU2012-6675
M. Faccenda and F.A. Capitano
 Synthetic SKS splitting at subduction zones: reconciling observations with mantle flow
- XL64 EGU2012-2090
A. Simakin
 Numerical modeling of the subduction initiation after accretion of oceanic island.
- XL65 EGU2012-3384
G. Lu, B. Kaus, L. Zhao, and T. Zheng
 On the initiation of subduction by plume-induced compression: a numerical study
- XL66 EGU2012-2576
M. Yoshida and F. Tajima
 3D numerical modeling of subduction dynamics: plate stagnation and segmentation, and crustal advection in the mantle transition zone

- XL67 EGU2012-2453
T. Duretz, S.M Schmalholz, and T.V. Gerya
Dynamics of slab detachment
- XL68 EGU2012-3525
B. Hillebrand, T. Geenen, W. Spakman, and A.P. van den Berg
Using the level set method in slab detachment modeling
- XL69 EGU2012-7430
S. Buiter and S. Ellis
Testing the role of rheology with simple subduction models
- XL70 EGU2012-13259
L. Fourel, G. Morra, and S. Goes
Visco-elasto-plastic rheology effects on free subduction dynamics
- XL71 EGU2012-9967
R. Hassani, **M. Gerbault**, E. Tric, and G. Gibert
Cyclic arc regimes over subduction zones at constant plate motion, due to folding over the 660 km transition zone. Insight from numerical models.
- XL72 EGU2012-10396
C. Malatesta, T. Gerya, M. Scambelluri, L. Crispini, L. Federico, and G. Capponi
3D Numerical simulations of oblique subduction
- XL73 EGU2012-4607
St. Zeumann, R. Sharma, T. Jahr, and G. Jentzsch
New 3D Finite Element models of the central Andes using realistic geometry
- XL74 EGU2012-10568
C. Malatesta, T. Gerya, L. Crispini, L. Federico, M. Scambelluri, and G. Capponi
The exhumation of an HP ophiolitic massif (Voltri Massif, Western Alps): insight from 3D numerical models
- XL75 EGU2012-8014
M. Roda, M. I. Spalla, and A. M. Marotta
Integration of natural data within a numerical model of ablative subduction: A possible interpretation for the Alpine dynamics of the Austroalpine crust.
- XL76 EGU2012-7611
B. von Niederhaeusern, M. Engi, and D. Rubatto
Subduction of continental crust in the Sesia Zone: Constraints on dynamics from in-situ U-Th-Pb dating of accessory phases (Western Alps, Italy)
- XL77 EGU2012-3623
A. Kozhurin and T. Pinegina
From arc-normal extension above the subduction zone to arc-normal contraction just beyond its lateral edge: the case of the Kamchatka-Aleutian junction
- XL78 EGU2012-5640
B. Guillaume, F. Funiciello, C. Faccenna, L. Husson, and L.H. Royden
Deformation and topography above the lateral transition from continental to oceanic subduction in three-dimensional laboratory models: what can we learn on the Hellenic subduction?
- XL79 EGU2012-6546
S.W Luth, E. Willingshofer, and D. Sokoutis
Orogenic Wedges and Subduction in Analogue Models: Expressions of Rheology Induced Plate Decoupling
- XL80 EGU2012-6490
P. Agard, X. Zuo, F. Funiciello, N. Bellahsen, C. Faccenna, and D. Savva
Analog modelling of obduction processes
- XL81 EGU2012-5999
E. Amiguet, B. Reynard, R. Caracas, B. Van De Moortèle, N. Hilairet, and Y. Wang
Creep of phyllosilicates at the onset of plate tectonics
- XL82 EGU2012-12506
A. Shulgin, H. Kopp, D. Klaeschen, C. Papenberg, F. Tilmann, E.R. Flueh, D. Franke, U. Barckhausen, and A. Krabbenhoef
Sunda Subduction Zone: What causes differences in the 2004 and 2005 Sumatra earthquakes ruptures?
- XL83 EGU2012-13257
T. Knight, C. Peirce, A. B. Watts, W. Stratford, I. Grevemeyer, M. Paulatto, D. Bassett, J. Hunter, and L. Kalnins
Louisville Ridge subduction at the Tonga-Kermadec trench: preliminary models to compare pre- and post collision zone crustal velocity structure.
- XL84 EGU2012-6643
F. Martinez, K. A. Kelley, and R. J. Stern
Creation and Deformation of Hydrous Lithosphere at the Southern Mariana Margin
- XL85 EGU2012-6863
T. Iwasaki, E. Kurashimo, T. Iidaka, R. Arai, A. Kato, H. Sato, T. Ito, A. Nakanishi, S. Kodaira, Y. Kaneda, and K. Ito
Lateral Structural Variation of the Downgoing Philippine Sea Plate beneath the SW Japan Arc

- XL86 EGU2012-2199
B.-Y. Kuo
Rapid rotation of shear-wave splitting at the edge of the Ryukyu subduction zone and its dynamic implications
- XL87 EGU2012-1272
W.-B. Cheng, S. -K. Hsu, and C. -H Chang
Tomography of subduction zone in southern Taiwan: an implication of subducting seamount beneath the forearc
- XL88 EGU2012-4052
Yi-Wei Lin, Cheng-Chien Peng, and Ban-Yuan Kuo
Structure of the subduction zone south of Taiwan constrained by OBS data
- XL89 EGU2012-1138
E. Király, I. Bianchi, and G. Bokelmann
Seismic anisotropy in the south western pacific region from shear wave splitting
- XL90 EGU2012-167
M. Hata, N. Oshiman, R. Yoshimura, Y. Tanaka, and M. Uyeshima
Imaging of Upwelling Fluids and Partial Melt in the Subduction Zone with 3D Regional Electrical Resistivity Structure by the Network-MT Data
- XL91 EGU2012-2562
I. Chuvashova and S. Rasskazov
Propagating pull-down effects of triangular paleoslab fragments at a convergent zone: magmatic evolution beneath Central Mongolia in the past 90 Ma
- XL92 EGU2012-2529
M.F. Osmaston
Is subduction really in the plate tectonics driving seat, or do two other global mechanisms do the driving? A review in the 'deep-keeled cratons' frame for global dynamics

TS6.2/GD5.4 – Subduction and Collision Zones of the Caribbean (co-organized) – Orals

Convener: J. Escuder-Virueite | Co-Conveners: C. Marchesi

Room: 20

Chairperson: Javier Escuder-Virueite, Claudio Marchesi

- 13:30–13:45 EGU2012-6567
D.A. Lao Davila
Collisional zones in Puerto Rico
- 13:45–14:00 EGU2012-14221
J. García-Senz and A. Pérez-Estaún
Modes of active deformation in Eastern Hispaniola
- 14:00–14:15 EGU2012-7948
D.M. Buchs, P.O. Baumgartner, R. Arculus, C. Montes, G. Bayona, and A. Cardona
Early development of the south Central American margin: mechanisms and tectonic implications
- 14:15–14:30 EGU2012-14375
Y. Rojas-Agramonte, A. García-Casco, A. Kröner, D. Herwartz, A. Ibis Despaigne, and S. Wilde
New geochronological ages (U-Pb/Lu-Hf) from high-pressure rocks of the Escambray terrane and Santa Clara serpentinite mélange, central Cuba. Regional correlations and geodynamic implications
- 14:30–14:45 EGU2012-4844
L. De Min, J.-F. Lebrun, J.-J. Cornée, P. Münch, F. Quillévéré, M. Melinte-Dobrinescu, and A. Randrianasolo
The carbonate platform of the Karukera spur (Lesser Antilles fore-arc) records large Neogene-Quaternary forearc vertical movements
- 14:45–15:00 EGU2012-9758
T.A.C. Zitter and C. Rangin
Evolution of the Grenada and Tobago basins and the onset of the Lesser Antilles subduction zone

TS6.2/GD5.4 – Subduction and Collision Zones of the Caribbean (co-organized) – Posters

Convener: J. Escuder-Virueite | Co-Conveners: C. Marchesi

Hall A | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: Javier Escuder-Virueite, Claudio Marchesi

- A475 EGU2012-373
M. Guzman-Speziale
Is the Central America forearc sliver part of the North America plate?

- A476 EGU2012-14222
C. Ayala, J. L. García-Lobón, C. Rey Moral, and J. Escuder-Virue
 Potential fields and seismicity at northern La Hispaniola Island: useful constraints to determine the crustal structure of an oblique convergence area
- A477 EGU2012-6713
G. Simila, J. Marshall, T. Gardner, D. Fisher, M. Protti, R. Quintero, E. LaFromboise, S. Morrish, and E. Mohammadebrahim
 Seismic Cycle Deformation along the Nicoya Peninsula Seismogenic Zone, Costa Rica: Morphotectonics and Seismic Strong Motion Array Project (SSMAP)
- A478 EGU2012-13438
T. Maurin, J.F. Stéphan, B. Mercier de Lépinay, and D. Dhont
 New views on the Late Cenozoic tectonic history of northern Colombia
- A479 EGU2012-12555
A. Levander, M. Schmitz, M. Bezada, J. Masy, F. Niu, and J. Pindell
 Subduction in the Southern Caribbean
- A480 EGU2012-13514
A. Kammer and C. Vargas
 Changes in deformation styles in the foreland of the Northern Andes as a response to slab segmentation
- A481 EGU2012-4384
 P. Münch, J.-F. Lebrun, J.-J. Cornée, I. Thinon, P. Guennoc, and **L. De Min**
 Pliocene to Pleistocene carbonate systems of the Guadeloupe archipelago, French Lesser Antilles: a land and sea study (the KaShallow project).
- A482 EGU2012-7968
F. Barat, B. Mercier de Lépinay, M. Sosson, and C. Müller
 Geologic Evolution of the eastern Panama Isthmus from biostratigraphic, tectonic and geophysical data
- A483 EGU2012-9928
C. Rangin, J. Martinez-Reyes, A. Crespy, and T.A.C Zitter
 Tectonic escape of the Caribbean plate since the Paleocene: a consequence of the Chicxulub meteor impact?
- A484 EGU2012-1933
P. O. Baumgartner, K. Flores, A. Bandini, D. Buchs, G. Andjic, and C. Baumgartner-Mora
 Oceanic terranes of S-Central America - 200 Million years of accretion history recorded on the W-edge of the Caribbean Plate.
- A485 EGU2012-4834
J. Escuder-Virue, P. Valverde-Vaquero, Y. Rojas-Agramonte, J. Gabites, and A. Pérez-Estaún
 From intra-oceanic subduction to arc accretion and oblique arc-continent collision: Insights from the P-T-D-t path of the southern Río San Juan metamorphic complex, northern Dominican Republic
- A486 EGU2012-4511
C. Lázaro, I.F. Blanco-Quintero, A. García-Casco, Y. Rojas--Agramonte, M. Corsini, and K. Núñez-Cambra
 The Güira de Jauco amphibolite complex (eastern Cuba). A record of early Campanian collision in the Caribbean plate.
- A487 EGU2012-12161
C. Marchesi, C.J. Garrido, J.A. Proenza, Z. Konc, K. Hidas, J. Lewis, and E. Lidiak
 Mineral and whole rock compositions of peridotites from Loma Caribe (Dominican Republic): insights into the evolution of the oceanic mantle in the Caribbean region

GD7.1/EMRP1.9/SM4.6 – Earth's core dynamics: Observations and models (co-organized) – Orals

Convener: R. Deguen | Co-Conveners: A. Fournier, V. Lesur

Room: 32

Chairperson: Alexandre Fournier

- 08:30–09:00 EGU2012-12609
D.S. Zimmerman, S.A. Triana, and D.P. Lathrop
 Turbulence, Waves, Transport (and perhaps Dynamo) in Laboratory Model Cores
- 09:00–09:15 EGU2012-7109
H.-C. Nataf, A. Figueroa, N. Schaeffer, and D. Schmitt
 On the role of boundary layer instabilities in core dynamics
- 09:15–09:30 EGU2012-2021
P. Hejda and M. Reshetnyak
 Kinetic energy cascades in quasi-geostrophic convection
- 09:30–09:45 EGU2012-7813
C. Demetrescu, V. Dobrica, and C. Stefan
 On the evolution of high-frequency ingredients of the secular variation and of their expression at core surface, as inferred from observatory data and main field models

- 09:45–10:00 EGU2012-6593
M. H. Heimpel and M. E. Evans
 The inclination test of the geomagnetic field: Insights from numerical dynamo models

COFFEE BREAK

Chairperson: Vincent Lesur

- 10:30–11:00 EGU2012-3679
B. A. Buffett
 Tidal dissipation and the strength of the Earth's internal magnetic field
- 11:00–11:15 EGU2012-6841
K.D. Aldridge, D.G. McMillan, and S. Mikkola
 Modulation of Geomagnetic Intensity by Elliptic Instability in Earth's Core
- 11:15–11:30 EGU2012-5606
P. Livermore and R. Hollerbach
 Reconciling westward drift and inner-core super-rotation in very low viscosity models of the geodynamo
- 11:30–11:45 EGU2012-3923
H. Tkalcic, M. Young, T. Bodin, and M. Sambridge
 Observations of Shuffling Rotation of the Earth's Inner Core and its Time Correlation With Geomagnetic Jerks
- 11:45–12:00 EGU2012-13202
R. Caracas and M. Verstraete
 The light elements of the Earth's inner core

GD7.1/EMRP1.9/SM4.6 – Earth's core dynamics: Observations and models (co-organized) – Posters

Convener: R. Deguen | Co-Conveners: A. Fournier, V. Lesur

Hall XL | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Alexandre Fournier

- XL93 EGU2012-2050
 M. Evonuk and **H. Samuel**
 Simulating rotating fluid bodies: When is vorticity generation via density-stratification important?
- XL94 EGU2012-4301
A. Fournier and J. Aubert
 Revisiting the use of hyperdiffusivities in numerical dynamo models
- XL95 EGU2012-6243
A. Fournier, J. Aubert, E. Thebault, and N. Schaeffer
 A database of synthetic observations for geomagnetic data assimilation practice
- XL96 EGU2012-7972
C. Stefan, V. Dobrica, and C. Demetrescu
 On the ~80-year variation of the core surface geomagnetic field. Derivation and characteristics
- XL97 EGU2012-11638
J. Baerenzung, M. Holschneider, and V. Lesur
 Bayesian inversion of the flow at the Earth's Core Mantle Boundary
- XL98 EGU2012-4202
M. Manda, I. Panet, V. Lesur, O. de Viron, and M. Diamant
 Satellite measurements: a window to the Earth's core

SM1.1 – Open Session on Seismology (including Beno Gutenberg Medal Lecture) (co-listed) – Posters

Convener: C.M. Krawczyk | Co-Conveners: M. Cocco

Hall X/Y | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: Massimo Cocco and Charlotte Krawczyk

- XY492 EGU2012-3890
M. Salmon and B. Kennett
 AuSREM - Australian Seismological Reference Earth Model

- XY493 EGU2012-837
C. Buffoni, N. C. Sabbione, M. Schimmel, and M. L. Rosa
 Teleseismic receiver function analysis in Tierra del Fuego Island: an estimation of crustal thickness and Vp/Vs velocity ratio
- XY494 EGU2012-1281
B. Heit, X. Yuan, W. Geissler, B. Lushetile, M. Weber, and W. Jokat
 The WALPASS - Walvis Ridge Passive-Source Seismic Experiment in Namibia
- XY495 EGU2012-7064
M Craiu, A Craiu, Gh Marmureanu, and M Radulian
 Reevaluation of earthquakes magnitude for the main seismic zones of Romania
- XY496 EGU2012-4389
 D. Tataru, G. Stuart, and **B. Grecu**
 Revealing the crust of western Romania using CCP techniques
- XY497 EGU2012-4608
L. A. Ardeleanu
 Estimation of focal mechanism of low magnitude crustal earthquakes from Vrancea region
- XY498 EGU2012-8015
M. Rogozea, Gh. Marmureanu, and M Radulian
 Reevaluation of the macroseismic effects of the 23 January 1838 Vrancea earthquake
- XY499 EGU2012-7947
J. Trojanowski, B. Plesiewicz, J. Wiszniowski, J. Suchcicki, and A. Tokarz
 Seismic monitoring of Poland - temporary seismic project - first results
- XY500 EGU2012-2682
R. Gazdova, T. Fischer, P. Kolinsky, and O. Novotny
 Tidal analysis of groundwater level variations and CO₂ flow fluctuation in the seismically active region of western Bohemia
- XY501 EGU2012-5699
 M. Hrdliřková and **T. Fischer**
 Earthquake swarms in West Bohemia / Vogtland: at present and one century ago
- XY502 EGU2012-7915
 S. Barani, D. Spallarossa, D. Scafidi, G. Ferretti, R. De Ferrari, and **M. Pasta**
 Analysis of the October-November 2010 seismic swarm in the Sampeyre area (Piedmont, Italy)
- XY503 EGU2012-5485
M. Godano, A. Deschamps, S. Lambotte, H. Lyon-Caen, and P. Bernard
 Focal mechanisms of earthquake multiplets in the western part of the Corinth rift (Greece)
- XY504 EGU2012-12532
S. Lambotte, H. Lyon-Caen, P. Bernard, and A. Deschamps
 Multiplet analysis and microseismicity structure in the Western part of Corinth Rift (Greece) from 2000 to 2007
- XY505 EGU2012-7990
A. Zunino, G. Ferretti, D. Scafidi, S. Barani, M. Pasta, and D. Spallarossa
 Microseisms and sea wave height in the Ligurian Sea: a preliminary analysis.
- XY506 EGU2012-2621
E. Buforn, C. Pro, M. Carranza, A. Zollo, A. Pazos, L. Lozano, and F. Carrilho
 Estimation of Pd y İ_c parameters for earthquakes of the SW Iberia (S. Vicente Cape)
- XY507 EGU2012-10151
 C. Cancela Pinto, **J. Carvalho**, S. Vilanova, and J. Borges
 Estimating site effects for seismic hazard assessment in Portugal using shear wave and geotechnical data
- XY508 EGU2012-6757
M. Y. Walling, K. Megawati, and C. Zhu
 ESTIMATION OF Vs30 SOIL PROFILE STRUCTURE OF SINGAPORE FROM MICROTREMOR RECORDS
- XY509 EGU2012-8093
L. W. Bjerrum, M. B. Sørensen, T. Lutro, L. Ottemöller, C. Sari, and K. Atakan
 Predicting Surface Ground Motions during Earthquakes near Izmir, Turkey - H/V Measurements and Soil Response Modeling
- XY510 EGU2012-9969
H.-C. Huang and C.-Y. Lin
 Strong Ground Motion Simulation and Source Modeling of the December 16, 1993 Tapu Earthquake, Taiwan, Using Empirical Green's Function Method
- XY511 EGU2012-6238
Q. Rodriguez-Perez, L. Ottemöller, and M. Raeesi
 Study of two intermediate earthquakes in the Guerrero seismic gap, Mexico.
- XY512 EGU2012-3951
G. Yi, F. Long, and Z. Zhang
 Seismogenic structures in Wenchuan aftershock region from focal mechanism solutions

- XY513 EGU2012-11630
F. Waldhauser, J.D. Zechar, D.P. Schaff, and P. Friberg
 Real-Time Double-Difference Location and Monitoring of Fine-Scale Seismogenic Properties, with Application to Northern California
- XY514 EGU2012-8453
M. Vallée and E.M. Dunham
 Observation of far-field Mach waves generated by the 2001 Kokoxili supershear earthquake
- XY515 EGU2012-2186
 C.-H. Chang, **Y.-F. Chang**, P.-Y. Tseng, and C.-M. Lin
 Potential Pitfalls in Seismic Interpretation for Transversely Isotropic Media - A Physical Model Study
- XY516 EGU2012-4104
J. Jansky, V. Plicka, and J. Zahradnik
 Re-evaluating possibilities of the Source Scanning Algorithm
- XY517 EGU2012-4002
K. Emoto, H. Sato, and T. Nishimura
 Stochastic synthesis of vector wave envelopes in layered random media based on the improved Markov approximation
- XY518 EGU2012-4620
L. De Siena, E. Del Pezzo, C. Thomas, A. Curtis, and L. Margerin
 Seismic envelope reconstruction in a volcanic caldera: theory, data, and modeling.
- XY519 EGU2012-954
M. K. Sayankina, A. V. Smaglichenko, and A. A. Lukianitsa
 Modification of Gaussian elimination to identify hydrocarbon reservoir (the thin- bed model reconstruction)

TS10.1 – Geodynamic, tectonic and paleoenvironmental evolution of the Eastern Mediterranean: from Dinarides to Turkey (co-listed) – Orals

Convener: L. Le Pourhiet | Co-Conveners: A. Okay, D. J. J. van Hinsbergen, N. Chamot-Rooke, K. Ustaszewski, B. Huet

Room: 29

Chairperson: K. Ustaszewski and N. Chamot-Rooke

- 13:30–13:45 EGU2012-5145
S. Arsenikos, N. Chamot-Rooke, D. Frizon de Lamotte, J. Mascle, L. Caméra, and C. Blanpied
 The offshore extent of the Jabal Al Akhdar anticline (Cyrenaica, Libya): timing of development and influence on the geometry of the Mediterranean ridge.
- 13:45–14:00 EGU2012-10426
A. Bruestle, L. Kueperkoch, M. Rische, T. Meier, W. Friederich, and EGELADOS working group
 Seismicity of the eastern Hellenic Subduction Zone
- 14:00–14:15 EGU2012-3897
F. Neubauer and S. Cao
 The brittle stage of the exhumation of a metamorphic core complex: Naxos, Cyclades, Greece and some general rules
- 14:15–14:30 EGU2012-11584
E. Draganits, B. Huet, B. Grasemann, D. Schneider, and A. Ertl
 Eocene to post-Miocene kinematic evolution of the central Cyclades (Greece)
- 14:30–14:45 EGU2012-7323
N. Bonev, P. Marchev, and R. Moritz
 The Jurassic Rhodope subduction-accretion history: temporal relations between the Circum-Rhodope Belt Evros ophiolite, and the UHP-HP events and the granitoid magmatism in the underlying high-grade metamorphic basement, Thrace region, NE Greece
- 14:45–15:00 EGU2012-10394
T. J. Nagel, N. Froitzheim, S. Jahn-Awe, M. Kirchenbaur, N. Georgiev, D. Frei, and J. Pleuger
 The Eocene Rhodopes
- Chairperson: B. Huet / L. Le Pourhiet
- 15:30–15:45 EGU2012-13705
M. Maffione, A. Morris, and M. W. Anderson
 Palaeomagnetic evidence for an oceanic core complex in the Mirdita ophiolite of Albania
- 15:45–16:00 EGU2012-14368
E. Bozkurt, J. A. Winchester, M. Satir, and Q. G. Crowley
 Triassic Collision Between the Sakarya and Istanbul Zones, and Remarks on the Existence of Intra-Pontide Ocean in NW Turkey
- 16:00–16:15 EGU2012-4882
A. Pourteau, M. Sudo, P. Lanari, O. Candan, and R. Oberhänsli
 Neotethys closure history of Anatolia: insights from new ⁴⁰Ar-³⁹Ar geochronologic data and multi-equilibrium thermobarometry from blueschist-facies metasediments (Afyon Zone)

- 16:15–16:30 EGU2012-691
C. Lefebvre, D.J.J. van Hinsbergen, N. Kaymakci, and R.L.M. Vissers
Restoring the Central Anatolian Crystalline Complex to its late Cretaceous configuration
- 16:30–16:45 EGU2012-10135
B. Erdogan, A. Hasozbek, E. Akay, T. Gungor, M. Satir, and W. Siebel
Radiometric age determinations and their interpretations phenomena in the Menderes Massif (western Anatolia-Turkey)
- 16:45–17:00 EGU2012-7202
R. Oberhänsli, O. Candan, E. Koralay, R. Bousquet, and A. Okay
Timing of subduction processes in Eastern Anatolia

