

EGU General Assembly 2012
Programme Group Programme
EMRP – Earth Magnetism & Rock Physics

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Monday, 23 April

EMRP1.6 – The magnetic environment, and reliability of the signal in sediments – Orals

Convener: R. Egli | Co-Conveners: F. Florindo, A. Roberts

Room: 42

Chairperson: Ramon Egli, Fabio Florindo, Andrew Roberts

- 15:30–15:45 EGU2012-2239
L. Lanci and B. Delmonte
Magnetic properties of aerosol dust in Antarctic ice cores as a proxy for dust provenance
- 15:45–16:00 EGU2012-13088
M. Winklhofer
Detecting bacterial magnetite in sediments: strengths and limitations of FMR spectroscopy
- 16:00–16:15 EGU2012-8806
J. L. Till, M. J. Jackson, J. G. Rosenbaum, and P. Solheid
Fine-particle magnetic granulometry in an ash-flow tuff
- 16:15–16:30 EGU2012-3758
D. Heslop and A.P. Roberts
Unmixing Magnetic Hysteresis Loops
- 16:30–16:45 EGU2012-4182
A. Bouilloux, J-P. Valet, F. Bassinot, and L. Meynadier
Rock magnetic parameters and climatic signals recorded in sediments from Red Sea and the Gulf of Aden
- 16:45–17:00 EGU2012-1266
J. Nie, J. King, and Y. Song
A review of recent advances in red clay environmental magnetism on the Chinese Loess Plateau

TS2.3/EMRP2.8/HS8.1.7 – Flow Properties of Transforming Porous Media (co-organized) – Orals

Convener: R. Toussaint | Co-Conveners: D. Koehn, E. Aharonov

Room: 11

Chairperson: Renaud Toussaint, Einat Aharonov

- 15:30–15:45 EGU2012-9168
P. Szymczak and A. J. C. Ladd
Dissolution in Fractured and Porous Rocks - the Cave Formation Paradox and Other Instabilities
- 15:45–16:00 EGU2012-3087
P. Adler, T.M. Tan Minh Vu, C. Varloteaux, and S. Békri
Pore network and pore scale modelings of reactive transport in porous media
- 16:00–16:15 EGU2012-11753
M. Kobchenko, D.K. Dysthe, F. Renard, and O. Galland
Tight rock fracturing due to internal gas production
- 16:15–16:30 EGU2012-7998
B. Sandnes, K.J. Måløy, and E.G. Flekkøy
Gas penetration into a deformable porous medium
- 16:30–16:45 EGU2012-7447
M. Ebner, D. Koehn, and R. Toussaint
Stylolite aperture scaling - implications for localised pressure solution (and fluid flow).
- 16:45–17:00 EGU2012-1877
M. J. Heap, P. Baud, P. G. Meredith, and T. Reuschlé
Stylolites in carbonate rock: barriers to fluid flow?

TS2.3/EMRP2.8/HS8.1.7 – Flow Properties of Transforming Porous Media (co-organized) – Posters

Convener: R. Toussaint | Co-Conveners: D. Koehn, E. Aharonov

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Daniel Koehn

- A347 EGU2012-2891
R. Clement, S. Courrech du Pont, and S. Douady
Penetration and blown-air effect in sand
- A348 EGU2012-13560
M. Niebling, **R. Toussaint**, E.G. Flekkoy, and K.J. Maloy
Fluid-fracturing: shaping permeability patterns according to time dependent pumping

- A349 EGU2012-3516
E. I. Debolskaya, E.V. Zamjatina, I.I. Gritsuk, and O.Ja. Maslikova
The modeling of the channel deformations in the rivers flowing into permafrost with an increase in ambient temperature
- A350 EGU2012-5763
V. Vidal, G. Varas, and J.-C. Géminard
Morphology and dynamics of an immersed porous medium crossed by an ascending gas flow
- A351 EGU2012-8092
B. Sandnes
Pattern palette for complex fluid flows
- A352 EGU2012-2074
G. Desbois, J.L. Urai, M. Houben, S. Hemes, and J. Klaver
BIB-SEM of representative area clay structures paving towards an alternative model of porosity
- A353 EGU2012-12029
F. Balsamo, F.H.R. Bezerra, M.M. Vieira, and F. Storti
Fault-related Fe-oxide concretions and Liesegang bands in sandstones: insights into advective versus diffusive fluid flow in deforming porous media
- A354 EGU2012-9041
D. Koehn and P. Chung
The Formation of Banded Zebra Rocks, Permeability Changes and Ore Formation
- A355 EGU2012-11171
E. Salomon, D. Koehn, and C.W. Passchier
Development of Deformation Bands in Lower Cretaceous Sandstones in Namibia
- A356 EGU2012-5631
S. Hemes, G. Desbois, and J.L. Urai
New insights to pore space morphologies in Boom Clay - results from 2D BIB-SEM investigations and mercury injection porosimetry
- A357 EGU2012-1851
P. Baud, Y. Ji, V. Vajdova, and T.-f. Wong
Characterization of pore geometry of Indiana limestone in relation to mechanical compaction
- A358 EGU2012-6065
L. Zinsmeister, J. Dautriat, A. Dimanov, J. Raphanel, M. Bornert, and N. Gland
Evolution of flow properties in homogeneously altered limestone specimens
- A359 EGU2012-10538
a. raoof, c. Spiers, and s. m. Hassanizadeh
Upscaling porosity-permeability relation in porous media; reactive pore-scale modeling
- A360 EGU2012-3374
H. Milsch and M. Priegnitz
Evolution of microstructure and elastic wave velocities in dehydrated gypsum samples
- A361 EGU2012-967
R. Vasilyev, K. Gerke, M. Karsanina, and D. Korost
Sequential and gravitational algorithms for soil and other porous media modeling
- A362 EGU2012-13840
M. Broz, L. Novakova, K. Sosna, **J. Najser**, and P. Novak
Parameters of Seismic Velocities and their Relationship to the Geomechanical Characteristic of the Podlesí Granites
- A363 EGU2012-9135
M. Lupi, E. H. Saenger, F. Fuchs, and S. A. Miller
A seismic wave propagation study for the triggering of the Lusi mud-volcano, Indonesia.

Tuesday, 24 April

EMRP1.4 – Soil, sediment and dust magnetism - magnetic parameters in environmental studies – Orals

Convener: T Magiera | Co-Conveners: E. Petrovsky, L. Sagnotti

Room: 34

Chairperson: Leonardo Sagnotti

- 10:30–10:45 EGU2012-4282
E. Appel, W. Rösler, and G. Ojha
Stepwise magnetic-geochemical approach for efficient assessment of heavy metal polluted sites
- 10:45–11:00 EGU2012-472
C. Fürst, D. Zirlewagen, and F. Makeschin
Mapping of ferrimagnetic susceptibility for screening of fly ash deposition
- 11:00–11:15 EGU2012-8169
T. Magiera, **M. Szuszkiewicz**, and M. Rachwa?
Application of soil magnetometry on urban and industrial areas affected by different sources of pollution
- 11:15–11:30 EGU2012-7159
K. Fabian, **C. Reimann** and the GEMAS project Team
The magnetic susceptibility of European agricultural soils
- 11:30–11:45 EGU2012-2265
F. Hrouda, J. Pokorny, and M. Chadima
Out-of-phase magnetic susceptibility as a rapid and efficient indicator of ultrafine magnetic particles in rocks, soils, and environmental materials
- 11:45–12:00 EGU2012-13049
G. McIntosh, M Aranzaru Revuelta, J Pey, R Noriega Salmon, B Artinano Rodriguez de Torres, X Querol, and A Alastuey
Magnetic properties of atmospheric particles
- 12:00–12:15 EGU2012-4958
M. Jelenska, B. Górka-Kostrubiec, and E. Król
The study of indoor air pollution by means of magnetometry

EMRP1.4 – Soil, sediment and dust magnetism - magnetic parameters in environmental studies – Posters

Convener: T Magiera | Co-Conveners: E. Petrovsky, L. Sagnotti

Hall A | Display Time 08:00–19:30

Author in Attendance: 13:30–15:00

Chairperson: Tadeusz Magiera

- A1 EGU2012-1218
L. Shenggao
Magnetic mineralogy of heavy metals-contaminated soils
- A2 EGU2012-4712
S. Dlouha, **E. Petrovsky**, L. Boruvka, A. Kapicka, and H. Grison
Magnetic properties of alluvial soils polluted with heavy metals
- A3 EGU2012-555
T. El-Hasan and M. Lataifeh
Field and Dual Magnetic Susceptibility Proxies Implication for Heavy Metal Pollution Assessment in the Urban Soil of Al-Karak City, South Jordan.
- A4 EGU2012-4003
C.X. Zhang
Heavy metal pollution in farmland irrigated with river water near a steel plant - detection by magnetic and geochemical methods
- A5 EGU2012-3411
L. Cao, E. Appel, S.Y. Hu, G. Yin, and W. Rösler
Environmental pollution at Linfen and its change - magnetic monitoring of leaves and soil
- A6 EGU2012-5088
B. Górka - Kostrubiec, M. Jeleńska, and E. Król
Magnetic monitoring of pollution deposited on leaves, bark and soil: preliminary results
- A7 EGU2012-2195
W. Kim, S.J. Doh, Y. Yu, and J.W. Moon
Low- and high-temperature magnetic properties of iron-bearing particles of combustion origin
- A8 EGU2012-5137
G. Ojha, E. Appel, and T. Magiera
Towards innovative roadside monitoring

- A9 EGU2012-1120
M. Wawer, M. Szuszkiewicz, and T. Magiera
Characteristics of current roadside pollution of soils in Upper Silesia
- A10 EGU2012-1582
A. Winkler and L. Sagnotti
Low and room temperature magnetic features of the traffic related urban airborne PM
- A11 EGU2012-8035
E. Márton, P. Sipos, T. Németh, V. Kovács Kis, and Z. May
Urban dust settled at different sides and levels of a High Building next to a major road in Budapest: Integrated Magnetic, Mineralogical and Geochemical Study
- A12 EGU2012-4761
E. Petrovsky, B. Kotlik, R. Zboril, A. Kapicka, and H. Grison
Magnetic properties of atmospheric PM_x in a small settlement during heating and non-heating season

EMRP1.6 – The magnetic environment, and reliability of the signal in sediments – Posters

Convener: R. Egli | Co-Conveners: F. Florindo, A. Roberts

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Ramon Egli, Fabio Florindo, Andrew Roberts

- A13 EGU2012-588
P. C. Lurcock and G. S. Wilson
The palaeomagnetism of glauconitic sediments
- A14 EGU2012-3365
U. Blaha, N. Basavaiah, P.K. Das, and K. Deenadayalan
Assessment of Rock Magnetic Parameters for Fly Ash Pollution Screening in Topsoil of the Deccan Trap Basalt Area, India
- A15 EGU2012-3602
C. Necula, C.G. Panaiotu, D. Heslop, and D. Dimofte
Climatic control of magnetic granulometry in the Mircea Vodă? loess/paleosol sequence (Dobrogea, Romania)
- A16 EGU2012-4248
V. Rojas, A. Bouilloux, L. Meynadier, J-P. Valet, and J-L. Joron
Rock magnetic parameters and Sr-Nd isotopes as tracers of continental erosion in Red Sea and in Gulf of Aden during the last 20,000 years
- A17 EGU2012-5839
M.W.R. Volk, R. Egli, and S. Gilder
Grain Size and Field Dependence of the Morin Transition and Mössbauer Spectroscopy of Synthetic Hematite
- A18 EGU2012-7095
S. Lucifora, F. Cifelli, M. Mattei, D. Cosentino, L. Sagnotti, and A. Roberts
Magnetic mineralogy analyses on greigite-bearing sediments with inconsistent magnetic polarity (Adana Basin, Southern Turkey)
- A19 EGU2012-368
M. Mekkawi, M. Abdel Azeem, and M. Gobashy
Archaeological Depth Estimation using magnetic method at different environmental soil types, Egypt
- A20 EGU2012-1695
X. Mao and R. Egli
Investigation of magnetotaxis of magnetotactic bacteria in water and sediment
- A21 EGU2012-1868
M. Wack and S. Gilder
The SushiBar: An automated system for paleomagnetic investigations
- A22 EGU2012-2580
Y. Zheng, C. Kissel, H.B. Zheng, C. Laj, C.L. Deng, and Q.S. Liu
Holocene paleomagnetic secular variation of the East Asia and its chronological applications
- A23 EGU2012-5942
V.A. Kravchinsky, C.G. Langereis, S.D. Walker, K.G. Dlusskiy, and D. White
Holocene millennial cyclicity registered in petromagnetic parameters of a Siberian loess section imply a difference between continental and oceanic climate
- A24 EGU2012-5783
R. Egli
Tests for intact and collapsed magnetofossil chains

EMRP2.2/GMPV6.21/SM5.6/TS3.3 – A tribute to Luigi Burlini (co-organized) – Orals

Convener: A. Schubnel | Co-Conveners: S. Vinciguerra

Room: 42

Chairperson: Schubnel, Vinciguerra

- 08:30–08:45 EGU2012-8697
G. di Toro and **P. Meredith**
The physics of non-volcanic tremor: insights from laboratory-scale earthquakes
- 08:45–09:00 EGU2012-2696
A. Barnhoorn
Microstructural changes, steady-state deformation and strain localisation during large strain deformation of rocks
- 09:00–09:15 EGU2012-12538
R.H.C. Bruijn, C. Delle Piane, and W.S. de Raadt
Rheology of deformed Carrara marble: Insights from torsion experiments
- 09:15–09:30 EGU2012-11483
R. Pini and M. Mazzotti
CO₂ sequestration in deep coal seams: experimental characterization of the fundamental underlying mechanisms
- 09:30–09:45 EGU2012-7314
N. Tisato, C. Madonna, and E.H. Saenger
Measurements and mechanisms investigation of seismic wave attenuation for frequencies between 1 and 100 Hz
- 09:45–10:00 EGU2012-2920
Y. Gueguen
Attenuation and Dispersion in Earth's Materials

EMRP2.4/TS2.8 – Strain localization and hydro-mechanical coupling (co-organized) – Orals

Convener: P. Baud | Co-Conveners: E. Tondi, F. Balsamo, J. Fortin, P. Adler, A. Maineult, M. Cacace

Room: 42

Chairperson: Pierre Adler

- 10:30–10:45 EGU2012-12229
P. Besuelle
Characterization of the process of the strain localization in some porous rocks in plane strain condition using a new true triaxial apparatus
- 10:45–11:00 EGU2012-5478
C. Mallet, J. Fortin, Y. Guéguen, and A. Schubnel
Propagation of Crack in Glasses under Creep Conditions
- 11:00–11:15 EGU2012-1597
P. Japsen, D.K. Dysthe, E.H. Hartz, and **B. Jamtveit**
A compaction front in North Sea chalk
- 11:15–11:30 EGU2012-9985
A. Cilona, F.R. Faulkner, P. Baud, A. Rustichelli, E. Tondi, and F. Agosta
Compaction localization in the porous carbonates of Bolognano Formation (Majella Mountain, Italy)
- 11:30–11:45 EGU2012-2317
P. Adler and A. Pazdniakou
Dynamic permeability of porous media by the lattice Boltzmann method
- 11:45–12:00 EGU2012-7024
H. Steeb, P. Kurzeja, **M. Frehner**, and S.M. Schmalholz
Phase velocity dispersion and attenuation of seismic waves due to trapped fluids in residual-saturated porous media
- 12:00–12:15 EGU2012-11099
J. Barriere, C. Bordes, P. Sénéchal, D. Brito, and H. Perroud
P-wave monitoring of an unconsolidated and partially saturated porous medium : an experimental study

EMRP2.6/GMPV6.10/NH4.1/SM5.5/TS2.9 – Thermo-mechanical coupling and physical properties: implications to natural hazards (co-organized) – Orals

Convener: S. Vinciguerra | Co-Conveners: G. Di Toro, D. Faulkner, M. J. Heap, O. Lengliné

Room: 42

Chairperson: Vinciguerra

- 13:30–13:45 EGU2012-4392
R. Stefansson and M. Bonafede
From a physical approach to earthquake prediction, towards long and short term warnings ahead of large earthquakes

- 13:45–14:00 EGU2012-314
B. Grzempa, V.L. Popov, J. Starcevic, and M. Popov
 Earthquake Dynamics in Laboratory Model and Simulation - Accelerated Creep as Precursor of Instabilities
- 14:00–14:15 EGU2012-582
A. Kushnir, L. Kennedy, S. Misra, and P. Benson
 Carbonates in thrust faults: High temperature investigations into deformation processes in calcite-dolomite systems
- 14:15–14:30 EGU2012-4495
A. Schubnel, N. Hilaret, F. Brunet, J. Gasc, P. Cordier, Y. Wang, and H.W. Green
 Seismicity triggered by the olivine-spinel transition: new insights from combined XRD and acoustic emission monitoring during deformation experiments in Mg₂GeO₄
- 14:30–14:45 EGU2012-5228
N. Brantut and J. Sulem
 Instabilities in strain-rate hardening, chemically-weakening rocks: revisiting the mechanism of "dehydration-embrittlement"
- 14:45–15:00 EGU2012-160
C. Scholz and J. Campos
 The Seismic Coupling of Subduction Zones Revisited
- Chairperson: Heap
- 15:30–15:45 EGU2012-4176
F. Renard and M. Kobchenko
 4D imaging of fluid escape in low permeability shales during heating
- 15:45–16:00 EGU2012-13208
B. Carpenter, H. Kitajima, and D. Saffer
 Hydraulic and Acoustic Properties of Alpine Fault DFDP1a Core
- 16:00–16:15 EGU2012-3227
A. Ougier-Simonin and W. Zhu
 The role of fluid pressure on slip instability
- 16:15–16:30 EGU2012-7348
S. Smith, G. Di Toro, E. Spagnuolo, S. Nielsen, M. Violay, R. Spiess, and A. Billi
 Co-seismic frictional properties and microstructures of carbonate fault rocks in nature and experiment
- 16:30–16:45 EGU2012-12993
N. De Paola, I. Faoro, and R.E. Holdsworth
 The evolution of the frictional properties of faults during the seismic cycle
- 16:45–17:00 EGU2012-6985
O. Ben-David and J. Fineberg
 Slip stick and the rapid dynamics of static friction

EMRP2.6/GMPV6.10/NH4.1/SM5.5/TS2.9 – Thermo-mechanical coupling and physical properties: implications to natural hazards (co-organized) – Posters

Convener: S. Vinciguerra | Co-Conveners: G. Di Toro, D. Faulkner, M. J. Heap, O. Lengliné

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Lengliné

- A25 EGU2012-114
M.Sc. Fidiriková and D.Sc. Kubišár
 Moisture impact on building rocks - the laboratory and in situ investigations
- A26 EGU2012-299
E. Ferre, J.W. Geissman, and M.S. Zechmeister
 Coseismic paleomagnetic signal in fault pseudotachylytes?
- A27 EGU2012-514
M. Ikari, A. Niemeijer, C. Spiers, and A. Kopf
 Unstable slip behavior in sediments from the Costa Rica convergent margin
- A28 EGU2012-900
A. Hassanzadegan, G. Bloecher, H. Milsch, and G. Zimmermann
 The effect of temperature on mechanical and hydraulic properties of Flechtinger sandstone
- A29 EGU2012-1850
 Y. Lavallée, **M. J. Heap**, A. Laumann, K.-U. Hess, P. G. Meredith, and D. B. Dingwell
 How tough is tuff in the event of fire?
- A30 EGU2012-2831
I.G. Main, A.F. Bell, P.G. Meredith, N. Brantut, and M. Heap
 Scaling of coupled dilatancy-diffusion processes in space and time

- A31 EGU2012-2900
E.H. Saenger, **M. Frehner**, C. Madonna, N. Tisato, M. Kuteynikova, N. Riahi, P. Sala, and B. Quintal
Combining laboratory and computational rock physics
- A32 EGU2012-3018
P. Tizzani, R. Castaldo, S. Pepe, and G. Solaro
3D Imaging of Brittle/Ductile transition of the crust beneath the resurgent calderas
- A33 EGU2012-3673
A. V. Smaglichenko and L. A. Sim
Seismic analyze of satellite image and tomographic model: an example of the Nagano fault zone
- A34 EGU2012-4397
A. Bizzarri, **P. Crupi**, S. de Lorenzo, and M. Loddo
Thermal effects on the time occurrence of earthquake failures: a deterministic approach.
- A35 EGU2012-4457
B. Derode, F. Cappa, and Y. Guglielmi
Different seismic signatures of fractures slip and their correlations with fluid pressures in in-situ rupture experiments
- A36 EGU2012-4847
N. Lesparre, A. Adler, F. Nicollin, D. Gibert, and C. Nussbaum
Monitoring the Excavation Damaged Zone in Opalinus clay by three dimensional reconstruction of the electrical resistivity in the Mont Terri gallery G-04
- A37 EGU2012-5304
J. Chen, X. Yang, and C. J. Spiers
Coseismic thermal-mechanical-chemical processes on the Wenchuan Earthquake fault: constraints from experiments and numerical modeling
- A38 EGU2012-5571
S. Loaiza, J. Fortin, M. Adelinet, Y. Guéguen, and S. Violette
Hydrodynamic properties of the basal aquifer of Santa Cruz Island using seismic refraction, Galapagos - Ecuador
- A39 EGU2012-5934
C. Boulton, M. Villeneuve, and C. Goodin
Acoustic emissions generated during uniaxial compressive strength tests on Lyttelton volcano rocks, Christchurch, New Zealand
- A40 EGU2012-7076
S.A.M. den Hartog, A.R. Niemeijer, and C.J. Spiers
Frictional properties of megathrust fault gouges under true in-situ subduction zone conditions
- A41 EGU2012-7150
O. Lengliné, J. Schmittbuhl, J. Elkhoury, J.-P. Ampuero, K. J. Maloy, A. Cochard, and R. Toussaint
Influence of temperature in interfacial crack propagation in a heterogeneous medium
- A42 EGU2012-8830
M. Moreira and N. Wallenstein
Evolution of elastic properties and acoustic emission, during uniaxial loading of rocks, from the Fogo Volcano in the island of Sao Miguel, Azores; Preliminary results.
- A43 EGU2012-8882
R.J. Wall, C.R.J. Kilburn, and P.G. Meredith
Seismic Precursors to Eruptions at Volcanoes in Extensional Stress Fields
- A44 EGU2012-9327
M. Bourcier, A. Dimanov, E. Hérigné, M. Bornert, and J. Raphanel
Effects of microstructure and temperature on the plastic deformation mechanisms of synthetic halite : a micromechanical approach
- A45 EGU2012-10337
J. Scheibert, C. Guerra, D. Bonamy, and D. Dalmas
Understanding fast macroscale fracture from microcrack post mortem patterns
- A46 EGU2012-11127
M. Krumbholz, S. Burchardt, D. C. Tanner, and H. Koyi
On the scale-invariance of fractures and fracture patterns in the Transscandinavian Igneous Belt, Southeast Sweden
- A47 EGU2012-12527
J.M. Azañón, E. Puertas, **C. Ureña**, R. Gallego, and F. Romero-Gómez
Collapse in a rock massif induced by lateral confinement loss: the case of Montegolf (Málaga, Spain)
- A48 EGU2012-13592
M. J. Werner and A. M. Rubin
Numerical Simulations of Mechanical Erosion from below by Creep on Rate-State Faults
- A49 EGU2012-6336
M.-L. Bernard and M. Zamora
Seismic properties of volcanic rocks from Montagne Pelée (Martinique, Lesser Antilles) and their relations to transport properties

Wednesday, 25 April

EMRP1.1 – Open session on Geomagnetism and Paleomagnetism – Orals

Convener: A. Isac | Co-Conveners: P. Macrì

Room: 42

Chairperson: Monika Korte

- 10:30–10:45 EGU2012-6221
G. Balasis
Dynamical complexity in geomagnetic activity indices: revelations from nonextensive Tsallis statistics, entropies, wavelets and universality concepts
- 10:45–11:00 EGU2012-3583
G. Scardia, L. Sagnotti, B. Giaccio, S. Nomade, and P. Messina
The Brunhes-Matuyama transition in central Italy lacustrine deposits
- 11:00–11:15 EGU2012-7087
K. Fabian, V. P. Shcherbakov, and S. A. McEnroe
Measuring the Curie temperature
- 11:15–11:30 EGU2012-7191
R Løvlie, R Wang, and **X Wang**
Laboratory experiments confirm re-magnetization of Chinese loess by thermal cycling
- 11:30–11:45 EGU2012-3764
U. Liebke, E. Appel, U. Neumann, and L. Ding
Normal and reverse remanence directions isolated in basaltic to andesitic dykes - self-reversal magnetization or a reversal record of the geomagnetic field?
- 11:45–12:00 EGU2012-5006
A. Egeland and C. Deehr
Historical observations of solar wind effects on the high latitude geomagnetic field.
- 12:00–12:15 EGU2012-9457
M. Neukirch and X. Garcia
EMT - Empirical-mode-decomposition-based Magneto-Telluric Processing

EMRP1.1 – Open session on Geomagnetism and Paleomagnetism – Posters

Convener: A. Isac | Co-Conveners: P. Macrì

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: n.n.

- A1 EGU2012-674
E. Qamili, A. De Santis, and G. Cianchini
Ergodic property of the recent geomagnetic field
- A2 EGU2012-975
M. Aldana, J. Nüfio, V. Costanzo-Alvarez, O. Guzmán, S. Guerrero-Suárez, F. Martín-Hernández, and M.L. Osete
Statistical analysis of magnetic parameters in order to discriminate hydrocarbon-related conditions
- A3 EGU2012-2587
M. Korte, M. Brown, and U. Frank
Including new equatorial African data in global Holocene magnetic field models
- A4 EGU2012-2798
L. Lanci, E. Tohver, A. Wilson, and S. Flint
Magnetic stratigraphy of the lower Beaufort group, Karoo basin (South Africa)
- A5 EGU2012-3569
A. Mashukov and A Mashukova
The influence of magnetic aftereffects on the magnetic anisotropy
- A6 EGU2012-4887
M. E.M. Derder, B. Henry, S. Maouche, M. Amenna, B. Bayou, H. Djellit, H. Ymel, S. Gharbi, A. Abtout, and M. Ayache
Neotectonic deformation model of the Northern Algeria from Paleomagnetic data
- A7 EGU2012-5337
J. Linder and S. A. Gilder
Latitude dependency of the geomagnetic secular variation S parameter: A mathematical artifact
- A8 EGU2012-5714
V. Penquerc'h and R. Holme
A new methodology to improve modelling of the internal magnetic field

- A9 EGU2012-7311
A. Isac, B. Langlais, and M. Manda
Demagnetization patterns seen in global magnetic models of Earth, Mars and Moon
- A10 EGU2012-8005
R. Greculeasa, V. Dobrica, and C. Demetrescu
The Romanian network of repeat stations. Methodological aspects 2009-2011
- A11 EGU2012-10948
V. Bachtadse and C. Rolf
Paleo- and Rockmagnetic Studies on the Kirkpatrick Basalts of Early Jurassic Age, Northern Victoria Land, Antarctica
- A12 EGU2012-11169
M. C. Brown, F. Donadini, M. Korte, U. Frank, and A. Nilsson
A global database for the compilation and assessment of Holocene sedimentary palaeomagnetic records
- A13 EGU2012-12046
L. B. Ziegler and J. Stoner
A paleo- and environmental magnetic record from Prince William Sound, Alaska
- A14 EGU2012-13709
A. Morris, N. Pressling, and J. S. Gee
Palaeomagnetic constraints on the evolution of the Atlantis Massif oceanic core complex (Mid-Atlantic Ridge, 30°N)
- A15 EGU2012-1977
L. Sagnotti, P. Macrì, R.G. Lucchi, M. Rebesco, and A. Camerlenghi
On the reconstruction of the geomagnetic paleosecular variation around 15 kyr BP from cores collected from the northwestern Barents Sea
- A16 EGU2012-4049
S.A. Pisarevsky, Z.X. Li, M.T.D. Wingate, and E. Tohver
Paleomagnetism of the 1210 Ma Gnowangerup-Fraser dyke swarm, Western Australia
- A17 EGU2012-11236
T. Zvereva
Motion of North and South magnetic poles in 2001-2009
- A18 EGU2012-13703
T. Stanton, I. Snowball, R. Muscheler, A. Nilsson, P. Riisager, M.F. Knudsen, T. Thordarson, and P. Reid
A high temporal resolution study of Holocene palaeomagnetic directions and intensity: assessing the reliability of a Swedish geomagnetic field reconstruction

EMRP1.2 – Paleointensity of the Earth's magnetic field: Methods and results – Orals

Convener: A. Muxworthy | Co-Conveners: C. Mac Niocaill, A. Biggin

Room: 42

Chairperson: Conall Mac Niocaill

- 13:30–13:45 EGU2012-12523
R. D. Cottrell, **J. A. Tarduno**, and R. K. Bono
Probing the Oldest Geodynamo
- 13:45–14:00 EGU2012-7571
V. V. Shcherbakova, N. V. Lubnina, V. P. Shcherbakov, and G. V. Zhidkov
Palaeointensity and palaeodirection determinations of Paleoproterozoic dykes in the Kaapvaal Craton (South Africa)
- 14:00–14:15 EGU2012-11893
L. B. Ziegler, C. L. Johnson, and C. G. Constable
Paleomagnetic field strength over the last million years
- 14:15–14:30 EGU2012-10734
M. C. Brown, J. M. Feinberg, and J. A. Bowles
Palaeointensity of historical lavas from Fogo, Cape Verde
- 14:30–14:45 EGU2012-10608
G. Cromwell, L. Tauxe, H. Staudigel, H. Ron, and F. Trusdell
Paleointensity results for 0 and 4 ka from Hawaiian lava flows: a new approach to sampling
- 14:45–15:00 EGU2012-7209
P. Camps, G. Fanjat, T. Poidras, C. Carvallo, and P. Nicol
Multiple-specimen absolute paleointensity determination with the MSP-DSC protocol: Advantages and drawbacks.
- 15:00–15:15 EGU2012-5244
A. Ferk, R. Leonhardt, K.-U. Hess, S. Koch, D. Krasa, R. Egli, M. Winklhofer, and D. B. Dingwell
Cooling rate dependence of the TRM of SD, PSD and MD particles
-

EMRP1.2 – Paleointensity of the Earth's magnetic field: Methods and results – Posters

Convener: A. Muxworthy | Co-Conveners: C. Mac Niocaill, A. Biggin

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Andrew Biggin

- A19 EGU2012-543
D.B. Lee and J.E.T Channell
Comparison of Two Automatic Signal Correlation Methods to Align Relative Paleointensity Data
- A20 EGU2012-5748
A.J. Biggin, S. Badejo, J. Shaw, M.J. Dekkers, and A.R. Muxworthy
How does cooling rate affect the intensity of thermoremanent magnetisation in samples containing multidomain and interacting single domain ferrimagnetic grains?
- A21 EGU2012-7878
M. Gomez-Paccard, G. McIntosh, E. Beamud, A. Chauvin, F. J. Pavon-Carrasco, and J. Thiriot
Archaeomagnetic and rock magnetic study of six kilns from North Africa (Tunisia and Morocco)
- A22 EGU2012-8050
M. Avramova, M. Kovacheva, and Y. Boyadziev
Problems in archaeomagnetic reference curves elaboration in the prehistoric past.
- A23 EGU2012-8232
E. Beamud, M. Gómez-Paccard, G. McIntosh, and J.C. Larrasoaña
New archaeomagnetic data from three roman kilns in northeast Spain: a contribution to the Iberian palaeosecular variation curve
- A24 EGU2012-8235
R. J. Harrison, A Muxworthy, and S.C.L.L. Lappe
FORCintense: A graphical implementation of the Preisach method of paleointensity estimation within FORCinel
- A25 EGU2012-12542
R.I.F. Trindade, **M. Macouin**, C. Poitou, A. Chauvin, and M. Hill
Earth's magnetic field strength in the Early Cambrian: Thellier paleointensity estimates of Itabaiana mafic dykes, Northeast Brazil

EMRP1.3/PS2.8 – Planetary and meteorite magnetism (co-organized) – Posters

Convener: J. Gattacceca | Co-Conveners: S.A. Gilder

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Stuart Gilder

- A26 EGU2012-2598
M. Diaz-Michelena, D. Laughlin, and M. E. McHenry
Possible magnetic minerals constituents in the Martian crust and microstructures consistent with large remanent magnetizations
- A27 EGU2012-3086
M. Eitel, S. Gilder, and J. Pohl
Paleomagnetism of the Rochechouart Meteorite Impact Crater: Field Reversal or Self Reversal?
- A28 EGU2012-5190
S.A. Gilder, R. Egli, R. Hochleitner, S.C. Roud, M.W.R. Volk, M. Le Goff, and M. de Wit
A pressure-induced, magnetic transition in pyrrhotite: Implications for the formation pressure of meteorites and diamonds
- A29 EGU2012-5848
C. Milbury, G. Schubert, C. A. Raymond, S. E. Smrekar, and B. Langlais
Insight into Mars' Paleodynamo by Modeling Gravity and Magnetic Anomalies in the Southern Highlands
- A30 EGU2012-9373
J. Gattacceca, M. Gounelle, E. A. Lima, and B. P. Weiss
Paleomagnetic study of the Kaba meteorite
- A31 EGU2012-9740
C. Cournède, J. Gattacceca, B. Zanda, and P. Rochette
Magnetic study of CM chondrites
- A32 EGU2012-11211
S.C.L.L. Lappe, R.J. Harrison, and J.M. Feinberg
Rock magnetic properties of dusty olivine: a potential carrier of pre-accretionary remanence in unequilibrated ordinary chondrites

- A33 EGU2012-11395
N. S. Church, S. C. L. L. Lappe, T. Kasama, A. B. da Silva Fanta, R. E. Dunin-Borkowski, J. M. Feinberg, S. Russell, and R. J. Harrison
 Crystallography and magnetic domain states of dusty olivine observed by electron holography: implications for recording of magnetic fields in the proto-planetary disc
- A34 EGU2012-11581
P. Rochette, J. Gattacceca, C. Cournède, and V. Sautter
 Paleomagnetic and rock magnetic investigation of an exceptionally pristine sample from Mars
- A35 EGU2012-11774
J.A. Tarduno and R.D. Cottrell
 Single Crystal Paleointensity Analyses of Olivine-Diogenites: Implications for a Past Vestan Magnetic Field

EMRP1.7 – Lithospheric magnetic anomalies: observation, processing, modelling and nature of sources – Orals

Convener: J. V. Korhonen | Co-Conveners: A. De Santis, E. Thebault, T. Litvinova

Room: 42

Chairperson: Korhonen, J.V.

- 15:30–15:45 EGU2012-1174
 C.D Beggan, **K.A. Whaler**, J. Saarimäki, and F.J. Simons
 Spectral and spatial decomposition of crustal and core magnetic field models using Slepian functions
- 15:45–16:00 EGU2012-6456
S. Kotsiaros and N. Olsen
 Towards an improved Lithospheric Field recovery through Magnetic Space Gradiometry
- 16:00–16:15 EGU2012-6639
M. Fedi
 Depth-weighted Inverse and Imaging methods to study the Earth's Crust in Southern Italy
- 16:15–16:30 EGU2012-6072
S. A. McEnroe, K. Fabian, and P. Robinson
 Exsolution lamellae and other microstructures in oxides as an influence on magnetic anomalies
- 16:30–16:45 EGU2012-10806
F. Ferraccioli
 Recent Aeromagnetic Anomaly views of the Antarctic continent
- 16:45–17:00 EGU2012-4436
T. Litvinova, S. Kashubin, and O. Petrov
 Zoning of the Circumpolar Region after the potential fields character
- 17:00–17:15 EGU2012-5093
R. De Ritis, G. Ventura, and M. Chiappini
 Aeromagnetic anomalies reveal hidden tectonic and volcanic structures in the Aeolian Islands, southern Tyrrhenian Sea, Italy

EMRP1.7 – Lithospheric magnetic anomalies: observation, processing, modelling and nature of sources – Posters

Convener: J. V. Korhonen | Co-Conveners: A. De Santis, E. Thebault, T. Litvinova

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: De Santis, A.

- A36 EGU2012-9570
A. Goepel, M. Queitsch, M. Lonschinski, A. Eitner, M. Meisel, S. Reißig, J. Engelhardt, G. Büchel, and N. Kukowski
 A new high resolution total magnetic intensity data set of the Laacher See Volcano in the East-Eifel volcanic field, Germany
- A37 EGU2012-4774
G. Gabriel, P. Skiba, C.M. Krawczyk, M. König, and C. Bucker
 Interpretation of short-wavelength anomalies in aeromagnetic data from different epochs: a case study in Northern Germany
- A38 EGU2012-10595
T. Jordan, R. F. Neale, and F. Ferraccioli
 High-resolution aeromagnetic views of the Antarctic Peninsula: new snapshots of the magmatic arc from Adelaide Island
- A39 EGU2012-10704
T. A. Jordan, F. Ferraccioli, N. Ross, M.J. Siegert, H. Corr, P.T. Leat, R.G. Bingham, D.M. Rippin, and A. le Brocq
 Aeromagnetic evidence for a major strike-slip fault zone along the boundary between the Weddell Sea Rift and East Antarctica

- A40 EGU2012-10862
F. Ferraccioli, **E. Armadillo**, and E. Bozzo
Aeromagnetic legacy for a diffuse intraplate boundary between northern Victoria Land and the Wilkes Subglacial Basin (East Antarctica)
- A41 EGU2012-2608
A. De Santis, F. Ferraccioli, M. Catalan, and T. Ishihara
Statistical distribution of lithospheric magnetic anomalies as manifestation of growth-decay mechanism of geodynamics
- A42 EGU2012-4416
T. Litvinova and A. Petrova
Investigations of the petrogenesis zones western Bering sea by airborne geophysical data
- A43 EGU2012-1936
H. L. Zhang, X. Y. Hu, and T. Y. Liu
An improvement approach to the interpretation of magnetic data
- A44 EGU2012-6775
N. Isezaki, J. Matsuo, and K. Sayanagi
Magnetization structure of thermal vent on island arc from vector magnetic anomalies using AUV
- A45 EGU2012-13747
S.A. Friedman, **E.C. Ferré**, F.A. Martín-Hernández, J.M. Feinberg, D.A. Ionov, and J.A. Conder
What is Magnetic in the mantle? Insights into magnetic minerals in mantle xenoliths
- A46 EGU2012-7914
V. Dobrica, C. Demetrescu, and R. Greculeasa
On the crustal bias of repeat stations in Romania
- A47 EGU2012-9992
M. Brönnner, K. Fabian, A. Nasuti, and S. A. McEnroe
An aeromagnetic double cover of Karasjok, Norway
- A48 EGU2012-10880
J. V. Korhonen and the GTK Team
Basic Compilation of WDMAM Data Contributions
- A49 EGU2012-8786
E. Thebault and F. Vervelidou
CHAMP, SWARM, and WDMAM magnetic data; three reasons for further developing techniques for modeling the lithospheric magnetic field at regional scales
- A50 EGU2012-8788
V. Lesur, M. Rother, E. Thébault, and F. Vervelidou
CHAMP data, noise & lithospheric magnetic field
- A51 EGU2012-6809
A. Plattner and **F. J. Simons**
Vector-valued spherical Slepian functions for lithospheric-field analysis
- A52 EGU2012-10271
K. Sayanagi, N. Isezaki, J. Matsuo, M. Harada, T. Kasaya, K. Nishimura, and H. Baba
Development of marine magnetic vector measurement system using AUV and deep-towed vehicle

EMRP1.8 – Explaining the diversity of planetary interior dynamics and magnetic fields – Posters

Convener: J. Wicht | Co-Conveners: E. Qamili, M. Manda, N. Nettelmann, J. Noir

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: M. Manda

- A53 EGU2012-6705
K. Hori and J. Wicht
Cessation of early Martian dynamos due to subcriticality
- A54 EGU2012-5636
V.A. Ridley and **R. Holme**
The magnetic field and secular variation of Jupiter
- A55 EGU2012-8640
W.D. Dietrich, J.W. Wicht, and U.C. Christensen
Time variability of hemispherical dynamos: An application to Mars
- A56 EGU2012-7278
J. Wicht
Dynamos driven by differential rotation
- A57 EGU2012-10690
T. Rückriemen, D. Breuer, and T. Spohn
Ganymede's core in the Fe-snow regime: The influence of latent heat on the chemical gradient

- A58 EGU2012-5853
R.J. Teed, C.A. Jones, and R. Hollerbach
Rapidly rotating plane layer convection with zonal flow
- A59 EGU2012-3750
H. Cao, C. T. Russell, J. Wicht, U.R. Christensen, and M.K. Dougherty
The Size of the Solid Inner Core and Magnetic Field Configuration at the Dynamo surface
- A60 EGU2012-2824
A. Giesecke, G. Gerbeth, Th. Gundrum, O. Kirillov, M. Seilmayer, and F. Stefani
DRESDYN: A large scale liquid sodium facility for experiments on dynamo action and related magnetic instabilities
- A61 EGU2012-6015
T. Gastine, L. Duarte, and J. Wicht
Anelastic dynamo models of gas giants

EMRP2.2/GMPV6.21/SM5.6/TS3.3 – A tribute to Luigi Burlini (co-organized) – Posters

Convener: A. Schubnel | Co-Conveners: S. Vinciguerra

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Zappone

- A62 EGU2012-1167
R.H.C. Bruijn, B.S.G. Almqvist, A. Biedermann, M.I. Erni, N. Tisato, B. Tripoli, and A.S. Zappone
The Swiss Atlas of Physical Properties of Rocks (SAPHYR): progress and developments
- A63 EGU2012-2294
A.M. Hirt, Q. Wang, and A.R. Biedermann
Relationship among petrofabric, magnetic anisotropy and seismic anisotropy in dunite
- A64 EGU2012-2450
L. Caricchi, C. Annen, A. Rust, and J. Blundy
Reconstructing modalities of magma storage in the crust by thermo-rheological modelling
- A65 EGU2012-2788
P. Benson and A. Zappone
Seismic properties of Southalpine metapelite at high temperatures and pressures: revisiting the alpha-beta quartz phase transition
- A66 EGU2012-3380
M. Pistone, L. Caricchi, P. Ulmer, E. Reusser, F. Marone, and L. Burlini
Rheology of Three-Phase Magmas
- A67 EGU2012-4428
S. Vinciguerra, P. Benson, P.G. Meredith, G. Di Toro, G. De Natale, J.P. Burg, P.R. Young, and L. Caricchi
Understanding pre-eruptive patterns: the rock physics interpretation
- A68 EGU2012-4515
A. Schubnel, J. Fortin, L. Burlini, and Y. Guéguen
How Luigi saved our (experimental) life?
- A69 EGU2012-6727
H Schijns, **I Jackson**, and D R Schmitt
Laboratory Measurements of Frequency-Dependent Seismic Properties of Cracked and Fluid-Saturated Media
- A70 EGU2012-10012
C. Madonna, N. Tisato, C. Delle Piane, and E. H. Saenger
Measurements of seismic wave attenuation for frequencies between 0.1 and 100 Hz in a Paterson Rig
- A71 EGU2012-12326
B. Cordonnier, B. Kaus, M. Manga, L. Caricchi, M. Pistone, J. Castro, K.-U. Hess, S. Gottschaller, D.B. Dingwell, and L. Burlini
Brittle onset of monodispersed magmatic suspensions: from spheres to spheroid
- A72 EGU2012-12876
B.S.G. Almqvist, M. Herwegh, A.M. Hirt, A. Ebert, J. Linckens, J. Precigout, B. Leiss, J.M. Walter, and J.-P. Burg
Laboratory seismic anisotropy in mylonites

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

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

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 Fusseis 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. Fusseis

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. Füsseis, 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

GM4.7 – Late Quaternary environments and societies: progress in geoarchaeology (co-listed) – Posters

Convener: H. Brückner | Co-Conveners: M. Engel

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: H. Brückner & M. Engel

- XL143 EGU2012-8
D. Psomiadis, **M. Ghilardi**, F. Demory, and D. Delanghe-Sabatier
New insights for the Late Pleistocene to Mid Holocene landscape reconstruction in the Western part of the Thessaloniki Plain (Greece): evidence for an abrupt transition and consequences on the settling history

- XL144 EGU2012-15
M. Ghilardi, D. Psomiadis, F. Longo, V. Amato, F. Demory, D. Delanghe-Sabatier, M. Collet, L. Sinibaldi, and N. Carayon
Palaeoenvironmental investigations in the vicinity of Ancient Phaistos (Crete, Greece): preliminary results
- XL145 EGU2012-104
E. Fouache, S. Desruelles, W. Eddargach, C. Cammas, J. Wattez, C. Martin, M. Tengberg, C. Cable, and C. Thornton
When was irrigation first used in Bat (Wadi Sharsah, northwestern Oman)?
- XL146 EGU2012-1606
G. Kaufmann, **B. Ullrich**, and P. Hoelzmann
Multi-geophysical exploration of iron-age settlement sites: From field measurements to model predictions
- XL147 EGU2012-2312
M. Martín Seijo, J. Mayo Torné, C. Mayo Torné, and R. Piqué i Huerta
Forest Resources, Chiefdoms and Mortuary Practices in the Neotropics: Preliminary Archaeobotanical Analysis from El Caño Funerary Complex (Coclé Province, Panamá)
- XL148 EGU2012-2481
M. Dotterweich, J. Rodzik, W. Zgórecki, A. Schmitt, G. Schmidtchen, and H.R. Bork
High resolution studies of gully erosion, sedimentation processes, and land use changes since the late Pleistocene and future trajectories in the Kazimierz Dolny area (Nałęczów Plateau, SE-Poland)
- XL149 EGU2012-2898
A. Petropoulou
Relation between the Classical Sciences and Geographic Information Systems (GIS).
- XL150 EGU2012-6076
J.F. Berger, P.G. Salvador, **G. Erkens**, W.H.J. Toonen, L. Purdue, A. Barra, and P. Houben
Hydroclimatic signal and LBK cultural activity in the Upper and Lower Rhine, inferred from abandoned channel fill deposits
- XL151 EGU2012-7114
E. Eckmeier and R. Gerlach
Characterization of archaeological soils and sediments using VIS-spectroscopy
- XL152 EGU2012-9413
V. Heyvaert, D. Kaniewski, M. Sintubin, K. Sz Kornik, G. Verstraeten, and J. Walstra
Studying the driving forces of landscape change in the surroundings of the Late Bronze Age harbor town Halla Sultan Tekke, Cyprus.
- XL153 EGU2012-9519
J. Walstra, **V. Heyvaert**, and P. Verkinderen
The role of rivers in ancient societies, or how man transformed the alluvial landscapes of Khuzestan (SW Iran)
- XL154 EGU2012-9926
G. Sarti, V. Rossi, A. Amorosi, D. Bertoni, A. Ribolini, I. Sammartino, and G. Zanchetta
Deciphering natural to anthropogenic control on sedimentation: the Late Holocene Magdala (Kinneret Lake, Israel) harbour history
- XL155 EGU2012-11383
M. Forbriger, K. Schitteck, B. Höfle, C. Siart, and B. Eitel
Multi-method investigation of cushion peatlands (
- XL156 EGU2012-11401
C. Cammas, J. Blanchard, P. Broutin, and A. Berga
Pedo-sedimentary record of human-environment interaction in ditches and waterlogged depressions on tableland (Roman and early medieval period) : micromorphological cases studies from Marne-la-Vallée area (Paris Basin, France)
- XL157 EGU2012-11729
E. Draganits
Relative sea-level change in the central Cyclades (Greece) since the Early Bronze Age
- XL158 EGU2012-13901
S. Sechi-Sapowicz, D. Sebag, B. Laignel, and T. Lepert
The last millennia history of detrital sedimentation in the Lower Seine Valley geosystem (Normandy, NW France)
- XL159 EGU2012-12033
Q. Borderie, C. Cammas, and C. Petit
The geoarchaeology of urban wastes: from refuses to activities and towns organisation (France, 6th c. BC - 10th c. AD)

ML16 – Louis Néel Medal Lecture by James R. Rice (co-listed) – Orals

Convener: G. Dresen

Room: 36

Chairperson: n.n.

19:00–20:00 EGU2012-14442

J.R. Rice

Materials Physics of Faults in Rapid Shear and Consequences for Earthquake Dynamics (Louis Néel Medal Lecture)

Thursday, 26 April

EMRP1.8 – Explaining the diversity of planetary interior dynamics and magnetic fields – Orals

Convener: J. Wicht | Co-Conveners: E. Qamili, M. Mandea, N. Nettelmann, J. Noir

Room: 42

Chairperson: J. Wicht

- 13:30–13:45 EGU2012-2495
M. Purucker, C. Johnson, B. Anderson, H. Korth, R. Winslow, J. Nicholas, J. Head, S. Solomon, M. Zuber, J. Slavin, I. Alexeev, R. Phillips, and D. Paige
 Processes producing the large-scale magnetic field of Mercury
- 13:45–14:00 EGU2012-2499
C.B. Forest
 Dynamos in the Lab and Implications for Planetary Magnetism
- 14:00–14:15 EGU2012-3040
C.A. Jones
 Some Recent Developments in Planetary Dynamo Simulations
- 14:15–14:30 EGU2012-5986
D. Heyner, J. Wicht, N. Gómez-Pérez, D. Schmitt, H.-U. Auster, and K.-H. Glassmeier
 Evidence from numerical experiments for a feedback dynamo generating Mercury's magnetic field.
- 14:30–14:45 EGU2012-11344
 N. Gómez Pérez and **M. H. Heimpel**
 The structure of deeply seated high latitude jets in numerical models of giant planets
- 14:45–15:00 EGU2012-12697
D. Breuer and V. Stamenkovic
 Magnetic field generation in terrestrial bodies: from planetesimals to large exo planets
- 15:00–15:15 EGU2012-10578
M. French, W. Lorenzen, A. Becker, N. Nettelmann, and R. Redmer
 Ab initio calculation of transport properties of hydrogen-helium mixtures along the isentrope of Jupiter

EMRP2.4/TS2.8 – Strain localization and hydro-mechanical coupling (co-organized) – Posters

Convener: P. Baud | Co-Conveners: E. Tondi, F. Balsamo, J. Fortin, P. Adler, A. Maineult, M. Cacace

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Patrick Baud

- A8 EGU2012-2792
A. Rustichelli, E. Tondi, F. Agosta, A. Cilona, and M. Giorgioni
 Development and distribution of bed-parallel compaction bands and pressure solution seams in carbonates (Bolognano Formation, Majella Mountain, Italy)
- A9 EGU2012-9836
A. Cilona, P. Baud, E. Tondi, F. Agosta, S. Vinciguerra, A. Rustichelli, and C.J. Spiers
 Deformation bands in porous carbonate grainstones: field and laboratory observations
- A10 EGU2012-5865
 Y. Ji, **P. Baud**, S. Hall, and T.-f. Wong
 Imaging strain localization in porous limestone by X-ray Computed Tomography and Digital Image Correlation
- A11 EGU2012-9408
J. Raphanel, M. Bourcier, A. Dimanov, E. Héripré, and M. Bornert
 Digital Image Correlation and Finite Element Simulations Applied to the Analysis of the Mechanisms of Plastic Deformation of Synthetic Halite
- A12 EGU2012-5641
X.-q. Wang, A. Schubnel, J. Fortin, Y. Gueguen, and H.-k. Ge
 Crack Damage in Granite: Physical and Mechanical Consequences
- A13 EGU2012-5660
S. Loaiza, J. Fortin, A. Schubnel, Y. Guéguen, M. Moreira, and S. Vinciguerra
 Mechanical behavior and localized failure modes in a porous basalt from the Azores
- A14 EGU2012-5994
B. Haimson and X. Ma
 From KTB amphibolite to Bentheim sandstone: the diminishing effect of the intermediate principal stress on faulting and fault angle

- A15 EGU2012-1943
J.-J. Dong and W.-J. Wu
Estimating the permeability-depth relation of sedimentary rocks based on the porosity-permeability relation and porosity well logging
- A16 EGU2012-2250
D. Picard, A. Dimanov, and J. Raphanel
Experimental investigation of structures and rheology on halite single-crystals: In-situ approach.
- A17 EGU2012-2779
A. Förster and Ch. Lempp
Microscale Rock mechanics: Determination with finite strain analyses
- A18 EGU2012-5613
G. Okay and **P. Leroy**
Induced polarization of clay-sand mixtures. Experiments and modelling.
- A19 EGU2012-6934
G. Gurin, Yu. Ilyin, A. Tarasov, and **K. Titov**
Spectral induced polarization of disseminated electronic conductors: laboratory data obtained through time domain measurements
- A20 EGU2012-12961
D. Korost, K. Gerke, R. Valsiliyev, and M. Karsanina
Filtration and electrical properties of porous media determined via microscale numerical modeling
- A21 EGU2012-13527
M. Duda and J. Renner
Ultrasound P-wave velocities and amplitudes during triaxial deformation of three sandstone varieties: the chances to monitor different states of internal drainage

GM4.7 – Late Quaternary environments and societies: progress in geoarchaeology (co-listed) – Orals

Convener: H. Brückner | Co-Conveners: M. Engel

Room: 22

Chairperson: M. Engel & H. Brückner

- 13:30–13:45 EGU2012-9975
A. Raab, **T. Raab**, M. Takla, A. Nicolay, F. Müller, H. Rösler, and E. Bönisch
Reconstructing past environments and societies - interdisciplinary research in the open cast mine Jänschwalde, Germany
- 13:45–14:00 EGU2012-1700
J. F. Tolksdorf and K. Kaiser
Are phases of increased Holocene aeolian dynamics in the North European Plain indicating past human induced soil erosion?
- 14:00–14:15 EGU2012-1
M. Ghilardi, M. Colletu, S. Fachard, D. Psomiadis, F. Demory, D. Delanghe-Sabatier, M. Triantaphyllou, K. Pavlopoulos, and A. Bicket
Geoarchaeology of Ancient Avlida (Boeotia, Central Greece): a long-term connectivity between human occupation and landscape changes
- 14:15–14:30 EGU2012-3700
K. Nicoll
Records of urbanism, imperialism, & environmental change in southeastern Turkey
- 14:30–14:45 EGU2012-3827
P.C. Fanning, S.J. Holdaway, J. Shiner, and F. Petchey
Geoarchaeological approaches to understanding human-environment interactions in Australia's tropical north: the Weipa shell mounds revisited.
- 14:45–15:00 EGU2012-921
J. Brancier, C. Cammas, D. Todisco, and E. Fouache
Precolombian settlements in French Guiana : geoarchaeological approach toward a new understanding of the human impact on landscape.

ML17 – Petrus Peregrinus Medal Lecture by Frank J. Lowes (co-listed) – Orals

Convener: G. Dresen

Room: 18

Chairperson: n.n.

- 19:00–20:00 EGU2012-14448
F.J. Lowes
Orthogonality of Harmonic Potentials and Fields in Spheroidal Coordinates (Petrus Peregrinus 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

Friday, 27 April

EMRP1.5 – Polarity Transitions and Geomagnetic Excursions: What has Half a Century of Geomagnetic and Palaeomagnetic Research Revealed About Them? – Orals

Convener: J. Liddicoat | Co-Conveners: V. Kravchinsky, Dr Thouveny

Room: 17

Chairperson: J. Liddicoat, V. Kravchinsky

- 08:30–08:45 EGU2012-12802
K.A. Hoffman, B.S. Singer, and N. Mochizuki
50 Years of Polarity Transition Records: Understanding the Geodynamo Reversal Process
- 08:45–09:00 EGU2012-1913
J.-P. Valet and A. Fournier
Dynamics and timing of reversals
- 09:00–09:15 EGU2012-10478
J.E.T. Channell
Geomagnetic excursions in the Brunhes and Matuyama Chrons: Do they come in bunches?
- 09:15–09:30 EGU2012-3440
H. Oda, K. Fabian, and R. Leonhardt
Refinement on geometry of Matuyama-Brunhes polarity transition from paleomagnetic records
- 09:30–09:45 EGU2012-11416
M. C. Brown, B. R. Jicha, B. S. Singer, and J. Shaw
40Ar/39Ar age of a large amplitude directional fluctuation during the Matuyama-Brunhes reversal, Guadeloupe
- 09:45–10:00 EGU2012-5397
G. Fanjat, **P. Camps**, K. Hoffman, T. Poidras, C. Carvallo, and B. Kennedy
Behavior of the transitional field during the miocene (9 Ma) Akaroa polarity reversals, New Zealand: High paleointensities and clustering of VGPs ?

EMRP1.5 – Polarity Transitions and Geomagnetic Excursions: What has Half a Century of Geomagnetic and Palaeomagnetic Research Revealed About Them? – Posters

Convener: J. Liddicoat | Co-Conveners: V. Kravchinsky, Dr Thouveny

Hall A | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: V. Kravchinsky, J. Liddicoat

- A1 EGU2012-3469
H. Oda, K. Nakamura, T. Nakano, M. Nishimura, and O. Khlystov
Paleomagnetic records of Iceland Basin Excursion from Lake Baikal: Detailed morphology of VGP paths and relative paleointensity
- A2 EGU2012-5730
G.J. Potts and R. Holme
Are all reversals symmetric? The search for latent components of magnetisation in late Precambrian (Torridonian) sediments of Northwest Scotland.
- A3 EGU2012-6694
M. E. Evans, B.J. Jensen, V.A. Kravchinsky, and D.G. Froese
Geomagnetic Excursions in Alaskan Loess
- A4 EGU2012-6707
J. Liddicoat and V. Kravchinsky
Reexamination of the Matuyama-Brunhes Polarity Transition Near Bishop, California
- A5 EGU2012-6716
R. Coe and **J. Liddicoat**
Possible Recording of the Hilina Pali Excursion in the Mono Basin, California
- A6 EGU2012-8145
M. Bourne, C. Mac Niocaill, M. F. Knudsen, A. L. Thomas, and G. M. Henderson
A Comparison of two Brunhes Chron Geomagnetic Excursions Recorded by Neighbouring North Atlantic Sites (ODP Sites 1062 and 1063)
- A7 EGU2012-9655
J. Liddicoat, R. Coe, and J. Oviatt
Two Possible but Unconfirmed Palaeomagnetic Excursions in Pleistocene Lacustrine Sediments in North America and Mexico

A8 EGU2012-10353

P. Robinson, R.J. Harrison, K. Fabian, S. A. McEnroe, and N. Miyajima

A new perspective on self-reversed thermo-remanent magnetization and room-temperature magnetic exchange bias in quenched and annealed ferri-ilmenite solid solutions

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

SM3.10/EMRP2.10/ERE5.5 – Seismo-electromagnetic conversions: observations, theory and modelling (co-organized) – Orals

Convener: J. Holzhauer | Co-Conveners: E. Slob, M. Dietrich

Room: 2

Chairperson: n.n.

- 08:30–08:45 EGU2012-5255
S. Warden, S. Garambois, P. Sailhac, L. Jouniaux, M. Bano, and M. Dietrich
 Curvelet-based seismoelectric data processing
- 08:45–09:00 EGU2012-6725
H. Hu, W. Guan, and W. Zhao
 Theoretical studies of permeability inversion from seismoelectric logs
- 09:00–09:15 EGU2012-13450
P. Sammonds, D. Eccles, and P. Meredith
 Influence of elevated temperature and pore fluid chemistry on electrokinetic signals generated during the deformation of sandstone
- 09:15–09:30 EGU2012-1648
B. Kröger and A. Kemna
 Characteristics of seismoelectric interface responses at dipping boundaries
- 09:30–09:45 EGU2012-10011
N. Grob, J.W. Thorbecke, and E.C. Slob
 ESSEMOD - Electroseismic and Seismoelectric Flux-Normalized Modeling for Horizontally Layered, Radially Symmetric Configurations
- 09:45–10:00 EGU2012-286
F. I. Zyserman, P. M. Gauzellino, and J. E. Santos
 Electroseismics as a methane hydrate prospecting tool

SM3.10/EMRP2.10/ERE5.5 – Seismo-electromagnetic conversions: observations, theory and modelling (co-organized) – Posters

Convener: J. Holzhauer | Co-Conveners: E. Slob, M. Dietrich

Hall X/Y | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: M. Dietrich & J. Holzhauer

- XY520 EGU2012-12652
V. Allègre, P. Sénéchal, C. Bordes, L. Jouniaux, and S. Warden
 On the use of a combined geophysical approach to estimate the seismoelectric amplitude dependence on water content
- XY521 EGU2012-12939
M. Dietrich, F. Delprat-Jannaud, and S. Garambois
 Transient electrokinetic response of finely layered, fluid-filled porous media
- XY522 EGU2012-6770
C. Yin, J. Wang, A. Qiu, X. Liu, and H. Hu
 A Circuit Model for the Measurement of the Streaming Potential in a Rock Sample
- XY523 EGU2012-8193
 P. Sénéchal and **C. Bordes**
 On the relevance of the acquisition configuration for seismoelectric recording
- XY524 EGU2012-7469
C. Bordes, P. Sénéchal, S. Garambois, J. Holzhauer, and D. Brito
 On the convenience of static and dynamic transfer functions in seismoelectric data: the role of permeability

- XY525 EGU2012-6792
Z. Wang, **W. Guan**, Y. Gao, and H. Hu
2-D FDTD computation of seismoelectric fields excited by an underground double couple in a horizontally layered formation
- XY526 EGU2012-13876
J. Holzhauer, T. Günther, and U. Yaramanci
Consideration of the first Fresnel zone characterisation while investigating on seismoelectric interfacial conversions
- XY527 EGU2012-6253
J. Holzhauer, C. Bordes, F. Oppermann, D. Brito, and U. Yaramanci
Impact of permeability on seismoelectric transfer function of P waves
- XY528 EGU2012-1676
B. Kröger and A. Kemna
Anatomical and morphogenetic analysis of seismoelectric conversion patterns at geological units
- XY529 EGU2012-10636
N. Grobbe, F.C. Schoemaker, M.D. Schakel, S.A.L. de Ridder, E.C. Slob, and D.M.J. Smeulders
Electrokinetic Fields and Waves: Theory, Experiments and Numerical Modeling
- XY530 EGU2012-3539
S. Park and N.H. Sung
Induced Polarization Responses of the Specimen with Sulfide Ore Minerals

