

EGU General Assembly 2011
Programme Group Programme
BG – Biogeosciences

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Monday, 04 April

BG1.4 – Frontiers in geobiology: New insights and developments in microbial mineralization processes, biosignatures and chemical imaging – Orals

Convener: Christine Heim | Co-Conveners: Barbara Cavalazzi, Frédéric Foucher, Frances Westall, Daniel Alessi, Helga Stan-Lotter, Harish Veeramani, Bryne Ngwenya

Room: 24

Chairperson: Christine Heim

- 08:30–09:00 EGU2011-11422
Andrew Steele and Marc Fries
Confocal Raman Imaging Spectroscopy in Planetary Science - A Perspective
- 09:00–09:15 EGU2011-11529
Jan Toporski and Andrea Jauss
Topographic Confocal Raman Imaging - applications and potential in Geosciences
- 09:15–09:30 EGU2011-2946
Frédéric Foucher and Frances Westall
Micro-Raman study of Precambrian Permineralized Cells from the Draken Formation.
- 09:30–09:45 EGU2011-2792
Martin Hilchenbach, Harald Krüger, Christelle Briois, Jochen Kissel, Yves Langevin, Johan Silen, and Rita Schulz
COSIMA - An in-situ cometary grain TOF-SIMS scanning instrument
- 09:45–10:00 EGU2011-12852
Sandra Siljeström, Jukka Lausmaa, Herbert Volk, Simon George, Peter Sjövall, Adriana Dutkiewicz, and Tomas Hode
Analysis of single Precambrian oil-bearing fluid inclusions as a way of constraining evolution of eukaryotes

COFFEE BREAK

Chairperson: Daniel Alessi; Helga Stan-Lotter

- 10:30–11:00 EGU2011-11102
Geoffrey Gadd
Metals, minerals and microbes: geomicrobiology and bioremediation
- 11:00–11:15 EGU2011-9458
Karim Benzerara, Laure Mondani, Julie Cosmidis, Virginie Chapon, Guillaume Morin, Andreas Kappler, and Jennyfer Miot
Open questions on the significance, mechanisms and environmental implications of microbial biomineralization involved in metal and radionuclide sequestration
- 11:15–11:30 EGU2011-12026
Carsten Mueller, Carmen Höschen, Katja Heister, and Ingrid Kögel-Knabner
Submicron analysis of soil interface composition using NanoSIMS
- 11:30–11:45 EGU2011-781
Harish Veeramani, Daniel Alessi, Elena Suvorova, Juan Lezama-Pacheco, Joanne Stubbs, Jonathan Sharp, Urs Dippon, Andreas Kappler, John Bargar, and Rizlan Bernier-Latmani
Products of abiotic U(VI) reduction by biogenic Fe(II)-bearing minerals
- 11:45–12:00 EGU2011-14203
Joseph Seckbach and Julian Chela-Flores
Life in extreme habitats: implications for astrobiology

BG1.4 – Frontiers in geobiology: New insights and developments in microbial mineralization processes, biosignatures and chemical imaging – Posters

Convener: Christine Heim | Co-Conveners: Barbara Cavalazzi, Frédéric Foucher, Frances Westall, Daniel Alessi, Helga Stan-Lotter, Harish Veeramani, Bryne Ngwenya

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Frédéric Foucher, Harish Veeramani

- BG1 EGU2011-268
Maria Cherbunina, Svetlana Filippova, Natalia Surgucheva, Anatolij Brouchkov, Gennadij Griva, and Valerij Galchenko
Corynebacteria from relict permafrost
- BG2 EGU2011-4778
Helga Stan-Lotter, Sergiu Fendrihan, Michael Grösbacher, Marion Dornmayr-Pfaffenhuemer, Andrea Legat, Claudia Gruber, Friedrich Gerbl, Anita Holzinger, Tatjana Polacsek, and Angelika Breittfuß
Life detection in ancient subsurface salt sediments and in radioactive thermal springs in the central alps.
- BG3 EGU2011-2658
Suyin Yang, Bryne Ngwenya, Ian Butler, and Stephen Elphick
Zn transport and fate in sand columns containing microbial biofilms
- BG4 EGU2011-7456
Aridane G. González, Feliz Jimenez-Villacorta, Ludmilla S. Shirikova, Oleg S. Pokrovski, J. Magdalena Santana-Casiano, Melchor González-Dávila, and Ecaterina E. Emnova
Speciation of Fe adsorbed on soil and aquatic bacteria: XAS structural study
- BG5 EGU2011-7843
Sarah Kremer, Marc Parmentier, Mohamed Azaroual, and Lionel Mercury
Thermo kinetic modeling of microbially mediated redox reactions using batch experiments mixing soil and a treated sewage effluent
- BG6 EGU2011-2430
Iso Christl, Martin Imseng, Enrico Tatti, Jakob Frommer, Carlo Viti, Luciana Giovannetti, and Ruben Kretzschmar
Aerobic reduction of chromium(VI) by *Pseudomonas corrugata* 28: Influence of metabolism and fate of reduced chromium
- BG7 EGU2011-8643
André Burnol, Jennifer Harris-Hellal, Jacques-André Bourdoiseau, Catherine Crouzet, Claire Beny, and Fabienne Battaglia-Brunet
Comparison of arsenic and mercury release linked to iron and sulfur biogeochemical processes
- BG8 EGU2011-9348
Sebastien Poulain, Subramaniam Eswaramoorthy, Rainer Hienerwadel, Nicolas Bremond, Matthew D. Sylvester, Virginie Chapon, Catherine Berthomieu, and A.c. Matin
Molecular basis of ChrR improvement for metal and radionuclide bioremediation
- BG9 EGU2011-4509
Pierre-Joseph Hatton, Laurent Remusat, Peter Nico, Bernd Zeller, Markus Kleber, and Delphine Derrien
Joining STXM-NEXAFS and NanoSIMS technologies to map soil mineral-organic microstructures isolated from a decadal 15N litter experiment
- BG10 EGU2011-13615
Andrey Korsakov, Thomas Dieing, and Jan Toporsky
Raman imaging of metamorphic diamonds from the Kokchetav Massif (Northern Kazakhstan)
- BG11 EGU2011-12707
Nicolas Bost, Frances Westall, Claire Ramboz, Frédéric Foucher, and Damien Do Couto
Raman and cathodoluminescence imagery: complementary tools for Martian Geology and the search Early Life on Mars.
- BG12 EGU2011-13093
Sabine Hild, Katja Huemer, Andreas Ziegler, and Bastian Seidler
Confocal Micro-Raman spectroscopy investigation of calcite biomineral phase: The case of terrestrial isopod *Porcellio scaber*
- BG13 EGU2011-12278
Alexander M. Gigler, Melanie Kaliwoda, Rupert Hochleitner, Takashi Mikouchi, Wolfgang W. Schmahl, and Viktor H. Hoffmann
Raman Spectroscopic Investigation of Almahata Sitta Combined with Electron Microprobe Analyses
- BG14 EGU2011-10560
Harald Pognier, Gernot Nehrke, Thomas Brey, Doris Abele, and Dorothee Wilhelms-Dick
Coexistence of three calcium carbonate polymorphs in the shell of the Antarctic clam *Laternula elliptica*: Consequences for trace metal incorporation
- BG15 EGU2011-10687
Ralf Milke, Nicholas Norberg, Gregor Neusser, Richard Wirth, and Konrad Hammerschmidt
From thrown away beer bottles to a bio-integrated nanomaterial with possible future applications
- BG16 EGU2011-8415
Tim Leefmann, Christine Heim, Jukka Lausmaa, Peter Sjövall, Danny Ionescu, Joachim Reitner, and Volker Thiel
Imaging mass spectrometry in the study of biofilm formation in a subsurface environment
- BG17 EGU2011-11864
Christine Heim, Jukka Lausmaa, Peter Sjövall, Jan Toporski, Thomas Dieing, Klaus Simon, Bent T. Hansen, Joachim Reitner, and Volker Thiel
An integrated geochemical approach to microbial biosignatures from a subterranean deep biosphere

- BG18 EGU2011-11337
Barbara Zippel, Christine Heim, Danny Ionescu, Thomas R. Neu, Dirk de Beer, Joachim Reitner, and Volker Thiel
 High resolution characterization of stromatolitic iron oxidizing microbial mats from a subterranean deep biosphere
- BG19 EGU2011-12940
Niculina Musat, Birgit Adam, and Marcel Kuypers
 Simultaneous imaging of microbial identity and function by NanoSIMS

BG1.5 – Remote Sensing in the Biogeosciences – Orals

Convener: Frank Veroustraete | Co-Conveners: Willem Verstraeten, Klaus Scipal, Wolfgang Wagner, Inge Jonckheere

Room: 24

Chairperson: Dr. Frank Veroustraete/ Dr. Inge Jonckheere

- 13:30–13:45 EGU2011-8376
Jouni Jussila and Uwe Rascher
 Developments of Hyperspectral Remote Sensing Systems for Vegetation Research
- 13:45–14:00 EGU2011-1299
Vasileios Kalogirou, Paolo Ferrazzoli, Leila Guerriero, and Andrea Della Vecchia
 Coupling the Tor Vergata microwave scattering model with a plant architectural model
- 14:00–14:15 EGU2011-9160
Stefan Kraft, Bernardo Carnicero Dominguez, Matthias Drusch, Jean-Loup Bezy, Roland Meynart, Luis Guanter, Luis Alonso, and Jose Moreno
 Remote Sensing of Vegetation Fluorescence from Space within the ESA Earth Explorer Programme
- 14:15–14:30 EGU2011-11332
Gabriel Hmimina, Eric Dufrêne, Nicolas Delpierre, and Kamel Soudani
 Tower-Based Photochemical Reflectance Index measurements to assess ecophysiological responses in a mature deciduous forest.
- 14:30–14:45 EGU2011-1437
 Malcolm Davidson, **Dirk Schuettemeyer**, Remo Bianchi, and Klaus Scipal
 Campaigns in Support of ESA'S Earth Candidate Mission Concept BIOMASS
- 14:45–15:00 EGU2011-6011
Jasper Van doninck, Jan Peters, Bernard De Baets, Eva M. De Clercq, Els Ducheyne, and Niko E.C. Verhoest
 Topographic normalization of thermal infrared data
- Chairperson: Dr. Willem Verstraeten/ Dr. Wolfgang Wagner

- 15:30–15:45 EGU2011-173
Bernard Pinty, Jean-Luc Widlowski, Ioannis Andredakis, Michel Verstraete, Olivier Arino, Marco Clerici, Thomas Kaminski, and Malcolm Taberner
 Snowy backgrounds enhance the absorption of visible light in forest canopies
- 15:45–16:00 EGU2011-6710
Peter Caccetta, John Raison, Robert Waterworth, and Gary Richards
 Linking remote-sensing, ground observations and ecosystem models for improved GHG accounting in land systems
- 16:00–16:15 EGU2011-10704
Iryna Khlystova, Andreas Richter, Folkard Wittrock, Heinrich Bovensmann, John P. Burrows, Silvia Kloster, and Martin Schultz
 Emission Ratios from satellite measurements
- 16:15–16:30 EGU2011-11534
Eva Boegh and the NEU_C4 Team
 Mapping leaf nitrogen and leaf area index in European landscapes using high spatial resolution satellite data and the REGularized canopy reFLECTance (REGFLEC) model
- 16:30–16:45 EGU2011-8685
Sanna Kaasalainen, Teemu Hakala, Juha Suomalainen, and Eetu Puttonen
 Active hyperspectral LiDAR for the study of vegetation
- 16:45–17:00 EGU2011-5684
 Pasi Raumonen, **Mikko Kaasalainen**, Sanna Kaasalainen, and Harri Kaartinen
 Approximation of volume and branch size distribution of trees from laser scanner data

BG1.5 – Remote Sensing in the Biogeosciences – Posters

Convener: Frank Veroustraete | Co-Conveners: Willem Verstraeten, Klaus Scipal, Wolfgang Wagner, Inge Jonckheere

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Dr. Klaus Scipal

- BG20 EGU2011-11663
Klaus Scipal and the BIOMASS Mission Advisory Group Team
Measuring biomass from space - ESA'S BIOMASS Earth Explorer mission candidate
- BG21 EGU2011-12531
Temilola Fatoyinbo, Rafael Rincon, Guoqing Sun, and K. Jon Ranson
EcoSAR: a P-band Interferometric Synthetic Aperture Radar for Forest structure and biomass measurements
- BG22 EGU2011-3288
Patrick Chazette, Kamel Soudani, Philippe Royer, Joseph Sanak, Melody Lardier, Tristan Allouis, Marc Bouvier, and Sylvie Durrieu
Forest canopy attributes derived from airborne lidar above the Barbeau/Fontainebleau forest
- BG23 EGU2011-8801
Brenner Silva, Lukas Lehnert, Andreas Fries, and Jörg Bendix
Monitoring vegetation growth in an experimental plot using balloon-air-photography
- BG24 EGU2011-6244
Dimitry Van der Zande, **Willem W. Verstraeten**, and Pol Coppin
A 3D model of the light interception in heterogeneous forest canopies
- BG25 EGU2011-13990
Ali Reza Khavaninzadeh, **Frank Veroustraete**, Karen Wuyts, Fatima Kardel, and Roeland Samson
Dorsiventral leaf reflectance properties of *Carpinus betulus* L.: An indicator of urban habitat quality
- BG26 EGU2011-6184
Willem Verstraeten, Miguel Barrios, Piet Maes, Jan Clement, Jean-Marie Aerts, Marc Van Ranst, and Pol Coppin
Relating the satellite derived EVI and meteorology with the incidence of Lyme Disease in Belgium
- BG27 EGU2011-6115
Miguel Barrios, **Willem W. Verstraeten**, Piet Maes, Jan Clement, Jean-Marie Aerts, Marc Van Ranst, and Pol Coppin
Spatio-temporal patterns of Nephropathia epidemica and Lyme disease incidence in Belgium
- BG28 EGU2011-10677
Karol Szymankiewicz, Jaroslaw Zawadzki, and Karol Przewdziecki
Forest type inventory using MODIS and MERIS remote sensing images. Study case: Janowskie forest
- BG29 EGU2011-7566
Angela Harris and Jaduandan Dash
A new approach for estimating northern peatland gross primary productivity using a satellite sensor derived chlorophyll index
- BG30 EGU2011-9455
Karsten Kotte and Fabian Löw
Rapid change detection and salt classification as a promising tool to estimate emission of naturally produced organohalogens from saline ecosystems
- BG31 EGU2011-1729
Amani Al Abri and Ray N. Merton
use of Hyperspectral imagery for mapping and monitoring coral reefs of Galapagos Island, Ecuador
- BG32 EGU2011-763
Alireza Sadeghi, Tilman Dinter, Marco Vountas, and Astrid Bracher
Remote sensing of coccolithophore blooms in selected oceanic regions using PhytoDOAS method applied to hyper-spectral satellite data
- BG33 EGU2011-7369
Meiting Hou, Shunqian Zhang, Xiaodong Yan, and Qingtao Qing
Remote sensing detection of droughts and impact assessment based on temperature vegetation dryness index: A case study in Sichuan province, China
- BG34 EGU2011-13684
Frank Veroustraete, Willem W. Verstraeten, Qin Li, Chen Xi, Anming Bao, Qinghan Dong, Tie Liu, and Patrick Willems
Soil Moisture Content Retrieval based on Apparent Thermal Inertia for the Xinjiang province in China
- BG35 EGU2011-128
Armi May Torrechilla-Guzman
Use of Geospatial Technologies in the Assessment of Coral Reefs and Abalone Distribution in Sagay Marine Reserve, Central Philippines
- BG36 EGU2011-13303
Tiziana Simoniello, Maria Lanfredi, Rosa Coppola, Vito Imbrenda, and Maria Macchiato
Estimation of persistence properties of vegetation activity trends at regional scale

- BG37 EGU2011-9251
Daniel Doktor, Arlena Brosinsky, Angela Lausch, and Ines Merbach
 Comparison of imaging and non-imaging hyperspectral sensors observing vegetation in the laboratory
- BG38 EGU2011-7407
Inge Jonckheere, Danae Maniatis, and Danilo Mollicone
 Misrepresenting REDD+ to promote specific technological RS options

BG1.6/OS3.7/SSS4.6 – Stabilization of organic matter in soils, sediments and marine dissolved organic matter (co-organized) – Orals

Convener: Samuel Abiven | Co-Conveners: Michael W. I. Schmidt, Thorsten Dittmar

Room: 23

Chairperson: Samuel Abiven

- 13:30–14:00 EGU2011-5784
Timothy Eglinton, Valier Galy, Bernhard Peucker-Ehrenbrink, Nicholas Drenzek, Angela Dickens, Xiaojuan Feng, Enno Schefuss, Britta Voss, Daniel Montlucon, and Ying Wu
 The origin and evolution of organic matter signatures carried by rivers to the oceans
- 14:00–14:15 EGU2011-1151
Christian Schurig, Rienk Smittenberg, Jürgen Berger, Peter Fittkau, Anja Miltner, and Matthias Kästner
 SOM genesis - microbial biomass fragments could be a significant source in newly exposed ecosystems
- 14:15–14:30 EGU2011-13801
Nimisha Singh, Samuel Abiven, Margaret S. Torn, and Michael W.I. Schmidt
 The uncertain future of pyrogenic carbon in terrestrial system
- 14:30–14:45 EGU2011-3675
Barros Nieves, César Pérez-Cruzado, Josefa Salgado, and Agustín Merino
 Monitoring changes in OM in afforested soils by calorespirometry, thermal analysis and NMR
- 14:45–15:00 EGU2011-8233
Xiaojuan Feng, Jorien E. Vonk, Örjan Gustafsson, Valier Galy, Daniel B. Montlucon, and Timothy I. Eglinton
 Fate of lignin in large river systems across different latitudes - Perspectives from compound-specific radiocarbon analysis
- Chairperson: Thorsten Dittmar
- 15:30–16:00 EGU2011-13657
Gerhard J. Herndl and Thomas Reinthaler
 Refractory deep-ocean dissolved organic matter: Enigmas and inconsistencies about its formation and transformation?
- 16:00–16:15 EGU2011-2445
Thorsten Dittmar, Jiyoung Paeng, Jutta Niggemann, and Aron Stubbins
 Millennium-scale stabilization of marine dissolved organic matter through thermogenesis
- 16:15–16:30 EGU2011-12611
Yves Gelinas, Karine Lalonde, Alfonso Mucci, and Alexandre Ouellet
 The Rusty Sink: Iron Promotes the Preservation of Organic Matter in Sediments
- 16:30–16:45 EGU2011-13891
Williams T. Cooper, Malek M. Tfaily, Rasha Hamdan, J. Elizabeth Corbett, and Jeffrey P. Chanton
 Reactive and Refractory Components of Organic Matter in Peat Soils and their Relation to Climate Change
- 16:45–17:00 EGU2011-10663
Norbert Hertkorn and Philippe Schmitt-Kopplin
 Natural Organic Matter and our Current Capacity to Depict Molecular Dissimilarity

BG1.6/OS3.7/SSS4.6 – Stabilization of organic matter in soils, sediments and marine dissolved organic matter (co-organized) – Posters

Convener: Samuel Abiven | Co-Conveners: Michael W. I. Schmidt, Thorsten Dittmar

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Thorsten Dittmar, Michael W.I. Schmidt, Samuel Abiven

- BG39 EGU2011-7060
Bjorn Erhagen, Ulrik Ilstedt, and Mats B Nilsson
 Temperature response (Q₁₀) of heterotrophic CO₂ production in response to varying simple carbon sources and microbial metabolic status

- BG40 EGU2011-9361
Irina Perminova, Alexander Volikov, Sergey Ponomarenko, Vladimir Kholodov, Elena Lasareva, and Kirk Hatfield
Design of surface-active humic substances capable for stabilization of soil aggregates
- BG41 EGU2011-972
Carlos Rezende, Alex Mazurec, and Plinio Camargo
Carbon and Nitrogen Elemental and Isotopic Composition in Atlantic Forest Soils Submitted to Different Land Uses
- BG42 EGU2011-307
Muhammad Ibrahim, Anwar-ul Hassan, Muhammad Arshad, Sami Ullah, Muhammad Yamin, Sang-Keun Ha, and Keung-Hwa Han
Tillage and organic materials affects soil organic carbon under wheat-rice cropping system in Typic calciargids soils
- BG43 EGU2011-6194
Sarah De Baets, Kristof Van Oost, Karen Baumann, Veerle Vanacker, and Cornelia Rumpel
Lignin signature in response to land abandonment and erosion of dry luvisols in SE Spain
- BG44 EGU2011-422
Bernardo Maestrini, Nimisha Singh, Samuel Abiven, Margaret Torn, Jeffrey Bird, and Michael W I Schmidt
Pyrogenic carbon losses and related priming effect on soil organic matter in a forest topsoil
- BG45 EGU2011-719
Nimisha Singh, Eoin Brodie, Samuel Abiven, Bernardo Maestrini, Jeffery A Bird, Margaret Torn, and Michael W.I. Schmidt
Effect of pyrogenic carbon addition on microbial community structure in forest topsoil
- BG46 EGU2011-13802
Samuel Abiven, Nimisha Singh, and Bernardo Maestrini
Priming effect of pyrogenic carbon on soil organic matter and soil litter: facts, paradoxes and gaps in knowledge.
- BG47 EGU2011-725
Maximilian P.W. Schneider, Johannes Lehmann, and Michael W.I. Schmidt
Charcoal molecular marker quantity and pattern do not change over a century in a tropical climate
- BG48 EGU2011-4914
Stephanie Kloss, Franz Zehetner, Alex Dellantonio, Bernhard Wimmer, Raad Hamid, Volker Liedtke, Franz Othner, Martin Gerzabek, and **Gerhard Soja**
Biochar for carbon sequestration in soil - Effect of feedstock and pyrolysis conditions on physical and chemical biochar characteristics
- BG49 EGU2011-10834
Guillermo Rein
Very Long-Term Sequestration of Solid-Phase Carbon: Geoengineering Facilities for Biochar Storage
- BG50 EGU2011-2161
Isabelle Basile-Doelsch, Pierre Bonnard, Thomas Delhaye, Perrine Chaurrand, Christian Domnici, Daniel Borschneck, and Philippe Dussouillez
Exploring nanoSIMS technique for soil organic matter stabilization issues
- BG51 EGU2011-1029
Huiyu Zhao, Stephane Mounier, Roland Redon, and Cedric Garnier
Characterization of Dissolved Organic Matter 3D-Fluorescence Quenching treated by PARAFAC
- BG52 EGU2011-10940
Nadler Nahindy Simon, Pierre Benoit, Edith Parlanti, Jean-Philippe Croué, and Abbad Chabbi
Adsorption on subsoil horizons of dissolved organic matter (DOM) in agrosystems: inputs of fluorescence spectroscopy
- BG53 EGU2011-778
Malak Tfaily, Jane Corbet, Jeff Chanton, and William Cooper
DOM in Northern Peatlands: Correlating Bulk Spectroscopic Properties with Molecular Composition
- BG54 EGU2011-9338
Jutta Niggemann, Thorsten Dittmar, and Gunnar Gerdt
Assigning reactivities to individual molecules in marine dissolved organic matter
- BG55 EGU2011-2787
Zhuo Yi Zhu, Jing Zhang, Liang Shao, and Ying Wu
Particulate organic matter in the northwest East China Sea—implications from amino acids enantiomers
- BG56 EGU2011-8708
Steffi Rothhardt, Reinhard Gaupp, and Gerd Gleixner
Microbial alteration of organic coatings on sand grains

BG1.9 – Improving Ecohydrological Modeling Across Multiple Scales – Posters

Convener: Yiwei Cheng | Co-Conveners: Marc Stieglitz, Mathew Williams

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Yiwei Cheng

- BG57 EGU2011-710
Umar M. Bibi, Jörg Kaduk, and Heiko Balzter
 Exploring the impact of scale and enhanced soil parameterization on surface energy fluxes in land surface models (LSM) in a semi-arid region
- BG58 EGU2011-949
Yiwei Cheng, Marc Stieglitz, Greg Turk, and Vic Engel
 The Ubiquitous Nature of Nutrient Depletion and the Consequences for Ecosystem Structure
- BG59 EGU2011-11688
Annett Wolf, Sebastian Leuzinger, and Harald Bugmann
 How tree species-specific drought responses influence hydrology
- BG60 EGU2011-12009
Marc Stieglitz, Yiwei Cheng, Greg Turk, and Vic Engel
 Demonstrating the Power of GPU Simulations for an Advection-Reaction-Diffusion Model
- BG61 EGU2011-12384
 Mara Baudena, **Jost von Hardenberg**, and Antonello Provenzale
 Vegetation patterns and soil-atmosphere water fluxes in drylands
- BG62 EGU2011-12839
Sonia Seneviratne, Edouard Davin, Martin Hirschi, Boris Orlowsky, and Adriaan Teuling
 The role of land-climate interactions and ecohydrological feedbacks for the climate system

BG1.10 – Scale Issues in Biogeosciences and Earth System Dynamics – Posters

Convener: Nathaniel Brunzell | Co-Conveners: Stan Schymanski, Murugesu Sivapalan

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- BG63 EGU2011-1680
Michael Roderick and Graham Farquhar
 On the interpretation of catchment-scale parameters in terms of spatial versus temporal variations
- BG64 EGU2011-3651
Guy Schurgers
 Quantifying within-canopy heterogeneity in light absorption and photosynthesis with probability density functions
- BG65 EGU2011-4740
Paul Stoy and Tristan Quaife
 Scaling ecosystem function: Small steps toward a Maximum Entropy framework

IG1/BG1.12/SSP2.3 – Stable Isotopes in Geosciences - Open Session, Including Blocks of Special Attention (co-organized) – Orals

Convener: Pier De Groot | Co-Conveners: Jan Smit, Ana-Voica Bojar, Erik Kerstel, Mihaela Melinte-Dobrinescu

Room: 41

Chairperson: Ana-Voica Bojar and Erik Kerstel

- 13:30–13:45 EGU2011-7257
Hauke Vollstaedt, Anton Eisenhauer, André Krabbenhöft, Volker Liebetrau, Florian Böhm, Juraj Farkas, Adam Tomasovych, and Ján Veizer
 The Paleozoic $\delta^{88}\text{Sr}$ record of marine carbonates - Implications to ocean carbonate chemistry and mass extinction events
- 13:45–14:00 EGU2011-9560
Jessica Whiteside, Paul Olsen, and Morgan Schaller
 Millennial- to Milankovitch-scale physiognomic and ecological floral changes associated with the end-Triassic extinction, carbon isotopic anomaly, and eruption of the Central Atlantic Magmatic Province (CAMP)
- 14:00–14:15 EGU2011-6088
Martino Giorgioni, Helmut Weissert, Stefano M. Bernasconi, Peter A. Hochuli, Rodolfo Coccioni, and Christina E. Keller
 Orbital control on carbon cycle and oceanography in the mid-Cretaceous greenhouse time

- 14:15–14:30 EGU2011-10983
Mihaela Melinte-Dobrinescu, Marcos A. Lamolda, Enrique Bernárdez, and Kunio Kaiho
 The Cenomanian-Turonian boundary event in the Tethys realm: insights from geochemical and calcareous nannofossil evidences
- 14:30–14:45 EGU2011-4173
Gernot Friedrichs, Nils Andersen, Meike Becker, and Arne Körtzinger
 CRDS-Based Underway Monitoring of Surface Water $\delta^{13}\text{C}(\text{CO}_2)$ During Two Atlantic Transects: Intercomparison and Gas Matrix Effects
- 14:45–15:00 EGU2011-9979
David Balslev-Clausen, Minik T. Rosing, and Nabil Saad
 Carbon Isotopic composition of rocks measured by optical spectroscopy

IG1/BG1.12/SSP2.3 – Stable Isotopes in Geosciences - Open Session, Including Blocks of Special Attention (co-organized) – Posters

Convener: Pier De Groot | Co-Conveners: Jan Smit, Ana-Voica Bojar, Erik Kerstel, Mihaela Melinte-Dobrinescu

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Jan Smit and Mihaela Melinte-Dobrinescu

- A468 EGU2011-12520
Harry Rowe, Rolando Castilleja, Timothy "Jak" Kearns, David Hull, Stephen Ruppel, and Robert Loucks
 Preliminary Chemostratigraphic and Stable Isotopic Records from Aptian-Albian and Cenomanian-Turonian Sequences of South Texas
- A469 EGU2011-1714
Alexander Lukeneder
 New isotope data from the Lower Cretaceous Puez key-section in the Dolomites (Southern Alps; N-Italy)
- A470 EGU2011-6185
Martino Giorgioni, Helmut Weissert, Stefano M. Bernasconi, Peter A. Hochuli, Rodolfo Coccioni, Therese I. Garcia, Christina E. Keller, and Maria Rose Petrizzo
 Long- and short-term paleoceanographic changes in the Western Tethys and the North Atlantic during the mid-Cretaceous greenhouse time
- A471 EGU2011-9680
Thomas Steuber
 Strontium-isotope stratigraphy of Tethyan Late Cretaceous carbonate platforms: Numerical ages constrain the evolution of major carbonate producers
- A472 EGU2011-3692
Ana-Voica Bojar, Stanislaw Halas, Hans-Peter Bojar, Dan Grigorescu, and Stefan Vasile
 Depositional age and palaeoclimatic signal, Upper Cretaceous continental deposits, Haeg basin, South Carpathians: isotopic and lithostratigraphic evidences
- A473 EGU2011-10935
Ana-Voica Bojar and Mihaela Carmen Melinte-Dobrinescu
 The Cretaceous-Tertiary boundary in the East Carpathians, Romania: geochemical, mineralogical and nannoplankton evidence
- A474 EGU2011-5576
Michael Wagreich, Johann Egger, Veronika Koukal, and Mohammed Omar
 The Paleocene/Eocene boundary in a high-frequency turbiditic setting (Gosau Group, Austria)
- A475 EGU2011-5697
Sanem Açıkalın, Ömer Yılmaz, Jan Smit, Faruk Ocakoğlu, Eliana Fornaciari, Hubert Vonhof, and Sevinç Özkan Altın
 Isotopic and Paleontological Investigation of the K-Pg Boundary Section from the Central Sakarya Region (NW Turkey)
- A476 EGU2011-1220
Konstantin Horkel, Thomas Unterweissacher, and Fritz Ebner
 Can C-isotope fractionation of cryptocrystalline magnesite be controlled by temperature ?
- A477 EGU2011-6760
Thomas Unterweissacher and Fritz Ebner
 Correlation of stable isotope thermometry and "classical" geothermometers applied on selected ore mineralizations of the Eastern Alps
- A478 EGU2011-7573
Stephan Klemme, Horst Marschall, Dorrit Jacob, Stefan Prowatke, and Thomas Ludwig
 Some comments on the partitioning of trace elements and the fractionation of boron isotopes between mica and tourmaline
- A479 EGU2011-7686
Franziska Aemisegger, Harald Sodemann, Stephan Pfahl, Patrick Sturm, and Heini Wernli
 Investigating high-frequency variations in stable isotope composition of atmospheric water vapour

- A480 EGU2011-8077
Marzia Michellini, Franco Cucchi, Onelio Flora, Barbara Stenni, Francesco Treu, and Luca Zini
 Isotopic composition of precipitation of Friuli-Venezia Giulia (Northeastern Italy)
- A481 EGU2011-6782
 Janek Landsberg, Daniele Romanini, Elisabeth Iasaksson, Kim Holmen, Harro Meijer, and **Erik Kerstel**
 Continuous On-Line Water Vapor Isotope Measurements In Antarctica
- A482 EGU2011-12742
Nabil Saad, Doug Kuramoto, Herb Tobias, Bruce Richman, Tom Brenna, and Richard Zare
 Unique Laser Spectroscopic Approach for High-Precision Compound-Specific Isotope Analysis of $^{13}\text{C}/^{12}\text{C}$ and D/H of Combustion Products
- A483 EGU2011-13002
 Shaun Barker, Gregory Dipple, Feng Dong, and **Douglas Baer**
 Use of laser spectroscopy to measure the $^{13}\text{C}/^{12}\text{C}$ and $^{18}\text{O}/^{16}\text{O}$ compositions of carbonate minerals

BG2.14 – Peatlands and the Carbon Cycle – Orals

Convener: Stephan Glatzel | Co-Conveners: Fred Worrall

Room: 23

Chairperson: Fred Worrall

- 08:30–08:45 EGU2011-5087
Joseph Holden, Richard Smart, Kerry Dinsmore, Andrew Baird, Mike Billett, and Pippa Chapman
 Natural pipes are major carbon pathways in peatlands
- 08:45–09:00 EGU2011-2974
Gareth Clay and Fred Worrall
 Carbon fluxes from a UK peatland disturbed by fire - results from a 10 year chronosequence
- 09:00–09:15 EGU2011-1347
Martine Janet van de Weg, Gaius Shaver, and Verity Salmon
 Contrasting effects of long term vs short term N addition on foliar CO_2 exchange parameters of two common Arctic peat land plant species
- 09:15–09:30 EGU2011-8602
Mats Nilsson and Tobias Eriksson
 Boreal mire carbon exchange - long term effects of climate change and nitrogen and sulphur additions
- 09:30–09:45 EGU2011-315
Franziska Koebsch, Stephan Glatzel, and Gerald Jurasinski
 Plant species specific effect of brackish water intrusion on methane emission of a coastal fen
- 09:45–10:00 EGU2011-7764
Frédéric Delarue, Fatima Laggoun-Défarge, Laurent Grasset, Alexandre Buttler, Sébastien Gogo, Jean-Robert Disnar, and Vincent Jassey
 Labile and recalcitrant organic matter dynamics in a Sphagnum-dominated peatland (Le Forbonnet, Jura Mountains, France). Impact of moisture conditions.

COFFEE BREAK

Chairperson: Stephan Glatzel

- 10:30–10:45 EGU2011-6466
Julia van Winden, Gert-Jan Reichart, Niall P. McNamara, Albert Benthien, and Jaap S. Sinninghe Damsté
 Reduced methane recycling efficiency at higher temperatures in peat bogs
- 10:45–11:00 EGU2011-5416
Laure Gandois, Ing Chieng Hei, Alexander Cobb, Richard T. Corlett, and Charles F. Harvey
 Investigating land use change impact on carbon cycle in tropical peat soils of Borneo
- 11:00–11:15 EGU2011-7842
Vincent Gauci, Sam Moore, Chris Evans, and Susan Page
 A large fluvial pulse of organic carbon following the Bornean peat swamp forest fires of 2009
- 11:15–11:30 EGU2011-2346
John Raison
 Methodology for GHG accounting in tropical peat lands
- 11:30–11:45 EGU2011-13088
Annett Thiele, John Couwenberg, Franziska Tanneberger, Jürgen Augustin, Susanne Bärish, Nadzeya Liashchynskaya, Dierk Michaelis, Merten Minke, and Hans Joosten
 Assessing greenhouse gas emissions from peatlands using vegetation as a proxy - First trial and insights on Belarusian peatlands

11:45–12:00 EGU2011-5871

Thomas Kleinen and **Victor Brovkin**

Modelling peatlands as part of the global carbon cycle

BG2.14 – Peatlands and the Carbon Cycle – Posters

Convener: Stephan Glatzel | Co-Conveners: Fred Worrall

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Fred Worrall

BG66 EGU2011-277

Vladimir Kazantsev, Mikhail Glagolev, Leonid L. Golubyatnikov, and Shamil Maksutov

Methane emissions from tundra wetlands in West Siberia

BG67 EGU2011-1526

Nadejda Soudzilovskaia and Hans Cornelissen

Does high cation exchange capacity of Sphagnum mosses drive fen-bog successions?

BG68 EGU2011-2952

Fred Worrall, Gareth Clay, and Tim Burt

Understanding multiple element budgets of peatlands - a role for simple stoichiometry?

BG69 EGU2011-592

Sascha Beetz, Horst Liebersbach, Heinrich Höper, Matthias Drösler, and Stephan Glatzel

Greenhouse gas exchange and global warming potential of a peat bog restoration sequence in NW Germany

BG70 EGU2011-908

Jaclyn Hatala, Matteo Detto, Frank Andersen, Joseph Verfaillie, Oliver Sonnentag, and Dennis Baldocchi

Interpreting trace gas fluxes through eddy covariance from different land management types in the

Sacramento-San Joaquin River Delta peatlands, California, USA

BG71 EGU2011-2950

Fred Worrall, James Rowson, Gareth Clay, and Simon Drew

Controls upon Net Ecosystem Respiration from UK peatlands

BG72 EGU2011-3222

Tim Moore, **Stephan Glatzel**, Nathan Basiliko, Moshe Dalva, Maggie Langins, Michele Marinier, and Nigel Roulet

The effect of mining, abandonment, and restoration on carbon dioxide and methane exchange between peatlands and the atmosphere and porewater dissolved organic carbon in eastern Canada

BG73 EGU2011-4283

Nicole McConnell, Anthony McGuire, Jennifer Harden, Evan Kane, and Merritt Turetsky

Controls on Ecosystem and Root Respiration in an Alaskan Peatland

BG74 EGU2011-5019

Janne Rinne, Sami Haapanala, Olli Peltola, Mari Pihlatie, Mika Aurela, Juha Hatakka, Ivan Mammarella, Tuomas Laurila, Eeva-Stiina Tuittila, and Timo Vesala

Long term measurements of methane emission from a boreal fen measured by eddy covariance method

BG75 EGU2011-5093

Richard Grayson and **Joseph Holden**

Improving DOC flux estimates in peatlands through continuous UV-visible absorbance measurement

BG76 EGU2011-6968

Aurélien Gicquel, Françoise Binet, Marie-Paule Briand, Nathalie Josselin, and André-Jean Francez

Role of interacting soil engineers in the transfers of C-N-S in a regenerating cutover peatland

BG77 EGU2011-7618

Agnieszka Wołoszyn, Anna Pytlak, Danuta Urban, and Zofia Stepniewska

Sphagnum - methanotrophs symbionts activity at different methane concentration and temperature

BG78 EGU2011-10930

Rafael Poyatos, Andreas Heinemeyer, Phil Ineson, Brian Huntley, and Robert BaxterNet ecosystem CO₂ exchange of sub-Arctic heath and lichen communities across a forest to mire transition

BG79 EGU2011-7832

Frédéric Delarue, Fatima Laggoun-Défarge, Vincent Jassey, Sébastien Gogo, and Jean-Robert Disnar

Effects of short-term ecosystem experimental warming on water extractable organic matter in an ombrotrophic Sphagnum peatland (Le Forbonnet, France)

BG80 EGU2011-10652

Tonu Tonutare, Raimo Kõlli, and Merrit Noormets

Peat composition and land use as indicator to greenhouse gases emission on peatland

BG81 EGU2011-9804

Sébastien Gogo, Fatima Laggoun-Défarge, Nicolas Gouélibo, and Frédéric Delarue

Carbon dynamics differences between Sphagnum and peatland invading vascular plants litters assessed by laboratory experiments and modelling.

- BG82 EGU2011-7693
Vincent Jassey, Geneviève Chiapusio, Daniel Gilbert, Alexandre Buttler, Marie-Laure Toussaint, and Philippe Binet
 Climatic effect on seasonal polyphenols/phenoloxidase interplay in *Sphagnum fallax* along a narrow ecological gradient
- BG83 EGU2011-10987
Guillermo Rein and Rory Hadden
 Accidental Carbon Emissions and Smouldering Peat Fires in the Earth System

NH10.4/BG2.18/GM4.4/SSS1.12 – Mitigating against natural hazards: Biological contribution to sustainable soil bioengineering in a changing world (co-organized) – Orals

Convener: Hans Peter Rauch | Co-Conveners: Freddy Rey, Frank Graf, Federico Preti

Room: 2

Chairperson: Frank Graf, Freddy Rey

- 10:30–10:45 EGU2011-1874
Amandine Erktan and Freddy Rey
 Linking the morphology of *Salix* tillers barriers to sediment trapping efficiency in marly gully floors
- 10:45–11:00 EGU2011-4863
Joshua Wanyama, Herremans Kristoff, Moses Isabirye, Fredrick Kahimba, Willem Maetens, Didas Kimaro, Jean Poesen, and Seppe Deckers
 Evaluation of Runoff and Sediment Trapping Effectiveness of Vegetative Filter Strips in the Riparian Zone of Lake Victoria
- 11:00–11:15 EGU2011-7391
Gerda Holzapfel and Philipp Weihs
 Influence of soil bioengineering measures on river systems - Shading potential of *Salix purpurea*
- 11:15–11:30 EGU2011-9654
Kathrin Beglinger, Thomas Sieber, and Frank Graf
 Effects of endophytic and mycorrhizal fungi associated with *Salix appendiculata* on soil aggregate stability
- 11:30–11:45 EGU2011-2612
Pierre Raymond
 Soil Bioengineering for Control of Soil Erosion in a Reconstructed Waterway on an Alberta Oil Sands Dump in Canada
- 11:45–12:00 EGU2011-4817
Massimiliano Schwarz and Denis Cohen
 Influence of root distribution and compressibility of rooted soil on the triggering mechanism of shallow landslides

NH10.4/BG2.18/GM4.4/SSS1.12 – Mitigating against natural hazards: Biological contribution to sustainable soil bioengineering in a changing world (co-organized) – Posters

Convener: Hans Peter Rauch | Co-Conveners: Freddy Rey, Frank Graf, Federico Preti

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Federico Preti, Hans Peter Rauch

- XY513 EGU2011-2110
Christian Rickli and Frank Graf
 Durability of timber check dams used for toe protection in view of sustainable slope stabilisation by soil bioengineering
- XY514 EGU2011-12041
 Katrin Burri, Christof Gromke, and **Frank Graf**
 Aeolian sediment transport and spatial patterns of sand deposition in vegetation canopies: Observations from wind tunnel experiments using coloured sand
- XY515 EGU2011-11381
 Madhu Sudan Acharya and **Walter Lammeranner**
 How to select the appropriate techniques and suitable plant species for soil bioengineering works? - An application example from Nepal
- XY516 EGU2011-10576
Alexander Bast, Holger Gärtner, Frank Graf, Peter Lüscher, Albert Böll, and Wolfgang Wilcke
 Towards the development and evaluation of sustainable bioengineering measures on an erosion-prone slope
- XY517 EGU2011-10338
Filippo Giadrossich, Massimiliano Schwarz, Federico Preti, and Dani Or
 Mechanical interactions between neighbouring roots

- XY518 EGU2011-10318
Michael Obriejetan, Hans Peter Rauch, and Jürgen Suda
 Design and development of technical-biological erosion protection systems
- XY519 EGU2011-9937
Gerhard Markart, Hans Peter Rauch, Florin Florineth, Bernhard Kohl, and Nils Tilch
 Analysis of the vegetation cover and the increasing soil erosion in the high montane and the subalpine altitudinal zone of Western Austria
- XY520 EGU2011-6524
Ji-yi Tsai and Chien-Yen Chen
 Utilizing pig urine and limestone application in microbial induced carbonate precipitation as a soil reinforcement technology
- XY521 EGU2011-11268
Walter Lammeranner, Michael Obriejetan, and Florin Florineth
 The impact of dense willow stands (*Salix purpurea* L.) on the hydrology of heavily compacted soils
- XY522 EGU2011-2610
Pierre Raymond
 Vegetated Riprap Installation Techniques for Streambank Protection, Fish and Wildlife Habitat Creation
- XY523 EGU2011-5424
Freddy Rey and Sophie Labonne
 Resistance and efficiency of bioengineering works made of willow species for sedimentation and erosion control in eroded marly gullies (Francon catchment, Draix, France)

GD1.1/BG8.3/GMPV44/TS1.3 – Early Earth: from deep dynamics to surface life (co-organized) – Orals

Convener: Jeroen van Hunen | Co-Conveners: Emmanuelle J. Javaux, Nicolas Flament, Nicholas T. Arndt

Room: 3

Chairperson: n.n.

- 08:30–08:45 EGU2011-13451
David Fernandez-Remolar
 Long term preservation of biological molecules under acidic conditions supports their persistence in the old acidic sediments of Mars
- 08:45–09:00 EGU2011-5347
Elizabeth Chacon B., Ricardo Rodriguez-Ramirez, Augusto Rodriguez, and Carlos Gonzalez Leon
 Biosedimentary Signatures: revisiting the Huepac chert from the Tarahumara Formation
- 09:00–09:15 EGU2011-10214
Emmanuelle J. Javaux
 Macroevolution in early eukaryotes
- 09:15–09:30 EGU2011-13411
Woodward Fischer
 Si isotope ratios in ancient marine chert provide a test of hypotheses for the origin of Precambrian iron formation
- 09:30–10:00 EGU2011-3929
Martin Brasier, Richard Matthewman, Sean McMahon, and David Wacey
 Pumice as a remarkable substrate for the origin of life

SSS1.3 – Molecular proxies for studying biogeochemical changes in the environment (co-listed) – Orals

Convener: Klaas G.J. Nierop | Co-Conveners: Boris Jansen, Ian Bull, Claudio Zaccane, Teodoro Miano, Luca Bragazza

Room: 9

Chairperson: Ian Bull / Luca Bragazza

- 08:30–08:45 EGU2011-3315
Helen Talbot, Martin Cooke, Chun Zhu, Luke Handley, Jung-Hyun Kim, Richard Pancost, and Thomas Wagner
 Novel bihopanoid molecular proxies for bacterial populations and processes
- 08:45–09:00 EGU2011-7514
Jens Altmann, Marjo Palviainen, Boris Jansen, and Karsten Kalbitz
 Stability of root and needle-derived biomarkers during litter decomposition
- 09:00–09:15 EGU2011-2961
Arnaud Huguet, Guido L.B. Wiesenberger, Martina Gocke, Céline Fosse, and Sylvie Derenne
 Rhizoliths in loess: evidence for the heterotrophic lifestyle of branched GDGT-producing bacteria
- 09:15–09:30 EGU2011-6730
Martina Gocke, Yakov Kuzyakov, and Guido L.B. Wiesenberger
 Rhizoliths in the loess-paleosol sequence of Nussloch (SW Germany): Differentiation between ancient and modern vegetation using n-alkanes

- 09:30–09:45 EGU2011-7809
Marie Spohn and Luise Giani
 Carbohydrates as Biomarkers for Studying Soil Biota and Land Use Change
- 09:45–10:00 EGU2011-5936
Axel Birkholz, Rienk Smittenberg, Irka Hajdas, Lukas Wacker, Jostein Bakke, and Stefano M. Bernasconi
 Reconstruction of soil organic carbon build-up and dynamics using compound-specific radiocarbon analysis of lake sediments

COFFEE BREAK

Chairperson: Claudio Zacccone/ Klaas Nierop

- 10:30–10:45 EGU2011-5055
Guido Wiesenberger, Bidisha Majumder, Martina Gocke, Yakov Kuzyakov, Jennifer Dungait, Liz Dixon, and Roland Bol
 Influence of soil moisture on plant biosynthesis, C incorporation and storage in soils at a molecular level
- 10:45–11:00 EGU2011-5552
Olivia Bertrand, Emmanuelle Montargès-Pelletier, Laurence Mansuy-Huault, Benoît Losson, Audrey Pernot, Jacqueline Argant, Pierre Faure, Emmanuel Garnier, Charles Kraemer, and Raymond Michels
 Geochemical and Historical study of a 700 year old pond, Lansquenet -Lorraine, France- A multidisciplinary approach
- 11:00–11:15 EGU2011-731
Rosaleen Mylotte, Michael H. B. Hayes, and Catherine Dalton
 Study of Estuarine Sediments From Galway Bay, Ireland
- 11:15–11:30 EGU2011-13051
pete maxfield
 Microbially mediated methane oxidation across a 4.1 million year soil chronosequence
- 11:30–11:45 EGU2011-7999
Julien Parisod, Mohammad Hassouna, Alexandre Buttler, and Luca Bragazza
 Spatial and temporal characterization of dissolved organic matter in bog water based on spectroscopic properties: the effects of humification
- 11:45–12:00 EGU2011-81
Maris Klavins, Inese Silamikele, Oskars Purmalis, and Linda Ansone
 Organic matter humification and trace element accumulation in raised bogs depending on the peat properties

SSS1.3 – Molecular proxies for studying biogeochemical changes in the environment (co-listed) – Posters

Convener: Klaas G.J. Nierop | Co-Conveners: Boris Jansen, Ian Bull, Claudio Zacccone, Teodoro Miano, Luca Bragazza

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Boris Jansen / Teodoro Miano

- Z39 EGU2011-60
Matt Galloway and Doug Cobos
 Can a dewpoint hygrometer measure water potential at field capacity (-33 kPa)?
- Z40 EGU2011-119
Marco Griepentrog, Alexander Heim, Frank Hagedorn, Rienk H. Smittenberg, and Michael W. I. Schmidt
 Does nitrogen deposition affect the turnover of plant- and microbially-derived organic matter compounds differently?
- Z41 EGU2011-425
Claudio Zacccone, Teodoro M. Miano, and William Shotyk
 Can peat humic acids constitute the “memory
- Z42 EGU2011-564
Daniel B. Wiedemeier, Simon G. Haberle, Evelyn S. Krull, and Michael W.I. Schmidt
 New molecular marker and spectroscopic tools for reconstructing wildfire history
- Z43 EGU2011-1249
Harald Biester, Yvonne-Marie Hermanns, and Antonio Martinez-Cortizas
 The Influence of organic matter decay on the distribution of major and trace elements in ombrotrophic mires - a case study from the Harz mountains
- Z44 EGU2011-1925
 Karsten Kalbitz, **Boris Jansen**, and Emiel Van Loon
 Using preserved extractable lipids in a multi-proxy reconstruction of past vegetation patterns

- Z45 EGU2011-5042
Ian Bull, Andrew Rawlins, Philip Ineson, and Richard Evershed
The fate of collembola derived organic matter in soil
- Z46 EGU2011-8952
Klaas G.J. Nierop, Cornelia I. Blaga, Gert-Jan Reichart, Tom Jilbert, Caroline P. Slomp, and Jaap S. Sinninghe Damsté
Hypoxia in the Baltic Sea as revealed by lipid biomarkers
- Z47 EGU2011-5546
David Hiltbrunner, Michael W.I. Schmidt, and Stephan Zimmermann
Afforestation of former pastures with *Picea abies* in a subalpine ecosystem affects the microbial community composition
- Z48 EGU2011-6323
Ülle Sillasoo, Minna Väliranta, Angelika Portsmouth, and Margus Pensa
Relating fire and humification data in peat bog profiles
- Z49 EGU2011-7811
Kelley Sterle, Örjan Gustafsson, Philip Gschwend, and Christopher Reddy
Centennial-scale variations in abundance and sources of black carbon aerosols as recorded in two lake sediment cores from NE USA and N. Europe
- Z50 EGU2011-7899
Céline Estournel-Pelardy, **Laurent Grasset**, and André Amblès
First Multi-Shot thermochemolysis applied to the lipid-free organic fraction isolated from a peat (Jura Moutains, East France)
- Z51 EGU2011-7966
Céline Estournel-Pelardy, Laurent Grasset, Leos Duskocil, and André Amblès
Comparison of three methods for the analysis of lignin in soils and sediments: CuO oxidation, thermochemolysis and Derivatization Followed by Reductive Cleavage method.
- Z52 EGU2011-8043
Mirjam Studer, Samuel Abiven, Rolf T. W. Siegwolf, and Michael W. I. Schmidt
Multiple-Isotope labelling (¹³C, ¹⁸O, ²H) in a Controlled Environment (MICE) as a new tool for studying the allocation of organic molecules within the plant-soil system?
- Z53 EGU2011-8880
Carles M. Rubio, Luís Outeiro, **Francesc Ferrer**, and Xavier Úbeda
DIFFERENCES ON LOAM SOIL THERMAL PROPERTIES AFTER PRESCRIBED FIRE (Montgri Massif, Spain)
- Z54 EGU2011-12057
Marie Alexis, Katell Quénéa, Christelle Anquetil, and Farid Sellami
Hint of prehistoric fire uses: Step 1. Characterization of experimental fire residues
- Z55 EGU2011-13031
Arnoud Boom, Andrew S. Carr, Zoë Roberts, Alex Cumming, Brian M. Chase, Michael F. Meadows, and Matthew Britton
A systematic study of resistant organic matter and soil carbon dynamics in South African drylands.
- Z56 EGU2011-13147
Nadezda Vasilyeva, Evgeniy Y. Milanovskiy, Samuel Abiven, Michael Hilf, and Michael W.I. Schmidt
Pyrogenic carbon quantity and quality unchanged after 55 years of organic matter depletion in a Chernozem
- Z57 EGU2011-13296
Luis Roca, Maria Soriano, Vicente Pons, and Rafael Boluda
Soil organic fraction and its biological activity as parameters to assess soil quality .

Tuesday, 05 April

BG1.2/IG17 – Application of stable isotopes in biogeosciences (co-sponsored by EAG) (co-organized) – Orals

Convener: Michael E. Böttcher | Co-Conveners: Steven Bouillon, Enno Schefuß, Gerd Gleixner, Albert Benthien, Martin Werner

Room: 23

Chairperson: Enno Schefuß, Michael E. Böttcher

08:30–08:45 EGU2011-7480

Gustavo Saiz, Iain Goodrick, Christopher Wurster, Paul Nelson, Jonathan Wynn, and Michael Bird
Hydrogen Pyrolysis as a new tool to assess the abundance and isotopic composition of Pyrogenic Carbon

08:45–09:00 EGU2011-6531

Nikolai Pedentchouk, Kirill Peskov, and Tracy Lawson
The effect of light intensity on the $^{13}\text{C}/^{12}\text{C}$ and D/H compositions of leaf wax n-alkanes in *Arabidopsis thaliana*: Implications for palaeoclimatic studies

09:00–09:15 EGU2011-2569

Dirk Sachse and Ansgar Kahmen
'Biological noise' and (paleo)hydrological information in leaf wax lipid D/H ratios - insights from transect studies and greenhouse experiments

09:15–09:30 EGU2011-7644

Jerome Kaiser, Helge W. Arz, Frank Lamy, Rolf Kilian, Andrea Vieth, and Heinz Wilkes
Holocene humidity changes in southernmost Chile as implied by hydrogen isotope ratios of higher plant leaf waxes

09:30–09:45 EGU2011-420

Josia Jacob and Prosenjit Ghosh
 $\delta^{13}\text{C}$ in the benthic bivalve shells as indicators of sedimentary organic carbon accumulation - A case study from the Western Continental Shelf of India

09:45–10:00 EGU2011-6081

Patricia Grasse, Claudia Ehlert, Evgeniya Ryabenko, and Martin Frank
Silicon isotopes as a tracer for Silicate Utilization in the Peruvian Upwelling

COFFEE BREAK

Chairperson: Michael E. Böttcher

10:30–10:45 EGU2011-14108

Julia Gebert, Cindy Streblow, and Eva-Maria Pfeiffer
Impact of gas transport on fractionation of carbon stable isotopes related to the microbial oxidation of methane in soils

10:45–11:00 EGU2011-8187

Ulrich Wortmann and Boris Chernyavsky
The significance of isotope specific diffusion coefficients in reaction-transport models describing microbial sulfur isotope fractionation in porous sediments

11:00–11:15 EGU2011-2168

Alexey Kamyshev, Aubrey Zerkle, Zahra Mansaray, Irena Ciglene?ki, Elvira Bura-Naki?, James Farquhar, and Timothy Ferdelman
Biogeochemical sulfur cycling in the water column of a shallow stratified sea-water lake: Speciation and quadruple sulfur isotope composition

11:15–11:30 EGU2011-2605

Bart Veuger, Dick van Oevelen, and Jack J. Middelburg
Long-term fate of microbial nitrogen, carbon, hydrolysable amino acids, fatty acids, and carbohydrates in sediment

11:30–11:45 EGU2011-7769

Timothy Knowles, David Chadwick, Roland Bol, and Richard Evershed
Organic N cycling revealed through ^{15}N , ^{13}C -stable isotope probing of the soil amino acid metabolome

11:45–12:00 EGU2011-12045

Birgit Adam, Niculina Musat, Helle Ploug, Cristina L. Moraru, Tomas Vagner, Gaute Lavik, Lubos Polerecky, and Marcel M.M. Kuypers
A single cell nanoSIMS view on the transfer of fixed nitrogen to bacteria associated with filamentous N-fixing cyanobacteria in the Baltic Sea

BG1.2/IG17 – Application of stable isotopes in biogeosciences (co-sponsored by EAG) (co-organized) – Posters

Convener: Michael E. Böttcher | Co-Conveners: Steven Bouillon, Enno Schefuß, Gerd Gleixner, Albert Benthien, Martin Werner

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Michael E. Böttcher, Gerd Gleixner, Enno Schefuß

- BG1 EGU2011-6863
Martin Werner, Petra M. Langebroek, and Gerrit Lohmann
High-resolution water isotope modelling on a global scale
- BG2 EGU2011-4277
Enno Schefuß, Alexander Knohl, Ansgar Kahmen, and Dirk Sachse
Testing leaf-wax lipids in aerosols as eco-hydrological monitors
- BG3 EGU2011-4876
Robert Field, Dylan Jones, and Derek Brown
The effects of post-condensation exchange on the isotopic composition of water in the atmosphere
- BG4 EGU2011-9146
André Paul, Stefan Mulitza, Trond Dokken, Thorsten Kiefer, Claire Waelbroeck, and Mara Weinelt
Can we use $\delta^{18}\text{O}$ and temperature reconstructions to confidently estimate paleo-density?
- BG5 EGU2011-9570
Maureen Conte and John C Weber
Latitudinal and temporal patterns in terrestrial photosynthetic discrimination assessed by the carbon isotopic composition of plant leaf wax aerosols
- BG6 EGU2011-12504
Michael Zech, Bruno Glaser, Dieter Juchelka, Karsten Kalbitz, Christoph Mayr, Mario Tuthorn, and Roland Werner
Development of a novel tool for paleoclimate research based on compound-specific $\delta^{18}\text{O}$ analyses of (hemi-)cellulose-derived monosaccharides
- BG7 EGU2011-11699
Michael Zech, Nikolai Pedentchouk, Björn Buggle, Katharina Leiber, Karsten Kalbitz, Slobodan Markovic, and Bruno Glaser
Effect of leaf litter degradation and seasonality on D/H isotope ratios of n-alkane biomarkers
- BG8 EGU2011-5711
Grzegorz Skrzypek, Andrzej Wisniewski, and Pauline Grierson
Reconstruction of paleotemperature for a Palaeolithic site - evaluation of uncertainties in calculation based on phosphates' stable oxygen isotope composition
- BG9 EGU2011-966
Cristina Puscas, Zelalem Bedaso, Cristian Roman, Iosif Ferencz, and Ciprian Stremtan
Seasonal Variations in C and O Stable Isotopes in Domesticated and Wild Mammalian Tooth Enamel from the Outskirts of the Roman Empire
- BG10 EGU2011-3146
Stefan Ziegler, Dorrit Jacob, and Markus Boner
Isoscapes: a panacea to determine the provenance of illegally traded ivory?
- BG11 EGU2011-3798
Ana Colaço, Joel Bried, Eva Giacomello, Paolo Lombardi, Ana Martins, Filipe Porteiro, Ricardo Serrão Santos, Mónica Silva, Fernando Tempera, and Gui Menezes
Trophodynamic studies of the CONDOR seamount (Azores, Portugal, North Atlantic)
- BG12 EGU2011-12721
Karol Kuliński, Monika Kłoda, Wojciech Walkusz, and Joanna Legeżyńska
How does winter conditions change shallow benthic food webs in high Arctic - stable isotopes approach.
- BG13 EGU2011-11551
Priscillia Semaoune, Mathieu Sebilo, Joëlle Templier, and Sylvie Derenne
Variation of nitrogen isotopic composition of Maize supplied with ammonium or nitrate
- BG14 EGU2011-3956
June Chao, Bernhard Mayer, and Cathy Ryan
Isotopic apportionment of nitrate sources in the Bow River, Alberta, Canada
- BG15 EGU2011-7897
Aurélien Gicquel, **André-jean Francez**, Thomas Delhay, Gérard Gruau, Vincent Hallaire, and Françoise Binet
Understanding the fate and linkage of N and S in earthworm engineered peat soil using nanoSIMS
- BG16 EGU2011-6643
Aubrey Zerkle, Jennifer Macalady, Daniel Jones, and James Farquhar
S isotope investigation of sulfur cycling in Frasassi caves: A case study of chemotrophic sulfide oxidation
- BG17 EGU2011-7231
Nguyen Manh Thang, Michael Formolo, Sabine Flury, Bo Barker Joergensen, and Timothy Ferdelman
Biogeochemistry of sulfur in Gdansk Bay sediments (Baltic Sea)

- BG18 EGU2011-8757
Susann Vogler, Olaf Dellwig, Peter Escher, Ulrich Struck, Stephan M. Weise, Beata Szymczycha, Lech Kotwicki, Carl-Magnus Mörrth, Michael E. Böttcher, and Michael Schlüter
 A multi-isotope (C, O, S, H) and trace metal study in coastal permeable sands affected by Submarine Groundwater Discharge
- BG19 EGU2011-4964
Michael E. Böttcher, Peter Escher, Nicole Kowalski, Olaf Dellwig, Andrea Bauer, Joanna J. Waniek, Alexander Stark, and Zhen Xia
 Stable carbon isotopes in DIC as indicators for biogeochemical carbon cycling in the Beibu Gulf, South China Sea
- BG20 EGU2011-8118
Mirjam Studer, Samuel Abiven, Rolf T. W. Siegwolf, and Michael W. I. Schmidt
 Multiple-Isotope labelling (^{13}C , ^{18}O , ^2H) in a Controlled Environment (MICE) as a new tool for studying the allocation of organic molecules within the plant-soil system?
- BG21 EGU2011-12786
Thibault Lambert, Anne-Catherine Pierson-Wickmann, and Gérard Gruau
 Carbon isotopes as tracers of dissolved organic carbon sources and water pathways in headwater catchments
- BG22 EGU2011-2550
Nils Protingheuer, Harry Vereecken, and Jens-Arne Subke
 A new chamber method for the simultaneous determination of $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ in soil derived CO_2
- BG23 EGU2011-5357
 Zachary Kayler, Claudia Keitel, Kirstin Jansen, and **Arthur Gessler**
 Can we use isotopes to capture the speed of link between photosynthesis and soil respiration?
- BG24 EGU2011-8088
Bernard Longdoz, Caroline Plain, Florian Parent, Martin Maier, Stéphanie Goffin, and Daniel Epron
 Input of $^{12}\text{CO}_2$ and $^{13}\text{CO}_2$ soil concentration measurements to understand trends in soil carbon production and emission.
- BG25 EGU2011-3112
Juan Pedro Ferrio, Alícia Pou, Igor Florez-Sarasa, Arthur Gessler, Jaume Flexas, and Miquel Ribas-Carbó
 Linking oxygen isotope enrichment in leaf water with hydraulic conductivity and mesophyll conductance for CO_2 in grapevine
- BG26 EGU2011-8468
Albin Hammerle, Patrick Sturm, Lydia Gentsch, Matthias Barthel, and Knohl Alexander
 ^{18}O isotope fluxes in water vapor and carbon dioxide: measurements, modeling, and potential application
- BG27 EGU2011-7825
Florian Parent, Caroline Plain, Daniel Epron, and Bernard Longdoz
 New methodology to measure continuously the $\delta^{13}\text{C}$ of soil CO_2 efflux and concentration at different depths by laser spectrometry
- BG28 EGU2011-9375
Markus Schmidt, Kadmiel Maseyk, Céline Lett, Philippe Biron, Patricia Richard, Thierry Bariac, and Ulli Seibt
 Analysis of hydrogen and oxygen stable isotope ratios of ecosystem-derived water samples using infrared laser spectroscopy

BG1.7 – Earth Observation and modeling for land-atmosphere interactions and vegetation science (co-sponsored by the Integrated Land Ecosystem-Atmosphere Processes Study (iLEAPS) and ESA) – Orals

Convener: Anni Reissell | Co-Conveners: Diego Fernández Prieto, Mattia Marconcini, Paul Palmer, Eleanor Blyth, Zbynek Malenovsky, Felix Morsdorf, Annett Wolf, Alexander Damm, Gabriela Schaepman-Strub

Room: 24

Chairperson: Anni Reissell, Diego Fernández-Prieto, Eleanor Blyth

- 13:30–13:45 EGU2011-187
Matteo P. Zampieri, Efthymios Serpetzoglou, Emmanouil N. Anagnostou, Efthymios I. Nikolopoulos, and Anastasios Papadopoulos
 River-groundwater interactions at the regional scale: evidence from surface stations and satellite observations and a new parameterization in the Community Land Model.
- 13:45–14:00 EGU2011-2193
Saul Montoya, Katty Barzola, and Danny Bay
 Coupling Earth Observation Data into a hydrological model for an Andean basin
- 14:00–14:15 EGU2011-14034
Garry Hayman, Annett Bartsch, Catherine Prigent, Felipe Aires, Michael Buchwitz, John Burrows, Oliver Schneising, Eleanor Blyth, Douglas Clark, Fiona O'Connor, and Nicola Gedney
 Novel Earth Observation products to characterise wetland extent and methane dynamics: the ESA ALANIS-Methane Project

- 14:15–14:30 EGU2011-11749
Bruno Guillaume, Jan-Peter Muller, **Maarten Krol**, Jesus San Miguel, Cathy Clerbaux and the ALANIS Smoke Plumes Team
New products for a better characterization of smoke plume and gas/aerosol dispersion from Boreal Eurasian forest fires - The ALANIS Smoke Plume project
- 14:30–14:45 EGU2011-4513
Gerrit de Leeuw and the ALANIS-Aerosol Team
Atmosphere-land Interactions Study on Aerosols over the Boreal Forest (ALANIS-Aerosols)
- 14:45–15:00 EGU2011-2460
Oliver Schneising, Michael Buchwitz, Maximilian Reuter, Jens Heymann, Heinrich Bovensmann, and John P. Burrows
Variability and long-term trends of carbon dioxide and methane column-averaged mole fractions retrieved from SCIAMACHY onboard ENVISAT
- Chairperson: Zbynek Malenovsky, Felix Morsdorf
- 15:30–15:45 EGU2011-176
Bernard Pinty, Ioannis Andredakis, Thomas Kaminski, Marco Clerici, Malcolm Taberner, and Stephen Plummer
Exploiting surface albedos products to constrain land surface processes in climate models
- 15:45–16:00 EGU2011-4395
Jimenez Carlos, Aires Filipe, Catherinot Julie, Catherine Prigent, and Rossow Bill
All-weather estimates of the land surface skin temperatures from a combined analysis of microwave and infrared satellite observations
- 16:00–16:15 EGU2011-7903
Frederic Baret, Marie Weiss, Roselyne Lacaze, Fernando Camacho, Bruno Smets, Hassan Makhmara, and Philippe Pacholczyk
Global long time series of LAI and FAPAR Essential Climate Variables from the capitalization of current existing products: principles and validation of GEOV1 products
- 16:15–16:30 EGU2011-9699
Darren Drewry, Axel Kleidon, and Ryan Pavlick
Exploring climatic controls on potential agricultural production
- 16:30–16:45 EGU2011-10178
Manuela Balzarolo, Maria Pilar Martin, Karen Anderson, Micol Rossini, Caroline Nichol, and Loris Vescovo
State of art of the ground-based optical measurements at European flux sites: current status and future directions
- 16:45–17:00 EGU2011-14032
Jean-Luc Widlowski, Bernard Pinty, Marco Clerici, Yongjiu Dai, Martin De Kauwe, Koen De Ridder, Abdelaziz Kallel, Hideki Kobayashi, Thomas Laverigne, Wenge Ni-Meister, Alexander Olchev, Tristan Quaife, Shusen Wang, Wenze Yang, Yan Yang, and Hua Yuan
RAMI4PILPS: An Intercomparison of Formulations for the Partitioning of Solar Radiation in Land Surface Models

BG1.7 – Earth Observation and modeling for land-atmosphere interactions and vegetation science (co-sponsored by the Integrated Land Ecosystem-Atmosphere Processes Study (iLEAPS) and ESA) – Posters

Convener: Anni Reissell | Co-Conveners: Diego Fernández Prieto, Mattia Marconcini, Paul Palmer, Eleanor Blyth, Zbynek Malenovsky, Felix Morsdorf, Annett Wolf, Alexander Damm, Gabriela Schaepman-Strub

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Paul Palmer, Anni Reissell, Zbynek Malenovsky

- BG29 EGU2011-11081
Daniel Fisher, Jan-Peter Muller, and Vladimir Yershov
The development of novel stereo derived smoke plume products for AATSR and their application to the 2010 Russian fire season*
- BG30 EGU2011-414
Ningning Zhang and Tetsuzo Yasunari
Dynamics of the Taiga-Permafrost Coupled system in Siberia under climate change
- BG31 EGU2011-1012
Jochem Verrelst, Juan Pablo Rivera, Luis Alonso, and Jose Moreno
An Automated Radiative Transfer Models Operator (ARTMO) toolbox for automated retrieval of biophysical parameters through model inversion

- BG32 EGU2011-2179
Anni Reissell, Mattia Marconcini, Diego Fernandez-Prieto, Simon Pinnock, Garry Hayman, Jerome Helbert, and Gerrit de Leeuw
 Towards unravelling complex land-atmosphere processes in boreal Eurasia: the ALANIS study
- BG33 EGU2011-4431
Shuhua Yi, Zhaoye Zhou, Shilong Ren, Ming Xu, Shengyun Chen, and Baisheng Ye
 Estimation of fractional vegetation cover of alpine grassland ecosystems of Shule River Basin on the Qinghai-Xizang Plateau
- BG34 EGU2011-5512
Cheng-I Hsieh, Tsang-Jung Chang, Ke-Sheng Cheng, and Cheng-Wei Huang
 Energy, Water Vapor, and CO₂ Fluxes above a Subtropical Monsoon Rice Paddy in Taiwan
- BG35 EGU2011-5908
Maria Llanos Lopez, Ismael Moya, Claudio Balbontín, Isidro Campos, Alfonso Calera, Abderrahmane Ounis, and Fabrice Daumard
 In-the-field water stress detection at plant scale using Laser Induced Fluorescence
- BG36 EGU2011-6076
Zheng Wang, Xiang-ming Xiao, and Xiao-dong Yan
 Modeling gross primary production of maize cropland and degraded grassland in northeastern China using multi-temporal MODIS imagery and CO₂ eddy flux tower data
- BG37 EGU2011-6795
Maria Anaya, Miriam Muñoz-Rojas, and Diego De la Rosa
 MicroLEIS DSS, a sustainable land use and management decision support system for maximizing carbon sequestration
- BG38 EGU2011-9044
Lasse Tarvainen, Johan Uddling, Mats Råntfors, and Göran Wallin
 Canopy gradients in shoot exchange of carbon dioxide and water vapour in a mature Norway spruce forest
- BG39 EGU2011-9074
Fabrice Daumard, Yves Goulas, Sebastien Champagne, Antoine Fournier, Abderrahmane Ounis, Jean-François Hanocq, and Ismaël Moya
 Continuous passive measurements of canopy fluorescence at 687 and 760 nm
- BG40 EGU2011-10104
Kolby Jardine, Leif Abrell, Ana Maria Yanez Serrano, Almut Arneth, Françoise Yoko Ishida, Travis Huxman, Scott Saleska, Angela Jardine, Thomas Karl, and Paulo Artaxo
 Direct observations of within-canopy ozonolysis of sesquiterpenes in Amazonia
- BG41 EGU2011-10566
Stefan Schlaffer, Daniel Sabel, Christoph Paulik, Annett Bartsch, and Wolfgang Wagner
 Water body delineation from active microwave satellite data for improved modelling of methane emissions at high latitudes in the framework of the ESA project ALANIS
- BG42 EGU2011-12257
Derek Karssenberg and Marc F.P. Bierkens
 Early-warning signals (potentially) reduce uncertainty in forecasted timing of critical shifts in vegetation systems
- BG43 EGU2011-12462
Marc Bouvier, Tristan Allouis, Sylvie Durrieu, and Patrick Chazette
 Estimating forest biomass from medium and large footprint lidar data
- BG44 EGU2011-12792
Carola Weiss, Alexander Loew, and Christian Reick
 Assessing the seasonality of multi-source fAPAR time series
- BG45 EGU2011-13290
Jörg Kaduk and Sietse Los
 Changes in fire risk in boreal biomes from earlier foliage activity
- BG46 EGU2011-13593
 Jungrack Kim, **Jiye Yun**, Yunsoo Choi, and Hyewon Yun
 The correlation analysis between the dust storm in Far East Asia and the dynamic local roughness in northwest China sandy desert by remote sensed data

BG2.1 – Tropical ecosystem function and Response to Environmental Change (co-sponsored by the Integrated Land Ecosystem-Atmosphere Processes Study (iLEAPS)) – Orals

Convener: Lina Mercado | Co-Conveners: LUIZ ARAGAO, Oliver Phillips, Stephen Sitch, Jon Lloyd

Room: 24

Chairperson: Luiz Aragao and Lina Mercado

- 08:30–09:00 EGU2011-5323
Jon Lloyd, Sandra Patino, Nikolaos Fyllas, Tim Baker, Carlos Alberto Quesada, Romilda Paiva, Michael Schwarz, Hans ter Steege, and Oliver Phillips
 Coordination of physiological and structural traits in Amazon forest trees
- 09:00–09:15 EGU2011-3165
Joana Zaragoza-Castells, Patrick Meir, Owen Atkin, Keith Bloomfield, Lucy Rowland, Jon Lloyd, Norma Salinas, Damien Bonal, and Matthew Turnbull
 How does nutrient availability influence rates of photosynthesis and leaf respiration in Amazonian tropical forest?
- 09:15–09:30 EGU2011-4658
Franziska Schrodt, Tomas F. Domingues, Ted R. Feldpausch, Simon L. Lewis, Gustavo Saiz, Jonathan Lloyd and the NERC TROBIT Consortium Team
 Structural and physiological contrasts between tropical forest and savanna trees within their transitional zones: Results from Africa, South America and Australia
- 09:30–09:45 EGU2011-656
Tomas Domingues, Patrick Meir, Elmar Veenendaal, John Grace, Jon Lloyd, Ted Feldpausch, Gustavo Saiz, Françoise Ishida, and Carlos Quesada
 Leaf traits and biomass of tropical C4 grasses predicted with environmental drivers: A multi-continental analysis
- 09:45–10:00 EGU2011-8028
Bjoern Reu, Sönke Zaehle, Raphaël Proulx, Kristin Bohn, Axel Kleidon, Ryan Pavlick, and Sebastian Schmidlein
 The role of plant functional trade-offs for tropical biodiversity changes and biome shifts under scenarios of global climatic change
- 10:00–10:15 EGU2011-10513
Corina Buendia, Stefano Manzoni, Axel kleidon, and Amilcare Porporato
 Exploring the missing processes contributing to the Amazon phosphorus budget.

COFFEE BREAK

Chairperson: Jon Lloyd and Stephen Sitch

- 10:30–10:45 EGU2011-2788
Luciana V. Gatti, Manuel Gloor, John B. Miller, Lucas G. Domingues, Alexandre Martinewski, Luana S. Basso, Caio Correia, Viviane F. Borges, Humberto R. Rocha, and Jon Lloyd
 2009–2010 Amazon basin carbon budget and its controls derived from regular aircraft measurements
- 10:45–11:00 EGU2011-350
Liana O. Anderson, Oliver Phillips, Luiz Aragao, Yadvinder Malhi, and Egidio Arai
 Integrating field surveys and MODIS data to evaluate the effects of the 2005 drought in Amazonia
- 11:00–11:15 EGU2011-297
Edward Mitchard, Patrick Meir, Sassan Saatchi, France Gerard, Iain Woodhouse, Simon Lewis, Ted Feldpausch, and Jon Lloyd
 Using satellite data to assess vegetation properties and recent changes in the African forest-savanna transition
- 11:15–11:30 EGU2011-7325
Ane Alencar and Gregory Asner
 Fragmentation, drought and future carbon emissions from Amazon forest fires
- 11:30–11:45 EGU2011-5369
Brett Murphy and David Bowman
 Drivers of the distribution and historical expansion of Australian rainforests
- 11:45–12:00 EGU2011-7723
Gustavo Saiz, Michael Bird, Tomas Domingues, Ted Feldpausch, Elmar Veenendaal, and Jonathan Lloyd
 A pantropical analyses of soil organic carbon storage in tropical forests and savannas
- 12:00–12:15 EGU2011-4388
Patrick Meir, Michael Zimmermann, Michael Bird, Jens Leifeld, Franz Conen, Yadvinder Malhi, and Adan Ccahuana
 Impact of warming on soil respiration in Andean rain forests over a transect spanning 3 km in altitude, in Peru

BG2.1 – Tropical ecosystem function and Response to Environmental Change (co-sponsored by the Integrated Land Ecosystem-Atmosphere Processes Study (iLEAPS)) – Posters

Convener: Lina Mercado | Co-Conveners: LUIZ ARAGAO, Oliver Phillips, Stephen Sitch, Jon Lloyd

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Luiz Aragao, Stephen Sitch, Jon Lloyd and Lina Mercado

- BG47 EGU2011-4701
Jon Lloyd, Mireia Torello-Raventos, Elmar Veenendaal, Carlos Alberto Quesada and the NERC TROBIT CONSORTIUM Team
Does fire frequency/intensity influence tropical vegetation structure. Or vice versa ?
- BG48 EGU2011-12887
Simon Lewis, **Stephen Sitch**, Chris Huntingford, Pierre Friedlingstein, and Rainfor Team
Mechanisms for changing ecology in tropical forests
- BG49 EGU2011-10583
Chris Huntingford, Przemyslaw Zelazowski, Lina Mercado, **Stephen Sitch**, David Galbraith, and Peter Cox
Stability of Tropical Rainforest in a Changing Climate
- BG50 EGU2011-7836
Ted R. Feldpausch, Jon Lloyd, Oliver L. Phillips, Roel Brien, Simon L. Lewis, Gabriela Lopez-Gonzalez, Tim R. Baker, Lindsay Banin, Simon Willcock and the RAINFOR, TROBIT, AfriTRON Team
Height integration into pantropical tree biomass estimates
- BG51 EGU2011-511
Imma Oliveras, Erickson Urquiaga Flores, Vicky Huaman, Rosa Maria Roman Cuesta, and Yadvinder Malhi
How forest fires affect structure and species composition of Peruvian tropical montane cloud forests?
- BG52 EGU2011-759
David Galbraith, Christoffersen Bradley, Hewlley Imbuzeiro, Naomi Levine, Scott Saleska, Marcos Costa, Paul Moorcroft, and Malhi Yadvinder
Simulation of carbon-use efficiency, respiration components and NPP allocation of Amazonian rainforests: do vegetation models get the right results for the right reasons?
- BG53 EGU2011-1455
walter vergara and Sebastian Scholz
Assessment of the Risk of Amazon Dieback
- BG54 EGU2011-3998
Chris Doughty
The effects of warming on tropical forest Net Ecosystem Exchange
- BG55 EGU2011-4635
Mireia Torello Raventos, **Elmar Veenendaal**, Karlè Sýkora, Jon Lloyd and the NERC TROBIT Team
Structural and physiognomic associations between tropical savanna and forest examined at a pantropical scale.
- BG56 EGU2011-5566
Markku Larjavaara and Helene C. Muller-Landau
Temperature variation and biomass
- BG57 EGU2011-5902
Nicolas Delbart, Ciais Philippe, Chave Jérôme, Viovy Nicolas, Malhi Yadvinder, and Le Toan Thuy
Mortality as a key driver of the spatial distribution of aboveground biomass in Amazonian forests: results from a Dynamic Vegetation Model
- BG58 EGU2011-8716
Andrea D de Almeida Castanho, Michael T. Coe, Marcos Costa, and Hewlley Acioly
Response of simulated above ground biomass and net primary productivity in the Amazon to spatial and temporal variability in the physical environment
- BG59 EGU2011-13526
John Miller, Luciana Gatti, Emmanuel Gloor, Luana Basso, Alexandre Martinewski, Lucas Domingues, Humberto Rocha, and Jon Lloyd
Airborne measurements reveal large spatial and seasonal methane flux differences across Amazonia
- BG60 EGU2011-12894
Humberto A. Barbosa, Michel d. S. Mesquita, and T. V. Lakshmi Kumar
What do vegetation indices tell us about the dynamics of the Amazon evergreen forests?
- BG61 EGU2011-8773
Lina Mercado, Carlos Alberto Quesada, Nikolaos Fyllas, Tomas Domingues, Liana Anderson, Phil Harris, Natalia Restrepo-Coupe, and Jon Lloyd
Predicting terre firme forest stand level photosynthesis across the Amazon Basin
- BG62 EGU2011-8414
Daniel Epron, Blandine Caquet, Agnès de Grandcourt, Armel Thongo M'Bou, Antoine Kinana, Laurent Saint-André, and Yann Nouvellon
Soil carbon storage and water consumption following afforestation of a tropical savannah with Eucalypts
- BG63 EGU2011-7859
Cecilia Chavana-Bryant, France Gerard, and Yadvinder Malhi
Leaf life-cycles and their impact on our interpretation of EO-derived vegetation indices of Amazonian Forests

- BG64 EGU2011-9092
Fanny Langerwisch, Anja Rammig, Kirsten Thonicke, and Wolfgang Cramer
Estimating the effects of land use and climate change on Amazonian river carbon dynamics
- BG65 EGU2011-11784
Nikolaos Fyllas, Emanuel Gloor, Lina Mercado, Timothy Baker, Stephen Sitch, Yadvinder Malhi, Oliver Phillips, and Jon Lloyd
Individual based simulations of forest production across Amazonia constrained with inventory data
- BG66 EGU2011-10981
Renata Vezzoli, Carlo De Michele, Francesco Accatino, and Robert J. Scholes
Vegetation changes under gradients of precipitation and fire using a simple ecohydrologic model
- BG67 EGU2011-9640
Jochen Schöngart
Carbon dynamics in aboveground coarse wood biomass of floodplain forests in central Amazonia
- BG68 EGU2011-10779
Dominick Spracklen and Stephen Arnold
Regional vegetation impacts on tropical precipitation: observational evidence
- BG69 EGU2011-2498
Franziska Schrodt, Simon L. Lewis, and Jonathan Lloyd
Is the planet desavannanising? Evidence for rainforest encroachment and tropical vegetation thickening from three continents
- BG70 EGU2011-4895
Sandra Patiño, Juliette Boiffin, Jon Lloyd and the RAINFOR Consortium (2), ANR-Woodiversity (3), ANR-BRIDGE (3) Team
What branches and saplings tell us about drought sensitivity of Amazonian forests?

BG2.12 – Biogeochemistry of wetlands, lakes and marine environments – Orals

Convener: Christian Blodau | Co-Conveners: Klaus-Holger Knorr, Julia van Winden, Julia Beer, Caroline P. Slomp

Room: 23

Chairperson: n.n.

- 13:30–13:45 EGU2011-7454
Artur Banach, Leon Lamers, Zofia Stępniewska, and Jan Roelofs
Short-term versus long-term effects of summer flooding on floodplain biogeochemistry; interacting role of soil use and water quality
- 13:45–14:00 EGU2011-8180
Helen Talbot, Julia F. van Winden, Elizabeth Bingham, Richard D. Pancost, Nardy Kip, Gert-Jan Reichart, Arjan Pol, Mike S.M. Jetten, Richard Evershed, and Jaap S. Sinninghe Damsté
Bacteriophanepolyol signatures as markers for methane oxidation and nitrogen-fixation in peat
- 14:00–14:15 EGU2011-8771
Cristian Estop, Klaus-Holger Knorr, and Christian Blodau
Impact of dry-wet cycle and flooding on redox dynamics and carbon cycling in a northern fen
- 14:15–14:30 EGU2011-13868
Elaine Matthews, Catherine Prigent, and Fabrice Papa
Satellite-derived information on inundation seasonality and extent in a global wetland data set
- 14:30–14:45 EGU2011-8201
Chandrashekhhar Deshmukh, Frédéric Guérin, Fabien Becerra, Pierre Guédant, Stéphane Descloux, Sylvie Pighini, Vincent Chanudet, and Dominique Serça
Assessment of methane (CH₄) dynamics in a sub-tropical hydroelectric reservoir: Nam Theun 2, Lao PDR
- 14:45–15:00 EGU2011-2129
Hannu Nykänen, Sari Peura, Paula Kankaala, and Roger Jones
Gaseous carbon balance for a small boreal lake following artificially increased DOC loading
- Chairperson: Christian Blodau
- 15:30–15:45 EGU2011-11573
Norbert Hertkorn, Fenfen Zhang, Philippe Schmitt-Kopplin, Agnes Fekete, Andras Gaspar, Ying Wu, and Jing Zhang
Compositional and Structural Dynamics of Dissolved Organic Matter during Cyanobacteria (Microcystis aeruginosa) Bloom in Taihu Lake, China
- 15:45–16:00 EGU2011-4162
Caroline Schmidt, Emily-Denise Melton, Peter Stief, and Andreas Kappler
Iron biogeochemical cycling in freshwater sediments

- 16:00–16:15 EGU2011-3701
Oleg Pokrovsky, Liudmila Shirokova, Svetlana Zabelina, Taissia Vorobieva, Olga Moreva, Sergey Klimov, Artem Chupakov, Stephane Audry, and Jerome Viers
 Geochemistry of trace elements in boreal seasonally stratified lake: control of colloidal iron and organic matter
- 16:15–16:30 EGU2011-11010
Julia Beer, Christiane Neumann, Stefan Peiffer, Jan Fleckenstein, and Christian Blodau
 Groundwater - lake water exchange affects biogeochemistry: Results from a multivariate analysis of sediment properties in an acid mine lake
- 16:30–16:45 EGU2011-6706
Esther T. Arning, Wolfgang van Berk, and Hans-Martin Schulz
 Modelling past and present phosphate cycling off Peru
- 16:45–17:00 EGU2011-6582
Nils Risgaard-Petersen, Lars Peter Nielsen, Yuri Gorby, Greg Wanger, Andre Revil, Mohamed El-Naggar, Tom Yuzvinsky, and Christian Pfeffer
 Electric fields and nanowires associated with biogeolectricity in marine sediment

BG2.12 – Biogeochemistry of wetlands, lakes and marine environments – Posters

Convener: Christian Blodau | Co-Conveners: Klaus-Holger Knorr, Julia van Winden, Julia Beer, Caroline P. Slomp

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- BG71 EGU2011-2986
Gareth Clay, Fred Worrall, and Rob Rose
 Carbon budgets of a peatland managed by prescribed fire
- BG72 EGU2011-8044
Rebecca Bartlett, Simon Bottrell, Pippa Chapman, Pip de Fonblanque, and Samuel Allshorn
 Seasonality suggests dominant biological control in DOC-SO₄ relationship
- BG73 EGU2011-5315
Yuanqiao Wu and Christian Blodau
 Model-Based Analysis of the Effect of Long-term Atmospheric Nitrogen Deposition on Nitrogen and Carbon Dynamics in Northern Peatlands
- BG74 EGU2011-9965
Katarzyna Zajac and Christian Blodau
 Nitrogen deposition affects C and N balance in mesocosms of five European peatlands
- BG75 EGU2011-8690
Tanja Broder, Klaus-Holger Knorr, Harald Biester, and Christian Blodau
 Characterization of the degree of decomposition and CO₂ and CH₄ production rates in three pristine ombrotrophic bogs in Southern Patagonia
- BG76 EGU2011-8526
 Tanja Broder, **Klaus-Holger Knorr**, and Christian Blodau
 C and N stable isotope inventories in CO₂, CH₄, DOC, DON, and peat solid phase in three southern Patagonian ombrotrophic bogs
- BG77 EGU2011-9362
Christian Blodau, Minderlein Stefanie, Benjamin Kopp, Aeschbacher Michael, Sander Michael, Melanie Siems, Nigel Roulet, Danielle Fortin, and Elyn Humphreys
 Impact of 90 years of drainage on the subsurface biogeochemistry of a northern bog
- BG78 EGU2011-9447
Carolyn-Monika Schäfer, Lars Elsgaard, Ralf Conrad, and Søren O. Petersen
 Seasonal methane dynamics in three temperate grasslands on peat
- BG79 EGU2011-6224
Julia van Winden, Gert-Jan Reichart, Niall P. McNamara, Albert Benthien, and Jaap S. Sinninghe Damsté
 Temperature and methane cycling effects on methanotroph-related biomarkers in peat moss
- BG80 EGU2011-9892
Jo De Ridder, Luc Aquilina, Mélanie Davranche, and André-Jean Francez
 The effect of frequent wetting and draining on peat pore water chemistry - a column experiment
- BG81 EGU2011-3714
Liudmila Shirokova and Oleg Pokrovsky
 Biogeochemistry of thermokarst lakes in discontinuous and sporadic permafrost zone of Western Siberia
- BG82 EGU2011-61
Alia Khan, Amanda Hohner, Diane McKnight, Fernando Rosario, and Scott Summers
 Evaluation of the relationship between Dissolved Organic Material (DOM), Chlorophyll-A and Algal Species in Lakes and Drinking Water Reservoirs throughout the State of Colorado

- BG83 EGU2011-8898
Alexey Kalinin, Tim P. Covino, and Brian L. McGlynn
Spatial and Temporal Distribution of DON and DIN in a Linked Stream-Lake Ecosystem
- BG84 EGU2011-3563
Loïc Harraut, Gérard Lacroix, Jacques Mériguet, David Carmignac, and Béatrice Allard
Lake sediment biochemistry influences food web structure
- BG85 EGU2011-13020
Stephan Clemens, Julia Beer, and **Christian Blodau**
Acidity dynamics in mining lakes and their sediments: A hydrologic and biogeochemical process model
- BG86 EGU2011-3708
Fernando Luis Pedrozo and Mónica Diaz
Multielement composition of an extremely acidic (pH 1-3) river - lake system in Patagonia (Argentina) influenced by volcanic fluids.
- BG87 EGU2011-1130
Tung-Chiung Chang, Zhaoyin Wang, and Guo-an Yu
A Study on the Flow Energy Dissipation in Step-Pool of Mountain Rivers
- BG88 EGU2011-1815
Konstantin Choumilin, Fernando Aguirre-Bahena, Evgueni Shumilin, Norman Silverberg, and Dmitriy Sapozhnikov
Composition of Settling Particulate Matter and Element Fluxes Into Alfonso Basin, La Paz Bay, Gulf of California: 2002-2008 Sediment Trap Time Series
- BG89 EGU2011-13561
Viridiana Vázquez-Figueroa, Carles Canet, Rosa María Prol-Ledesma, and Evgueni Shumilin
Geochemistry of superficial marine sediments of the Wagner and Consag basins, Northern Gulf of California, Mexico.
- BG90 EGU2011-5821
Bo Barker Jørgensen, Lars Holmkvist, and **Timothy G. Ferdelman**
A cryptic sulfur cycle driven by iron in the methane zone of marine sediment (Aarhus Bay, Denmark)

IG13/BG2.15/SSS6.2 – Isotope techniques for understanding wetlands and agricultural catchments (co-organized) –

Orals

Convener: Philippe Negrel | Co-Conveners: Thomas Hein, Mari Ito, Randall Hunt, Marisol Manzano, Roland Bol, Guido Wiesenberger, Delphine Derrien

Room: 41

Chairperson: Philippe Négrel; Guido Wiesenberger

- 13:30–13:45 EGU2011-552
Christine Mukwaya
Identification of sources of water recharging a Lacustrine wetland; Lake Kyoga
- 13:45–14:00 EGU2011-879
Emilia Bocanegra, Daniel Martínez, Asunción Romanelli, and Mauricio Quiroz Londoño
Isotope techniques and flow modelling for the assessment of groundwater-wetland interactions in the Pampa Plain, Argentina. "La Salada"
- 14:00–14:15 EGU2011-4845
Emmanuelle Petelet-Giraud and Philippe Negrel
Surface Water - Groundwater Interactions in Wetlands: Sr Isotope Constraints
- 14:15–14:30 EGU2011-6898
Marisol Manzano, Leticia Rodríguez, Javier Heredia, Luís S. Vives, Juan Nittman, M^a Emília Zabala, Pradeep Agarwal, and Luís Araguás
Hydrochemical and isotopic assessment of the Iberá hydrogeological system in NE Argentina
- 14:30–14:45 EGU2011-7782
Nina Welti, Elisabeth Bondar-Kunze, Matthias Mair, Wolfgang Wanek, Patricia Bonin, Gilles Pinay, and Thomas Hein
Reconnection of Danube Floodplains: Use of stable isotopes to determine the effects on nitrogen cycling
- 14:45–15:00 EGU2011-8768
Martin Šanda, Michal Dohnal, and Milena Císlarová
Hydrological functioning of the mountainous peatlands - oxygen isotopes study
- Chairperson: Delphine Derrien; Philippe Négrel
- 15:30–15:45 EGU2011-9267
Babasola Ajiboye, Therese McBeath, Jason Kirby, Samuel Stacey, Fien Degryse, and Michael McLaughlin
The use of stable isotopes to quantify macro- and micronutrient uptake from compound fertilizers

- 15:45–16:00 EGU2011-11501
Jan Reent Köster, Reinhard Well, Albert Manninen, Roland Bol, Klaus Dittert, Lukas Emmenegger, Béla Tuzson, Laura Cárdenas, Karl Hermann Mühling, and Joachim Mohn
 Isotopomer analysis of soil derived N₂O - comparative measurements using QCLAS and IRMS techniques
- 16:00–16:15 EGU2011-12552
Randall Hunt, Michael Fienen, and John Walker
 The Value of Natural Tracers for Parameter Estimation in a Creek-Wetland Complex
- 16:15–16:30 EGU2011-12555
Isabel Muñoz, María Bascones, Roger Puig, Neus Otero, and Albert Soler
 Dual isotope approach for tracing nitrate pollution in a vulnerable zone in La Alcarria (Madrid, Spain)
- 16:30–16:45 EGU2011-6045
Eric Crosson, David Balslev-Clausen, and John Dore
 A new analyzer to measure the abundance of ¹⁴N¹⁵N¹⁶O and ¹⁵N¹⁴N¹⁶O relative to ¹⁴N¹⁴N¹⁶O to help elucidate microbial N₂O dynamics in terrestrial ecosystems.
- 16:45–17:00 EGU2011-6789
Horacio Higuera, Marisol Manzano, Emilio Custodio, Iker Juárez, Roger Puig, and Ramón Aravena
 Isotopic assessment of the impact of agriculture on the hydrology of the aquifer and wetlands at the Doñana Ramsar site, SW Spain

IG13/BG2.15/SSS6.2 – Isotope techniques for understanding wetlands and agricultural catchments (co-organized) –

Posters

Convener: Philippe Negrel | Co-Conveners: Thomas Hein, Mari Ito, Randall Hunt, Marisol Manzano, Roland Bol, Guido Wiesenberger, Delphine Derrien

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Marisol Manzano, guido.wiesenberger

- A497 EGU2011-3725
Pierre-Joseph Hatton, Samuel Bodé, Delphine Derrien, Nicolas Angeli, Louisette Gelhaye, Bernd Zeller, and Pascal Boeckx
 The role of microorganisms in the incorporation of carbon into mineral-organic associations
- A498 EGU2011-3786
Philippe Negrel, Martin Šanda, Romain Millot, and Alena Kulasova
 Detecting flow processes in peatlands using Li isotopes
- A499 EGU2011-3886
 Agnès Brenot, **Philippe Negrel**, Romain Millot, and Clotilde Bertin
 Stable (O, H) and strontium isotope tracing of the Narces de la Sauvetat peatland (Massif Central, France) water fluxes
- A500 EGU2011-4868
Emmanuelle Petelet-Giraud and Philippe Negrel
 Multi-isotopes systematics to constrain surface water-groundwater interactions in an alluvial plain: the Loire River case
- A501 EGU2011-6080
 Silke Hafner, Sebastian Unteregelsbacher, Xingliang Xu, Xiaogang Li, Georg Guggenberger, Georg Miehe, and **Yakov Kuzyakov**
 Effect of grazing on C partitioning in Tibetan montane pasture revealed by ¹³CO₂ pulse labeling
- A502 EGU2011-10020
Miryam Martinez and Iñaki Antiguada
 Understanding the influence of land use and geology on hydrochemistry and hydrodynamic of Salburua wetland (Isotope techniques).
- A503 EGU2011-10646
Cristina Pérez Bielsa and Luis Javier Lambán Jimenez
 Estaña Lakes and Estopiñán aquifer hydrogeological study advances (Huesca, España).
- A504 EGU2011-13299
Mari Ito, Philippe Negrel, Thomas Hein, Randall Hunt, Marisol Manzano and the Participants of CRP on hydrological processes in wetlands Team
 IAEA Coordinated Research Project investigates hydrological processes in various wetlands in the world
- A505 EGU2011-10912
 Michaela Dippold, **Yakov Kuzyakov**, and Mikhail Biryukov
 Short-term transformation of alanine in soil assessed by position-specific labeling
- A506 EGU2011-14079
Guido Wiesenberger, Maxim Dorodnikov, Yakov Kuzyakov, and Andreas Fangmeier
 Turnover and stabilization of organic carbon and plant derived alkanes in soil density fractions

- A507 EGU2011-14018
Agnès Brenot and **Emmanuelle Petelet-Giraud**
Groundwater contribution to riverine wetlands in a chalk area: geochemical and isotopic evidences.
- A508 EGU2011-12848
Janine Kettering, Sina Berger, Bernd Huwe, Ralf Kiese, Yakov Kuzyakov, and Marianne Ruidisch
Nitrate leaching in intensive dryland agriculture under monsoon climate: a suction lysimeter study
- A509 EGU2011-14023
Laurence Gourcy, Agnès Brenot, and **Emmanuelle Petelet-Giraud**
Isotopic and geochemical tools for characterizing surface water-groundwater relationships in la Bassee floodplain area (Seine River Basin, France)
- A510 EGU2011-3797
Philippe Negrel, Romain Millot, Agnès Brenot, and Clotilde Bertin
Lithium isotopes: a new tracer of groundwater circulation in a peat land
- A511 EGU2011-13596
John Walker, Randall Hunt, Seann McClure, Christopher Lowry, and Mary Anderson
Characterizing a Northern Temperate fen using multiple tracers, Allequash Creek, Northern Wisconsin, USA
- A512 EGU2011-13123
Gregor Hsiao, Lee Heng, and Dave Williams
New Experimental Approaches to Measuring Plant-Extracted Waters

NH7.2/AS4.14/BG2.17 – Fire in the Earth System: Impacts and Feedbacks (co-organized) – Orals

Convener: Kirsten Thonicke | Co-Conveners: Allan Spessa

Room: 2

Chairperson: Kirsten Thonicke

- 10:30–10:45 EGU2011-383
Fernando Castro, Francesca Barnaba, Federico Angelini, and Gian Paolo Gobbi
The relative role of Amazonian and non-Amazonian fires in building up the aerosol optical depth in South America
- 10:45–11:00 **Placeholder**
- 11:00–11:15 EGU2011-1097
Ronan Paugam, Martin Wooster, George Papadakis, and Martin Schultz
Estimation of the Injection Height of Biomass Burning Emission
- 11:15–11:30 EGU2011-2668
João Silva, João Carreiras, Isabel Rosa, and José Pereira
Greenhouse gas emissions from shifting cultivation in the tropics, including uncertainty and sensitivity analysis
- 11:30–11:45 EGU2011-7074
Elisa Garcia-Hurtado, Esther Borrás, Pilar Sanchez, **Teresa Vera**, M. Jaime Baeza, and V. Ramon Vallejo
Determination of emissions from Mediterranean shrubland fires.
- 11:45–12:00 EGU2011-13297
Brian Magi, Elena Shevliakova, Sergey Malyshev, and Stephen Pacala
Modeling Anthropogenic Drivers of Fires

NH7.2/AS4.14/BG2.17 – Fire in the Earth System: Impacts and Feedbacks (co-organized) – Posters

Convener: Kirsten Thonicke | Co-Conveners: Allan Spessa

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Kirsten Thonicke

- XY574 EGU2011-621
Faith Taylor, Ronan Paugam, and Martin Wooster
Exploring and Improving Methods of Validating a 1D Plume Rise Model for Wildfire Emissions: The Use of BIRD and MODIS Earth Observation Products
- XY575 EGU2011-2921
Matthias Forkel, Kirsten Thonicke, Sibyll Schaphoff, Ursula Heyder, and Christiane Schmillius
Hotspots, vulnerable ecosystems and global change of fire-influenced permafrost degradation
- XY576 EGU2011-3542
Mirco Migliavacca, Alessandro Dosio, Alessandro Cescatti, Andrea Camia, Jesus San Miguel-Ayanz, and Tracy Durrant Houston
Modeling forest fires dynamics in Europe using the Community Land Model

- XY577 EGU2011-7184
Elisa Garcia-Hurtado, Jorge Pey, Esther Borrás, Andrés Alastuey, Xavier Querol, and V. Ramon Vallejo
 Determination of particle tracers released in forest fire events in the Mediterranean basin. Ayraburning experiment.
- XY578 EGU2011-9614
Jane Liu, David Tarasick, Mark Parrington, Paul Palmer, Huixia He, Kevin Strawbridge, and Tom Duck
 Observation of High Ozone From Canadian Boreal Forest Fires in 2010
- XY579 EGU2011-10524
Anatoly Prokushkin, Oleg Pokrovsky, and Jerome Viers
 Wildfire effects on stream hydrochemistry within the zone of continuous permafrost distribution in Central Siberia
- XY580 EGU2011-11273
Beatriz Monge-Sanz, Steve Arnold, and Sarah Monks
 Estimation of boreal fire emissions under future climate scenarios and their impacts on Arctic atmospheric composition
- XY581 EGU2011-11696
 Margarita Evtugina, Ana Patricia Fernandes, **Ana Calvo**, Teresa Nunes, Célia Alves, Luis Tarelho, and Ana Vicente
 Characterisation of emissions from wildfires in Portugal in summer 2010
- XY582 EGU2011-12635
Iryna Khlystova, Silvia Kloster, Alex Loew, and Christian Reick
 Integration of satellite burned area products into the land biosphere model JSBACH
- XY583 EGU2011-10782
Thomas Smith, Katherine Allen, Robert Marrs, Michael Harris, John Dold, and Martin Wooster
 Emissions of greenhouse gases and selected volatile organic compounds from UK moorland burning estimated using open-path FTIR spectrometry and burnt area measures.

CL1.19 – Ocean climate viewed through deep-sea corals (co-listed) – Orals

Convener: Norbert Frank | Co-Conveners: Tina van de Flierdt, Andres Rüggeberg

Room: 13

Chairperson: Norbert Frank, Andres Rüggeberg, Tina van de Flierdt

- 15:30–15:45 EGU2011-5852
Armin Form and Ulf Riebesell
 Coping with ocean acidification during long-term exposure in the cold-water coral *Lophelia pertusa*
- 15:45–16:00 EGU2011-9518
Nancy Grumet Prouty, Brendan Roark, and Alan Koenig
 Sub-decadal records of surface water properties recorded in deep-sea corals spanning the last millennium from the Gulf of Mexico
- 16:00–16:15 EGU2011-7375
Marcus Gutjahr, Derek Vance, Claus-Dieter Hillenbrand, and Gerhard Kuhn
 Modern Amundsen Sea Circumpolar Deep Water Nd isotope composition and its evolution since the Antarctic Cold Reversal
- 16:15–16:30 EGU2011-8370
Eric Douville, Pascale Louvat, Jerome Gaillardet, Cecile Gonzalez, Norbert Frank, and Marion Gehlen
 Boron isotopes in deep sea corals over the last 10,000 years: evidence of ocean acidification at 750m of depth?
- 16:30–16:45 EGU2011-9132
Eleni Anagnostou, Robert Sherrell, and Jess Adkins
 Nutrient and carbonate ion change at intermediate depth North West Atlantic: a record from a 15.4ky D. dianthus fossil coral
- 16:45–17:00 EGU2011-11813
Jacek Raddatz, Volker Liebetrau, Anton Eisenhauer, Andres Rüggeberg, Ed Hathorne, Dirk Nürnberg, and Wolf-Christian Dullo
 Temperature reconstructions on carbonate mounds (IODP Site 1317) using elemental ratios (Mg/Ca, Mg/Li, Sr/Ca) as well as non-traditional isotope techniques

CL1.19 – Ocean climate viewed through deep-sea corals (co-listed) – Posters

Convener: Norbert Frank | Co-Conveners: Tina van de Flierdt, Andres Rüggeberg

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Norbert Frank, Andres Rüggeberg, Tina van de Flierdt

- XY230 EGU2011-5486
Norbert Frank, Freiwald André, Wienberg Claudia, Van Rooij David, Colin Christophe, de Haas Henk, Buhl-Mortensen Pal, Roberts J. Murray, De Mol Ben and the HERMIONE partners Team
 Northeastern Atlantic cold-water coral reefs and climate
- XY231 EGU2011-10346
Andres Rüggeberg, Paolo Montagna, Matthias López Correa, Jan-Rainer Riethdorf, Jacek Raddatz, Wolf-Christian Dullo, Malcolm McCulloch, Marco Taviani, and André Freiwald
 Problems and possibilities of Sr/Ca as a temperature proxy in cold-water coral *Lophelia pertusa*
- XY232 EGU2011-13385
Morten Bjerager, Bodil Wesenberg Lauridsen, Finn Surlyk, Lars Stemmerik, Holger Lykke-Andersen, Nicolas Thibault, Caterina Morigi, and Christoph Korte
 Development of cold-water coral reefs in the Early Paleocene of southern Scandinavia
- XY233 EGU2011-13946
Markus Eisele, Norbert Frank, Claudia Wienberg, Dierk Hebbeln, Matthias López Correa, Eric Douville, and André Freiwald
 Growth of a cold-water coral mound - coral framework accumulation versus the deposition of hemipelagic sediments
- XY234 EGU2011-13511
Bodil Wesenberg Lauridsen, Morten Bjerager, and Finn Surlyk
 Danien cold-water coral reefs from Faxe, Denmark - A unique preservation of aragonite faunas
- XY235 EGU2011-9222
Wolf-Christian Dullo, Sascha Flögel, Andres Rüggeberg, and Furu Mienis
 Ocean Chemistry reflected in Cold Water Coral Reef Occurrences
- XY236 EGU2011-13943
Julie Trotter, Paolo Montagna, Matthias López Correa, Agostina Vertino, Malcolm McCulloch, Steve Goldstein, Benedicte Ritt, Pierre Henry, and Marco Taviani
 Longevity and growth rates of *Desmophyllum dianthus* in the Marmara Sea and its potential as centennial scale geochemical deep-sea archive
- XY237 EGU2011-10788
Jean-Carlos Montero-Serrano and the LSCE-GEOTRAC, IDES, HISPEC, RCMG, LOCEAN-IPSL-UPMC Team
 Variability in the northeastern Atlantic intermediate water during the past 60 years as recorded by a cold-water coral from the Bay of Biscay
- XY238 EGU2011-11719
Paolo Montagna, Steve Goldstein, Marco Taviani, Norbert Frank, Malcolm McCulloch, and Helen McGregor
 Neodymium isotopes in biogenic carbonates: reliable archives of water mass circulation
- XY239 EGU2011-13944
Matthias López Correa, Owen Sherwood, Paolo Montagna, Andreas Rüggeberg, Brenden Roak, Evan Edinger, and Malcolm McCulloch
 Geochemical Records in Canadian Bamboo Corals, Potentials and Pitfalls
- XY240 EGU2011-10472
Jean-Carlos Montero-Serrano, Norbert Frank, and Christophe Colin
 On the evolution of Mediterranean Sea Water during climate warm stages (MIS 1, 5, 7)
- XY241 EGU2011-5994
Kirsty C. Crocket, Tina van de Flierdt, Laura F. Robinson, and Jess F. Adkins
 Ocean ventilation rates during the last deglaciation: paired radiocarbon and Nd isotope compositions in deep-water corals from the NW Atlantic

CL2.14 – Climate Change and Forest Health, Growth, and Dynamics (co-listed) – Orals

Convener: Fabrizio D'Aprile | Co-Conveners: David Dunkerley

Room: 25

Chairperson: Fabrizio D'Aprile

- 08:30–08:45 EGU2011-1175
David Bowman and Lynda Prior
 Can analyses of continental-scale variation in tree growth reveal effects of climate change on forest productivity?
- 08:45–09:00 EGU2011-9278
Olga Khabarova, Igor Savin, and Maria Medvedeva
 Environmental changes' influence on North Eurasia forests' vegetation (global and local effects)
- 09:00–09:15 EGU2011-218
Neil Pederson, Edward Cook, Gordon Jacoby, and Myvonwynn Hopton
 The Influence of Age and Geography on the Climatic Sensitivity and Growth Rates of Southern Temperate Tree Species

- 09:15–09:30 EGU2011-12387
Nikée Groot, Oliver Phillips, Simon Lewis, Manuel Gloor, and Drew Purves
 Spatial variation in tree mortality
- 09:30–09:45 EGU2011-302
Niels Brouwers, Thomas Lyons, and Giles Hardy
 Forest health in the drying climate of southwest Western Australia
- 09:45–10:00 EGU2011-13034
Matthias Dobbertin, Britta Eilmann, Che Elkin, Arnaud Giuggiola, Beat Wermelinger, Thomas Wohlgemuth, Andreas Zingg, Roman Zweifel, and Andreas Rigling
 The impact of climate change on Scots pine and oak forests in dry inner-alpine valleys of Switzerland

CL2.14 – Climate Change and Forest Health, Growth, and Dynamics (co-listed) – Posters

Convener: Fabrizio D'Aprile | Co-Conveners: David Dunkerley

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Fabrizio D'Aprile

- XY288 EGU2011-6974
Chris Kollas, Christophe Randin, Yann Vitasse, Günter Hoch, and Christian Körner
 Dispersal of European broadleaf forest trees is not constrained by quality of seeds at the high elevation range limit
- XY289 EGU2011-6805
Yann Vitasse, Günter Hoch, Armando Lenz, Chris Kollas, Christophe Randin, and Christian Körner
 Tree recruitment of deciduous tree species at their elevational limits in Swiss Alps
- XY290 EGU2011-6821
Armando Lenz, Günter Hoch, and Christian Körner
 Low temperature limits cambial activity and determines secondary growth at the alpine treeline
- XY291 EGU2011-8554
Rafael Poyatos, Jordi Martínez-Vilalta, David Aguadé, Maurizio Mencuccini, Mónica Mejía-Chang, Pablo García-Estríngana, and Pilar Llorens
 Scots pine water relations in response to drought-induced defoliation and competition by Holm oak trees
- XY292 EGU2011-8117
Marco Hümann, Raimund Schneider, Gebhard Schüler, and Christoph Müller
 Sustainability of soil deep loosening as an amelioration measure preceding site afforestation
- XY293 EGU2011-396
Niels Brouwers, Susan Moore, Thomas Lyons, and Giles Hardy
 Forest health in a changing climate: How to advance our knowledge and management
- XY294 EGU2011-12942
Masa Zorana Ostrogovic, Hrvoje Marjanovic, Giorgio Alberti, Ivan Balenovic, and Alessandro Peressotti
 Using chronosequence method for assessing change in forest growth conditions
- XY295 EGU2011-1132
Seog-Gu Son, Hyo-Jeong Kim, Chan-Jin Oh, Young Je Kang, and Kwang-Ok Byun
 Environmental changes and forest ecosystem
- XY296 EGU2011-2886
Hyungsoon Choi, Young-Je Kang, Seog-Gu Son, Hyo-Jeong Kim, and Kwang-Ok Byun
 Growth and Survival of Warm-Temperate Trees in Korea
- XY297 EGU2011-2888
Hyungsoon Choi, Seog-Gu Son, Young-Je Kang, Hyo-jeong Kim, and Kwang-Ok Byun
 The effect of climate changes on the growth of *Pinus radiata*

ESSI7 – Earth System Modeling: Strategies and Software (co-listed) – Posters

Convener: Reinhard Budich | Co-Conveners: Dan Lunt

Hall XL | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: n.n.

- XL159 EGU2011-3358
Sven Kralisch, Peter Krause, and Christian Fischer
 JAMS - a Software Framework for Integrated Environmental Modelling
- XL160 EGU2011-5803
Paolo Mazzetti, Stefano Nativi, Mattia Santoro, and Gary Geller
 The GEO Model Web Initiative for Environmental Model Access Interoperability

- XL161 EGU2011-9753
Oliver Schmitz, Derek Karssenbergh, Kor de Jong, and Jean-Luc de Kok
 Constructing integrated models: a scheduler to execute coupled components
- XL162 EGU2011-8459
Sarah Callaghan, Mark Morgan, Eric Guilyardi, Sophie Valcke, Charlotte Pascoe, Bryan Lawrence and the METAFOR Project Team
 Supporting the climate community by providing common metadata for climate modelling digital repositories: the METAFOR project.
- XL163 EGU2011-10324
Alessandro Spinuso, Luca Trani, Malcolm Atkinson, and Michelle Galea
 Infrastructure for Data-Intensive Seismology: Cross-correlation of distributed seismic traces through the ADMIRE framework
- XL164 EGU2011-11152
Raffaele Guarino and Mirko Albani
 LTDP/FIRST Earth Science User Requirements
- XL165 EGU2011-8307
Lars Hoffmann, Paul Gibbon, Ole Kirner, and Stefan Versick
 Simulation Laboratories for Climate Sciences and Environmental Research
- XL166 EGU2011-9128
Arnaud Caubel, Yann Meurdesoif, Alexis Canevet, Marie-Alice Foujols, Olivier Marti, Sebastien Masson, and Sophie Valcke
 Parallel optimization of IPSL climate model
- XL167 EGU2011-12320
Claudio Schifani, Rudy Rossetto, and Iacopo Borsi
 Open Source GIS tools for Water Resources Management
- XL168 EGU2011-6341
Thomas Jung, Sergey Danilov, Kerstin Fieg, Wolfgang Hiller, Jens Schroeter, Dmitry Sidorenko, and Qiang Wang
 Towards a coupled climate model with a finite-element sea ice-ocean representation
- XL169 EGU2011-7726
Jon Hill and the Applied Modelling and Computation Group Team
 Fluidity - an open-source, next-generation, fluid dynamics framework

HS2.10 – Hydrological change: Ecological development, landscape evolution and hydrological response (co-listed) –

Orals

Convener: Hartmut Holländer | Co-Conveners: António Ferreira, Susanne Winter, Thomas Maurer, Susanne Stadler, Artemi Cerdà

Room: 36

Chairperson: Hartmut Holländer

- 13:30–14:00 EGU2011-13963
Tammo Steenhuis, Carla S. Ferreira, Seifu A. Tilahun, Birara C. Tarekegn, Muhammad Elkamil, Zach M. Easton, and António D. Ferreira
 Environmental tipping points in landscape interventions
- 14:00–14:15 EGU2011-5755
Wolfgang Schaaf, Detlef Biemelt, Anton Fischer, and Werner Gerwin
 Chicken Creek after five years: what changed?
- 14:15–14:30 EGU2011-4686
Anna Schneider, Horst H. Gerke, Thomas Maurer, Rossen Nenov, and Stefan Seifert
 Quantification of initial sediment redistribution in an artificially-created catchment using a time series of digital elevation models
- 14:30–14:45 EGU2011-9627
Philip Noske, Gary Sheridan, and Patrick Lane
 Fire and the influence of aspect on hydrological change in two small forest catchments, SE Australia
- 14:45–15:00 EGU2011-8138
Rens van Beek, Rik Feiken, Theo van Asch, and Marc Bierkens
 Impact of climate variation and human activity on hydrological response: a millennium-scale model study for a highland Mediterranean catchment

HS2.10 – Hydrological change: Ecological development, landscape evolution and hydrological response (co-listed) –

Posters

Convener: Hartmut Holländer | Co-Conveners: António Ferreira, Susanne Winter, Thomas Maurer, Susanne Stadler, Artemi Cerdà

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: António Dinis Ferreira

- A220 EGU2011-945
Philip Hunke, Eva Nora Müller, and Peter Zeilhofer
Interaction of vegetation dynamics with water and nutrient cycling: Ecohydrological analysis of heavily modified agricultural fields in the Cerrado of Mato Grosso, Brazil
- A221 EGU2011-3739
Sheila Palmer, Mark Crowther, and Chapman Pippa
Evidence for abiotic DOC losses in a peatland stream
- A222 EGU2011-4126
Alena Kulasova, **Sarka Blazkova**, and Keith Beven
Runoff generation research in an area with land use and ecological change
- A223 EGU2011-4208
Helene Rieckh, Jean F. Schneider, Willibald Loiskandl, and Horst H. Gerke
Relationship between land cover change and the appearance of water logging and salinisation
- A224 EGU2011-5100
Joseph Holden and Richard Grayson
Changes in storm hydrographs associated with long-term peatland vegetation change
- A225 EGU2011-6784
Mana Gharun, Tarryn Turnbull, and Mark Adams
Water Use Dynamics in Disturbed Australian Montane Forests
- A226 EGU2011-7771
Anne Gaedeke and Ina Umlauf
Comparison of different approaches of spatial discretization for modelling the natural discharge in a subcatchment of the river Spree (125 km²) in Lusatia (Germany)
- A227 EGU2011-11752
Edinson Pacheco, Joaquim Farguell, and Xavier Úbeda
Hydrological dynamics in a Mediterranean coastal drainage basin: the river Daró (2004-2010)
- A228 EGU2011-11803
Thomas Maurer, Anna Schneider, Uwe Buczeko, and Horst H. Gerke
Modeling the structural heterogeneity of an artificial hydrological catchment.
- A229 EGU2011-11804
Edinson Pacheco, Luis Outeiro, Alejandro Miguel, Joaquim Farguell, and Xavier Úbeda
Runoff and sediment production in a Mediterranean basin with two different land uses (2005-2009)
- A230 EGU2011-11893
Tim Allott, Martin Evans, Clive Agnew, Jim Freer, Clare Brown, and Rachael Maskill
The impacts of peatland restoration on runoff generation and downstream flood risk in the UK uplands: a comparative study of headwater catchments in the Peak District National Park
- A231 EGU2011-4269
Mikołaj Piniewski, Jarosław Chormański, Lars Gottschalk, and Irina Krasovskaia
Exploring changing environment in wetland national park Kampinos, Poland
- A232 EGU2011-4342
Robert Gilkes and Nattaporn Prakongkep
A drying climate is acidifying podzols and groundwater in SW Australia.
- A233 EGU2011-8555
Nicole Jackisch and Markus Weiler
Quantifying hydrological processes in an experimental watershed in an ecologically planned neighbourhood
- A234 EGU2011-8759
Agustin Brena, Markus Weiler, and Kerstin Stahl
Predicting evapotranspiration change in a successional forest without eddy covariance measurements
- A235 EGU2011-8988
Jana Chmielewski and Vera Luthardt
Responses of different mire types on temporal climatic shifts and land-use parameters
- A236 EGU2011-11379
Greg O'Donnell, John Ewen, Enda O'Connell, and Josie Geris
Adjoint distributed catchment modelling for flood impact of rural land use and management change
- A237 EGU2011-12741
Helen Roe, Timothy Patterson, and Graeme Swindles
Tracking catchment disturbance using lake thecamoebians (testate amoebae): case studies from the Greater Toronto Area, Ontario, Canada

A238 EGU2011-13583

António Ferreira, Rick Shakesby, Celeste Coelho, Carla Ferreira, Célia Bento, Tanya Esteves, and Manuela Carreiras

The impact of fire on the spatial and temporal distribution of hydrologic and geomorphologic processes at slope and catchments scales.

NH7.3/ESSI22/SSS1.9 – Spatial and temporal patterns of wildfires: models, theory, and reality (co-listed) – Orals

Convener: Rosa Lasaponara | Co-Conveners: Luciano Telesca, Jesus San Miguel, Andrea Camia, Ricardo Trigo, Mário Pereira, Mike Wotton

Room: 2

Chairperson: Rosa Lasaponara, Andrea Camia

13:30–13:45 EGU2011-14159

Martin Wooster, Patrick Freeborn, Ronan Paugam, Gareth Roberts, Weidong Xu, Stefania Amici, and Tim Lynham

Spectral Radiant Energy Emission Measurements of Vegetation Fires

13:45–14:00 EGU2011-13790

Daniela Stroppiana, Mirco Boschetti, **Pietro Alessandro Brivio**, and Luigi Boschetti

Mapping Areas Affected by Fires across Natural and Agricultural Ecosystems in Europe from Spectral Indices

14:00–14:15 EGU2011-12353

Wilfrid Schroeder, **Louis Giglio**, Ivan Csiszar, Evan Ellicott, and Christopher Justice

A look at 10 years of MODIS active fire data and the prospects for VIIRS

14:15–14:30 EGU2011-12734

Panagiota Papakosta, Sebastian Andreas Neuefeind, Steve Schaefer, and Daniel Straub

A probabilistic model of the influence of weather, geography and humans on wildfire occurrences in the Mediterranean

14:30–14:45 EGU2011-4945

Brian Lamb, **Natalie Wagenbrenner**, Jason Forthofer, Bret Butler, Kara Yedinak, Patrick O'Keefe, Dennis Finn, and Pete Robichaud

Development and evaluation of high-resolution wind simulation tools to improve fire weather forecasts

14:45–15:00 EGU2011-9162

Lasse Loeffe, Francisco Lloret, and Anselm Rodrigo

Non-linear response of European fire size to weather conditions

Chairperson: Mario Pereira, Ricardo Trigo

15:30–15:45 EGU2011-14158

Gernot Ruecker, Dieter Oertel, Eckehard Lorenz, Winfried Halle, Thomas Terzibaschian, Anja Hoffmann, and Joachim Tiemann

High Resolution Active Fire Monitoring for Global Change Analysis by FireBIRD

15:45–16:00 EGU2011-11187

Clemens Wastl, Christian Schunk, and Annette Menzel

Climate change impact on meteorological forest fire danger in the Alpine Space

16:00–16:15 EGU2011-10500

Guillermo Rein

Climate Feedbacks on Smouldering Earth: Enchantment of Moisture deficit and self-heating of fossil and pre-fossil soils

16:15–16:30 EGU2011-12378

Stefan Doerr and **Richard Shakesby**

Do common fire-severity estimation parameters really tell us much about landscape susceptibility to enhanced hydrogeomorphological response?

16:30–16:45 EGU2011-9078

Richard Dupont, Brad Pierce, John Worden, Johnathan Hair, Marta Fenn, Paul Hamer, Murali Natarajan and the ARCTAS Team

Reconstructing ozone chemistry from Asian wild fires using models, satellite and aircraft measurements during the ARCTAS campaign

16:45–17:00 EGU2011-13996

Andrea Camia, Jesús San-Miguel-Ayanz, Lara Vilar del Hoyo, and Tracy Durrant Houston

Spatial and temporal patterns of large forest fires in Europe

NH7.3/ESSI22/SSS1.9 – Spatial and temporal patterns of wildfires: models, theory, and reality (co-listed) – Posters

Convener: Rosa Lasaponara | Co-Conveners: Luciano Telesca, Jesus San Miguel, Andrea Camia, Ricardo Trigo, Mário Pereira, Mike Wotton

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Mike Wotton, Jesus San-Miguel, Luciano Telesca

- XY584 EGU2011-341
Ioannis Athanasiou, Dionisios Kalivas, George P. Petropoulos, and Vasiliki Kollias
 An intercomparison of burnt area estimates from key operational products: results from the analysis of Greek wildland fires
- XY585 EGU2011-14153
Facundo Oddi and Luciana Ghermandi
 Spatial structure of *Fabiana imbricata* shrublands in the NW Patagonia
- XY586 EGU2011-1797
Silvia Merino-de-Miguel, Margarita Huesca, Alberto Setzer, Fabiano Morelli, Silvia de Jesús, and Federico González-Alonso
 Spatial-temporal comparison between MODIS Burned Area and Thermal Anomalies Products during 2008 in Brazil
- XY587 EGU2011-2726
 Julian Campo, **Vicente Andreu**, Eugenia Gimeno-García, Oscar Gonzalez-Pelayo, and Jose Luis Rubio
 Medium term changes in the structure and organic matter content of a Mediterranean Rendzic Leptosol affected by repeated fires of different severities
- XY588 EGU2011-6388
Fortunato De Santis, Rosa Lasaponara, Antonio Lanorte, and Tiziana Montesano
 Satellite based estimation of Aerosols from forest fire
- XY589 EGU2011-6396
Emilio Chuvieco
 Monitoring global burned area trends from European satellites: the ESA FIRE CCI Project
- XY590 EGU2011-8762
Antonio Lanorte, Tiziana Montesano, Fortunato De Santis, and Rosa Lasaponara
 Estimating burn severity and vegetation recovery using satellite MODIS data
- XY591 EGU2011-6801
Fortunato De Santis, Rosa Lasaponara, and Antonio Lanorte
 Integrating Remote Sensing, Topographic Factors and Outputs from Meteorological Models for Real-Time Forest Fire Danger Estimation
- XY592 EGU2011-7900
Fortunato De Santis, Rosa Lasaponara, and Antonio Lanorte
 Estimating effectiveness of spectral index for burned area mapping
- XY593 EGU2011-8799
Antonio Lanorte
 A comprehensive overview on the use of satellite remote sensing to characterize and map fuel types
- XY594 EGU2011-8208
Antonio Lanorte, Tiziana Montesano, Fortunato De Santis, and Rosa Lasaponara
 Analysis of persistence in time series of VEGETATION data for monitoring burned areas
- XY595 EGU2011-9909
Antonio Lanorte, Maria Danese, Beniamino Murgante, and Rosa Lasaponara
 Cluster Analysis for burned areas detection
- XY596 EGU2011-12706
Malik Amraoui, Carlos C.C. DaCamara, Teresa J. Calado, and Sofia L. Ermida
 Maps of risk of fire over Mediterranean Europe
- XY597 EGU2011-9936
Natalie Arndt, Harald Vacik, Alexander Arpacı, and Hartmut Gossow
 Mapping areas susceptible to forest fire along the wildland urban interface in selected regions of the mountain forests in Austria
- XY598 EGU2011-12615
Malik Amraoui, Margarida L.R. Liberato, Teresa J. Calado, Carlos C.C. DaCamara, Luis Pinto Coelho, and Ricardo M. Trigo
 The impact of meteorological conditions on fire activity in Mediterranean Europe
- XY599 EGU2011-13369
Stephan Seeling, Sascha Nink, and Henning Buddenbaum
 Supporting pre-fire planning and canopy fuel parameters estimation employing a forest information system and remote sensing data
- XY600 EGU2011-14001
Mário Pereira, Liliana Caramelo, and Ricardo Costa
 Fire regime in Portugal: exploratory, trend and variability analysis
- XY601 EGU2011-13993
 Luís Carvalheiro, Guilherme Chagas, Maria Orgaz, **Mário Pereira**, Liliana Caramelo, and Yoshiro Yamazaki
 Modelling forest fire weather risk in Continental Portugal

- XY602 EGU2011-13989
Pedro Sousa, Ricardo Trigo, **Mário Pereira**, Célia Gouveia, and Liliana Caramelo
Modelling forest fire weather risk in Continental Portugal
- XY603 EGU2011-13987
Pedro Sousa, Ricardo Trigo, **Mário Pereira**, Célia Gouveia, and Liliana Caramelo
Regionalising Iberia fire regimes and links with large-scale meteorological variability
- XY604 EGU2011-13931
Nicolas Mari, **Giovanni Laneve**, Enrico Cadau, and Pablo Marzialetti
Fire damage assessment in Sardinia: the use of ALOS/PALSAR data for the management post fire affects
- XY605 EGU2011-1494
Carmen D. Vega Orozco, Mikhaïl Kanevski, Marj Tonini, and Marco Conedera
Geostatistics for Forest Fires: from variography to geosimulations
- XY606 EGU2011-6707
Emmanuel Da Ponte-Canova, Cristina Vega-Garcia, and Jesus Peman
On the relationship between wildfires and reforestations in Spain from 1988 to 2008
- XY607 EGU2011-9659
hendri hendri and the Timothy LOH 2),?Ram S.TIWAREE 2) and Khiam Jin LEE 2)?Han Soo LEE 3), and Takao YAMASHITA 3) Team
Towards an Integrated Fire Management Framework using Space-based Application in Asia and The Pacific
- XY608 EGU2011-9769
Christian Schunk, Bernhard Ruth, Michael Leuchner, Clemens Wastl, and Annette Menzel
Methods for the automated in-situ measurement of dead fine fuel moisture dynamics
- XY609 EGU2011-9470
Chris Eastaugh, Alexander Arpacı, and Harald Vacik
Methods of comparing fire danger indices
- XY610 EGU2011-6490
Stephen Clandillon and the Hervé Yesou (1) Team
GMES Emergency Response - Fire mapping experience within EO-based Rapid Mapping
- XY611 EGU2011-11992
Paolo Fiorucci, Luca Molini, and Antonio Parodi
Spatio-temporal relative humidity patterns and extreme wildfires in the Mediterranean

OS3.1 – IMBER/SOLAS special session. Sensitivity of marine ecosystems and biogeochemical cycles to global change (co-listed) – Orals

Convener: Baris Salihoglu | Co-Conveners: Christoph Garbe, Emilie Brévière

Room: 11

Chairperson: Baris Salihoglu, Emilie Breviere, Christoph Garbe

- 08:30–08:45 EGU2011-1564
Jean-Pierre Gattuso, Jelle Bijma, Gehlen Marion, Riebesell Ulf, and Turley Carol
Ocean acidification: knowns, unknowns and perspectives
- 08:45–09:00 EGU2011-5462
Karen Marie Hilligsøe, **Katherine Richardson**, Jørgen Bendtsen, Jens Tang Christensen, Lise Lotte Sørensen, Torkel Gissel Nielsen, and Maren Molke Lyngsgaard
Changing ocean temperature and phytoplankton community size structure
- 09:00–09:15 EGU2011-1445
Diana Zuniga, Carmen G. Castro, Fernando Alonso, Eleonora Anfuso, Belen Arbones, Maria Frojan, and Franciso G. Figueiras
Vertical export of particulate organic carbon in the Ría de Vigo (NW Atlantic upwelling system): the role of physical forcing and phytoplankton community structure
- 09:15–09:30 EGU2011-10225
James Harle, Jason Holt, Robert Holmes, Icarus Allen, and Manuel Barange
The sensitivity of the coastal and shelf seas and their primary production to changes in the climate.
- 09:30–09:45 EGU2011-6248
Bronwyn Cahill, Katja Fennel, and John Wilkin
Interannual Variability of Primary Production and Carbon Fluxes on Northeast North American Shelf: Sensitivity to Climate Change?
- 09:45–10:00 EGU2011-9810
Johan van der Molen, John Aldridge, Clare Coughlan, and Piet Ruardij
Modelling marine ecosystem response to climate change and trawling in the North Sea

COFFEE BREAK

Chairperson: Christoph Garbe, Baris Salihoglu, Emilie Breviere

13:30–13:45 EGU2011-8011

Ragu Murtugudde, John Dunne, and Keith Rodgers

Dynamic and Thermodynamic Coupling: Implications for ecosystem-BGC response to climate change

13:45–14:00 EGU2011-6569

Jason Holt, Sarah Wakelin, Momme Butenschön, Yuri Artioli, and Icarus Allen

The sensitivity of physical and ecosystem processes of the northwest European continental shelf to climate change via oceanic, terrestrial and atmospheric vectors.

14:00–14:15 EGU2011-8730

Inga Hense, Sebastian Sonntag, and H. E. Markus Meier

The future development of Baltic Sea cyanobacteria blooms: A scenario

14:15–14:30 EGU2011-12913

Ioanna Bouloubassi, Dimitri Gutiérrez, Abdelfettah Sifeddine, Sara Purca, Katerina Goubanova, Michelle Graco, David Field, Federico Velazco, Boris Dewitte, and Luc Ortlieb

Trends of sea surface temperatures and productivity in the Peru upwelling since the mid-twentieth century

14:30–14:45 EGU2011-6482

Astrid Bracher, Tilman Dinter, Bettina Taylor, Alireza Sadeghi, and Elena Torrecilla

Phytoplankton composition and distribution in the Western Pacific - insights on temporal and spatial dynamics from in-situ and satellite data

14:45–15:00 EGU2011-10076

Anna Dammshäuser, Thibaut Wagener, Diego Gaiero, Majja I. Heller, Peter Streu, and Peter L. Croot

Atmospheric supply of Al, Fe and Ti to the Atlantic Ocean

Chairperson: Emilie Breviere, Christoph Garbe, Baris Salihoglu

15:30–15:45 EGU2011-3700

John Plane, Ravi Kumar, Samantha MacDonald, Russell Saunders, Benjamin Murray, Anoop Mahajan, Juan Carlos Gomez Martin, and Alfonso Saiz-Lopez

Halogen Chemistry in the Marine Boundary Layer

15:45–16:00 EGU2011-5207

David Ho, Rik Wanninkhof, Peter Schlosser, David S. Ullman, and David Hebert

Towards a universal relationship between wind speed and gas exchange: Gas transfer velocities measured with $^3\text{He}/\text{SF}_6$ during the Southern Ocean Gas Exchange Experiment

16:00–16:15 EGU2011-6809

Anna Rutgersson, Maria Norman, and Anders Omstedt

Oceanic convective mixing and the improved air-sea gas transfer velocity applied to the Baltic Sea biogeochemical cycle

16:15–16:30 EGU2011-6012

Séférián Roland, Ludicone Daniele, and Bopp Laurent

Water mass analysis of effect of climate change on air-sea CO_2 fluxes. The Southern Ocean.

16:30–16:45 EGU2011-1957

Matthew Woodhouse, Graham Mann, Ken Carslaw, and Olivier Boucher

Weak response of CCN to changes in DMS flux: implications for the CLAW feedback in current climate assessments

16:45–17:00 EGU2011-2019

Masanori Ito, Yutaka Watanabe, Shinichi Tanaka, Tsuneo Ono, Jun Nishioka, and Takeshi Nakatsuka

The estimate of the denitrification using nitrogen gas excess in the Sea of Okhotsk

Wednesday, 06 April

BG1.1 – Open session on Biogeosciences (Posters only) – Posters

Convener: Gert-Jan Reichert | Co-Conveners: Antje Boetius, Albert Benthien, Emmanuelle Javaux, Jack Middelburg, Jürgen Kesselmeier, Tom J. Battin, Stephan Glatzel, Michael E. Böttcher, Andy Ridgwell

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- BG1 EGU2011-497
Kseniya Napolskaya
Humidity influence on growth and development of soil streptomyces
- BG2 EGU2011-697
Evgenya Lukacheva and Natalia Manucharova
Chitinolytic and pectinolytic community of chernozem and podzol soils
- BG3 EGU2011-10182
Jouni Pihlaja and Juho Kupila
Testing of different soil combinations as substrates in golf courses in the cold climate environment: new results
- BG4 EGU2011-12293
Carsten Mueller, Jenny Kao-Kniffin, and James Bockheim
Soil organic matter composition along a chronosequence in the arctic coastal plain of Northern Alaska
- BG5 EGU2011-12817
Luca Salvati, Sofia Bajocco, Michele Munafò, Antonella De Angelis, Marco Zitti, and Luigi Perini
Soil sealing and Land Degradation - A methodological proposal for a Mediterranean country
- BG6 EGU2011-10454
Matthias Kuhnert, Robin Busch, and Barbara Köstner
Importance of different climate projections for the simulation of the ecological impact
- BG7 EGU2011-10871
Stefanie Müller and Pavel Tarasov
Late Quaternary history of cold-deciduous (larch) forest in eastern Siberia based on pollen data
- BG8 EGU2011-1070
Eun-Jin Yang, Ho-Kyung Ha, Kyung-Ho Chung, and Sun-Young Kim
Community and herbivorous activity of heterotrophic protists in the western boundary of Canada Basin during the early summer, Arctic Ocean
- BG9 EGU2011-6459
Laura Bordelon and Birgit Schneider
Sensitivity of the Ocean Carbon Sink to DOM Production
- BG10 EGU2011-7718
Hathaitip Thassanapak, Mongkol Udchachon, Chongpan Chonglakmani, and Feng Qinglai
Late Devonian radiolarians from western portion of Indochina Block (Thailand)
- BG11 EGU2011-9846
Carsten J. Schubert, Jutta Niggemann, Michael Sturm, Bente Lomstein, and Matthew D. McCarthy
Nitrogen isotope measurements on POM amino acids of Lake Baikal
- BG12 EGU2011-10319
Serena Ceola, Gianluca Botter, Enrico Bertuzzo, Lorenzo Mari, Ignacio Rodriguez-Iturbe, and Andrea Rinaldo
Hydrologic controls on river trophic dynamics
- BG13 EGU2011-11308
Barbara Balestra, Fredrick Prahl, Patrizia Ziveri, and Brian Popp
Environmental controls on the distribution of alkenones and coccolithophore species in the Northeast Pacific Ocean.
- BG14 EGU2011-11834
Anton Preisinger, Selma Aslanian, Roman Beigelbeck, Namik Çagatay, Wolf-Dieter Heinritz, and Johann Wernisch
Biominerals of nanocrystalline greigite (Fe₃S₄) in sediments of the Black Sea and the sill at the Bosphorus
- BG15 EGU2011-12859
Nikolay Kasimov, **Mikhail Lychagin**, Alexander Gennadiyev, Maria Kasatenkova, and Salomon Kroonenberg
Natural Risk of Geochemical Transformation of the Caspian Coastal Zone due to the Rapid Sea Level Changes

IG5/BG1.11/CL4.13/GMPV40/SSP4.5 – Stable isotopes as tool in (paleo-)climate studies (co-organized) – Orals

Convener: Rolf Siegwolf | Co-Conveners: Martin Werner, Attila Demény, Mathieu Daéron, Erik Kerstel, Danny McCarroll, Alain Veron, Claude Hillaire-Marcel, Martin Frank

Room: 41

Chairperson: Attila Demeny & Martin Werner

- 08:30–08:45 EGU2011-672
Per-Olov Persson, Per S. Andersson, Don Porcelli, and Igor Semiletov
 The influence of Lena River water inflow and shelf sediment-sea water exchange for the Nd isotopic composition in the Laptev Sea and Arctic Ocean.
- 08:45–09:00 EGU2011-2577
Claude Hillaire-Marcel, Christelle Not, Bassam Ghaleb, and Anne de Vernal
 Setting chronostratigraphies in low sedimentation rate sequences from the Arctic Ocean: isotopic approaches with focus on U-series
- 09:00–09:15 EGU2011-3514
 Claudia Teschner, **Martin Frank**, and Brian Alexander Haley
 Plio-Pleistocene evolution of water mass exchange and erosional input in the Fram Strait
- 09:15–09:30 EGU2011-4654
Christine Hatté, Caroline Gauthier, Denis-Didier Rousseau, Pierre Antoine, Markus Fuchs, Slobodan Markovic, Olivier Moine, and Adriana Sima
 Geochemical evidence of a specific atmospheric circulation on Balkan during last glaciation
- 09:30–09:45 EGU2011-5742
Claudia Ehlert, Patricia Grasse, and Martin Frank
 Changes in silicate utilization and upwelling intensity off Peru since the LGM - insights from silicon isotopes
- 09:45–10:00 EGU2011-8042
Thomas Launois, Philippe Peylin, Valérie Daux, Valérie Masson-Delmotte, Thomas Eglin, Valentin Bellassen, and Camille Risi
 Interannual variations in tree-rings' width and isotopic signatures (^{18}O and ^{13}C) combined to optimize ORCHIDEE land surface model

COFFEE BREAK

Chairperson: Rolf Siegwolf & Mathieu Daeron

- 10:30–10:45 EGU2011-2564
Arthur Gessler, Brandes Elke, Offermann Christine, and Ferrio Juan Pedro
 The long way down - How tightly are carbon and oxygen isotope signals in the tree ring coupled to canopy physiological processes?
- 10:45–11:00 EGU2011-3086
Juan Pedro Ferrio, David Carulla, Jesús Julio Camarero, Mónica Aguilera, and Jordi Voltas
 Retrospective approach to dieback in *Pinus sylvestris* through the analysis of carbon and oxygen stable isotope composition in tree ring cellulose
- 11:00–11:15 EGU2011-8596
Dr. Dimitrios Sarris, Dr. Rolf Siegwolf, and Prof. Christian Körner
 Stable C and O isotope signals of drought in Mediterranean pines
- 11:15–11:30 EGU2011-2291
Shikma Zaarur, Hagit P. Affek, and Moti Stein
 Clumped isotopes thermometry in *Melanopsis* shells and its paleoclimate implications
- 11:30–11:45 EGU2011-4734
Anna-Lena Grauel, Thomas W. Schmid, Stefano M. Bernasconi, and Gert J. De Lange
 Calibration and application of clumped isotopes of *G. ruber* for high-resolution climate reconstructions of the last 2500 years from the Gulf of Taranto, Mediterranean Sea
- 11:45–12:00 EGU2011-663
Prasanna Kannan and Prosenjit Ghosh
 Revisiting calibration of CO_2 based Clumped isotope thermometry - equilibration approach.

IG5/BG1.11/CL4.13/GMPV40/SSP4.5 – Stable isotopes as tool in (paleo-)climate studies (co-organized) – Posters
 Convener: Rolf Siegwolf | Co-Conveners: Martin Werner, Attila Demény, Mathieu Daëron, Erik Kerstel, Danny McCarroll, Alain Veron, Claude Hillaire-Marcel, Martin Frank

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Erik Kerstel & Kerstyn Treydte

- A446 EGU2011-13555
Rolf Siegwolf
Stable isotopes, the link between tree physiology tree ring width data as climate proxies
- A447 EGU2011-1313
Hans Oerter, Frank Wilhelms, Margarete Hansson, Per Holmlund, Susanne Ingvald, Torbjörn Karlin, and Shuji Fujita
Stable isotope content and snow accumulation between 1957/58 and 2007/08 along the ice divide from Kohnen-Station towards Dome Fuji, East Antarctica
- A448 EGU2011-5169
Thejna Tharammal, André Paul, Ute Merkel, and David Noone
Influence of LGM boundary conditions on the global water isotope distribution in an atmospheric general circulation model
- A449 EGU2011-5430
Attila Demény, Gabriella Schöll-Barna, Zoltán Siklósy, Gábor Serlegi, Pál Sümegi, and Mária Bondár
A warming-cooling cycle between 3.8 and 3.2 ky BP: correlations of speleothem and bivalve compositions with ice core records
- A450 EGU2011-5856
David Morris and Stephen Macko
Estimation of marine, sea ice and terrestrial contributions to the Western Arctic carbon cycle using Bayesian mixing models and GC-IRMS
- A451 EGU2011-6354
Andres Diez-Herrero, Juan Antonio Ballesteros, Jose Maria Bodoque, and Virginia Ruiz-Villanueva
Can tree-ring isotopes be used for improving the flood frequency analysis?
- A452 EGU2011-6400
Joseph Erbland, Joël Savarino, Samuel Morin, and Markus M. Frey
Empirical sensitivity of $\delta^{15}\text{N}$ in nitrate to current snow accumulation rates in Antarctica : implications for the interpretation of the deep Vostok ice core
- A453 EGU2011-6928
Grzegorz Skrzypek, Zbynek Engel, Tomas Chuman, and Ludek Sefrna
Stable carbon isotope composition of Distichia peat: calibration of a new paleotemperature proxy for high altitudes in the Andes
- A454 EGU2011-7398
Mathieu Daëron, Franck Bassinot, Eva Moreno, Benjamin Passey, Gülay Isgüder, Hélène Rebaubier, and Dominique Blamart
Clumped-isotope studies of foraminifer records: inter-species differences, analytical bias and precision limits
- A455 EGU2011-8353
Christian Horn, Anton Eisenhauer, and Dirk Nürnberg
Employing $\delta^{44}\text{Ca}/\delta^{40}\text{Ca}$ ratios in foraminifera to simultaneously track sea surface regional temperatures (SST) and salinities (SSS) variations across Termination I
- A456 EGU2011-8934
Rein Vaikmäe
The ice-core stable isotope records from small Arctic ice caps as proxies of climatic and environmental changes
- A457 EGU2011-9809
Matthias Saurer, Anne Kress, Olga Sidorova, and **Rolf Siegwolf**
On the precipitation signal in stable isotope ratios of tree-rings
- A458 EGU2011-11690
Bastian Ullrich, **Kerstin Treydte**, Sonia Simard, Sonja Boda, Matthias Saurer, Rolf Siegwolf, Patrick Fonti, and Arthur Gessler
Oxygen isotope pathway from the soil to the tree-ring at alpine sites in Switzerland
- A459 EGU2011-12240
Tamás Mikes, Ilaria Mazzini, Andreas Mulch, Marianna Kováčová, Peter Joniak, Natalia Hudáková, and **Bora Rojay**
Paleoenvironmental significance of the Serravallian-Tortonian Tuğlu section, Çankiri Basin, Central Anatolia
- A460 EGU2011-13544
Arnoud Boom and Tina Godfrey
Isotope records from Neotropical trees and stem rosettes
- A461 EGU2011-13897
Ashish Sarkar
8.2 Ka climatic cooling event deciphered from equatorial Arabian Sea
- A462 EGU2011-2003
Christelle Not and Claude Hillaire-Marcel
Marine evidence from Lomonosov Ridge for an Arctic trigger event of the Younger Dryas
- A463 EGU2011-2709
Peter Hülse and Samuel J. Bentley
A ^{210}Pb sediment budget and granulometric proxy record of discharge variations for a sub-Arctic deltaic system: the Great Whale River in Hudson Bay, Canada

- A464 EGU2011-2954
Nathalie Fagel, Jonathan Gueibe, Nadine Mattielli, Christelle Not, and Claude Hillaire-Marcel
Sedimentary provenances over glacial/interglacial stages in central Arctic constrained by mineralogy and radiogenic tracers
- A465 EGU2011-3321
Chunming Shi, Valérie Daux, Valérie Masson-Delmotte, Camille Risi, Jing Gao, Xiaochun Wang, and Qi-Bin Zhang
Climatic interpretation of tree ring stable isotopes in the southeast Tibetan Plateau: links with regional cloud cover
- A466 EGU2011-3415
Valérie Daux, Jean-Louis Edouard, Valérie Masson-Delmotte, Georg Hoffmann, and Olivier Mestre
Can climate variations be inferred from tree-ring parameters and stable isotopes from *Larix decidua*: budmoth outbreaks, juvenile effects and divergence problem.
- A467 EGU2011-4999
Francois Paquay and Greg Ravizza
Variations in the osmium isotopes record during the Azolla phase (IODP Expedition 302)
- A468 EGU2011-9047
Mikhail Vasiliev, Keita Yamada, and Naohiro Yoshida
Evaluation of clumped-isotopes of land snail's shells as a paleo-environmental indicator
- A469 EGU2011-9435
Lisa Wingate, Raphaël Dulhoste, Didier Bert, Barbara Köstner, Thomas Grünwald, Johannes Franke, and Jérôme Ogée
Intra-annual variations in the density and stable isotope composition of Norway spruce tree rings at the Tharandt FLUXNET site
- A470 EGU2011-12646
Robert Sherrell, Hélène Planquette, Marie Séguret, Sharon Stammerjohn, and Per Andersson
Continental sources of Fe and Nd isotopes to the Antarctic shelf systems of the Amundsen Sea and Western Antarctic Peninsula
- A471 EGU2011-13030
Gerald Dickens, Francesca Sangiorgi, Kristen St John, Catherine Stickley, Martin Jakobsson, Appy Sluijs, Henk Brinkhuis, and Jan Backman
Re-Os Isotope Data Highlights Existing Problems With Interpretations of the Middle Lithological Units in Cores from the Central Arctic Ocean
- A472 EGU2011-13339
Zou Zou Kuzyk, Charles Gobeil, Miguel Goni, and Robie Macdonald
Distributions and Inventories of Pb-210 and Cs-137 in Sediments along the North American Arctic Margin
- A473 EGU2011-1782
Lilia Sanchez-Vargas, Alberto Sanchez, Sergio Aguiñiga Garcia, and Eduardo Balart
Stable oxygen isotopes in Benthic Foraminifera Recent of the Northeast Pacific

BG2.3/EG4 – The climate response of Mediterranean vegetation: lessons for a warming Europe? (co-organized) – Orals

Convener: Kadmiel Maseyk | Co-Conveners: Juan Pedro Ferrio Diaz, Victor Resco

Room: 24

Chairperson: n.n.

- 08:30–09:00 EGU2011-12215
Walter C. Oechel, Hongyan Luo, Alessandra Rossi, Tom Bell, David Lipson, and John Kim
Response of the Mediterranean-type Ecosystems of California to Varying Levels of Atmospheric Carbon Dioxide and Varying Climate: Potential implications for Europe
- 09:00–09:15 EGU2011-1460
José A. Carreira, Roberto García-Ruiz, M^a Carmen Blanes, and Benjamín Viñegla
N saturation of temperate conifer forests in a warming Europe: lessons from temperate-like, relic fir forests currently under a Mediterranean-type climate
- 09:15–09:30 EGU2011-130
Tamir Klein, Dan Yakir, and Shabtai Cohen
Hydraulic adaptations underlying drought resistance of *Pinus halepensis*
- 09:30–09:45 EGU2011-827
Ana Were, Penélope Serrano Ortiz, Borja Ruiz-Reverter, Luis Villagarcía, Laura Morillas, Ana Rey, Russel L. Scott, Francisco Domingo, Albertus Johanssen Dolman, and Andrew Steven Kowalski
Seasonality of carbon and water exchange in mediterranean shrubland ecosystems
- 09:45–10:00 EGU2011-2059
Josep Barba, Jorge Curiel Yuste, Jordi Martínez-Vilalta, Rafael Poyatos, and Francisco Lloret
Spatial variability of soil respiration in an heterogeneous and ecotonal Mediterranean forest in NE Iberian Peninsula

BG2.3/EG4 – The climate response of Mediterranean vegetation: lessons for a warming Europe? (co-organized) –

Posters

Convener: Kadmiel Maseyk | Co-Conveners: Juan Pedro Ferrio Diaz, Victor Resco

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- BG16 EGU2011-4499
Matteo Zampieri and Piero Lionello
Effects of anthropic vegetation on European climate
- BG17 EGU2011-6555
Rim Amri, Mehrez Zribi, Benoit Duchemin, Zohra Lili chabaane, and Claire Gruhier
Analysis of vegetation behaviour in a North Africa semi-arid region, using SPOT VEGETATION NDVI data
- BG18 EGU2011-13149
Paolo De Angelis, Giovanbattista de Dato, Gabriele Guidolotti, and Dario Liberati
Impact of climate manipulation on a Mediterranean shrubland ecosystem
- BG19 EGU2011-6597
Gabriele Guidolotti, Dario Liberati, Giovambattista de Dato, and Paolo De Angelis
Impact of climate manipulation on carbon fluxes of a Mediterranean shrubland in Sardinia
- BG20 EGU2011-225
Markus O. Heidak, Ulrich A. Glasmacher, Heinfried Schöler, José M. Hernández-Moreno, Ramon Casillas Ruiz, Mario Trieloff, and Bernd Kober
Inorganic element cycles between volcanic rocks, soils and plants in the Laurel Forest (Tenerife, Canary Islands, Spain).
- BG21 EGU2011-356
Mara Lucà, Juan Pedro Ferrio, Mónica Aguilera, and Jordi Voltas
Climatic sensitivity in co-occurring Quercus species: analysis of spatial and temporal gradients under Mediterranean conditions
- BG22 EGU2011-6972
Giovanna Battipaglia, Veronica De Micco, Giovanna Aronne, and Paolo Cherubini
Hidden phenology in wood: growth dynamics in Mediterranean trees and shrubs in response to climate
- BG23 EGU2011-1962
Juan Pedro Ferrio, Mónica Aguilera, Luis Serrano, Salvador Nogués, and Jordi Voltas
Seasonal dynamics of water use in two co-occurring Mediterranean oaks (Quercus ilex and Quercus faginea): an isotopic approach
- BG24 EGU2011-6572
Benjamin Viñegla, José Antonio Carreira, Juan Carlos Linares, and Jesús Julio Camarero
Intrinsic water-use efficiency in conifer species in a global change scenario. Can the increasing atmospheric CO₂ prevent drought-induced trees' growth decline?
- BG25 EGU2011-2669
Cathy Kurz Besson, Raquel Lobo do Vale and the Portuguese MIND Team
Cork oak physiological responses to precipitation changes: results of a 3-yr field experiment.
- BG26 EGU2011-897
Cristina Antunes, Pedro Pinho, Manuel Joao Pinto, Patricia Fernandes, Otilia Correia, and Cristina Máguas
Responses of a phreatophyte species to climatic conditions and groundwater drawdown
- BG27 EGU2011-7929
Kadmiel Maseyk, Celine Lett, Markus Schmidt, Philippe Biron, Patricia Richard, Thierry Bariac, and Ulli Seibt
Physiological and morphological controls on the impact of high evaporative demand across different plant types
- BG28 EGU2011-7289
Tijana Blanusa, Madalena Vaz Monteiro, Federica Fantozzi, and Ross Cameron
Keeping their cool: the impact of plant species' differential regulation of leaf temperature under soil water deficits - potential to decrease air temperatures?
- BG29 EGU2011-884
Patrícia Fernandes, Otilia Correia, Cristina Antunes, Christiane Werner, and Cristina Máguas
Invasiveness of the exotic Acacia longifolia along a climatic gradient in the Mediterranean region: reasons and facts

BG2.5 – Interacting Biogeochemical Cycles: Linking Carbon, Water and Nutrient Fluxes from Organisms to Globe –

Orals

Convener: Dario Papale | Co-Conveners: Markus Reichstein, Andrew Richardson, Rodrigo Vargas, Darren Drewry

Room: 24

Chairperson: Dario Papale, Markus Reichstein, Darren Drewry

- 10:30–10:45 EGU2011-713
Theresa Meacham, Mathew Williams, Andreas Heinemeyer, Edward Eaton, and James Morison
 The variability and environmental drivers of soil respiration in a deciduous forest: A cyclic sampling analysis.
- 10:45–11:00 EGU2011-4694
Yakov Kuzyakov
 Linking soil C pools with CO₂ fluxes
- 11:00–11:15 EGU2011-9334
Lisa Wingate, Jerome Ogee, Regis Burlett, and Alexandre Bosc
 Seasonal leaf and soil water isotope dynamics obtained from the $\delta^{18}\text{O}$ signals of CO₂ fluxes
- 11:15–11:30 EGU2011-9873
Nicolas Brüggemann and Carola Blessing
 On-line monitoring with isotope-specific laser spectroscopy reveals temporal variability of the oxygen isotope exchange between leaf water and carbon dioxide
- 11:30–11:45 EGU2011-6005
Victor Resco, Michael L Goulden, Kiona Ogle, Andrew D Richardson, David Y Hollinger, Eric A Davidson, Josu G Alday, Greg A Barron-Gafford, Arnaud Carrara, Andrew S Kowalski and the Endogenous Rhythms Research Team
 Endogenous plant rhythms control daily fluctuations in terrestrial carbon dioxide exchange
- 11:45–12:00 EGU2011-11069
Martin Bader and Christian Körner
 Carbon fluxes and growth in a mature deciduous forest after 8 years of CO₂ enrichment

LUNCH BREAK

Chairperson: Dario Papale, Markus Reichstein, Darren Drewry

- 13:30–13:45 EGU2011-702
Jennifer Wright, Mathew Williams, Robert Mitchell, Gregory Starr, and Jason McGee
 Carbon-Water Interactions of Longleaf Pine Ecosystems
- 13:45–14:00 EGU2011-12764
Michael Bahn, Thomas Ladreiter-Knauss, Michael Schmitt, Verena Gruber, Dagmar Rubatscher, Marlene Salchner, Eric Walter, and Roland Hasibeder
 Effects of summer drought on carbon dynamics in mountain grassland
- 14:00–14:15 EGU2011-12687
Antje Maria Moffat, Markus Reichstein, Alessandro Cescatti, Gitta Lasslop, and Sönke Zaehle
 Diffuse radiation and its effects on ecosystem-level water use efficiency
- 14:15–14:30 EGU2011-12259
Verena Seufert and Christoph Mueller
 Meta-analysis of the response of crop photosynthesis to nitrogen limitation
- 14:30–14:45 EGU2011-8133
 Per Bodin, Paul Alton, and **Nir Y. Krakauer**
 Interannual variability and climate sensitivity of Net Primary Productivity: a process-based multilayer-canopy vegetation model compared against observed tree-ring width
- 14:45–15:00 EGU2011-2473
Christopher Reyer, Petra Lasch, and Martin Gutsch
 Meta-analysis of simulated forest productivity changes under global change

BG2.5 – Interacting Biogeochemical Cycles: Linking Carbon, Water and Nutrient Fluxes from Organisms to Globe – Posters

Convener: Dario Papale | Co-Conveners: Markus Reichstein, Andrew Richardson, Rodrigo Vargas, Darren Drewry

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Dario Papale, Markus Reichstein, Darren Drewry

- BG30 EGU2011-783
Penélope Serrano-Ortiz, Sara Marañón-Jiménez, Jorge Castro, Borja R. Reverter, Enrique P. Sánchez-Cañete, Regino Zamora, and Andrew S. Kowalski
 Post-fire Salvage logging management represses the role of Mediterranean coniferous forests as carbon sinks
- BG31 EGU2011-2290
Lisa Kellman, Amanda Diochon, and Sanjeev Kumar
 Soil Nitrogen Dynamics within Profiles of a Harvested Temperate Forest Chronosequence

- BG32 EGU2011-3050
Rasmus Jensen, Mathias Herbst, Rasmus Ringgaard, Thomas Friborg, and Henrik Soegaard
 Partitioning of micrometeorological measurements of NEE through the use of leaf level measurements and coupled stomatal and photosynthesis modeling
- BG33 EGU2011-3369
Shuai Yan, Viktor J. Bruckman, Gerhard Glatzel, and Eduard Hochbichler
 A chronosequence approach to study stand age effects on total nitrogen as well as exchangeable K, Ca and Mg in the soils in view of increased energetic utilization of Quercus dominated forests in northeastern Austria
- BG34 EGU2011-3936
Yongwon Kim and Changsub Shim
 Wintertime CO₂ efflux along the trans-Alaska pipeline
- BG35 EGU2011-5836
Jorge Curiel Yuste, Josep Penuelas, Marc Estiarte, Jordi Garcia Mas, Stefania Mattana, Roma Ogaya, Marta Pujol, and Jordi Sardans
 Drought-resistant fungi control soil organic matter decomposition and its response to temperature
- BG36 EGU2011-6656
Gabriele Guidolotti, Giorgio Matteucci, Ana Rey, and Paolo De Angelis
 Environmental and plant control on ecosystem respiration in a beech forest in Central Italy
- BG37 EGU2011-6923
Katerina Havrankova, Klara Taufarova, Radek Czerny, Marian Pavelka, Dalibor Janouš, and Michal Marek
 Carbon balance of five different ecosystems
- BG38 EGU2011-6959
Radek Pokorny, Romana Slipkova, and Ivana Tomaskova
 Water use efficiency of Norway spruce stand
- BG39 EGU2011-8971
Lutz Merbold, Werner Eugster, Dennis Imer, and Nina Buchmann
 Greenhouse gas fluxes (CO₂, CH₄, N₂O) in alpine grasslands: effects of management
- BG40 EGU2011-9643
Caroline Roelandt and Jerry Tjiputra
 What consequences can have small changes in heterotrophic respiration on the global carbon cycle?
- BG41 EGU2011-9789
Kai Mangelsdorf, Clemens Glombitza, Andrea Vieth, Tiem Vu Thi Ahn, and Brian Horsfield
 New Zealand coals: A Feedstock for Deep Microbial Ecosystems
- BG42 EGU2011-13242
Claudia Consalvo, Paolo De Angelis, Nicola Arriga, and Dario Papale
 The role of stomatal limitation to CO₂ assimilation on summer and diurnal depression of NEE, in a Quercus cerris L. coppice.
- BG43 EGU2011-10466
Matthias Kuhnert and Barbara Köstner
 Impact of future climate projections on carbon and water vapour fluxes of forest sites in two study regions in eastern Germany
- BG44 EGU2011-11012
Diego Riveros-Iregui, Brian McGlynn, Ryan Emanuel, and Howard Epstein
 Spatial and Temporal Variability and Non-Monotonic Responses of Landscape-Scale Soil CO₂ Efflux
- BG45 EGU2011-12806
Hrvoje Marjanovic, Masa Zorana Ostrogovic, Giorgio Alberti, Ivan Balenovic, and Alessandro Peressotti
 Estimates of net ecosystem productivity at Jastrebarsko forest eddy covariance site in comparison with other forest sites in FLUXNET
- BG46 EGU2011-11757
Jagadeesh B. Yeluripati, Madeleine J. Bell, Edward O. Jones, Jo Smith, and Pete Smith
 Inter-comparison of two process-based models of different complexity to quantify N₂O emissions from agro-ecosystems in Europe
- BG47 EGU2011-9542
Trevor Keenan, Andrew Richardson, William Munger, Kathleen Savage, and Eric Davison
 Constraining terrestrial carbon fluxes and uncertainties in ecological forecasting through model-data fusion
- BG48 EGU2011-8610
Balázs Grosz, László Horváth, András Zénó Gyöngyösi, Tamás Weidinger, and Zoltán Nagy
 Linking of the DNDC ecological model and the WRF Numerical Weather Prediction System
- BG49 EGU2011-7499
Kristina Brust, Valeri Goldberg, and Christian Bernhofer
 Integrating carbon fluxes for an improved simulation of land use - atmosphere feedback
- BG50 EGU2011-2971
Silje Skår, Holger Lange, and Trine Sogn
 Modelling the consequences of increased use of forest harvest residues for bioenergy production

- BG51 EGU2011-12512
Karsten Schulz and Judith Horn
Identification of a general light use efficiency model for gross primary production
- BG52 EGU2011-12530
Karsten Schulz and Judith Horn
Extrapolation of parameters of a general light use efficiency model for gross primary production
- BG53 EGU2011-1637
Ludovicus P.H. Van Beek, Tessa Eikelboom, Michelle T.H. Van Vliet, and **Marc F.P. Bierkens**
Modelling global fresh surface water temperature
- BG54 EGU2011-13424
Brenner Silva and Jörg Bendix
Simulating CO₂ assimilation of two grassland competing species in a tropical mountain ecosystem

BG2.9 – Biogeochemistry and ecohydrology of arid and semi-arid ecosystems – Orals

Convener: Buhalgem Mamtimin | Co-Conveners: Franz X. Meixner, Werner Leo Kutsch

Room: 23

Chairperson: Werner L. Kutsch

- 08:30–08:45 EGU2011-11289
Buhalgem Mamtimin and the DEQNO* Team
The project “Desert encroachment in central Asia - Quantification of soil biogenic nitric oxide emissions by ground- and satellite-based methodologies (DEQNO)”
- 08:45–09:00 EGU2011-4284
Ana Rey, **Luca Belelli Marchesini**, Ana Were, Penelope Serrano, Emiliano Pegoraro, Francisco Domingo, and Dario Papale
Wind as the main driver of ecosystem carbon exchange in a semi-arid alpha grass steppe in the South East of Spain
- 09:00–09:15 EGU2011-4485
Lutz Merbold, Robert J Scholes, Jonas Ardo, Almut Arneeth, Christian Bruemmer, Agnes de Grandcourt, Alecia Kirton, Yann Nouvellon, and Werner L Kutsch
Ecosystem water fluxes across Sub-Saharan savanna ecosystems
- 09:15–09:30 EGU2011-7941
Abdullah Bawain, **Jan Friesen**, Sabine Attinger, and Anke Hildebrandt
Heterogeneity of net precipitation due to species and position effect in a cloud forest in Dhofar
- 09:30–09:45 EGU2011-11029
Francesco Accatino, Carlo De Michele, Renata Vezzoli, and Robert J. Scholes
Investigating savanna domain in parameter planes exploiting a
- 09:45–10:00 EGU2011-11286
Franz X. Meixner, Thomas Behrendt, Michael Ermel, Nils Hempelmann, and Meinrat O. Andreae
The distribution of surface ozone mixing ratio in southern Mongolia

BG2.9 – Biogeochemistry and ecohydrology of arid and semi-arid ecosystems – Posters

Convener: Buhalgem Mamtimin | Co-Conveners: Franz X. Meixner, Werner Leo Kutsch

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Buhalgem Mamtimin

- BG55 EGU2011-757
Peter Bíró, Eva Müller, and John Wainwright
Modelling Framework to Assess Ecohydrological Processes Responsible for Shrub Encroachment in Semi-Arid Landscapes on the Example of the Chihuahuan Desert in New Mexico
- BG56 EGU2011-2357
Junbao Yu, Guangxuan Han, Deqiang Wang, and Franz X. Meixner
Carbon dioxide fluxes from a reed (*Phragmites australis*) wetland during the growing season in the Yellow River Delta, China
- BG57 EGU2011-3073
Hamid Yimit
Water Resource Response to the Climate Change in Tarim Basin
- BG58 EGU2011-3163
Yue Qi, Buhalgem Mamtimin, Franz X. Meixner, Reza Shaiganfar, Steffen Beirle, and Thomas Wagner
MAX-DOAS observations of tropospheric NO₂ and H₂O column densities from hyper-arid areas in Central-Asia

- BG59 EGU2011-3195
Junhui Zhang, Xuhui Lee, **Guozheng Song**, and Shijie Han
Pressure correction to the long-term measurement of carbon dioxide flux
- BG60 EGU2011-4695
Yanhong Li
Landscape of dynamical Changes Analysis Based on RS in Ganjiahu Wetland
- BG61 EGU2011-5332
zhaopeng wu and Fanxia Wang
The Characters of LUCC in Arid Oasis, Xinjiang
- BG62 EGU2011-6868
Li Jiao and **Yong-hui Wang**
Present situation analysis and origin research about soil physics and chemistry nature of ebinur lake area
- BG63 EGU2011-11439
Xinzheng Chu
Study on Landscape Dynamic Change in Ganjia lake area, NW-China
- BG64 EGU2011-11875
Thomas Behrendt, Michael Bruse, Buhalgem Mamtimin, Franz X. Meixner, Nils Hempelmann, and Meinrat O. Andreae
An improved method for analysis of biogenic NO emissions from hyper-arid and arid soils (Gobi desert, Mongolia and Taklimakan desert, Xinjiang/China)
- BG65 EGU2011-12446
Keir Soderberg, Joh Henschel, Robert Swap, and Stephen Macko
Environmental controls on C, N and S cycling in plants of the Namib Desert
- BG66 EGU2011-11440
Nils Hempelmann, Thomas Behrendt, Buhalgem Mamtimin, Franz X. Meixner, and Guozheng Song
Modelling of atmospheric dispersion of trace gases emitted from oasis in the Taklimakan (NW-China) desert on regional scale

SSS4.1/BG2.19 – Soil organic carbon (SOC) dynamics at different spatial scales (co-organized) – Orals

Convener: Bas van Wesemael | Co-Conveners: Kristof Van Oost, Jens Leifeld

Room: 9

Chairperson: Bas van Wesemael

- 13:30–13:45 EGU2011-7669
Michael Sommer and Jürgen Augustin
CarboZALF-D - An interdisciplinary field experiment on carbon dynamics
- 13:45–14:00 EGU2011-10412
Maarten Braakhekke, Markus Reichstein, Thomas Wutzler, Christian Beer, Marcel Hoosbeek, Bart Kruijt, Jens Kattge, Marion Schrumpf, and Pavel Kabat
Explaining the vertical soil organic matter distribution with lead-210 measurements and Bayesian calibration
- 14:00–14:15 EGU2011-3043
Stéphanie Goffin, Bernard Longdoz, Martin Maier, Helmer Schack Kirchner, and Marc Aubinet
Multilayer Analysis of Soil Respiration and its Isotopic Signature in Forest Ecosystem
- 14:15–14:30 EGU2011-1589
Markus Egli, Giovanni Mastrodonato, Ruedi Seiler, Giacomo Certini, Salvatore Raimondi, Filippo Favilli, and Paolo Cherubini
Charcoal and stable soil organic matter indicate fire frequency, past vegetation and climate in volcanic soils (Mt. Etna, Sicily)
- 14:30–14:45 EGU2011-7926
Carina Ortiz, Erik Karlton, Jari Liski, and Göran Ågren
How certain are coniferous forest SOC estimates? A comparison of model simulations and measurements at regional scales
- 14:45–15:00 EGU2011-8491
Erik Karlton, Anders Jacobson, and Tommy Lennartsson
Soil carbon sequestration in Swedish grasslands
- Chairperson: Jens Leifeld
- 15:30–15:45 EGU2011-1606
Michaela Bach, Arne Heidkamp, Clemens Siebner, and Annette Freibauer
The German agricultural soil carbon inventory: conceptual framework and methodology

- 15:45–16:00 EGU2011-1087
Jeroen Meersmans, Manuel Pascal Martin, Eva Lacarce, Johanna Wetterlind, Line Boulonne, Sébastien Lehmann, and Dominique Arrouays
 Modelling spatial distribution of Soil Organic Carbon (SOC) in France using multiple linear regression approach and comparing model selection criteria.
- 16:00–16:15 EGU2011-5516
Rastislav Skalský, Gabriela Barančíková, Martina Nováková, Zuzana Tarasovičová, Jarmila Makovníková, Monika Gutteková, Štefan Koco, Ján Halas, and Juraj Balkovič
 Setting-up and application of spatial data for SOC stocks modelling in topsoils of agricultural soils of Slovakia in 1970 - 2006 period
- 16:15–16:30 EGU2011-53
Alexander Pastukhov, Dmitry Kaverin, Galina Mazhitova, Gustaf Hugelius, and Olga Shakhtarova
 Soil organic carbon storage in the forest-tundra ecotone zone in the North-Eastern Europe
- 16:30–16:45 EGU2011-8544
Marieke Oosterwoud, Erwin Temminghoff, Hans Meeussen, and Sjoerd van der Zee
 Modelling organic carbon adsorption in Russian taiga and tundra soils
- 16:45–17:00 EGU2011-662
Emily Woollen, Mathew Williams, Casey Ryan, and John Grace
 Carbon stocks in a miombo woodland landscape: spatial distribution and controls

SSS4.1/BG2.19 – Soil organic carbon (SOC) dynamics at different spatial scales (co-organized) – Posters

Convener: Bas van Wesemael | Co-Conveners: Kristof Van Oost, Jens Leifeld

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Kristof Van Oost

- Z103 EGU2011-5526
Park Sa Kim, Dong Hwan Kang, Byung Hyuk Kwon, Yun Hwan So, Hun Sun Yu, and Kwang Ho Kim
 CO₂ Variation for photosynthesis and respiration at the coastal wetland: Sunrise and sunset conditions
- Z104 EGU2011-4036
Carlos Sierra
 Organic matter quality and its temperature sensitivity during decomposition: theory and reconciliation of empirical approaches
- Z105 EGU2011-979
lianqing li
 Variation in soil organic carbon fractions and microbial community activities in response to vegetation succession in degraded karst terrain
- Z106 EGU2011-2708
Paula Ioana Moraru, Teodor Rusu, and Mara Lucia Sopterean
 Soil Tillage Conservation and its Effect on Soil Organic Matter, Water Management and Carbon Sequestration
- Z107 EGU2011-7937
Marie Spohn and Luise Giani
 Soil Organic Carbon Dynamics in Two Chronosequences of Mineral Hydromorphic Soils
- Z108 EGU2011-8143
Cristina Santín, Rosana Menéndez, Susana Fernández, Stefan Doerr, and Miguel Ángel Álvarez
 Organic matter characteristics and distribution in Atlantic mountain soils affected by wildfires
- Z109 EGU2011-7133
 Sebastian Dötterl, **Kristof Van Oost**, Bas Van Wesemael, Antoine Stevens, and Timothy A. Quine
 Soil erosion and its impact on organic carbon storage in changing agricultural landscapes: A multi-scale analysis
- Z110 EGU2011-597
Evgeniy Milkheev, Raisa Egorova, Yuriy Tsubenov, and Galina Chimitdorjieva
 CO₂ emissions from cryogenic soils Asiatic Russia
- Z111 EGU2011-6198
 Christopher Poeplau, Axel Don, **Jens Leifeld**, Lars Vesterdal, and Bas Van Wesemael
 Impact of land-use change on soil organic carbon dynamics - Development of carbon response functions
- Z112 EGU2011-3384
Robert Jandl
 Land use form affects the soil carbon pool - Case study Austria
- Z113 EGU2011-1075
Parisa Mokhtari Karchegani, Shamsollah Ayoubi, Naser Honarju, and Ahmad Jalalian
 Predicting soil organic matter by artificial neural network in landscape scale using remotely sensed data and topographic attributes

- Z114 EGU2011-1020
Manuel Martin, Martin Wattenbach, Pete Smith, Jeroen Meersmans, Claudy Jolivet, Line Boulonne, and Dominique Arrouays
 Boosted regression trees models for estimating soil organic carbon stocks at the national scale
- Z115 EGU2011-1120
Erik Grüneberg, Daniel Ziche, and Nicole Wellbrock
 Regional estimation of soil carbon stocks and changes in Germany's forest soils based on the National Soil Inventory to provide the greenhouse gas reporting
- Z116 EGU2011-1380
Mohammad I. Khalil, Phillip O'Brien, Gerard Kiely, and Christoph Müller
 Empirical estimation of organic carbon stocks for agricultural soils in the Republic of Ireland
- Z117 EGU2011-5213
Guodong Sun and Mu Mu
 Investigating nonlinear variations in the soil carbon by the Lund-Potsdam-Jena model in China
- Z118 EGU2011-13463
Anne Gobin, Nele Desmet, and Paul Campling
 Assessment of soil organic carbon fluxes at the European scale
- Z119 EGU2011-9503
Dirk de Kramer and Willem Hendriks
 carbon footprinting of regional development projects
- Z120 EGU2011-13686
Bas van Wesemael, Keith Paustian, Jeroen Meersmans, Esther Goidts, Gabriela Barancikova, and Mark Easter
 The role of agricultural management in historic soil C changes, a case study from Belgium

BG3.1 – Ocean acidification and its impact on marine ecosystems in the context of climate change (including Vladimir Ivanovich Vernadsky Medal Lecture) – Orals

Convener: Jean-Pierre Gattuso | Co-Conveners: Conny Maier, Ulf Riebesell, Patrizia Ziveri, Markus Weinbauer

Room: 23

Chairperson: n.n.

- 10:30–10:45 EGU2011-7712
Evangelia Krasakopoulou, Ekaterini Souvermezoglou, and Catherine Goyet
 Distribution of anthropogenic CO₂ and acidification levels in the Eastern Mediterranean Sea - Comparison of two approaches
- 10:45–11:00 EGU2011-720
Julien Palmiéri, Jean-Claude Dutay, Jonathan Beuvier, Karine Béranger, and James Orr
 Simulation of anthropogenic CO₂ uptake in the Mediterranean sea with the NEMO-MED12 model; Impact on water masses acidification.
- 11:00–11:15 EGU2011-10947
Chiaki Motegi, Jinwen Liu, Conny Maier, Maria-Luiza Pedrotti, Minhan Dai, Jean-Pierre Gattuso, and Markus Weinbauer
 Long-term effects of elevated pCO₂ and temperature on prokaryotic community composition in mesopelagic waters of the NW Mediterranean Sea
- 11:15–11:30 EGU2011-2472
Malcolm Hart, Bruna Dias, Deborah Wall-Palmer, Christopher Smart, and Jason Hall-Spencer
 Response of pteropods and foraminifera to changing pCO₂ and pH: Examples from the Mediterranean Sea
- 11:30–11:45 EGU2011-12080
 Lorenzo Bramanti, **Silvia Cocito**, Roberta Cupido, Cristina Priori, Mimmo Iannelli, and Giovanni Santangelo
 Population dynamics of suspension feeders structuring the Mediterranean rocky shores: simulations of possible scenarios based on mortality events of 1999 and 2003.
- 11:45–12:00 EGU2011-10396
Roberto Danovaro, Antoni Calafat, Miquel Canals, Antonio Dell'Anno, Xavier Durrieu De Madron, Serge Heussner, Marianna Mea, and Antonio Pusceddu
 Climate-driven episodic events in the continental margins of the Mediterranean Sea and their effects on deep-sea ecosystems

LUNCH BREAK

Chairperson: n.n.

- 13:30–13:45 EGU2011-8166
Kai G. Schulz, Richard. G. J. Bellerby, Anja Engel, Jean-Pierre Gattuso, Dag O. Hessen, Signe Klavsen, Sebastian A. Krug, Gisle Nondal, Anna Silyakova, Ulf Riebesell and the KOSMOS Team
 Organic matter dynamics and CO₂ responses of the 2010 Svalbard mesocosm experiment
- 13:45–14:00 EGU2011-9113
Signe Klavsen, Richard Bellerby, Corina Brussaard, Susan Kimmance, Michael Meyerhöfer, Kai Georg Schulz, and Ulf Riebesell
 Effect of ocean acidification on an Arctic phytoplankton community
- 14:00–14:15 EGU2011-7094
Anna Silyakova, Richard Bellerby, Gisle Nondal, Tor De Lange, Jan Czerny, and Kerstin Nachtigall
 Arctic ecosystem net community production response to increasing ocean acidification
- 14:15–14:30 EGU2011-3585
 Anna de Kluijver, Karline Soetaert, Ulf Riebesell, and **Jack J. Middelburg**
 Carbon fluxes in Arctic plankton communities under elevated CO₂ levels: a stable isotope labelling study
- 14:30–14:45 EGU2011-12647
Karen Tait, Bonnie Laverock, and Stephen Widdicombe
 Response of an arctic ammonia oxidising community to increased pCO₂
- 14:45–15:00 EGU2011-8568
Brad Seibel and Amy Maas
 Synergistic effects of ocean acidification and feeding history on energy demand in an Antarctic pteropod, *Limacina helicina*
- Chairperson: Jean-Pierre Gattuso
- 15:30–15:45 EGU2011-6391
Silke Lischka, Jan Büdenbender, Tim Boxhammer, and Ulf Riebesell
 Impact of ocean acidification and elevated temperatures on early juveniles of the sub-polar shelled pteropod *Limacina helicina* (Thecosomata): mortality, shell growth and shell degradation
- 15:45–16:00 EGU2011-13827
Zora M. C. Zittier, Timo Hirse, and Hans-Otto Pörtner
 The synergistic effects of increasing temperature and CO₂ levels on the righting response and acid-base-balance of *Hyas araneus*
- 16:00–17:00 EGU2011-14178
Ulf Riebesell
 Impacts of ocean change on marine pelagic ecosystems and biogeochemistry (Vladimir Ivanovich Vernadsky Medal Lecture)

BG3.1 – Ocean acidification and its impact on marine ecosystems in the context of climate change (including Vladimir Ivanovich Vernadsky Medal Lecture) – Posters

Convener: Jean-Pierre Gattuso | Co-Conveners: Conny Maier, Ulf Riebesell, Patrizia Ziveri, Markus Weinbauer

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Patrizia Ziveri, Markus Weinbauer

- BG67 EGU2011-416
Gerald Langer, Angela M. Oviedo, Matthew D. Wolhowe, Fred G. Prahl, and Patrizia Ziveri
 The response of *Emiliania huxleyi* to P-limitation: a comparison of Eastern- and Western Mediterranean strains
- BG68 EGU2011-1559
Anna Luchetta, Carolina Cantoni, and Giulio Catalano
 Effects of ocean acidification of winter dense waters in the Northern Adriatic Sea (NAdDW) on the calcium carbonate saturation states.
- BG69 EGU2011-12051
Wolfgang Koeve, Hyun-Cheol Kim, Kitack Lee, and Andreas Oschlies
 The potential impact of DOM accumulation on computed fCO₂, carbonate ion concentrations, and omega in ocean acidification experiments
- BG70 EGU2011-1841
Frédéric Gazeau, Pieter van Rijswijk, Lara Pozzato, and Jack Middelburg
 Impacts of ocean acidification on sediment processes in shallow-waters of the Arctic Ocean
- BG71 EGU2011-7130
Sabine Hahn, Riccardo Rodolfo-Metalpa, Erika Griesshaber, Wolfgang W. Schmahl, Dieter Buhl, Jason Hall-Spencer, Cecilia Baggini, and Adrian Immenhauser
 Exploring the geochemistry and shell ultrastructure of bivalves as archives of past ocean acidification events: recent Mytilidae in a natural acidic setting in Ischia (Italy, Mediterranean Sea)

- BG72 EGU2011-4061
Francesco Cumani, Fulvia Bradassi, Sara Kaleb, and Guido Bressan
Ocean acidification effects on growth and calcification of *Lithophyllum incrustans* Philippi (Corallinaceae, Rhodophyta): first result.
- BG73 EGU2011-3950
Angela Oviedo, Gerald Langer, and Patrizia Ziveri
The response of *Emiliana huxleyi* to P-limitation: a comparison of Eastern- and Western Mediterranean strains; part 2
- BG74 EGU2011-12851
Kumiko Azetsu-Scott, Brian Petrie, and Craig Lee
Freshwater Input and CaCO₃ Saturation State in the Davis Strait
- BG75 EGU2011-12258
Jan Büdenbender, Silke Lischka, Kai G. Schulz, and Ulf Riebesell
Pteropods under the impact of ocean acidification and warming: a novel approach of calcification rate measurements in pre-winter *Limacina helicina* and effects on overwintering *L. helicina* and *L. retroversa*
- BG76 EGU2011-11394
Evgeniy Yakushev and Kai Sørensen
Modeling study of role of organic matter production and destruction on the carbonate system seasonal changes in the Barents Sea
- BG77 EGU2011-8004
Scarlett Sett, Mario Lebrato, Ulf Riebesell, and Kai G. Schulz
The combined effect of global warming and ocean acidification on the coccolithophore *Gephyrocapsa oceanica*
- BG78 EGU2011-9884
Steeve Comeau, Samir Alliouane, Gaby Gorsky, Ross Jeffree, James Orr, and **Jean-Pierre Gattuso**
Effects of elevated temperature and pCO₂ on Arctic and Mediterranean Thecosome pteropods
- BG79 EGU2011-12015
Marcello Passaro, Patrizia Ziveri, Marco Milazzo, Riccardo Rodolfo-Metalpa, and Jason M Hall-Spencer
Exploring CO₂ volcanic vents at Vulcano Island, Mediterranean Sea, to study the planktonic calcifier response to long-term changes in carbonate chemistry
- BG80 EGU2011-11008
Chiaki Motegi, Tsuneo Tanaka, Jean-Pierre Gattuso, and Markus Weinbauer
Effect of CO₂ enrichment on bacterial production and respiration, and on bacterial growth efficiency
- BG81 EGU2011-1333
Davide Privitera, Michela Noli, Carla Falugi, and Mariachiara Chiantore
Paracentrotus lividus and *Arbacia lixula* recruitment: substrate effects in a global change scenario
- BG82 EGU2011-11077
Markus Weinbauer, Jinwen Liu, Chiaki Motegi, Karine Nedoncelle, Cornelia Maier, Marie Luiza Pedrotti, Minhan Dai, and Jean-Pierre Gattuso
Long-term effects of elevated pCO₂ and temperature on microbial abundance and respiration in mesopelagic waters of the NW Mediterranean Sea
- BG83 EGU2011-13734
Conny Maier, Markus Weinbauer, Pierre Watremez, Marco Taviani, and Jean-Pierre Gattuso
Ship-board experiments to determine calcification rates of Mediterranean cold-water corals under variable pCO₂ conditions
- BG84 EGU2011-8384
Ulf Riebesell, Klaus von Bröckel, Jan Büdenbender, Jan Czerny, Matthias Fischer, Detlef Hoffmann, Sebastian A. Krug, Uwe Lentz, Andrea Ludwig, Ronald Mücke and the KOSMOS Team
EPOCA 2010 mesocosm CO₂ enrichment experiment in Arctic waters
- BG85 EGU2011-12571
Jan Czerny, Richard G. J. Bellerby, Tim Boxhammer, Anja Engel, Andrea Ludwig, Kerstin Nachtigall, Gisle Nondal, Anna Silyakova, Michael Sswat, Ulf Riebesell and the KOSMOS Team
Element budgets in an Arctic mesocosm CO₂ perturbation study
- BG86 EGU2011-3382
Tsuneo Tanaka, Samir Alliouane, and Jean-Pierre Gattuso
Metabolic balance of the plankton community in Arctic coastal water in relation to increased pCO₂ levels
- BG87 EGU2011-3214
Astrid Hoogstraten, Klaas R. Timmermans, and Hein J.W. de Baar
Combined effects of light and inorganic carbon on Southern Ocean phytoplankton
- BG88 EGU2011-8014
Jan Büdenbender, Ulf Riebesell, and Armin Form
Calcification and carbonate dissolution of an Arctic coralline red algae exposed to ocean acidification
- BG89 EGU2011-1393
Axinja Katharina Stark, Raphaela Kathöver, Olaf Heilmayer, Thomas Brey, and Hans-Otto Pörtner
Effects of ocean acidification and temperature rise on shell growth of *Serripes groenlandicus*

TS5.4/BG3.8/SSP2.5 – Natural gas seepage and focused fluid flow on continental margins (co-organized) – Orals

Convener: Zahie Anka | Co-Conveners: Aurelien Gay, Christian Berndt

Room: 26

Chairperson: n.n.

- 13:30–13:45 EGU2011-8772
Kate Thatcher, Graham Westbrook, Anne Chabert, Sudipta Sarkar, Tim Minshull, and Christian Berndt
 Timing of methane release from hydrate dissociation on the west Svalbard margin
- 13:45–14:00 EGU2011-11272
Stefan Bünz, Jürgen Mienert, Sergey Polyakov, Sunil Vadakkepuliambatta, and Chiara Consolaro
 Active Gas Venting Through Hydrate-Bearing Sediments on the Vestnesa Ridge, Offshore W-Svalbard
- 14:00–14:15 EGU2011-6132
Alexander Hartwig, Zahie Anka, Rolando di Primio, and Tony Albrecht
 Wide-spread pockmarked surface: evidence for a Paleogene massive fluid escape event in the Orange Basin, South Africa
- 14:15–14:30 EGU2011-13086
Katrine Juul Andresen, Mads Huuse, and Ole Rønne Clausen
 Overburden fluid flow features integrated in basin analysis
- 14:30–14:45 EGU2011-2705
Christophe Serié, Mads Huuse, and Niels Schødt
 Seismic imaging and origin of fluid flow structures in the Kwanza Basin, offshore Angola
- 14:45–15:00 EGU2011-1737
Martin Hovland and Christine Fichler
 Characterising marine and lacustrine methane macro-seeps in 14 steps

TS5.4/BG3.8/SSP2.5 – Natural gas seepage and focused fluid flow on continental margins (co-organized) – Posters

Convener: Zahie Anka | Co-Conveners: Aurelien Gay, Christian Berndt

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Christian Berndt & Zahie Anka

- XL273 EGU2011-828
Dimitri Laurent, Aurélien Gay, Sébastien Lacaze, Christian Bernt, Sverre Planke, Régis Mourgues, Roger Soliva, Catherine Baudon, and Michel Lopez
 Polygonal fault systems in Gjallar Ridge, offshore Norway : implications for early processes of deformation, faulting and fluid flow.
- XL274 EGU2011-5645
Ricardo Leon, Luis Somoza, Teresa Medialdea, Tomas Vazquez, and Francisco Javier Gonzalez
 Blind Submarine Valleys in the Gulf of Cadiz. Structures of seabed fluid flow
- XL275 EGU2011-488
Ilya Ostanin, Zahie Anka, Rolando Di Primio, Jon Erik Skeie, and Asdrubal Bernal
 Analysis of fluid migration and leakage in the Hammerfest Basin, South Western Barents Sea, from 3D seismic reflection data.
- XL276 EGU2011-10295
Vincent Riboulot, Gwénaél Jouët, Antonio Cattaneo, and Serge Berné
 Obliquely migrating pockmarks formed in response to 100 kyr and millennial-scale sea-level changes in the Gulf of Lions (Western Mediterranean)
- XL277 EGU2011-4597
Patrice Imbert, Aurelien Gay, Maxime Guiraud, Sutieng Ho, and Sebastien Nahan
 Polygonal fault networks and pockmarks in fine-grained series: timing and mutual relationships
- XL278 EGU2011-5612
Nikolaus Baristeas, Zahie Anka, Rolando di Primio, Jorge Rodriguez, Denis Marchal, Fabian Dominguez, and Eduardo Vallejo
 Characterization of Hydrocarbon Leakage Indicators in the Malvinas Basin, Offshore Argentine Continental Margin
- XL279 EGU2011-8575
Sudipta Sarkar, Anne Chabert, Christian Berndt, Timothy A. Minshull, Graham K. Westbrook, and Dirk Klaeschen
 Fluid migration within gas hydrate bearing shallow marine sediments offshore Western Svalbard
- XL280 EGU2011-765
Enmanuel Rodrigues, Rolando di Primio, Zahie Anka, Daniel Stoddart, and Brian Horsfield
 Leakage of hydrocarbons in a glacially influenced marine environment: Hammerfest Basin (Southwestern Barents Sea)

- XL281 EGU2011-4178
Liwen Chen, Wu-Cheng Chi, and Char-Shine Liu
 Using BSRs to Estimate Spatial Variations of Vertical Fluid Flow Rates in Offshore Taiwan Accretionary Prism
- XL284 EGU2011-4780
Jong-Hwa Chun, Jin-Ho Kim, Byong-Jae Ryu, Jang-Jun Bahk, Ji-Hoon Kim, Young-Jun Kim, and Chang-Sik Lee
 Gas-charged sediments from the eastern continental shelf off Korea
- XL285 EGU2011-12736
Adriano Mazzini, Giuseppe Etiope, and Henrik Svensen
 Was the Lusi eruption triggered by volcanic intrusions? New insights from gas geochemistry
- XL286 EGU2011-10736
Julia Nickel, Jens Kallmeyer, Kai Mangelsdorf, Rolando di Primio, and Daniel Stoddart
 Investigation of Microbial Activity in Pockmarks of the SW-Barents Sea
- XL287 EGU2011-3347
Alain Zanella and Peter Robert Cobbold
 Influence of fluid overpressure, maturation of organic matter, and tectonic context during the development of 'beef': physical modelling and comparison with the Wessex Basin, SW England
- XL288 EGU2011-12299
Volker Liebetrau, Nico Augustin, Anton Eisenhauer, Jan Fietzke, Erwin Suess, Steffen Kutterolf, Volker Thiel, Han Xiqiu, and Peter Linke
 Time scales and potential controls of focused fluid flow deciphered in microbially mediated carbonates

EOS04 – Contemporary Education in a Changing World (co-listed) – Orals

Convener: Ana Maria Tarquis | Co-Conveners: Edith Perrier, Ruth Falconer, Rosa Benito, Encarnación Taguas, Anne Gobin, Rosa María González-Tirados, EVA VIDAL VÁZQUEZ, Mauro Messerotti, Jose Carlos Gonzalez-Hidalgo

Room: 29

Chairperson: Jose Manuel Antón

- 13:30–13:45 EGU2011-5131
Rosa Maria González-Tirados and Silvia Medina
 Experimental Learning Styles: Results in Engineering and Architecture
- 13:45–14:00 EGU2011-10281
John Isaacs, Ruth Falconer, Daniel Gilmour, and David Blackwood
 Visualisation & Modelling for Stakeholder Education in Sustainable Water Treatment
- 14:00–14:15 EGU2011-5079
Leonor Rodriguez-Sinobas and Raul Sanchez Calvo
 Encouraging the learning of hydraulic engineering subjects: methodological proposals and evaluation of preliminary results
- 14:15–14:30 EGU2011-13764
Janos Mika and Ilona Pajtkó-Tari
 Ideas and practices for education of and by climate change
- 14:30–14:45 EGU2011-6911
Rosa M. Benito, Juan C. Losada, Francisco J. Arranz, and Luis Seidel
 Interactive methodology based in e-learning to help the engineering students to understand concepts and practices
- 14:45–15:00 EGU2011-2615
Martine Rutten
 A POGIL-based approach to teaching engineering Hydrology
- Chairperson: Encarnación Taguas
- 15:30–15:45 EGU2011-2878
Michael Mayer
 Improvement of sustainability in learning using a forum-based blended learning competition approach
- 15:45–16:00 EGU2011-11447
Jose María Del Alamo, Felix Cuadrado, Pedro Malagón, José Ignacio Fernandez Malagón, Rubén Trapero Burgos, and Rosa M. González-Tirados
 Tutors of Final Project Degree Profile Analysis in Telecommunications
- 16:00–16:15 EGU2011-13206
Mauro Messerotti, Anna Gregorio, Alessandro Cuttin, Mario Fragiaco, Sergio Carrato, and The AtmoCube Development Team
 AtmoCube: a nanosatellite project as an effective educational framework
- 16:15–16:30 EGU2011-9250
Jorge Paz-Ferreiro and Eva Vidal Vázquez
 Geostatistics in Soil Sciences, Agronomy and Environmental Sciences

16:30–16:45 EGU2011-12129

Jenny Gilford, Ruth Falconer, Rebecca Wade, and Kenneth Scott-Brown
Promoting Interest in Soil Sustainability Issues Using Interactive Virtual Environments

16:45–17:00 EGU2011-13240

Cristina Aguilar, Encarnación Taguas, and María José Polo
Integration of ICT tools in an Engineering Postgraduate Master Program

EOS04 – Contemporary Education in a Changing World (co-listed) – Posters

Convener: Ana Maria Tarquis | Co-Conveners: Edith Perrier, Ruth Falconer, Rosa Benito, Encarnación Taguas, Anne Gobin, Rosa María González-Tirados, EVA VIDAL VÁZQUEZ, Mauro Messerotti, Jose Carlos Gonzalez-Hidalgo

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Rosa Maria Gonzalez-Tirados

XL1 EGU2011-1626

Kakha Nadiradze and Nana Phirosnashvili
Climate Change, Agriculture and Food Crisis and correlations

XL2 EGU2011-9320

Heather Short
Positive feedbacks: using simple systems diagrams, the Himalayas, and ice core oxygen isotope data to introduce first-year college students to the complexities of Earth's climate system

XL3 EGU2011-13412

hossien sharifan
Investigation of Equations for Actual ET in Salinity Conditions(wet Climate)

XL4 EGU2011-9832

María Angeles Mendiola and **Pedro Luis Aguado**
Implementation of one course in the Open Course Ware from of Polytechnic University of Madrid, Spain. (OCW-UPM)

XL5 EGU2011-13306

M Dolores Redel Macías, Ramón Lara Raya, and **Encarnación Taguas**
Collaborative learning in electronic engineering

XL6 EGU2011-13234

Gabriel Gascó, José Manuel Fidalgo, and Ana Méndez
Advances in the organic waste management: Links between research, society and education

XL7 EGU2011-13325

hossien sharifan
Teaching Actual Evaluation of Tomato by Epan In Wet Climate

XL8 EGU2011-13198

hossien sharifan
Evaluation of Salinity effect on Water Temperature In Wet Climate

XL9 EGU2011-11509

Augusto Arce, Ana Maria Tarquis, Javier Caniego, Jesus Vazquez, Augusto Serrano, and Maria Carmen Cartagena
New Titles Implementation in the Framework of European Higher Education Area at E.T.S. Ingenieros Agrónomos of Madrid: Education Planning

XL10 EGU2011-13763

Janos Mika, Ildiko Dobi, and Anett Ivady
Circulation conditions of strong heat island in Budapest, with applications in weather forecasting and climate impact studies

XL11 EGU2011-12077

Jose M Anton, Juan B Grau, Ana M Tarquis, Rubén Moratiel, Silvia Medina, Fabregat Joaquin, Sánchez Elena, and Andina Diego
Survey and brain storming studies about machines, constructions, human and environmental risk consideration in the careers of the Universidad Politécnica de Madrid

XL12 EGU2011-4651

Emilio Camacho, Sergio Castro, Alfonso García-Ferrer, Rosa Gallardo, Blanca Pizarro, and **Encarnación V. Taguas**
Inter-generational experiences for encouraging the students of the first course of Agronomist and Forestry Engineering degrees

XL13 EGU2011-6090

Eva Vidal Vázquez and **Jorge Paz-Ferreiro**
The role of soil classification in basic soil science disciplines

XL14 EGU2011-11931

Eva Vidal Vázquez, **Rafael Montanari**, and Jorge Paz-Ferreiro
Darwin's contribution to Soil Biology

- XL15 EGU2011-13612
María José Polo, Marta Egüen, and Cristina Aguilar
 Content structure and program development in EGU2011; Transport and mixing in fluid flow
- XL16 EGU2011-13815
Emilio Camacho, Sergio Castro, Alfonso García-Ferrer, Rosa Gallardo, Blanca Pizarro, and Encarnación Taguas
 Exploring the “employability expectations”

GI-14 – GMES Sentinel Satellites: New Possibilities for Science (co-listed) – Orals

Convener: Michael Berger | Co-Conveners: Josef Aschbacher

Room: 24

Chairperson: n.n.

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

GI-14 – GMES Sentinel Satellites: New Possibilities for Science (co-listed) – Posters

Convener: Michael Berger | Co-Conveners: Josef Aschbacher

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A105 EGU2011-13779
Paul Snoeij, Ramon Torres, Malcolm Davidson, Betlem Rosich, and Guido Levrini
 SENTINEL-1 Implementation Status
- A106 EGU2011-3754
 Bianca Hoersch, François Spoto, Philippe Martimort, Omar Sy, Claudia Isola, **Pier Bargellini**, Olivier Colin, Ferran Gascon, Umberto del Bello, Aimé Meygret and the Sentinel-2 Team
 The GMES Sentinel-2 Mission
- A107 EGU2011-14008
Ulf Klein, Bruno Berruti, Craig Donlon, Johannes Frerick, Constantin Mavrocordatos, Jens Nieke, Bernd Seitz, Juergen Stroede, Helge Rebhan, and Nicolas Picot
 Sentinel-3 Mission Status
- A108 EGU2011-11629
J. Pepijn Veefkind, Ilse Aben, Johan de Vries, Gerard Otter, Paul Ingmann, and Pieter Levelt
 TROPOMI on the ESA Sentinel-5 Precursor: Global Observations of the Atmospheric Composition for Climate and Air Quality Applications

- A109 EGU2011-1011
Jochem Verrelst, Luis Alonso, Jesus Delegido, Juan Pablo Rivera, and Jose Moreno
 Gaussian Processes regression for biophysical parameter retrieval from Sentinel-2 and Sentinel-3 data
- A110 EGU2011-8446
Jean-Damien Desjonqueres
 A new tracking mode for altimeters using an on-board digital elevation model
- A111 EGU2011-8982
 Nicolas Picot and **Francois Boy**
 SAR Data over Ocean, CNES Proposed Processing Strategy and Continuity with LRM Data.

GM4.1 – Critical Zone Processes across Environmental Gradients (co-listed) – Orals

Convener: François Chabaux | Co-Conveners: Steven A. Banwart

Room: 21

Chairperson: n.n.

- 08:30–08:45 EGU2011-13079
James Kirchner
 Environmental observatories and environmental gradients: challenges and opportunities for exploring the Earth's critical zone
- 08:45–09:00 EGU2011-12641
Pavel Kram and Jakub Hruska
 Streamwater patterns in geochemically contrasting monolithologic spruce catchments
- 09:00–09:15 EGU2011-7517
 Lars Lundin and **Stefan Löfgren**
 Chemical transformations along soil hydrological critical zone pathways in a Swedish till soil catchment
- 09:15–09:30 EGU2011-6967
 Philippe Merot, **Chantal Gascuel-Odoux**, Laurent Ruiz, Gérard Gruau, Luc Aquilina, and Mickael Faucheux
 AGRHYS: an observatory of the critical zone in the context of high anthropogenic pressures (intensive livestock farming); research issues.
- 09:30–09:45 EGU2011-10787
Jean Dominique Meunier, Catherine Keller, and Flore Guntzer
 Bioavailability of Si in natural and perturbed soils
- 09:45–10:00 EGU2011-7768
Peter Stille, Anne-Désirée Schmitt, Marc Steinmann, Eric Lucot, Florence Guéguen, Florian Cobert, Laure Brioschi, Marie-Claire Pierret, and François Chabaux
 A 100 years retrospective of atmosphere and vegetation controlled chemical and isotopic evolution of a soil in a forested silicate catchment. Evidence from Sr, Nd, Pb and Ca isotopes in tree rings. (Strengbach case; Vosges mountains, France)

GM4.1 – Critical Zone Processes across Environmental Gradients (co-listed) – Posters

Convener: François Chabaux | Co-Conveners: Steven A. Banwart

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A112 EGU2011-2463
Svetlana M. Ilina, Yuriy V. Alekhin, Sergey A. Lapitsky, Jérôme Viers, and Oleg S. Pokrovsky
 Speciation, size fractionation and migration of trace elements in small rivers from contrasting climatic environments of boreal zone
- A113 EGU2011-2945
Sylvie Derenne, Marion Bardy, Thierry Allard, Marc Benedetti, and Emmanuel Fritsch
 Characterization of organic matter in a soil sequence at a laterite/podzol transition in the upper Amazon basin. Implication for organic matter exportation in black waters
- A114 EGU2011-12998
Marc Benedetti, Emily Lloret, Céline Dessert, Patrick Alberic, and Jérôme Gaillardet
 Comparison of dissolved inorganic and organic carbon yields and fluxes in the watersheds of tropical volcanic islands, examples from Guadeloupe (FWI)
- A115 EGU2011-5718
Daniel Viville, François Chabaux, Marie Claire Pierret, and Peter Stille
 Determination of sedimentary fluxes and their comparison with chemical weathering fluxes at the outlet of the granitic Strengbach catchment (Vosges massif, Eastern France)

- A116 EGU2011-9826
Virginie Vergnaud, Luc Aquilina, Thierry Labasque, and Anne-Catherine Pierson-Wickmann
Increase of erosion processes induced by the evolution of anthropogenic agricultural pressure during the last decades
- A117 EGU2011-2734
Jan Veizer
Coupling of terrestrial water and carbon cycles: implications for climate models
- A118 EGU2011-8782
Aur lie Violette, Yves Godd ris, Jean-Christophe Mar chal, Jean Riotte, Muddu Sekhar, and Jean-Jacques Braun
Weathering flux sensitivity to short time scale climatic variability: out of steady-state modelling study (Mule Hole watershed, South India)
- A119 EGU2011-3316
Emilie Beaulieu, Yves Godd ris, David Labat, and Yannick Donnadieu
CO2 consumption by weathering processes at high latitudes : the case of the Mackenzie river
- A120 EGU2011-6451
Romain Millot and Philippe N grel
Water/rock interactions: clues from experiments and Pb-Li isotopes tracing
- A121 EGU2011-7118
Jonathan Bridge, Steven Banwart and the NERC Weathering Science Consortium Team
Using integrated experiments and mathematical modeling to upscale biotic weathering processes from pore to field and global scales
- A122 EGU2011-10955
Matthias Leopold and J rg V lkel
Imaging the architecture of the Critical Zone along an altitudinal gradient in the Rocky Mountains Front Range of Colorado, USA
- A123 EGU2011-9668
Katerina Dontsova, Genna Gallas, Edward Hunt, Jon Chorover, and Sujith Ravi
Plant-mediated weathering of granular basalt
- A124 EGU2011-10259
Damien Lemarchand, Damien Cividini, Marie-Pierre Turpault, and Fran ois Chabaux
Boron isotopes profile in temperate forest granitic soils: a clue for exploring past and present weathering conditions
- A125 EGU2011-11027
Alexandre Voinot, Damien Lemarchand, Marie-Pierre Turpault, and Fran ois Chabaux
Experimental approach reveals distinct mechanisms of biotite weathering under different chemical conditions.
- A126 EGU2011-6026
Marie-Laure Bagard, **Fran ois Chabaux**, Oleg Pokrovsky, Jerome Viers, Anatoly Prokushkin, Sophie Rihs, Anne-D sir e Schmitt, Peter Stille, and Bernard Dupr 
Temporal variations of dissolved chemical fluxes carried by Siberian rivers (Kochuchum river and Nizhnyaya Tunguska river, Central Siberia)
- A127 EGU2011-12643
Jo lle templier, Oleg Pokrovsky, Sylvie Derenne, J r me Viers, and Fran ois Chabaux
Influence of permafrost thawing on dissolved organic matter composition
- A128 EGU2011-13052
Stefano M. Bernasconi and the BigLink Consortium Team
Chemical and biological gradients along the soil chronosequence of the Damma Glacier Critical Zone observatory (Switzerland)

GM4.2/GMPV52/HS12.2/SSS2.15 – Erosion and Terrestrial Carbon Cycling (co-listed) – Orals

Convener: Nikolaus J. Kuhn | Co-Conveners: Martin Evans, Timothy Quine, Kristof Van Oost

Room: 21

Chairperson: Niklaus Kuhn

- 10:30–11:00 EGU2011-9652
Asmeret Asefaw Berhe, Margaret S. Torn, Jennifer W. Harden, Sarah D. Burton, Markus Kleber, and John Harte
Stabilization Mechanisms of Soil Organic Matter in Eroding Watersheds: Implications for Erosion induced Terrestrial Carbon Sequestration
- 11:00–11:15 EGU2011-2037
Jianhui Zhang, Shijun Ni, and Zhengan Su
Dual roles of tillage erosion in lateral SOC movement in the landscape
- 11:15–11:30 EGU2011-10747
Xiang Wang, Erik Cammeraat, Zhengang Wang, Gerard Govers, and Karsten Kalbitz
Stability of organic matter in soils of the Belgium Loess Belt upon erosion and deposition

11:30–11:45 EGU2011-12061

Shailaja Vinjili, Ruth Robinson, and Richard Bates

Investigating Peatland Hydrology and Stratigraphy using Geophysical techniques

11:45–12:00 EGU2011-644

Elisabet Nadeu, Asmeret A. Berhe, Joris de Vente, and Carolina Boix-Fayos

Soil organic carbon replacement and deposition in a highly eroding Mediterranean catchment

GM4.2/GMPV52/HS12.2/SSS2.15 – Erosion and Terrestrial Carbon Cycling (co-listed) – Posters

Convener: Nikolaus J. Kuhn | Co-Conveners: Martin Evans, Timothy Quine, Kristof Van Oost

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Martin Evans

A129 EGU2011-3181

Martin Evans, **Fred Worrall**, and Gareth Clay

Interpreting carbon loss from surface recession in peatland gully systems

A130 EGU2011-9660

Asmeret Asefaw Berhe, Jennifer W. Harden, Margaret S. Torn, and John Harte

Lateral distribution of soil nitrogen in a naturally eroding zero-order watershed

A131 EGU2011-7079

Sebastian Dötterl, **Kristof Van Oost**, and Johan Six

Soil organic carbon pool composition in eroding landscapes and the link to topography

A132 EGU2011-9546

Claire Goulsbra, Martin Evans, and Tim Allott

Oxidation of POC in floodplain environments, evidence from eroding blanket peatlands

A133 EGU2011-11478

Laura Quijano-Gaudes, **Leticia Gaspar**, and Ana Navas

Soil organic carbon fractions in uncultivated and tilled profiles of mountain Mediterranean agroecosystems.

A134 EGU2011-13426

Yaxian Hu and Wolfgang Fister

Soil organic carbon erosion from two silty loam soils - a laboratory rainfall experiment

A135 EGU2011-13456

Wolfgang Fister and Johannes B. Ries

Wind erosion of soil organic carbon from arable land in Aragón, Spain

A136 EGU2011-13834

Richard Jones, Phillip Owens, and **Katrina Caley**

Paleolimnological records of Holocene carbon cycling: a late-glacial - Holocene record from Boswell Lake, British Columbia

A137 EGU2011-13836

Elisabeth Armstrong

Crusting and interrill C erosion: event characteristic and sediment C enrichment on silts and loams

A138 EGU2011-13837

Holly Croft and **Karen Anderson**

New approaches of monitoring spatio-temporal soil organic carbon dynamics in agricultural systems

A139 EGU2011-13840

Nikolaus J. Kuhn

A full emission balance for soil organic matter erosion

A140 EGU2011-13925

Martin Evans, Fred Worrall, Steve Daniels, and Richard Pawson

Particulate carbon loss from eroding and restored peatlands at the plot and catchment scale

A141 EGU2011-13928

Wolfgang Schwanghart and Thomas Jarmer

Spatial patterns of topsoil organic carbon in semi-arid areas - examples from SE Spain and Israel

A142 EGU2011-13930

Erik Cammeraat, Michiel Moerland, and Joachim Hill

Spatial distribution of soil erosion and soil organic carbon in a semi-arid environment derived from hyperspectral images

A143 EGU2011-13972

Kristof van Oost, Peter Fiener, Gerard Govers, and Zhi Wang

A spatially explicit and multi-class model to simulate sediment and SOC redistribution

GM4.3 – Process geomorphology and ecosystems – disturbance regimes and interactions (co-listed) – Orals

Convener: Markus Stoffel | Co-Conveners: Stephen Rice, Jens Turowski, Annett Wolf

Room: 21

Chairperson: n.n.

- 13:30–13:45 EGU2011-2164
Benoît Crouzy and Paolo Perona
 Evidence and modelling biomass selection by floods in a riverbed
- 13:45–14:00 EGU2011-3988
Natalia Deligne, Katharine Cashman, Daniel Gavin, and Joshua Roering
 Forest response to recent lava flow disturbances in the central Oregon Cascades, USA
- 14:00–14:15 EGU2011-5299
Colin P. Stark and Paola Passalacqua
 Regolith-vegetation dynamics and landslide versus runoff erosion
- 14:15–14:30 EGU2011-5365
Philip N. Owens, Ellen L. Petticrew, Tim Giles, William H. Blake, R. Dan Moore, Brett Eaton, Roland Bol, and Neil Williams
 Response of fine-grained sediment to a wildfire in British Columbia
- 14:30–14:45 EGU2011-9605
Thomas Buffin-Bélanger, Suzan McNider Taylor, Sylvio Demers, and Taylor Olsen
 Analysis of ice jam floodings from the study of riparian tree scars
- 14:45–15:00 **Short poster presentations (1 slide per poster)**

GM4.3 – Process geomorphology and ecosystems – disturbance regimes and interactions (co-listed) – Posters

Convener: Markus Stoffel | Co-Conveners: Stephen Rice, Jens Turowski, Annett Wolf

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- A144 EGU2011-10
Patrick Little, John Richardson, and Younes Alila
 The role of climate and hydrogeomorphic disturbance on riverine forest dynamics and landscape pattern in the Carmanah Valley temperate rainforest of coastal British Columbia, Canada.
- A145 EGU2011-2374
Zdenek Macka and Lukas Krejci
 Controls on longitudinal variability of large woody debris in submontane river - an example from the Moravka River, Czech Republic
- A146 EGU2011-3016
Mirek Smetana
 Reconstruction of temporal changes of a lowland river from historical maps and recent measurements - a case study from the Morava River, Czech Republic
- A147 EGU2011-4807
Yvonne Martin, Edward Johnson, Joan Gallaway, and Olga Chaikina
 Modelling Impacts of Wildfire Disturbance and Tree Population Dynamics on Tree Throw, Sediment Transport and Microtopography
- A148 EGU2011-5703
 Liesbet Van der Burght, Christof Bigler, Michelle Bollschweiler, and **Markus Stoffel**
 Analysis and modelling of tree succession on the 1991 Randa rockslide (Switzerland)
- A149 EGU2011-6671
Peter Vorpahl, Claudia Dislich, Helmut Elsenbeer, Michael Märker, and Boris Schröder
 Modeling vegetation landslides - An extension to the infinite slope model to accommodate thick organic layers
- A150 EGU2011-8273
Markus Stoffel, Alejandro Casteller, Brian H Luckman, and Ricardo Villalba
 Spatio-temporal analysis of channel wall erosion in ephemeral torrents - an example from the Patagonian Andes
- A151 EGU2011-8378
Jérôme Lopez Saez, Christophe Corona, Markus Stoffel, Georges Rovéra, Laurent Astrade, and Frédéric Berger
 Mapping of areal erosion rate in marly badlands based on anatomical changes in exposed roots
- A152 EGU2011-9289
 Estelle Arbellay, **Markus Stoffel**, and Michelle Bollschweiler
 Wood anatomical analysis of *Alnus incana* and *Betula pendula* injured by a debris-flow event
- A153 EGU2011-11946
Mélanie Bertrand, Hervé Piégay, Didier Pont, Frédéric Liébault, and Eric Sauquet
 Risk assessment of environmental changes associated with riverscape evolutions at a network scale: Application to the Drôme River basin, France

- A154 EGU2011-13875
Natalie Zurbriggen, Heike Lischke, Peter Bebi, and Harald Bugmann
 Forest-avalanche feedbacks under environmental changes in the Swiss Alps
- A155 EGU2011-13994
Olimpiu T. Pop, Stefan Buimaga-Iarinca, Markus Stoffel, Titu Anghel, and Virgil Surdeanu
 Reaction of Norway spruce (*Picea abies* (L.) Karst.) to sedimentation by toxic debris in the Dumitreleu Basin (sulphur mining area, Calimani Massif, Romania)

OS3.1 – IMBER/SOLAS special session. Sensitivity of marine ecosystems and biogeochemical cycles to global change (co-listed) – Posters

Convener: Baris Salihoglu | Co-Conveners: Christoph Garbe, Emilie Brévière

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Baris Salihoglu, Emilie Breviere, Christoph Garbe

- XY575 EGU2011-1875
Sergey Piontkovski and Michel Claereboudt
 Arabian Sea is getting less productive
- XY576 EGU2011-2973
Sebastian Rütten, Reiner Steinfeldt, Jürgen Sültenfuß, Marcus Dengler, and Monika Rhein
 Coastal upwelling off Mauritania inferred from helium isotope disequilibrium
- XY577 EGU2011-3221
Birgit Schneider
 Sensitivity of different formulations of the seawater CaCO_3 saturation state (pCO_2 , pH) to ocean acidification: implications for pelagic CaCO_3 dissolution in ocean biogeochemical models
- XY578 EGU2011-3258
 Anke Dürkop and **Birgit Schneider**
 Sensitivity of pelagic CaCO_3 dissolution to ocean acidification in an ocean biogeochemical model
- XY579 EGU2011-3305
Martin Vogt, Wolfgang Roether, Juergen Sueltenfuss, and Sandra Vogel
 Obtaining high-precision solubilities of helium and neon in fresh water and seawater
- XY580 EGU2011-3349
Qiang Shi, Gert Petrick, and Douglas Wallace
 a experimental study of volatile halocarbon production in seawater
- XY581 EGU2011-3566
Evridiki Mesarchaki, Jonathan Williams, Andrea Pozzer, Kerstin Richter, and Bernd Jähne
 Air-sea exchange of volatile organic compounds - Experimental results from a wind wave canal facility
- XY582 EGU2011-4170
Sophie Beauvais, Nicolas Metzl, Nicolas Gruber, and Jean-Pierre Gattuso
 The Integrated Marine Biogeochemistry and Ecosystem Research Project: Support of Ocean Carbon Research
- XY583 EGU2011-4826
Lavinia Patara, Martin Visbeck, Simona Masina, Gerd Krahnemann, and Marcello Vichi
 Marine biogeochemical responses to the North Atlantic Oscillation in a coupled climate model
- XY584 EGU2011-5278
Marc d'Orgeville, Matthew England, and Willem Sijp
 Sensitivity of atmospheric CO_2 to changes in ocean circulation: role of the surface chemistry
- XY585 EGU2011-7363
Aridane G. Gonzalez, J. Magdalena Santana-Casiano, Melchor González-Dávila, and Norma Pérez
 The effect of *Dunaliella tertiolecta* organic exudates on the Fe(II) oxidation kinetic in seawater
- XY586 EGU2011-7394
Sophie Tran, Bernard Bonsang, Valerie Gros, Ilka Peeken, and Roland Sarda-Esteve
 The marine source of CO and NMHC in the Arctic Ocean in summer 2010: spatial variability, vertical distributions and impact of the biology.
- XY587 EGU2011-7796
Anna Orlikowska, Christian Stolle, Falk Pollehne, Klaus Jürgens, and Detlef E. Schulz-Bull
 Behaviour of VHOCS in a coastal sea surface during a short term mesocosm experiment
- XY588 EGU2011-9346
Baris Salihoglu, Bettina Fach, Heather Cannaby, Temel Oguz, Viktor Dorofeev, Alexander Kubriyakov, and Ekin Akoglu
 Seasonal variability of the Black-Sea ecosystem: A modelling study
- XY589 EGU2011-9388
 Ekin Akoglu, **Baris Salihoglu**, Simone Libralato, Temel Oguz, and Cosimo Solidoro
 Ecological Evolution of the Black Sea from 1960s to 1990s: An integrity check

- XY590 EGU2011-9770
Artur Nowicki, Lidia Dzierzbicka-Glowacka, Jaromir Jakacki, and Maciej Janecki
A new marine ecosystem model for Baltic Sea
- XY591 EGU2011-9931
Artur Nowicki, Anna Lemieszek, Lidia Dzierzbicka-Glowacka, and Iwona Maria Zmijewska
The effects of food concentration, temperature and salinity on reproductive of *Temora longicornis* in the Baltic Sea
- XY592 EGU2011-11306
Jean-Pierre Gattuso, **Lina Hansson** and the EPOCA consortium Team
European Project on Ocean Acidification (EPOCA)
- XY593 EGU2011-12174
Stefan Raimund, Yann Bozec, Marc Vernet, Vincent Rossi, Véronique Garçon, Yves Morel, and Pascal Morin
Distribution of volatile iodinated organic compounds in the Iberian upwelling system
- XY594 EGU2011-12796
Imke Grefe and Jan Kaiser
Measurements of N₂O concentrations in the surface ocean with an off-axis ICOS analyser
- XY595 EGU2011-13065
Sophie Chollet, Erik Buitenhuis, and Corinne Le Quere
Effect of temperature and light intensity on diatoms growth rate: impact on biogeochemical cycles
- XY596 EGU2011-13139
Li-Ping Hung, Christoph Garbe, and Wu-ting Tsai
On the impact of macroscale wave-current dynamics in the interfacial exchange processes

Thursday, 07 April

BG1.3/IG18 – Application of non-traditional stable isotopes in biogeosciences (co-sponsored by THERMO) (co-organized) – Orals

Convener: Thomas Prohaska | Co-Conveners: Andreas Zitek, Jane Evans, Dr Takafume Hirata, Dr Laura Robinson, Dr Frank Vanhaecke

Room: 23

Chairperson: Thomas Prohaska

- 13:30–13:45 EGU2011-12976
Thomas Tütken, Robert A. Eagle, Alexander Heuser, Daniel Herwartz, and Stephen J. G. Galer
 Non-traditional isotope analysis of fossil bones and teeth - Preservation of biogenic compositions or diagenetic alteration?
- 13:45–14:00 EGU2011-1121
Jane Evans and Janet Montgomery
 Spatial variations in biosphere $^{87}\text{Sr}/^{86}\text{Sr}$ in Britain and the implications for human migration studies.
- 14:00–14:15 EGU2011-1144
Sergei Boulyga and Stephan Richter
 Calcium Isotope Analysis by Mass Spectrometry
- 14:15–14:30 EGU2011-11451
Grit Steinhöfel, Jörn Breuer, Friedhelm von Blanckenburg, Ingo Horn, Danuta Kaczorek, and Michael Sommer
 Silicon isotope signatures in soils determined by UV femtosecond laser ablation
- 14:30–14:45 EGU2011-3963
Masako Hori, Chen-Feng You, Chuan-Hsiung Chung, Kuo-Fang Huang, and Tsuyoshi Ishikawa
 Lithium isotopes in terrestrial carbonates as a proxy of naturally occurring arsenic
- 14:45–15:00 EGU2011-967
Zichen Xue, Mark Rehkamper, Tina Van de Flierdt, Patricia Grasse, and Martin Frank
 Cadmium Isotope Variations in the Peruvian Oxygen Minimum Zone - New Constraints on Micronutrient Cycling

NH8.1/BG1.13/SSS1.10 – Heavy-metal contamination of the environment (co-organized) – Orals

Convener: Jennifer A. Holden | Co-Conveners: Höpke Andresen, Bruce D. Malamud, Loretta Li

Room: 2

Chairperson: J.A. Holden and L. Li

- 10:30–11:20 **2 minute Poster Summaries**
 11:20–12:00 **Discussion**

NH8.1/BG1.13/SSS1.10 – Heavy-metal contamination of the environment (co-organized) – Posters

Convener: Jennifer A. Holden | Co-Conveners: Höpke Andresen, Bruce D. Malamud, Loretta Li

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY481 EGU2011-855
Al-Duc Nguyen, Jian-xin Zhao, Yue-xing Feng, Kefu Yu, Wan-ping Hu, and Trung-Ba Pham
 High-resolution rare earth and other trace metal records in Porites sp. coral in Nha Trang Bay (Viet Nam), western South China Sea: Impact of recent coastal development and human activities
- XY482 EGU2011-11981
Muhammad Imran Irfan, Thomas Meisel, and Friedrich Pichler
 The extent of anthropogenic and geogenic contamination in an industrial alpine area in Leoben, Austria
- XY483 EGU2011-12958
 Tyler B. Smith and **Philip N. Owens**
 Sediment-associated metals in streams draining agriculture, forestry and mining in the Quesnel River Basin, British Columbia, Canada
- XY484 EGU2011-7461
Sheng Wei, Wang, Chen Wuing Liu, Ta Wei Chang, and Yu Hsuan Kao
 Transformation of inorganic As species in groundwater samples with the presence of Fe(II)/Fe(III)
- XY485 EGU2011-23
 Farid Moore, **azizeh aghazadeh**, and Behnam Keshavarzi
 Metal toxicity in the stream sediments surrounding sungun porphyry copper deposit, NW, Iran

- XY486 EGU2011-333
Sezin Oeztan and Rolf-Alexander Duering
Determination of the pseudo total metal content of environmental matrices by different extraction methods
- XY487 EGU2011-157
Thomas Hanauer, Levan Navrozashvili, Sylvia Schnell, Diedrich Steffens, Besik Kalandadze, Tengiz Urushadze, and Peter Felix-Henningsen
Impact of non-ferrous metal mining on soil functions in the Mashavera valley, Georgia
- XY488 EGU2011-159
Thomas Hanauer, Stephan Jung, Diedrich Steffens, Levan Navrozashvili, Besik Kalandadze, and Peter Felix-Henningsen
In situ remediation of Cd, Cu and Zn contaminated topsoils by different amendments
- XY489 EGU2011-7306
Adam Lukasik, Zygmunt Strzyszcz, and Marcin Szuszkiewicz
Magnetic susceptibility enhancement in soils of urban parks of Upper Silesia region (Poland) as pollution indicator
- XY490 EGU2011-10751
Michal Piwnik
Evaluation of soil texture and change in amounts of heavy metals in soil under industrial pressure
- XY491 EGU2011-10774
Hülya Kaplan, Stefan Ratering, Thomas Hanauer, Peter Felix-Henningsen, and Sylvia Schnell
Impact of a trace metal contamination from mining activity on soil microbial communities and respiration activity of irrigated Kastanozems in Georgia
- XY492 EGU2011-9499
Bozena Sosak-Swidarska
The soil fungi communities and risk assessment of heavy metal contaminated soils management
- XY493 EGU2011-11718
Tania Teran-Mita, **Angel Faz**, Flor Salvador, and Joselito M. Arocena
Small-Scale Gold Mines in Andean region of Bolivia: Mercury in soils and plants from burning areas
- XY494 EGU2011-468
Levan Navrozashvili, Thomas Hanauer, Besik Kalandadze, Tengiz Urushadze, Diedrich Steffens, and Peter Felix-Henningsen
Transfer of Cd, Cu and Zn from soil into food crops in the Mashavera Valley, Georgia
- XY495 EGU2011-1751
Silvia Fontana, Claudio Bini, Mohammad Wahsha, and Martina Bullo
Heavy metals contamination in soils and their transfer to common wheat (*Triticum aestivum* L.): a case study
- XY496 EGU2011-13568
Manuela Inácio, Eduardo Ferreira da Silva, Virgínia Pereira, Anne-Marie Guihard-Costa, and Sandra Valente
Accumulation of potentially harmful elements in soils and forage plants in the Industrial area of Estarreja, Portugal
- XY497 EGU2011-11588
Melanie longchamp, Nicolas Angeli, Philippe Biron, Thierry Bariac, and Maryse Castrec-Rouelle
Determination of selenium species in Zea mays samples by enzymatic extraction and HPLC-ICP-MS
- XY498 EGU2011-419
nathalie fagel
Atmospheric mercury deposition during the last 1500 years in Western Europe: The Misten peat bog record (Hautes Fagnes - Belgium)
- XY499 EGU2011-11443
Jose A. Acosta, **Angel Faz**, Karsten Kalbitz, Boris Jansen, and Silvia Martinez-Martinez
Heavy metals concentration in street dust from different land uses in Murcia (SE Spain)
- XY500 EGU2011-11484
Jose A. Acosta, **Angel Faz**, Karsten Kalbitz, Boris Jansen, and Silvia Martinez-Martinez
Distribution of metals in particle size fractions from street dust of Murcia (Spain)
- XY501 EGU2011-14045
Susana Fernández, Manuel Antonio González, Cristina Santín, and Miguel Angel Alvarez
The role of salt marshes as heavy metal sinks in cantabrian seaboard (Bay of Biscay)
- XY502 EGU2011-238
Agnieszka Medyńska-Juraszek and Cezary Kabała
Heavy metal mobility in humus layers impacted by copper industry in SW Poland
- XY503 EGU2011-3810
Markus Puschenreiter
The GREENLAND project: gentle remediation of trace element contaminated land
- XY504 EGU2011-4357
Yoon-Su Kim, **Hyo-Taek Chon**, and Jong-Un Lee
Bioleaching of Heavy Metals in Contaminated Soils of the Old Smelting Site by Microbiological Sulfur Oxidation

- XY505 EGU2011-7589
Lucian Petrescu, Essaid Bilal, and Luisa Elena Iatan
 Phytostabilization of actinide-contaminated soils (East Carpathians, Romania)
- XY506 EGU2011-183
 Li Huang, **Loretta Li**, and Ken Hall
 Removal of trace metals from contaminated street and wetland sediments with a biosurfactant (Saponin) and an artificial surfactant (SDS)

EOS06/BG1.14/CL5.1/ERE5.4 – Modern Climate Science Education and Communications (co-organized) – Orals

Convener: Klaus Grosfeld | Co-Conveners: Annette Ladstaetter-Weissenmayer, Eva-Maria Pfeiffer, Oliver Dilly

Room: 29

Chairperson: n.n.

- 08:30–08:45 EGU2011-8969
Christina Klose and Dierk Hebbeln
 The Bremen International Graduate School for Marine Sciences - GLOMAR
- 08:45–09:00 EGU2011-13164
 Eva-Maria Pfeiffer, Detlef Stammer, Oliver Dilly, and **Hermann Held**
 Interdisciplinary MSc and Doctoral Education in Climate System Science at the University of Hamburg
- 09:00–09:15 EGU2011-11972
 Marianela Fader, **Andreas Hilboll**, Florian Rauser, and Sebastian Sonntag
 Presenting Young Earth System Scientists (YESS) - a new network for new scientists
- 09:15–09:30 EGU2011-7511
Heike Huebener
 Regional environmental agencies as facilitators for communicating climate change information
- 09:30–09:45 EGU2011-5766
Kirsti Jylhä and Reija Ruuhela
 Visualization of climate change information - feedback from web page visitors
- 09:45–10:00 EGU2011-9511
Jennifer Lenhardt, Richard W. Müller, Uwe Pfeifroth, and the EURO4M team
 The EURO4M project: Improving climate data products and services by interacting with climate data users

EOS06/BG1.14/CL5.1/ERE5.4 – Modern Climate Science Education and Communications (co-organized) – Posters

Convener: Klaus Grosfeld | Co-Conveners: Annette Ladstaetter-Weissenmayer, Eva-Maria Pfeiffer, Oliver Dilly

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Klaus Grosfeld

- Z1 EGU2011-10213
 Lorenz Martin, **Christoph Raible**, and Martin Grosjean
 The Graduate School of Climate Sciences, University of Bern
- Z2 EGU2011-9833
Klaus Grosfeld, Gerrit Lohmann, Annette Ladstätter-Weißenmayer, John Burrows, Claudia Sprengel, Claudia Hanfland, Jelle Bijma and the joint ESSReS-PEP-POLMAR Team
 ESSReS-PEP-POLMAR, an international and interdisciplinary postgraduate education concept on Earth and Environmental Sciences
- Z3 EGU2011-6623
Avan Antia, Kerstin Hoffmann, and Angelika Hoffmann
 Education for
- Z4 EGU2011-13047
Antje Weitz and Bjorn Stevens
 Structured supervision of doctoral studies in the IMPRS-ESM
- Z5 EGU2011-12028
Enrica Caporali, Elena Palmisano, and Juna Valdiserri
 Enhancing Environment Education in Eastern Europe
- Z6 EGU2011-8395
Susanne Pfeifer, Hinnerk Ries, and Daniela Jacob
 From regional climate models to climate change impact assessment: data support and demand
- Z7 EGU2011-11195
 Peter Lemke, **Klaus Grosfeld**, Marietta Weigelt, Renate Treffeisen and the REKLIM Speakers Team
 Climate Initiative Regional Climate Change (REKLIM), from climate simulation to climate advice

- Z8 EGU2011-12369
Hinnerk Ries, Daniela Jacob, and Richard Schmitt
 Perceived temperature as an indicator for extreme events
- Z9 EGU2011-12901
hossien sharifan, Mona Saffar, A.Ahmad Dehghani, and Mohsen Tahmasebi
 Investigation of Water temperature effects on Evaporation from of Salt Water Surfaces
- Z10 EGU2011-12779
hossien sharifan, Mehry Abdi, and Afsaneh Asady
 Forecasting of annual precipitation in Different Regions

BG2.10 – Biosphere-Atmosphere Interactions: From biogenic primary exchange to atmospheric fluxes of reactive trace gases – Orals

Convener: Jürgen Kesselmeier | Co-Conveners: J.-P. Schnitzler, Janne Rinne

Room: 23

Chairperson: Jürgen Kesselmeier

- 15:30–15:45 EGU2011-4951
Russell Monson, Amy Trowbridge, Dolores Asensio, Allyson Eller, Michael Wilkinson, Joerg-Peter Schnitzler, and Robert Jackson
 Flexibility in carbon substrate use for isoprene emission in trees grown at different atmospheric CO₂ concentrations
- 15:45–16:00 EGU2011-4475
Risto Taipale, Maija K. Kajos, Johanna Patokoski, Pekka Rantala, Taina M. Ruuskanen, and Janne Rinne
 Role of de novo biosynthesis in ecosystem scale monoterpene emissions from a boreal Scots pine forest
- 16:00–16:15 EGU2011-7914
Quentin Laffineur, Bernard Heinesch, Crist Amelynck, Niels Schoon, Jean-François Müller, Jo Dewulf, Herman Van Langenhove, Kathy Steppe, and Marc Aubinet
 Measurement and modeling of methanol deposition/emission in a mixed forest.
- 16:15–16:30 EGU2011-3275
 Katja Behnke, Monika Springer, Joerg-Peter Schnitzler, Astrid Kiendler-Scharr, Thomas Mentel, Ralf Tillmann, Stefanie Andres, Einhard Kleist, and **Juergen Wildt**
 Emission of aromatic compounds from poplar
- 16:30–16:45 EGU2011-10918
Joerg Steinkamp, Soenke Zaehle, Franz Meixner, and Mark Lawrence
 Innovation in global soil biogenic NO emission calculation
- 16:45–17:00 EGU2011-3845
Claire Delon, Corinne Galy-Lacaux, Marcellin Adon, Cathy Liousse, and Dominique Serça
 Emission and deposition of Nitrogen compounds in West Africa

BG3.2 – Oxygen depletion in land-locked, coastal and open ocean systems of the present and past – driving mechanisms, impacts and recovery – Orals

Convener: Caroline P. Slomp | Co-Conveners: Antje Boetius, Daniel Conley, Hiroshi Kitazato, Greg Cowie, Clare Woulds

Room: 24

Chairperson: Caroline Slomp & Antje Boetius

- 13:30–13:45 EGU2011-13933
Tage Dalsgaard, Bo Thamdrup, Donald Canfield, Loreto De Brabandere, Niels Peter Revsbech, and Osvaldo Ulloa
 Biogeochemistry of the eastern tropical south Pacific oxygen minimum zone
- 13:45–14:00 EGU2011-8848
Loreto De Brabandere, Bo Thamdrup, Don E Canfield, Tage Dalsgaard, Niels Peter Revsbech, and Osvaldo Ulloa
 High resolution depth profiles of anammox and denitrification in the OMZ off northern Chile
- 14:00–14:15 EGU2011-5241
Allan Devol, Bonnie Chang, and Wajih Naqvi
 The isotopic composition of nitrogen gas in oxygen deficient zones
- 14:15–14:30 EGU2011-6617
Frank Wenzhoefer, Jan P Fischer, Moritz Holtappels, Daphne Donis, Anna Lichtschlag, Felix Janssen, and Antje Boetius
 Spatio-temporal variations in water column oxygen concentrations at the Crimean Shelf and their effects on biogeochemical processes

- 14:30–14:45 EGU2011-2363
Zeynep Erdem and M.Nam?k Ça?atay
 Effect of Mediterranean Inflow on Redox Conditions of the Istanbul Strait Outlet Area of the Black Sea
- 14:45–15:00 EGU2011-11964
Holger Brix, Curtis Deutsch, Taka Ito, Hartmut Frenzel, and LuAnne Thompson
 Temporal variability of hypoxic zones
- Chairperson: Greg Cowie & Hiroshi Kitazato
- 15:30–15:45 EGU2011-2749
Karin Limburg, Carina Olson, Yvonne Walther, Caroline Slomp, Darren Dale, and Hans Høie
 Detecting hypoxia through otolith chemistry in modern and prehistoric Baltic Sea cod
- 15:45–16:00 EGU2011-1069
Lisa Levin, Anna Lee McGregor, Guillermo Mendoza, Clare Woulds, Peter Cross, Greg Cowie, Andrew Gooday, and Hiroshi Kitazato
 Macrofaunal colonization patterns across the India margin oxygen minimum zone
- 16:00–16:15 EGU2011-2464
Andrew Gooday, Kate Larkin, and Ana Aranda da Silva
 Benthic foraminifera: key members of benthic communities within the Arabian Sea OMZ
- 16:15–16:30 EGU2011-1000
Clare Woulds, Hisami Suga, Matthew Schwartz, Tim Brand, Greg Cowie, and Hiroshi Kitazato
 Benthic nutrient dynamics across the Pakistan and Indian margins
- 16:30–16:45 EGU2011-11907
Karoliina Koho, Leon Moodley, Lara Pozzato, Tanja Moerdijk-Poortvliet, Karline Soetaert, Jack Middelburg, and Gert-Jan Reichart
 Organic matter reactivity across the northern Arabian Sea Oxygen Minimum Zone
- 16:45–17:00 EGU2011-756
William Ross Hunter, Bart Veuger, and Ursula Witte
 Patterns of microbial nitrogen incorporation and retention in oxygen minimum zone sediments: An in situ ¹³C:¹⁵N labelling approach.
- 17:00–17:15 EGU2011-8124
Tom Jilbert, Caroline Slomp, and Bo Gustafsson
 Beyond the Fe-P-redox connection: Preferential regeneration of phosphorus from organic matter as a key control on Baltic Sea nutrient cycles
- 17:15–17:30 EGU2011-10680
Florian Scholz, Christian Hensen, Anna Noffke, Anne Rhode, and Klaus Wallmann
 Early diagenesis of trace metals (V, Mo, U) in sediments of the Peruvian upwelling area: response to oxygen dynamics in the water column

BG3.2 – Oxygen depletion in land-locked, coastal and open ocean systems of the present and past – driving mechanisms, impacts and recovery – Posters

Convener: Caroline P. Slomp | Co-Conveners: Antje Boetius, Daniel Conley, Hiroshi Kitazato, Greg Cowie, Clare Woulds

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Clare Woulds & Caroline Slomp

- BG1 EGU2011-2023
 Hidetaka Nomaki, Kentaro Inoue, **Hisami Suga**, and Hiroshi Kitazato
 Algal carbon processing by benthic foraminifera and microbes across the Arabian Sea Oxygen Minimum Zone
- BG2 EGU2011-4667
 Marie Zahnert, Annekatrin J. Enge, Markus M. Moeseneder, Ursula Witte, Michal Kucera, and **Petra Heinz**
 Recent benthic foraminifera in the oxygen minimum zone at the Western Indian margin, Arabian Sea
- BG3 EGU2011-3550
Carol White and Clare Woulds
 Tracer studies on organic matter cycling by benthic fauna across the Arabian Sea (Indian margin) oxygen minimum zone
- BG4 EGU2011-11198
Greg Cowie, Steve Mowbray, Helen Mathesen, Rebecca McKenzie, Michelle Lewis, Amy Anderson, and Carol White
 Comparative geochemistries of sediments from stations spanning the OMZ across the Arabian Sea margins of Pakistan, India and Oman
- BG5 EGU2011-5296
Hiroshi Kitazato
 Submersible dive cruise at lower transition of the Arabian Sea OMZ of the western Indian continental slope: Logistics, rationale and brief results

- BG6 EGU2011-3089
Ursula Witte, Will R Hunter, Lisa L Levin, and Markus M Moeseneder
Processing of phytodetrital carbon by benthic communities across the Indian margin oxygen minimum zone investigated via in situ isotope labelling experiments
- BG7 EGU2011-3944
Kazumasa Oguri and Hiroshi Kitazato
Oxygen dynamics at sediment-water interface in Arabian Sea continental margin: results from planar oxygen optode experiments in situ
- BG8 EGU2011-1991
Hartmut Schulz, Ulrich von Rad, Venugopalan Ittekkot, and Helmut Erlenkeuser
Particle flux to the continental slope of the NE Arabian Sea - a comparison of water column and seafloor estimates from the Oxygen Minimum Zone off Pakistan
- BG9 EGU2011-8922
Klaas G.J. Nierop, Gert-Jan Reichart, and Jaap S. Sinninghe Damsté
The transformation of macromolecular organic matter within and below the oxygen minimum zone in the Arabian Sea.
- BG10 EGU2011-9402
Peter Kraal, **Caroline P. Slomp**, Daniel C. Reed, Gert-Jan Reichart, and Simon W. Poulton
Sedimentary phosphorus and iron cycling across the Arabian Sea oxygen minimum zone
- BG11 EGU2011-9905
Caroline P. Slomp, Daniel C. Reed, Tom Jilbert, Haydon P. Mort, and Bo. G. Gustafsson
Phosphorus cycling and carbon burial in low-oxygen marine settings: Insights from modern basins
- BG12 EGU2011-11704
Joanna Norkko, Daniel C. Reed, Karen Timmerman, Alf Norkko, Bo G. Gustafsson, Erik Bonsdorff, **Caroline P. Slomp**, Jacob Carstensen, and Daniel J. Conley
A welcome can of worms? Hypoxia mitigation by an invasive species
- BG13 EGU2011-9354
Felix Janssen, Jan Fischer, Jana Friedrich, Moritz Holtappels, Gaute Lavik, Anna Lichtschlag, Nelli Sergeeva, Christoph Waldmann, Frank Wenzhoefer, and Antje Boetius
Oxygen conditions and biogeochemical responses in Black Sea ecosystems: Investigations by the EU-Project HYPOX
- BG14 EGU2011-9315
Felix Janssen, Christoph Waldmann, Antje Boetius and the HYPOX project Team
Hypoxia monitoring in aquatic ecosystems: a short introduction to target sites, scientific approach and first results (7 FP EU-project HYPOX)
- BG15 EGU2011-3704
Mathias K. Kirf, Carsten J. Schubert, and Bernhard Wehrli
Heterogeneity at the oxic-anoxic interface in the water column of Lake Zug, Switzerland.
- BG16 EGU2011-1063
Jana Friedrich, Marian-Trajan Gomoiu, Felix Janssen, and Dan Secieru
Conceptual Understanding of Hypoxia Effects on Ecosystems - Example: the Black Sea's North-Western Shelf (EU-FP7 "HYPOX")
- BG17 EGU2011-10172
Anna Lichtschlag, Felix Janssen, Jan P. Fischer, Frank Wenzhoefer, Gerdhard Jessen, and Antje Boetius
Mat-forming sulfide-oxidizing bacteria thriving in the hypoxic zone of the Crimean shelf (Black Sea)
- BG18 EGU2011-10147
Anna Lichtschlag, Frank Wenzhoefer, Felix Janssen, Ulrich Struck, Daphne Donis, Gerdhard Jessen, and Antje Boetius
Effect of varying oxygen conditions on biogeochemical processes and benthic activities at the Crimean shelf of the Black Sea
- BG19 EGU2011-9125
Moritz Holtappels, Anna Lichtschlag, Yudi Ihsan, Antje Boetius, Namik Ça?atay, Gaute Lavik, and Marcel Kuypers
Coupled denitrification - sulfide oxidation stimulated by the inflow of oxic Mediterranean waters into the anoxic layers of the Black Sea
- BG20 EGU2011-5306
Feng Xuwen, Yu Xiaoguo, Chen Jianfang, Li Hongliang, Zhang Weiyan Weiyan, and Shi Xuefa
Sedimentary records of eutrophication and hypoxia in the Changjiang Estuary over the last 100 years
- BG21 EGU2011-12993
Nelli Sergeeva, **Sofia Mazlumyan**, and Anna Lichtschlag
Meiobenthic communities of hypoxic conditions of the Bosphorus Strait (Black Sea)
- BG22 EGU2011-8877
Loreto De Brabandere, Bo Thamdrup, and Niels Peter Revsbech
Oxygen contamination during anoxic incubations

- BG23 EGU2011-6058
Jasmin Franz, Gerd Krahmann, Gaute Lavik, Patricia Grasse, and Ulf Riebesell
Distribution of phytoplankton in the tropical Eastern South Pacific in relation to hydrographic and nutrient conditions
- BG24 EGU2011-5806
Birgit Nagel, Tim Schlarbaum, Volker Mohrholz, and Kay Emeis
N-cycling in the suboxic Benguela upwelling system from dual N and O isotopic composition of nitrate
- BG25 EGU2011-465
Krystallia Kountoura and Ierotheos Zacharias
Description of the mechanism leading to the development of seasonal anoxia in Amvrakikos Gulf, Greece.
- BG26 EGU2011-6521
Alexandra Pavlidou, Christos Anagnostou, Harilaos Kontoyiannis, and Roza Psyllidou-Giouranovits
Oxygen depletion in a semi-enclosed area of Aegean Sea (East Mediterranean)
- BG27 EGU2011-11787
Niels van Helmond, Daniel Reed, Caroline Slomp, and Henk Brinkhuis
Determining the roles of productivity and preservation during formation of sapropel S1 in the eastern Mediterranean
- BG28 EGU2011-2425
Ryan P. North and David M. Livingstone
Applicability of a 1D hypolimnetic oxygen depletion model to deep Swiss lakes
- BG29 EGU2011-5318
Iana Tsandev, Daniel C. Reed, and Caroline P. Slomp
Phosphorus diagenesis in deep-sea sediments: sensitivity to water column conditions and global scale implications
- BG30 EGU2011-11367
Svetlana Pakhomova and Evgeniy Yakushev
Iron and manganese species at the redox-interfaces in the Black Sea, the Baltic Sea and the Oslo Fjord
- BG31 EGU2011-4362
Evgeniy Yakushev
Influence of mixing on the biogeochemical structure of the water column redox interface: model simulations for the Black Sea, the Gotland Deep and the Oslo fjord
- BG32 EGU2011-370
Yunchang He
Black Sea biogeochemistry: the numerical model response to decadal atmospheric variability during 1960-2000
- BG33 EGU2011-3071
Itzel Ruvalcaba Baroni and Caroline P. Slomp
Modeling ocean biogeochemistry in the Cretaceous: what triggered ocean anoxia?
- BG34 EGU2011-5317
Kazumi Ozaki and Eiichi Tajika
Modeling oceanic redox conditions during the Phanerozoic: Constraints from a one-dimensional ocean biogeochemical cycle model
- BG35 EGU2011-6887
Michael Kaminski, Severyn Kender, and Agnieszka Ciurej
The first record of Pliocene-Pleistocene dysoxic benthic foraminiferal assemblages in the Bering Sea: Initial results from IODP Expedition 323
- BG36 EGU2011-11913
Micha Ruhl, Robert Frei, and Christian J. Bjerrum
Marine Anoxia during Large Igneous Province formation at the Triassic-Jurassic transition?

BG5.1 – Integration of Environmental, Socio-Economic and Climatic Change Studies in Northern Eurasia – Orals

Convener: Pavel Groisman | Co-Conveners: Amber Soja, Alexey V. Eliseev, Chaba Mátyás

Room: 23

Chairperson: n.n.

- 08:30–08:45 EGU2011-5341
Evgeny Gordov, Vasily Bogomolov, Elena Genina, Igor Okladnikov, Tamara Shulgina, and Alexander Titov
Characteristics of on-going changes of Siberia climate
- 08:45–09:00 EGU2011-12740
Eric Wood, Tara Troy, Ming Pan, Michael Rawlins, and Xiaogang Shi
Documenting the uncertainty of the terrestrial water cycle across NESSPI and its effect on trend and attribution studies

- 09:00–09:15 EGU2011-4422
Olga Zolina, Clemens Simmer, and Sergey Gulev
 Extreme precipitation characteristics over Eurasian continent: uncertainties of estimation and climate variability
- 09:15–09:30 EGU2011-12523
Terry Callaghan, Stef Bokhorst, Ross Brown, Pavel Y. Groisman, Cecilia Johansson, Margareta Johansson, Niklas Labba, Vladimir Radionov, and Jan Åge Riseth
 Winter snow melt events in the Eurasian Arctic: consequences analysed from scientific and indigenous knowledge
- 09:30–09:45 EGU2011-3882
Reginald Muskett and Vladimir Romanovsky
 Permafrost Ecosystem Changes Across Eurasia and North America Using Multi-Satellite Measurements
- 09:45–10:00 EGU2011-9665
Vladimir Alexeev
 Tundra fires and sea ice in the Arctic

COFFEE BREAK

Chairperson: Csaba Mátyás, Alexey Eliseev

- 10:30–10:45 EGU2011-9564
Dennis Lettenmaier, Ted Bohn, Shamil Maksyutov, and Qianlai Zhuang
 Understanding the interaction of carbon and water budgets in the Eurasian Arctic
- 10:45–11:00 EGU2011-1515
Alexey V. Eliseev
 Uncertainty of climate and carbon cycle changes in North Eurasia due to uncertainty in values of terrestrial biota governing parameters
- 11:00–11:15 EGU2011-13014
Qianlai Zhuang, Jerry Melillo, David Kicklighter, John Reilly, Sergey Paltsev, Andrei Sokolov, Yongxia Cai, Anatoly Shvidenko, Nadejda Tchebakova, Andrey Sirin and the ,Anna Peregon and Guangsheng Zhou Team
 Changes of land use and land cover, biogeochemistry, and their feedbacks to climate in northern Eurasia
- 11:15–11:30 EGU2011-11686
Anatoly Shvidenko, Dmitry Schepaschenko, and Ian McCallum
 Productivity of Russian forests during recent decades (1960-2010s)
- 11:30–11:45 EGU2011-9646
Nadja Tchebakova, Elena Parfenova, Galina Lysanova, Evgeni Shvetsov, and Amber Soja
 An agroclimatic potential in southern Siberia in a changing climate during the XXI century
- 11:45–12:00 EGU2011-5582
Mikhail Yu. Arshinov and Boris D. Belan
 New particle formation events in the Siberian boreal zone

BG6.1 – Marine and Terrestrial proxies: development and reconstructions. – Orals

Convener: Lennart de Nooijer | Co-Conveners: Kai G. Schulz, Daniela Schmidt, Gert-Jan Reichart, Oliver Heiri, Darren Gröcke, André F. Lotter, Michel Magny, Stuart Robinson, Jung-Hyun Kim

Room: 24

Chairperson: n.n.

- 08:30–08:45 EGU2011-9793
Andreas Koutsodendris, Achim Brauer, Heiko Pälike, Jörg Pross, Ulrich C. Müller, and André F. Lotter
 Sub-decadal- to decadal-scale climate variability during the Holsteinian interglacial (MIS 11) evidenced in varves from northern Germany
- 08:45–09:00 EGU2011-8191
 Frauke Schmidt, **Heinz Wilkes**, Iris Kristen, and Hedi Oberhänsli
 Environmental and biogeochemical changes in Lake Tswaing, South Africa, during the last 84 ka BP
- 09:00–09:15 EGU2011-1256
Joonas Virtasalo and Aarno Kotilainen
 Holocene benthic responses to saline water inflows to the Baltic Sea - INFLOW project
- 09:15–09:30 EGU2011-1441
Yvonne Hermanns and Harald Biester
 Controlling factors of mercury accumulation in lake sediments during the past 17,000 years - A case study from Southern Patagonia

- 09:30–09:45 EGU2011-3052
Stefan Krause, Volker Liebetrau, Judith A. McKenzie, and Tina Treude
 Dolomite-type-ordered carbonate nucleation in biofilm of a marine sulfate-reducing bacterium: the role of extracellular polymeric substances
- 09:45–10:00 EGU2011-6277
André Krabbenhöft, Anton Eisenhauer, Jacek Raddatz, Volker Liebetrau, Jan Fietzke, Florian Böhm, Thomas Felis, and Stephanie Reynaud
 Stable Strontium (δ -88/86 Sr) Isotope Fractionation in Scleractinian Corals

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2011-8964
Luke Mackinder, Glen Wheeler, Declan Schroeder, Ulf Riebesell, and Colin Brownlee
 Biomineralisation and Gene Expression in *Emiliana huxleyi*
- 10:45–11:00 EGU2011-4649
Luc Beaufort, Thibault de Garidel-Thoron, Yves Gally, and Nicolas Barbarin
 Intradecadal changes of coccolith calcification during the last 1000 years obtained with a new method of thickness measurements
- 11:00–11:15 EGU2011-6587
Heather Stoll, Gerald Langer, Nobumichi Shimizu, and Kinuyo Kanamaru
 B/Ca ratios in coccoliths and relationship to calcification vesicle pH and dissolved inorganic carbon
- 11:15–11:30 EGU2011-6642
Takashi Toyofuku, Hidetaka Nomaki, Masashi Tsuchiya, and Hiroshi Kitazato
 Foraminiferal cellular pH control under high-CO₂ condition in the laboratory
- 11:30–11:45 EGU2011-8750
Caroline Cleroux, Peter deMenocal, Kristen L. Gore, David Madigan, Jennifer Arbuszewski, and Brad Linsley
 Reconstructing the upper water column structure along 35°N–20°S in the Atlantic: a tool to reconstruct past thermocline circulation.
- 11:45–12:00 EGU2011-3464
Carne Huguet, Jung-Hyun Kim, Stefan Schouten, and Toni Rosell-Melé
 Constraints on the application of the TEX₈₆ temperature proxy in the Mediterranean

BG6.1 – Marine and Terrestrial proxies: development and reconstructions. – Posters

Convener: Lennart de Nooijer | Co-Conveners: Kai G. Schulz, Daniela Schmidt, Gert-Jan Reichart, Oliver Heiri, Darren Gröcke, André F. Lotter, Michel Magny, Stuart Robinson, Jung-Hyun Kim

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- BG37 EGU2011-286
Angela A. Bruch, Steffen Scharrer, and Ivan G. Gabrielyan
 Early Pleistocene climate and environmental change in Armenia - reconstructing temporal corridors of early human expansions
- BG38 EGU2011-516
Evgeniya Gonyk
 Paleoenvironmental reconstructions of the n8 coal bed of the Lviv-Volyn basin by palynological data (Western Ukraine)
- BG39 EGU2011-643
Thibaut Caley, Jung-Hyun Kim, Bruno Malaizé, Jacques Giraudeau, Thomas Laepple, Nicolas Caillon, Karine Charlier, Hélène Rebaubier, Linda Rossignol, and Isla Castañeda
 Comparison of four independent paleotemperature records over the last 800 ka in the South-West Indian Ocean: similarities and differences
- BG40 EGU2011-2067
Wenwen Chen, Gesine Mollenhauer, Torsten Bickert, and Mahyar Mohtadi
 Using organic geochemistry proxies to reconstruct sea surface temperature in the eastern Indian Ocean
- BG41 EGU2011-2636
Irina Bundeleva, Liudmila Shirokova, Pascale Benezeth, Oleg Pokrovsky, and Elena Kompantseva
 Experimental modelling of calcium carbonate precipitation during anoxygenic phototrophic bacteria *Rhodovulum* sp. activity

- BG42 EGU2011-2976
Sylvie Derenne, Arnaud Huguet, Céline Fosse, and Fatima Laggoun-Défarge
Effects of in situ artificially increased temperature on the distribution of branched GDGTs in a French peat bog
- BG43 EGU2011-5572
Karoline Kabel, Matthias Moros, Florian Adolphi, Marianne Baas, Christian Porsche, and Jaap S. Sinninghe Damsté
Application of TEX86-paleothermometry in the Baltic Sea: Temperature reconstruction of the past 1000 years
- BG44 EGU2011-6000
Emiliya Kirilova, Oliver Heiri, Siim Veski, and André F. Lotter
Summer temperature shifts during the Late Glacial in Northeastern Europe
- BG45 EGU2011-7216
Liisa Nevalainen and Tomi P. Luoto
Past evolutionary responses of Chydoridae (Cladocera) under oxygen depletion in an Austrian Alpine lake
- BG46 EGU2011-7443
Tomi Luoto and Liisa Nevalainen
Fossil invertebrates reveal major ecological turnovers during the recent centuries in a high altitude lake in the Austrian Alps
- BG47 EGU2011-7827
Noa Fruchter, Anton Eisenhauer, Jonathan Erez, Florian Boehm, and Jan Fietzke
Laboratory experiments on elemental and isotopic fractionation in coral aragonite precipitation
- BG48 EGU2011-8098
Lennart Bach, Christine Bauke, Sebastian Meier, Luke Mackinder, Ulf Riebesell, and Kai Georg Schulz
The influence of pH and dissolved inorganic carbon on coccolith size and morphology of *Emiliania huxleyi*
- BG49 EGU2011-8631
Michał Sowiński, Izabela Zawiska, Agnieszka M. Noryśkiewicz, Karina Apolinarska, and Monika Lutyńska
Macrophyte vegetation development in paleolake Czechowskie (northern Poland), during the late-glacial and early-Holocene
- BG50 EGU2011-8696
Gerald Langer, Lennart De Nooijer, Gernot Nehrké, Tomas Vagner, Nina Keul, Antje Funcke, Marcel Kuypers, and Jelle Bijma
Mg and Sr banding in the shell of the benthic foraminifer *Ammonia tepida* revealed by NanoSIMS
- BG51 EGU2011-8752
Trine Holm, Al Werner, Anne Hormes, Gerhard Kuhn, Matthias Forwick, Roland Psenner, and Karin A. Koinig
Holocene environmental changes in an Arctic lake
- BG52 EGU2011-10452
Lennart de Nooijer, Antje Funcke, Jelle Bijma, and Gert-Jan Reichert
How do foraminifera discriminate against magnesium and how does this affect their calcite chemistry?
- BG53 EGU2011-10548
Michelle Johnson, Manuel Gloor, and Jon Lloyd
Evaluating modelled soil profile evolution with observations from a basalt chronosequence in Queensland, Australia.
- BG54 EGU2011-11041
Mathias Trachsel, Atle Nesje, Jostein Bakke, Bjørn C. Kvisvik, and Pål R. Nielsen
Inferring organic content of sediments by means of scanning reflectance spectroscopy (380-730 nm); a case study from proglacial lakes in Norway
- BG55 EGU2011-11531
Jian Ren, Rainer Gersonde, Oliver Esper, and Constance Sancetta
Diatom distribution in North Pacific surface sediments and application for paleoceanographic reconstruction
- BG56 EGU2011-11965
Žilvė Žigaitė, Alberto Pérez-Huerta, Michael M. Joachimski, and Oliver Lehnert
The $^{18}\text{O}/^{16}\text{O}$ ratio in vertebrate biogenic apatite as a proxy to Palaeozoic seawater temperatures
- BG57 EGU2011-11971
Karoliina Koho, Mariette Wolthers, Ed Hathorne, and Gert-Jan Reichert
Trace metal content of benthic foraminifera: field study and modelling approach
- BG58 EGU2011-12127
Willem O. van der Knaap, **Mariusz Lamentowicz** and the Mauntschas/Millennium Team
Multi-proxy, high-resolution record of peatland development and its drivers during the last millennium from the subalpine Swiss Alps

BG7.3 – Biogeochemical function and diversity of chemosynthetic deep sea ecosystems – Posters

Convener: Nadine Le Bris | Co-Conveners: Laurent Toffin, Janine Felden, Douglas Connelly, Jozée Sarrazin, Dirk de Beer

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- BG59 EGU2011-4814
Petra Pop Ristova, Frank Wenzhöfer, Alban Ramette, Matthias Zabel, David Fischer, Sabine Kasten, and Antje Boetius
 Biogeochemical Activities and Associated Biodiversity at the Gigantic Pockmark Regab - A Multidisciplinary Study
- BG60 EGU2011-9515
Antje Boetius, Janine Felden, Frank Wenzhöfer, Dana Yoerger, Rich Camilli, Chris German, Karine Olu, Tomas Feseker, and Dirk DeBeer
 Changes in biogeochemical activity and habitat zonation associated with mud displacement (Haakon Mosby Mud Volcano, Barents Sea)
- BG61 EGU2011-8665
Clara F. Rodrigues, Sébastien Duperron, Ana Hilário, and Marina R. Cunha
 Chemosymbiotic species from cold seeps around NE Atlantic
- BG62 EGU2011-2261
Julie Ponsard, Marie-Anne Cambon-Bonavita, Magali Zbinden, Gilles Lepoint, André Joassin, Laure Corbari, Bruce Shillito, and Philippe Compère
 Inorganic carbon incorporation and nutritional transfers in the chemosynthetic ectosymbiosis harboured by the Atlantic hydrothermal vent shrimp *Rimicaris exoculata*
- BG63 EGU2011-2405
Mélissa Trevisan, Laure Corbari, Sarah Samadi, and Philippe Compère
 Diet and digestive microbial symbioses in amphipod crustaceans from deep-sea wood falls in the Pacific Ocean.
- BG64 EGU2011-9311
Inês Martins, Richard P. Cosson, Virginie Riou, Pierre Marie Sarradin, Jozée Sarrazin, Ricardo S. Santos, and Ana Colaço
 Relationship between metal levels in the vent mussel *Bathymodiolus azoricus* and local microhabitat chemical characteristics of Eiffel Tower (Lucky Strike)
- BG65 EGU2011-11516
Carole Decker, Christian Le Gall, and Karine Olu-Le Roy
 First in situ respiratory measurement of vesicomyid bivalves at a cold-seep site (REGAB pockmark off Congo)
- BG66 EGU2011-11570
Carole Decker, Sébastien Duperron, and Karine Olu-Le Roy
 Multi-gene characterization of endosymbionts associated with two vesicomyid bivalve species co-occurring at a pockmark in the Gulf of Guinea
- BG67 EGU2011-13572
Raul Bettencourt, Miguel Pinheiro, Conceição Egas, Isabel Rodrigues, and Ricardo Santos
 Sequencing the transcriptome of *Bathymodiolus azoricus*: new possibilities for the understanding of biological processes at deep-sea hydrothermal vents
- BG68 EGU2011-1150
Antje Buß, Maren Walter, Christian Mertens, Jürgen Sültenfuß, and Monika Rhein
 Hydrothermal 3He in the near field of natural CO₂ seeps in the Okinawa Trough
- BG69 EGU2011-7765
Leonardo Contreira, Mustafa Yucel, Jean-Pierre Brulport, Maurice Comtat, and Nadine Le Bris
 Comparative Assessment of Potentiometric and Voltammetric Sensors for Autonomous Monitoring in Deep Sea Sulfidic Environments
- BG70 EGU2011-8919
Cedric F. A. Floquet, Ambra Milani, Vincent J. Sieben, Samer Abi Kaed Bey, Edward M. Waugh, Robin J. Brown, Lee R. Fowler, Peter J. Statham, Douglas P. Connelly, Hywel Morgan, Matthew C. Mowlem and the MOMARSAT (Pourquoi pas?) science party Team
 Development of robust micro-colourimetric analysers for in situ detection and long term monitoring of trace metals in seawater.
- BG71 EGU2011-6216
Xiang Xiao, Jinqun Chen, Wei Xie, Anna-Louise Reysenbach, Stefan M Sievert, AnLong Xu, and Fengping Wang
 Comparative metagenomics of microbial communities inhabiting different hydrothermal chimneys
- BG72 EGU2011-13556
Alejandro Estradas-Romero, Katy Juárez-López, and Rosa Maria Prol-Ledesma
 First description of bacterial populations at shallow hydrothermal vents
- BG73 EGU2011-2820
Sungjae Lee, Kanghee Cho, Bongju Kim, Daewoong Wi, Nagchoul Choi, and Cheonyoung Park
 Effect of Bacterial attachment to surface of pyrite on bioleaching efficiency using indigenous acidophilic bacteria
- BG74 EGU2011-2808
Daewoong Wi, Bongju Kim, Kanghee Cho, Nagchoul Choi, Sungjae Lee, and Cheonyoung Park
 Characteristics of copper matte bioleaching using indigenous acidophilic bacteria for recovering the valuable resources

- BG75 EGU2011-2811
Bongju Kim, Kanghee Cho, Daewoong Wi, Nagchoul Choi, Sungjae Lee, and Cheonyoung Park
 Effect of temperature on efficiency of galena bioleaching using indigenous acidophilic bacteria
- BG76 EGU2011-2816
Kanghee Cho, Bongju Kim, Daewoong Wi, Nagchoul Choi, Sungjae Lee, and Cheonyoung Park
 Characteristics of chalcopyrite bioleaching using indigenous acidophilic bacteria for recovering the valuable resources

BG7.4/SSP3.6 – Methane and gas hydrates in marine and terrestrial environments: sources, sinks and ecosystems (co-organized) – Posters

Convener: Alina Stadnitskaia | Co-Conveners: Tomas Feseker, Helge Niemann, Matthias Haeckel, Judith Maria Schicks

Poster Area BG | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Alina Stadnitskaia, Tomas Feseker, Helge Niemann, Matthias Haeckel and Judith Maria Schicks

- BG77 EGU2011-14
Sayed Sharaf El Din and Marawan Nassar
 Gas hydrates over the Egyptian Med. Coastal waters
- BG78 EGU2011-1018
George Burba, Tyler Anderson, Dayle McDermitt, Liukang Xu, Anatoly Komissarov, Bradley Riensche, Douglas Allyn, and Kevin Ediger
 Accounting for spectroscopic effects in eddy covariance calculations of methane flux
- BG79 EGU2011-1148
Chiara Consolaro, Kamila Sztzybor, Tine L. Rasmussen, Juergen Mienert, and Stefan Buenz
 Dating active vs inactive seep sites in the pockmark-field of the Vestnesa Ridge (NW Svalbard)
- BG80 EGU2011-1465
 Jan Blees, **Helge Niemann**, Christine Wenk, Jakob Zopfi, Carsten J. Schubert, Mauro L. Veronesi, Marco Simona, and Moritz F. Lehmann
 Methane oxidation in the anoxic hypolimnion of a deep south-alpine lake
- BG81 EGU2011-1655
Kamila Sztzybor, Chiara Consolaro, Tine Rasmussen, Stefan Bünz, and Jürgen Mienert
 Methane release and past climate change in the Arctic during the last ca 30,000 years
- BG82 EGU2011-1741
Martin Hovland and Lars Petter Myhre
 A unique hydrocarbon-seep and hydrate mediated ecosystem at Nyegga-G11, off Mid-Norway
- BG83 EGU2011-4406
Chieh-Wei Hsu, Saulwood Lin, Yee Cheng Lim, Tsanyao Frank Yang, and I-Jy Hsieh
 Variation of sulfur isotope fractionation in the Yung-An Ridge cold vent sediments offshore Southwestern Taiwan
- BG84 EGU2011-4547
Yun-Ju Chen, Pei-Ling Wang, Chih-Hsien Sun, and Li-Hung Lin
 Temperature effects on the metabolic pathway of acetoclastic methanogenesis
- BG85 EGU2011-4873
 Hongpeng Tong, **Duofu Chen**, Youyan Bian, and Dong Feng
 Petrology and geochemistry of seep carbonate on the northern continental slope of the South China Sea: A review
- BG86 EGU2011-4985
 Jens Greinert, **Matthias Haeckel**, and Pergamon Members
 Permafrost and gas hydrate related methane release in the Arctic and its impact on climate change - European cooperation for long-term monitoring: COST Action PERGAMON
- BG87 EGU2011-5078
Alexei L. Sobissevitch, Andrey V. Gorbatikov, Alexander N. Ovsuychenko, Leonid E. Sobissevitch, Irina N. Pouzich, and Boris A. Morev
 Deep underground structure of mud volcanoes in North-Western Caucasus revealed by means of geological and geophysical studies
- BG88 EGU2011-5144
Shinsuke Kawagucci
 Origin of methane in the Okinawa Trough hydrothermal fields: Implication for long transport of biogenic methane at subsurface geofluid system.
- BG89 EGU2011-5340
Wei-Zhi Liao, Andrew Tien-Shun Lin, Char-Shine Liu, and Shu-Kun Hsu
 BSR occurrences in a continental-slope ridge with widespread cold-seep carbonates, northern South China Sea margin

- BG90 EGU2011-6112
Tatiana Kuznetsova, Bjørn Kvamme, Van Cough Phan, Øivind Sunnarvik, and Christian Bøe
Molecular dynamics study of mineral impact on mass transport and hydrate formation
- BG91 EGU2011-6175
Dominique Serça, Chandrashekhar Deshmukh, Fabien Becerra, Vincent Chanudet, Stéphane Descloux, Pierre Guédant, and Frédéric Guérin
Methodology to assess of methane emission from a tropical hydro reservoir: case of Nam Theun 2, Laos
- BG92 EGU2011-6256
Bo Barker Jørgensen, Sabine Flury, Laura Lapham, Henrik Fossing, Hans Røy, Jørn Bo Jensen, and Andrew W. Dale
Controls on methane accumulation and methane fluxes in gassy sediments, Baltic Sea.
- BG93 EGU2011-6711
Christian Deusner, Nikolaus Bigalke, Elke Kossel, Jean-Philippe Savy, and Matthias Haeckel
Simulating CO₂ injection into submarine, CH₄-hydrate bearing sediments in high-pressure experiments
- BG94 EGU2011-6750
Alejandro de Carlos, Sandra Vázquez-Dorado, Soledad García-Gil, and Andrés Sanjuan
Microbial community metagenomic profiling in shallow gas fields from the Ría de Vigo (NW of the Iberian Peninsula)
- BG95 EGU2011-7293
Nguyen Manh Thang, Volker Brüchert, Michael Formolo, Gunter Wegener, Maja Rehiholdsson, Ginters Livija, Bo Barker Joergensen, and Timothy Ferdelman
Biogeochemistry of methane and sulfate in Himmerfjärden estuary sediment, Sweden
- BG96 EGU2011-7365
Shu-Lin Tu and Char-Shine Liu
Using MCS Reflection Data to Delineate Gas Hydrate Concentrated Zone in the Yung-An Ridge Area Offshore Southwestern Taiwan
- BG97 EGU2011-7968
Ellen Damm, Silke Thoms, and Elisabeth Helmke
Hotspots of methane formation - a response to melting sea ice in nitrate stressed Polar surface water
- BG98 EGU2011-8917
Soledad García-Gil, Natalia Martínez-Carreño, Esther de Blas, and Castor Muñoz Sobrino
Quantitative data from the inner and outer gas fields of the Ria de Vigo (Spain).
- BG99 EGU2011-9312
Catalin Teodoriu, Kurt M. Reinicke, Karl Eduard Winter, and Giorgi Phochkhua
Gashydrate exploration campaign using a novel rotary coring tool
- BG100 EGU2011-10626
Elena Pinero, Christian Hensen, **Matthias Haeckel**, Mathias Marquardt, and Klaus Wallmann
Constraining the global distribution and amount of methane hydrates in marine sediments
- BG101 EGU2011-11119
Philip Steeb, Kerstin Kretschmer, **Peter Linke**, and Tina Treude
What is the upper limit of the benthic microbial methane filter?

GD1.1/BG8.3/GMPV44/TS1.3 – Early Earth: from deep dynamics to surface life (co-organized) – Posters

Convener: Jeroen van Hunen | Co-Conveners: Emmanuelle J. Javaux, Nicolas Flament, Nicholas T. Arndt

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Nico Flament and Jeroen van Hunen

- A40 EGU2011-2489
Kevin Lepot, Léo Deremiens, Zorigto Namsaraev, Philippe Compère, Emmanuelle Gérard, Elie Verleyen, Ines Tavernier, Dominic A. Hodgson, Annick Wilmotte, and Emmanuelle Javaux
Organo-mineral imprints in fossil cyanobacterial mats of an Antarctic lake
- A41 EGU2011-11401
Hendrik Kienert and Georg Feulner
The Faint Young Sun Paradox: Coupled 3D Simulations of the Archean Climate
- A42 EGU2011-11721
Yoram Teitler, Guillaume Le Hir, and Frédéric Fluteau
Constraints on atmospheric pCO₂ during the Great Oxygenation Event inferred from 3-D climate modeling and relevance regarding paleosol studies
- A43 EGU2011-9380
Jun Yang and Wm Peltier
Initiation of modern Soft Snowball and Hard Snowball in CCSM3
- A44 EGU2011-10630
Evgenii Sharkov, Marina Astafieva, Marya Bogina, and Alexei Rozanov
Evolution of geological processes on terrestrial planets and their impact on the environment

- A45 EGU2011-2045
Eason Hong and Wei-Ting Kao
A key element to unravel the formation of continental crust
- A46 EGU2011-11341
Christophe Robin, Nicholas Arndt, Catherine Chauvel, Gary Byerly, Alexander Sobolev, and **Allan Wilson**
Polybaric critical melting with high melt retention explains the compositions of Barberton komatiites
- A47 EGU2011-714
Yulia Deines
Geochemical features of Palaeoproterozoic organosiliceous deposits (maksovitites) of Russian Fennoscandia
- A48 EGU2011-4048
Svetlana Lobach-Zhuchenko, Elena Bibikova, **Victor Balagansky**, Anastasiya Yurchenko, Sergey Sergeev, and Sergey Skublov
SIMS SHRIMP-II U-Pb zircon data for an Archaean igneous complex (3.5-2.9 Ga) and its Palaeoproterozoic reworking in the Orekhov-Pavlograd compressional zone, Ukrainian Shield

HS8.3.5 – Trace gases emissions from soils: Sources, mechanisms and process rates (co-listed) – Orals

Convener: Lutz Weihermueller | Co-Conveners: Yakov Kuzyakov, Marc Lamers, Petra Stolk

Room: 34

Chairperson: Yakov Kuzyakov

- 13:30–14:00 EGU2011-8025
Peter Dörsch and Umb Nitrogen group
Multiple approaches to understand regulation of N₂O from denitrification: the case of pH
- 14:00–14:15 EGU2011-14017
Fernando Moyano and Claire Chenu
An Integrated Analysis of Soil Incubation Data: Deriving Soil Type Dependent Moisture-Respiration Relations
- 14:15–14:30 EGU2011-10780
Paul Murphy, Denis Minogue, Pádraig French, DeJun Li, and Thomas Bolger
Nitrous oxide emissions from temperate grassland soils as affected by seasonal dairy soiled water application and soil type
- 14:30–14:45 EGU2011-8033
Dennis Imer, Lutz Merbold, Werner Eugster, and Nina Buchmann
Diurnal cycles of carbon dioxide, methane and nitrous oxide fluxes from three Swiss grasslands
- 14:45–15:00 EGU2011-10478
Matthias Kuhnert, Jagadeesh Yeluripati, Pete Smith, and The NitroEurope Team
Simulating N₂O and NO emissions from European forest and grassland ecosystems using the process based model DailyDaycent
- Chairperson: Petra Stolk
- 15:30–15:45 EGU2011-13644
Markus Reichstein, Miguel Mahecha, Nuno Carvalhais, Gitta Lasslop, Sonia Seneviratne, Holger Lange, Alessandro Cescatti, and Mirco Migliavacca
On the Temperature Sensitivity of Respiration at Ecosystem Level
- 15:45–16:00 EGU2011-6775
Hanna Silvennoinen, Annelene Pengerud, Christina Biasi, and Peter Dörsch
Denitrification kinetics support high nitrous oxide emissions in West Siberian cryoturbated tundra
- 16:00–16:15 EGU2011-1654
Frank Hagedorn, Sonja Wipf, and Melissa Martin
Experimental soil warming leads to sustained carbon losses from alpine treeline ecosystems
- 16:15–16:30 EGU2011-10401
Mats G. Oquist, Mats Nilsson, and Hjalmar Laudon
Export of greenhouse gases across the soil/stream interface in a boreal headwater stream
- 16:30–16:45 EGU2011-4602
Leonardo Montagnani, **Damiano Zanotelli**, Christian Ceccon, Giovanni Manca, and Massimo Tagliavini
Combining continuous soil respiration and eddy covariance measurements to assess environmental controls on soil respiration and gross primary production
- 16:45–17:00 EGU2011-11731
Sami Ullah and Tim Moore
Biogeochemical Controls on CH₄, N₂O and CO₂ Fluxes from Deciduous and Boreal Forests Soils in Eastern Canada
- 17:00–17:15 EGU2011-8219
Edzo Veldkamp and Katrin Wolf
Nitrogen availability links soil nitrous oxide and nitric oxide fluxes with forest productivity of a tropical montane forest in southern Ecuador

HS8.3.5 – Trace gases emissions from soils: Sources, mechanisms and process rates (co-listed) – Posters

Convener: Lutz Weihermueller | Co-Conveners: Yakov Kuzyakov, Marc Lamers, Petra Stolk

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Lutz Weihermüller

- A360 EGU2011-424
Enrique P. Sánchez-Cañete, Penélope Serrano-Ortiz, Andrew S. Kowalski, Cecilio Oyonarte, and Francisco Domingo
Subterranean CO₂ ventilation and its role in net ecosystem exchange with the atmosphere
- A361 EGU2011-754
Anna Gunina
Accumulation of organic carbon, its turnover and CO₂ emissions from soils under three vegetation types: results of a lysimeter study
- A362 EGU2011-394
Qaiser Hussain and Genxing Pan
Ammonia oxidizers (amoA) and denitrifiers (nirK) dynamics in the rhizosphere between hybrid and standard rice cultivars and linkage to N₂O emission
- A363 EGU2011-3257
Donatella Zona, Ivan Janssens, Melanie Verlinden, Laura Broeckx, Joris Cools, and Reinhart Ceulemans
Water table change differently affects CO₂ and N₂O fluxes in a bio-energy poplar plantation
- A364 EGU2011-3594
Petra Stolk, Rob Hendriks, Cor Jacobs, and Eddy Moors
The effect of soil aggregates on peak emissions of N₂O
- A365 EGU2011-3677
Shahid Nadeem and Peter Dörsch
N₂O emissions in boreal cereal production: effect of fertilization rate and autumn versus spring ploughing
- A366 EGU2011-4446
Reinhard Well, Daniel Weymann, and Heinz Flessa
Estimating N₂ fluxes from denitrification using isotopologue signatures of N₂O
- A367 EGU2011-4916
Rosa Inclán, Carla Uribe, Laura Sánchez, Dolores M. Sánchez, Ángeles Clavero, Ana María Fernández, Ramón Morante, Alfredo Blanco, and Robert Jandl
CH₄ and N₂O fluxes in undisturbed and burned Quercus ilex, Quercus pyrenaica and Pinus sylvestris forests in Madrid, Spain
- A368 EGU2011-5545
Pauline Buysse, Bernard Longdoz, Alain Debaq, and Marc Aubinet
Modeling soil heterotrophic respiration with an enzyme-based model: first comparison with field data and suggestions of improvements.
- A369 EGU2011-5996
Alexander Graf, Michael Herbst, Lutz Weihermüller, Johan A. Huisman, Nils Prolingheuer, Ludger Bornemann, and Harry Vereecken
Empirical orthogonal functions in soil CO₂ efflux mapping
- A370 EGU2011-7778
Carlo Cardellini, Giovanni Chiodini, Stefano Caliro, Francesco Frondini, Rosario Avino, Angela Baldini, and Marco Donnini
CO₂ fluxes from Earth degassing in Italy
- A371 EGU2011-8455
Chiara Ferré, Francesco Vaninetti, and Roberto Comolli
Heterotrophic and autotrophic soil respiration in an alpine grassland
- A372 EGU2011-9742
Boguslaw Usowicz, Jerzy Lipiec, and Mateusz Iwo Lukowski
Modelling the gas diffusivity in porous media using physical-statistical model
- A373 EGU2011-9904
Mitja Ferlan and Primož Simončič
Towards higher spatial resolution of soil CO₂ efflux measurements: testing new equipment
- A374 EGU2011-10181
Gregor Plestenjak, Nives Ogrinc, Janja Vavpotič, Mitja Ferlan, Klemen Eler, and Dominik Vodnik
Can stable isotopes and radon measurements explain the contribution of geogenic carbon to soil CO₂ efflux of a karst environment?
- A375 EGU2011-10712
Merrit Noormets, Maarika Alaru, Ruth Lauk, Rein Viiralt, Karin Kauer, and Tõnu Tõnutare
A laboratory study of greenhouse gas emissions from organic substrates

- A376 EGU2011-10891
Nils Prolingheuer, Horst Hardelauf, Harry Vereecken, Jens-Arne Subke, and Michael Herbst
Model inversion to improve estimates of autotrophic and heterotrophic soil respiration in winter wheat
- A377 EGU2011-11356
Madeleine Bell, Jagadeesh Yeluripati, Edward Jones, Jo Smith, and Pete Smith
Using the ECOSSE model to simulate soil N and N₂O fluxes from European cropland soils
- A378 EGU2011-12254
Laura M. Cárdenas, **Sonia García-Marco**, Sreenivas Rao-Ravella, Dave Chadwick, Phil J. Hobbs, Andy S. Gregory, and Antonio Vallejo
Use of the Taguchi methodology to rank the importance of factors affecting emissions of N₂O from incubated agricultural soils
- A379 EGU2011-12677
Andrey Sirin, Gennady Suvorov, Mikhail Glagolev, Maxim Chistotin, Irina Kravchenko, Anna Kizilova, and Nikolai Bazhin
Biogeochemical role and greenhouse gas emissions from hydrological elements of anthropogenically changed peatlands
- A380 EGU2011-12992
Michaela Klingmüller, Barbara Kitzler, Jannis Bücken, Bernhard Wimmer, Andrea Watzinger, Franz Zehetner, Gerhard Soja, and Sophie Zechmeister-Boltenstern
Effects of biochar on greenhouse gas fluxes of agricultural soils
- A381 EGU2011-13913
Lutz Weihermüller and Alexander Graf
Initializing the RothC carbon model: Equilibrium run, physical fractionation, or pedotransferfunctions?
- A382 EGU2011-13917
Stephan Glatzel, Albrecht Jordan, and Gerald Jurasinski
Fine root biomass of trees as a predictor of soil respiration

NP3.8/SSS5.7 – Scaling, Nonlinearity, and Complexity in soils and surface hydrology (co-listed) – Orals

Convener: Ana Maria Tarquis | Co-Conveners: Edith Perrier, R M Lark, Ruth E Falconer, Daniel Gimenez, Fco. Jimenez-Hornero, Marco Marani, João de Lima, Witek Krajewski, M. Gebremichael, Remko Uijlenhoet

Room: 13

Chairperson: Marco Marani

- 08:30–08:45 EGU2011-871
Agathe Giangola-Murzyn, Ioulia Tchiguirinskaia, Daniel Schertzer, and Shaun Lovejoy
Scale and complexity of urban hydrology
- 08:45–09:00 EGU2011-1305
Demetris Koutsoyiannis and Simon-Michael Papalexiou
Scaling as enhanced uncertainty
- 09:00–09:15 EGU2011-4119
Armin Bunde and Mikhail Bogachev
Universal Scaling Features in Precipitation and River Flows
- 09:15–09:30 EGU2011-5447
Alexis Berne, Joel Jaffrain, and Marc Schleiss
Small-scale variability of the raindrop size distribution
- 09:30–09:45 EGU2011-1358
Lucia Mancini, Francesco Brun, Diego Dreossi, Georgios Kourousias, Margherita Polacci, Marco Voltolini, and Giuliana Tromba
The Pore3D software library applied to the quantitative morphological and textural analysis of three-dimensional images in geosciences
- 09:45–10:00 EGU2011-1596
Francisco Jose Jimenez-Hornero, Eduardo Gutierrez de Rave, Juan V. Giraldez, and Jorge E. Jimenez-Hornero
Application of lattice Boltzmann simulations and multifractal analysis to describe the simulated flow velocity in idealised porous media

COFFEE BREAK

Chairperson: F.J. Jimenez-Hornero

- 10:30–10:45 EGU2011-1747
Carsten Schilli, Gunnar Lischeid, and Joerg Rinklebe
Identification of prevailing processes in soils using nonlinear statistics

- 10:45–11:00 EGU2011-7895
Konstantin Stolpovsky, Mehdi G. Gharasoo, and Martin Thullner
 Spatio-temporal variations of microbial metabolic activity caused by pore scale heterogeneity of porous media
- 11:00–11:15 EGU2011-2320
Jorge Paz-Ferreiro, Jose Garcia Vivas Miranda, Laura F.S. da Silva, Edson Eiji Matsura, and Mara de Andrade Marinho
 A preliminary study of multifractality from microprofiles of soil penetration resistance
- 11:15–11:30 EGU2011-8656
Marko Samec, Antonio Santiago, Juan Pablo Cardenas, Rosa Maria Benito, Ana Maria Tarquis, Sacha Jon Mooney, and Dean Korošak
 Quantifying soil complexity using network models of soil porous structure
- 11:30–11:45 EGU2011-10436
Samuel Roberson and Gert-Jan Weltje
 A numerical toolbox for the homogenization of particle-size data
- 11:45–12:00 EGU2011-13507
Ruth E Falconer, Alasdair N Houston, Wilfred Otten, and Philippe Baveye
 Emergent properties of the fungal-soil complex

NP3.8/SSS5.7 – Scaling, Nonlinearity, and Complexity in soils and surface hydrology (co-listed) – Posters

Convener: Ana Maria Tarquis | Co-Conveners: Edith Perrier, R M Lark, Ruth E Falconer, Daniel Gimenez, Fco. Jimenez-Hornero, Marco Marani, João de Lima, Witek Krajewski, M. Gebremichael, Remko Uijlenhoet

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Ruth Falconer

- XY550 EGU2011-682
 Vera Rocheta, **Jorge Isidoro**, and João de Lima
 Small scale infiltration in Portuguese cobblestone paving: field measurements with a double ring infiltrometer.
- XY551 EGU2011-3857
Orlando Zúñiga Escobar, Juan Carlos Osorio Saravia, Ramiro Cuero Guependo, Julian Andres Peña Ospina, and Luis Fernando Gomez
 Toward a complex system of soil: a synthetic and analytic complementary approach
- XY552 EGU2011-4919
Juan Matos, Ana Maria Tarquis, and Humberto Millán
 Soil fragmentation study applying different tillage systems
- XY553 EGU2011-5720
Pedro Luis Aguado, Juan Pablo del Monte, and Ana Maria Tarquis
 Structure function and Multifractal spectrum applied to Digital Elevation Model
- XY554 EGU2011-7642
Athanasios Paschalis, Peter Molnar, and Paolo Burlando
 Quantification of the effects of measurement precision on precipitation scaling estimators
- XY555 EGU2011-9634
Daniel Hirmas and Nathaniel Brunsell
 Application of wavelet and fractal techniques to the analysis to soil structure and color
- XY556 EGU2011-10238
Christina Bogner, Baltasar Trancón y Widemann, and Michael Hauhs
 Simulation of flow patterns in soils
- XY557 EGU2011-11117
Silvia Carvalho, Isabel de Lima, and João de Lima
 Drop-size distribution of rainfall events in Coimbra, Portugal
- XY558 EGU2011-13207
Gabriel Gascó, Ana Tarquis, Sandra Barriga, Antonio Saa, and Ana Méndez
 Application of images analysis to the quantification of surface properties of adsorbent materials prepared from paper industry waste materials
- XY559 EGU2011-13458
Leonor Rodriguez-Sinobas, Javier Benitez Buelga, Maria Gil Rodriguez, Raúl Sánchez Calvo, Guillermo Castañón Lion, Luis Juana Sirgado, and Francisco Laguna Viñuelas
 Optimization of the irrigation time and irrigation frequency by using Hydrus-2D and a capacitance FDR sensor.
- XY560 EGU2011-14155
 Alexandra N. Kravchenko, Wei Wang, **Andrew Worth**, Alvin J. M. Smucker, and Mark L. Rivers
 Fractal characterization of the intra-aggregate pore heterogeneity in macro-aggregates from contrasting land use and management treatments

- XY561 EGU2011-13229
Cong Tuan Hoang, Ioulia Tchiguirinskaia, Daniel Schertzer, and Shaun Lovejoy
Multifractal parameters and extreme behaviour of high resolution rainfall time series
- XY562 EGU2011-8968
Basudev Biswal and Marco Marani
A Geomorphological Interpretation of the Power Law Relations Connected with Recession Curves
- XY563 EGU2011-1267
Carmine Fallico, **Aldo Pedro Ferrante**, Maria Chiara Vita, and Samuele De Bartolo
Direct and indirect measurements of porosity on a real heterogeneous confined aquifer
- XY564 EGU2011-11829
Joel Quintanilla-Dominguez, Maria Guadalupe Cortina-Januchs, Benjamin Ojeda-Magaña, Antonio Vega-Corona, Ana Maria Tarquis, and Diego Andina
Image sub-segmentation by PFCM and Artificial Neural Networks to detect pore space in 2D and 3D CT soil images
- XY565 EGU2011-13371
Pilar López González-Nieto, Ana Maria Tarquis, and Jose Manuel Redondo
Fractal Behaviour and Irregularity of Wetting Fronts in Heterogeneous Porous Media
- XY566 EGU2011-13410
Ana Maria Tarquis, Antonio Saa-Requejo, Jesús Rodriguez-Gonzalez, Jose Alfonso Gómez, and **Pablo Zarco-Tejada**
Spatial variability of Soil Surface Roughness
- XY567 EGU2011-13817
Ana Maria Tarquis, Jose Luis Valencia, Antonio Paz-González, and **Antonio Saa-Requejo**
Thresholding Soil Surface Images
- XY568 EGU2011-7578
Athanasios Paschalis, Peter Molnar, and Paolo Burlando
Dependence structure in the weights of a multiplicative random cascade model for rainfall
- XY569 EGU2011-8238
Mário J Franca, Rui M. L. Ferreira, and Ulrich Lemmin
Cross-correlation between time scales in open-channel river flows
- XY570 EGU2011-7458
Eva Vidal Vázquez, Sidney R. Vieira, José G.V. Miranda, Otavio A. Camargo, João R.F. Menk, and Jorge Paz-Ferreiro
Joint multifractal analysis of soil general properties measured along a transect
- XY571 EGU2011-8442
Eva Vidal Vázquez, Rosario García Moreno, and **Jorge Paz-Ferreiro**
Exploring the heterogeneity of the soil pore system using multifractal analysis from Mercury injection and Nitrogen sorption
- XY572 EGU2011-9281
Jorge Paz-Ferreiro and **Marcelo G. Wilson**
Suitability of multifractal parameters to describe the effect of intensification of rice production on soil structure decay
- XY573 EGU2011-12036
Daniel Gimenez and Sung Won Yoon
Entropy Characterization of Soil Pore Systems Derived from Soil Water Retention Curves
- XY574 EGU2011-13000
Antonio Paz-González, **Roger Manuel Mestas Valero**, Rômulo Guimaraes Giácomo, and Elza da Silva Militão
Characterizing scale-dependent soil moisture series under Eucalyptus globulus using multifractal techniques
- XY575 EGU2011-13621
Simona Hapca, Zi Xiang Wang, Clare Wilson, Phillipe Baveye, Murray Lark, and Wilfred Otten
Predictive modelling of the 3D chemical composition of soil using kriging based methods
- XY576 EGU2011-13661
Edith Perrier, Nigel R.A. Bird, and Tibot B. Rieutord
Percolation and filtration properties of multiscale soil models: existence of critical pore sizes

OS4.4 – Physical and biogeochemical ocean modelling: development, assessment, and applications (co-listed) – Orals

Convener: David Ham | Co-Conveners: Thierry Penduff, Sergey Danilov, Stephen M. Griffies, Marina Levy

Room: 6

Chairperson: David Ham

- 10:30–10:45 EGU2011-2699
Sergey Danilov, Qiang Wang, Dmitry Sidorenko, and Jens Schroeter
Large-scale ocean modeling on unstructured meshes: current status and perspectives

- 10:45–11:00 EGU2011-259
Colin Cotter
 The Holy Grail for unstructured grid ocean modelling: a finite element pair on triangles without spurious modes
- 11:00–11:15 EGU2011-385
Sean Vitousek and Oliver Fringer
 Physical vs. Numerical Dispersion in Nonhydrostatic Ocean Modeling
- 11:15–11:30 EGU2011-7786
Julien Le Sommer, Francesco d'Ovidio, and Gurvan Madec
 Parameterization of subgrid stirring in eddy resolving ocean models.
- 11:30–11:45 EGU2011-9223
Matthieu Leclair and Gurvan Madec
 Ėœz-coordinate, an Arbitrary Lagrangian-Eulerian coordinate separating high and low frequency motions
- 11:45–12:00 EGU2011-1517
Jarle Berntsen
 A perfectly balanced method for estimating the internal pressure gradients in sigma-coordinate ocean models

LUNCH BREAK

Chairperson: Thierry Penduff

- 13:30–13:45 EGU2011-849
Flora MacTavish, Colin Cotter, and Matthew Piggott
 An idealised model of the restratification after open ocean deep using an unstructured mesh
- 13:45–14:00 EGU2011-955
Hannah Hiester, Matthew Piggott, and Peter Allison
 The use of adaptive meshes in ocean modelling: considerations from simulations of the lock-exchange flow
- 14:00–14:15 EGU2011-3396
Marion Meinvielle, Pierre Brasseur, Jean-Michel Brankart, Bernard Barnier, Thierry Penduff, and Jean-Marc Molines
 Optimal adjustment of atmospheric forcing parameters for long term simulations of the global ocean circulation
- 14:15–14:30 EGU2011-3499
Chuanyu Liu, Armin Koehl, and Detlef Stammer
 Estimating Eddy Induced Tracer Mixing Parameters through Global Ocean Data Assimilation Synthesis
- 14:30–14:45 EGU2011-12242
Matthias Hofmann and Miguel Angel Morales Maqueda
 Changing mid-latitude westerlies and their impact to Southern Ocean eddies in a coarse resolution ocean model.
- 14:45–15:00 EGU2011-3957
Hiroaki Tatebe, Masao Kurogi, Tatsuo Suzuki, Yukio Tanaka, Hiroyasu Hasumi, Masayoshi Ishii, and Masahide Kimoto
 Long-term modulations of mesoscale eddy activities in the Kuroshio-Oyashio confluence zone represented in a high-resolution coupled model, and further model development toward better predictions

Chairperson: Marina Lévy

- 15:30–15:45 EGU2011-8451
Gennady Chepurin, James Carton, Scott C. Doney, and Ivan Lima
 Impact of Improved Ocean Physical State Estimates on Simulated Interannual Air-Sea CO₂ Flux Variations
- 15:45–16:00 EGU2011-4782
Diego Santaren and Nicolas Gruber
 The relative benefit of different observations for constraining parameters of a marine biogeochemistry/ecological model
- 16:00–16:15 EGU2011-12283
Wolfgang Koeve and Heiner Dietze
 Evaluating coupled ecosystem ocean circulation models: can we trust the concept of preformed nutrients?
- 16:15–16:30 EGU2011-9451
Olaf Duteil, Iris Kriest, Samar Khatiwala, and Andreas Oschlies
 Coupling of a complex biogeochemical model with the Transport Matrix Method : quantification of the impact of margin iron input on the ecosystem.

- 16:30–16:45 EGU2011-9317
Michael Lange, Tony Field, Cheng-Chien Liu, Jon Hill, and Gerard Gorman
 Fast and accurate multi-spectral optics in an ocean model
- 16:45–17:00 EGU2011-13525
Mattheus P. Ueckermann and Pierre F.J. Lermusiaux
 High Order Schemes for Biogeochemical Ocean Dynamics

SSS1.5 – Stability and Functions of Mountain Soils (co-listed) – Posters

Convener: Frank Hagedorn | Co-Conveners: Christine Alewell, Michele Freppaz

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY721 EGU2011-977
Martynova Natalia
 Stability and Functions of Mountain Phosphorites Rock Soils of Mongolia
- XY722 EGU2011-3061
David Hiltbrunner, Pascal A. Niklaus, Sebastian Schulze, Michael W.I. Schmidt, and Stephan Zimmermann
 Cattle trampling alters soil properties and greenhouse gas fluxes from soils in a Swiss sub-alpine pasture
- XY723 EGU2011-4137
Diana Maria Zilioli, Mohammad Wahsha, and Claudio Bini
 The effects of land use changes on mountainous terraced soil systems of the Dolomites region (northern Italy)
- XY724 EGU2011-4224
Andreas Schindlbacher, Robert Jandl, Hannes Kobler, and Thomas Dirnböck
 Soil respiration in a wind-damaged Norway spruce forest
- XY725 EGU2011-5194
Anzilni Amasya
 Soil Arthropod Abundance and Formation of Sclerotium Grains in Fagus Forest, Akita, Japan
- XY726 EGU2011-5503
Sayuri Kato, Nobuo Sakagami, and Makiko Watanabe
 Characterization of transition zone of forest soil and vegetation in Mt. Chokai, northern Japan
- XY727 EGU2011-5969
Gianluca Filippa, Michele Freppaz, Giorgio Buffa, Enrico Rivella, and Ermanno Zanini
 Coupling carbon, nitrogen and water chemistry with plant distribution in two alpine wetland ecosystems
- XY728 EGU2011-6421
Gianluca Filippa, Michele Freppaz, and Ermanno Zanini
 Pedogenetic processes beneath high altitude sorted circles in the Italian Western Alps
- XY729 EGU2011-6563
Stefania Cocco, Giorgia Brecciaroli, Alberto Agnelli, and Giuseppe Corti
 Patterned ground soils in the Apennines, a vanishing landscape?
- XY730 EGU2011-6618
Stefania Cocco, Giorgia Brecciaroli, Michele Freppaz, Gianluca Filippa, Alberto Agnelli, and Giuseppe Corti
 Impact of different land-uses on soil processes in Apennines environments
- XY731 EGU2011-6727
Fabienne Curtaz, Gianluca Filippa, Michele Freppaz, Cristina Galliani, and Ermanno Zanini
 Effect of land improvements on agricultural soils in the Alps
- XY732 EGU2011-10059
Michele Freppaz, Gianluca Filippa, and Ermanno Zanini
 Long-term impacts of ski-runs construction and management on alpine soils

Friday, 08 April

BG1.3/IG18 – Application of non-traditional stable isotopes in biogeosciences (co-sponsored by THERMO) (co-organized) – Posters

Convener: Thomas Prohaska | Co-Conveners: Andreas Zitek, Jane Evans, Dr Takafume Hirata, Dr Laura Robinson, Dr Frank Vanhaecke

Poster Area BG | Display Time 08:00–17:00

Author in Attendance: 15:30–17:00

Chairperson: Andreas Zitek

- BG1 EGU2011-5881
Chen-Feng You, Hou-Chun Liu, Kuo-Fang Huang, Chuan-Hsiung Chung, and Jingfeng Wu
Strontium isotopic ($87\text{Sr}/86\text{Sr}$, $87\text{Sr}/86\text{Sr}^*$ and $^{88}\text{Sr}/86\text{Sr}$) variations in North Pacific
- BG2 EGU2011-8535
Mariano Mercurio, Eleonora Grilli, Elio Coppola, Maurizio de Gennaro, Vincenzo Morra, Thomas Prohaska, Andrea Buondonno, and Alessio Langella
A geofingerprint of the parent material-soil-wine chain in a high quality terroir. A first approach on Piediroso vineyards, Campi Flegrei, southern Italy
- BG3 EGU2011-13771
Carla Rodrigues, Rodrigo Maia, Marion Brunner, Marta Pimpão, Loren Gautz, Thomas Prohaska, and Cristina Máguas
Isotopes as tracers of the main environmental factors that contribute to the specificity of the green coffee bean
- BG4 EGU2011-10573
Thomas Prohaska, Monika Horsky, Marion Brunner, Torsten Berger, Peter Hietz, Carla Rodrigues, and Cristina Máguas
The use of the isotope systems of alkaline earth elements (Mg, Ca, Sr) to determine plant origin and their potential to study plant metabolism and environmental fluxes
- BG5 EGU2011-8776
Katherina Sailer, Andreas Zitek, Herwig Waidbacher, Johanna Irrgeher, and Thomas Prohaska
The potential of microchemical information in fish hard parts to study origin and migration in the Austrian Danube catchment
- BG6 EGU2011-1209
Benjamin Walther, Tim Dempster, Mike Letnic, and Malcolm McCulloch
Strontium isotopes and trace elements in fish otoliths reveal individually variable movement patterns in diadromous fish.
- BG7 EGU2011-1345
Andreas Zitek, Johanna Irrgeher, Albert Jagsch, Manfred Kletzl, Thomas Weismann, and Thomas Prohaska
Transgenerational marking of a freshwater fish species, *Salmo trutta* f.f. L., using an enriched 84Sr spike solution
- BG8 EGU2011-3966
Dai jie and Qu jianguo
Lead Isotope Ratios Analysis in Corals by High Resolution ICP-MS
- BG9 EGU2011-10285
Johanna Irrgeher, Dominique Kreutz, Sarah Theiner, Maria Teschler-Nicola, and Thomas Prohaska
Post-depositional elemental and isotopic modification of archaeological bone and tooth samples: analytical cognition tools and solution strategies
- BG10 EGU2011-11167
Sarah Theiner, Johanna Irrgeher, Veronika Holzer, Erich Pucher, Maria Teschler-Nicola, and Thomas Prohaska
The use of strontium isotope ratio measurements by MC-ICP-MS for the reconstruction of animal migration on the example of the Celtic excavation site Roseldorf in Lower Austria
- BG11 EGU2011-6621
Stefanie Kappel, **Sergei Boulyga**, Stefan Bürger, and Thomas Prohaska
Application of mass spectrometric techniques for the determination of $n(\text{U-235})/n(\text{U-238})$ isotope ratios in depleted to low enriched U material
- BG12 EGU2011-7973
Monika Sturm, Stephan Richter, Yetunde Aregbe, Roger Wellum, Timotheos Altitzoglou, Andre Verbruggen, Klaus Mayer, and Thomas Prohaska
Feasibility study for the preparation of plutonium reference materials for nuclear age dating
- BG13 EGU2011-3436
Dmitry Malinovskiy and Frank Vanhaecke
Mercury isotope fractionation during abiotic transmethylation reactions

BG14 EGU2011-4982

Michael E. Böttcher, Nadja Neubert, Katja von Allmen, Elias Samankassou, Olaf Dellwig, and Thomas F. Nägler

Barium isotope fractionation during formation of anhydrous barium carbonate (witherite): Influence of experimental conditions

BG2.7 – A plant's perspective of extremes: Plant and ecosystem responses to changing climatic variability – Orals

Convener: Annett Wolf | Co-Conveners: Sebastian Leuzinger, Christopher Reyer, Anja Rammig

Room: 23

Chairperson: Christopher Reyer

15:30–15:45 EGU2011-9246

Catherine Picon-Cochard, **Marine Zwicke**, Giorgio Alessio, Rossignol Nicolas, Baumont René, Soussana Jean-François, and Falcimagne Robert

Impacts of future climate scenario and summer extreme events on above-ground biomass, quality and functional groups of perennial grassland.

15:45–16:00 EGU2011-1317

Georg Wohlfahrt, Lukas Hörtnagl, Albin Hammerle, Alois Haslwanter, Armin Hansel, Francesco Loreto, and Federico Brilli

Leaf and ecosystem response of mountain grassland gas exchange to drought

16:00–16:15 EGU2011-4083

Thomas Kuster, Peter Bleuler, Matthias Arend, Madeleine Günthardt-Goerg, and Rainer Schulin

Soil water, temperature regime and root growth of young oak stands grown in lysimeters subjected to drought stress and air warming

16:15–16:30 EGU2011-6238

Jérôme Ogée, Lisa Wingate, Didier Bert, Michel Stievenard, Julien Jouanguy, Cathy Lambrot, Monique Pierre, and Anaïs Féron

Long-term plant response to drought revealed by tree ring stable isotope analysis

16:30–16:45 EGU2011-9880

Steffen Taeger, Holm Seifert, **Philipp Gloning**, Ulrich Schäffler, Christian Kölling, Matthäus Schilcher, and Annette Menzel

Potential and actual distribution of tree species - influences of varying data sets on climate envelopes derived

16:45–17:00 EGU2011-10676

Christian Beer, Nuno Carvalhais, Paulo Oliveira, Thijs Koelen, Giorgio Alberti, Sönke Zaehle, and Markus Reichstein

Effects of climate variability and extreme events on European ecosystem state and function: A CARBO-Extreme modelling study

17:00–17:15 EGU2011-11036

Edouard Davin, Martin Wild, and Sonia Seneviratne

Diffuse/direct radiation partitioning and its impact on biosphere-atmosphere interactions

BG2.7 – A plant's perspective of extremes: Plant and ecosystem responses to changing climatic variability – Posters

Convener: Annett Wolf | Co-Conveners: Sebastian Leuzinger, Christopher Reyer, Anja Rammig

Poster Area BG | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Christopher Reyer

BG15 EGU2011-10649

Petra Holisova, Ladislav Sigut, Otmar Urban, Karel Klem, and Vladimir Spunda

Long-term effect of elevated CO₂ concentration on temperature optimum of photosynthetic CO₂ assimilation in two tree species

BG16 EGU2011-11097

Saul Otero Labarta, **Dru Marsh**, Gary Lanigan, and Bruce Osborne

Effects of simulated climate change over energy crops in Ireland

BG17 EGU2011-11821

Annett Wolf, Jonas Hilty, and Sebastian Leuzinger

Short term carbon storage depends on the temporal pattern of precipitation

BG18 EGU2011-12399

Silvia Maria Alfieri, Paul Di Tommasi, Francesca De Lorenzi, Antonello Bonfante, Angelo Basile, and Massimo Menenti

Climate change scenarios and present climate spatial variability at local scale: implication for crop adaptation

- BG19 EGU2011-10440
Alexandra J C Hincke, Wolfram M Kürschner, André F Lotter, Willy Tinner, and Petra Kaltenrieder
Plants in a low CO₂ world: validation of botanical proxies for the Pleistocene
- BG20 EGU2011-133
Tamir Klein, Giovanni Di Matteo, Eyal Rotenberg, Shabtai Cohen, and Dan Yakir
Physiological traits sustaining tree growth under climate change in the Mediterranean
- BG21 EGU2011-2177
Ruud Bartholomeus, Jan-Philip Witte, Peter van Bodegom, Jos van Dam, and Rien Aerts
Climate change hampers endangered species by stronger water-related stresses
- BG22 EGU2011-3353
Jorge Curiel Yuste and the Curiel Yuste, Jorge Team
On the coupling of plant productivity and soil respiration across space and time scales
- BG23 EGU2011-7979
Marie Dury, Alain Hambuckers, Pierre Warnant, Alexandra Henrot, Eric Favre, Mohamed Ouberdous, and Louis François
Assessing the impacts of present and future interannual climate variability on European ecosystems using a dynamic vegetation model
- BG24 EGU2011-8490
Jelmer Nijp, Juul Limpens, and Klaas Metselaar
Response of Sphagnum mosses to drought: Modeling critical transitions in water and carbon budgets using hydrophysical properties of three contrasting species
- BG25 EGU2011-8577
Mónica Martins, Marizia D. Pereira, Francisco Gutierrez, Carlos Neto, and José C. Costa
New insights on the psammophilic gradient applying a multidisciplinary biogeochemical based approach - a case study in the Mediterranean Region of the Portuguese coast
- BG26 EGU2011-9003
Antonello Bonfante, Francesca De Lorenzi, Paul Di Tommasi, Nunzio Fiorentino, Angelo Basile, and Massimo Menenti
The climate signal on crop production: the interplay of irrigation strategies and crop responses at farm scale
- BG27 EGU2011-13961
Jian Wu, Andreas Ibrom, Kim Pilegaard, Leon Gareth Linden, and Claus Beier
Effects of climatic variability and anomalies on the long term carbon dynamics in a temperate deciduous forest
- BG28 EGU2011-10688
Maria Riccardi, Antonello Bonfante, Massimo Mencuccini, Paul Di Tommasi, Francesca De Lorenzi, and Massimo Menenti
Assessing the adaptive capacity of some olive cultivars to future climate
- BG29 EGU2011-9752
Renée Abou Jaoudé, Giovanbattista de Dato, Michela Palmegiani, Chiara Radocchia, and Paolo De Angelis
Tamarix spp.: populations, plants and leaf responses under extreme conditions
- BG30 EGU2011-10218
Georg Niedrist, Giacomo Bertoldi, Stefano Della Chiesa, Verena Hell, Erich Tasser, and Ulrike Tappeiner
Transplantation experiments in an inner-alpine dry valley to predict Climate Change effects on agriculturally used grassland ecosystems

BG2.10 – Biosphere-Atmosphere Interactions: From biogenic primary exchange to atmospheric fluxes of reactive trace gases – Posters

Convener: Jürgen Kesselmeier | Co-Conveners: J.-P. Schnitzler, Janne Rinne

Poster Area BG | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: Jörg-Peter Schnitzler

- BG31 EGU2011-944
Dolores Asensio, James Greenberg, Alex Guenther, and Russell Monson
Dependence of litter VOC emissions on moisture, temperature and carbon availability: experiments and model development
- BG32 EGU2011-2244
Lukas Hoertnagl, Ines Bamberger, Martin Graus, Taina M. Ruuskanen, Ralf Schnitzhofer, Armin Hansel, and Georg Wohlfahrt
Acetone and acetaldehyde exchange above a managed temperate mountain grassland
- BG33 EGU2011-5030
Sami Haapanala, Hannele Hakola, Heidi Hellén, Mika Vestenius, Janne Levula, and Janne Rinne
Is forest management a significant source of terpenoids into boreal atmosphere?
- BG34 EGU2011-6034
Wei Song, Michael Staudt, Nouredine Yassaa, and Jonathan Williams
Laboratory and field measurements of enantiomeric monoterpenes in plant emissions

- BG35 EGU2011-8425
Quentin Laffineur, Bernard Heinesch, Crist Amelynck, Niels Schoon, Jean-françois Müller, Jo Dewulf, Herman Van Langenhove, Eva Joó, Kathy Steppe, and Marc Aubinet
 Isoprene and monoterpene emissions from a mixed temperate forest.
- BG36 EGU2011-10247
Andrea Ghirardo, Hilke Schröder, Ina Zimmer, Matthias Fladung, and Jörg-Peter Schnitzler
 BVOC emissions of *Quercus robur* L. induced by *Tortrix viridana* L. differs between susceptible and tolerant trees to insect defoliation
- BG37 EGU2011-9181
Silvano Fares, Jeong-Hoo Park, Robin Weber, Drew Gentner, John Karlik, and Allen H Goldstein
 Fluxes of BVOC and tropospheric ozone from a Citrus orchard in the California Central Valley
- BG38 EGU2011-3212
Ralph Dlugi, Martina Berger, Michael Zelger, Gerhard Kramm, Andreas Hofzumahaus, Franz Rohrer, and Frank Holland
 Further Results on Segregation of Volatile Organic Compounds and HO_x Radicals above a Deciduous Forest (ECHO Campaigns)
- BG39 EGU2011-5206
Katsunori Tanaka, Hyung Jim Kim, Kazuyuki Saito, Hiroshi Takahashi, and Kumiko Takata
 Model simulation of global terrestrial isoprene and monoterpenes emissions in 1700 - 2000
- BG40 EGU2011-9080
Johanna Joensuu, Nuria Altimir, Maarit Raivonen, Pasi Kolari, Petri Keronen, Timo Vesala, Jaana Bäck, Pertti Hari, and Eero Nikinmaa
 Shoot-level monitoring of O₃ and NO_x fluxes of Scots pine (*Pinus sylvestris* L.)
- BG41 EGU2011-3060
Daniel Plake, Alexander Moravek, Jens-C. Mayer, Michael Welling, Stefan Wolff, and Ivonne Trebs
 Soil biogenic NO emissions from a rare, nutrient-poor grassland ecosystem in Central Europe
- BG42 EGU2011-3171
Mark Cuthbert, Michael Riley, Stephanie Handley-Sidhu, Joanna Renshaw, Dominique Tobler, Vernon Phoenix, and Rae Mackay
 Controls on the rate of ureolysis and the size distribution and morphology of carbonate precipitate by *S. pasteurii* biofilms
- BG43 EGU2011-2124
Stefanie H. Boltersdorf
 Do epiphytic lichens reflect agriculture-related depositions?
- BG44 EGU2011-4848
Qiuju Gao, Caroline Leck, Patricia Matrai, Monica Orellana, and Ulrika Nilsson
 On the significance of surface active polysaccharides in the high Arctic open lead surface Microlayer in summer
- BG45 EGU2011-12866
Anke Hildebrandt, Abdulla Bawain, Sabine Attinger, and Jan Friesen
 Species specific vs individual differences in throughfall and stemflow patterns in a semiarid cloud forest

BG2.13 – Cropland green house gas (GHG) fluxes and related uncertainties – Orals

Convener: Martin Wattenbach | Co-Conveners: Pete Smith, Jagadeesh B. Yeluripati, Pia Gottschalk

Room: 23

Chairperson: Martin Wattenbach

- 08:30–08:45 EGU2011-9034
 Iwan Supit, **Cor Jacobs**, Wilma Jans, Bart Kruijt, and Eddy Moors
 Net Ecosystem Exchange of CO₂ from crops at the European scale: variability and climate-related trends
- 08:45–09:00 EGU2011-12306
Verena Seufert and Navin Ramankutty
 Can organic agriculture feed the world? - A re-analysis of Badgley et al. (2007)
- 09:00–09:15 EGU2011-12971
Christian Werner, Ralf Kiese, and Klaus Butterbach-Bahl
 Assessing data-induced uncertainty of N₂O emissions from arable soils in Europe using a process-based biogeochemical model
- 09:15–09:30 EGU2011-14211
Eric Ceschia, Pierre Béziat, Jean-François Dejoux, Marc Aubinet, Christian Bernhofer, Bernard Bodson, Nina Buchmann, Arnaud Carrara, Pierre Cellier, Paul Di Tommasi, Jan Elbers, Werner Eugster, Thomas Grünwald, Cor Jacobs, Wilma Jans, Mike Jones, Werner Kutsch, Gary Lanigan, Enzo Magliulo, Olivier Marloie, Eddy Moors, Christine Moureaux, Albert Oliso, Bruce Osborne, Maria-Jose Sanz, Matthew Saunders, Pete Smith, Henri Soegaard, and Martin Wattenbach
 Management effects on net ecosystem carbon and GHG budgets at European crop sites

- 09:30–09:45 EGU2011-5564
Christine Moureaux, Delphine Dufranne, Marie Suleau, Françoise Vancutsem, Bernard Bodson, and Marc Aubinet
 Carbon balance of crops: overview of 7 years of investigation
- 09:45–10:00 EGU2011-11461
Elizabeth Pattey, Ward Smith, Brian Grant, and Raymond Desjardins
 Seasonal nitrous oxide emissions from cropland in eastern Canada measured using tunable diode laser flux gradients between 1996 and 2005 - Comparison with DNDC predictions.

BG2.13 – Cropland green house gas (GHG) fluxes and related uncertainties – Posters

Convener: Martin Wattenbach | Co-Conveners: Pete Smith, Jagadeesh B. Yeluripati, Pia Gottschalk

Poster Area BG | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: Jagadeesh Yeluripati

- BG46 EGU2011-2084
Emanuele Lugato, Giorgio Alberti, Gemini Delle Vedove, Simona Castaldi, Beniamino Gioli, Franco Miglietta, and Alessandro Peressotti
 Estimation of greenhouse gas emissions from Italian agricultural areas at high spatial resolution using DNDC biogeochemistry model
- BG47 EGU2011-2578
Guillaume Vilain, Joël Léonard, and Josette Garnier
 Nitrous oxide emissions along an agricultural landscape: direct measurements and modeling
- BG48 EGU2011-5553
Jin-Chun Woo, Gwi-Suk Heo, Jaeill Yoo, Hyojung Kwon, and Joon Kim
 Evaluation of Ecosystem Greenhouse Gas Emission over Rice Paddy by integrating Eddy Covariance and Cavity Ring-Down Laser Spectroscopy(CRDS)
- BG49 EGU2011-7194
 Elisabeth Jérôme, **Yves Beckers**, Bernard Bodson, Christine Moureaux, and Marc Aubinet
 Carbon exchange in a Belgian grassland with cattle
- BG50 EGU2011-8165
Shaoxiu Ma, Galina Churkina, and Ralf Wieland
 Development and optimization of Anthro-BGC model for winter wheat in Europe
- BG51 EGU2011-8734
Órlaith Ní Choncubhair, Dominika Krol, Bruce A. Osborne, Michael B. Jones, Michael L. Williams, and Gary J. Lanigan
 Investigating the GHG Implications of Establishing Biomass Crops: an Ecosystem-Scale Study
- BG52 EGU2011-8749
Christian Brümmer, Rene Dechow, Catharina Don, Annette Freibauer, Ernst-Detlef Schulze, Waldemar Ziegler, Olaf Kolle, and Werner L. Kutsch
 Substantial carbon loss after two full crop rotations at the Gebesee agricultural site
- BG53 EGU2011-8550
Ulrike Hagemann, Madlen Pohl, Michael Sommer, and Jürgen Augustin
 Effects of fermentation slurry and erosion on greenhouse gas fluxes in a young moraine landscape of NE Germany
- BG54 EGU2011-10801
Edward Jones, Jo Smith, Elizabeth Baggs, and Pete Smith
 Simulating greenhouse gas emissions from C3 and C4 bioenergy crops using the soil carbon model ECOSSE
- BG55 EGU2011-9491
Raffaele Casa, Luca Beilelli Marchesini, Dario Papale, Francesco Mazzenga, Paolo Stefani, Nicola Arriga, and Riccardo Valentini
 Assessment of the carbon balance of conventional and no-tillage cropland in Central Italy
- BG56 EGU2011-10945
Magali Roussel, Joël Léonard, Jean-Pierre Cohan, Bassem Dimassi, Eric Gréhan, Camille Fleury, and Bruno Mary
 Dynamics of greenhouse gas emissions associated with soil tillage and cover cropping over a 28 month period and after 18 years of differentiation
- BG57 EGU2011-11496
 Dru Marsh and **Bruce Osborne**
 Constraints on cover-cropping as a greenhouse gas abatement action: The importance of species selection
- BG58 EGU2011-11866
Valentini Pappa, Rachel Thorman, Robert Rees, and Roger Sylvester-Bradley
 Effects of nitrogen fertiliser use on N₂O intensities of arable crop products

- BG59 EGU2011-12356
Matthias Peichl, Paul Leahy, and Gerard Kiely
 Carbon dioxide and energy exchanges in two intensively managed grasslands in the maritime climate region
- BG60 EGU2011-12165
Anne-Katrin Prescher, Mike Jones, Gary Lanigan, and Bruce Osborne
 Measuring and upscaling soil carbon dioxide efflux from different arable management practices and associated uncertainties

BG3.3 – The role of extreme events in organic matter cycling – Orals

Convener: Tommaso Tesi | Co-Conveners: Jung-Hyun Kim, Anna Sanchez-Vidal

Room: 17

Chairperson: n.n.

- 13:30–13:45 EGU2011-9394
Christophe Rabouille, Cécile Cathalot, Roseline Buscail, Bruno Deflandre, Antoine Grémare, Eric Viollier, Lucie Pastor, Audrey Pruski, and Claire Treignier
 Variability of benthic mineralization in the Rhone River prodelta during a flood event: the importance of organic matter origin
- 13:45–14:00 EGU2011-8702
Solveig Bourgeois, Audrey M. Pruski, Roselyne Buscail, François Charles, François Lantoine, Gilles Vétion, Béatrice Rivière, and Martin Desmalades
 Composition of organic matter from prodeltaic sediments during extreme events (Rhone prodelta, France): signature of flood events
- 14:00–14:15 EGU2011-1987
Tommaso Tesi, Leonardo Langone, Miguel A. Goñi, Robert A. Wheatcroft, Stefano Miserocchi, and Luciana Bertotti
 Compositional changes of sedimentary organic matter from a 100-yr flood deposit
- 14:15–14:30 EGU2011-8116
Anna Sanchez-Vidal, Rut Pedrosa, Pilar López, Catalina Pasqual, Antoni Calafat, Miquel Canals, Jordi Cateura, and Mar Flexas
 Offshore transport of organic matter during storms
- 14:30–14:45 EGU2011-10655
Marion Stabholz, Xavier Durrieu de Madron, Philippe Kerhervé, Christine Sotin, Gérard Jeanty, and Serge Heussner
 Impact of dense water formation events on deep marine sediments: spatial heterogeneity versus temporal variability.

BG3.3 – The role of extreme events in organic matter cycling – Posters

Convener: Tommaso Tesi | Co-Conveners: Jung-Hyun Kim, Anna Sanchez-Vidal

Poster Area BG | Display Time 08:00–17:00

Author in Attendance: 15:30–17:00

Chairperson: n.n.

- BG61 EGU2011-9095
Catalina Pasqual, Anna Sanchez-Vidal, Antoni Calafat, Miquel Canals, Cindy Lee, Miguel Goñi, Tommaso Tesi, and Serge Heussner
 The importance of seasonal and sporadic events in the organic matter export along the southwestern Gulf of Lion continental margin
- BG62 EGU2011-11388
Jung-Hyun Kim, Roselyne Buscail, Tommaso Tesi, and Jaap S. Sinninghe Damsté
 Transport of soil organic matter to the event-dominated Rhône prodelta (NW Mediterranean) by flood events
- BG63 EGU2011-11412
 Roselyne Buscail, Philippe Kerhervé, Jung-Hyun Kim, Nicolas Bossard, Céline Artero, François Bourrin, Vincent Roussiez, Gérard Jeanty, Marion Desmousseaux, and **Christophe Rabouille**
 Sedimentary organic matter in the continental shelf of the Gulf of Lions: composition and preservation in the contrasted event-dominated Rhône and Têt prodelta (NW Mediterranean Sea)
- BG64 EGU2011-13111
Langone Leonardo, Miserocchi Stefano, Tommaso Tesi, Margherita Turchetto, Miguel A. Goñi, and Amelia De Lazzari
 Influence of distributary channels on sediment and organic matter supply in the Po prodelta (Italy)
- BG65 EGU2011-13665
Margherita Turchetto, Alfredo Boldrin, Leonardo Langone, Stefano Miserocchi, and Tommaso Tesi
 Physical and biogeochemical processes controlling particle fluxes variability and carbon export in the Southern Adriatic

BG3.4 – Biogeochemistry of coastal seas and continental shelves - including Biogeochemistry during the International Polar Year 2007-2008 – Orals

Convener: Helmuth Thomas | Co-Conveners: Alberto V. Borges

Room: 23

Chairperson: n.n.

- 10:30–11:00 EGU2011-14123
Bernd Schneider
 Seven years CO₂ partial pressure measurements on a cargo ship in the Baltic Sea What have we learnt about biogeochemistry?
- 11:00–11:15 EGU2011-4675
Matthias Gröger, Uwe Mikolajewicz, Ernst Maier-Reimer, and Dmitry Sein
 Mechanisms of carbon absorption on shelves - a model case study for the NW European shelf.
- 11:15–11:30 EGU2011-10678
Giuliana Turi, Zouhair Lachkar, and Nicolas Gruber
 Mesoscale Eddies and the Coastal Carbon Cycling in the California Upwelling System
- 11:30–11:45 EGU2011-13601
Manfredi Manizza, Michael J. Follows, and Stephanie Dutkiewicz
 Modeling the recent changes of CO₂ sink in the Arctic Ocean
- 11:45–12:00 EGU2011-3339
Helmuth Thomas and the CFL Carbon/Barium Team
 Barium and Carbon fluxes in the Canadian Arctic Archipelago

LUNCH BREAK

Chairperson: n.n.

- 13:30–13:45 EGU2011-12039
Fabian Schwichtenberg, Johannes Pätsch, Ina Lorkowski, Markus Schartau, Helmuth Thomas, Vera Winde, Olaf Dellwig, Justus van Beusekom, and Michael Böttcher
 Impact of alkalinity fluxes on the carbon cycle in the southern North Sea between 1970 and 2006
- 13:45–14:00 EGU2011-7330
Kirstin Dähnke, Alessia Moneta, Bart Veuger, Karline Soetaert, and Jack Middelburg
 Balance between nitrogen assimilation and dissimilation in tidal mudflat sediment: A stable isotope labeling study
- 14:00–14:15 EGU2011-6826
Nicole Kowalski, Olaf Dellwig, Melanie Beck, Maik Grunwald, Thomas H. Badewien, Hans-Jürgen Brumsack, Justus E. E. van Beusekom, and Michael E. Böttcher
 Manganese in two tidal basins of the North Sea: Pelagic and benthic tracer dynamics
- 14:15–14:30 EGU2011-2334
Delphine Lannuzel, Pier van der Merwe, Andrew Bowie, and Ashley Townsend
 Size fractionation of particulate metals during a time series in East Antarctic fast ice
- 14:30–14:45 EGU2011-7131
Sophie Dubois, Nicolas Savoye, Hugues Blanchet, and Antoine Grémare
 Relative contribution of autochthonous primary producers and continental inputs to the sediment organic matter composition in a coastal semi-enclosed ecosystem.
- 14:45–15:00 EGU2011-377
Mariana Ribas-Ribas, Abelardo Gómez-Parra, and Jesús M. Forja
 Spatio-temporal variability of the dissolved organic carbon and nitrogen in a coastal area affected by river input: the north-eastern shelf of the Gulf of Cádiz (southwest Iberian Peninsula)

BG3.4 – Biogeochemistry of coastal seas and continental shelves - including Biogeochemistry during the International Polar Year 2007-2008 – Posters

Convener: Helmuth Thomas | Co-Conveners: Alberto V. Borges

Poster Area BG | Display Time 08:00–17:00

Author in Attendance: 15:30–17:00

Chairperson: n.n.

- BG66 EGU2011-5011
Michael E. Böttcher and the BarMan Team
 BaMn[CO₃]₂ - a previously unrecognized double carbonate in brackish sediments: Characterization and possible biogeochemical implications

- BG67 EGU2011-8728
Nicole Kowalski, Olaf Dellwig, Nadja Neubert, Ulf Gräwe, Melanie Beck, Thomas F. Nägler, Hans-Jürgen Brumsack, Justus E. E. van Beusekom, and Michael E. Böttcher
 Seasonal and event-driven changes in the cycling and isotopic composition of molybdenum in tidal systems of the North Sea
- BG68 EGU2011-13485
 Vera Winde, Peter Escher, **Michael E. Böttcher**, Gerd Liebezeit, Justus E.E. van Beusekom and the BIOACID-Northsea Team
 Dynamics in the concentration and the isotopic composition of dissolved inorganic carbon in tidal areas of the North Sea
- BG69 EGU2011-3282
Ina Lorkowski, Johannes Pätsch, and Fabian Schwichtenberg
 Modelling coccolithophores in the North Sea: Their impact on the carbon budget
- BG70 EGU2011-4020
Sabine Schmidt, Jerome Harlay, Alberto V. Borges, Steve Groom, Bruno Delille, Nathalie Roevros, and Léi Chou
 Particulate carbon export during a bloom of *Emiliania huxleyi* in the Northwest European continental margin (northern Bay of Biscay)
- BG71 EGU2011-12681
Karol Kulinski and Janusz Pempkowiak
 Carbon budget of the Baltic Sea
- BG72 EGU2011-12430
Anna Barrera-Galderique, Melchor González-Dávila, and J. Magdalena Santana-Casiano
 Seasonal variability of fCO₂ in the eastern North Atlantic Ocean
- BG73 EGU2011-3727
Helmuth Thomas, Simon Higginson, William Burt, and Elizabeth Shadwick
 Seasonal controls of the short term variability of pCO₂ at the Scotian Shelf
- BG74 EGU2011-11234
 Elizabeth Shadwick, **Helmuth Thomas**, Erica Head, and Ed Horne
 Spatio-temporal distribution of dissolved inorganic carbon in the Scotian Shelf Region of the Northwestern Atlantic
- BG75 EGU2011-10161
Yann Bozec, Thierry Cariou, Edouard Collin, Eric Macé, Geneviève Mével, Pascal Morin, Stefan Raimund, and Marc Vernet
 Temporal dynamics of the carbonate system in the western English Channel at station ASTAN (48°46'40"N; 3°56'15"W)
- BG76 EGU2011-9982
Nathalie Gypens, Geneviève Lacroix, Christiane Lancelot, and Alberto V. Borges
 Seasonal and inter-annual variability of air-sea CO₂ fluxes and seawater carbonate chemistry in the Southern North Sea
- BG77 EGU2011-10360
Alberto V. Borges, Gwenaél Abril, Bruno Delille, Jean-Pierre Descy, and François Darchambeau
 Variability of methane in the epilimnion of Lake Kivu
- BG78 EGU2011-10402
 Goulven G. Laruelle, Hans H. Dürr, Caroline P. Slomp, and **Alberto V. Borges**
 Evaluation of sinks and sources of CO₂ in the global coastal ocean using a spatially-explicit typology of estuaries and continental shelves
- BG79 EGU2011-10428
 Willy Champenois, Gilles Lepoint, Bruno Delille, Marc-Vincent Commarieu, Marilaure Grégoire, Jean-Marie Beckers, and **Alberto V. Borges**
 Evaluation of metabolic rates in various benthic communities in the Bay of Revellata (Corsica) using optodes.
- BG80 EGU2011-10443
Willy Champenois, Gilles Lepoint, Bruno Delille, Marc-Vincent Commarieu, Marilaure Grégoire, Jean-Marie Beckers, and Alberto V. Borges
 Seasonal and inter-annual variations of community metabolism rates of a *Posidonia oceanica* seagrass meadow
- BG81 EGU2011-10529
 Jérôme Harlay, Lei Chou, Caroline De Bodt, Nicolas Van Oostende, Judith Piontek, Anja Engel, Koen Sabbe, Steve Groom, and **Alberto V. Borges**
 Biogeochemistry and carbon mass balance of a coccolithophore bloom in the northern Bay of Biscay (June 2006)
- BG82 EGU2011-10730
 François Darchambeau, Steven Bouillon, José N. Wabakanghanzi, Phillippe Massicotte, Bruno Leporcq, Jean-Pierre Descy, and **Alberto V. Borges**
 First assessment of the biogeochemistry of the Congo River and tributaries

- BG83 EGU2011-7805
Claudine Hauri and Nicolas Gruber
Temporal variability versus long-term trends of ocean acidification in the California Current System
- BG84 EGU2011-13159
Goulven G. Laruelle and Pierre Regnier
Modeling the Biogeochemical and phytoplankton dynamics of an arid ecosystem: the coastal waters of the Eastern Red Sea (Saudi Arabia)
- BG85 EGU2011-13437
Myriam Lambelet, **Mark Rehkamper**, Zichen Xue, Tina van de Flierdt, Don Porcelli, and Per Andersson
Non-conservative behavior of Cd in estuarine systems - new constraints from combined Cd concentration and isotope analyses
- BG86 EGU2011-8023
Katell Guizien and the CRUMED Team
Nearshore Dynamics of Nutrients and Chlorophyll During Mediterranean Type Flash-Flood Events
- BG87 EGU2011-8132
Francois Muller and Silvia Batchelli
Binding of iron and copper to humic colloids in the Thurso River plume
- BG88 EGU2011-9145
Maria Luisa Leal-Acosta, Evgueni Shumilin, and Nicolai Mirlean
Geochemistry of surficial sediments at shallow submarine hydrothermal vent in Mapachitos, Bahía Concepción, western Gulf of California

BG5.1 – Integration of Environmental, Socio-Economic and Climatic Change Studies in Northern Eurasia – Posters

Convener: Pavel Groisman | Co-Conveners: Amber Soja, Alexey V. Eliseev, Chaba Mátyás

Poster Area BG | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: n.n.

- BG89 EGU2011-12559
Pavel Groisman, Vladimir Kattsov, and Richard Lawford
Northern Eurasia Earth Science Partnership Initiative (NEESPI) in 2010: An Overview of the Current Status
- BG90 EGU2011-12855
David McCabe, **Pavel Groisman** and the "Open Burning and the Arctic" conference (St. Petersburg, Russia, Nov. 2010) Source Apportionment Team
Open Burning and the Arctic: Current Knowledge and Priorities for Future Research
- BG91 EGU2011-2233
Irena Borzenkova, Pavel Groisman, Anna Mescherskaya, Olga Bulygina, and Vyacheslav Razuvaev
Extraordinary Heat Wave over European Russia in Summer 2010: What do the Data say?
- BG92 EGU2011-960
Margarita Syromyatina, Igor Moskalenko, and Kirill Chistyakov
Space-time features of climate changes in the Altai Mountains and alpine landscapes response
- BG93 EGU2011-1586
Alexey V. Eliseev, Maxim M. Arzhanov, and Igor I. Mokhov
Bayesian climate projection for the northern subpolar land based on ensemble of global climate models forced by SRES A1B scenario
- BG94 EGU2011-170
Julia Palamarchuk and Sergiy Ivanov
Regional and local variability of precipitation in Europe
- BG95 EGU2011-1601
Alexander V. Chernokulsky, Mirseid G. Akperov, Olga N. Bulygina, and Igor I. Mokhov
Changes in cloudiness and cyclonic/anticyclonic activity over Russia during last decades from observations and reanalyses data
- BG96 EGU2011-4794
Yury Gurfinkel
Solar activity and cardiovascular pathology
- BG97 EGU2011-11524
Dmitry Schepaschenko, Anatoly Shvidenko, and Lyudmila Mukhortova
Organic carbon in Russian soils: A specified spatially explicit assessment
- BG98 EGU2011-1898
Leonid L. Golubyatnikov
Model estimation of carbon flux from the soil: Russia case study
- BG99 EGU2011-2796
Galina Ivanova, Susan Conard, Anna Bogorodskaja, Valery Ivanov, Natalia Kovaleva, Eugenia Krasnosheikova, Elena Kukavskaya, Pavel Tarasov, and Sergey Zhila
Estimating and Monitoring Effects of Fire Severity on Ecosystem Components of Siberian Scots pine forests

- BG100 EGU2011-13171
Amber Soja, David Westberg, Paul Stackhouse, Jr, Douglas McRae, Ji-Zhong Jin, Anatoly Sukhinin, and Nadezda Tchebakova
 Analysis of the Ability of Large-scale Reanalysis Data to Define Siberian Fire Danger in Preparation for Future Fire Weather
- BG101 EGU2011-5161
Brian Stocks and Donald Cahoon Jr.
 Reconstructing Post-1979 Forest Fire Activity and Area Burned in Russia: NOAA AVHRR Analysis
- BG102 EGU2011-10479
Nadja Tchebakova, Almuth Arneth, Luca Belelli, Chiara Corradi, Julia Kurbatova, Elena Parfenova, Natalia Vygodskaya, Ernst-Detlef Schulze, and Riccardo Valentini
 Energy and water exchange in various ecosystems in central Siberia (from eddy covariance measurements)
- BG103 EGU2011-6931
 Mihaela Laurenta Alexandrov, **Razvan Doru Mateescu**, Daniel Pertenatu, and Alina Spinu
 The Romanian littoral - coastal geomorphologic changes during the last half of Century (1961-2011); its impact on the coastal development and solutions for protection and rehabilitation
- BG104 EGU2011-11542
Csaba Mátyás
 Situation and Needs Regarding Forests and Climate Change Adaptation in Eastern Europe and Central Asia
- BG105 EGU2011-13934
 Éva Konkoly-Gyuró, Csaba Mátyás, Géza Kiraly, **Pál Balázs**, and Áron Drüsler
 Drivers and effects of long-term land use changes on climate, environment and socioeconomy in Central Europe
- BG106 EGU2011-6740
 Maria Artamonova, Alexander Babyakin, **Natalia Efimenko**, Nina Povolotskaya, Igor Polozkov, David Topuriya, Elena Chalaya, Georgii Golitsyn, and Irina Senik
 New approaches to the assessment of pathogenicity of weather conditions and aerosol pollution of the atmosphere for resorts
- BG107 EGU2011-4148
Vladimir P. Shevchenko, Oleg S. Pokrovsky, Dina P. Starodymova, Liudmila S. Shirokova, Rinat M. Manassypov, and Natalia S. Zamber
 Terricolous lichens as biomonitor of environmental pollution in the Northern Eurasia
- BG108 EGU2011-12179
Irina N. Sokolik, Viatcheslav Tatarskii, Xin Xi, and Igor Shkolnik
 Examining interactions between climate, droughts and dust events in Central Asia
- BG109 EGU2011-9653
Boris D. Belan, Pavel N. Antokhin, Viktoriya Arshinova, Sergey B. Belan, Aleksandr V. Fofonov, Georgii A. Ivlev, Tatyana M. Rasskazchikova, and Mikhail Yu. Arshinov
 Blocking effect of Ural Mountains on transboundary transport of pollutants from Europe to Northern Asia
- BG110 EGU2011-6067
Mikhail Yu. Arshinov, Denis V. Simonenkov, Boris D. Belan, and Gennadii N. Tolmachev
 Spatio-temporal variations of chemical composition of atmospheric aerosols over background region of southern part of Western Siberia
- BG111 EGU2011-5935
Mikhail Yu. Arshinov, Denis V. Simonenkov, Boris D. Belan, Gennadii N Tolmachev, Tatyana M Rasskazchikova, Tatyana K Sklyadneva, and Nina V. Uzhegova
 Chemical composition of background aerosols sampled in Siberia

BG7.3 – Biogeochemical function and diversity of chemosynthetic deep sea ecosystems – Orals

Convener: Nadine Le Bris | Co-Conveners: Laurent Toffin, Janine Felden, Douglas Connelly, Jozée Sarrazin, Dirk de Beer

Room: 24

Chairperson: n.n.

- 08:30–08:45 EGU2011-13085
Dirk de Beer, Antje Boetius, Jean-Paul Foucher, Tom Feseker, Chris German, Dana Yoerger, Richard Camilli, and James Kinsey
 Observations on volcanic activity of a cold seep, the Hakon Mosby Mud Volcano, (HMMV)
- 08:45–09:00 EGU2011-7308
Tomas Feseker, Dirk de Beer, Jean-Paul Foucher, François Harmegnies, Julien Legrand, Jerome Blandin, Frank Wenzhöfer, and Antje Boetius
 Long-term observation suggests tidal forcing of mud volcanic activity at Håkon Mosby mud volcano, Barents Sea slope
- 09:00–09:15 EGU2011-6677
Eric Boschker, Tanja Moerdijk-Poortvliet, and Dirk de Beer
 Chemoautotrophy at the Hakon Mosby Mud Volcano: in-situ rates and active Bacteria.

- 09:15–09:30 EGU2011-3871
Jurgen Mienert, Doug Connelly, Jens Greinert, Rachel James, Miguel Veloso, Veit Huhnerbach, Jon Campbell, and Sven Iverson
 Chemosynthesis in the Arctic margins
- 09:30–09:45 EGU2011-9853
Janine Felden, Frank Wenzhöfer, Anna Lichtschlag, Petra Pop Ristova, Dirk deBeer, and Antje Boetius
 Temporal changes in chemosynthetic community distribution and biogeochemical processes at the Amon mud volcano (Nile Deep Sea Fan)
- 09:45–10:00 EGU2011-362
Daniela Zeppilli, Marianna Mea, Cinzia Corinaldesi, and Roberto Danovaro
 Mud volcanoes in the Mediterranean Sea are hot spots of exclusive meiobenthic species

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2011-5548
Jozée Sarrazin, Jérôme Blandin, Julien Legrand, Christian Le Gall, and Pierre-Marie Sarradin
 Mussel community changes and environmental dynamics at Tour Eiffel, MAR
- 10:45–11:00 EGU2011-7653
Michael Aron, Jozée Sarrazin, Pierre-Marie Sarradin, and Grégoire Mercier
 Analysing the temporal dynamics of chemosynthetic ecosystems by using automated image processing tools
- 11:00–11:15 EGU2011-4878
Franck Lartaud, Marc de Rafelis, Crispin Little, Germain Bayon, Benoît Ildefonse, Jérôme Dymont, and Nadine Le Bris
 Fossil bivalves in the Rainbow area: new insight into the diversity and evolution of chemosynthetic communities.
- 11:15–11:30 EGU2011-3791
Ana Colaço, Nereida Cordeiro, Marina Cunha, Sylvie Gaudron, Silvia Lino, and Ricardo Serrão Santos
 Trophic structure of colonization modules at chemosynthetic habitats: a comparative approach
- 11:30–11:45 EGU2011-5513
Annie Bourbonnais, Moritz F. Lehmann, David A. Butterfield, Steven J. Hallam, Allan H. Devol, Marcel M. M. Kuypers, Gaute Lavik, Réal Roy, Bonnie X. Chang, and S. Kim Juniper
 Denitrification as the dominant N-elimination process in hydrothermal vents of the Juan de Fuca Ridge, North-East Pacific Ocean
- 11:45–12:00 EGU2011-3114
Philippe Compère, Sarah Samadi, Magali Zbinden, Gilles Lepoint, Pierre Becker, Sébastien Duperron, Chantal De Ridder, Françoise Gaill, and Caroline Hoyoux
 Decapod crustaceans from deep-sea wood falls in the South Pacific Ocean: diet, trophic level and symbioses.

BG7.4/SSP3.6 – Methane and gas hydrates in marine and terrestrial environments: sources, sinks and ecosystems (co-organized) – Orals

Convener: Alina Stadnitskaia | Co-Conveners: Tomas Feseker, Helge Niemann, Matthias Haeckel, Judith Maria Schicks

Room: 24

Chairperson: Helge Niemann and Tomas Feseker

- 13:30–13:45 EGU2011-12142
Stefanie Kirschke, Philippe Ciais, Philippe Bousquet, Josep Canadell, and Corinne Le Quéré
 A Close-up of the Methane Global Budget
- 13:45–14:00 EGU2011-8195
Abhijit Basu, Martin G. Schultz, and Louis François
 Methane emission from wetlands and its role in present day and paleoclimate
- 14:00–14:15 EGU2011-13563
Oscar J. Guerrero, Rodrigo Jiménez, John C. Lin, Glenn S. Diskin, Glen W. Sachse, Eric A. Kort, and Jed O. Kaplan
 Assessing methane fluxes over Colombia and Panama using Lagrangian simulation and aircraft-borne measurements during TC4
- 14:15–14:30 EGU2011-2157
Lukasz Chmura, Jaroslaw Necki, Adam Korus, Mirosław Zimnoch, Janusz Rosiek, Michał Galkowski, and Kazimierz Rozanski
 Impact of coal mining on elevated CH₄ levels in near-ground regional atmosphere over southern Poland

- 14:30–14:45 EGU2011-7397
Anna Maria Pytlak, Zofia Stępniewska, and Agnieszka Wołoszyn
 Environmental requirements and group-specific identification of methanotrophic bacteria inhabiting, hard coal-associated rocks
- 14:45–15:00 EGU2011-6686
Esther T. Arning, Wolfgang van Berk, and Hans-Martin Schulz
 Quantification and controlling factors of methane loss and storage within marine sediments along a transect off Peru
- 15:00–15:15 EGU2011-9420
Pei-Chuan Chuang, Tsanyao Frank Yang, Klaus Wallmann, Saulwood Lin, Yunshuen Wang, and San-Hsiung Chung
 Estimation of advective methane flux in gas hydrate potential area offshore SW Taiwan and its tectonic implications
- Chairperson: Matthias Haeckel and Judith Maria Schicks
- 15:30–15:45 EGU2011-2717
Bernard Boudreau
 The Physics of Methane Bubbles in Cohesive Sediments
- 15:45–16:00 EGU2011-11525
Bjørn Kvamme, Mohammad Taghi Vafaei, Ashok Chejara, and Khaled Jemai
 Reservoir scale simulation of hydrate dynamics
- 16:00–16:15 EGU2011-3486
Mert H. Kucuk, Derman Dondurur, Gunay Cifci, and Mustafa Ergun
 Distribution of BSRs and gas accumulations offshore of Zonguldak Region, Central Blacksea
- 16:15–16:30 EGU2011-11528
 Georg Janicki, Stefan Schlüter, Torsten Hennig, and **Görge Deerberg**
 Extraction of natural gas from subsea gas hydrate deposits coupled with CO₂ storage - Modeling and simulation
- 16:30–16:45 EGU2011-5186
Fengping Wang, Yu Zhang, Jinqian Chen, Caochun Wei, Nico Boon, and Xiang Xiao
 Metagenome and metatranscriptome analysis revealed key metabolic pathways in a simulated anaerobic methane oxidation - sulfate reducing community
- 16:45–17:00 EGU2011-8737
Iana Tsandev, Pierre Regnier, Andrew Dale, and Andy Ridgwell
 Methane processing in arctic shelves and the role of anaerobic methane oxidation
- 17:00–17:15 EGU2011-4912
Daniel Birgel, Dong Feng, Harry H. Roberts, and Jörn Peckmann
 Authigenic carbonates record changing redox conditions at cold seeps from Alaminos Canyon, northern Gulf of Mexico

GD1.1/BG8.3/GMPV44/TS1.3 – Early Earth: from deep dynamics to surface life (co-organized) – Orals

Convener: Jeroen van Hunen | Co-Conveners: Emmanuelle J. Javaux, Nicolas Flament, Nicholas T. Arndt

Room: 22

Chairperson: n.n.

- 08:30–08:45 EGU2011-1488
Evgenii Sharkov
 Origin and development of the Earth's core: Evidence from the Earth's tectonomagmatic evolution and paleomagnetic data
- 08:45–09:00 EGU2011-3571
Alexandra Moeller and Uli Hansen
 Influence of rotation on iron particles in an early magma ocean
- 09:00–09:15 EGU2011-8663
Renaud Deguen and Peter Olson
 Fragmentation, mixing, and chemical equilibration in a magma ocean - Insights from fluid dynamics experiments
- 09:15–09:30 EGU2011-12662
John A. Tarduno, Rory D. Cottrell, and Martin J. Van Kranendonk
 Observational constraints on the onset and strength of the early Earth's magnetic field
- 09:30–09:45 EGU2011-4449
Sergei Pisarevsky
 Paleogeography of the Early Earth and Paleomagnetic Data
- 09:45–10:00 EGU2011-13081
Natalia Lubnina and Alexander Slabunov
 Neoproterozoic Supercontinent Kenorland: paleomagnetic and geologic evidence

COFFEE BREAK

Chairperson: n.n.

10:30–11:00 EGU2011-2180

Hugh Rollinson

Are plumes an appropriate mechanism for Archaean continent creation ?

11:00–11:15 EGU2011-6223

Jeroen van Hunen and Jean-Francois Moyen

Short-term episodicity of Archaean subduction?

11:15–11:30 EGU2011-7916

Jaana Halla

Sanukitoid granitoids as indicators of accretionary tectonics from the late Mesoproterozoic to the Archean-Proterozoic boundary

11:30–11:45 EGU2011-5387

Nicholas T. Arndt, Janne Blichert-Toft, Martin Guitreau, and Francis Albarède

Formation of the Continental Crust

11:45–12:00 EGU2011-5281

Nicolas Flament, Patrice Rey, Nicolas Coltice, Gilles Dromart, and Nicolas Olivier

Subaqueous Archean continental flood basalts were emplaced on hot continental crust

OS4.4 – Physical and biogeochemical ocean modelling: development, assessment, and applications (co-listed) –

Posters

Convener: David Ham | Co-Conveners: Thierry Penduff, Sergey Danilov, Stephen M. Griffies, Marina Levy

Halls X/Y | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: Sergey Danilov

XY424 EGU2011-11577

David Ham

Automated adjoints: towards a robust method for generating adjoint ocean models

XY425 EGU2011-5139

Ricardo Matano and Elbio Palma

The upstream spreading of bottom-trapped plumes

XY426 EGU2011-954

Simon Funke, Chris Pain, Stephan Kramer, and Matthew Piggott

A wetting and drying algorithm for non-hydrostatic models with combined pressure/free-surface

XY427 EGU2011-11728

Dmitry Sidorenko, Qiang Wang, Sergey Danilov, and Jens Schröter

FESOM under Coordinated Ocean-ice Reference Experiment forcing

XY428 EGU2011-13465

Qiang Wang, Dmitry Sidorenko, Xuezhu Wang, Claudia Wekerle, Sergey Danilov, and Jens Schröter

Global FESOM simulations under the framework of interannual Coordinated Ocean-ice Reference Experiments (CORE-II)

XY429 EGU2011-3432

Raphael Dussin, Mélanie Juza, Bernard Barnier, Jean-Marc Molines, Thierry Penduff, and Gilles Garric

Impact of vertical resolution in an eddy-permitting Ocean Global Circulation Model forced with ERA-Interim

XY430 EGU2011-3586

Karen Guihou, Yann Ourmieres, and Bruno Zakardjian

Assessment of a NEMO-based downscaling experiment for the North-Western Mediterranean region: impacts on the Northern Current and comparison with ADCP data and altimetry products.

XY431 EGU2011-931

Xi Lu

Numerical study of the water exchange in the Western Baltic Sea

XY432 EGU2011-1383

Moritz Mathis and Thomas Pohlmann

A Projected Forecast of Hydrodynamic Conditions in the North Sea Using Bias Corrected Atmospheric Forcing Data

XY433 EGU2011-2575

Yangchun Li and Yongfu Xu

Sensitivity of the uptake of bomb ¹⁴C to the air-sea exchange scheme in the Pacific Ocean model

- XY434 EGU2011-4059
Yongfu Xu and Qi Ba
Tritium uptake in the ocean general circulation model of the Pacific Ocean
- XY435 EGU2011-4519
Young-Gyu Park
North Pacific Intermediate Water from two NOAA/GFDL coupled models, CM2G and CM2M
- XY436 EGU2011-13554
Robin Matthews
Observational Datasets for Ocean Acidification Modelling
- XY437 EGU2011-6851
Ana Cordeiro Pires, Rita Nolasco, Jesus Dubert, and Alfredo Rocha
Assessing future climate change in the Iberian Upwelling System using a multi-model mean ensemble
- XY438 EGU2011-2234
Igor Shulman, Mark Moline, Bradley Penta, Stephanie Anderson, Matthew Oliver, and Steven Haddock
Modeling and observations of coupled bio-optical, bioluminescent and physical properties.
- XY439 EGU2011-10376
Jon Hill, Ekaterina Popova, David Ham, Matthew Piggott, and Meric Srokosz
Ocean ecosystem modelling in an adaptive mesh model: a performance evaluation
- XY440 EGU2011-8379
Thomas Slawig, Malte Prieß, and Slawomir Koziel
Surrogate-based optimization of parameters in a marine ecosystem model
- XY441 EGU2011-8735
James While, Ian Totterdell, and Mathew Martin
Assimilation of pCO₂ data into a global biogeochemical model
- XY442 EGU2011-6626
Steve Jones, Corinne Le Quéré, and Christian Rödenbeck
Global Interpolation of Surface Ocean pCO₂
- XY443 EGU2011-7792
Marion Fraysse, Christel Pinazo, Vincent Faure, and Ivane Pairaud
3D coupled physical and biogeochemical modelling approach: limitation on biological productions by the different nutrients in Marseilles coastal area.
- XY444 EGU2011-1959
Moacyr Araujo, Nathalie Lefrève, Nadège Bouchonneau, Carlos Noriega, and Marcus Silva
Simulating the tropical Atlantic air-sea CO₂ exchange with a Regional high resolution ocean modeling system
- XY445 EGU2011-7866
Marcus Silva, Nadège Bouchonneau, Carlos Noriega, Nathalie Lefèvre, and Moacyr Araujo
Modeling biogeochemical cycles in the Southwestern tropical Atlantic
- XY446 EGU2011-5698
Victor Gorchakov, Vladimir Ryabchenko, Nikolay Diansky, and Svetlana Pugalova
Modeling the seasonal and inter-annual variability of physical and ecosystem characteristics in the upper layer of the Central-Eastern North Atlantic
- XY447 EGU2011-5122
Rosa Reboreda, Jesus Dubert, Rita Nolasco, Martinho Marta-Almeida, Henrique Queiroga, Carlos Rocha, and Nuno Cordeiro
Three-dimensional modeling of phytoplankton and zooplankton seasonal distribution in the Iberian upwelling system
- XY448 EGU2011-1569
Ruoying He, Dennis McGillicuddy, Donald Anderson, Bruce Keafer, and Yizhen Li
Predicting Coastal Circulation and Harmful Algal Blooms in the Gulf of Maine: From Ensemble Seasonal Forecasting to Data Assimilative Hindcasting
- XY449 EGU2011-1202
Robert McEwan, Maeve Lohan, Nataliya Stashchuk, and Vasiliy Vlasenko
Modelling nutrient distributions in a large-scale river plume

