

EGU General Assembly 2011
Programme Group Programme
NP – Nonlinear Processes in Geophysics

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Monday, 04 April

HS7.3/CL3.7/NP1.4 – Climate, water and health (co-organized) – Orals

Convener: Andreas Langousis | Co-Conveners: Alexander Kolovos, Alin Andrei Carsteanu

Room: 33

Chairperson: A. Langousis and A. Carsteanu

- 13:30–13:45 EGU2011-7940
Oleksandr Kit, Matthias Luedeke, Diana Reckien, and Martin Budde
 Assessment of vulnerability of urban slums to extreme precipitation events using remote sensing data in Hyderabad/India
- 13:45–14:00 EGU2011-5145
Olga Khabarova
 People and environment: how and why we react to weather and space weather changes.
- 14:00–14:15 EGU2011-5058
Enrico Bertuzzo, Lorenzo Mari, Lorenzo Righetto, Renato Casagrandi, Marino Gatto, Ignacio Rodriguez-Iturbe, and Andrea Rinaldo
 A spatially distributed model for the future evolution of the current Haiti cholera outbreak
- 14:15–14:30 EGU2011-6981
Evangelos Rozos and Christos Makropoulos
 Ensuring water availability with complete urban water modelling
- 14:30–15:00 EGU2011-8918
Shafiqul Islam and Elfatih Eltahir
 Hydroepidemiology: A synthesis of hydrological and epidemiological understanding for better intervention of water related diseases

HS7.3/CL3.7/NP1.4 – Climate, water and health (co-organized) – Posters

Convener: Andreas Langousis | Co-Conveners: Alexander Kolovos, Alin Andrei Carsteanu

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: A. Carsteanu and A. Langousis

- A394 EGU2011-117
Andrey Guber, Yakov Pachepsky, and Daniel Shelton
 Microbial water quality in streams as affected by high flow events
- A395 EGU2011-4691
Antarpreet Jutla, Ali Akanda, and Shafiqul Islam
 Hydroepidemiology of Cholera: Predicting Outbreaks using Satellite Derived Global Cholera Index
- A396 EGU2011-5542
Cheng Yu She, Bing Mu Hsu, Shih Wei Huang, Po Min Kao, Shao Yu Liao, and Jung Sheng Chen
 Evaluation of Cryptosporidium Inactivity in Difference Concentration of Chlorination
- A397 EGU2011-5499
Hsiang Yu Hsiao, Bing Mu Hsu, Kuan Hao Huang, Shih Wei Huang, Po Min Kao, Hung Jen Wang, Kuo Chih Tseng, Ming Jen Su, and Jung Sheng Chen
 Detection and Identification of Salmonella spp. in a Taiwan Watershed by Molecular Technology
- A398 EGU2011-13200
 Annemieke Gärdenäs, **Solomon Gebreyohannis Gebrehiwot**, Per-Erik Mellander, Jan Seibert, Kevin Bishop, and Woldeamlak Bewket
 The potential impact of climate change on water balances of five catchments within the Blue Nile Basin for different scenarios of land-use
- A399 EGU2011-5148
Hatim Sharif
 The Relationship between Climate and Influenza at Monthly Timescale
- A400 EGU2011-5483
Hsiu Feng Tsai, Bing Mu Hsu, Shih Wei Huang, Po Min Kao, Cheng Yu She, Jung Sheng Chen, and Liang Chen
 Detection and Identification of Acanthamoeba in Taiwan aquatic Environment
- A401 EGU2011-4364
Ali S Akanda, Antarpreet Jutla, Elfatih Eltahir, and Shafiqul Islam
 Hydroepidemiology of Cholera Transmission in Bangladesh: A Spatially Explicit and Seasonally Varying Cholera Prevalence Model
- A402 EGU2011-9478
Philippe Larroudé
 Climate change and indicator of vulnerability with a 2DH model on four French beaches

- A403 EGU2011-4507
Lorenzo Mari, Enrico Bertuzzo, Lorenzo Righetto, Renato Casagrandi, Marino Gatto, Ignacio Rodriguez-Iturbe, and Andrea Rinaldo
 Hydrological transport, human mobility and cholera epidemics: a spatially explicit modeling approach
- A404 EGU2011-6679
Adrian Tompkins, Francesca Di Giuseppe, Rachel Lowe, Franco Molteni, Andrew Morse, Claudio Piani, and Frederic Vitart
 Using ECMWF precipitation and temperature forecasts to predict vector-borne disease in the QWeCI project
- A405 EGU2011-8467
Tabea Lissner, Dominik Reusser, Eva Kirschenmann, Anne Holsten, and Jürgen Kropp
 Exploring the consequences of changes in water resource availability on human health and well-being
- A406 EGU2011-7062
Kuan Hao Huang, Bing Mu Hsu, Shih Wei Huang, Po Min Kao, Hung Jen Wang, Hsiang Yu Hsiao, Kuo Chih Tseng, Ming Jen Su, and Jung Sheng Chen
 Seasonal distribution of Salmonella in stream water in Taiwan
- A407 EGU2011-9571
Bellie Sivakumar and Ashish Sharma
 Impacts of global climate change on water resources: assessment, challenges, and remedies

NP3.7 – Geophysical Downscaling Methods – Posters

Convener: Tobias Sauter | Co-Conveners: Victor Venema, Douglas Maraun, Erika Coppola

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 13:30–15:00

Chairperson: Tobias Sauter

- XY524 EGU2011-1174
amadou Idrissa bokoye
 Assessment of the influence of the calibration period choice on empirical statistical downscaling modeling
- XY525 EGU2011-4753
Pascal Horton, Michel Jaboyedoff, and Charles Obled
 The Analogs method in the framework of severe rainfall forecasting in the Swiss Alps
- XY526 EGU2011-4806
Jiri Miksovsky, Petr Stepanek, Ales Farda, and Michal Belda
 Inter-variable relationships in the outputs of dynamical and statistical downscaling models
- XY527 EGU2011-5500
 Alexandru Dumitrescu, **Aristita Busuioc**, Baci Madalina, Sorin Cheval, and Liana Cazacioc
 ENSEMBLE RCM performance in reproducing temperature and precipitation regime in Romania. Application for Banat and Oltenia Plains.
- XY528 EGU2011-7632
Douglas Maraun
 How robust is bias correction under climate change? Assessing the direct approach for temperature and precipitation in a pseudo reality ?
- XY529 EGU2011-7699
Douglas Maraun, Fredrik Wetterhall, Martin Widmann, Sven Kotlarski, and Erika Coppola
 VALUE - A European wide network for the validation and development of downscaling methods
- XY530 EGU2011-8659
Anahita Amiri Farahani, Douglas Maraun, and Juerg Luterbacher
 Large-scale atmospheric circulation characteristics and their relations to local daily precipitation extremes in Hesse, central Germany
- XY531 EGU2011-8668
Bruno Emanuela, Portoghese Ivan, Guyennon Nicolas, Iacobellis Vito, and Vurro Michele
 Stochastic rainfall scenarios for hydrological impact studies
- XY532 EGU2011-9208
Aristita Busuioc, Alexandru Dumitrescu, Madalina Baci, Liana Cazacioc, and Sorin Cheval
 Estimation of changes in monthly temperature and precipitation over the Banat and Oltenia Plains in Romania. Comparison between statistical and dynamical downscaling techniques
- XY533 EGU2011-9216
Marlis Hofer, Ben Marzeion, and Thomas Mölg
 Skill assessment of reanalysis data for local-scale, daily air temperature on a tropical, glaciated mountain range (Peru)
- XY534 EGU2011-9536
Martin Dubrovsky, Martin Hirschi, and Christoph Spirig
 HOWGH: an hourly weather generator for pests modeling in present and future climates

- XY535 EGU2011-10037
Laura Mariotti, Erika Coppola, M.Bamba Sylla, Filippo Giorgi, and Claudio Piani
 Regional climate model simulation of projected 21st century climate change over an all-Africa domain: Comparison analysis of nested and driving model results.
- XY536 EGU2011-10522
Claudio Piani and Jan Haerter
 Grid point bias correction of climate models: remaining problems and suggested solutions.
- XY537 EGU2011-10693
 Rabea Haas and **Kai Born**
 Probabilistic Downscaling of Precipitation Data in a Subtropical Mountain Area: A two-step approach
- XY538 EGU2011-11796
Christoph Matulla, Claudia Springer, Emma Watson, Sebastian Wagner, Wolfgang Schöner, and Reinhold Steinacker
 Downscaled GCM projections of winter and summer mass balance for Central European glaciers (2000-2100) from ensemble simulations with ECHAM5- MPIOM
- XY539 EGU2011-11961
Marco Turco, Pere Quintana Seguí, Maria-Carmen Llasat, Sixto Herrera, and José Manuel Gutiérrez
 The analog method as a MOS-like downscaling for ENSEMBLES RCM-precipitation: application over Spain
- XY540 EGU2011-12218
Michaela Bray, Dawei Han, and Roger Falconer
 Comparative Study of Meso-Scale Numerical Weather Models for Water System Analysis
- XY541 EGU2011-13501
Douglas Maraun and the Review Team
 Precipitation Downscaling under Climate Change
- XY542 EGU2011-13807
 Cui Chen, Jan Haerter, Stefan Hagemann, and **Claudio Piani**
 A comparative study of uncertainty, originating from bias correction and other sources, in scenario discharge time series

HS7.1/AS4.8/NH1.10/NP3.9 – Precipitation: from measurement to modelling and application in catchment hydrology (co-organized) – Orals

Convener: Remko Uijlenhoet | Co-Conveners: Alin Andrei Carsteanu, Chris Onof, Alexis Berne, Paolo Burlando, Tim Bellerby, Roberto Deidda, Giovanna Grossi, Andreas Langousis

Room: 33

Chairperson: Remko Uijlenhoet and Tim Bellerby

- 08:30–08:45 EGU2011-804
Auguste Gires, Ioulia Tchiguirinskaia, Daniel Schertzer, Christian Onof, Cedo Maksimovic, Nuno Simoes, and Shaun Lovejoy
 Quantifying the uncertainty on urban runoff associated to unmeasured small-scale rainfall variability: a comparison of two cases study
- 08:45–09:00 EGU2011-2805
Geoff Pegram, Xavi Lloret, and Daniel Sempere-Torres
 Separating signal and noise in radar-rainfall fields to generate meaningful ensembles
- 09:00–09:15 EGU2011-3138
Juan Duan, Neil McIntyre, and Christian Onof
 Statistical modelling of rainfall for drought risk assessment in southeast England
- 09:15–09:30 EGU2011-10368
Andr s B rdossy and Geoffrey Pegram
 Rainfall interpolation and simulation in hilly and mountainous regions using spatial copulas
- 09:30–09:45 EGU2011-13396
Jean-Marie Lepioufle and Kolbj rn Engeland
 Spatial and temporal block conditioned rainfall simulation; an application using an hourly punctual raingauges network and an instantaneous 1km2-pixel estimated precipitation from weather radar
- 09:45–10:00 EGU2011-13006
Jose Luis Salinas and Rafael Garcia Bartual
 Analysis and stochastic modelling of extreme rainfall events. Application in the spanish mediterranean region

COFFEE BREAK

Chairperson: Tim Bellerby and Remko Uijlenhoet

- 10:30–10:45 EGU2011-11093
Jose D Fuentes, Marcia S. DeLonge, Paul A. Kucera, Everette Joseph, and Seydi Ababacar Ndiaye
 Attributes of West African convective storms during 2006
- 10:45–11:00 EGU2011-6140
Sander Vandenberghe, Willem Jan Vanhaute, Karolien Scheerlinck, Christian Onof, Bernard De Baets, and Niko Verhoest
 How to improve the calibration of Bartlett-Lewis stochastic point rainfall models in order to better simulate extreme rainfall events?
- 11:00–11:15 EGU2011-5153
Seth Westra, Ashish Sharma, and Rajeshwar Mehrotra
 Continuous rainfall simulation: A regionalised non-parametric approach
- 11:15–11:30 EGU2011-5947
Robert Krier, Patrick Matgen, Klaus Görden, Laurent Pfister, Lucien Hoffmann, Stefan Uhlenbrook, Hubert Savenije, and James Kirchner
 Semi-distributed rainfall rates inferred from discharge observation networks
- 11:30–11:45 EGU2011-13384
Aart Overeem, Hidde Leijnse, and Remko Uijlenhoet
 Measuring urban rainfall using microwave links
- 11:45–12:00 EGU2011-11266
Carlo de Michele and Massimiliano Ignaccolo
 Statistical collapse of stratiform and convective drop diameter distributions at the ground

HS7.1/AS4.8/NH1.10/NP3.9 – Precipitation: from measurement to modelling and application in catchment hydrology (co-organized) – Posters

Convener: Remko Uijlenhoet | Co-Conveners: Alin Andrei Carsteanu, Chris Onof, Alexis Berne, Paolo Burlando, Tim Bellerby, Roberto Deidda, Giovanna Grossi, Andreas Langousis

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Remko Uijlenhoet and Tim Bellerby

- A367 EGU2011-374
Roberto Moncho
 A generalization of the log-logistic distribution for the probability of daily precipitation
- A368 EGU2011-1927
Renji Remesan, Tim Bellerby, Asnor Ishak, and Dawei Han
 Uncertainties in hydrological prediction using input ensembles from different cumulus parameterization schemes (CPSs)
- A369 EGU2011-2214
Brandon Parkes
 Improvements in early flood forecasting using a 1-hour gridded precipitation dataset to drive a hydrological model. A case study of the summer floods in the Upper Severn, UK
- A370 EGU2011-2548
Christopher Skinner, Helen Greatrex, Tim Bellerby, and David Grimes
 Impact of Rainfall Estimation Uncertainty on Hydrological Modelling of the Senegal River Basin
- A371 EGU2011-2747
Daniel Lindsey
 An Objective Probabilistic Prediction Product for Severe Hail Using Satellite Observations
- A372 EGU2011-3044
Hannes Müller and Uwe Haberlandt
 Effect of different temporal rainfall disaggregation methods on derived flood frequency analysis
- A373 EGU2011-5993
Ioannis Sideris, Marco Gabella, Urs Germann, Rebekka Erdin, and Christoph Frei
 Real-time radar-raingauge spatiotemporal combination in Switzerland.
- A374 EGU2011-6123
Marielle Gosset and Julien Viarre
 evaluation of satellite rainfall products used for hydrological applications in West Africa
- A375 EGU2011-6143
 Max Kigobe, Ann van Griensven, Yunqing Xuan, **Giuliano Di Baldassarre**, Neil Mc Intyre, and Howard Wheeler
 Stochastic Rainfall Modelling in the Upper Nile
- A376 EGU2011-6428
Mojca Sraj and Urska Bajc
 Calculations and analyses of systematic errors in precipitation measurements

- A377 EGU2011-7737
Maurizio Savina and Paolo Burlando
Precipitation field driven weather radar conversion
- A378 EGU2011-7761
Ageel Bushara, Mekonnen Gebremichael, Thomas Over, Riccardo Rigon, and Christa D. Peters-Lidard
Utility of remotely-sensed precipitation products for hydrological simulations at basin scale
- A379 EGU2011-9165
Francesco Lo Conti, Kuo-lin Hsu, Soroosh Sorooshian, and Leonardo V. Noto
Evaluation and comparison of satellite precipitation estimates with reference to a local area
- A380 EGU2011-9438
Limin Wu, John Schaake, Julie Demargne, James Brown, and Robert Hartman
Using the GFS Ensemble Mean to Generate Medium-range Precipitation Ensemble Forecasts for Hydrologic Ensemble Prediction
- A381 EGU2011-10423
Martinus van den Berg, Bernard de Baets, and Niko Verhoest
Copula-based downscaling of rainfall
- A382 EGU2011-10791
Fabrizio Fenicia, Laurent Pfister, Patrick Matgen, and Lucien Hoffmann
Estimating rainfall with microwave links. Insight from an experimental setup in Luxembourg-City
- A383 EGU2011-6217
Dionysia Panagoulia and Chrys Caroni
Modelling maximum monthly precipitation in temporal climate evolution
- A384 EGU2011-7379
Muhammad Rehan Anis and Michael Rode
An improved method for the temporal disaggregation of rainfall at a finer time scale
- A385 EGU2011-7861
Klaus Haslinger, Barbara Chimani, and Reinhard Boehm
Solid and Liquid Precipitation in major river catchments originating in the European Alps
- A386 EGU2011-8798
David Ian Francis Grimes, Helen Greatrex, and Tim Wheeler
Ensemble approach to disaggregation of seasonal rainfall forecasts in the context of crop yield prediction. Case study: maize yield in Ethiopia.
- A387 EGU2011-9816
Marcus Malsy, Tim aus der Beek, and Martina Flörke
Sensitivity of water availability in Central Asia with respect to various climate datasets in particular the input parameter precipitation
- A388 EGU2011-11378
Reinhard Teschl, Walter L. Randeu, and Franz Teschl
Investigating the variability of precipitation in a mountainous catchment using data-driven approaches
- A389 EGU2011-12743
Sadegh Ghazanfari, Aa Alizadeh, Aa Farid, and Mm Bannayan
Comparison the PERSIANN model with interpolation methods to estimate daily precipitation (A case study: North-Khorasan, Iran)
- A390 EGU2011-12834
Li-Pen Wang, Christian Onof, and Cedo Maksimovic
An improved discrete cascade method for sub-daily rainfall modelling
- A391 EGU2011-13482
Yisak Abdella, Kolbjørn Engeland, Jean-Marie Lepioufle, and Knut Alfredsen
Distributed modelling of catchment hydrology using radar derived precipitation
- A392 EGU2011-13640
Maurice Schmeits and Kees Kok
A comparison between raw ensemble output, (modified) Bayesian model averaging and extended logistic regression using ECMWF ensemble precipitation reforecasts
- A393 EGU2011-12262
Nan Yu, Pieter Hazenberg, Guy Delrieu, Brice Boudevillain, and Remko Uijlenhoet
The parameterization of the general raindrop size distribution by the gamma probability density function

AS1.5/NP3.10/OS2.6 – Recent Developments in Geophysical Fluid Dynamics (co-organized) – Orals

Convener: Uwe Harlander | Co-Conveners: Andreas Will, Nils Wedi, Michael Kurgansky, Wolf-Gerrit Fruh, Jose M. Redondo, Allen Bateman, Stuart Dalziel, Rui Caldeira, Luis C. Cana Cascallar, Vanda Grubišić, Alexandre Stegner, Evan Mason

Room: 14

Chairperson: n.n.

- 13:30–13:45 EGU2011-13883
Ray Bates
 On the relevance of Charney-Drazin (1961) for our understanding of the dynamical influence of the stratosphere on the troposphere.
- 13:45–14:00 EGU2011-13792
Nathan Paldor
 Laplace's Tidal Equations: Revisiting a 400 year old basic problem of GFD
- 14:00–14:15 EGU2011-13246
Riwal Plougonven and Chris Snyder
 Gravity waves emitted from jets: lessons from idealized simulations
- 14:15–14:30 EGU2011-1950
Nils Wedi and Piotr Smolarkiewicz
 A nonlinear perspective on the dynamics of the MJO: idealized large-eddy simulations
- 14:30–14:45 EGU2011-4391
 Bruno Ribstein and Vladimir Zeitlin
 Inertial instability in the 2 layer rotating shallow water model
- 14:45–15:00 EGU2011-7474
Anna Rabitti and Leo R. M. Maas
 Internal inertial wave characteristic paths in a sphere and in a spherical shell
- Chairperson: Vanda Grubišić?
- 15:30–15:45 EGU2011-8908
Andrew Stewart and Paul Dellar
 A numerical study of cross-equatorial abyssal ocean currents with a complete representation of the Coriolis force
- 15:45–16:00 EGU2011-513
Gaele Perret, Thomas Dubos, and Alexandre Stegner
 How oceanic anticyclones are favoured through large-scale and cyclogeostrophic barotropic instabilities
- 16:00–16:15 EGU2011-4070
Alexandre Stegner, Gaele Perret, Ayah Lazar, Rui Caldeira, and Charles Dong
 Island wake dynamics: various parameters and regimes of asymmetry
- 16:15–16:30 EGU2011-910
Ayah Lazar, Eyal Heifetz, and Alexandre Stegner
 Inertial instability in island wakes
- 16:30–16:45 EGU2011-2147
Rieke Heinze and Siegfried Raasch
 Atmospheric vortex streets: structure and properties derived from large eddy simulations
- 16:45–17:00 EGU2011-7492
Rui Caldeira, Maxime Schmerber, and Pablo Sangrá
 Oceanic eddy response to atmospheric forcing: near- and far-field consequences

AS1.5/NP3.10/OS2.6 – Recent Developments in Geophysical Fluid Dynamics (co-organized) – Posters

Convener: Uwe Harlander | Co-Conveners: Andreas Will, Nils Wedi, Michael Kurgansky, Wolf-Gerrit Fruh, Jose M. Redondo, Allen Bateman, Stuart Dalziel, Rui Caldeira, Luis C. Cana Cascallar, Vanda Grubišić?, Alexandre Stegner, Evan Mason

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY1 EGU2011-8566
Ayah Lazar, Alexandre Stegner, Rui Caldeira, Samuel Viboud, and Henri Didelle
 Stability of submesoscale wake vortices in a rotating and stratified shallow-water layer: laboratory experiments.
- XY2 EGU2011-10164
Rui Caldeira, Alain Chelius, Maxime Schmerber, and Pablo Sangrá
 Contribution of island asymmetry and neighboring islands to the formation of oceanic wakes: a quasi-geostrophic study of near- and far-field implications
- XY3 EGU2011-10304
Luis C. Cana Cascallar, Diana Grisolia-Santos, and Leopoldo Álvarez
 Firsts results on the modelling of the Gran Canaria atmospheric wake
- XY4 EGU2011-10328
Luis C. Cana Cascallar, Diana Grisolia-Santos, and Leopoldo Álvarez
 Local flow under weak trade wind flow regime
- XY5 EGU2011-3478
Marion Kersalé, Alvaro J. Peliz, Andrea M. Doglioli, and Anne A. Petrenko
 A numerical study on the collision of a Meddy with a seamount

- XY6 EGU2011-7405
Xavier Couvelard, Isabel B. Araujo, Rui Caldeira, and Ricardo Tome
Atmospheric-induced effects on the sea surface: Madeira Island wake case study
- XY7 EGU2011-3691
Vanda Grubišić, Johannes Sachspurger, and Rui Caldeira
The atmospheric wake of Madeira Island: i-WAKE Campaign
- XY8 EGU2011-7987
Uwe Harlander, Yongtai Wang, **Kiril Alexandrov**, Torsten Seelig, Christoph Egbers and the MetStröm rotating annulus Team
Intercomparison of numerical models simulating rotating annulus flows
- XY9 EGU2011-12553
Eckhard Dietze, Heiko Schmidt, Juan Pedro Mellado, and Bjorn Stevens
Comparison of LES and DNS results for a two-dimensional evaporatively driven cloud-top mixing layer
- XY10 EGU2011-2063
Fabian Senf and Ulrich Achatz
On generalized linear flows: from compressible to sound-proof dynamics
- XY11 EGU2011-5675
Michael Kurgansky
Dynamical and statistical characteristics of atmospheric dust devils
- XY12 EGU2011-12473
Haraldur Ólafsson, Hálfán Ágústsson, and Ólafur Rögnvaldsson
Patterns of the fine-scale wind climatology of Iceland from numerical downscaling
- XY13 EGU2011-14096
Andreas Will and **Jack Ogaja**
Convergence properties of the spatial schemes in the COSMO model and requirements on higher order spatial convergence
- XY14 EGU2011-11619
Marcin Kurowski, Bogdan Rosa, and Michal Ziemianski
Upstream effects of the atmospheric flow over a mountain ridge as represented by the anelastic nonhydrostatic model EULAG
- XY15 EGU2011-3323
Urs Schaefer-Rolffs and Erich Becker
Scale-invariant Horizontal Diffusion in a Global Circulation Model
- XY16 EGU2011-6565
Liang Sun
General stability criteria for inviscid rotating flow
- XY17 EGU2011-9297
Melitta Fiebig-Wittmaack, Wolfgang Boersch-Supan, Ingeborg Bischoff-Gauss, and Orlando Astudillo
Convergence acceleration for difference equations with flat grids: Application to incompressible atmospheric flow
- XY18 EGU2011-10221
Remi Tailleux
Compressibility effects in nearly incompressible turbulent stratified fluids: Do they matter or do they not?
- XY19 EGU2011-1535
Jose M. Redondo, Otman Ben Mahjoub, Roberto Castilla, Margarita Diez, and Emil Sekula
Mixing and diffusion in buoyancy driven self-similar flows
- XY20 EGU2011-3207
Richard Blender
Instability of planetary flows based on Riemannian geometry
- XY21 EGU2011-9967
Christoph Egbers, Marcus Gellert, Uwe Harlander, Yongtai Wang, and Günther Rüdiger
Investigation of Stratorotational Instability (SRI) in Taylor-Couette flows with axial temperature gradient

SSS2.6/HS12.12/NP3.12 – Sediment dynamics, models and scaling (co-organized) – Orals

Convener: Mike Kirkby | Co-Conveners: Ana Maria Tarquis, Yves Le Bissonnais, Nikolaus J. Kuhn, Anthony Parsons, Klaudia Oleschko, Anne Gobin, Jose A. A.Gomez, Saskia Keesstra, Manuel Seeger, Marcel Van der Perk

Room: 9

Chairperson: Mike Kirkby

- 13:30–13:45 EGU2011-9467
Klaudia Oleschko, Eusebio Ventura, Genaro Armendáriz, Ana Maria Tarquis, and Edith Perrier
Topological invariance and spatial scaling of surface roughness in two highly eroded zones of Mexico: a comparative study

- 13:45–14:00 EGU2011-688
Diana Vieira, Jacob Keizer, João Nunes, Isabel Fernandes, Silvia Faria, Raquel Ferreira, Elisabete Pedrosa, Maria Varela, and Luísa Pereira
 Runoff and erosion at the micro-plot and slope scale in a small burnt catchment, central Portugal
- 14:00–14:15 EGU2011-3632
Magalie Delmas, Olivier Cerdan, and Jean-Marie Mouchel
 Origin of river sediment exports: Taking into account hillslopes characteristics and spatial variability
- 14:15–14:30 EGU2011-10829
Alemayehu Muluneh and Ólafur Arnalds
 Synthesis of Research on Land Use and Land Cover Dynamics in the Ethiopian Highlands
- 14:30–14:45 EGU2011-11239
Irene Marzloff, Johannes B. Ries, and Jean Poesen
 Short-term vs. medium-term monitoring for detecting gully-erosion variability in a Mediterranean environment: Addressing the time-scale problem in gully dynamics
- 14:45–15:00 EGU2011-4580
Gianbattista Bussi and Félix Francés
 Calibration of TETIS-SED model by using check dams sedimentation volumes with different temporal resolutions. Application to a Mediterranean medium size basin (Rambla del Poyo, Spain).
- Chairperson: Saskia Keesstra
- 15:30–15:45 EGU2011-13170
Joris de Vente, Jean Poesen, Matthias Vanmaercke, and Gert Verstraeten
 Predicting soil erosion and sediment yield at the catchment scale: scale issues, modelling and understanding
- 15:45–16:00 EGU2011-669
Léonard Bernard-Jannin, Didier Orange, Pham Dinh Rinh, Thierry Henry des Tureaux, Mathieu Laissus, Pascal Jouquet, and Tran Duc Toan
 The contribution of erosion in a small cultivated hilly catchment of North Vietnam due to an exceptional rainfall event
- 16:00–16:15 EGU2011-4542
alessio radice and elisa giorgetti
 On sediment transport modelling in mountain environments
- 16:15–16:30 EGU2011-12269
 A.N. Thanos Papanicolaou and **Dimitrios Dermisis**
 Investigating the effects of land management practices on upland erosion using a state-of-the-art laser scanner technique
- 16:30–16:45 EGU2011-7386
 Victor Jetten, **BV Rajesh Shruthi**, and Norman Kerle
 Object-based gully feature extraction using high spatial resolution imagery
- 16:45–17:00 EGU2011-7673
Jesús Rodríguez González, Pablo J. Zarco-Tejada, and José Alfonso Gómez
 Inversion of the Hapke model with diurnal multispectral reflectance data for assessing soil surface roughness

SSS2.6/HS12.12/NP3.12 – Sediment dynamics, models and scaling (co-organized) – Posters

Convener: Mike Kirkby | Co-Conveners: Ana Maria Tarquis, Yves Le Bissonnais, Nikolaus J. Kuhn, Anthony Parsons, Klaudia Oleschko, Anne Gobin, Jose A. A.Gomez, Saskia Keesstra, Manuel Seeger, Marcel Van der Perk

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: AnaMaria Tarquis

- Z58 EGU2011-1016
Lionel Mabit
 Sediment dynamics assessed at catchment scale using nuclear techniques with the support of Geographical Information Systems
- Z59 EGU2011-1031
Achim A. Beylich
 Mass transfers, sediment budgets and relief development in four drainage basins in Iceland, Swedish Lapland and Finnish Lapland
- Z60 EGU2011-1397
Achim A. Beylich, Susan Liermann, and Katja Laute
 Spatio-temporal variability of chemical and mechanical denudation in glacier-fed mountain catchments in Nordfjord, western Norway

- Z61 EGU2011-2518
Seifeddine Jomaa, D. Andrew Barry, Alessandro Brovelli, B. C. Peter Heng, Graham C. Sander, Jean-Yves Parlange, and Calvin W. Rose
Effect of stone cover on rainfall-driven soil erosion with negligible surface roughness
- Z62 EGU2011-3805
Marie-Alice Harel, Emmanuel Mouche, Jérémy Patin, and Emmanuel Ledoux
A 1D runoff-runon model : scale and connectivity
- Z63 EGU2011-10261
Saskia Keesstra, Arnaud Temme, Lea Wittenberg, and Noam Greenbaum
Testing LAPSUS-D, a daily sediment delivery model, in a meso-scale Mediterranean catchment: a case study in Israel.
- Z64 EGU2011-10332
Diana Arévalo, Ramón Bienes, Marta Ruiz-Colmenero, and María José Marqués
Comparison of soil erosion models (USLE, RUSLE) and a new adapted model in a basin of central Spain
- Z65 EGU2011-10870
Manuel López-Vicente, Ana Navas, Javier Machín, and Leticia Gaspar
Spatial scale dependency of runoff and sediment connectivity in small sub-catchments in the Spanish Pyrenees
- Z66 EGU2011-12810
Muhammad Anggri Setiawan, Volker Wichmann, Johann Stötter, and Junun Sartohadi
Development of Modified MMF (Morgan-Morgan-Finney) soil erosion model for various spatial and temporal scales
- Z67 EGU2011-636
Annelies Voogt, Saskia Keesstra, and Manuel Seeger
Concepts of catchment-scale sediment connectivity for physically-based and dynamic modeling
- Z68 EGU2011-1591
Els Verachtert, Miet Van Den Eeckhaut, Jean Poesen, Gerard Govers, and Jozef Deckers
Susceptibility models for pipe collapse in loess-derived soils in a temperate humid climate
- Z69 EGU2011-2285
Willem Maetens, Jean Poesen, and Matthias Vanmaercke
Inter-annual variation of runoff and soil loss in Europe and the Mediterranean in relation to land use and climate.
- Z70 EGU2011-3649
Juan Francisco Sanchez-Moreno, Victor Jetten, and Chris Mannaerts
Influence of the map complexity of saturated hydraulic conductivity on runoff and soil erosion modeling. A case study in Ribeira Seca, Santiago Island, Cape Verde.
- Z71 EGU2011-5044
Matthias Vanmaercke, Jean Poesen, Willem Maetens, Joris de Vente, and Gert Verstraeten
The importance of Sediment Yield as a Desertification Indicator
- Z72 EGU2011-9135
Alona Armstrong, John Quinton, and Barbara Maher
Tracing sediment by enhancing soil magnetic properties
- Z73 EGU2011-9718
Giancarlo Dalla Fontana, Simone Calligaro, Federico Cazorzi, and Paolo Tarolli
Automatic recognition of road and pathway induced slope instabilities by high resolution topography
- Z74 EGU2011-12787
Patricia Sande, José Manuel Mirás Avalos, and **Antonio Paz González**
Description of suspended sediments and three phosphorus forms concentrations at the outlet of an agroforestry catchment by multifractal parameters
- Z75 EGU2011-14076
Anne Gobin and Philippe Van de Vreken
Impacts of crop growth dynamics on soil erosion at the regional scale
- Z76 EGU2011-3351
Claudio Bosco, Daniele De Rigo, Olivier Dewitte, and Luca Montanarella
Towards a Reproducible Pan-European Soil Erosion Risk Assessment - RUSLE
- Z77 EGU2011-4706
Ronald Pöppel, Thomas Glade, and Margreth Keiler
The role of humans as (dis)connectors in small fluvial systems: sedimentological effects and their implications

NP4.1 – Time Series Analysis in the Geosciences - Concepts, Methods & Applications – Orals

Convener: Reik Donner | Co-Conveners: Susana Barbosa

Room: 13

Chairperson: Reik Donner, Susana Barbosa

- 08:30–08:45 EGU2011-291
Diego Rybski, Anne Holsten, and Jürgen P. Kropp
 Analyzing the phase statistics of phenological records: fluctuations and correlations with temperature
- 08:45–09:00 EGU2011-5747
Sylvie Parey
 Seasonality and climate change in temperature series of Europe and the United States
- 09:00–09:15 EGU2011-6382
Sebastian Bathiany, Martin Claussen, and Klaus Fraedrich
 On the detectability of Early Warning Signals in a global atmosphere-vegetation model
- 09:15–09:30 EGU2011-1472
Valerie N. Livina and Timothy Lenton
 Tipping points toolbox: novel techniques of time series analysis for studying transitions and bifurcations in climatic records
- 09:30–09:45 EGU2011-4344
Kira Rehfeld, Norbert Marwan, Jobst Heitzig, and Jürgen Kurths
 Kernel-based correlation estimation for irregularly sampled time series
- 09:45–10:00 EGU2011-13320
George Caminha-Maciel and Marcia Ernesto
 Spectral analysis of nonuniformly sampled data series: smoothing and improving resolution of spectral estimates by combining information from multiple series

COFFEE BREAK

Chairperson: Reik Donner, Susana Barbosa

- 10:30–10:45 EGU2011-6440
Andreas Groth and Michael Ghil
 Robust identification of phase synchronization clusters via multivariate singular spectrum analysis
- 10:45–11:00 EGU2011-4367
Nishant Malik, Yong Zou, Norbert Marwan, and Jürgen Kurths
 Employing nonlinear similarities to identify distinct dynamical regimes in short palaeo records
- 11:00–11:15 EGU2011-8408
Jobst Heitzig and Jakob Runge
 Entropy train diagrams for information-based measures of statistical association
- 11:15–11:30 EGU2011-8056
Jin Chen, Marion Jegen-Kulcsar, Max Moorkamp, and Bjoern Heincke
 Using Empirical Mode Decomposition (EMD) for the processing of marine MT data
- 11:30–11:45 EGU2011-4493
Mahmoud El Araby, Noelle Odling, and Roger Clark
 Borehole water level response to barometric pressure fluctuations as an indicator of semi confined aquifer vulnerability: application to the East Yorkshire Chalk aquifer, UK
- 11:45–12:00 EGU2011-10331
Sylvain Mangiarotti, Laurent Drapeau, Raphaël Coudret, and Lionel Jarlan
 Low-dimensional modeling of the dynamics of rainfed wheat in semi-arid region of Settat (Morocco), from NDVI satellite data

NP4.1 – Time Series Analysis in the Geosciences - Concepts, Methods & Applications – Posters

Convener: Reik Donner | Co-Conveners: Susana Barbosa

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Norbert Marwan

- XY543 EGU2011-13461
Sarah Hallerberg, Alexander Ruzmaikin, and Joan Feynman
 Can high-energy proton events in solar wind be predicted via classification of precursory structures?
- XY544 EGU2011-5242
Alejandro Ramírez-Rojas and Elsa Leticia Flores-Marquez
 Non-extensivity analysis of seismicity occurred within four subduction regions in Mexico.
- XY545 EGU2011-5779
Nasim Karamzadeh, Peter Voss, Gholam Javan Doloei, and Alireza Moghaddamjoo
 Local Earthquake Onset Detection Based on Short Time Fourier Transform

- XY546 EGU2011-8942
Octavian G. Dulu and Nelida Florea
19 years of continuous observation of Radon and Thoron emissions: a Time Series Analysis
- XY547 EGU2011-13643
Susana Barbosa, Hovav Zafrir, Gideon Steinitz, Uri Malik, and Oksana Piatibratova
Scale-based analysis of simultaneous I^3 rays and γ particles time series from subsurface radon
- XY548 EGU2011-13660
Manuel Scotto, Susana Barbosa, and Andres Alonso
Clustering analysis of air temperature time series over Europe: quantile regression approach
- XY549 EGU2011-1985
António R. Tomé and Pedro M. A. Miranda
Piecewise continuous trends of time series
- XY550 EGU2011-14013
Reik Donner and Marieke Lewanzik
Nonparametric quantile regression for assessing the nonstationarity of extreme values in geoscientific time series
- XY551 EGU2011-13911
Reik Donner and Maria Koch
Linear and nonlinear spatio-temporal dependences of precipitation and river runoffs in a catchment
- XY552 EGU2011-8392
Carlos Pires
Estimation of Mutual Information from Maximum Entropy distributions and its application to geophysical time series
- XY553 EGU2011-11552
Jakob Runge, Jobst Heitzig, and Jürgen Kurths
Information-theoretic methods to find possible causalities and relevant time lags between multiple time series
- XY554 EGU2011-4516
Robin Crockett
Innate Cycle Correlation.
- XY555 EGU2011-10681
Elena Szolgayova
Modelling and forecasting daily river discharge considering autoregressive heteroscedasticity
- XY556 EGU2011-2149
Xavier Lana, August Burgueño, Dolors Martinez, and Carina Serra
NONLINEAR ANALYSIS OF THE NORTH ATLANTIC (NAO), ATLANTIC MULTIDECADAL (AMO) AND WESTERN MEDITERRANEAN (WeMO) OSCILLATIONS FOR THE COMMON PERIOD 1856-2009
- XY557 EGU2011-5014
Kreso Pandzic and Tanja Likso
Comparing the Palmer Drought Index and the Standardized Precipitation Index for Pannonian Part of Croatia
- XY558 EGU2011-10210
Tamara Shulgina, Elena Genina, and Evgeny Gordov
Selection of a dataset to characterize climate dynamics in Siberia
- XY559 EGU2011-2274
Michael Friedel and Keith Long
A data-driven economic filter for mineral resource assessments

NP4.2 – Satellite time series analysis – Orals

Convener: Rosa Lasaponara | Co-Conveners: Antonio Lanorte, George Petropoulos

Room: 13

Chairperson: Rosa Lasaponara, George Petropoulos

- 13:30–13:45 EGU2011-2188
Garik Gutman
Long-term time series of the Earth's land surface observations from the U.S. space programs
- 13:45–14:00 EGU2011-1783
Javier Litago, Margarita Huesca, Alicia Palacios-Orueta, Silvia Merino-de-Miguel, Javier San Román-Ortiz, and María Quirós-Segovia
Dynamic Influence of Climate and Vegetation on Fire Potential
- 14:00–14:15 EGU2011-3318
Yves Govaerts, Alessio Lattanzio, Kenneth Knapp, Jessica Matthews, Arat Okuyama, and Lothar Schüller
Generation of a surface albedo data set from a constellation of archived geostationary satellite observations

- 14:15–14:30 EGU2011-6819
Fabia Huesler, Stefan Wunderle, Tobias Jonas, and Christoph Neuhaus
 Towards a 25 year snow cover time series over the European Alps derived from AVHRR satellite data: Validation and first results
- 14:30–14:45 EGU2011-8389
Francesca Cigna, Chiara Del Ventisette, and Nicola Casagli
 Monitoring of ground displacements and identification of trend deviations during post-processing of satellite InSAR time series
- 14:45–15:00 EGU2011-9060
Albert Kettner and Robert Brakenridge
 Estimating time series of fluvial suspended sediment by applying remote sensing techniques
- Chairperson: George Petropoulos, Rosa Lasaponara
- 15:30–15:45 EGU2011-9805
Michele Volpi and Mikhail Kanevski
 Kernel-based methods for change detection in remote sensing optical images
- 15:45–16:00 EGU2011-11904
Mirco Boschetti, Francesco Nutini, Pietro Alessandro Brivio, Etienne Bartholomé, Agata Hoscilo, Daniela Stroppiana, and Stefano Bocchi
 Analysis of NDVI and RFE time series to monitor vegetated ecosystem dynamics in Sahel
- 16:00–16:15 EGU2011-13969
Fernando Sedano, Pieter Kempeneers, Peter Strobl, and Jesus San-Miguel
 An estimation of tree cover from medium spatial resolution remote sensing data using an orthogonal vegetation index and Kalman filter
- 16:15–16:30 EGU2011-13971
Pieter Kempeneers, Fernando Sedano, Peter Strobl, and Jesus Ayanz San-Miguel
 Building a Time Series of Pan-European Forest Type Maps Based on Data Fusion of Multispectral and Multitemporal MODIS data
- 16:30–16:45 EGU2011-4164
 Andrea Taramelli, **Francesco Zucca**, Emiliana Valentini, and Federica Braga
 Modelling coastal processes by means of innovative integration of remote sensing time series analysis
- 16:45–17:00 EGU2011-7040
Holger Lange, Miguel Mahecha, and Michael Hauhs
 Characterizing fAPAR variability and complexity on multiple scales

NP4.2 – Satellite time series analysis – Posters

Convener: Rosa Lasaponara | Co-Conveners: Antonio Lanorte, George Petropoulos

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Antonio Lanorte, George Petropoulos

- XY560 EGU2011-13915
Hristo Nikolov and Denitsa Borisova
 Precise Forest Classification Applying the Unmixing Methods
- XY561 EGU2011-12515
 Antonio Loperte, Maria Teresa Carone, Mariagrazia D'Emilio, Annibale Guariglia, Vito Imbrenda, Antonio Satriani, and **Tiziana Simoniello**
 Analysis of vegetation pattern evolution in a coastal area affected by salt water intrusion
- XY562 EGU2011-3623
Tiziana Montesano, Antonio Lanorte, Fortunato De Santis, and Rosa Lasaponara
 MODIS time series for the analysis and characterization of vegetation dynamics before and after fire occurrence
- XY563 EGU2011-3690
Antonio Lanorte, Tiziana Montesano, Fortunato De Santis, and Rosa Lasaponara
 Vegetation recovery monitoring using time series of vegetation indexes obtained from SPOT/VEGETATION data
- XY564 EGU2011-4973
Marily Xigaki, Giorgos Stavroulakis, and Nune Igityan
 Mapping and Monitoring of urban growth using remote sensing imagery analysis: the case of Chania, Crete
- XY565 EGU2011-7949
 Fortunato De Santis, Rosa Lasaponara, **Antonio Lanorte**, and Tiziana Montesano
 Estimating variation of Snow cover mapping using MODIS satellite time series

- XY566 EGU2011-4987
Nicola Masini, Maria Danese, Rosa Lasaponara, and Giuseppe Orefici
 Multitemporal analysis and archaeogeophysical methods to monitor and face the archaeological looting: the experience in Nasca (Southern, Peru)
- XY567 EGU2011-5960
Rosa Coluzzi and Rosa Lasaponara
 Multitemporal aerial LiDAR data for landslide monitoring
- XY568 EGU2011-6736
Fortunato De Santis, Rosa Lasaponara, Antonio Lanorte, and Tiziana Montesano
 A review on Satellite time series for Aerosols Monitoring and air quality estimation in urban area
- XY569 EGU2011-7591
Marily Xigaki, George Petropoulos, Dionissios Kalivas, and Vassiliki Kollias
 Monitoring the changing position of coastlines using Landsat TM imagery: an example from the Pinios river, Greece
- XY570 EGU2011-10433
George Petropoulos, Dionissios Kalivas, and Vassiliki Kollias
 Post-fire Vegetation regeneration mapping using Landsat TM imagery: the case study of Mt. Parnitha, Greece
- XY571 EGU2011-7039
 Kenan Bolat, Serdar Surer, **Orhan Gokdemir**, and Zuhail Akyurek
 Spatial and Temporal Analysis of the Snow Line in the Eastern Part of Turkey Based on MODIS-Terra Data for 2000-2010 period
- XY572 EGU2011-4127
Simon Zwieback, Annett Bartsch, Thomas Melzer, and Wolfgang Wagner
 Monitoring the Landscape Freeze/Thaw State by Radar Remote Sensing: a Novel Sensor Fusion Approach Based on Hidden Markov Models
- XY573 EGU2011-13906
Federico Santini, Mito Omulo Collins, Lorenzo Fusilli, Giovanni Laneve, Angelo Palombo, and Stefano Pignatti
 Exploitation of multi-temporal Stripmap and ScanSAR acquisitions for weed infested equatorial inland waters in synergy with optical EO data: Winam Gulf, Lake Victoria, Kenya, case study.
- XY574 EGU2011-8212
Gabriele Nolè, Maria Danese, Federico Martellozzo, Rosa Lasaponara, and Beniamino Murgante*
 Analyzing urban growth through autocorrelation techniques and urban simulation models
- XY575 EGU2011-13919
Mirco Boschetti, Francesco Nutini, Pietro Alessandro Brivio, Etienne Bartholomé, Agata Hoscolo, Daniela Stroppiana, and Stefano Bocchi
 Analysis of NDVI and RFE time series to monitor vegetated ecosystem dynamics in Sahel
- XY576 EGU2011-5773
Hans-Jürgen Bolle
 Analysis of 1989-2004 one km² AVHRR data with IDRISI ETM
- XY577 EGU2011-12607
Bogdan Mihai, Ionut Sandric, Zenaida Chitu, and Ionut Savulescu
 Settlement pattern change detection analysis (1984-2010) on the Prahova Valley, Romania, using Landsat imagery
- XY578 EGU2011-9881
Stephanie Horion
 A phenology-based approach to identify climatic limiting factors for vegetation growth
- XY579 EGU2011-9342
Paolo Pasquali, Damien Closson, Paolo Riccardi, Alessio Cantone, and Massimo Barbieri
 Comparison of Interferometric SAR and Multispectral time series for determination of Atmospheric Phase Screen
- XY580 EGU2011-4585
Bernard Lacaze and Aydin Ertürk
 Analysis of MSG SEVIRI daily NDVI time series over West Africa 2005-2010
- XY581 EGU2011-7519
Peter Limkilde Svendsen, Ole Baltazar Andersen, and Allan Aasbjerg Nielsen
 Spatio-temporal analysis of multi-sensor observations of the Greenland ice sheet mass loss
- XY582 EGU2011-11995
Elodie Vintrou, Mamy Soumaré, Agnès Bégué, Christian Baron, and Danny Lo Seen
 CHARACTERIZING CULTIVATED AREA IN WEST AFRICA USING MODIS TERRA 250m IMAGERY

CL3.1/NP5.5 – Decadal, seasonal and monthly forecasts (co-organized) – Orals

Convener: Francisco J. Doblas-Reyes | Co-Conveners: Geert Jan van Oldenborgh, Mark Liniger, Stéphane Vannitsem

Room: 17

Chairperson: Dominik Renggli, Francisco Doblas-Reyes

- 08:30–08:45 EGU2011-1251
Patricia Okely, Debra Hudson, Oscar Alves, and Yonghong Yin
 Towards coupled data assimilation in an intraseasonal-seasonal ensemble forecast system
- 08:45–09:00 EGU2011-10030
Johanna Baehr, Wolfgang Müller, Michael Botzet, Robert Piontek, Luis Kornblueh, and Daniela Matei
 Towards seasonal forecasts with the coupled climate model ECHAM6/MPIOM
- 09:00–09:15 EGU2011-6033
Thomas Jung, Laura Ferranti, Gereon Gollan, Richard Greatbatch, Torben Kunz, Jean-Jacques Morcrette, and Frederic Vitart
 Diagnosing the origin and predictability of extratropical circulation anomalies
- 09:15–09:30 EGU2011-1109
 Hui Du, Yves Soufflet, Francisco J Doblas-Reyes, **Virginie Guemas**, Javier Garcia-Serrano, and Muhammad Asif
 Spread induced by initial perturbations in decadal forecasts: Where are the major sources of uncertainties?
- 09:30–09:45 EGU2011-1678
Robert Piontek and Johanna Baehr
 Ensemble generation for decadal scale forecasts using breeding in the ocean
- 09:45–10:00 EGU2011-11828
Bert Wouters, Geert Jan van Oldenborgh, and Wilco Hazeleger
 Decadal predictability of the North-Atlantic region in the EC-Earth model

CL3.1/NP5.5 – Decadal, seasonal and monthly forecasts (co-organized) – Posters

Convener: Francisco J. Doblas-Reyes | Co-Conveners: Geert Jan van Oldenborgh, Mark Liniger, Stéphane Vannitsem

Hall XL | Display Time 08:00–19:30

Author in Attendance: 13:30–15:00

Chairperson: Virginie Guémas, Mark Liniger

- XL81 EGU2011-4258
Dmitri Kondrashov, Mickael Chekroun, Michael Ghil, and Andrew Robertson
 MJO empirical modeling and prediction by past "noise"
- XL82 EGU2011-2724
Christine Traeger-Chatterjee, Richard W. Mueller, Joerg Trentmann, and Joerg Bendix
 Analysis of extreme European summers and prior spring conditions
- XL83 EGU2011-2948
Matthieu Chevallier and David Salas y Melia
 Seasonal predictability of the Arctic sea-ice in a coupled GCM: a diagnostic approach
- XL84 EGU2011-8863
Tim Kruschke, Gregor C. Leckebusch, Dominik Renggli, and Uwe Ulbrich
 Frequency of synoptic-scale winter storms over western North America: decadal variability arising from the Pacific Decadal Oscillation
- XL85 EGU2011-3378
Dominik Renggli, Gregor C. Leckebusch, Tim Kruschke, Uwe Ulbrich, and Eberhard Faust
 Sources of skill in forecasting North Atlantic winter storm activity in dynamical seasonal prediction models
- XL86 EGU2011-9239
Judah Cohen
 How useful was ENSO in predicting Northern Hemisphere climate anomalies over the past two winters?
- XL87 EGU2011-4140
Andrea Alessandri, Andrea Borrelli, Antonio Navarra, Alberto Arribas, Michel Déqué, Philippe Rogel, and Antje Weisheimer
 Evaluation of probabilistic quality and value of the ENSEMBLES multi-model seasonal forecasts: comparison with DEMETER
- XL88 EGU2011-5223
Constantin Andronache
 Seasonal forecast of Atlantic tropical cyclones during intense ENSO events
- XL89 EGU2011-5433
Yuriy Kuleshov, Andrew Charles, Andrew Cottrill, David Jones, Harry Hendon, Eun-Pa Lim, and Roald de Wit
 Pacific Adaptation Strategy Assistance Program: Climate prediction capacities strengthened in the National Meteorological Services
- XL90 EGU2011-5901
Mimi Liu, Bin Wang, and Yongqiang Yu
 Pacific decadal oscillation hindcasts in the FGOALS2_g coupled climate model

- XL91 EGU2011-6091
Alessio Bellucci, Silvio Gualdi, Enrico Scoccimarro, Antonio Navarra, Simona Masina, and Andrea Storto
Decadal climate predictions with the CMCC-CM coupled OAGCM initialized with ocean analyses.
- XL92 EGU2011-4758
Takashi Mochizuki, Masahide Kimoto, Masayoshi Ishii, Hiroaki Tatebe, Yoshiki Komuro, and Takashi Sakamoto
Decadal Prediction in the Pacific using a High Resolution Climate Model
- XL93 EGU2011-2927
Violette Zunz, Hugues Goosse, Svetlana Dubinkina, and Yoann Sallaz-Damaz
Influence of Initialization Method on the Quality of Decadal Climate Predictions
- XL94 EGU2011-3605
Reidun Gangstø, Andreas Weigel, and **Mark Liniger**
The impact of drift correction and detrending on the skill of ENSEMBLES decadal predictions
- XL95 EGU2011-14016
Geert Jan van Oldenborgh and **Francisco Doblas-Reyes**
An estimate of the reliability of climate model trends

HS7.5/NP6.7 – Hydroclimatic stochasticity (co-organized) – Orals

Convener: Demetris Koutsoyiannis | Co-Conveners: Alin Andrei Carsteanu, Salvatore Grimaldi

Room: 33

Chairperson: Salvatore Grimaldi

- 15:30–16:00 EGU2011-55
Robin Thomas Clarke
A critique of some aspects of statistical usage in hydroclimate research.
- 16:00–16:15 EGU2011-12711
Klaus Fraedrich
A minimalist model of terminal lakes
- 16:15–16:30 EGU2011-12891
Susana Barbosa
Aggregation and stochastic features of high-frequency hydroclimatic time series
- 16:30–16:45 EGU2011-854
Federico Lombardo, Elena Volpi, and Demetris Koutsoyiannis
Theoretical and empirical comparison of stochastic disaggregation and downscaling approaches for rainfall time series
- 16:45–17:00 EGU2011-3454
Dimosthenis Tsaknias, Dimitris Bouziotas, Antonis Christofides, Andreas Efstratiadis, and Demetris Koutsoyiannis
Statistical comparison of observed temperature and rainfall extremes with climate model outputs
- 17:00–17:15 EGU2011-11557
Simon-Michael Papalexiou and Demetris Koutsoyiannis
A worldwide probabilistic analysis of rainfall at multiple timescales based on entropy maximization

HS7.5/NP6.7 – Hydroclimatic stochasticity (co-organized) – Posters

Convener: Demetris Koutsoyiannis | Co-Conveners: Alin Andrei Carsteanu, Salvatore Grimaldi

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Alin Carsteanu

- A408 EGU2011-290
Yannis Dialynas, Stefanos Kozanis, and Demetris Koutsoyiannis
A computer system for the stochastic disaggregation of monthly into daily hydrological time series as part of a three-level multivariate scheme
- A409 EGU2011-6884
Simon-Michael Papalexiou and Demetris Koutsoyiannis
Entropy maximization, p-moments and power-type distributions in nature
- A410 EGU2011-739
Panayiotis Dimitriadis, Demetris Koutsoyiannis, Christian Onof, and Katerina Tzouka
Multidimensional Hurst-Kolmogorov process for modelling temperature and rainfall fields
- A411 EGU2011-1489
Demetris Koutsoyiannis, Stefanos Kozanis, and **Hristos Tyrallis**
A general Monte Carlo method for the construction of confidence intervals for a function of probability distribution parameters

- A412 EGU2011-1981
Satoshi Watanabe, Taikan Oki, and Shinjiro Kanae
Evaluations of bias-correction methods for monthly temperature and precipitation data by multiple GCM outputs
- A413 EGU2011-5330
Yuan-Chien Lin, Hwa-Lung Yu, Tsang-Jung Chang, and Yih-Chi Tan
Modeling of space-time typhoon tracks in the vicinity of Taiwan by generalized linear model
- A414 EGU2011-5346
Po-Lin Lin, Hwa-Lung Yu, and Bellie Sivakumar
Investigating space-time patterns of rainfall in I-Lan (Taiwan) by hierarchical clustering and correlation dimension methods
- A415 EGU2011-8266
Sarann Ly, Eléonore Beckers, Catherine Charles, and Aurore Degré
Effects of different spatial interpolators on the estimate of extreme precipitation
- A416 EGU2011-9226
Anna Kuentz, Federico Garavaglia, Emmanuel Paquet, and Rémy Garçon
Stochastic generation of peak-to-volume ratio. Application to SCHADEX method for design flood estimation.
- A417 EGU2011-10126
Ferdinand Beck and András Bárdossy
NiedSim-Klima: Generating Rainfall Time-Series of High Temporal Resolution under Future Climate Conditions
- A418 EGU2011-11632
Dirk Schlöb, Maria Magdalena Eder, Marieke Frassl, Karsten Rinke, and Andras Bardossy
A Vector-Autoregressive "co-shiftable" Weathergenerator for Hydrodynamic Modeling of Lakes
- A419 EGU2011-14074
Irai A. Berdeja-Sotelo, **Alin A. Carsteanu**, Jorge J. Castro, Khalidou M. Ba, and Carlos Diaz-Delgado
Qualitative statistics of rainfall in Mexico City

OS1.2/CL2.2 – The North Atlantic and climate (co-listed) – Orals

Convener: Monika Rhein | Co-Conveners: Richard Greatbatch

Room: D

Chairperson: Rhein

- 08:30–08:45 EGU2011-4416
Herle Mercier, Pascale Lherminier, Claire Gourcuff, Artem Sarafanov, Anastasia Falina, Nathalie Daniault, Bruno Ferron, Thierry Huck, and Virginie Thierry
Variability of the circulation and heat transport from six occupations of the A25 Greenland-Portugal OVIDE section between 1997 and 2010
- 08:45–09:00 EGU2011-7199
Kjetil Våge, Robert S. Pickart, Michael A. Spall, Héðinn Valdimarsson, Steingrímur Jónsson, Daniel J. Torres, Svein Østerhus, and Tor Eldevik
Formation of Denmark Strait Overflow Water via boundary currents and transformation in the central Iceland Sea
- 09:00–09:15 EGU2011-11489
Bogi Hansen, Karin Margretha Larsen, Svein Østerhus, and Detlef Quadfasel
Mixing of the Faroe Bank Channel overflow by convective events
- 09:15–09:30 EGU2011-12484
Tor Eldevik and Jan Even Ø. Nilsen
Northern constraints on the Atlantic thermohaline circulation
- 09:30–09:45 EGU2011-6002
Kerstin Jochumsen and Detlef Quadfasel
Denmark Strait exchanges: structure and variability
- 09:45–10:00 EGU2011-2276
Achim Roessler, Monika Rhein, Christian Mertens, and Dagmar Kieke
Four year transport and pathway time series of the subpolar gyre inferred by integral methods

COFFEE BREAK

Chairperson: Kieke

- 10:30–10:45 EGU2011-3122
Ilaria Stendardo and Nicolas Gruber
Five decades of oxygen trends in the North Atlantic

- 10:45–11:00 EGU2011-3613
Michael A. Spall
 On the role of eddies in the heat transport and overturning circulation in the Nordic Seas
- 11:00–11:15 EGU2011-4645
Anne Marie Treguier, Julie Deshayes, Raphael Dussin, and Jean-Marc Molines
 Interannual variability of the subpolar Atlantic and role of eddies: contribution of numerical models at increasing spatial resolution.
- 11:15–11:30 EGU2011-5721
Erik Behrens, Claus W. Böning, and Arne Biastoch
 Can eddies affect the freshwater distribution and the reaction of the MOC in Greenland melting scenarios?
- 11:30–11:45 EGU2011-7175
Geoffrey Gebbie
 Tracking Glacial Ocean Waters from Surface Source to the Seafloor: An Inverse Method Applied to the Last 25,000 years
- 11:45–12:00 EGU2011-8680
Thomas Martin and Mojib Latif
 The long-term freshwater budget and the relation to the MOC in the North Atlantic.
- Chairperson: Roessler
- 15:30–15:45 EGU2011-3407
Dagmar Kieke, Monika Rhein, and Reiner Steinfeldt
 Revealing LSW formation from a decade of tracer measurements in the subpolar North Atlantic
- 15:45–16:00 EGU2011-2739
Amy Bower, Dan Amrhein, and Ross Hendry
 Are Labrador Sea Water eddies an important transport mechanism in the AMOC?
- 16:00–16:15 EGU2011-13214
Igor Yashayaev
 Hydrography of the Labrador Sea in the first decade of the 21st century
- 16:15–16:30 EGU2011-12805
 Tatiana Rykova, **Fiamma Straneo**, and Amy Bower
 The West Greenland Current System of the Labrador Sea from 1992-2008
- 16:30–16:45 EGU2011-3856
Reiner Steinfeldt, Monika Rhein, and Dagmar Kieke
 Ventilation, formation, and export rates of North Atlantic Deep Water
- 16:45–17:00 EGU2011-548
Erik van Sebille, Molly O. Baringer, William E. Johns, Christopher S. Meinen, Lisa M. Beal, M. Femke de Jong, and Hendrik M. van Aken
 The subtropical signal of Labrador Sea Water variability and the leakiness of the Deep Western Boundary Current

SM3.1 – Seismic Imaging of the Earth's Interior: Theoretical and Methodological Achievements in Seismic imaging (co-listed) – Orals

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

Room: 27

Chairperson: Ivan Koulakov

- 08:30–08:45 EGU2011-7298
James Wookey
 Direct probabilistic inversion of shear-wave data for anisotropy
- 08:45–09:00 EGU2011-296
Armstrong Fransiskus Sompotan, Linus Ampang Pasasa, and Rachmat Sule
 Comparing Models GRM, Refraction Tomography and Neural Network
- 09:00–09:15 EGU2011-5209
Juan Carlos Afonso, Yingjie Yang, Javier Fulla, Sergei Lebedev, and Sergio Zlotnik
 A 3D multi-observable probabilistic inversion method for the compositional and thermal structure of the lithosphere and sublithospheric upper mantle
- 09:15–09:30 EGU2011-5234
Hrvoje Tkalčić, Thomas Bodin, Malcolm Sambridge, Kerry Gallagher, and Pierre Arroucau
 A new Paradigm for Seismic Imaging of the Earth's Crust and Upper Mantle: Transdimensional Inversion of Receiver Functions and Surface Wave Dispersion With Hierarchical Bayes Algorithm
- 09:30–10:00 EGU2011-2999
Guust Nolet, Christophe Zaroli, Jean Charlety, and Diego Mercerat
 Seismic tomography: recent developments and new perspectives

SM3.1 – Seismic Imaging of the Earth's Interior: Theoretical and Methodological Achievements in Seismic imaging (co-listed) – Posters

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

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Jean-Xavier Dessa

- XY695 EGU2011-2436
Yury Kolesnikov and Evgeny Hoguev
 Application of Emission Tomography for Localization of Seismic Sources and Active Zones
- XY696 EGU2011-2513
Genny Giacomuzzi, Nicola Piana Agostinetti, Claudio Chiarabba, Pasquale De Gori, and Alberto Malinverno
 Local Earthquake Tomography by trans-dimensional Monte Carlo sampling
- XY697 EGU2011-3164
Ludek Vecsey, Jaroslava Plomerova, Tuna Eken, and Vladislav Babuska
 Role of seismic anisotropy in isotropic tomographic models of the upper mantle
- XY698 EGU2011-5297
Michel foundotos and Guust Nolet
 Observability of Multiply Reflected P Waves
- XY699 EGU2011-5331
Naeun Kwak, Dong-Joo Min, Youngseo Kim, Ho Seuk Bae, and Ho-Yong Lee
 Reverse time migration in VTI and TTI media
- XY700 EGU2011-6932
Naimeh Moghadasi, Mohammad Reza Gheitanchi, and Hossein Hashemi Shahdani
 Reflection travel time tomography applied in Lorestan
- XY701 EGU2011-6955
Maryam Sadat Mirkamali and Hamid Reza Ramazi
 Detecting faults with using the seismic attributes and neural networks in an oil reservoir
- XY702 EGU2011-13035
Nicola Piana Agostinetti, Alberto Malinverno, Claudio Chiarabba, Leonardo Seeber, Alessandro Amato, Genny Giacomuzzi, Pio Lucente, Irene Bianchi, Massimo Di Bona, and Pasquale De Gori
 Time-evolution of subsurface elastic properties revealed by full 4D seismic tomography: an application to the 2009 L'Aquila earthquake sequence
- XY703 EGU2011-13212
Mark Noble, Alexandrine Gesret, and Nidhal Belayouni
 A fast and accurate 3D finite-difference Eikonal solver using a perturbation method
- XY704 EGU2011-632
Diana Nuñez, Edi Kissling, Diego Cordoba, and Antonio Pazos
 Consistency in CSS phase correlation: Application to CARIBE NORTE data set
- XY705 EGU2011-4539
Andri Hendriyana, Rachmat Sule, Fatkhan Fatkhan, Alfian Bahar, and Alpius Guntara
 An Application of CRS-Based Depth Imaging : Real Data Example
- XY706 EGU2011-2984
Christian Weidle
 Surface wave phase velocity maps from multiscale wave field interpolation
- XY707 EGU2011-1791
Christophe Zaroli, Guust Nolet, Eric Debayle, and Malcolm Sambridge
 Global multiple-frequency SH-wave tomography: refining seismic imaging of the Earth's mantle
- XY708 EGU2011-3030
Benoit de Cacqueray, Philippe Roux, Michel Campillo, Stefan Catheline, Julien Meunier, Thomas Bianchi, and Pierre Boué
 Surface wave study at laboratory scale
- XY709 EGU2011-2857
Jacek Stankiewicz, Trond Ryberg, Christian Haberland, and Michael Weber
 Characteristics of ambient seismic noise used for surface wave tomography

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

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

Room: 27

Chairperson: Heiner Igel

- 15:30–15:45 EGU2011-5524
Peter Moczo, Jozef Kristek, Martin Galis, and Emmanuel Chaljub
 Why some numerical schemes lose their accuracy with increasing P-wave to S-wave speed ratio?

- 15:45–16:00 EGU2011-8755
Andreas Fichtner and Jeannot Trampert
 Quantitative resolution analysis in full seismic waveform inversion
- 16:00–16:15 EGU2011-4949
Ana MG Ferreira, Jennifer Weston, and Gareth J Funning
 Global CMT source inversions using 3D Earth models: comparisons with InSAR
- 16:15–16:30 EGU2011-4851
Karin Sigloch and Guust Nolet
 Frequency dependence of observed P-wave traveltimes and amplitudes, and their prediction by finite-frequency tomography
- 16:30–16:45 EGU2011-11554
Piero Basini, Tarje Nissen-Meyer, Lapo Boschi, Julie Verbeke, Olaf Schenk, and Domenico Giardini
 Ambient-noise tomography of the European lithosphere: numerical calculation of sensitivity kernels for nonuniform noise-source distributions.
- 16:45–17:00 EGU2011-11924
Claudio Satriano, Viviana Dionicio, and Jean-Pierre Vilotte
 Imaging the earthquake rupture from the back projection of body waves

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

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

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Heiner Igel

- XY735 EGU2011-1282
Moritz Bernauer, Andreas Fichtner, and Heiner Igel
 Measurements of translation, rotation and strain: New approaches to seismic processing and inversion
- XY736 EGU2011-2689
Yang Shen and Wei Zhang
 Full-wave ambient noise tomography at local and regional scales
- XY737 EGU2011-2887
Takumi Hayashida, Fumiko Tajima, Junichi Nakajima, and Jim Mori
 Regional Travel-time Inversion and Waveform Modeling for 3D Velocity Structure in Southwestern Japan
- XY738 EGU2011-3731
Simone Cesca, Torsten Dahm, and Daniela Kühn
 Determining the rupture process of the 7 May 2001 M2 4.1 Ekofisk induced earthquake using seismological and deformation data
- XY739 EGU2011-4607
 Davide Gei, Leo Eisner, Vladimir Grechka, **Geza Seriani**, and Peter Suhadolc
 Feasibility of estimation of vertical transverse isotropy from microseismic data recorded by surface monitoring arrays
- XY740 EGU2011-4673
Piero Poli, Michel Campillo, Helle Pedersen, and Polenet/lapnet Working Group
 Emergence of body waves from cross-correlation of short period seismic noise
- XY741 EGU2011-5550
Alan Schiemenz, Martin Kaeser, Hugues Djikpess, and Heiner Igel
 Modeling of Borehole-Guided Waves and Reservoir Formation Reflections with a Discontinuous Galerkin Finite Element Method
- XY742 EGU2011-5682
Jozef Kristek, Peter Moczo, Emmanuel Chaljub, Pierre-Yves Bard, Fabrice Hollender, Peter Franek and the E2VP Team
 Verification of the 3D numerical methods for modeling seismic motion - the case of the Mygdonian basin, Greece
- XY743 EGU2011-5837
Miriam Kristekova, Martin Galis, Peter Moczo, and Jozef Kristek
 A posteriori filtration of the slip-rate time histories
- XY744 EGU2011-6319
Florian Schumacher and Wolfgang Friederich
 Waveform Sensitivity Kernels for 3D Elastic Background Media
- XY745 EGU2011-6858
Lubica Valentova, Frantisek Gallovic, and Josep de la Puente
 Inversion of Love wave traveltimes in Czech Republic using adjoint method

- XY746 EGU2011-8552
Maria Nader, Heiner Igel, Dieter Kurrle, Ana Ferreira, Joachim Wassermann, and Ulrich Schreiber
 Observations of Earth's Free Oscillation with Long-Period Rotational Ground Motion Records.ÂÂ
- XY747 EGU2011-8638
Piero Poli, Michel Campillo, Helle Pedersen, and Polenet/Lapnet Working Group
 Emergence of body waves from cross-correlation of short period seismic noise
- XY748 EGU2011-11181
Catherine Gourdin, Guust Nolet, Guy Masters, and Gaby Laske
 New mode splitting estimations from recent large earthquakes
- XY749 EGU2011-11227
Seyed Kasra Hosseini zad, Karin Sigloch, Simon Stähler, and Tarje Nissen-Meyer
 "No Data Left Behind" - Efficient waveform processing for global finite-frequency tomography
- XY750 EGU2011-12737
Nian Wang, Yann Capdeville, Gael Burgos, and Jean-Paul Montagner
 Separation of intrinsic and artificial anisotropy by using homogenization method
- XY751 EGU2011-12797
Tarje Nissen-Meyer and Alexandre Fournier
 Fréchet kernel sensitivity

SM3.7 – Multi-dimensional electromagnetic modelling and inversion (co-listed) – Posters

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

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY769 EGU2011-2953
Josef Pek, Fernando A. M. Santos, and Yuguo Li
 Magnetotelluric Inversion for 2-D Anisotropic Conductivity
- XY770 EGU2011-4834
Marion Miensopust and Alan G. Jones
 Artefacts of isotropic inversion applied to anisotropic magnetotelluric data
- XY771 EGU2011-14056
 Anna Marti, **Pilar Queralt**, Juanjo Ledo, and Colin Farquharson
 Electrical anisotropy: dimensionality imprints in magnetotelluric responses and effects in isotropic inversion.
- XY772 EGU2011-4746
Jan-Philipp Schmoldt and Alan G. Jones
 Using anisotropic approaches to realise 2D magnetotelluric inversion of a subsurface with depth-varying geoelectric strike direction - Synthetic model study and application to real data from the PICASSO Phase I project
- XY773 EGU2011-125
Kaijun Xu, Jianping Li, and Zhan Liu
 Three-dimensional Complex Resistivity Modelling and Inversion with Topography
- XY774 EGU2011-4368
Seyedmasoud Ansari and Colin G. Farquharson
 3D Finite-element Simulation of Controlled-source EM problems Using Edge and Nodal Interpolation functions
- XY775 EGU2011-6266
Ralph-Uwe Börner, Martin Afanasjew, Stefan Güttel, Oliver G. Ernst, Michael Eiermann, and Klaus Spitzer
 Three-Dimensional Simulation of Time-Domain Electromagnetic Fields using Krylov Subspace Methods, Finite Elements, and an Exact Boundary Condition
- XY776 EGU2011-6270
Antje Franke-Börner, Ralph-Uwe Börner, and Klaus Spitzer
 The evaluation of different formulations of the MT boundary value problem for 3D finite element simulation

Tuesday, 05 April

GM2.5 – Simplicity and complexity in evolution of coupled geomorphologic systems: concepts, models and applications (co-listed) – Orals

Convener: Margreth Keiler | Co-Conveners: Johnny Douvinet, Derek Karssenberg, Arnaud Temme

Room: 21

Chairperson: Margreth Keiler & Arnaud Temme

- 13:30–13:45 EGU2011-10287
Kirsten v. Elverfeldt
After all, what does "far from equilibrium" mean?
- 13:45–14:00 EGU2011-4042
Thomas Euler
Self-organisation of fluvial obstacle marks
- 14:00–14:15 EGU2011-10714
Eric Masson
Toward a new system approach of catchment complexity
- 14:15–14:30 EGU2011-4371
Greg Hancock
Numerically modelling landscape evolution - how good can we get the predictions?
- 14:30–14:45 EGU2011-10614
Liran Goren and Sean Willett
Landscape characterization with DAC (DIVIDE AND CAPTURE), a new surface evolution model
- 14:45–15:00 EGU2011-13012
Sebastien Salvador-Blanes, Budiman Minasny, and Alex B. McBratney
Modelling soil formation at the profile scale
- Chairperson: Johnny Douvinet & Derek Karssenberg
- 15:30–15:45 EGU2011-2092
Jantiene Baartman, Wouter Van Gorp, Arnaud J.A.M. Temme, and Jeroen M. Schoorl
Modelling sediment dynamics due to hillslope-river interactions: incorporating fluvial behaviour in landscape evolution model LAPSUS
- 15:45–16:00 EGU2011-2247
Lieven Claessens, Jeroen M. Schoorl, Peter H. Verburg, Lieke Geraedts, and Tom Veldkamp
Modelling interactions and feedback mechanisms between land use change and landscape processes
- 16:00–16:15 EGU2011-4064
Jose Munoz-Rojas, Javier de Pedraza Gilsanz, and Rosa M Carrasco González
Contesting the role of regional geomorphology in spatial planning through non-euclidian geometries and fuzzy clustering methodologies.
- 16:15–17:00 **Discussion and Poster Introduction**

GM2.5 – Simplicity and complexity in evolution of coupled geomorphologic systems: concepts, models and applications (co-listed) – Posters

Convener: Margreth Keiler | Co-Conveners: Johnny Douvinet, Derek Karssenberg, Arnaud Temme

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Derek Karssenberg & Margreth Keiler

- A106 EGU2011-3034
Mike Kirkby
Langbein and Schumm revisited
- A107 EGU2011-4019
David Dunkerley
Widespread Hortonian overland flow in deserts: is the classical argument applicable in the drylands of western New South Wales, Australia?
- A108 EGU2011-1611
Diethard Sanders
Hitherto undescribed pattern of rock cliff/talus development: The 'breach concept'.
- A109 EGU2011-12023
Margreth Keiler and Kirsten von Elverfeldt
Can we predict and control complex, self-organized systems?

- A110 EGU2011-8181
Dave Favis-Mortlock
Early warning of emergent connectivity on an eroding hillslope
- A111 EGU2011-12231
Derek Karssenberg
Early-warning signals in ecogeomorphology: the example of a hillslope system
- A112 EGU2011-7139
Julia Eisl and Christian Scheidl
Flow process identification in torrent catchments by geomorphological parameters in the Austrian Alps
- A113 EGU2011-10442
Victor Clamote, Jose Nobre, and Ana Gomes
Classification and study of geomorphologic forms present in Serra das Mesas (Sabugal, Portugal). A first approach to identify the processes associated.
- A114 EGU2011-141
Inga Voropaeva
The structure and specific features of formation of floodplain wetlands in Amur Region
- A115 EGU2011-7683
Johnny Douvinet, Cyril Fleurant, Daniel Delahaye, Sebastien Caillaud, and Vincent Viel
Cellular Automata and Agent-Based Models in response to different environmental problems: a review of French research over the last ten years
- A116 EGU2011-8836
Luca Ziliani, Nicola Surian, and Tom Coulthard
Cellular automata modelling of future channel changes in a large gravel-bed river
- A117 EGU2011-10282
Arnaud Temme
Form-process relations versus multi-process landscape evolution models
- A118 EGU2011-10271
Arnaud Temme, Jeroen Schoorl, and Lieven Claessens
Strategies for the set-up of a multi-process landscape evolution model.
- A119 EGU2011-3277
Christopher Hackney, Prof. Stephen Darby, and Dr. Julian Leyland
Modelling the effects of climate change and sea-level rise on the evolution of incised coastal gullies.
- A120 EGU2011-2100
Domenico Capolongo, **Alberto Refice**, and Emanuele Giachetta
Investigating valley spacing dynamics in linear mountain fronts through terrain numerical modeling
- A121 EGU2011-880
Tom Coulthard, Greg Hancock, and John Lowry
Using a downscaled landscape evolution model to model plot scale soil erosion
- A122 EGU2011-12499
Niladri Gupta, Peter M. Atkinson, and Paul A. Carling
A spatially distributed probabilistic model for forecasting river planform change of an alluvial mega-river
- A123 EGU2011-9598
Garry Willgoose and Greg Hancock
Unique Challenges in Modelling Post-mining Landforms Using Landform Evolution Models
- A124 EGU2011-1304
Jan Nyssen, Dominiek Vermeersch, Stijn Diependaele, Jo Palmers, **Matthias Vanmaercke**, and Jean Poesen
Geomorphic processes on coal tips in Belgium
- A125 EGU2011-10467
Yulia Blinova and Andrey Bredikhin
Assessment of geomorphic risks and attractiveness for recreational purposes

NP1.1 – Advances and Challenges in Nonlinear Geosciences (including Lewis Fry Richardson Medal Lecture & Outstanding Young Scientist Lecture) – Orals

Convener: Henk A. Dijkstra | Co-Conveners: Jose M. Redondo, Vincent Rey, Jost von Hardenberg, Jinqiao Duan, Shaun Lovejoy, Stefano Pierini, Olivier Talagrand

Room: 18

Chairperson: n.n.

13:30–13:35 **Presentation of the Award**

13:35–13:50 EGU2011-14055

Reik Donner

Towards a new paradigm for analysing nonlinear geoscientific time series

13:50–14:00 **BB Mandelbrot: a Fractal Trail in Science and Society by Daniel Schertzer**

- 14:00–14:30 EGU2011-9733
Andrea Rinaldo
 Scaling in ecosystems: linkage of macroecological laws, spatial effects on species persistence, implications for biodiversity
- 14:30–15:00 EGU2011-8511
Shaun Lovejoy and Daniel Schertzer
 Multifractal cascades and the emergence of atmospheric dynamics
- Chairperson: n.n.
- 15:30–16:00 EGU2011-14104
Michael Ghil
 Fractal Objects in Geoscience Models
- 16:00–16:30 EGU2011-14122
Bernard Sapoval and Andrea Baldassarri
 Retro-action model for the formation of irregular or fractal rocky coasts. Are irregular breakwaters more efficient ?
- 16:30–17:30 EGU2011-14105
Catherine Nicolis
 Atmospheric and climatic variability: some generic dynamical and probabilistic features (Lewis Fry Richardson Medal Lecture)

NP1.2 – Open session on Nonlinear Inversion in Geophysics – Posters

Convener: Sid-Ali OUADFEUL | Co-Conveners: Leila ALIOUANE

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Sid-Ali OUADFEUL

- XY657 EGU2011-4529
Bjorn Heincke, Max Moorkamp, Marion Jegen, and Richard W. Hobbs
 Joint inversion scheme with an adaptive coupling strategy - applications on synthetic and real data sets
- XY658 EGU2011-5485
 Eko Januari Wahyudi, **Wawan Gunawan A Kadir**, and Hendra Grandis
 2 Bit Inversion of 4D Gravity Data Using Genetic Algorithm to Characterize Injection and Production Zone in Permeable Layer
- XY659 EGU2011-3665
Florent Sztikar, Jérôme Dymont, Yves Fouquet, Eva Hoisé, and Yujin Choi
 Near seafloor magnetic anomalies on oceanic hydrothermal sites: data reduction
- XY660 EGU2011-2332
Nobuhiro Isezaki, Jun Matsuo, Keizo Sayanagi, and Makoto Harada
 An analysis error on scalar magnetic anomalies: The case study in the exploration of deep seabed resource project
- XY661 EGU2011-1042
Nouredine djarfour, Jala farahtia, Kamel baddari, and Sid-Ali ouadfeul
 Application of Artificial Neural Networks to Seismic Tomography
- XY662 EGU2011-150
Ahmed Khalil
 Geophysical Study of the Subsurface Electrical Conductivity at Sahl El Qaa area, Southern Sinai Peninsula, Egypt
- XY663 EGU2011-531
Leila aliouane and Amar boudella
 Reservoir fluid delineating from well-logs data using neural network
- XY664 EGU2011-1043
Lok baral
 Development of Smart Tunnel Transportation System Operated by Gravitational Potential Energy for Protecting the Global Environment.
- XY665 EGU2011-1073
lok baral
 Study of the Technology Development of Harvesting Gravitational Potential Energy for Transportation by Using CASWAT-G
- XY666 EGU2011-13715
Said Eladj and Sid Ali Ouadfeul
 Prediction of hydrocarbon accumulations using the Nonlinear inversion of Seismic data

NP3.3 – Fractal and multifractal analysis and their applications in solid earth geoscience – Posters

Convener: Sid-Ali OUADFEUL | Co-Conveners: Leila ALIOUANE

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Sid-Ali OUADFEUL

- XY667 EGU2011-723
Lena A. Brinkhoff, Christian von Savigny, Scott Bailey, Cora Randall, and James M. Russell III
 The fractal perimeter dimension of noctilucent clouds/polar mesospheric clouds
- XY668 EGU2011-4062
Yan Wei and Niu Anfu
 The fractal characteristics of crustal deformation curve and its earthquake cases
- XY669 EGU2011-126
Leila aliouane and Amar boudella
 Neural network and lithofacies prediction from well-logs data
- XY670 EGU2011-1051
Hossain hassani and Hamid sarkheil
 Fracture Analysis in Tabnak Hydrocarbon Field of Iran by using Fractal Geometry and Multifractal Methods
- XY671 EGU2011-50
Said Gaci, Naima Zaourar, Louis Briquet, and Mohamed Djeddi
 Local Hölder regularity-based modelling of airborne spectrometric data. Case study: Gamma Ray measurements in the Hoggar region (Algeria)
- XY672 EGU2011-51
Said Gaci, Naima Zaourar, Louis Briquet, and Mohamed Djeddi
 Fractal characterization of natural radioactivity measurements in the Hoggar region (Algeria)

NP8.1 – Stochastic Approaches for Multiscale Modelling in Geosciences – Orals

Convener: Balasubramanya Nadiga | Co-Conveners: Daniel Schertzer, Jinqiao Duan, Christian Franzke, Ilya Timofeyev

Room: 13

Chairperson: Christian Franzke and Balasubramanya Nadiga

- 10:30–10:45 EGU2011-12332
Marianne Corvellec, Freddy Bouchet, and Eric Simonnet
 Continuousness and discontinuousness of stochastically induced transitions in geophysical turbulence
- 10:45–11:00 EGU2011-483
Daniel Peavoy
 Data assimilation for the construction of low dimensional stochastic models of the atmosphere
- 11:00–11:15 EGU2011-5643
Daan Crommelin
 A stochastic, data-driven approach to subgrid scale modeling
- 11:15–11:30 EGU2011-8230
Stamen Dolaptchiev, Ilya Timofeyev, and Ulrich Achatz
 Subgrid scale closure for the Burgers equation based on stochastic mode reduction
- 11:30–11:45 EGU2011-13269
Nikolaos Bakas and Petros Ioannou
 Stochastic structural stability of a barotropic flow
- 11:45–12:00 EGU2011-8537
Kristoffer Rypdal and Martin Rypdal
 Memory in stochastic component and multi-decadal trends of solar activity

NP8.1 – Stochastic Approaches for Multiscale Modelling in Geosciences – Posters

Convener: Balasubramanya Nadiga | Co-Conveners: Daniel Schertzer, Jinqiao Duan, Christian Franzke, Ilya Timofeyev

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Balasubramanya Nadiga and Christian Franzke

- XY673 EGU2011-9617
Rafail Abramov
 Low Frequency Climate Response of Quasigeostrophic Wind-Driven Ocean Circulation
- XY674 EGU2011-3132
Christian Franzke, Tim Graves, Nicholas W. Watkins, Robert B. Gramacy, and Cecilia Hughes
 Self-Similarity, Long-Range Dependence and Paradigmatic Models for Natural Time Series
- XY675 EGU2011-12091
Nicholas Watkins
 Exploiting the parallels between nonlinear systems: geospace complexity vs. atmospheric complexity.

XY676 EGU2011-13089

Balasubramanya Nadiga

A parameterization of model error and its use in ocean data assimilation

CL4.1/NP8.2 – Stochasticity and Statistical Physics in Climate Dynamics (co-organized) – Orals

Convener: Michael Ghil | Co-Conveners: Mickael David Chekroun, Valerio Lucarini

Room: 13

Chairperson: Ghil, Lucarini, Chekroun

08:30–08:45 EGU2011-14167

Catherine Nicolis

Stochastic resonance in multistable systems

08:45–09:00 EGU2011-3757

Grant Branstator

Using the fluctuation-dissipation theorem to examine the atmospheric response to moving tropical heat sources

09:00–09:15 EGU2011-12296

Henk Dijkstra, Taylan Sengul, and **Shouhong Wang**

Dynamic Transitions and Hexagonal Patterns in Surface Tension Driven Convection

09:15–09:30 EGU2011-9930

Georg Gottwald and David Lewis

Stochastic model reduction on manifolds

09:30–09:45 EGU2011-12459

Paul Williams

Stochastic parameterizations in comprehensive climate models (solicited)

09:45–10:00 EGU2011-12182

Freddy Bouchet, Marianne Corvellec, and Eric Simonnet

Non-equilibrium statistical mechanics of geophysical flows

CL4.1/NP8.2 – Stochasticity and Statistical Physics in Climate Dynamics (co-organized) – Posters

Convener: Michael Ghil | Co-Conveners: Mickael David Chekroun, Valerio Lucarini

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Ghil, Lucarini, Chekroun

XY330 EGU2011-803

Salvatore Pascale, Jonathan M. Gregory, Maarten Ambaum, and Remi Tailleux

MEP climate, horizontal and vertical material entropy production in a simple two-dimensional model

XY331 EGU2011-951

Dmitry Mukhin, Andrew Gavrilov, Evgeny Loskutov, and Alexander Feigin

Reconstruction of a dynamical system underlying an observed time series by optimal stochastic models

XY332 EGU2011-1473

Valerie N. Livina, Timothy M. Lenton, Vasilis Dakos, Egbert H. van Nes, and Marten Scheffer

Early warning of climate tipping points: comparing methods to limit false alarms

XY333 EGU2011-1768

Stefano Pierini

On the low-order character of coherence resonance in the midlatitude wind-driven ocean circulation

XY334 EGU2011-4055

Alexander Feigin, Dmitry Mukhin, Andrey Gavrilov, and Eugeny Loskutov

Stochastic modeling of ENSO phenomena: low-dimensional prognostic model from time series

XY335 EGU2011-4115

Mojib Latif and Wonsun Park

Atlantic Meridional Overturning Circulation response to idealized solar forcing

XY336 EGU2011-4798

Christina Karamperidou, Francesco Cioffi, and Upmanu Lall

Surface Temperature Gradients and their relation to Mid-latitude Circulation Dynamics and inter-annual

Precipitation variability: Trends and links to ENSO in Observations and Low-order Climate models.

XY337 EGU2011-5825

William I. Newman, **Bruce D. Malamud**, and Donald L. Turcotte

Statistical properties of record-breaking temperatures

XY338 EGU2011-6326

Sebastian Bathiany, Martin Claussen, and Klaus Fraedrich

On the mechanism of the vegetation collapse in the Sahara/Sahel at the end of the African Humid Period

- XY339 EGU2011-10692
Valerio Lucarini, Klaus Fraedrich, and Francesco Ragone
Thermodynamical properties of planetary fluid envelopes
- XY340 EGU2011-11192
Hannah Arnold, Tim Palmer, and Irene Moroz
Stochastic Parametrisation and Model Uncertainty in the Lorenz '96 System
- XY341 EGU2011-11351
Salvatore Pascale, Valerio Lucarini, and Robert Boschi
Snowball Earth hysteresis experiment with the FAMOUS coupled atmospheric-ocean general circulation model: thermodynamic and climatological analysis
- XY342 EGU2011-11805
Valerio Lucarini and Stefania Sarno
A Statistical Mechanical Approach for the Computation of the Climatic Response to General Forcings
- XY343 EGU2011-11880
Valerio Lucarini and Francesco Ragone
Energetics of climate models: Net energy balance and meridional enthalpy transport
- XY344 EGU2011-12318
Francesco Ragone, Hartmut Borth, and Klaus Fraedrich
Stochastic parameterization of atmospheric convection in a GCM (Planet Simulator)
- XY345 EGU2011-13292
Florian Sévellec and Alexey Fedorov
On the stability asymmetry of the glacial-interglacial cycle
- XY346 EGU2011-13319
Themistoklis P. Sapsis, **Pierre P.F.J. Lermusiaux**, and Mattheus P. Ueckermann
Stochastic Analysis of Double Gyre and Thermohaline Flows
- XY347 EGU2011-14060
Robert Niven and Hisashi Ozawa
Conditional Derivation of the Maximum Entropy Production Principle and its Application to Planetary Climate Systems

OS1.2/CL2.2 – The North Atlantic and climate (co-listed) – Orals

Convener: Monika Rhein | Co-Conveners: Richard Greatbatch

Room: D

Chairperson: Rhein

- 08:30–08:45 EGU2011-4373
Sergey Gulev, Mojib Latif, and Noel Keenlyside
Role of air-sea fluxes in the North Atlantic climate variability on interdecadal and interannual time scales
- 08:45–09:00 EGU2011-3787
Sydney Levitus
Multidecadal variability of the subpolar gyre of the North Atlantic
- 09:00–09:15 EGU2011-1658
Katja Lohmann, Johann Jungclauss, Michael Botzet, Helmuth Haak, Stephan Lorenz, and Daniela Matei
Response of the (multi)decadal variability of the Atlantic meridional overturning circulation to suppressed variability in subpolar deep water formation (and overflows)
- 09:15–09:30 EGU2011-2779
Shane Elipot, Chris Hughes, Eleanor Frajka-Williams, and Miguel Angel Morales Maqueda
Observed latitudinal coherence of the North Atlantic Meridional Overturning Circulation
- 09:30–09:45 EGU2011-10199
Paul Halloran, Ian Totterdell, Matthew Mennary, Ben Booth, and Nick Dunstone
The Rise and Fall of the North Atlantic CO₂ Sink
- 09:45–10:00 EGU2011-11566
Daniela Matei, Johanna Baehr, Johann Jungclauss, Helmuth Haak, Wolfgang Müller, and Jochem Marotzke
Interannual predictions of the Atlantic Meridional Overturning Circulation at 26.5°N

OS1.2/CL2.2 – The North Atlantic and climate (co-listed) – Posters

Convener: Monika Rhein | Co-Conveners: Richard Greatbatch

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Steinfeldt

- XY677 EGU2011-3595
Dmitry Sein, Uwe Mikolajewicz, Ernst Maier-Reimer, and Matthias Groeger
 Downscaling of climate change A1B scenario projection on North Atlantic - European shelves ocean - atmosphere system
- XY678 EGU2011-9138
Dorotea Iovino, Christophe Herbaut, and Marie-Noelle Houssais
 High-resolution modelling of sea-ice and ocean dynamics in the Nordic Seas
- XY679 EGU2011-1482
George Vanyushin, Anatoly Troshkov, Michail Kruzhalov, and Tatiana Bulatova
 The Norwegian and Barents Seas: current temperature conditions (based on satellite data).
- XY680 EGU2011-2239
Steingrímur Jonsson and Hedinn Valdimarsson
 Variability of volume and heat transport of water masses on the north Icelandic shelf
- XY681 EGU2011-3703
 Eric de Boisseson, Virginie Thierry, **Herle Mercier**, and Guy Caniaux
 Origin, formation and variability of the Subpolar Mode Water observed over the Reykjanes Ridge
- XY682 EGU2011-2354
John 'Paul' Spence, Oleg Saenko, Willem Sijp, and Mathew England
 The role of bottom pressure torques on the interior pathways of North Atlantic Deep Water
- XY683 EGU2011-1262
Monika Rhein, Dagmar Kieke, and Reiner Steinfeldt
 The Deep Western Boundary Current and its role for the propagation of newly formed deep water in the North Atlantic
- XY684 EGU2011-3019
Claudia Denker, Dagmar Kieke, Birgit Klein, Holger Klein, and Monika Rhein
 Transport over the Mid-Atlantic-Ridge through the Faraday Fracture Zone
- XY685 EGU2011-2895
Damien Desbruyeres, Virginie Thierry, and Herlé Mercier
 Long-term variability of the North Atlantic Current system in a realistic simulation
- XY686 EGU2011-2594
 Linn Schneider, **Dagmar Kieke**, Monika Rhein, and Birgit Klein
 Mixed layer evolution in the subpolar North Atlantic measured by Argo floats
- XY687 EGU2011-3217
Christian Uhe, Achim Roessler, and Monika Rhein
 Transport variability in the North Atlantic Current inferred from satellite altimetry
- XY688 EGU2011-3428
Sandrine Mulet, Stéphanie Guinehut, Marie-Hélène Rio, Anne-Lise Dhomp, Laurent Bessieres, Gaël Nicolas, and Gilles Larnicol
 Combination of in-situ and satellite observations to monitor the Ocean State: Application to the North Atlantic Ocean
- XY689 EGU2011-3666
Vassil Roussenov, Richard G. Williams, M. Susan Lozier, and Doug M. Smith
 The effect of gyre-scale property changes on the North Atlantic overturning over the last 50 years
- XY690 EGU2011-3682
David Brayshaw, Brian Hoskins, and Michael Blackburn
 North Atlantic sea surface temperatures and the structure of the atmospheric storm track
- XY691 EGU2011-3481
Mingming Li, Christian Mertens, Maren Walter, and Monika Rhein
 Estimate of Diapycnal Mixing from eight Hydrographic Surveys in the Subpolar North Atlantic
- XY692 EGU2011-3788
Christopher Piecuch and Rui Ponte
 Attributing Climate-Scale Variability in Atlantic Ocean Heat Storage
- XY693 EGU2011-14188
Matthias Koeller
 Decadal Subpolar Gyre variability and relation to heat exchange in the Nordic Seas
- XY694 EGU2011-12600
Francisco Alvarez-Garcia, Maria J. OrtizBevia, and William CabosNarvaez
 North Atlantic decadal variability: deconstructing the SST tripole
- XY695 EGU2011-11358
 ben booth, **paul halloran**, and nick dunstone
 Role of external drivers in historical Atlantic Temperature changes
- XY696 EGU2011-13366
Rita Lecci, Simona Masina, Annalisa Cherchi, and Marcelo Barreiro
 Sensitivity of the Atlantic Thermohaline Circulation to extreme CO2 forcing

- XY697 EGU2011-10105
Christian Rodehacke, Steffen Olsen, Gao Yongqi, Didier Swingedouw, Matthew Menary, Erik Behrens, Arne Biastoch, and Uwe Mikolajewicz
 First glance on simulated fresh water releases around Greenland's coast and its impacts on the ocean circulation
- XY698 EGU2011-5182
Florian Sévellec and Alexey Fedorov
 An Interdecadal Oscillatory Eigenmode of the Atlantic Meridional Overturning Circulation in a realistic Ocean GCM
- XY699 EGU2011-5155
Shoshiro Minobe, Masato Miyashita, Akira Kuwano-Yoshida, Hiroki Tokinaga, and Shang-Ping Xie
 Atmospheric response to the Gulf Stream: Shallow & Deep Heating Modes
- XY700 EGU2011-5098
Joseph Holden and Tim Burt
 Long-term change in temperature and rainfall with altitude in Britain
- XY701 EGU2011-6339
Charles Troupin and Francisco Machín
 Wind-induced temperature anomalies in the tropical and subtropical North Atlantic Ocean in 2010
- XY702 EGU2011-885
Anastase Alexandre Charantonis, Sylvie Thiria, Cyril Moulin, and Julien Brajard
 Inversion of sea surface data to retrieve the vertical distribution of phytoplankton using a statistical methodology
- XY703 EGU2011-2757
Ursula Quillmann, Anne E. Jennings, Tom M. Marchitto, Vivian Underhill, and John T. Andrews
 Holocene Evolution of the Irminger Current: a Perspective from the Southwest Iceland Shelf
- XY704 EGU2011-2822
Mi-Kyung Sung, Yoo-Geun Ham, Soon-Il An, and Jong-Seong Kug
 Intraseasonal Phase Transition of the NAO-Like Response to El Nino and Its Alteration by the Tropical North Atlantic SST
- XY705 EGU2011-3552
Willem Sijp
 Precise calculations of the existence of multiple AMOC equilibria in coupled climate models
- XY706 EGU2011-3869
Aixue Hu, Gerald Meehl, and Weiqing Han
 Impact of the background conditions on the climate response to external forcings
- XY707 EGU2011-3887
Holly Dail and Carl Wunsch
 Synthesizing Benthic and Planktonic Proxy Records: State Estimation of the Last Glacial Maximum North Atlantic Circulation
- XY708 EGU2011-4142
Jacek Piskozub and Dorota Gutowska
 Constraining the MOC influence on the 20th century global temperature trends
- XY709 EGU2011-4408
Patrick Scholz and Gerrit Lohmann
 Decadal variability in a new high-resolution model of the North Atlantic ocean
- XY710 EGU2011-4442
Grant Buffett, Ramon Carbonell, Valenti Sallarès, and Jose Lluís Pelegrí
 Seismic oceanography as a tool to monitor climate change
- XY711 EGU2011-5515
Vasiliy Melnikov, Lidija Moskalenko, and Natalija Kuzevanova
 North-East Black Sea climate system decadal variability
- XY712 EGU2011-5867
Fritz Richard Karbe, Monika Rhein, Christian Mertens, Dagmar Kieke, and Maren Walter
 Deep Western Boundary Current observations off Flemish Cap during 2009/2010
- XY713 EGU2011-6687
 Fran Santos, Moncho Gómez-Gesteira, Maite deCastro, and **Isabel Iglesias**
 Coastal and Oceanic SST variability along the western Iberian Peninsula.
- XY714 EGU2011-7259
Takasumi Kurahashi-Nakamura, Martin Losch, André Paul, Stefan Mulitza, and Michael Schulz
 Reconstruction of the LGM ocean circulation from data with the adjoint method
- XY715 EGU2011-7994
Harald Bartenstein, Ben Marzeion, and Helen Johnson
 Stratification-dependent Mixing in Box Model of a Wind-Driven Atlantic Overturning under Thermohaline Forcing

- XY716 EGU2011-8357
Kristin Richter and Sönke Maus
Interannual variability in the hydrography of the Norwegian Atlantic Current: local forcing versus advection
- XY717 EGU2011-8691
Sarah Taws, Robert Marsh, and Neil Wells
Decadal Changes in the Re-emergence of Sea Surface Temperature Anomalies in the Northeast Atlantic
- XY718 EGU2011-8900
Yves Tanguy, Sylvie Thiria, and Sabine Arnault
Inversion of temperature profiles from satellite data in the tropical Atlantic based on Self Organizing Map
- XY719 EGU2011-9215
Laure Zanna
Variability and Predictability of observed Atlantic sea surface temperatures
- XY720 EGU2011-9444
Christopher W. Hughes, Shane Elipot, Miguel Angel Morales Maqueda, and Rory Bingham
A window on the deep ocean: Demonstration that the steep western Atlantic continental slope acts to filter out mesoscale noise and provides a quiet window into the deep circulation.
- XY721 EGU2011-9490
Paulo Oliveira and Álvaro Peliz
Azores Current Winter Pathways
- XY722 EGU2011-9574
Maureen Conte and John C Weber
Seasonal, interannual and decadal patterns in deep ocean particle flux in the Sargasso Sea and linkage with upper ocean physics and biology
- XY723 EGU2011-10610
Ilker Fer, Elin Darelius, and Detlef Quadfasel
Mesoscale variability of the Faroe Bank Channel Overflow
- XY724 EGU2011-13059
Bente Tiedje, Armin Köhl, and Johanna Baehr
Potential predictability of the North Atlantic heat transport based on an oceanic state estimate

Wednesday, 06 April

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 María 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 Pajtók-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 María Gonzalez-Tirados

- XL1 EGU2011-1626
Kakha Nadiradze and Nana Phirosmnashvili
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 Moratíel, 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 of 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 “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"

GMPV12/NH2.4 – Measuring and modelling of volcano eruption dynamics (including 2011 Robert Wilhelm Bunsen Medal Lecture) (co-listed) – Orals

Convener: Tim Druitt | Co-Conveners: Olgeir Sigmarsson, Donald B. Dingwell, Augusto Neri, Ulrich Kueppers, Fred Witham

Room: 20

Chairperson: F. Witham

- 08:30–08:45 EGU2011-2782
Hiroshi Shinohara
Volcanic degassing by conduit magma convection: Links and gaps to magmatic volatiles

- 08:45–09:00 EGU2011-4022
Frances Beckett, Mike Burton, Heidy Mader, Jeremy Phillips, Margherita Polacci, Alison Rust, and Fred Witham
 Exchange flow experiments and implications for degassing processes at basaltic volcanoes
- 09:00–09:15 EGU2011-12680
Fred Witham, Jeremy Phillips, and Heidy Mader
 Modelling Volcanic Melt Inclusions and Gas Compositions and Periodicities from Fluid Mechanical and Petrological Experiments
- 09:15–09:30 EGU2011-12727
Zachary Atlas, Jeffrey Ryan, and Jacqueline Dixon
 Multi-stage degassing and volatile flux at Masaya Volcano, Nicaragua
- 09:30–09:45 EGU2011-5904
Elisabetta Del Bello, Edward W. Llewellyn, Jacopo Taddeucci, Piergiorgio Scarlato, and Steve J. Lane
 Magma drainage around rising gas slugs and burst overpressure in Strombolian eruptions
- 09:45–10:00 EGU2011-8309
Mark Thomas and Jurgen Neuberg
 Explaining multiple active seismic sources in ascending magma

COFFEE BREAK

Chairperson: T. Druitt

- 10:30–11:30 EGU2011-14176
Michael Manga and Josef Dufek
 Interactions between small scale processes and large scale dynamics in pyroclastic density currents (Robert Wilhelm Bunsen Medal Lecture)
- 11:30–11:45 EGU2011-9651
Alexander Belousov, Marina Belousova, Herman Patia, and Richard Hoblitt
 Deposits and dynamics of the 1951 pyroclastic density current of Mount Lamington, Papua New Guinea
- 11:45–12:00 EGU2011-2035
Bruno Cagnoli and Giovanni Paolo Romano
 Mobility of Pyroclastic Flows

LUNCH BREAK

Chairperson: A. Neri

- 13:30–13:45 EGU2011-11353
Chuck Connor, Koji Kiyosugi, Laura Connor, Sarah Kruse, Kaz Mannen, and Leah Courtland
 Correcting Bias in Tephra Fallout Hazard Estimates Using Numerical Simulations
- 13:45–14:00 EGU2011-13388
Freysteinn Sigmundsson, Magnús Tumi Gudmundsson, Thor Thordarson, Sigrún Hreinsdóttir, Sigurlaug Hjaltadóttir, Kristín Vogfjörð, Olgeir Sigmarsson, Þóra Árnadóttir, Andy Hooper, and Þórður Arason
 Pulsating activity during the 2010 summit eruption of Eyjafjallajökull: Correlation of eruptive style, plume height, deformation, seismicity, earthquake tremor and chemical evolution of eruptive products
- 14:00–14:15 EGU2011-12403
Claudia Spinetti, Sara Barsotti, M. Fabrizia Buongiorno, Luca Nannipieri, and Augusto Neri
 Simulating and observing Icelandic ash cloud movements toward Italy
- 14:15–14:30 EGU2011-3069
Matthew Scase, Peter Holland, and Jeremy Phillips
 Modelling unsteady volcanic eruption columns and vulcanian eruption columns
- 14:30–14:45 EGU2011-5050
Fidel Costa
 How to integrate petrology and magma process time scales with geophysical and geochemical volcano monitoring data?
- 14:45–15:00 EGU2011-12622
 Olgeir Sigmarsson and **Michel Condomines**
 Time scales of magma mingling during the 2010 eruption of Eyjafjallajökull, Iceland

Chairperson: U. Kueppers

- 15:30–15:45 EGU2011-13980
Bruce F Houghton, Lauren A Swavely, Don A Swanson, and Rebecca J Carey
 Volcanic ash from Halema'uma'u Kilauea in 2008: sensitive indicators of near surface process
- 15:45–16:00 EGU2011-5990
Jacopo Taddeucci, Piergiorgio Scarlato, Cristian Montanaro, Corrado Cimarelli, Elisabetta Del Bello, Carmela Freda, Daniele Andronico, Magnus Tumi Gudmundsson, and Donald Bruce Dingwell
 Aggregation control on ash sedimentation from the Eyjafjallajökull volcanic cloud: insights from field and laboratory high-speed imaging
- 16:00–16:15 EGU2011-12157
Kai-Uwe Hess, Ulrich Kueppers, Corrado Cimarelli, Donald Bruce Dingwell, David S Rickerby, and Paul Madden
 Volcanic Ash versus Turbine Ingestion Test Sands: Thermal Stability Experiments
- 16:15–16:30 EGU2011-9376
Orkun Ersoy, Erdal ?en, Gökhan At?c?, Erkan Aydar, ?lkan Tatar, and H.Hamdi Çelik
 Changing morphology of accretionary lapilli further from the source (Zelve eruption, Cappadocia-Central Anatolia, Turkey)
- 16:30–16:45 EGU2011-13395
Thorvaldur Thordarson, Tanya Jude-Eton, Björn Oddsson, and Magnús Guðmundsson
 Whole deposit grain size for the tephra of the 2004 Grímsvötn eruption, Iceland.
- 16:45–17:00 EGU2011-3634
David Jessop, Karim Kelfoun, Philippe Labazuy, Olivier Roche, and Anne Mangeney
 LiDAR derived morphology of the 1993 Lascar pyroclastic flow deposits: implications for flow dynamics and rheology

GMPV12/NH2.4 – Measuring and modelling of volcano eruption dynamics (including 2011 Robert Wilhelm Bunsen Medal Lecture) (co-listed) – Posters

Convener: Tim Druitt | Co-Conveners: Olgeir Sigmarsson, Donald B. Dingwell, Augusto Neri, Ulrich Kueppers, Fred Witham

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: T. Druitt

- A156 EGU2011-2783
Hiroshi Shinohara and Hiroyuki Tanaka
 Conduit magma convection of a rhyolitic magma: Constraints from cosmic-ray muon radiography of Satsuma-Iwojima, Japan
- A157 EGU2011-3964
Nadezhda Ivanova and Melnik Oleg
 Magmatic convection in a volcano conduit.
- A158 EGU2011-13315
Jeremy Phillips and Julius Baghdadi
 Permeability Development in Volcanic Conduits during Persistent Degassing
- A159 EGU2011-13428
Jeremy Phillips and Fred Witham
 Magma Evolution due to Degassing and Circulation in Persistently-Active Volcanic Systems
- A160 EGU2011-4253
Benoit Cordonnier, Michael Manga, and Boris Kauss
 Dissection of crystal bearing melts rheology
- A161 EGU2011-4268
Alejandra Arciniega-Ceballos, Miguel Alatorre-Ibarguengoitia, Bettina Scheu, Donald B Dingwell, and Hugo Delgado-Granados
 Source parameters of eruptions generated by rapid decompression of volcanic rocks
- A162 EGU2011-6225
Jacopo Taddeucci, Piergiorgio Scarlato, Miguel Alatorre-Ibargüengoitia and the GVS Team
 How much? How deep? How often? Parameterizing explosive gas release during Strombolian activity
- A163 EGU2011-6985
Elisabetta Del Bello, Jacopo Taddeucci, Piergiorgio Scarlato, Daniele Andronico, Corrado Cimarelli, and Carmela Freda
 High speed imaging of geysers as an analogue to Strombolian eruptions
- A164 EGU2011-10296
Rosanna Smith, Bettina Scheu, Yan Lavallee, Philip Benson, Sandra Karl, and Donald Dingwell
 Laboratory Studies of Volcanic Explosion Earthquakes
- A165 EGU2011-8574
Andrea Rizzo, Mauro Martelli, Alberto Renzulli, Filippo Ridolfi, and Alberto Rosciglione
 Noble gases signature of mantle beneath Stromboli (Aeolian Islands, Italy), as inferred from fluid inclusions investigation in mafic phenocrysts from HP-LP products and from ultramafic xenoliths

Convener: Eric Guilyardi | Co-Conveners: Andrew Wittenberg, A. Fedorov, Pascale Braconnot

Room: 18

Chairperson: Eric Guilyardi, Alexey Fedorov

Chen et al. BMC Public Health (2015) 15:102

- 09:30–09:45 EGU2011-5104
James Lloyd, Eric Guilyardi, and Hilary Weller
 The Role of Atmosphere Feedbacks During ENSO in AMIP CMIP3 Simulations
- 09:45–10:00 EGU2011-7236
Yukiko Imada, Jin Fei-Fei, Masahide Kimoto, and Masahiro Watanabe
 ENSO amplitude change in doubled CO2 experiments evaluated by the temperature variance equation
- 10:00–10:15 EGU2011-6529
Wilco Hazeleger, Geert Jan van Oldenborgh, Karin van der Wiel, Xueli Wang, and Bert Wouters
 Changes in ENSO characteristics in EC-Earth

NP2.1 – ENSO: Dynamics, Predictability and Modelling – Posters

Convener: Eric Guilyardi | Co-Conveners: Andrew Wittenberg, A. Fedorov, Pascale Braconnot

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 13:30–15:00

Chairperson: Eric Guilyardi, Alexey Fedorov

- XY417 EGU2011-4117
Sang-Wook Yeh, Jong-Yeon Park, Jong-Seong Kug, and Jinhee Yoon
 Favorable conditions for Seasonal Footprinting Mechanism on ENSO
- XY418 EGU2011-1350
 Jorgen Frederiksen, **Carsten Frederiksen**, and Stacey Osbrough
 Ensemble Predictions of Seasonal Variability with a Coupled Ocean-Atmosphere Model
- XY419 EGU2011-1997
Michael Friedel
 El Niño-Southern Oscillation (ENSO) phenomenon - event reconstruction and analysis over the past 2000 years
- XY420 EGU2011-2408
Renaud Barbero and Vincent Moron
 Modoki vs classical ENSO impacts in New Caledonia (166°E, 22°S) and South West Pacific
- XY421 EGU2011-4092
Noel Keenlyside, Hui Ding, and Mojib Latif
 Potential of equatorial Atlantic variability to enhance El Niño prediction
- XY422 EGU2011-4726
Alexey Fedorov, Jaci Brown, and Eric Guilyardi
 How well do coupled models replicate ocean energetics relevant to ENSO?
- XY423 EGU2011-5041
 Sukumaran Sandeep and **Frode Stordal**
 Influence of ENSO on Extreme Precipitation
- XY424 EGU2011-5200
Dietmar Dommenges
 The Slab Ocean El Niño
- XY425 EGU2011-5204
Mari Firpo and Clovis Sansigolo
 Review of the relationships between ENSO and PDO
- XY426 EGU2011-5311
Jong-Seong Kug and Yoo-Geun Ham
 How well do climate models simulate two-types of El Niño?
- XY427 EGU2011-5446
Yeon-Soo Jang, Jong-Seong Kug, Young-Ho Kim, and Dong-Hoon Kim
 Two-types of El Niño simulated in climate model, its sensitivity to a physical parameterization
- XY428 EGU2011-5666
Benoît Vannière, Eric Guilyardi, Gurvan Madec, Francesco Doblas-Reyes, and Steve Woolnough
 Understanding the origin of the Pacific cold tongue bias and its impact on ENSO using seasonal hindcasts
- XY429 EGU2011-5890
Martin Großhauser, Ben Marzeion, Thomas Mölg, Marlis Hofer, and Irmgard Juen
 Influence of ENSO on the atmospheric circulation over the complex topography of Cordillera Blanca, Peru
- XY430 EGU2011-7802
Awnesh Singh, Thierry Delcroix, and Sophie Cravatte
 Contrasting ENSO Events in the Tropical Pacific Using Sea Surface Salinity Observations
- XY431 EGU2011-9807
Yihua Luan, Pascale Braconnot, and Yongqiang Yu
 Seasonal cycle and ENSO changes induced by ice-sheet and obliquity in Early Holocene
- XY432 EGU2011-9847
Jens Stoll, Katja Trachte, and Jörg Bendix
 Simulations of ENSO and its impact on the tropical mountain rain forest in Ecuador

- XY433 EGU2011-11605
Koen Verbist, Andrew W. Robertson, **Wim M. Cornelis**, and Donald Gabriels
Seasonal precipitation predictability in central-northern Chile for dryland management
- XY434 EGU2011-11679
Gushchina Dasha and Dewitte Boris
Intraseasonal tropical atmosphere variability associated to canonical and Modoki El Niños

NP2.3/AS4.20/CL4.6/GM2.7/HS12.9 – Modelling and Understanding Geophysical Systems as Complex Networks (co-organized) – Orals

Convener: Reik Donner | Co-Conveners: Jürgen Kurths, Wolfgang Schwanghart, Tobias Heckmann

Room: 13

Chairperson: n.n.

- 13:30–14:00 EGU2011-5364
Efi Foufoula, Ilya Zaliapin, Stefano Zanardo, Michael Ghil, Mary Power, and Bill Dietrich
Dynamic River Networks (DRNs): a new conceptual framework for modeling spatially explicit and temporally dynamic fluxes connecting channels and landscapes
- 14:00–14:15 EGU2011-13541
A. Surjalal Sharma, Julia Cline, Aram Vartanyan, and Samuel Wascher
The magnetosphere as a multiscale complex network
- 14:15–14:30 EGU2011-2459
Norbert Marwan, Jonathan F. Donges, Friedrich-Wilhelm Gerstengarbe, Peter C. Werner, and Jürgen Kurths
Graph-theoretical analysis of regional climate variability
- 14:30–14:45 EGU2011-12674
Cristina Masoller, Marcelo Barreiro, and Arturo Marti
Inferring long memory processes in the climate network via nonlinear time series analysis
- 14:45–15:00 EGU2011-9579
Milan Palus, David Hartman, Martin Vejmelka, and Dagmar Novotna
(Tele)Connectivity in climate variability at different spatial/temporal scales in relation to solar and geomagnetic activity

NP2.3/AS4.20/CL4.6/GM2.7/HS12.9 – Modelling and Understanding Geophysical Systems as Complex Networks (co-organized) – Posters

Convener: Reik Donner | Co-Conveners: Jürgen Kurths, Wolfgang Schwanghart, Tobias Heckmann

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY435 EGU2011-12579
Tobias Heckmann and Wolfgang Schwanghart
Graph theory as a tool for the analysis of cascading systems in geomorphology
- XY436 EGU2011-11986
Wolfgang Schwanghart
Assessing the potential of time-slicing in numerical models of landscape evolution
- XY437 EGU2011-13884
Jobst Heitzig, Jonathan F. Donges, and Jürgen Kurths
Agglomerative clustering of climate networks by representation optimization
- XY438 EGU2011-11598
Jakob Runge, Jonathan Donges, and Jürgen Kurths
Climate Networks with Conditioned Links
- XY439 EGU2011-2105
Jonathan Donges, Hanna C.H. Schultz, Norbert Marwan, Yong Zou, and Jürgen Kurths
Coupled climate networks for analysing the terrestrial atmosphere's vertical dynamical structure
- XY440 EGU2011-4528
Kira Rehfeld, Norbert Marwan, Jonathan F. Donges, and Jürgen Kurths
Linear and nonlinear similarity measures for networks from irregularly sampled data
- XY441 EGU2011-12883
Reik Donner, Jonathan F. Donges, Martin H. Trauth, Norbert Marwan, and Jürgen Kurths
Large-scale transitions in Plio-Pleistocene African dust flux dynamics identified by recurrence network analysis
- XY442 EGU2011-11852
Reik Donner, Jobst Heitzig, Jonathan F. Donges, Yong Zou, Norbert Marwan, and Jürgen Kurths
The Geometry of Chaotic Dynamics - A Complex Network Perspective

- XY443 EGU2011-1749
Naoya Fujiwara and Jürgen Kurths
 Parameter estimation of nonlinear dynamical systems using synchronization
- XY444 EGU2011-9725
ham ghaffari, Farzine Nasser, and Robert Paul Young
 Topological Spatio-Temporal Complexity Analysis of an Evolvable Rough Fracture
- XY445 EGU2011-4661
Florin Caldararu
 How Does Earth Maintain the Stability of its Rotation Motion?: An Irreversible Thermodynamics Approach
- XY446 EGU2011-5501
Ye Pu
 Parallel Applications Infrastructure for the ESM

NP3.1 – Nonlinearity, scaling and complexity in the atmosphere, ocean and the climate system – Orals

Convener: Valerio Lucarini | Co-Conveners: Shaun Lovejoy, Juan Manuel Lopez, Stefano Pierini, Christoph C. Raible, Klaus Dethloff, Eric Simonnet, Francois Schmitt, Louis de Montera, Andreas Langousis, Armin Bunde, Alin Andrei Carsteanu, Demetris Koutsoyiannis

Room: 18

Chairperson: Valerio Lucarini

- 10:30–10:45 EGU2011-845
Sylvie Zongo, François Schmitt, and Pascal Morin
 Scaling properties of high frequency biogeochemical data from a ferry box
- 10:45–11:00 EGU2011-3517
Maéva Doron, Pierre Brasseur, Jean-Michel Brankart, and Clément Fontana
 A North Atlantic 3D coupled physical-biogeochemical model: a stochastic approach to estimate biogeochemical parameters from ocean color data using a nonlinear and non-Gaussian framework
- 11:00–11:15 EGU2011-6165
Alain Lefebvre and Emilie Caillault
 Study of the dynamic of the Phytoplankton bloom in the eastern English Channel using an high frequency instrumented station (MAREL) and a naive clustering classification method.
- 11:15–11:30 EGU2011-7489
Monika Winder, Alan Jassby, and Ralph Mac Nally
 Synergies between climate anomalies and hydrological modifications facilitate estuarine biotic invasions
- 11:30–11:45 EGU2011-4488
Peter Ditlevsen
 Threshold dynamics: The case of Dansgaard-Oeschger rapid climate shifts
- 11:45–12:00 EGU2011-2607
Thierry Penduff, Mélanie Juza, Bernard Barnier, Jan Zika, William K. Dewar, Anne-Marie Treguier, Jean-Marc Molines, and Nicole Audiffren
 Sea-level expression of intrinsic and forced interannual variabilities: a global OGCM study.

LUNCH BREAK

Chairperson: Francois Schmitt

- 13:30–13:45 EGU2011-489
Bruno Deremble, Eric Simonnet, and Michael Ghil
 Atmospheric low-frequency variability induced by an oceanic SST front in an idealized model
- 13:45–14:00 EGU2011-795
Davide Faranda, Valerio Lucarini, Sandro Vaienti, and Giorgio Turchetti
 Numerical convergence of the block-maxima approach to the Generalized Extreme Value distribution through an application of Freitas' Theorem
- 14:00–14:15 EGU2011-10959
Nicholas Watkins, Dan Credgington, Sam Rosenberg, Bogdan Hnat, Sandra Chapman, Nicola Longden, and Mervyn Freeman
 How well does a minimal monofractal model capture the scaling of extreme bursty fluctuations in space plasmas ?
- 14:15–14:30 EGU2011-930
George Fitton, Ioulia Tchiguirinskaia, Daniel Schertzer, and Shaun Lovejoy
 Multiscale analysis of wind energy fluctuations

- 14:30–14:45 EGU2011-2906
Shlomo Havlin, Avi Gozolchiani, and Kazuko Yamasaki
 The Emergence of El-Niño as an Autonomous Component in the Climate Network
- 14:45–15:00 EGU2011-7844
Alvaro Corral, Albert Osso, and Josep Enric Llebot
 Power Law and Scaling in the Energy of Tropical Cyclones
- 15:00–15:15 EGU2011-13280
Daniel Schertzer, Ioulia Tchiguirinskaia, and Shaun Lovejoy
 Dragon-Kings or Dragon-Fools? Outliers or Extremes?

NP3.1 – Nonlinearity, scaling and complexity in the atmosphere, ocean and the climate system – Posters

Convener: Valerio Lucarini | Co-Conveners: Shaun Lovejoy, Juan Manuel Lopez, Stefano Pierini, Christoph C. Raible, Klaus Dethloff, Eric Simonnet, Francois Schmitt, Louis de Montera, Andreas Langousis, Armin Bunde, Alin Andrei Carsteanu, Demetris Koutsoyiannis

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Andreas Langousis

- XY447 EGU2011-1585
Alexandre Chmel and Victor Smirnov
 Non-extensive energy release in fracturing sea ice
- XY448 EGU2011-1763
Louis de Montera
 Multi-scaling properties of remotely sensed oceanic chlorophyll maps
- XY449 EGU2011-1771
Stefano Pierini
 Intrinsic low-frequency variability in a low-order model of the wind-driven ocean circulation
- XY450 EGU2011-2600
Eileen Dahms, Frank Lunkeit, and Klaus Fraedrich
 Low-frequency variability of an Aquaplanet with a coupled atmosphere-ocean general circulation model
- XY451 EGU2011-5319
Jiang-Shiou Hwang, Sami Souissi, Li-Chun Tseng, Juan Carlos Molinero, Qing-Chao Chen, and Chong Kim Wong
 Effects of NE monsoon on the distribution and abundance of *Calanus sinicus* in the waters of Taiwan, western North Pacific Ocean
- XY452 EGU2011-5795
Alexander Glushkov, Eduard Serga, Denis Sukharev, and Elena Solyanikova
 Fractal Features of the Large-scaled Low Frequency Atmospheric Processes and Structures: Energy and Angle Moment Balance Approach
- XY453 EGU2011-5949
 Manolis Grillakis, **Ioannis Tsanis**, and Aristeidis Koutroulis
 Parsimony in hydrological flash flood modeling
- XY454 EGU2011-6020
Andrea Cimadoribus, Sybren Drijfhout, and Gerard van der Schrier
 Dansgaard-Oeschger events: bifurcations in the climate system
- XY455 EGU2011-6876
Pascal Morin, Thierry Cariou, Eric Macé, Stefan Raimund, Yann Bozec, Sylvie Brizard Zongo, and François Schmitt
 Long term physico-chemical time series in the southern part of the Western English Channel (1985-2010) : Comparison between low frequency and recent high frequency measurements obtained from in situ sensors.
- XY456 EGU2011-7215
Sebastien Verrier, Laurent Barthès, and Cécile Mallet
 Multifractality of a high-resolution rainfall time series and assessment of the zero rain rate effect from standard and weighted analysis procedures
- XY458 EGU2011-7521
Nathaniel Brunsell, Lee Miller, and Axel Kleidon
 Influence of dissipation on the spatial structure of the atmospheric boundary layer
- XY459 EGU2011-7753
Anna Deluca, Ole Peters, Alvaro Corral, J. David Neelin, and Christopher E. Holloway
 Universality of rain event size distributions
- XY460 EGU2011-8355
 Ulrike Keeß, **Stamen Dolaptchiev**, and Ulrich Achatz
 A reduced semiempirical model for the barotropic dynamics of the atmosphere

- XY461 EGU2011-8530
Christoph Hauer, Gerald Krapesch, and Helmut Habersack
Extremes in river morphodynamics on various scales: Basics for hazard analysis and river restoration
- XY462 EGU2011-8984
Giovanni Sgubin, Stefano Pierini, and Henk A. Dijkstra
Mechanisms of intrinsic variability and teleconnection in the Antarctic Circumpolar Current
- XY463 EGU2011-9021
Rudy Calif and François G. Schmitt
Multifractal analysis of wind velocity and output power from a wind farm, for high and low frequencies.
- XY464 EGU2011-9397
Brian Watson and Shaun Lovejoy
Radiance Field Statistics in Two-Dimensional Multifractal Clouds
- XY465 EGU2011-9694
Klaus Dethloff, Henning Kurzke, Michael Kurgansky, Dörthe Handorf, Dirk Olbers, Carsten Eden, and Mario Sempf
Southern Hemisphere extra-tropical climate variability in an idealized coupled atmosphere-ocean model
- XY466 EGU2011-9956
Lene Østvand, Kristoffer Rypdal, and Martin Rypdal
Universal Hurst exponent of local and global Earth temperature records?
- XY467 EGU2011-10866
Laurent Drapeau, Sylvain Mangiarotti, and Raphael Coudret
Generic tools for a deterministic modelling of partially observed and poorly known dynamical systems
- XY468 EGU2011-11074
Joel Hirschi, Adam Blaker, Bablu Sinha, Steven Alderson, Andrew Coward, Beverly de Cuevas, and Gurvan Madec
Chaotic and deterministic variability of the meridional overturning circulation on subannual to interannual timescales
- XY469 EGU2011-11460
Benjamin Quiroz-Martinez, **François G. Schmitt**, Jean-Claude Dauvin, and Jean-Marie Dewarumez
Temporal and spatial scaling properties in polychaete populations from the North Atlantic European continental shelf
- XY470 EGU2011-11930
Konstantin Korotenko, Alexei Sentchev, and Nicolais Jouanneau
High-resolution numerical model for predicting the transport and dispersal of chemicals resulting from accidental blowouts in the eastern English Channel
- XY471 EGU2011-12924
Ana Margarida Ricardo, Mário J. Franca, and Rui Ferreira
Anisotropic turbulent flow in flows within emergent rigid vegetation
- XY472 EGU2011-13009
Tatjana Zivkovic
The predictability analysis of the annual temperature reconstructions
- XY473 EGU2011-13434
Francois Schmitt and Sylvie B Zongo
Power-law intermittent ratio distributions in marine ecology
- XY474 EGU2011-13823
Kailasam Muni Krishna
Biological (Chlorophyll-a) changes due to the stir of cyclone JAI near Myanmar coast in the Bay of Bengal
- XY475 EGU2011-13825
Ravichadran Ramanibai and Jordi Shanthi
Seasonal profiles of copepod abundance and diversity in relation to water masses in the coastal ecosystem of Chennai, bay of Bengal, India
- XY476 EGU2011-487
Avi Gozolchiani, Kazuko Yamasaki, and Shlomo Havlin
Does the Eastern Pacific Act Like an Autonomous Component?
- XY477 EGU2011-8683
Shaun Lovejoy, Julien Pinel, and Daniel Schertzer
The Global space-time Cascade structure of precipitation: satellites, gauges and reanalyses

NP3.2 – Geocomplexity: Patterns and Processes in the Geosciences – Orals

Convener: Cristian Suteanu | Co-Conveners: Jörn H. Kruhl, Richard Gloaguen, Olga Hachay, Jost von Hardenberg, Ulrike Feudel, Nadia Ursino

Room: 18

Chairperson: Jörn H. Kruhl

- 15:30–15:45 EGU2011-4483
Arkady Pikovsky and Arthur Straube
Mixing-induced pattern formation in an open active flow
- 15:45–16:00 EGU2011-10386
Samir Suweis, Enrico Bertuzzo, Lorenzo Mari, Amos Maritan, Ignacio Rodriguez-Iturbe, and Andrea Rinaldo
Scaling and Universality of Species Lifetimes
- 16:00–16:15 EGU2011-8950
Steve Meacham
The Dynamics of Biological Fronts
- 16:15–16:30 EGU2011-12245
Ulrike Feudel, Jens C. Zehn, Rafael Vilela, and Tamas Tel
Aggregation and fragmentation of inertial particles in chaotic advection and random flows
- 16:30–16:45 EGU2011-8786
Jörn H. Kruhl, Mark Peternell, and Axel Gerik
Quantification of anisotropy and inhomogeneity of complex fabrics by modified fractal geometry methods
- 16:45–17:00 EGU2011-894
Peter Horne, Cristian Suteanu, Danika van Proosdij, and Greg Baker
Elevation-dependent multi-scale analysis of a complex inter-tidal zone
- 17:00–17:15 EGU2011-1528
Olga Hachay, Andrey Khachay, and **Oleg Khachay**
Construction of a state evolution dynamical model of a rock massive, which is in a regime of energetic pumping

NP3.2 – Geocomplexity: Patterns and Processes in the Geosciences – Posters

Convener: Cristian Suteanu | Co-Conveners: Jörn H. Kruhl, Richard Gloaguen, Olga Hachay, Jost von Hardenberg, Ulrike Feudel, Nadia Ursino

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Jost von Hardenberg

- XY478 EGU2011-12376
Faisal Shahzad and Richard Gloaguen
Geometrical properties of evolving drainage systems in active orogens
- XY479 EGU2011-1889
Wolfgang Keller and Jitka Hajkova
Representation of planar integral-transformations by 4-D wavelet decomposition
- XY480 EGU2011-1343
Athina Kattimeri, Rick J. Munro, and Matthew M. Scase
Time-dependent plume pinch-off with reducing driving source conditions in uniform environments
- XY481 EGU2011-8590
Cristian Suteanu and **Jörn H. Kruhl**
Space-time pattern change identification and quantification: applications regarding volcanic seismicity
- XY482 EGU2011-7273
Berengere Dubrulle, Aurore Naso, and Pierre-Henri Chavanis
Statistical mechanics of Fofonoff flows in an oceanic basin
- XY483 EGU2011-1530
Yurie Khachay and **OLga Hachay**
Red Sea rift is a unique object of experimental research of the structure of mantle convection.
- XY484 EGU2011-651
Kseniya Vandysheva and Vladimir Phylatov
Studying of nonlinear deforming processes of geological environment by gravimetric means
- XY485 EGU2011-1115
Olga Hachay, Magdy A. Atya, Said A. Ragab, Mamdoh M. Soliman, Gad M, El-Qady, and **Oleg Yu. Hachay**
Employment of the Electromagnetic Techniques to Investigate the Near Surface Structures along Ferran to ST. KATRINA Road, South SINAI, EGYPT
- XY487 EGU2011-13337
Jost von Hardenberg and Francesco Paparella
Large-scale cluster formation in fingering convection

HS2.21/NP3.13 – Scaling, subgrid models, downscaling and parameterization (co-organized) – Orals

Convener: Marc Parlange | Co-Conveners: Charles Meneveau, Isabel de Lima

Room: 36

Chairperson: Marc Parlange

- 13:30–13:45 EGU2011-6589
Bernard Geurts
Regularization modeling of buoyancy driven turbulent flow
- 13:45–14:00 EGU2011-4577
Silvia Simoni, Simone Padoan, Amilcare Porporato, Martin Vetterli, Guillermo Barrenetxea, and Marc Brendan Parlange
Sensitivity of streamflow components to spatial variability of meteorological forcing in high alpine watershed: application of a wireless sensor network
- 14:00–14:15 EGU2011-5528
Alessandra Marzadri, Daniele Tonina, and **Alberto Bellin**
A semi-analytical three-dimensional process-based model for hyporheic dissolved oxygen and nitrogen dynamics in gravel bed rivers
- 14:15–14:30 EGU2011-7594
Andrea Rinaldo, Enrico Bertuzzo, Lorenzo Mari, Lorenzo Righetto, Marino Gatto, Renato Casagrandi, and Ignacio Rodriguez-Iturbe
Reactive transport on multiscale networks: controls and drivers of large-scale cholera outbreaks
- 14:30–14:45 EGU2011-9100
Paolo D'Odorico, Yufei He, Stephan DeWekker, Scott L. Collins, William T. Pockman, Marcy Litvak, and Jose D. Fuentes
Scale dependence in the feedbacks between woody plant encroachment and microclimate in desert grasslands
- 14:45–15:00 EGU2011-9262
Jing Huang, Elie Bou-Zeid, and Jean-Christophe Golaz
Parameterization of the stable ABL in climate models: understanding the effects of stability, model resolution, and the need for excessively high turbulent diffusivities

HS2.21/NP3.13 – Scaling, subgrid models, downscaling and parameterization (co-organized) – Posters

Convener: Marc Parlange | Co-Conveners: Charles Meneveau, Isabel de Lima

Hall A | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Isabel de Lima

- A268 EGU2011-13960
Marc Parlange, Chad Higgins, Martin Froidevaux, Hendrik Huwald, and Valentin Simeonov
Active remote sensing of the atmospheric boundary layer surface layer measurements over complex terrain: Seedorf Swiss Campaign
- A269 EGU2011-5525
Rebecca Mott, Michael Schirmer, and Michael Lehning
Scaling behaviour of wind and snow depths in an Alpine catchment
- A270 EGU2011-14086
Heather Holmes, Michael Schatzmann, and Bernd Leitl
Quality assurance methods for models used in wind energy assessment
- A271 EGU2011-13959
Marc Diebold, Chad Higgins, Charles Meneveau, Andreas Bechmann, and Marc Parlange
Large Eddy Simulation of flow over hills: comparison with wind tunnel and field observations
- A272 EGU2011-14082
Valerio Iungo, Wei Zhang, Corey Markfort, and Fernando Porte-Agel
Wind tunnel study of multiple wake interactions in wind farms with different layouts
- A273 EGU2011-12457
Mahdi Abkar and Fernando Porté-Agel
Large-eddy simulation of turbulent flow past a rough-to-smooth surface transition: the effect of surface boundary conditions
- A274 EGU2011-12235
Hao Lu and Fernando Porte-Agel
A modulated gradient model for passive scalar transport in large-eddy simulations of neutral atmospheric boundary layer
- A275 EGU2011-5887
Daniel Nadeau, Eric Pardyjak, Chad Higgins, Hendrik Huwald, Fabian Baerenbold, Eulalie Sauthier, and Marc Parlange
Thermal circulation patterns and turbulent fluxes along steep mountain slopes
- A276 EGU2011-8064
Jiannong Fang, Marc Diebold, Chad Higgins, and Marc Parlange
Towards oscillation-free implementation of the immersed boundary method with spectral-like methods for direct and large-eddy simulation

- A277 EGU2011-10607
Chad Higgins, Martin Froidevaux, Valentin Simeonov, Gabriel Katul, and Marc Parlange
 Field Measurements of spatial and temporal turbulence statistics: testing ergodicity with a Raman Lidar.
- A278 EGU2011-14058
Martin Froidevaux, Chad Higgins, Valentine Simeonov, and Marc Parlange
 Simple atmospheric turbulence analysis made possible by a high resolution Raman Lidar
- A279 EGU2011-13882
Nikki Vercauteren, Hendrik Huwald, Elie Bou-Zeid, John S. Selker, Ulrich Lemmin, Marc B. Parlange, and Ivan Lunati
 Evolution of Superficial Lake Water Temperature Profile Under Diurnal Radiative Forcing
- A280 EGU2011-9566
Elie Bou-Zeid and Stimit Shah
 Large eddy simulation of statically stable atmospheric boundary layers: the effect of stability on SGS modeling
- A281 EGU2011-12749
Miguel Barrios and Félix Francés
 Parameterization of subgrid heterogeneities for hydrologic modelling
- A282 EGU2011-13956
Isabel de Lima
 Scaling analysis tools applied to high-resolution rainfall time series
- A283 EGU2011-11380
Boris Orłowsky and Sonia I. Seneviratne
 Estimating the spatial representativeness of stations over Europe

NP5.1 – Nonlinear instabilities and predictability – Orals

Convener: Zoltan Toth | Co-Conveners: Stéphane Vannitsem, C. Reynolds, I. Szunyogh, Mu Mu, Wansuo Duan, Ayrtón Zadra, Juan Manuel Lopez, Diego Pazó, Sarah Hallerberg

Room: 13

Chairperson: Mu Mu

- 08:30–08:45 EGU2011-5025
Bernard Legras, Guillaume Lapeyre, and Pietro Peterlongo
 Lyapunov covariant modes and predictability
- 08:45–09:00 EGU2011-2863
Youmin Tang
 Seasonal climate predictability in multiple model ensembles
- 09:00–09:15 EGU2011-5176
Florian Sévellec and Alexey Fedorov
 Quantifying the limits of oceanic decadal predictability
- 09:15–09:30 EGU2011-5455
Jianping Li and Ruiqiang Ding
 Relationship between the predictability limit and initial error in chaotic systems
- 09:30–09:45 EGU2011-4977
Leonid Ivanov, Robin T. Tokmakian, Curtis A. Collins, and Tetyana Margolina
 Nonlinear sensitivity analysis for small model ensembles
- 09:45–10:00 EGU2011-5415
Stéphane Vannitsem and Aimé Fournier
 Dynamics of the error and Lyapunov instability of a moist low-order climate model

COFFEE BREAK

Chairperson: Juan M Lopez

- 10:30–10:45 EGU2011-5787
Uwe Harlander, Torsten Seelig, and Robin Faulwetter
 Singular vector growth in different flow regimes of the differentially heated rotating annulus
- 10:45–11:00 EGU2011-4717
Bin Wang and Juanjuan Liu
 Dimension-reduced projection 4DVar based on an orthogonal expansion of filtering function
- 11:00–11:15 EGU2011-14068
José Gutiérrez, Miguel A. Rodríguez, Sixto Herrera, and Jesús Fernández
 The MVL Diagram for Fingerprinting GCMs and Ensemble Prediction Systems

- 11:15–11:30 EGU2011-10537
Chiara Marsigli, Andrea Montani, and Tiziana Paccagnella
 Development of an ensemble forecasting system for the short-range following different perturbation approaches.
- 11:30–11:45 EGU2011-3870
Isidora Jankov
 Convective Initiation using Diabatic Local Analysis and Prediction System and Weather Research Forecasting Model
- 11:45–12:00 EGU2011-9913
Jan Keller, Andreas Hense, and Andreas Rhodin
 A regional ensemble prediction system based on Ensemble Transform Bred Vectors (ETBV)

NP5.1 – Nonlinear instabilities and predictability – Posters

Convener: Zoltan Toth | Co-Conveners: Stéphane Vannitsem, C. Reynolds, I. Szunyogh, Mu Mu, Wansuo Duan, Ayrton Zadra, Juan Manuel Lopez, Diego Pazó, Sarah Hallerberg

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: Wansuo Duan, Sarah Hallerberg, Diego Pazo, Ayrton Zadra

- XY488 EGU2011-2817
Wansuo Duan and Chao Wei
 The "spring predictability barrier" for ENSO predictions and its possible mechanism: results from a fully coupled model
- XY489 EGU2011-2269
Diego Pazó, Miguel A. Rodríguez, and Juan M. López
 Maximizing the statistical diversity of an ensemble of bred vectors by using the geometric norm
- XY490 EGU2011-10336
Miguel Angel Rodriguez, Sixto Herrera, Diego Pazó, Jesús Fernández, and Jose Manuel Gutiérrez
 Chaotic dynamics of a two-scale Lorenz'96 model: Multiple evolution regimes and large-scale spatial patterns.
- XY491 EGU2011-1541
Yanshan Yu, Mu Mu, and Wansuo Duan
 Does model parameter error in the Zebiak-Cane model cause a significant spring predictability barrier in its El Niño prediction?
- XY492 EGU2011-3947
Yanshan Yu, Wansuo Duan, Hui Xu, and Mu Mu
 Dynamics of nonlinear error growth and season-dependent predictability of El Nino events in the Zebiak-Cane model
- XY493 EGU2011-9495
Victor Homar Santaner and David J Stensrud
 Rescaled Bred Vectors: 'À la carte' ensemble diversity
- XY494 EGU2011-2389
Libin Ma, Mu Mu, and Qiang Wang
 Application of conditional nonlinear optimal perturbations method to transitions of Kuroshio path south of Japan
- XY495 EGU2011-4921
 Enrico Gerlach, **Siegfried Eggl**, and Charalampos Skokos
 Algorithms for the integration of variational equations of multidimensional Hamiltonian systems
- XY496 EGU2011-2809
Guodong Sun and Mu Mu
 Response of the grassland ecosystem equilibrium state to climate change within a theoretical model
- XY497 EGU2011-2851
Guodong Sun and Mu Mu
 Exploring seasonal variation characters on the net primary production by conditional nonlinear optimal perturbation in China
- XY498 EGU2011-3265
Ming Cui
 Parallel Ensemble-based Approach for the Computation of Conditional Nonlinear Optimal Perturbation
- XY499 EGU2011-4562
Juanjuan Liu, Shudong Wang, and Bin Wang
 Assimilation of asymmetric dropsonde data and a bogus vortex using a 4DVar system
- XY500 EGU2011-5727
Wang Tie, Pan Ye-Sen, Huang Hong, and Tan Yan-ke
 A Preliminary Application of Conditional Nonlinear Optimal Perturbation to Rainfall of Typhoon Fung-wong (2008)

- XY501 EGU2011-10716
Faming Wang
Predictability of stochastic climate models with red noise
- XY502 EGU2011-2509
Alberto Carrassi and Stephane Vannitsem
Treatment of the error due to unresolved scales in sequential data assimilation
- XY503 EGU2011-2563
Shigehisa Nakamura
Inclination stability of the planet rotation axis in the solar system
- XY504 EGU2011-5465
Bert Van Schaeybroeck and Stéphane Vannitsem
The use of tendencies for post-processing. Analysis of the YOTC forecast data.
- XY505 EGU2011-6429
Emmanuel Roulin and **Stéphane Vannitsem**
Post-processing of ensemble precipitation predictions with extended logistic regression based on hindcasts
- XY506 EGU2011-11263
Jochen Broecker
Forecast sufficiency and scoring rules
- XY507 EGU2011-13318
Daniel Gombos and **Ross Hoffman**
Ensemble regression exigent analysis applied to a case of Florida citrus damage
- XY508 EGU2011-1374
Elizaveta Gorbenko and Galyna Sokol
DEVELOPMENT of OSCILLATIONS THEORY by PROFESSORS of S.N. KOZHEVNIKOV And I.K. KOSKO.
- XY509 EGU2011-4094
Xiaodong Luo and Ibrahim Hoteit
Robust ensemble filtering in handling uncertainties in data assimilation
- XY510 EGU2011-10509
Hao Weifeng, Li Fei, Zhang Jie, and Shao Xianyuan
The Perturbation Analysis of Nonlinear Ill-conditioned Solution
- XY511 EGU2011-3681
Sabrina Bentzien and Petra Friederichs
Probabilistic precipitation forecasts based on the COSMO-DE time-lagged ensemble
- XY512 EGU2011-3868
Isidora Jankov
Sensitivity of Weather Forecasts over North America to Cycling of Initial Conditions
- XY513 EGU2011-1822
xiaogu zheng and xiao liang
Maximum Likelihood Estimation of Inflation Factors of Error Covariance Matrices for Ensemble Kalman Filter Assimilation

NP6.3/AS4.11 – Turbulence in the Atmosphere (co-organized) – Orals

Convener: Carlos Yagüe | Co-Conveners: Francesco Tampieri, Joan Cuxart

Room: 13

Chairperson: Carlos Yagüe

- 15:30–15:45 EGU2011-1083
Carmen J. Nappo
The Influence of Wave-Like Disturbances on Turbulence in the Very Stable Planetary Boundary Layer
- 15:45–16:00 EGU2011-8391
Felipe Costa and Otávio Acevedo
Implications of using stability functions in modeling the nocturnal stable boundary layer
- 16:00–16:15 EGU2011-5026
Francesco Tampieri, Samuel Viana, and Carlos Yagüe
Studying the height of atmospheric stable boundary layer from turbulence moments at different heights
- 16:15–16:30 EGU2011-7485
Ann-Sofi Smedman and Erik Nilsson
Structure of turbulence in 'the eddy surface layer'
- 16:30–16:45 EGU2011-10694
Christophe Brun, Sébastien Blein, and Jean-Pierre Chollet
Role of Görtler vortices on the turbulent mixing in a katabatic flow along a curved slope for stably stratified atmospheric boundary layer. Application to real mountain slopes in the Alps.

16:45–17:00 EGU2011-8764

Silvana Di Sabatino, Laura S. Leo, Harindra J. S. Fernando, Marco Cacciani, Giampietro Casasanta, Paolo Martano, Ann Dallmann, Giovanni Grandoni, and Maria Cristina Mammarella
Atmospheric Boundary Layer in a Narrow-Coastal Valley: Modelling Implications

NP7.1/OS5.3 – Non linear waves, wind-wave-current interactions, internal waves in stratified media and ocean mixing and coastal hydromorphology (co-organized) – Posters

Convener: Vincent Rey | Co-Conveners: Lev Ostrovsky, M. Stive, Philippe Fraunie, Vincent Rey, Margarita Diez, Pascale Bouruet-Aubertot

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 10:30–12:00

Chairperson: Pascale Bouruet-Aubertot

XY514 EGU2011-1035

Philippe Fraunie, Jose M Redondo, and **Anna Matulka**
Detection of waves and vortices in North Western Mediterranean

XY515 EGU2011-2582

Roham Bakhtyar, Alessandro Brovelli, and David Andrew Barry
Effects of wave characteristics and beach groundwater table on the nearshore morphology and aquifer dynamics

XY516 EGU2011-4864

Yiing Jang Yang, Ren-Chieh Lien, Ming-Huei Chang, and Tswen Yung Tang
Pressure perturbations induced by mode-1 depression internal solitary waves

XY517 EGU2011-4363

Ekaterina Ruvinskaya, Oxana Kurkina, Andrey Kurkin, Alexey Kuzin, and Michail Barenboim
Nonlinear dynamics of intensive internal waves in bounded stratified basins

XY518 EGU2011-7296

Qiang Wang, Tao Xing, and Weidong Zhou
Topographic-Rossby Wave on the shelf of the northern South China Sea investigated by the numerical model

XY519 EGU2011-7698

Mostafa Bakhoday Paskyabi, Ilker Fer, and Alastair D. Jenkins
Wind-wave and current interactions in the upper ocean

XY520 EGU2011-10111

Sagar Bora, Segey Danilov, and Gerrit Lohmann
wave sensitivity to grid resolution, frequency, and pathways

XY521 EGU2011-2978

Maria Obregon, Ramon Fernandez-Feria, and Yuri Stepanyants
Stationary solutions of the extended reduced Ostrovsky equation

XY522 EGU2011-1406

B. Edward McDonald
Bidirectional and unidirectional waves in Hertzian chains

XY523 EGU2011-7043

Julien Touboul and Vincent Rey
Bottom pressure distribution due to wave reflection at a submerged obstacle

NH5.3/NP7.3/OS2.5 – Nonlinear Dynamics of the Coastal Zone (co-organized) – Orals

Convener: Ira Didenkulova | Co-Conveners: Efim Pelinovsky

Room: 4

Chairperson: n.n.

13:30–13:45 EGU2011-3048

Geir Pedersen
Stationary runup patterns on a sloping beach

13:45–14:00 EGU2011-5389

Valery Liapidevskii
Shallow water equations for breaking surface waves

14:00–14:15 EGU2011-103

Ira Didenkulova and Efim Pelinovsky
Nonlinear wave evolution and runup in inclined channels

14:15–14:30 EGU2011-8891

Alec Torres-Freyermuth, Jack A. Puleo, Duvrabka Pokrajac, and Paulo Salles
RANS Modelling of Swash Zone Hydrodynamics

- 14:30–14:45 EGU2011-3200
Deepak Vatvani, Niels Zweers, Hans de Vries, Vladimir Makin, and Maarten van Ormondt
 Storm surge and wave simulations in the Gulf of Mexico using a consistent drag relation for atmospheric and storm surge models
- 14:45–15:00 EGU2011-1692
Eugene Morozov, Alexey Marchenko, and Sergey Muzylev
 Supercooling and water structure near the fjord glacier
- Chairperson: n.n.
- 15:30–15:45 EGU2011-13867
Chiang C. Mei, I-Chi Chan, Philip L.-F. Liu, Zhenhua Huang, and Weiguo Zhang
 Long waves through emergent coastal vegetation
- 15:45–16:00 EGU2011-1935
Roger Grimshaw and Evans Osaisai
 A simple model of the effect of bottom sediment transport on wave set-up
- 16:00–16:15 EGU2011-12030
Tatyana Lyubimova, Yanina Parshakova, Natalya Shumilova, Shengping Luo, and Bernard Roux
 Modeling of the near-field distribution of pollutants from a multi-port coastal outfall
- 16:15–16:30 EGU2011-4680
Boris Katsnelson, Mohsen Badiey, and James Lynch
 Observation of nonlinear internal waves in the Shallow Water 2006 experiment and interference of low-frequency sound waves in the long-range propagation
- 16:30–16:45 EGU2011-11369
Yannis Cuypers, Pascale Bouruet Aubertot, Pascal Lazure, Antonio Lourenço, Michel Lunven, Marc Sourriceau, and Lourdes Velo-Suarez
 Non linear internal tides, turbulent mixing and their impact on phytoplankton distribution in the continental shelf of South Brittany
- 16:45–17:00 EGU2011-3551
 Tim Boyd, **Mark Inall**, Dumont Estelle, and Griffiths Colin
 AUV observations of mixing in the tidal outflow from a Scottish sea loch

NH5.3/NP7.3/OS2.5 – Nonlinear Dynamics of the Coastal Zone (co-organized) – Posters

Convener: Ira Didenkulova | Co-Conveners: Efim Pelinovsky

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Ira Didenkulova, Efim Pelinovsky

- XY342 EGU2011-44
Ekaterina Shurgalina and Efim Pelinovsky
 Formation of an abnormal wave in case of interaction with a vertical barrier
- XY343 EGU2011-4628
My Ha Dao, Eng Soon Chan, and Pavel Tklich
 Fine-scale processes of plunging wave in deep water
- XY344 EGU2011-8505
Erick Javier Lopez Sanchez and Gerardo Ruiz Chavarria
 Numerical study of particle transport due to periodic movement of water in a system of two oceanic basins connected by a channel
- XY345 EGU2011-4279
Olga Shishkina
 Linear and non-linear mechanisms of formation of edge internal waves in the shelf zone
- XY346 EGU2011-4865
Alexander Yankovsky, Legna Torres-Garcia, and Raymond Torres
 Interaction of tides, river discharge and bathymetric forms in the Santee River, SC, USA
- XY347 EGU2011-12323
Anatoliy Filonov and Iryna Tereshchenko
 The high amplitude internal waves generated at San Esteban sill in the Gulf of California
- XY348 EGU2011-62
Artem Rodin and Efim Pelinovsky
 Large-amplitude simple and shock waves in shallow water
- XY349 EGU2011-5069
Onno Bokhove, Elena Gagarina, Anthony Thornton, Jaap van der Vegt, and Wout Zweers
 Bore Soliton Splash
- XY350 EGU2011-830
Adrien Poupardin, Nicolas Bourneton, Grégory Pinon, Elie Rivoalen, Jérôme Brossard, and Gaële Perret
 Vortex dynamics around an immersed structure

- XY351 EGU2011-105
Ira Didenkulova and Efim Pelinovsky
Long wave interaction with the sea wall in a basin of variable depth
- XY352 EGU2011-109
Irina Nikolkina, Ira Didenkulova, Efim Pelinovsky, and Narcisse Zahibo
Runup of landslide-generated waves
- XY353 EGU2011-5111
Petr Denissenko, Irina Didenkulova, Jonathan Pearson, and Efim Pelinovsky
Statistical characteristics of the non-linear run-up measured in a wave flume
- XY354 EGU2011-4484
Byung Ho Choi, Victor Kaistrenko, Efim Pelinovsky, Kyeong Ok Kim, and Byung Il Min
Combination of 2D numerical simulations of long waves in a basin of variable depth with 1D analytical runup formulae
- XY355 EGU2011-104
Ira Didenkulova, Efim Pelinovsky, Tarmo Soomere, Kevin Parnell, and Maija Viška
Beach response on the interplay of two wave systems: ship wakes and winds waves
- XY356 EGU2011-7894
claude Vella, François Demory, Victor Canut, Philippe Dussouillez, and Thomas Jules Fleury
First evidence of accumulation of mega boulders on the Mediterranean rocky coast of Provence (southern France).

Thursday, 07 April

NP3.7 – Geophysical Downscaling Methods – Orals

Convener: Tobias Sauter | Co-Conveners: Victor Venema, Douglas Maraun, Erika Coppola

Room: 13

Chairperson: Douglas Maraun

- 13:30–13:45 EGU2011-3764
Xavier Beuchat, **Bettina Schaefli**, André Mermoud, and Marc Soutter
Toward a robust method for sub-daily rainfall downscaling from daily data
- 13:45–14:00 EGU2011-8826
Matthieu Lafaysse, Benoit Hingray, Joël Gailhard, and Abdelkader Mezghani
Evaluating the temporal transferability of statistical downscaling models for climate change impact studies.
- 14:00–14:15 EGU2011-11395
Abdelkader Mezghani and Benoit Hingray
Statistical downscaling of precipitation: interest of moisture variables
- 14:15–14:30 EGU2011-7963
Tobias Sauter and Victor Venema
Natural three-dimensional predictor domains for statistical precipitation downscaling
- 14:30–14:45 EGU2011-6410
Simona Barbarino, Daniele Cane, and Christian Ronchi
Regional climate model downscaling with Multimodel SuperEnsemble in the Alpine area and wildfire potential evaluation in the scenario
- 14:45–15:00 EGU2011-1139
Amadou Idrissa BOKOYE
Assessment of the influence of the global climate model (GCM) generation on Empirical Statistical Downscaling outputs: A case study from Canadian GCMs
- 15:00–15:15 EGU2011-11123
Anne Schindler, Douglas Ma, and Jürg Luterbacher
The annual cycle of intensity and frequency of extreme precipitation events across the UK in observations and future projections

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

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

Room: 18

Chairperson: n.n.

- 08:30–08:45 EGU2011-2054
Pierre Del Moral
 Particle Methods for nonlinear filtering and uncertainty propagation analysis
- 08:45–09:00 EGU2011-13157
Robert Miller, Ethan Atkins, Alexandre Chorin, Matthias Morzfeld, Yvette Spitz, and Brad Weir
 Implementation of the Implicit Particle Filter for a Model of Nearshore Circulation
- 09:00–09:15 EGU2011-542
Matthias Morzfeld, Ethan Atkins, and Alexandre Chorin
 Geomagnetic data assimilation with an implicit particle filter into a one-dimensional sparsely observed MHD system
- 09:15–09:30 EGU2011-3310
 Melanie Ades and **Peter Jan van Leeuwen**
 Efficient Particle Smoothers for large-dimensional problems
- 09:30–09:45 EGU2011-2383
Marc Bocquet
 Ensemble Kalman filtering without the intrinsic need for inflation
- 09:45–10:00 EGU2011-1594
Victor Shutyaev, Igor Gejadze, and Francois-Xavier Le Dimet
 Optimal solution error covariances in nonlinear problems of variational data assimilation

COFFEE BREAK

Chairperson: n.n.

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

LUNCH BREAK

Chairperson: n.n.

- 13:30–13:45 EGU2011-9155
Andrew Curtis
 Fast, nonlinear, probabilistic inversion of large Geophysical problems
- 13:45–14:00 EGU2011-2570
Emmanuel Cosme, Jacques Verron, Pierre Brasseur, Jacques Blum, and Didier Auroux
 Smoothing problems in a Bayesian framework and their linear Gaussian solutions

- 14:00–14:15 EGU2011-2501
Alberto Carrassi and Stephane Vannitsem
 Treatment of model error in sequential data assimilation
- 14:15–14:30 EGU2011-7700
Mohamed Jardak and Olivier Talagrand
 Ensemble Variational Assimilation as an ensemble estimator
- 14:30–14:45 EGU2011-11237
Jochen Broecker
 Sensitivity and out-of-sample error in data assimilation
- 14:45–15:00 EGU2011-13286
Ross Hoffman, Karen Cady-Peira, Janusz Eluszkiewicz, Daniel Gombos, Jean-Luc Moncet, Steven Greybush, Kayo Ide, Eugenia Kalnay, Matthew Hoffman, and R. John Wilson
 A strategy to optimize the use of retrievals in data assimilation

NP6.3/AS4.11 – Turbulence in the Atmosphere (co-organized) – Posters

Convener: Carlos Yagüe | Co-Conveners: Francesco Tampieri, Joan Cuxart

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 13:30–15:00

Chairperson: Francesco Tampieri

- XY577 EGU2011-772
Panayiotis Dimitriadis, Panos Papanicolaou, and Demetris Koutsoyiannis
 Hurst-Kolmogorov dynamics applied to temperature fields for small turbulence scales
- XY578 EGU2011-991
Luís Martins, Otávio Acevedo, Guilherme Welter, Franciano Puhales, and Felipe Costa
 Testing stationarity hypothesis and its influence on low frequency turbulent flux variability
- XY579 EGU2011-3775
Wojciech Grabowski, Lian-Ping Wang, Andrzej Wyszogrodzki, and Orlando Ayala
 Toward the assessment of the role of cloud turbulence in warm-rain development
- XY580 EGU2011-4044
Markus Vennebusch, Steffen Schön, and Axel Nothnagel
 Characterisation of Atmospheric Turbulence with Space-Geodetic Observation Techniques
- XY581 EGU2011-5265
Jinkyu Hong, Kyunghee Seol, Young-Hwa Byun, Chun-Ho Cho, and Joon Kim
 Uncertainty analysis of carbon exchange modeling in a forest due to kB-1 parameterizations
- XY582 EGU2011-7108
Mireia Udina, Maria Rosa Soler, Pau Casso, Samuel Viana, and Carlos Yagüe
 High resolution WRF model simulation of gravity waves induced by topographical features
- XY583 EGU2011-9265
Carlos Román-Cascón, Francisco Salamanca, Carlos Yagüe, Gregorio Maqueda, and Samuel Viana
 Study of the interaction between fog and turbulence
- XY584 EGU2011-9522
Juan Carlos Sánchez-Perrino, Jorge Navarro, Carlos Yagüe, Pedro A. Jiménez, Elena García-Bustamante, Ángela Hidalgo, and Jesús Fidel González-Rouco
 WRF simulations of the Atmospheric Boundary Layer over homogeneous terrain: representation of nocturnal processes
- XY585 EGU2011-9290
James Wanliss and Miguel Larsen
 Turbulent development at 80 km altitude
- XY586 EGU2011-9978
Giovanni Bonafè, Francesco Tampieri, Luca Caporaso, and Francesca Di Giuseppe
 Optimizing the estimation of the height of the stable boundary layer using surface turbulence measurements and soundings
- XY587 EGU2011-11221
Alexandre Paci, Gert-Jan Steeneveld, Dan Dobrovolschi, Bernard Beaudoin, Anne Belleudy, Jean-Christophe Canonici, Frederic Murguet, Herve Schaffner, Bert Holtslag and the IMFT/OTE Team
 CNRM-GAME stratified water flume: sensing the atmospheric boundary layer in a large water channel
- XY588 EGU2011-12831
Julien Pinel, Shaun Lovejoy, and Daniel Schertzer
 Atmospheric Waves as a high Reynold's number, scaling phenomena

NP6.5 – Turbulence, Vortices and Waves in Stratified and Rotating Fluids – Posters

Convener: Yuli D. Chashechkin | Co-Conveners: Konrad Bajer

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY589 EGU2011-6833
Philippe Fraunie, **Alioune Sambe**, Frederic Golay, Damien Sous, and Marcer Richard
3D numerical simulation of breaking waves
- XY590 EGU2011-4803
Nikolaos Bakas and Petros Ioannou
Stability of a shear flow with a free surface
- XY591 EGU2011-10846
Alexey Y. Vasiliev and Yuli D. Chashechkin
Exact Theory of 3D Infinitesimal Periodic Internal Gravity Wave Generation by Compact Sources: Extension of Classical Stokes Solution and Laboratory Experiment
- XY592 EGU2011-10888
Roman N. Bardakov and Yuli D. Chashechkin
Transport of Solvable and Insoluble Admixtures in Drying Drops
- XY593 EGU2011-10923
Vasily G. Baydulov and Yuli D. Chashechkin
Comparison of Infinitesimal Symmetries of Different Theoretical Models of Environmental Flows
- XY594 EGU2011-11003
Nikita A. Barinov, Andrey Y. Ilyinykh, and Maria V. Trofimova
Transport of Matter from Free Falling Drops on the Surface of Quiescent and Rotating Fluids
- XY595 EGU2011-11218
Victor Prokhorov
Hydrodynamics and Acoustics of a Drop Impact: Sensitive High Frequency Measurements
- XY596 EGU2011-8319
Sebastian Remmler and Stefan Hickel
Direct and Large Eddy Simulation of Stratified Turbulence
- XY597 EGU2011-8371
Maria V. Trofimova, Eugenia V. Stepanova, and Tatiana O. Chaplina
Structure Stability of Flow Pattern for Subsequent Compact Sources of Dye in Compound Vortex
- XY598 EGU2011-10819
Yuli D. Chashechkin
Stratification, Rotation and Dissipation Effects on Transport of Solvable and Insoluble Admixture in Periodic Flows
- XY599 EGU2011-11025
Andrey Y. Ilyinykh and Nikita A. Barinov
Fine Transport of Matter in Drop Splashes
- XY600 EGU2011-10784
Tatiana O. Chaplina and Eugenia V. Stepanova
Laboratory Modeling of Spiral Arms in Oil Spills

NP7.1/OS5.3 – Non linear waves, wind-wave-current interactions, internal waves in stratified media and ocean mixing and coastal hydromorphology (co-organized) – Orals

Convener: Vincent Rey | Co-Conveners: Lev Ostrovsky, M. Stive, Philippe Fraunie, Vincent Rey, Margarita Diez, Pascale Bouruet-Aubertot

Room: 17

Chairperson: Vincent Rey

- 15:30–15:45 EGU2011-8220
Vladimir V. Mitkin and Yuli D. Chashechkin
Visualization of Stratified Flows past 2D Bluff Obstacles
- 15:45–16:00 EGU2011-11275
Pascale Bouruet-Aubertot, Hans van Haren, and Pascale Lelong
Stratified inertial subrange as inferred from in situ measurements in the bottom boundary layer of Rockall Channel
- 16:00–16:15 EGU2011-896
Victor Bakhanov, Nikolai Bogatov, Aleksei Ermoshkin, Vadim Lobanov, Olga Kemarskaya, Irina Repina, and Victor Titov
The full-scale investigations of the action of internal waves and inhomogeneous flows on the wind waves in the White Sea
- 16:15–16:30 EGU2011-12826
Nataly Zaytseva, Konstantin A. Gorshkov, and Irina Anatolievna Soustova
Compound solitons of Gardner equation with variable coefficients of cubic nonlinearity

- 16:30–16:45 EGU2011-11681
Aleksei Ermoshkin, Irina Soustova, Konstantin Gorshkov, Vyacheslav Dubina, Yulia Troitskaya, and Natalia Zaitseva
 Analysis of intense internal wave evolution in the Seas of Japan and Okhotsk using satellite data from synthetic aperture radar and radiometers
- 16:45–17:00 EGU2011-12106
Vladmir A. Kalinichenko and Yuli D. Chashechkin
 Structuring and Restructuring of Suspensions in Standing Waves in Tank with and without Topography

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 Hiestler, 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

OS5.2 – Surface Waves and Wave-Coupled Effects in Lower Atmosphere and Upper Ocean (co-listed) – Orals

Convener: Alexander Babanin | Co-Conveners: Miguel Onorato, Fangli Qiao

Room: 11

Chairperson: n.n.

- 08:30–08:45 EGU2011-4955
 Fabrice Ardhuin and **Aron Roland**
 Validation of numerical waves models in strong currents, a tribute to Owen Phillips.
- 08:45–09:00 EGU2011-13650
Aron Roland, Tai-Wen Hsu, Jian-Ming Liao, Yaron Toledo, and Shan-Hwei Ou
 On the extension of the Wave Action Equation for higher order depth and current effects
- 09:00–09:15 EGU2011-4644
Victor Shrira and Sergei Annenkov
 Evolution of random wind wave fields under rapidly changing wind
- 09:15–09:30 EGU2011-9313
Alexander Soloviev, Silvia Matt, and Atsushi Fujimura
 Air-sea interface in hurricane conditions
- 09:30–09:45 EGU2011-4892
Yuliya Troitskaya, Daniil Sergeev, Oleg Druzhinin, Alexander Kandaurov, and Olga Ermakova
 Laboratory investigation and direct numerical simulation of wind effect on steep surface waves
- 09:45–10:00 EGU2011-9201
Paul Liu
 Contemplating Ocean Wave Measurements

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2011-2418
Dmitry Chalikov and Alexander Babanin
 Numerical investigation of breaking waves in spectral environment

- 10:45–11:00 EGU2011-2889
Alessandro Iafrazi
 Energy dissipation mechanisms in spilling and in highly aerated plunging breaking events
- 11:00–11:15 EGU2011-10306
Guillemette Caulliez
 Dissipation regimes for short wind waves
- 11:15–11:30 EGU2011-809
Francisco J. Ocampo-Torres
 Non-linear interactions of wind-sea and opposing swell determined through bispectral analysis
- 11:30–11:45 EGU2011-2042
Sergei I. Badulin and Vladimir E. Zakharov
 Scales of nonlinear relaxation and balance of wind-driven seas
- 11:45–12:00 EGU2011-2266
Leonid Lopatoukhin, Alexander Boukhinovsky, and Ekaterina Chernysheva
 New generation of Wind and Wave climate handbooks

LUNCH BREAK

Chairperson: n.n.

- 13:30–13:45 EGU2011-3519
Peter Janssen
 Ocean Wave effects on the daily cycle in SST
- 13:45–14:00 EGU2011-3930
Johannes Gemmrich and Svein Vagle
 Observations of wave-induced mixing
- 14:00–14:15 EGU2011-4324
Yeli Yuan and Ming Lu
 A unified theory of waves in a general ocean
- 14:15–14:30 EGU2011-1932
Anna Rutgersson, Björn Carlsson, Rajesh Kumar, Alvaro Semedo, Øyvind Sætra, and Øyvind Breivik
 Impact of surface waves on the atmosphere in a coupled wave-atmosphere regional climate model
- 14:30–14:45 EGU2011-1080
Lev Shemer and Andrey Zavadsky
 On Reynolds stresses over wind waves
- 14:45–15:00 EGU2011-3906
Paul Hwang
 Ocean Surface Roughness and Remote Sensing

Friday, 08 April

SSS1.2/HS12.13/NP3.11 – Wind-driven rain and aeolian sediment transport in environmental studies (co-organized) –

Orals

Convener: Charles Bielders | Co-Conveners: Jean Louis Rajot, Geert Sterk, João de Lima, Don Gabriels, Gunay Erpul

Room: 9

Chairperson: n.n.

15:30–15:45 EGU2011-9922

Carsten Hoffmann, Roger Funk, and Michael Sommer

Assessment of extreme wind erosion from a cropping field in Inner Mongolia

15:45–16:00 EGU2011-14090

Feras Youssef, Saskia Visser, Derek Karssenberg, Günay Erpul, and Feras Ziadat

Strategies for Measuring Wind Erosion at the Regional Scale, Observation of Wind Erosion in Khanasser Valley Region, Syria

16:00–16:15 EGU2011-10974

Tidjani Adamou Didier, Bielders Charles, Ambouta Karimou, and Tychon Bernard

Dune rehabilitation using a mechanical fixation technique: effect on sediment fluxes and on the quantitative and qualitative recovery of the herbaceous groundcover.

16:15–16:30 EGU2011-4913

Gunay Erpul, Donald Gabriels, Darrell Norton, Dennis Flanagan, Chihua Huang, and Saskia Visser

Interactions between raindrop impact and shallow interrill flow under wind-driven rain (WDR)

16:30–16:45 EGU2011-2853

Peeyush Khare, Tushar Agarwal, and Sat Ghosh

A novel rain simulator for hydrological and agricultural applications in wind driven monsoonal conditions with a particular reference to India.

16:45–17:00 EGU2011-1793

Hilal Samray, **Gunay Erpul**, and Donald Gabriels

Raindrop impacted shallow overland flow transport under different fall trajectories of wind-driven rain (WDR)

SSS1.2/HS12.13/NP3.11 – Wind-driven rain and aeolian sediment transport in environmental studies (co-organized) –

Posters

Convener: Charles Bielders | Co-Conveners: Jean Louis Rajot, Geert Sterk, João de Lima, Don Gabriels, Gunay Erpul

Hall Z | Display Time 08:00–17:00

Author in Attendance: 08:30–10:00

Chairperson: Joao de Lima

Z49 EGU2011-680

Jorge Isidoro and João de Lima

Evaluation in the laboratory of the influence of storm movement on the hydrologic response of small areas.

Z50 EGU2011-4634

João de Lima, Jorge Isidoro, Vijay Singh, and M. Isabel de Lima

The effect of moving storm acceleration on runoff hydrographs

Z51 EGU2011-8093

Maria Cristina Rulli, Francesco Meneguzzo, and Renzo Rosso

Wind Control of Storm Triggered Shallow Landslides

Z52 EGU2011-4960

Mustafa Basaran, Gunay Erpul, and Oguzhan Uzun

Evaluation of field performances of BEST sediment catchers in sandy loam soils of arid zone of Turkey

Z53 EGU2011-9400

Thomas Iserloh, Wolfgang Fister, Miriam Marzen, Manuel Seeger, and Johannes B. Ries

The influence of wind-driven rain on soil detachment rates on homogenous sandy substrate

Z54 EGU2011-965

Majid Mahmoodabadi, Fatemeh Dehghani, and Hamidreza Azimzadeh

Random and oriented roughness influence on soil erosion rate using wind tunnel experiment

Z55 EGU2011-2939

Charles Bielders, Adamou Didier Tidjani, and Karimou Ambouta

Seasonal dynamics of the parameters determining wind erosion on rangeland in Eastern Niger

Z56 EGU2011-5001

Jean Louis Rajot, Amadou Abdourhamane Touré, Zibo Garba, Béatrice Marticorena, Christophe Petit, and David Sebag

Impact of very low crop residuescover on wind erosion in the Sahel

- Z57 EGU2011-5738
Geert Sterk
 On-site and off-site impacts of wind erosion in Europe: an overview

NP5.2 – Inverse Problems and Data Assimilation in Geosciences – Posters

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

Halls X/Y | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: n.n.

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

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

NP6.1 – Mixing, Diffusion and Lagrangian transport in Geophysical Flows. – Orals

Convener: Pilar López González-Nieto | Co-Conveners: Jose M. Redondo, Joe LaCasce, Kristofer Döös, Maria Josefina Olascoaga, Gyorgy Karolyi, Arthur Mariano

Room: 13

Chairperson: Jose M. Redondo

- 08:30–08:45 EGU2011-212
Claudia Cherubini
 Modeling approaches for fluid flow and pollutant propagation in a fractured and karst limestone
- 08:45–09:00 EGU2011-5562
Birgit Futterer, Florian Zaussinger, Christoph Egbers, and Nicoleta Scurtu
 Variation of viscosity contrast for convection experiments in spherical shells as part of geophysical flow simulation experiment 'GeoFlow II'
- 09:00–09:15 EGU2011-1376
Andrew Jackson, Barbara Turnbull, and Richard Munro
 Scaling Laws for Lobe and Cleft Patterns at the Front of Particle-Laden Gravity Currents
- 09:15–09:30 EGU2011-7774
Maristella Berta, Annalisa Griffa, Angelique C. Haza, and Laura Ursella
 Surface transport in coastal and open-sea areas of the Adriatic Sea from Finite-Scale Lyapunov Exponents
- 09:30–09:45 EGU2011-3778
Francesco Nencioli, Francesco d'Ovidio, Andrea M. Doglioli, and Anne A. Petrenko
 Real-time in-situ tracking of Lagrangian coherent structures in a coastal region
- 09:45–10:00 EGU2011-7984
Sandy Koch, Uwe Harlander, Rainer Hollerbach, and Christoph Egbers
 Laboratory experiment of inertial wave-interactions in a rotating spherical shell

NP6.1 – Mixing, Diffusion and Lagrangian transport in Geophysical Flows. – Posters

Convener: Pilar López González-Nieto | Co-Conveners: Jose M. Redondo, Joe LaCasce, Kristofer Döös, Maria Josefina Olascoaga, Gyorgy Karolyi, Arthur Mariano

Halls X/Y | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Ana Tarquis

- XY369 EGU2011-755
Samuel Marshall and Peter Read
 An Investigation into Variable Topography in a Baroclinic Annulus
- XY370 EGU2011-13341
Ana Maria Tarquis, Pilar López-Gonzalez-Nieto, and Jose Manuel Redondo
 Time Evolution of the Fractal Dimension in Turbulent Plumes
- XY371 EGU2011-751
Aliya Tairova, Georgiy Belyakov, Nicolay Baryshnikov, and Sergey Turuntaev
 Filtration and sedimentation in the channel with permeable walls
- XY372 EGU2011-1708
Chih-Yu Kuo, Li-Tsung Sheng, Shang-Yu Chiu, Yih-Chin Tai, and Shu-San Hsiau
 The streamwise solid volume fraction of parallel accelerating dry granular flows and the evolution of the fraction across normal granular shocks
- XY373 EGU2011-2135
Valentina Lombardi, Claudia Adduce, Giampiero Sciortino, and Michele La Rocca
 Gravity currents moving on smooth and rough beds
- XY374 EGU2011-2590
Florian Zaussinger
 Semiconvection
- XY375 EGU2011-11727
 Sebastian Borchert, Felix Rieper, Ulrich Achatz, and **Mark Fruman**
 A finite-volume model of the differentially heated rotating annulus with implicit sub-gridscale turbulence parameterization
- XY376 EGU2011-7011
Helena I. S. Nogueira, Claudia Adduce, Elsa Alves, and Mário J. Franca
 Analysis of the entrainment on lock-exchange density currents
- XY377 EGU2011-8214
Andrew Thompson and Jean-Baptiste Sallee
 Cross-Front Transport Near Topographically-Induced Jet Transitions
- XY378 EGU2011-1885
Colin Cotter and Greg Pavliotis
 Eddy parameterisations from data-driven coarse-graining of Lagrangian trajectories
- XY379 EGU2011-6897
Tarmo Soomere, Oleg Andrejev, Kai Myrberg, and Alexander Sokolov
 Quantification of the potential of offshore areas in terms of Lagrangian transport of danger to vulnerable regions

- XY380 EGU2011-2414
Stefan Riha and Álvaro Júdice Peliz
 Tracing the Mediterranean Outflow back into the Alboran Sea: A numerical modeling study
- XY381 EGU2011-7931
Paul Williams, Peter Read, and Thomas Haine
 Testing the limits of quasi-geostrophic theory

NP6.4/ST6.4 – Astrophysical Turbulence, Shocks and Plasmas (co-organized) – Orals

Convener: Luca Sorriso-Valvo | Co-Conveners: Jose M. Redondo

Room: 13

Chairperson: Luca Sorriso-Valvo

- 10:30–10:45 EGU2011-5381
Jiansen He, Chuanyi Tu, Eckart Marsch, Shuo Yao, and Hui Tian
 Two-component magnetic helicity for two-component turbulent fluctuations
- 10:45–11:00 EGU2011-12663
Fouad Sahraoui, Melvyn L. Goldstein, Gerard Belmont, and Alessandro Retinò
 Three dimensional anisotropic k-spectra of turbulence at sub-proton scales in the solar wind
- 11:00–11:15 EGU2011-2313
André Balogh and Silvia Perri
 Variations of the residual energy parameter in the solar wind on different scales and in different types of heliospheric flows observed by Ulysses
- 11:15–11:30 EGU2011-3900
 Xochitl Blanco-Cano, Ernesto Aguilar-Rodriguez, Primož Kajdič, **Christopher Russell**, Lan Jian, and Janet Luhmann
 Interplanetary Shocks observed by STEREO
- 11:30–11:45 EGU2011-2254
Ersilia Leonardis, Sandra Chapman, and Claire Foullon
 The spatio-temporal characteristics of magnetohydrodynamic turbulence seen in quiescent solar prominences by HINODE/SOT
- 11:45–12:00 EGU2011-12156
Sergey Savin, Ermanno Amata, Vyacheslav Budaev, David Sibeck, Vassilis Angelopoulos, Volt Lutseko, Jana Safrankova, Zdenek Nemecek, Jan Blecki, and Vladimir Krasnoselskikh
 Nonlocal interactions in the Earth magnetosheath: supersonic coherent structures as drivers of anomalous dynamics and intermittent turbulence

NP6.4/ST6.4 – Astrophysical Turbulence, Shocks and Plasmas (co-organized) – Posters

Convener: Luca Sorriso-Valvo | Co-Conveners: Jose M. Redondo

Halls X/Y | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Luca Sorriso-Valvo

- XY382 EGU2011-5045
Khurom Kiyani, Fouad Sahraoui, Sandra Chapman, Yuri Khotyaintsev, and Bogdan Hnat
 Magnetic compressibility and Isotropic Scale-Invariant Dissipation of Solar Wind Turbulence
- XY383 EGU2011-3487
Bogdan Hnat, Sandra Chapman, and Khurom Kiyani
 Evidence for a single stochastic physical process for fast solar wind magnetic field magnitude fluctuations at 1AU across turbulent and 1/f temporal scales
- XY384 EGU2011-8085
Olga Alexandrova, Catherine Lacombe, and Andre Mangeney
 Magnetic turbulence spectrum at electron scales in the solar wind
- XY385 EGU2011-11765
Raffaele Marino, Luca Sorriso-Valvo, Vincenzo Carbone, Roberto Bruno, Pierluigi Veltri, and Alain Noullez
 The magnetohydrodynamic turbulent cascade in polar solar wind: the role of local dynamic alignment
- XY386 EGU2011-7867
 Luca Sorriso-Valvo, **Emiliya Yordanova**, Vincenzo Carbone, and Silvia Perri
 Multipoint measurement of solar wind turbulence anisotropy by Cluster
- XY387 EGU2011-5619
Silvia Perri, Vincenzo Carbone, and Pierluigi Veltri
 On the break of fluid-like turbulence: solar wind observations
- XY388 EGU2011-8562
Andriy Koval and Adam Szabo
 Magnetic field turbulence spectra observed by Wind from 1994 to 2010

- XY389 EGU2011-3473
Hans-Jörg Fahr and Mark Siewert
 Solar wind bulk velocity fluctuations inducing ion power law distributions
- XY390 EGU2011-8599
Gaetano Zimbardo and Giuseppe Nistico'
 Collisionless shocks in the solar corona: a mechanism for preferential heating of heavy ions
- XY391 EGU2011-3572
David Burgess and Enrico Camporeale
 The dissipation of solar wind turbulent fluctuations at electron scales: Simulations
- XY392 EGU2011-8727
Zoltan Voros, Manfred Leubner, Tielong Zhang, Martin Volwerk, Andrea Opitz, and Roberto Bruno
 Radial versus temporal evolution of fast stream turbulence in the solar wind
- XY393 EGU2011-6645
Hervé Lamy, Marius Echim, and Tom Chang
 Application of Rank-Ordered Multifractal Analyses (ROMA) to intermittent magnetic fluctuations in the Earth's magnetospheric cusp and in the high-speed solar wind.

NP6.5 – Turbulence, Vortices and Waves in Stratified and Rotating Fluids – Orals

Convener: Yuli D. Chashechkin | Co-Conveners: Konrad Bajer

Room: 13

Chairperson: n.n.

- 13:30–13:45 EGU2011-815
Alistair McVicar, Peter Allison, Matthew Piggott, and Arnaud Czaja
 Flow past topography in relation to the Antarctic Circumpolar Current
- 13:45–14:00 EGU2011-1514
Andrey Sukhanovsky, Peter Frick, Andrey Teymurazov, and Vladimir Batalov
 Horizontal rolls in a convective flow driven by differential heating
- 14:00–14:15 EGU2011-2506
Iaroslav Zagumennyi, Yuli Chashechkin, and Roman Bardakov
 Stratified flows past a thin plate
- 14:15–14:30 EGU2011-4816
 Oriane Aubert, **Michael Le Bars**, Patrice Le Gal, and Philip S. Marcus
 Universal scaling law for the aspect ratio of a pancake vortex in a rotating stratified medium
- 14:30–14:45 EGU2011-6914
Volker Fiekas, Lars Arneborg, Michaela Knoll, and Hartmut Prandke
 Quasi-two-dimensional turbulence observations in a stratified fjord
- 14:45–15:00 EGU2011-10729
Eugenia V. Stepanova and Tatiana O. Chaplina
 Substance Transfer into Spiral and Helical Filaments in Rotating Fluid

NP6.6/ST6.5 – Magnetic reconnection and turbulence in Space, Laboratory and Astrophysical Systems (co-organized) – Orals

Convener: Giovanni Lapenta | Co-Conveners: Alex Lazarian

Room: 13

Chairperson: Lapenta, Lazarian

- 15:30–15:45 EGU2011-2666
Giovanni Lapenta and Lapo Bettarini
 Effects of turbulent reconnection on the evolution of dipolarisation fronts in the Earth magnetotail.
- 15:45–16:00 EGU2011-12381
Alexander Lazarian
 Diffusion of magnetic field and plasmas enabled by magnetic reconnection
- 16:00–16:15 EGU2011-6418
Zoltan Voros, Martin Volwerk, Manfred Leubner, Wolfgang Baumjohann, Tielong Zhang, and Andrei Runov
 Magnetic reconnection associated fluctuations in the deep magnetotail: ARTEMIS results
- 16:15–16:30 EGU2011-11005
Andrey Divin, Giovanni Lapenta, Stefano Markidis, David Newman, and Martin Goldman
 Electron holes at magnetic reconnection separatrices: the role of streaming instabilities.

- 16:30–16:45 EGU2011-10913
Mats André, Gabriella Stenberg, Andris Vaivads, **Yuri Khotyaintsev**, Alessandro Retinò, and Elizabeth Lucek
Magnetic reconnection in a turbulent space plasma: Cluster multi-spacecraft observations in the magnetosheath
- 16:45–17:00 EGU2011-12774
Grzegorz Kowal, Alex Lazarian, Ethan Vishniac, and Katarzyna Otmianowska-Mazur
Numerical Testing of Magnetic Reconnection in the Presence of Turbulence

NP6.6/ST6.5 – Magnetic reconnection and turbulence in Space, Laboratory and Astrophysical Systems (co-organized) – Posters

Convener: Giovanni Lapenta | Co-Conveners: Alex Lazarian

Halls X/Y | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Divin, Kowal

- XY394 EGU2011-4460
Haoyu Lu and Jinbin Cao
Study on Switch-off Magnetic Reconnection Due to the Parallel Shear Flow
- XY395 EGU2011-2676
Pierre Henri, Giovanni Lapenta, Stefano Markidis, Lapo Bettarini, Stefan Eriksson, Laila Andersson, Martin Goldman, and David Newman
Kinetic Study of Asymmetric Magnetic Reconnection
- XY396 EGU2011-2673
Stefano Markidis, Martin Goldman, Giovanni Lapenta, Pierre Henry, David Newman, Laila Andersson, Maria Elena Innocenti, and Andrey Divin
Role of Instabilities in Kinetic Magnetic Reconnection
- XY397 EGU2011-10232
Yuri Khotyaintsev, Christopher Cully, Andris Vaivads, Mats André, and Christopher J. Owen
Whistler-mode Waves and Non-Adiabatic Electrons in Plasma Jet Braking
- XY398 EGU2011-12500
Konrad Bajer and Krzysztof Mizerski
Enhancement of turbulence by elliptical instability with background rotation
- XY399 EGU2011-13226
Andrey Beresnyak
Basic Properties of MHD Turbulence

NH5.2/NP7.4/OS5.5 – Extreme Sea Waves (co-organized) – Orals

Convener: Efim Pelinovsky | Co-Conveners: Christian Kharif, Alexey Slunyaev

Room: 4

Chairperson: n.n.

- 08:30–08:45 EGU2011-3927
Elzbieta Bitner-Gregersen and Alessandro Toffoli
Probability of occurrence of rogue waves
- 08:45–09:00 EGU2011-102
Ira Didenkulova
Freak waves in the coastal zone of the Baltic Sea
- 09:00–09:15 EGU2011-1804
Georg Lindgren and Finn Lindgren
Stochastic 3D Lagrange waves, asymmetry properties and consequences for marine safety
- 09:15–09:30 EGU2011-1551
Leonid Lopatoukhin, Alexander Boukhanovsky, and Ekaterina Chernysheva
Climatic wave spectra of extreme wind waves
- 09:30–09:45 EGU2011-6052
Miguel Onorato and Alessandro Toffoli
The role of the modulational instability in the interaction of waves and currents
- 09:45–10:00 EGU2011-4810
Odin Gramstad, Jean-Michel Lefevre, and Karsten Trulsen
Model and case study for freak waves in crossing swell and wind sea

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2011-9094
Gerassimos Athanassoulis and Konstantinos Belibassakis
 Fully nonlinear water waves of high amplitude, propagating in finite depth
- 10:45–11:00 EGU2011-13724
Alexander Dyachenko and Vladimir Zakharov
 On canonical equation for water waves
- 11:00–11:15 EGU2011-3943
Walter Craig
 Nonlinear water wave interactions
- 11:15–11:30 EGU2011-2013
Nail Akhmediev, Adrian Ankiewicz, Jose-Maria Soto-Crespo, and John M. Dudley
 Rogue Waves: Early Warning vs Forecast
- 11:30–11:45 EGU2011-1933
Roger Grimshaw and Sergei Annenkov
 Water wave packets propagating over variable depth
- 11:45–12:00 EGU2011-1977
 Sergei Annenkov and **Victor Shrira**
 Self-similar evolution of wind wave statistical momenta

LUNCH BREAK

Chairperson: n.n.

- 13:30–13:45 EGU2011-137
Anna Sergeeva, Lev Shemer, and Alexey Slunyaev
 Effects of occasional wave breaking on extreme wave statistics in stochastic modeling
- 13:45–14:00 EGU2011-1253
 Yang-Yih Chen and **Hung-Chu Hsu**
 Theoretical and Experimental study of Nonlinear water waves on uniform current
- 14:00–14:15 EGU2011-4226
 Victor Shrira and **Alexey Slunyaev**
 Rogue waves on jet currents caused by nonlinear evolution of trapped modes
- 14:15–14:30 EGU2011-1036
Sergey Dobrokhoto, Vladimir Nazaikinskiy, and Brunello Tirozzi
 Explicit Asymptotics for Waves and Vortices with Small Amplitudes on the Shallow Water Created by Localized Sources and their Applications
- 14:30–14:45 EGU2011-288
Karima Khusnutdinova
 The effect of an internal wave on breaking surface waves and the oceanic subsurface bubble layer
- 14:45–15:00 EGU2011-1975
Tatiana Talipova and Oxana Kurkina
 Modulation instability and hazardous internal waves in South China and Baltic Seas

NH5.2/NP7.4/OS5.5 – Extreme Sea Waves (co-organized) – Posters

Convener: Efim Pelinovsky | Co-Conveners: Christian Kharif, Alexey Slunyaev

Halls X/Y | Display Time 08:00–17:00

Author in Attendance: 15:30–17:00

Chairperson: Christian Kharif and Efim Pelinovsky

- XY263 EGU2011-2128
Roman Shamin
 Numerical Simulation of FreakWaves: Detection, Predict and Breaking
- XY264 EGU2011-7735
Shiqiang Yan and Qingwei Ma
 Fully Non-linear Investigation of Freak Waves and their Interaction with Winds and Currents
- XY265 EGU2011-115
Alexey Slunyaev, Anna Sergeeva, and Efim Pelinovsky
 Rogue wave modeling: Approximate vs fully nonlinear wave simulations
- XY266 EGU2011-342
Arnida L. Latifah and E. van Groesen
 Investigations of coherence in extreme water waves

- XY267 EGU2011-37
Efim Pelinovsky and Ira Didenkulova
Freak waves in the field of the nonlinear non-dispersive shallow-water waves
- XY268 EGU2011-13924
Efim Pelinovsky and Dong-Jiing Doong
Freak wave observations in Taiwanese and Russian waters
- XY269 EGU2011-807
Andrey Zaytsev, Efim Pelinovsky, Ahmet Yalciner, Ceren Ozer, and Irina Kostenko
Studies of Freak Waves in southern Part of Okhotsk Sea
- XY270 EGU2011-108
Ira Didenkulova and **Irina Nikolkina**
Freak waves in 2006-2010
- XY271 EGU2011-2382
Amin Chabchoub and Norbert Hoffmann
The Peregrine Breather Solution in a water wave tank
- XY272 EGU2011-42
Ekaterina Shurgalina and Efim Pelinovsky
Life-time of freak waves of different shapes: dispersive focusing framework
- XY273 EGU2011-7716
Huiming Zeng and **Karsten Trulsen**
Variation of kurtosis over non-uniform bathymetry
- XY274 EGU2011-1019
Hubert Branger, Laurent Grare, Christian Kharif, Pierre Lubin, Stephane Glockner, Pauline Robin, and Olivier Kimmoun
Wind effects on waves propagating to the shore: experimental and numerical investigations
- XY275 EGU2011-1435
Roland Thomas and Christian Kharif
Stability of a Stokes' wave train in the presence of uniform vorticity
- XY276 EGU2011-1050
Antonio Lechuga
Large amplitude edge waves on a beach
- XY277 EGU2011-4559
Oxana Kurkina, Tatiana Talipova, Efim Pelinovsky, Tarmo Soomere, and Ayrat Giniyatullin
Prognostic characteristics of internal waves for the Baltic Sea
- XY278 EGU2011-5286
Nikolay Makarenko, Janna Maltseva, and Alexei Kazakov
Extreme internal waves in a weakly stratified shear flows
- XY279 EGU2011-13256
Andrey Serebryany and Cho-Teng Liu
Observations of large-amplitude internal wave of the second mode in Luzon Strait
- XY280 EGU2011-4549
Dmitry Arkhipov, **Georgy Khabakhpashev**, Anatoly Litvinenko, and Nurziya Safarova
Combined approach to a simulation of the interaction of nonlinear spatial waves in seas with gently sloping bottom
- XY281 EGU2011-508
Elena Alekseenko, Bernard Roux, Alexander Sukhinov, and Christian Kharif
Influence of currents and wave propagation on the seagrass meadows development in shallow water systems (near shoreline)
- XY282 EGU2011-1573
Ekaterina Batcyna, Nikolay Petrukhin, and Efim Pelinovsky
Strong wave amplification in the atmosphere with large temperature gradients
- XY283 EGU2011-536
Shalva Gagoshidze
To the Calculation of Periodic Longitudinal Waves in Trapezoidal Channels and Their Action on Bank Slopes
- XY284 EGU2011-1685
Vasily Maximov, Gayaz Khakimzyanov, Igor Nudner, Efim Pelinovsky, and Konstantin Semenov
The Solitary Wave Interaction with a Partially Submerged Stationary Structure
- XY285 EGU2011-1686
Vasily Maximov, Igor Nudner, Yuri Mayorov, Dmitry Babchik, and Konstantin Semenov
Extreme Waves Interaction with Lattice Structures
- XY286 EGU2011-3981
Natalia Chaykovskaya and Artem Rodin
Psychological characteristics of human behaviour at a rogue-wave event
- XY287 EGU2011-6781
Jean-François Dorville, Hugues Berthelot, and Narcisse Zahibo
Effect of Extremes Wave on a mitigate type of the French West Indies coast, with a low cost modeling

- XY288 EGU2011-6022
Narcisse Zahibo, Irina Nikolkina, Efim Pelinovsky, and Jean-François Dorville
 Extreme Sea Waves on Guadeloupe, French West Indies
- XY289 EGU2011-4456
Mikhail Lavrentiev, Andrey Marchuk, and Konstantin Simonov
 Identification of tsunami wave parameters at source

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 Lefrère, 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

OS5.2 – Surface Waves and Wave-Coupled Effects in Lower Atmosphere and Upper Ocean (co-listed) – Posters

Convener: Alexander Babanin | Co-Conveners: Miguel Onorato, Fangli Qiao

Halls X/Y | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Alex Babanin, Miguel Onorato, Fangli Qiao

- XY450 EGU2011-5374
Alexander Babanin and Dmitry Chalikov
Numerical investigation of turbulence generation in non-breaking potential waves
- XY451 EGU2011-9087
Jonas Takeo Carvalho and Valdir Innocentini
Wind wave climate along Brazilian coast using a spectral partitioning algorithm
- XY452 EGU2011-4410
Dejun Dai, Fangli Qiao, Wojciech Sulisz, Lei Han, and Alexander Babanin
An Experiment on the Non-Breaking Surface-Wave-Induced Vertical Mixing
- XY453 EGU2011-4389
Vladimir Dulov and Maria Kosnik
A Field Study of 2D-Wavenumber Spectra of Short Wind Waves
- XY454 EGU2011-1520
Alina Galchenko, Alexander Babanin, and Dmitry Chalikov
Influence of wind forcing on evolution and breaking of nonlinear wave groups.
- XY455 EGU2011-7390
Georgia Kalantzi, **Christine Gommenginger**, and Meric Srokosz
Spectral wave dissipation, operational wave models and observations: is there a way of improving wave forecasts?
- XY456 EGU2011-7116
Charles-Antoine Guérin and Guillemette Caulliez
Statistical properties of short wind waves: a high resolution laboratory study

- XY457 EGU2011-2837
Mark Hemer, Kathleen McInnes, and Roshanka Ranasinghe
Projected future wave climate along Australia's eastern margin
- XY458 EGU2011-12478
Rajesh Kumar, Anna Rutgersson, and Prasad Kumar
Impact of rain in modifying wave height in a coupled wave - climate model
- XY459 EGU2011-10268
Alexey Mironov
Theoretical description of breaking crests distributions measured in field conditions
- XY460 EGU2011-10250
Alexey Mironov, Charles-Antoine Guerin, Danièle Hauser, Maria Kosnik, and Vladimir Dulov
Statistical properties of short wind-waves obtained from photo-stereo observations of sea surface.
- XY461 EGU2011-6352
Miguel Onorato and Francesco Zonta
Direct numerical simulation of the boundary layer induced by surface gravity waves
- XY462 EGU2011-5158
Ruslan Puscasu, Alexander Babanin, and Michael Stiassnie
Numerical investigation of a novel wave-action transfer model for near-resonant water waves
- XY463 EGU2011-4145
Fangli Qiao, Zhenya Song, Changshui Xia, and Dejun Dai
The improvement of ocean and climate models through surface wave: From mean state to long-term variations
- XY464 EGU2011-12871
Ivan Savelyev and Robert Handler
Infrared imaging of near-surface eddies generated by steep and by breaking surface waves.
- XY465 EGU2011-6275
Mathieu Dutour Sikiri?, Aron Roland, Ivica Janekovi?, Igor Tomaži?, and Milivoj Kuzmi?
Two-way coupling of ROMS and WWM models
- XY466 EGU2011-4629
Zhenya Song and Fangli Qiao
The establishment of the atmosphere-wave-ocean circulation coupled models-The improvement of CGCMs's simulations by the wave-induced vertical mixing
- XY467 EGU2011-2099
Chia-Huan Ting, Alexander Babanin, and Dmitry Chalikov
Dependence of Drag Coefficient on the Directional Spreading of Ocean Waves
- XY468 EGU2011-5399
Alessandro Toffoli, Alexander Babanin, and Jason McConochie
Field observations of the mixed layer depth in the Indian Ocean: effect of wave-induced turbulence
- XY469 EGU2011-8695
Oleg Druzhinin and **Yuliya Troitskaya**
Investigation of statistical parameters of turbulent air flow over waved water surface by direct numerical simulation
- XY470 EGU2011-4501
Wu-ting Tsai and Li-ping Hung
Characteristics of interfacial transport in a wind-driven gravity-capillary surface wave
- XY471 EGU2011-12295
Kimmo K Kahma, **Laura Tuomi**, and Heidi Pettersson
Wave statistics in seasonally ice-covered seas
- XY472 EGU2011-2794
Anatoli Vakhguel and Alexander Babanin
Influence of water droplet size variations on propagation of the pressure wave above water surface
- XY473 EGU2011-5966
Soeren H. Ahmerkamp, **Jörg-Olaf Wolff**, and Stephen G. Monismith
On wave motions at the steep slope of a coral reef
- XY474 EGU2011-6958
Changshui Xia and Fangli Qiao
The Establishment of the Wave-circulation Coupled Model and Its Application

