

EGU General Assembly 2012
Programme Group Programme
NP – Nonlinear Processes in Geophysics

Monday, 23 April	2
HS1.3	2
NP1.2	3
SC1/NP1.5	3
NP4.1	3
NP4.2	5
NP4.4	6
NH7.3/AS4.3/BG2.25/ESS1.8/NP4.6/SSS5.24	6
NP8.1/CL5.2	9
NP8.2	10
TM1/EOS12	10
Tuesday, 24 April	11
NP1.1	11
NP2.4/CL5.5	11
NP3.1	12
NP3.2	13
CL5.4/NP4.5	15
NH4.2/NP7.4/SM5.3/TS8.7	16
SSS5.8	18
Wednesday, 25 April	21
GM2.4	21
AS1.7/NP1.4	22
NP2.1	23
NP2.2/AS1.19	25
NP2.6	26
NP3.3	28
NP3.4/BG2.23/SSS1.7	29
CL3.3/NP5.4	30
NH5.3/NP 7.3/OS2.6	33
Thursday, 26 April	36
HS7.1	36
HS7.3/CL2.9/NP1.3	38
SC2/NP1.6	39
HS7.2/AS1.20/CL5.16/NH1.3/NP3.6	40
NP5.2	42
NP5.3	44
NP6.3/AS2.4	45
NP6.4/PS9.4	47
NP7.2	47
OS1.2	48
Friday, 27 April	50
ERE1.2	50
NP6.1	53
NP6.5	54
NP6.6	55
HS7.5/NP8.3	56

Monday, 23 April

HS1.3 – Metrics, measures and objective functions in Hydrology' (co-listed) – Orals

Convener: U. Ehret | Co-Conveners: E. Zehe, H. Gupta, C. Perrin, Simon Seibert, D. E. Reusser

Room: 39

Chairperson: H. Gupta, U. Ehret

- 08:30–08:45 EGU2012-3809
G. Evin, M. Thyer, D. Kavetski, and G. Kuczera
 A flow-regime based diagnostic approach to residual error modelling
- 08:45–09:00 EGU2012-14088
D.E. Reusser, T. Gräff, and D. Kneis
 Model comparison using the finger print approach
- 09:00–09:15 EGU2012-1834
S. Gharari, M. Hrachowitz, F. Fenicia, and H. H. G. Savenije
 Calibration validation revisited or how to make better use of available data: Sub-period calibration
- 09:15–09:30 EGU2012-14115
H Lange
 The hunt for deterministic structures in noisy hydrological data
- 09:30–09:45 EGU2012-2767
G. Lischeid, T. Hohenbrink, and U. Schindler
 A metrics for soil hydrological processes and their intrinsic dimensionality in heterogeneous systems
- 09:45–10:00 EGU2012-10597
G. Nearing and H. Gupta
 An OSSE Approach to Evaluating the Utility of Data Assimilation

HS1.3 – Metrics, measures and objective functions in Hydrology' (co-listed) – Posters

Convener: U. Ehret | Co-Conveners: E. Zehe, H. Gupta, C. Perrin, Simon Seibert, D. E. Reusser

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: C. Perrin, S. Seibert, D. Reusser

- A61 EGU2012-14095
 L Crochemore, **C Perrin**, and V Andréassian
 Linking numerical criteria and expert judgement: results from the Melbourne's experiment
- A62 EGU2012-8034
S.V. Weijs, N. van de Giesen, and M.B. Parlange
 Description length as a performance metric for explaining hydrological data
- A63 EGU2012-237
J. Nossent and W. Bauwens
 Application of a normalized Nash-Sutcliffe efficiency to improve the accuracy of the Sobol' sensitivity analysis of a hydrological model
- A64 EGU2012-11549
M. Zambrano-Bigiarini and A. Bellin
 Comparing Goodness-of-fit Measures for Calibration of Models Focused on Extreme Events
- A65 EGU2012-6782
W. Gong, H.V. Gupta, and D.W. Yang
 Estimating Best Achievable Performance Using an Information Theoretic Approach
- A66 EGU2012-12354
C. Massmann and H. Holzmann
 Analysing goodness of fit measures using a sensitivity based approach
- A67 EGU2012-4661
P.J. Smith and K. Beven
 Hydrological Similarity and Consistently Wrong models
- A68 EGU2012-3493
K. Beven, P. J. Smith, and J. Davies
 How to define limits of acceptability
- A69 EGU2012-10888
Y. van der Velde, S.E.A.T.M van der Zee, P.J.J.F. Torfs, and R. Uijlenhoet
 Quantifying mixing of water within catchments.
- A70 EGU2012-5924
SP Seibert and U Ehret
 Detection of flood events in hydrological discharge time series

- A71 EGU2012-11007
H. Xu
Testing the influence of rain gauges' density and distribution on hydrological modeling results, a case study of Xiangjiang River basin
- A72 EGU2012-12343
M. Stefouli, **E. Charou**, E. Vasileiou, N. Stathopoulos, and A. Perrakis
Monitoring Reservoirs Using MERIS And LANDSAT Fused Images : A Case Study Of Polyfitos Reservoir - West Macedonia - Greece
- A73 EGU2012-3328
G. Pryahina, E. Zelepukina, and N. Guzel
Run-off regime of the small rivers in mountain landscapes (on an example of the mountain "Mongun-taiga
- A74 EGU2012-669
H. C. Yang and C. J. Chiang
The Comparison of Wading Measurement Discharge between ADC and FP111 in Shallow Flow

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

Convener: S.-A. OUADFEUL | Co-Conveners: L. Aliouane, A. Boudella

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Sid-Ali OUADFEUL

- XY337 EGU2012-3008
H. Paasche and J. Tronicke
Joint global optimization of tomographic data based on particle swarm optimization and decision theory
- XY338 EGU2012-5024
T. Danek, M. Wojdyla, and C. Farquharson
Bayesian inversion of geophysical data using combined particle swarm optimization and Metropolis sampling
- XY339 EGU2012-5169
T. Danek, M. Wojdyla, and M. Stefaniuk
Unconstrained inversion of magnetotelluric data using Bayesian information criterion
- XY340 EGU2012-9236
M. C. Berquig, M. Hamoudi, J.L LeMouël, and **Y. Cohen**
Validate Mapping of Internal Lunar Magnetic Field
- XY341 EGU2012-1173
L. Aliouane, S. Ouadfeul, and A. Boudella
A comparative study of some Artificial Neural Network models for lithofacies classification from well-logs data
- XY342 EGU2012-3524
A. Benaïssa, **Z. Benaïssa**, and S. Ouadfeul
A FORTRAN source library for quaternion algebra. Application to multicomponent seismic data
- XY343 EGU2012-3603
S. Eladj, S. Ouadfeul, L. Aliouane, and N. Djarfour
AVO Seismic data inversion using global simultaneous technique
- XY344 EGU2012-8336
S. Ouadfeul, L. Aliouane, M. Hamoudi, and A. Boudella
Lithofacies recognition from well-logs data using the Self-Organizing Map neural network. A case study from the Berkine basin (Algeria).
- XY345 EGU2012-14286
L. Aliouane, S. Ouadfeul, and A. Boudella
Reservoir characterization from well-logs data using neural network models

SC1/NP1.5 – Shourt Course: Tipping Points in the Geosciences (co-organized) – Orals

Convener: Dr. Ghil | Co-Conveners: H. A. Dijkstra

Room: 25

Chairperson: n.n.

08:30–10:00

Chairperson: n.n.

10:30–12:00

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

Convener: R. V. Donner | Co-Conveners: S. M. Barbosa

Room: 17

Chairperson: R. Donner

- 08:30–08:45 EGU2012-2010
J. von Buttlar, J. Zscheischler, and M. D. Mahecha
 An extended approach for spatio-temporal gap filling: dealing with large and systematic gaps in geoscientific datasets
- 08:45–09:00 EGU2012-10736
R. Deckert
 Detection of surface heterogeneity in eddy covariance data
- 09:00–09:15 EGU2012-4586
 N. Marwan, **B. Goswami**, K. Rehfeld, S. F. M. Breitenbach, and J. Kurths
 Reconstruction of uncertain age-depth relationships
- 09:15–09:30 EGU2012-5737
K. Rehfeld, N. Marwan, J. Heitzig, and J. Kurths
 Mutual information estimation for irregularly sampled time series
- 09:30–09:45 EGU2012-11612
J. Gairing and P. Imkeller
 Power variations of heavy tailed jump diffusions in paleoclimatic time series
- 09:45–10:00 EGU2012-13837
 K. Eftaxias and **G. Balasis**
 Time series analysis of diverse extreme phenomena: universal features

COFFEE BREAK

Chairperson: S. Barbosa

- 10:30–10:45 EGU2012-7919
A. Groth and M. Ghil
 Detecting clusters of synchronized oscillators in the presence of large colored noise
- 10:45–11:00 EGU2012-1487
C. Franzke
 Nonlinear Trends, Long-Range Dependence and Climate Noise Properties of Surface Temperature
- 11:00–11:15 EGU2012-10776
E. Szolgayová, G. Blöschl, and C. Bucher
 Factors influencing long range dependence in streamflow of European rivers
- 11:15–11:30 EGU2012-9063
R. V. Donner, S. M. Barbosa, J. F. Donges, J. A. O. Matos, and J. Kurths
 Linear and nonlinear dynamical features of long-term tide gauge records: Spatial and temporal patterns in the Baltic Sea area
- 11:30–11:45 EGU2012-5385
A. Russo and R.M Trigo
 Short-term pollution forecasts based on linear and nonlinear methods of time series analysis
- 11:45–12:00 EGU2012-10827
A. S. Jarman and L. A. Smith
 Misleading estimates of forecast quality: quantifying skill with sequential forecasts
- 12:00–12:15 EGU2012-5295
F. Petroni, G. D'Amico, and F. Praticco
 Indexed semi-Markov process for wind speed modeling.

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

Convener: R. V. Donner | Co-Conveners: S. M. Barbosa

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: S. Barbosa / R. Donner

- XY346 EGU2012-7958
A. Groth, M. Ghil, and Y. Feliks
 Detecting clusters of irregular oscillations in the presence of colored noise: An application to climate records
- XY347 EGU2012-7710
B. Goswami, J. Heitzig, K. Rehfeld, N. Marwan, and J. Kurths
 Using Bayesian regression to construct proxy time series from palaeoclimate archives

- XY348 EGU2012-4588
J.F. Donges, R.V. Donner, J. Heitzig, and J. Kurths
Contemplating coincidences - Statistical relationships between geoscientific event series
- XY349 EGU2012-14314
R. V. Donner and J. F. Donges
Visibility Graph Analysis of Geophysical Time Series - Potentials and Possible Pitfalls
- XY350 EGU2012-4611
J.F. Donges, R.V. Donner, and J. Kurths
Visibility graphs for testing reversibility of time series
- XY351 EGU2012-5450
J. H. Feldhoff, R. V. Donner, J. F. Donges, N. Marwan, and J. Kurths
Bi- and multivariate recurrence network analysis for identifying and characterizing coupled geophysical systems
- XY352 EGU2012-14312
E. Hauber, R. V. Donner, J. F. Donges, and J. Kurths
Spatial patterns in extreme events and dynamical complexity of precipitation over Germany
- XY353 EGU2012-14281
J. Wagner and R. V. Donner
Evolution of extraordinarily low and high temperature, precipitation and runoff periods over Germany since 1950 - A quantile regression approach
- XY354 EGU2012-11279
J. A. O. Matos and S. M. Barbosa
Scale-dependent Detrended Fluctuation Analysis (DFA) for geophysical time series
- XY355 EGU2012-6480
R. Crockett
Correlation and Coherence Analysis of Paired Time-Series.
- XY356 EGU2012-5812
E. Wheatcroft and L.A. Smith
Using shadowing ratios to evaluate data assimilation techniques
- XY357 EGU2012-5845
M. Barbarella, **M. De Giglio**, A. Galeandro, and F. Mancini
Time series of GNSS-derived ionospheric maps to detect anomalies as possible precursors of high magnitude earthquakes
- XY358 EGU2012-3457
C. Suteanu and M. Mandea
Long range correlations in daily atmospheric temperature time series in the Canadian Arctic: regional vs. local effects
- XY359 EGU2012-6702
A. Ramírez-Rojas, L. R. Moreno-Torres, and E. L. Flores-Marquez
Statistical analysis in the Natural Time Domain of the seismicity in México
- XY360 EGU2012-4459
J. Chen, M. Jegen, M. Moorkamp, and B. Heincke
A Heuristic Method to Process Marine Magnetotelluric Data
- XY361 EGU2012-8233
R. Tolosana-Delgado and K.G. van den Boogaart
Interpretation of a compositional time series
- XY362 EGU2012-9159
P. Valent, M. Komorníková, and J. Szolgay
Comparison of selected linear and nonlinear time series models of nitrate concentrations in river flows
- XY363 EGU2012-10726
S. Nakano and T. Higuchi
Estimation of the long-term component of the variation in geomagnetic data
- XY364 EGU2012-1287
Dr Levin, Dr Domanski, and Dr Sasorova
The seismicity latitudinal structure, tidal forces, and the Earth rotation.

NP4.2 – Satellite time series analysis – Orals

Convener: R. Lasaponara | Co-Conveners: A. Lanorte, D. G. P. Petropoulos

Room: 17

Chairperson: Rosa Lasaponara and George Petropoulos

- 13:30–13:45 EGU2012-9577
N. Neugebauer and F. Vuolo
Monitoring urban development using satellite time series data and GIS technologies: a case study of Vienna 1986-2011

- 13:45–14:00 EGU2012-10709
S.M. Alfieri, F. De Lorenzi, A. Bonfante, A. Basile, and M. Menenti
 Estimating the spatial distribution of daily air temperature by Time Series Analysis of MODIS Land Surface Temperature
- 14:00–14:15 EGU2012-13916
C. Stewart, G. Schiavon, and R Lasaponara
 Seasonal and yearly polarimetric time series analysis of Radarsat 2 quad pol data over the area around Rome
- 14:15–14:30 EGU2012-14069
E Savin
 Vegetation indexes time series analysis for vegetation condition estimation
- 14:30–14:45 EGU2012-14068
M Boschetti, A. Nelson, G. Manfrom, and P A Brivio
 An automatic approach for rice mapping in temperate region using time series of MODIS imagery: first results for Mediterranean environment
- 14:45–15:00 EGU2012-14067
G Nole, A Lanorte, B Murgante, and R Lasaponara
 Space Monitoring of urban sprawl
- 15:00–15:15 EGU2012-12191
R. Lasaponara and N. Masini
 Space -based monitoring of archaeological looting using multitemporal satellite data

NP4.4 – Wavelet transform for geoscience applications – Orals

Convener: S.-A. OUADFEUL | Co-Conveners: L. Aliouane, A. Boudella

Room: 17

Chairperson: Sid-Ali OUADFEUL

- 15:30–15:45 EGU2012-13884
 S. Nicolay and **X. Fettweis**
 Several years El Niño forecast using a wavelet-based mode decomposition
- 15:45–16:00 EGU2012-10268
G. Bertoldi, J.D. Albertson, and U. Tappeiner
 Use wavelet transform to analyze the hydrological response of an alpine glaciated catchment
- 16:00–16:15 EGU2012-1523
H. Hassani and M. R. Saadatnejad
 Reservoir structures detection and hydrocarbons exploration using wavelet transform method in 2 oil fields in southwestern of Iran
- 16:15–16:30 EGU2012-275
W. Keller
 Wavelet compression of geodetic integral operators.
- 16:30–16:45 EGU2012-1485
K. Moghtased-Azar, A. Mirzaei, H.R. Nankali, and F. Tavakoli
 Investigation of land subsidence due to climate changes in surrounding areas of Urmia Lake (located in northwest of Iran) using wavelet coherence analysis of geodetic measurements and methodological data
- 16:45–17:00 EGU2012-10026
S. Ventosa and B. Romanowicz
 Local adaptive slant-stack filters in the time-scale domain

NH7.3/AS4.3/BG2.25/ESSI1.8/NP4.6/SSS5.24 – Spatial and temporal patterns of wildfires: models, theory, and reality (co-organized) – Orals

Convener: M.G. Pereira | Co-Conveners: R. Trigo, A. Camia, M. Penning de Vries, Dr Clarisse, L Boschetti

Room: D

Chairperson: n.n.

- 08:30–08:45 EGU2012-1162
C. D. Vega Orozco, M. Kanevski, J. Golay, M. Tonini, and M. Conedera
 Multifractal analysis of forest fires in complex regions
- 08:45–09:00 EGU2012-2092
M. Kanevski, A. Champendal, C. Vega Orozco, M. Tonini, and M. Conedera
 A new concept of wildland-urban interface based on city clustering algorithm
- 09:00–09:15 EGU2012-6519
 T. Penman, **R. Bradstock**, G. Caccamo, and O. Price
 Developing a probabilistic fire risk model and its application to fire danger systems

- 09:15–09:30 EGU2012-11497
D. Oom, I. Bistinas, A. C. L. Sa, and J.M.C. Pereira
 Continental spatial non-stationarity of fire-human relationship using GWR
- 09:30–09:45 EGU2012-13822
M. Long, A. Ganteaume, M. Jappiot, G. Andrienko, and N. Andrienko
 Analysis of fire causes spatial and temporal distribution in France
- 09:45–10:00 EGU2012-12008
Y. Zhang, D. Obrist, B. Zielinska, and A. Gerler
 Emissions of carbon species, organic polar compounds, potassium, and mercury from prescribed burning activities

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2012-3335
A. Bastos, C. M. Gouveia, R. M. Trigo, and C. C. DaCamara
 Vegetation recovery assessment following large wildfires in the Mediterranean Basin
- 10:45–11:00 EGU2012-13785
T. Brown, C. Kolden, and J. Abatzoglou
 Assessing fuels treatments in the context of climate change
- 11:00–11:15 EGU2012-12648
T. Calheiros, M.G. Pereira, T.J. Calado, C.C. Dacamara, and J.G. Pinto
 Potential effects of regional climate change on rural fires over Europe
- 11:15–11:30 EGU2012-3852
R. Bradstock, M. Boer, T. Penman, and O. Price
 Divergent responses of fire to recent climate change: evidence from bio-regional patterns across south-eastern Australia
- 11:30–11:45 EGU2012-1967
D. Cane, C. Wastl, S. Barbarino, L. Renier, C. Schunk, and A. Menzel
 Evaluation of fire potential in the climatic scenario: an Alpine area perspective
- 11:45–12:00 EGU2012-7340
A. Shvidenko and D. Schepaschenko
 Wildfire in Northern Eurasia and climate change

Chairperson: n.n.

- 15:30–15:45 EGU2012-3173
I. Csiszar, W. Schroeder, L. Giglio, E. Ellicott, and C.O. Justice
 A comparison of remote sensing of active fires from MODIS and VIIRS
- 15:45–16:00 EGU2012-11107
G. Ruecker, E. Lorenz, A.A. Hoffmann, D. Oertel, and J. Tiemann
 A mission concept for a dedicated Fire Monitoring Constellation of small satellites based on the BIRD heritage
- 16:00–16:15 EGU2012-12485
C. C. DaCamara, R. Libonati, A. Barros, G. Gaspar, and T. J. Calado
 Using MODIS imagery to assign dates to maps of burn scars in Portugal
- 16:15–16:30 EGU2012-8366
r. Paugam, m. Wooster, s. Freitas, s. Gonzi, and p. Palmer
 Parameterization of Fire Injection Height in Large Scale Transport Model
- 16:30–16:45 EGU2012-9558
E. Athanasopoulou, C. Giannakopoulos, H. Vogel, D. Rieger, C. Knote, M. Hatzaki, B. Vogel, and A. Karali
 Fire risk and air pollution assessment during the 2007 wildfire events in Greece using the COSMO-ART atmospheric model
- 16:45–17:00 EGU2012-10521
J.W. Kaiser, A. Benedetti, R. Detmers, A. Heil, J.-J. Morcrette, M.G. Schultz, G.R. van der Werf, M.J. Wooster, and W. Xu
 Assimilation of FRP Observations for Global Fire Emission Estimation in MACC-II

NH7.3/AS4.3/BG2.25/ESS1.8/NP4.6/SSS5.24 – Spatial and temporal patterns of wildfires: models, theory, and reality (co-organized) – Posters

Convener: M.G. Pereira | Co-Conveners: R. Trigo, A. Camia, M. Penning de Vries, Dr Clarisse, L Boschetti

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY281 EGU2012-14135
N.J. Gonçalves, **M.G. Pereira**, P. Fernandes, C. Loureiro, C.C. DaCamara, and M.T. Calado
Landscape-structure metrics influence on fire size distribution in Portugal
- XY282 EGU2012-12208
R. Costa, **M.G. Pereira**, L. Caramelo, C. Vega Orozco, and M. Kanevski
Spatio-temporal clustering of wildfires in Portugal
- XY283 EGU2012-779
E. Íñiguez-Remón, D. Badía-Villas, and P. Ibarra-Benlloch
Spatial and temporal changes in land cover and its relation to the wildfire risk in Montes de Zuera (NE-Spain)
- XY284 EGU2012-12737
Panagiota Papakosta, Florian Klein, Simon König, Stefan Peters, and Daniel Straub
Linking spatio-temporal data to the Fire Weather Index to estimate the probability of wildfire in the Mediterranean
- XY285 EGU2012-11226
B. Arca, G. Pellizzaro, A. Canu, G.V. Pintus, R. Ferrara, and P. Duce
An analysis on Wildland Urban Interface in North Sardinia
- XY286 EGU2012-9852
C.M. Gouveia, A. Bastos, R.M. Trigo, and C. DaCamara
Drought impact on vegetation in pre and post fire events in Iberian Peninsula
- XY287 EGU2012-12172
V. Bacciu, G. Pellizzaro, P. Santoni, B. Arca, A. Ventura, M. Salis, T. Barboni, V. Leroy, D. Cancellieri, E. Leoni, L. Ferrat, Y. Perez, P. Duce, and D. Spano
Fuel type characterization and potential fire behavior estimation in Sardinia and Corsica islands
- XY288 EGU2012-2419
D. Cane, A. Arpacı, M. Conedera, E. Valse, S. Barbarino, H. Vacik, and G.B. Pezzatti
Suitability of different Fire Weather Indices for alpine conditions: an extensive evaluation with high resolution data
- XY289 EGU2012-8422
C. Schunk, C. Wastl, M. Leuchner, C. Schuster, and A. Menzel
Forest fire danger indices under extreme meteorological conditions in a complex topography - the situation in the Bavarian Alps in autumn 2011
- XY290 EGU2012-13793
K. Koster, J. Pumpanen, and F. Berninger
Recovery of soil carbon and nitrogen pools following forest fires in eastern Lapland, Finland.
- XY291 EGU2012-10307
A. Ganteaume, M. Jappiot, and C. Lampin
Assessing and ranking the flammability of some ornamental plant species to select firewise plants for landscaping in WUI (SE France).
- XY292 EGU2012-597
E. Shvetsov
The Correlation Analysis of Fire Energy Release and Weather Conditions
- XY293 EGU2012-13648
M. Amraoui, C.C. DaCamara, and S.L. Ermida
An algorithm to detect fire activity using Meteosat: fine tuning and quality assesment
- XY294 EGU2012-3196
I. Csizsar, C.O. Justice, E. Prins, W. Schroeder, C. Schmidt, and L. Giglio
Fire Monitoring from the New Generation of US Polar and Geostationary Satellites
- XY295 EGU2012-11870
G. Mazzeo, C. Filizzola, I. Coviello, F. Marchese, R. Corrado, T. Lacava, R. Paciello, N. Pergola, and V. Tramutoli
Performance assessment of a Robust Satellite Techniques (RST-FIRES) for forest fire detection and monitoring
- XY296 EGU2012-1704
S. Veraverbeke and S. Hook
Evaluating spectral indices and spectral mixture analysis for assessing fire severity and adjusting burning efficiency using Landsat data
- XY297 EGU2012-1705
S. Veraverbeke, S. Hook, and G. Hulley
A single date SWIR-MIR index (SMI) for rapid fire severity assessments
- XY298 EGU2012-10622
T. Thonat, C. Crevoisier, A. Chédin, R. Armante, L. Crépeau, and N. A. Scott
Study of biomass burning emissions with Aqua/AIRS and MetOp-A/IASI

- XY299 EGU2012-7916
C. Kontoes, I. Papoutsis, D. Michail, Th. Herekakis, M. Koubarakis, K. Kyzirakos, M. Karpathiotakis, C. Nikolaou, M. Sioutis, G. Garbis, S. Vassos, **I. Keramitsoglou**, M. Kersten, S. Manegold, and H. Pirk
Wildfire monitoring via the integration of remote sensing with innovative information technologies
- XY300 EGU2012-8868
I. Berdufi, O. Jaupaj, M. Marku, M. Deda, E. Fiori, M. D'Andrea, G. Biondi, P. Fioruci, M. Massabò, P. Zorba, and M. Gjonaj
Bulletin of Forest Fire risk in Albania- The experience of the Albania National Centre for forecast and Monitoring of Natural Risks
- XY301 EGU2012-525
V. Rakitin, A. Safronov, L. Yurganov, E. Fokeeva, E. Grechko, and A. Dzhola
CO atmospheric pollution of Moscow area during wild fires in summer 2010, estimates of emissions and their uncertainties
- XY302 EGU2012-1254
N. Ursino and M.C. Rulli
Hydrological minimal model for fire regime assessment in Mediterranean ecosystem
- XY303 EGU2012-7298
O. Stein, J.W. Kaiser, A. Heil, and M.G. Schultz
Model sensitivity to global fire emissions: GFED versus GFAS
- XY304 EGU2012-7945
M.J.M. Penning de Vries, O.N.E. Tuinder, T. Wagner, and M. Fromm
Calculation of smoke plume mass from passive UV satellite measurements by GOME-2 polarization measurement devices
- XY305 EGU2012-10052
M. Salis, B. Arca, A. Ager, C. Fois, V. Bacciu, P. Duce, and D. Spano
Extreme Wildfire Spread and Behaviour: Case Studies from North Sardinia, Italy
- XY306 EGU2012-6855
C.I. Mason, G.J. Sheridan, H.G. Smith, O. Jones, D. Chong, and K. Tolhurst
FIRESTORM: Modelling the water quality risk of wildfire.
- XY307 EGU2012-13343
M. D'Andrea, P. Fiorucci, G. Biondi, and D. Negro
PROPAGATOR: a synchronous stochastic wildfire propagation model with distributed computation engine
- XY308 EGU2012-11419
J. Mandel, A. K. Kochanski, V. Y. Kondratenko, and J. D. Beezley
Coupled atmosphere-fire modeling with data assimilation for 2007 Santa Ana fires
- XY309 EGU2012-4307
V. Khan
Long-range forecasting of forest fire danger index based on PLAV model outputs

NP8.1/CL5.2 – Stochasticity and Statistical Physics in Climate Dynamics (co-organized) – Posters

Convener: Dr. Ghil | Co-Conveners: Dr Chekroun, V. Lucarini

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Mickael Chekroun

- XY365 EGU2012-2350
R. Boschi and V. Lucarini
Parametric Theory of Climate Change
- XY366 EGU2012-9959
V. Lucarini and S. Pascale
Time and space scale analysis of the climate entropy budget
- XY367 EGU2012-7181
A. Mukhina, D. Kondrashov, and D. Mukhin
Empirical modelling of ENSO dynamics: construction of optimal complexity models from data
- XY368 EGU2012-6564
M. Sonnewald, K. I. C. Oliver, and J. Dyke
Insights from extremum principles: The effects of diffusivity parameters on entropy budgets within an ocean-atmosphere-ice model
- XY369 EGU2012-2537
M. Inatsu, N. Nakano, and H. Mukougawa
Dynamics and predictability of extratropical wintertime low-frequency variability examined by a stochastic differential equation in a low-dimensional system
- XY370 EGU2012-2025
U. Achatz, U. Keeß, S. Dolaptchiev, and A. Gritsun
A Climate-Dependent Sub-Grid-Scale Parameterization in Reduced Climate Models

- XY371 EGU2012-6405
B. De Saedeleer
Characterisation of stochastically-induced climate jumps to other histories paced by the astronomical forcing.
- XY372 EGU2012-4873
T. Bodai, Gy. Karolyi, and T. Tel
A conceptual model of the atmosphere driven by different processes: Extreme events and snapshot attractors
- XY373 EGU2012-12578
F. C. Cooper and P. H. Haynes
Estimation of the response to a forcing of high dimensional non-linear systems
- XY374 EGU2012-9613
K. Fraedrich, I. Bordi, A. Sutera, and X. Zhu
Transient response to well-mixed greenhouse gas changes
- XY375 EGU2012-7873
P. D. Ditlevsen
The role of stochastic forcing in rapid climate transitions
- XY376 EGU2012-8157
D. Mukhin, D. Kondrashov, E. Loskutov, A. Feigin, and M. Ghil
Empirical modeling of ENSO dynamics: Predicting critical transitions in spatially distributed systems

NP8.2 – Stochastic Approaches for Multiscale Modelling in Geosciences – Posters

Convener: B. Nadiga | Co-Conveners: D. Schertzer, J. Duan, C. Franzke

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Nadiga, Duan

- XY377 EGU2012-1483
C. Franzke
Predictability of Extreme Events in a Nonlinear Stochastic-Dynamical Model
- XY378 EGU2012-1865
L. Østvand, O. Løvsletten, M. Rypdal, and K. Rypdal
Maximum Likelihood Estimates of trend- and memory-coefficients in climatic time series.
- XY379 EGU2012-3413
H. Godinez and B. Nadiga
Effects of coupling strength and stochastic parameterizations on data assimilation
- XY380 EGU2012-5354
A. Russo, R.M. Trigo, and A. Soares
Space-Time Urban Air Pollution Forecasts
- XY381 EGU2012-5952
N. W. Watkins, **C. L. E. Franzke**, T. Graves, R. B. Gramacy, and C. Hughes
Robustness of Estimators of Long-range Dependence and Self-Similarity for Non-Gaussian Datasets.
- XY382 EGU2012-5761
D. Peavoy and C. Franzke
Estimating parameters for reduced stochastic climate models
- XY383 EGU2012-13684
D. Schertzer, I. Tchguirinskaia, S. Lovejoy, and A. Tuck
Fractional Vorticity Equations
- XY384 EGU2012-12867
M. Potters and **F. Bouchet**
Statistical Mechanics of the Shallow Water and Primitive Equations

TM1/EOS12 – Complexity Education in the Geosciences (co-listed) – Orals

Convener: D. Schertzer | Co-Conveners: H. A. Dijkstra, P. Bourguin

Room: 4

Chairperson: n.n.

19:00–20:00

Tuesday, 24 April

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

Convener: H. A. Dijkstra | Co-Conveners: J. M. Redondo, V. Rey, J. von Hardenberg, O. Talagrand, J. Duan, S. Lovejoy, S. Pierini

Room: 18

Chairperson: H.A.Dijkstra

13:30–14:30 EGU2012-14457

H.L. Swinney

Internal wave turning depths in the oceans (Lewis Fry Richardson Medal Lecture)

14:30–14:45 EGU2012-12836

F. Bouchet

Non equilibrium statistical mechanics of geophysical flows

14:45–15:00 EGU2012-11109

S. M. Barbosa

Trends in a nonlinear world

15:00–15:15 EGU2012-12712

M.D. Chekroun

Another look at low-frequency variability in climate dynamics, from the ergodic theory of dynamical systems

Chairperson: H.A. Dijkstra

15:30–16:00 EGU2012-2999

C. Cherubini and N. Pastore

Experimental studies of nonlinear flow and solute transport dynamics at different scales in a fractured formation

16:00–16:15 EGU2012-10793

I. Koren and G. Feingold

A systems approach to evolution of cloud fields

16:15–16:30 EGU2012-2027

A. M. Mancho

The Lagrangian description of oceanic and atmospheric flows

16:30–16:45 EGU2012-3872

T. Sapsis

Inertial manifold dimensionality & finite-time instabilities in stochastic dynamical systems with applications to 2D Navier-Stokes equations

16:45–17:00 EGU2012-4554

F. Sévellec and A. V. Fedorov

Optimal surface temperature and salinity perturbations of the Atlantic meridional overturning circulation in a realistic ocean model

17:00–17:15 EGU2012-14037

M. Crucifix

Why ice ages could be unpredictable in spite of the action of the astronomical forcing

NP2.4/CL5.5 – Climate Sensitivity (co-organized) – Posters

Convener: M. Crucifix | Co-Conveners: H. A. Dijkstra, A. S. von der Heydt, P. Langen

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Henk Dijkstra, Michel Crucifix, Peter Langen, Anna von der Heydt

XY278 EGU2012-1458

D. Dommenges

Model Climate Sensitivity Spread forced by Mean Sea Surface Temperature Biases

XY279 EGU2012-4477

E. Exarchou, J.-S. Von Storch, and J. Jungclaus

The effect of tidally driven mixing on the transient climate response to CO₂ increase

XY280 EGU2012-2414

S. Pueyo

Objective prior distribution of climate sensitivity

- XY281 EGU2012-7754
R. B. Skeie, T. Berntsen, M. Aldrin, M. Holden, and G. Myhre
 A lower and more constrained estimate of climate sensitivity using updated observations and detailed radiative forcing time series
- XY282 EGU2012-8125
P. Köhler, R.S.W. van de Wal, H.A. Dijkstra, and E.J. Rohling
 The climate sensitivity parameter during the last 800 kyr - offsets due to transient effects and state dependency
- XY283 EGU2012-9198
A Paul, S Mulitza, and M Losch
 Estimates of global ocean cooling at the Last Glacial Maximum based on sea-surface temperature and oxygen-isotope reconstructions
- XY284 EGU2012-9693
X. Zhu, I. Bordi, K. Fraedrich, and A. Sutera
 On the climate response to zero ozone
- XY285 EGU2012-13186
S. Lovejoy and D. Schertzer
 Scaling analysis of stochastic climate sensitivities
- XY286 EGU2012-7152
J. D. Annan and J. C. Hargreaves
 What do we know about climate sensitivity?

NP3.1 – Nonlinear, scaling and complex Physical and Biogeophysical Processes in the Atmosphere and Ocean – Posters

Convener: V. Lucarini | Co-Conveners: F. Schmitt, S. Lovejoy, JM Lopez

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Francois Schmitt

- XY287 EGU2012-7427
F.G. Schmitt
 Scaling comparison of high frequency simultaneous oceanic and atmospheric temperature time series
- XY288 EGU2012-8351
 S.B. Zongo and **F.G. Schmitt**
 High frequency study of nutrient fluxes variability in a small river
- XY289 EGU2012-7082
S. K. Seo and K. Kim
 Dynamical behaviors of meteorological variations using the multifractal detrended fluctuation analysis
- XY290 EGU2012-7211
J.-S. Hwang, S. Souissi, L.-C. Li-Chun Tseng, J. C. Molinero, Q.-C. Chen, and C.-K. Wong
 Long term study of monsoon effect on the distribution of *Calanus sinicus* in the waters of Taiwan, western North Pacific Ocean
- XY291 EGU2012-1743
T.V. Belonenko and V.R. Foux
 Barotropic standing-progressive Rossby waves
- XY292 EGU2012-13235
V. Lucarini and G. Zappa
 Baroclinic stationary waves in aquaplanet models
- XY293 EGU2012-13219
S. Lovejoy, D. Schertzer, and D. Varon
 Do GCM's predict the climate? Or the low frequency weather?
- XY294 EGU2012-6771
W. Jung, D. Lee, and K. Kim
 Characteristics of networks in sea surface temperatures
- XY295 EGU2012-11124
G. Bel and Y. Ashkenazy
 The relation between the statistics of open ocean currents and the temporal correlations of the wind
- XY296 EGU2012-13292
A. Gires, I. Tchiguirinskaia, D. Schertzer, and S. Lovejoy
 A toy model to deal with zero rainfall in a Universal Multifractal framework
- XY297 EGU2012-4832
 G. Rowlands, **S. C. Chapman**, N. W. Watkins, A. Clarke, and E. J. Murphy
 Ecosystem control parameters, scaling relations and complexity thresholds from dimensional constraints.

- XY298 EGU2012-11540
A Brereton and D. Lewis
 Finding Plankton Blooms in Turbulence
- XY299 EGU2012-4567
P. Lherminier, P. Klein, and L. Dumas
 Mesoscale turbulence properties in the North-East Atlantic from altimetry and ADCP observations
- XY300 EGU2012-4379
A. Venaille, G.K Vallis, and S. M. Griffies
 The vertical structure of geostrophic turbulence: statistical mechanics approach.

NP3.2 – Geophysical Extremes: Scaling representations and their applications – Posters

Convener: AB Bunde | Co-Conveners: A. Langousis, A. A. Carsteanu, S. Lennartz

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Armin Bunde, Sabine Lennartz

- XY301 EGU2012-2503
 D. Veneziano and **C. Lepore**
 How Temporal Rainfall Scales (and How to Estimate the Scaling Properties)
- XY302 EGU2012-2188
N. Yuan, A. Bunde, and Z. Fu
 On the estimation of external trends in minimum, maximum and mean temperature records over China
- XY303 EGU2012-5005
N. Yuan and A. Bunde
 On the estimation of minimum anthropogenic trends in regional averaged temperature records over China
- XY304 EGU2012-14164
A Bunde, J Ludescher, J Luterbacher, and H von Storch
 Correlation and Return Interval Analysis of Tree Rings Based Temperature and Precipitation Reconstructions
- XY305 EGU2012-13322
I. Tchiguirinskaia, D. Schertzer, and S. Lovejoy
 Multifractal Geophysical Extremes: Nonstationarity and Long Range Correlations
- XY306 EGU2012-9378
S. Lennartz, I. G. Main, M. Zaiser, C. C. Graham, S. Stanchits, and G. Dresen
 Inverse power-law like crack growth in earth materials and its possible origin as an emergent property of localisation
- XY307 EGU2012-10033
F. Kun, N. Yoshioka, and N. Ito
 Size scaling and bursting activity due to thermally induced cracking
- XY308 EGU2012-6513
D. Amitrano
 Power-law variability in rupture phenomena, How and why do PL exponents change toward the failure.
- XY309 EGU2012-3318
F. AlFouzan, M. Dafalla, and E. Mutaz
 Assessing subsurface strata using geophysical and geotechnical methods for designing structures near ground cracks

NP4.2 – Satellite time series analysis – Posters

Convener: R. Lasaponara | Co-Conveners: A. Lanorte, D. G. P. Petropoulos

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Rosa Lasaponara and Antonio Lanorte

- XY310 EGU2012-3694
R. Colditz and R. Llamas
 Deriving 250m LAI time series by non-linear temporal regression
- XY311 EGU2012-5307
G. Petropoulos, P. Partsinevelos, and Z. Mitraka
 Exploitation of multi-temporal Earth Observation imagery for monitoring land cover change in mining sites
- XY312 EGU2012-6275
Y. Alouene, G.P. Petropoulos, A. Kalogrias, and F. Papanikolaou
 Flood damage assessment performed based on Support Vector Machines combined with Landsat TM imagery and GIS

- XY313 EGU2012-6297
G. Mavrakakis, G.P. Petropoulos, I. Papanikolaou, and O. Kairis
Post-fire erosion risk mapping using Landsat TM: results from the case of 2007 fire in Mt. Parnitha Greece
- XY314 EGU2012-9759
M. Volpi, G. P. Petropoulos, and M. Kanevski
Flooded area cartography with kernel-based classifiers and Landsat TM imagery
- XY315 EGU2012-10030
G. Petropoulos, D. Kalivas, and P. Dimou
Mapping erosion and deposition rate changes along the Axios-Aliakmonas rivers Delta, North Greece based on Landsat TM imagery analysis
- XY316 EGU2012-10672
T. Maeda
Creation of Normalized Time Series Data for Microwave Radiometer AMSR2 Loaded on GCOM-W1 Satellite Launched Soon
- XY317 EGU2012-11712
R. Lasaponara and N. Masini
Using satellite time series for remote sensing based investigations of ancient aqueduct systems: the case of the Nasca puquios
- XY318 EGU2012-1797
R. Cere, M. Conedera, G. Matasci, M. Kanevski, M. Tonini, C. Vega, and M. Volpi
Wildland-Urban Interface evolution mapping using multi-temporal Landsat imagery. The case of forest fires in southern Swiss Alps.
- XY319 EGU2012-12200
R. Lasaponara and n Masini
Multitemporal satellite change detection investigations for documentation and valorization of cultural landscape
- XY320 EGU2012-12216
R. Lasaponara
On the use of wavelet for extracting feature patterns from Multitemporal google earth satellite data sets
- XY321 EGU2012-14064
R. Lanorte, R. Lasaponara, F. De Santis, A. Aromando, and G. Nole
Daily estimates of fire danger using multitemporal satellite MODIS data: the experience of FIRE-SAT in the Basilicata Region (Italy)
- XY323 EGU2012-10171
H. Nikolov and D. Borisova
Long term monitoring of water basin of an abandoned copper open pit mine

NP4.4 – Wavelet transform for geoscience applications – Posters

Convener: S.-A. OUADFEUL | Co-Conveners: L. Aliouane, A. Boudella

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Sid-Ali OUADFEUL

- XY324 EGU2012-6013
J. Bogusz, **A. Klos**, and W. Kosek
Wavelet decomposition in Earth's gravity field investigation
- XY325 EGU2012-2538
T.M. Chin
Multi-scale data fusion using Multiresolution Variational Analysis (MRVA)
- XY326 EGU2012-4683
S. Gaci, N. Zaourar, and S. Ouadfeul
A lithological segmentation from sonic logs using wavelet transform
- XY327 EGU2012-4658
S. Gaci, N. Zaourar, and S. Ouadfeul
Heterogeneities characterization from a core image using the wavelet transform
- XY328 EGU2012-2519
S. Khelifa, S. Kahlouche, and M. Faouzi Belbachir
Signal characteristics in coordinate time series of GPS-DORIS co-located stations
- XY329 EGU2012-14434
L. Aliouane, S. Ouadfeul, A. Boudella, and S. Eladj
Random seismic noise attenuation using the Wavelet Transform
- XY330 EGU2012-46
S.-A. Ouadfeul, L. Aliouane, and M. Hamoudi
Multiscale analysis of noisy 3D GPR data using the Directional Continuous Wavelet transform (DCWT)

- XY331 EGU2012-1172
S. Ouadfeul, L. Aliouane, and A. Boudella
 Heterogeneities Analysis Using the Generalized Fractal Dimension and Continuous Wavelet Transform
- XY332 EGU2012-2804
S.-A. Ouadfeul, M. Hamoudi, L. Aliouane, and S. Eladj
 Aeromagnetic data analysis using the 2D directional continuous wavelet transform (DCWT)

CL5.4/NP4.5 – Climate Time Series Analysis (co-organized) – Orals

Convener: M. Mudelsee | Co-Conveners: M. Trauth, T. Lenton

Room: 13

Chairperson: n.n.

- 10:30–10:45 EGU2012-6525
X. L. Wang, Y. Feng, and V. R. Swail
 A generalized multivariate regression model for modelling ocean wave heights
- 10:45–11:00 EGU2012-11664
S. Morucci, R. Inghilesi, A. Orasi, and G. Nardone
 Wave Climate and Extreme Events Analysis in the Central Mediterranean Sea
- 11:00–11:15 EGU2012-426
A. A. Turasie, D. B. Stephenson, T. E. Jupp, and J. Davidson
 New Cointegration Methods for Detection and Attribution of Climate Trends
- 11:15–11:30 EGU2012-1105
V. N. Livina and T.M. Lenton
 A recent bifurcation in Arctic sea-ice cover
- 11:30–11:45 EGU2012-5948
Y. Chen, M. Themessl, and A. Gobiet
 Using the Quantile Mapping to improve a weather generator
- 11:45–12:00 EGU2012-13559
E. Brisson and N.P.M. van Lipzig
 How does natural climate variability on decadal timescales affect timeseries analysis?

CL5.4/NP4.5 – Climate Time Series Analysis (co-organized) – Posters

Convener: M. Mudelsee | Co-Conveners: M. Trauth, T. Lenton

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- Z87 EGU2012-3453
C. Suteanu, V. Dobrica, and C. Demetrescu
 Space-time variability in scaling aspects of surface air temperature records
- Z88 EGU2012-6322
E. Holtanova and A. Valerianova
 The estimates of probability distribution of annual and seasonal maxima of maximum air temperature
- Z89 EGU2012-11841
T. Feng and Z.T. Fu
 The role of changes in the seasonality in strong wind season shortening over China
- Z90 EGU2012-6993
M.C. Bramati and C. Tarragoni
 Climatic patterns and extreme rainfalls on coastal areas in Central Italy
- Z91 EGU2012-2992
K. Pandzic and T. Likso
 Comparing the Palmer Drought Index and the Standardized Precipitation Index for Zagreb Gric Observatory
- Z92 EGU2012-9653
B. Ustaoglu
 Comparisons of Annual Precipitation Gridded and Station Datasets: An example from Istanbul, Turkey
- Z93 EGU2012-4092
I. B. Gregersen, H. Madsen, D. Rosbjerg, and K. Arnbjerg-Nielsen
 Variations of extreme rainfall events in space and time
- Z94 EGU2012-13863
S. Yerel and N. Ozbay
 Determination of Climate Changes by Using the Trend Analysis
- Z95 EGU2012-4929
S. Bathiany, M. Claussen, and K. Fraedrich
 Detecting hotspots of atmosphere-vegetation interaction via Early Warning Signals

- Z96 EGU2012-4320
D. Karssen and M.F.P. Bierkens
Early-warning signals (potentially) reduce uncertainty in forecasted timing of critical shifts
- Z97 EGU2012-12984
I. Vieru, I.H. Holobâc?, O. Pop, I.A. Irimu?, and M. Georgescu
Climate signal in a Picea abies tree ring chronology in Eastern Romanian Carpathians
- Z98 EGU2012-5404
A. Di Piazza, E. Cordano, and E. Eccel
Use of a Weather Generator for analysis of projections of future daily temperature and its validation with climate change indices
- Z99 EGU2012-11538
N. Schütz, M. Hayn, M.C. Brown, and M. Holschneider
Quantifying conjoint patterns of multiple paleo signals based on Bayesian inversion
- Z100 EGU2012-5752
K. Rehfeld, N. Marwan, J. Heitzig, and J. Kurths
Pearson correlation estimation for irregularly sampled time series
- Z101 EGU2012-457
J. Pawlak and H. Hercman
Genetic algorithm as a correlation tool - speleothems stable isotope records example
- Z102 EGU2012-4595
G. Lenoir and M. Crucifix
Climate wavelet spectrum estimation under chronology uncertainties
- Z103 EGU2012-8357
D. Divine, F. Godtliebsen, and H. Rue
A modelling approach to assessing the timescale uncertainties in proxy series with chronological errors
- Z104 EGU2012-9263
F. Godtliebsen, L. Holmstrom, A. Miettinen, P. Erasto, **D. Divine**, and N. Koc
Pairwise Scale-Space Comparison of Time Series with Application to Climate Research

NH4.2/NP7.4/SM5.3/TS8.7 – Fracture and earthquake physics: modeling precursory phenomena and seismic hazard also with nonlinear seismology (including Plinius Medal Lecture) (co-organized) – Orals

Convener: F. Vallianatos | Co-Conveners: P. Sammonds, V. Lapenna, G. Marmureanu, R. Madariaga, GF Panza

Room: 1

Chairperson: G. Marmureanu

- 13:30–13:45 EGU2012-2243
G. Marmureanu, C.O. Cioflan, and A. Marmureanu
Nonlinear seismology a reality. The quantitative data
- 13:45–14:00 EGU2012-14469
A.A. Skarlatoudis, C.B. Papazachos, B.N. Margaris, Ch. Ventouzi, I. Kalogeras, and D. Vambakaris
Ground motion prediction equations for intermediate-depth earthquakes in the Southern Aegean Subduction Zone : Identification of significant along-arc/back-arc differences and their impact on seismic hazard
- 14:00–14:15 EGU2012-7713
G. A. Papadopoulos, M. Avlonitis, B. Di Fiore, and G. Minadakis
The Predictive Value of Foreshocks
- 14:15–14:30 EGU2012-1790
R. Teisseyre
Fracture Recess: Asymmetric Continuum Approach
- 14:30–14:45 EGU2012-8070
N.V. Sarlis and S.-R.G. Christopoulos
Natural time analysis of global seismicity: the identification of magnitude correlations.
- 14:45–15:00 EGU2012-4986
P. Senatorski
Seismic state equation and scaling relations for earthquake parameters
- Chairperson: n.n.
- 15:30–16:30 EGU2012-14456
T.J. Sullivan
Towards Improved Considerations of Risk in Seismic Design (Plinius Medal Lecture)
- 16:30–17:00 EGU2012-7882
N.V. Sarlis, E.S. Skordas, M.S. Lazaridou, and **P.A. Varotsos**
Natural time analysis: An overview.

17:00–17:15 EGU2012-12421

F. Vallianatos

From rock fracture to plate tectonics. Evidence of non extensive statistical mechanics in Earth physics, A review

NH4.2/NP7.4/SM5.3/TS8.7 – Fracture and earthquake physics: modeling precursory phenomena and seismic hazard also with nonlinear seismology (including Plinius Medal Lecture) (co-organized) – Posters

Convener: F. Vallianatos | Co-Conveners: P. Sammonds, V. Lapenna, G. Marmureanu, R. Madariaga, GF Panza

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: P. Sammonds, R. Madariaga, J. Panza

XY250 EGU2012-678

N. Jorjishvili, T. Yokoi, and Z. Javakhishvili

Uncertainties related to seismic hazard assessment

XY251 EGU2012-3586

S. F. Balan, B.F. Apostol, and C.O. Cioflan

Soil Deposit Response due to Crustal Seismogenic Zone of Fagaras-Campulung, Romania

XY252 EGU2012-4265

A. Bala, A. Aldea, S.F. Balan, and C. Arion

Geological and Geophysical Models Underneath Bucharest City Responsible for the Variability of Seismic Site Effects

XY253 EGU2012-4600

D. Solakov, S. Simeonova, L. Christoskov, P. Trifonova, and I. Aleksandrova

Probabilistic Seismic Hazard Assessment for Bulgaria as a Basis for a new National Building Code

XY254 EGU2012-2757

G. Choularas, G. Drakatos, K. Makropoulos, and N.S. Melis

Recent seismicity detection increase at Santorini's volcanic islands

XY255 EGU2012-5150

J. Trømborg, D. S. Amundsen, K. Thøgersen, J. Scheibert, and A. Malthé-Sørensen

Precursor evolution in recent dry friction experiments explained by 2D simulation

XY256 EGU2012-9934

Ch. G. Gkaraouni, V. G. Karakostas, E. E. Papadimitriou, and A. A. Kiliass

Seismotectonic properties with implications on faulting identification revealed from recent seismicity in Greece

XY257 EGU2012-11656

F. Vallianatos, V. Karakostas, and E. Papadimitriou

Non extensive statistical physics properties of the 2003 (Mw6.2), Lefkada, Ionian island Greece, aftershock sequence

XY258 EGU2012-11799

F. Vallianatos, G. Michas, G. Papadakis, and P. Sammonds

Pore Pressure Diffusion as a possible mechanism for the Ag. Ioanis 2001 earthquake swarm activity (Gulf of Corinth, Central Greece).

XY259 EGU2012-11835

F. Vallianatos, G. Papadakis, G. Michas, and P. Sammonds

A non extensive statistical physics analysis of the Hellenic subduction zone seismicity

XY260 EGU2012-13460

A. Cartwright-Taylor, F. Vallianatos, and P. Sammonds

Non-extensive statistical physics properties of acoustic and pressure-stimulated current emissions measured concurrently during triaxial deformation experiments on marble and limestone samples

XY261 EGU2012-11726

F. Vallianatos and D. Triantis

Is Pressure Stimulated Current relaxation in amphibolite a case of non-extensivity ?

XY262 EGU2012-257

O.A. Hachay, O.Y. Khachay, V.K. Klimko, and O.V. Shipeev

Investigation of Non-Linear Dynamics of the Rock Massive, Using Seismological Catalogue data and Induction Electromagnetic Monitoring Data in a Rock Burst Mine.

XY263 EGU2012-11760

R. Ditommaso and M. Mucciarelli

Non-linearity is not only softening: examples from L'Aquila (2009) and Christchurch (2011) earthquakes

XY264 EGU2012-8194

I. Stavrakas, G. Hloupis, D. Triantis, and F. Vallianatos

Concurrent recordings of Electrical Current Emissions and Acoustic Emissions detected from marble specimens subjected to mechanical stress up to fracture

XY265 EGU2012-1057

Closson, Abou Karaki, Pasquali, Holecz, Riccardi, Milisavljevic, and Bouaraba

Earthquakes' local site effects in Christchurch revealed by Cosmo-Skymed and Envisat radar images

NP8.1/CL5.2 – Stochasticity and Statistical Physics in Climate Dynamics (co-organized) – Orals

Convener: Dr. Ghil | Co-Conveners: Dr Chekroun, V. Lucarini

Room: 28

Chairperson: Michael Ghil

08:30–08:45 EGU2012-13897

A. Sutura

Forcing a non linear system

08:45–09:00 EGU2012-2266

S. Pierini

Environmental tipping points in random dynamical systems: a quasigeostrophic case study

09:00–09:15 EGU2012-11747

J. Laurie and F. Bouchet

A statistical mechanics approach to computing rare transitions in multi-stable turbulent geophysical flows

09:15–09:30 EGU2012-13213

V. Lucarini and J. Wouters

Disentangling multi-level systems: averaging, correlations and memory

09:30–09:45 EGU2012-9799

M. Mathur and J. Sommeria

Experimental modelling of bistability in mid-latitude atmospheric jets

09:45–10:00 EGU2012-7307

E. Loskutov, D. Mukhin, M. Chekroun, and A. Feigin

Empirical modeling of ENSO dynamics: prognosis of critical transitions in delay differential equations models of ENSO

10:00–10:15 EGU2012-2526

B. G. Liepert

Inter-model variability and biases of the global water cycle in CMIP3 coupled climate models

NP8.2 – Stochastic Approaches for Multiscale Modelling in Geosciences – Orals

Convener: B. Nadiga | Co-Conveners: D. Schertzer, J. Duan, C. Franzke

Room: 28

Chairperson: Franzke, Schertzer

10:30–10:45 EGU2012-1338

G.A. Gottwald and L. Mitchell

On finite-size Lyapunov exponents in multiscale systems

10:45–11:00 EGU2012-4251

O. Kaiser and I. Horenko

On data-based analysis of extreme events in multidimensional non-stationary meteorological systems: Based on advanced time series analysis methods and general extreme value theory

11:00–11:15 EGU2012-3338

M. Rypdal and K. Rypdal

Long-range persistence in the global mean surface temperature and the global warming "time bomb"

11:15–11:30 EGU2012-11882

A. W. Roberts, **R. W. Hobbs**, M. Goldstein, M. Moorkamp, and M. Jegen

Forward Monte Carlo screening of model space to constrain a salt dome structure

11:30–11:45 EGU2012-3150

H. McNamara and C.L. Farmer

Stochastic variational multiscale theory for coarsely discretised transport equations.

11:45–12:00 EGU2012-5464

M. Rousseau, O. Cerdan, A. Ern, O. Le Maître, and P. Sochala

Hydrologic modeling with uncertain input parameters

12:00–12:15 EGU2012-6881

R. Abramov

Suppression of chaos at slow variables by rapidly mixing fast dynamics

SSS5.8 – Models and scaling: Assessing impact of climate change and land management on erosion and sediment dynamics (co-listed) – Orals

Convener: S.D. Keesstra | Co-Conveners: E. NADAL ROMERO, G. Eshel, M.J. Kirkby, Dr. Seeger, J. A. Gómez, A.

M. Tarquis, N. J. Kuhn, J. P. Nunes, J. C. Gonzalez-Hidalgo, S. Beguería, P. Lionello, C. Dazzi, E. Taguas

Room: 22

Chairperson: Saskia Keesstra

- 10:30–10:45 EGU2012-6628
J. Wainwright, A.J. Parsons, J.R. Cooper, Y. Onda, T. Furukawa, E. Obana, B. Kitchener, E.J. Long, and G.K. Hargrave
 Scaling sediment dynamics on hillslopes using particle-based approaches
- 10:45–11:00 EGU2012-174
N. Cortesi, J.C. González-Hidalgo, M. Brunetti, and J. Martin-Vide
 Daily Precipitation Concentration across Europe during 1971-2010
- 11:00–11:15 EGU2012-4947
I. Tsermegas, M. D?u?ewski, K. Biejat, and A. Szyrkiewicz
 Degradation of terraced slopes in Mediterranean conditions
- 11:15–11:30 EGU2012-8132
J.E.M. Baartman, A.J.A.M. Temme, A. Veldkamp, V.G. Jetten, and J.M. Schoorl
 Addressing the time-scale gap in erosion modelling - comparison of an event-based and a landscape evolution model
- 11:30–11:45 EGU2012-9435
M. López-Vicente, L. Quijano, L. Gaspar, J. Machín, and A. Navas
 Spatial and temporal heterogeneity of water soil erosion in a Mediterranean rain-fed crop
- 11:45–12:00 EGU2012-1334
J. Maroulis
 Queensland 2010-2011: A Summer of Extremes

LUNCH BREAK

Chairperson: Estela Nadal Romero

- 13:30–13:45 EGU2012-5901
JM García Ruiz, N. Lana Renault, E. Nadal Romero, and S. Beguería
 Erosion in Mediterranean Ecosystems: changes and future challenges
- 13:45–14:00 EGU2012-11935
D.C. Buarque, W. Collischonn, and R.C.D. Paiva
 Coupling a basin erosion and river sediment transport model into a large scale hydrological model: an application in the Amazon basin
- 14:00–14:15 EGU2012-10913
A.C. Schmengler and P.L.G. Vlek
 Facing the scaling problem: A multi-methodical approach to simulate soil erosion at hillslope and catchment scale
- 14:15–14:30 EGU2012-5126
E. Argaman, R. Egozi, and N. Goldshlager
 Analysis the temporal and spatial impact of water harvesting on Aforestation processes, at the Northern Negev region, Israel
- 14:30–14:45 EGU2012-10966
E.V. Taguas, M. Burguet, R. Pérez, J.L. Ayuso, and J.A. Gómez
 Interpretation of the impact of different managements and the rainfall variability on the soil erosion in a Mediterranean olive orchard microcatchment
- 14:45–15:00 EGU2012-12086
N. Bellin, V. Vanacker, and P. Kubik
 Contrasting Modern and ¹⁰Be- derived erosion rates for the Southern Betic Cordillera, Spain

SSS5.8 – Models and scaling: Assessing impact of climate change and land management on erosion and sediment dynamics (co-listed) – Posters

Convener: S.D. Keesstra | Co-Conveners: E. NADAL ROMERO, G. Eshel, M.J. Kirkby, Dr. Seeger, J. A. Gómez, A. M. Tarquis, N. J. Kuhn, J. P. Nunes, J. C. Gonzalez-Hidalgo, S. Beguería, P. Lionello, C. Dazzi, E. Taguas

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Gil Eshel

- XY582 EGU2012-255
E. Nadal Romero, T. Lasanta, M. de Luis, J. González Hidalgo, and J.M. García Ruiz
 The suspended sediment response of different land uses to rainstorm events: Time compression in the Aísa Valley Experimental Station
- XY583 EGU2012-1554
JF Martinez Murillo, JD Ruiz Sinoga, MA Gabarron Galeote, and JM Senciales Gonzalez
 Spatial and temporal variability of soil water repellency in Mediterranean rangelands in South of Spain
- XY584 EGU2012-1555
JM Senciales Gonzalez, P Aguayo Maldonado, JD Ruiz Sinoga, and JF Martinez Murillo
 Spatial variability of pouring rain in the City of Málaga. (South of Spain)
- XY585 EGU2012-1600
R. Capra and C. Morice
 Super Detection of Variable Occurrences of Landslides
- XY586 EGU2012-4174
 A. Uran, I. Lorite, and **J.A. Gomez**
 Impact of cover crops on soil conservation in olive orchards under different agroecological conditions combining a conceptual soil water balance model (WABOL) and RUSLE.
- XY587 EGU2012-4246
J. Hooke
 Responses of Mediterranean channel ecosystems to climatic and land use variations
- XY588 EGU2012-7877
M. Burguet
 Evaluation of different strategies for calibration of the simple distributed model SEDD for sediment transport in an olive microcatchment
- XY589 EGU2012-9129
K.E. Welsh and R.C. Chiverrell
 Re-evaluation of slope processes in the CAESAR landscape evolution model
- XY590 EGU2012-9348
N. J. Kuhn and K. Anderson
 Matching pixels, plots and catchments
- XY591 EGU2012-10719
C. Castillo, R. Pérez, and J.A. Gómez
 A conceptual model of the hydraulics of check dam for gully control
- XY592 EGU2012-11100
F. Ardizzone, F. Guzzetti, C. Iadanza, M. Rossi, D. Spizzichino, and A. Trigila
 Solid discharge and landslide activity at basin scale
- XY593 EGU2012-11106
G. Ravazzani, M. C. Rulli, B. Groppelli, D. Bocchiola, F. Colombo, M. Mancini, and R. Rosso
 Raster based modelling of watershed erosion and sedimentation in an Alpine basin of Northern Italy
- XY594 EGU2012-11159
 A. Barkwith, L. Wang, C. Jackson, and **M. Ellis**
 Towards understanding the dynamics of environmental sensitivity to climate change: introducing the DESC model
- XY595 EGU2012-11321
C. Castillo, R. Pérez, M.R. James, J.N. Quinton, E.V. Taguas, and J.A. Gómez
 Comparing the accuracy of several field methods for measuring gully erosion
- XY596 EGU2012-12711
 J. P. Nunes, J. C. Lima, **L. Bernard-Jannin**, S. Veiga, M. L. Rodríguez-Blanco, E. Sampaio, D. P. Batista, R. Zhang, M. E. Rial-Rivas, M. Moreira, J. M. Santos, J. J. Keizer, and J. Corte-Real
 Impacts of climate change on soil erosion in Portuguese watersheds with contrasting Mediterranean climates and agroforestry practices

Wednesday, 25 April

GM2.4 – Complexity and nonlinearity in Earth surface processes – Concepts, methods and applications (co-listed) – Orals

Convener: M. Keiler | Co-Conveners: A.J.A.M. Temme, A. Lang, D. Karssenberg

Room: 21

Chairperson: Margreth Keiler, Arnaud Temme

15:30–16:00 EGU2012-11350

A. B. Murray and G. Coco

Cause and effect in geomorphic systems: Complex-systems perspectives

16:00–16:30 EGU2012-281

J.D. Phillips

Thresholds, Mode-Switching, and Emergent Pseudo-Equilibrium in Geomorphic Systems

16:30–16:45 EGU2012-14472

A. Baldassarri and B. Sapoval

Statistics of rocky coast erosion and percolation theory

16:45–17:00 EGU2012-6930

C.J. Thompson, **J.C. Croke**, and J.R. Grove

Spatial and temporal patterns of bank failure during extreme flood events: Evidence of nonlinearity and self-organised criticality at the basin scale?

GM2.4 – Complexity and nonlinearity in Earth surface processes – Concepts, methods and applications (co-listed) – Posters

Convener: M. Keiler | Co-Conveners: A.J.A.M. Temme, A. Lang, D. Karssenberg

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Derek Karssenberg

XL115 EGU2012-12653

K. v. Elverfeldt

Self-organisation in geomorphic systems: criteria and measurability

XL116 EGU2012-4119

E. Masson

Toward a new system approach of complexity in geomorphology

XL117 EGU2012-10242

L. Goren and S. D. Willett

On the dynamics of stream piracy

XL118 EGU2012-6100

A. Benaichouche, O. Stab, I. Cojan, J. Brulhet, M. Tijani, and B. Tessier

Stream-piracy impact on the long-term evolution of the Meuse basin. Physical approach "modeling with GOLEM"

XL119 EGU2012-7438

E. Giachetta, N. Gasparini, D. Capolongo, **A. Refice**, and F. J. Pazzaglia

The role of climate change in drainage network reorganization: insights from numerical experiments

XL120 EGU2012-7783

J.M. Schoorl, A.J.A.M. Temme, and A. Veldkamp

Landscape self organisation: Modelling Sediment trains

XL121 EGU2012-5299

A.J.A.M. Temme and M.J. van de Wiel

Filtering signals: complexity experiments with LAPSUS

XL122 EGU2012-9790

D.L. Higgitt and N.J. Rosser

The Emergence of Order in Clast-Mantled Desert Surfaces

XL123 EGU2012-5890

O. Rozier and **C. Narteau**

A Real Space Cellular Automaton Laboratory (ReSCAL) to analyze complex geophysical systems

XL124 EGU2012-8796

M. Bock, **A Günther**, A Ringeler, R Baritz, and J Böhner

Assessment of soil parent material formation in periglacial environments through medium scale landscape evolution modelling

- XL125 EGU2012-4298
N. J. Kuhn, U. Hoffmann, H. Hikel, and A. Yair
 Interaction of rainfall, runoff and erosion on dryland slopes in the Negev desert
- XL126 EGU2012-14220
N. J. Kuhn, A. Yair, R. B. Bryan, W. Schwanghart, and H. Lavee
 Badlands: too complex to be simple landscapes?
- XL127 EGU2012-9438
M. Rossi, M. Cardinali, F. Fiorucci, I. Marchesini, A.C. Mondini, M. Santangelo, S. Ghosh, D.E.L. Riguer, T. Lahousse, K.T. Chang, and F. Guzzetti
 A tool for the estimation of the distribution of landslide area in R

AS1.7/NP1.4 – Recent Developments in Geophysical Fluid Dynamics (co-organized) – Orals

Convener: U. Harlander | Co-Conveners: A. Will, N. Wedi

Room: 10

Chairperson: n.n.

- 15:30–15:45 EGU2012-3614
P. Smolarkiewicz and J. Szmelter
 Soundproof simulations of stratospheric gravity waves on unstructured meshes
- 15:45–16:00 EGU2012-6790
F.J. Poulin and N. K.-R. Kevlahan
 Analyzing Spectral Fluxes in Wind-Driven Gyres using Wavelets
- 16:00–16:15 EGU2012-7074
 S.A. Triana, **H.-C. Nataf**, D. Zimmerman, M. Adams, D.P. Lathrop, D. Schmitt, P. Cardin, A. Richard, P. La Rizza, J.-P. Masson, S. Cabanes, and P. Roux
 Rotational acoustics in spherical Couette experiments
- 16:15–16:30 EGU2012-5907
N. Bakas and P. Ioannou
 Emergence and maintenance of coherent vortices by stochastically forced Vortex Rossby Waves
- 16:30–16:45 EGU2012-6192
E. Becker and S. Brune
 Indications of upper tropospheric stratified turbulence in a high-resolution mechanistic GCM
- 16:45–17:00 EGU2012-13117
E. Deusebio, A. Vallgren, and E. Lindborg
 Energy transfer in geostrophic turbulence at finite Rossby and Froude number

AS1.7/NP1.4 – Recent Developments in Geophysical Fluid Dynamics (co-organized) – Posters

Convener: U. Harlander | Co-Conveners: A. Will, N. Wedi

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY30 EGU2012-3451
 M.S. Kotelnikova, **Z.V. Verbitskaya**, and V.V. Nikulin
 Experimental and numerical study of tornado-like vortex formation
- XY31 EGU2012-12996
Th von Larcher and R Klein
 Multiple Scales in Fluid Dynamics and Meteorology: The DFG Priority Programme 1276 MetStröm
- XY32 EGU2012-9709
A. Rabitti and L. R. M. Maas
 Wave ray dynamics of rotating spherical fluid domains
- XY33 EGU2012-13649
J. Ogaja and A. Will
 Theoretical and numerical analysis of convergence properties of the higher order spatial schemes in the COSMO model
- XY34 EGU2012-406
J. Cao and Q. Xu
 Computing Streamfunction and Velocity Potential in a Limited Domain of Arbitrary Shape
- XY35 EGU2012-1830
F. Zaussinger, F. Kupka, H. J. Muthsam, N. Happenhofer, and H. Grimm-Strele
 Layered convection in double diffusive fluids
- XY36 EGU2012-2928
J. LaCasce
 The SQG model with quasi-realistic stratification

- XY37 EGU2012-3035
M. Voigt and V. Wirth
Dynamics of orographic banner clouds
- XY38 EGU2012-3111
J.-I. Yano
Mass-Flux Subgrid-Scale Parameterization in Analogy with Multi-Component Flows: A Formulation Towards Scale Independence
- XY39 EGU2012-3415
C. Erath
A new multi-tracer transport scheme for the dynamical core of NCAR's Community Atmosphere Model
- XY40 EGU2012-4448
S. Tobias and B. Marston
Direct Statistical Simulation of Geophysical Flows
- XY41 EGU2012-4981
T. Seelig, U. Harlander, I. D. Borcia, and C. Egbers
Zonal mean flow excitation due to inertial waves propagating in the meridional plane
- XY42 EGU2012-5059
P. Paleo Cageao, B. Turnbull, and P. Bartelt
Experimental Modelling of Debris Flows
- XY43 EGU2012-5368
U. Harlander, G. B. Wright, and C. Egbers
Reconstruction of the 3D flow field in a differentially heated rotating annulus laboratory experiment
- XY44 EGU2012-7342
S. Koch, **U. Harlander**, R. Hollerbach, and C. Egbers
Inertial waves in a rotating spherical shell: Comparison between numerical simulations and laboratory experiments
- XY45 EGU2012-7385
Yu. D. Chashechkin
Adequate mathematical modelling of environmental processes
- XY46 EGU2012-7403
N. Lahaye and V. Zeitlin
Modons and multipolar coherent structures in a two-layer Rotating Shallow Water model
- XY47 EGU2012-7782
B. Futterer, **F. Zaussinger**, and C. Egbers
Experimental and numerical simulation of the spherical mantle convection microgravity experiment GeoFlow II of low viscosity ratio
- XY48 EGU2012-8045
Th von Larcher, A Fournier, and R Hollerbach
The influence of a sloping bottom endwall on the linear stability in the thermally driven baroclinic annulus with a free surface
- XY49 EGU2012-9822
A Lazar, A Stegner, and E Heifetz
Inertial instability of oceanic submesoscale vortices: linear analysis, marginal stability criterion and laboratory experiments
- XY50 EGU2012-10411
I. D. Borcia, **U. Harlander**, T. Seelig, and C. Egbers
Comparing attractor frequency bands with eigen frequencies for a confined rotating fluid
- XY51 EGU2012-11268
D. Halleaux and N. Renno
Measurements confirm a thermodynamical theory for convective vortices
- XY52 EGU2012-12645
W. Bauer, A. Gassmann, M. Baumann, V. Heuveline, L. Scheck, and S. Jones
Simulation of tropical-cyclone-like vortices in shallow-water ICON-hex using goal-oriented r-adaptivity
- XY53 EGU2012-13906
O. Fuhrer, T. Gysi, X. Lapillonne, and T. Schulthess
Considerations for implementing NWP dynamical cores on next generation computers.
- XY54 EGU2012-12186
P. Augier and E. Lindborg
Spectral budget of energy and potential enstrophy in high resolution General Circulation Models

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

Convener: E. Guilyardi | Co-Conveners: M. J. McPhaden, A. Wittenberg, A. Fedorov, P. Braconnot

Room: 17

Chairperson: n.n.

- 08:30–08:45 EGU2012-7022
S.-W. Yeh, B. Dewitte, J.-Y. Yu, S.-I. An, and Y.-K. Lee
 Warming of warm pool sea surface temperature and changes in El Niño activity
- 08:45–09:00 EGU2012-8094
H. Bellenger, E. Guilyardi, M. Collins, S. Ferrett, W. Cai, and A. Wittenberg
 First assessment of ENSO in CMIP5
- 09:00–09:15 EGU2012-5039
M. Watanabe, J.-S. Kug, F.-F. Jin, M. Collins, M. Ohba, and A. Wittenberg
 Attributing varying ENSO amplitudes in climate model ensembles
- 09:15–09:30 EGU2012-3439
M. J. McPhaden
 A 21st Century Shift in the Relationship between ENSO SST Anomalies and Upper Ocean Heat Content
- 09:30–09:45 EGU2012-7414
W.H.G Roberts
 Investigating the different "flavours" of ENSO using the Linearised Ocean Atmosphere Model, LOAM
- 09:45–10:00 EGU2012-1457
D. Dommenges, T. Bayr, and C. Frauen
 Analysis of the Non-linearity in the Pattern and Time Evolution of El Niño Southern Oscillation
- 10:00–10:15 EGU2012-6697
T. Izumo, M. Lengaigne, J. Vialard, J.-J. Luo, T. Yamagata, and G. Madec
 Influence of Indian Ocean Dipole and Pacific recharge on following year's El Niño: interdecadal robustness.

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

Convener: E. Guilyardi | Co-Conveners: M. J. McPhaden, A. Wittenberg, A. Fedorov, P. Braconnot

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- XY369 EGU2012-12211
S. Thual, B. Dewitte, S.-I. An, S. Illeg, and N. Ayoub
 Low frequency modulation of the stability in a conceptual model of the equatorial Pacific: an estimate of the most influential changes in ENSO parameters over the recent decades
- XY370 EGU2012-1201
M. Ohba and M. Watanabe
 Role of the Indo-Pacific Interbasin Coupling in Predicting Asymmetric ENSO Transition and Duration
- XY371 EGU2012-11636
B. Vannière, E. Guilyardi, T. Toniazzo, and S. Woolnough
 Understanding coupled model errors in the tropical Pacific using hindcasts
- XY372 EGU2012-1718
m. zhao, h. hendon, y.h. yin, and o. Alves
 Impact of Assimilating Salinity on ENSO Variability and Seasonal Forecast Skill in a Coupled Model
- XY373 EGU2012-2586
A. S. von der Heydt and H. A. Dijkstra
 El Niño dynamics in the warm Pliocene climate
- XY374 EGU2012-2883
J. Stoll, K. Trachte, and J. Bendix
 Analysis of ENSO related multi source SST for the east pacific Niño 1.2 region
- XY375 EGU2012-3824
D. Chen and T. Lian
 Effects of westerly wind bursts on El Niño: a new perspective
- XY376 EGU2012-6728
W. Duan, Y. Yu, and H. Xu
 Behaviors of nonlinearities modulating the El Niño events induced by optimal precursory disturbances
- XY377 EGU2012-6874
H.-Y. Son, J.-Y. Park, and J.-S. Kug
 Winter Precipitation variability over East Asia associated with ENSO
- XY378 EGU2012-7035
M. Ohba, H. Shiogama, T. Yokohata, and M. Watanabe
 Phase-dependent Impact of Strong Tropical Volcanic Eruption on predicting ENSO
- XY379 EGU2012-8944
S. Ineson and T. Graham
 ENSO in the HadGEM2-ES CMIP5 centennial simulations

- XY380 EGU2012-10485
A. Babonneix, L. Gourdeau, F. Durand, C. E. Menkes, and N. Djath
 Impact of ENSO variability on the Pacific Equatorial Undercurrent (EUC) sources: A modeling approach depending on the horizontal resolution
- XY381 EGU2012-13576
B. Rodríguez de Fonseca, E. Mohino, T. Losada, M. Martin-Rey, and I. Polo
 Multidecadal Modulation of Tropical Atlantic impact on ENSO
- XY382 EGU2012-3088
H. Ding, N. Keenlyside, and M. Latif
 Potential of Equatorial Atlantic Variability to Enhance El Niño Prediction

NP2.2/AS1.19 – Nonlinear Dynamics of the Atmosphere, Ocean and the Climate System (co-organized) – Orals

Convener: K. Dethloff | Co-Conveners: C. Franzke, F. Kwasniok, F. Sévellec, T. Huck

Room: 17

Chairperson: Christian Franzke and Florian Sevellec

- 10:30–10:45 EGU2012-6325
H. A. Dijkstra, J. Saenz, A. Hogg, and L. M. Frankcombe
 Energetics of Multidecadal Atlantic Ocean Variability
- 10:45–11:00 EGU2012-4279
A. Venaille, J. Le Sommer, J.-M. Molines, and B. Barnier
 Intrinsic variability of oceanic flows above topography anomalies
- 11:00–11:15 EGU2012-6290
M. den Toom, H.A. Dijkstra, A.A. Cimadoribus, and S.S. Drijfhout
 Effect of Atmospheric Feedbacks on the Stability of the Atlantic Meridional Overturning Circulation
- 11:15–11:30 EGU2012-8060
T. Penduff, S. Gregorio, M. Juza, B. Barnier, W.K. Dewar, and J.-M. Molines
 Intrinsic variability in the eddying ocean at low frequency: climate-relevant fingerprints.
- 11:30–11:45 EGU2012-4325
R. Farneti and G.K. Vallis
 Meridional energy transport in the coupled atmosphere-ocean system: Compensation and partitioning
- 11:45–12:00 EGU2012-372
O. Martius and H. Wernli
 Forcing mechanisms of the wintertime subtropical jet over Africa
- 12:00–12:15 EGU2012-2750
C. Michel and G. Rivière
 Sensitivity of the position and variability of the eddy-driven jet and storm-track to different SST profiles in an aquaplanet general circulation model (Arpège)

NP2.2/AS1.19 – Nonlinear Dynamics of the Atmosphere, Ocean and the Climate System (co-organized) – Posters

Convener: K. Dethloff | Co-Conveners: C. Franzke, F. Kwasniok, F. Sévellec, T. Huck

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Thierry Huck and Frank Kwasniok

- XY383 EGU2012-748
D. Ferjani, T. Huck, and A. Colin de Verdière
 Influence of bottom topography and mean circulation on large-scale decadal basin modes
- XY384 EGU2012-1732
K. Dethloff and D. Handorf
 The skill of current climate models in reproducing atmospheric teleconnection patterns and related dynamical feedbacks
- XY385 EGU2012-2071
J. M. Huthnance
 On ocean-atmosphere time scales
- XY386 EGU2012-2137
C. Spensberger and T. Spengler
 Introducing a non-spectral Quasi-Geostrophic model
- XY387 EGU2012-2408
A. A. Cimadoribus, S. S. Drijfhout, and H. A. Dijkstra
 Atlantic Meridional Overturning Circulation and freshwater budget: a simple model to investigate their connection.

- XY388 EGU2012-4790
T. Zivkovic
Dynamics of El-Niño: Is it stochastic or deterministic?
- XY389 EGU2012-4044
A. Gritsun
Circulation regimes and unstable periodic orbits in the models of large scale atmospheric dynamics
- XY390 EGU2012-6883
J. A. Saenz, A. M. Hogg, G. O. Hughes, and R. W. Griffiths
Mechanical power input to the oceans from buoyancy and wind
- XY391 EGU2012-7932
E. Dahms, F. Lunkeit, and K. Fraedrich
Low-frequency climate variability of an aquaplanet
- XY392 EGU2012-8534
A. Hannachi and A. Turner
Monsoon convection dynamics and nonlinear dimensionality reduction vis Isomap
- XY393 EGU2012-9692
T. Huck, A. Colin de Verdière, and D. Ferjani
Multidecadal oscillations of the thermohaline circulation: bottom topography damping vs. atmospheric forcing stochastic excitation
- XY394 EGU2012-11131
S. Brand, K. Dethloff, and D. Handorf
Annular Modes in an AOGCM with interactive stratospheric chemistry

NP2.4/CL5.5 – Climate Sensitivity (co-organized) – Orals

Convener: M. Crucifix | Co-Conveners: H. A. Dijkstra, A. S. von der Heydt, P. Langen

Room: 17

Chairperson: Michel Crucifix

- 15:30–16:00 EGU2012-11899
J. Hansen and M. Sato
Paleoclimate Implications for Climate Sensitivity and Human-Made Climate Change
- 16:00–16:15 EGU2012-7796
D A Stainforth and L A Smith
Linearity, climate sensitivity and climate changes in the surface temperature field
- 16:15–16:30 EGU2012-13295
T.L. Edwards, J.C. Rougier, and M. Collins
Joint constraints on climate sensitivity in a coupled GCM using palaeoclimate reconstructions of the Mid-Holocene and Last Glacial Maximum
- 16:30–16:45 EGU2012-4800
R. Caballero and M. Huber
Climate transitions and state-dependent climate sensitivity in NCAR CAM3 simulations over a broad range of radiative forcing
- 16:45–17:00 EGU2012-13069
C. Proistosescu and P. Huybers
A stochastic model for temperature variability and climate sensitivity ranging from months to tens-of-thousands of years

NP2.6 – Complex networks: Theory and methods applied to geophysical systems – Orals

Convener: R. V. Donner | Co-Conveners: J. Kurths, T. Heckmann, W. Schwanghart, R.G. Budich, P. Nyberg, K. Steinhaeuser

Room: 28

Chairperson: n.n.

- 13:30–14:00 EGU2012-4342
J.F. Donges, R.V. Donner, M.H. Trauth, N. Marwan, H.J. Schellnhuber, and J. Kurths
Recurrence network-based time series analysis for identifying tipping points in Plio-Pleistocene African climate
- 14:00–14:30 EGU2012-6424
P. Fox
Scientific Knowledge Discovery in Complex Semantic Networks of Geophysical Systems
- 14:30–14:45 EGU2012-5346
I. Petrova and A. Loew
Structural Interrelationship in the Ecosystem Network Using Method of Complex Networks

- 14:45–15:00 EGU2012-14274
J. Hlinka, D. Hartman, M. Vejmelka, and M. Palus
 Non-linear contributions to interactions in climate networks: sources, relevance, nonstationarity
- 15:00–15:15 EGU2012-4593
A. Rheinwalt, N. Marwan, J. Kurths, and P. Werner
 Boundary effects in network measures of spatially embedded networks - A case study for German rainfall data

NP2.6 – Complex networks: Theory and methods applied to geophysical systems – Posters

Convener: R. V. Donner | Co-Conveners: J. Kurths, T. Heckmann, W. Schwanghart, R.G. Budich, P. Nyberg, K. Steinhäuser

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 15:30–17:00

Chairperson: n.n.

- XY395 EGU2012-9286
S. Hage-Packhäuser and M. Dellnitz
 Time-Varying Dynamical System Networks in the Light of Hybrid Symmetry
- XY396 EGU2012-4099
W. Schwanghart and T. Heckmann
 Fuzzy delineation of drainage basins through probabilistic interpretation of diverging flow networks
- XY397 EGU2012-4944
H. Ghaffari and R.P. Young
 Friction Networks: Network-Configurations of Dynamic Friction Patterns
- XY398 EGU2012-5073
T. Zerenner and A. Hense
 Graph theoretical analysis of climate data
- XY399 EGU2012-8397
M. Palus, D. Hartman, J. Hlinka, and M. Vejmelka
 Connectivity, topology and dynamics in climate networks
- XY400 EGU2012-14275
M. Vejmelka, J. Hlinka, D. Hartman, and M. Palus
 Spatiotemporal modes of climatic variability: building blocks of complex networks?
- XY401 EGU2012-5098
J. I. Deza, M. Barreiro, and C. Masoller
 Detecting long-range tele-connections in the climate network via ordinal pattern analysis
- XY402 EGU2012-5705
J. Runge, J.F. Donges, and J. Kurths
 Climate networks with causal links
- XY403 EGU2012-7577
A. Radebach, R. V. Donner, J. G. B. Runge, J. F. Donges, and J. Kurths
 Disentangling different types of El Niño episodes by evolving climate network analysis
- XY404 EGU2012-4691
M. Wiedermann, J.F. Donges, J. Heitzig, and J. Kurths
 Coupled climate network analysis of multidecadal dynamics in the Arctic
- XY405 EGU2012-6415
N. Boers, B. Bookhagen, N. Marwan, and J. Kurths
 Investigating Temperature and Rainfall Patterns over the Amazon Region using Complex Networks
- XY406 EGU2012-5622
P. Martin, N. Malik, N. Marwan, and J. Kurths
 Complex network analysis of high rainfall events during the northeast monsoon over south peninsular India and Sri Lanka
- XY407 EGU2012-11674
K. Oluoch, N. Marwan, M. Trauth, A. Loew, and J. Kurths
 Complex Networks Dynamics Based on Events-Phase Synchronization and Intensity Correlation Applied to The Anomaly Patterns and Extremes in The Tropical African Climate System
- XY408 EGU2012-6483
H. Kutza, J. F. Donges, N. Marwan, R. V. Donner, U. Feudel, and J. Kurths
 Pattern recognition in complex networks, based on spatially embedded time series
- XY409 EGU2012-14310
K. Steinhäuser
 Knowledge Discovery from Climate Data using Graph-Based Methods
- XY410 EGU2012-11187
T. Nocke
 Visual Analytics of Climate Networks

NP3.1 – Nonlinear, scaling and complex Physical and Biogeophysical Processes in the Atmosphere and Ocean – Orals

Convener: V. Lucarini | Co-Conveners: F. Schmitt, S. Lovejoy, JM Lopez

Room: 17

Chairperson: Shaun Lovejoy

- 13:30–13:45 EGU2012-1408
H. Yahia, J. Sudre, V. Garçon, and C. Pottier
 High-resolution ocean dynamics from microcanonical formulations in non linear complex signal analysis
- 13:45–14:00 EGU2012-11645
Y. Ashkenazy and H. Gildor
 On the Probability and Spatial Distribution of Ocean Surface Currents
- 14:00–14:15 EGU2012-5646
X. Sanchez, E. Roget, and J. Planella
 Scaling properties of the velocity turbulent field from micro-structure profiles in the ocean
- 14:15–14:30 EGU2012-5329
S. De Monte, C. Cotté, F. d'Ovidio, M. Lévy, M. Le Corre, and H. Weimerskirch
 Coupling submesoscale physics to seabirds behaviour at the ocean-atmosphere interface
- 14:30–14:45 EGU2012-13371
Y. Mezemate, V. Rambach, I. Tchiguirinskaia, B. Lemaire, B. Vincon Leite, C. Bonhomme, D. Schertzer, and S. Lovejoy
 Turbulence and intermittency in lakes, a multifractal correlation analysis
- 14:45–15:00 EGU2012-4074
L. Gostiaux and H. van Haren
 A complete sketch for fine-structure contamination by internal waves
- 15:00–15:15 EGU2012-5458
D. Faranda, V. Lucarini, and P. Manneville
 Breakdown of turbulence in a plane Couette flow. Can extreme fluctuations be used to understand critical transitions?

NP3.3 – Subgrid models and parameterization – Orals

Conveners: M. Parlange, Isabel de Lima | Co-Conveners: C. Meneveau, F. Porté-Agel

Room: 28

Chairperson: Marc Parlange

- 15:30–15:45 EGU2012-12011
 E Fououfoula-Georgiou and **A.M Ebtehaj**
 Sparsity: a ubiquitous but unexplored property of geophysical signals for multi-scale modeling and reconstruction
- 15:45–16:00 EGU2012-9270
C. Meneveau, K. Bai, and J. Katz
 Subgrid scale energy fluxes and effective length scale in the wake of a fractal tree
- 16:00–16:15 EGU2012-3152
K. Suselj and J. Teixeira
 Stochastic eddy-diffusivity/mass-flux parameterization for moist convective boundary layers
- 16:15–16:30 EGU2012-5772
M. Nogueira, A. P. Barros, and P. M. Miranda
 Stochastic downscaling of numerically simulated spatial rain and cloud fields using a transient multifractal approach
- 16:30–16:45 EGU2012-14011
J. Jaffrain and A. Berne
 Quantification of the radar subgrid variability of the raindrop size distribution from a network of disdrometers
- 16:45–17:00 EGU2012-13286
M. Calaf, M. Hultmark, and M. Parlange
 Towards an improved boundary condition for Large-Eddy Simulations with heterogeneous surfaces
- 17:00–17:15 EGU2012-14009
 R. Kuenze and **I. Lunati**
 An adaptive multiscale method to simulate flow instabilities

NP3.3 – Subgrid models and parameterization – Posters

Conveners: M. Parlange, Isabel de Lima | Co-Conveners: C. Meneveau, F. Porté-Agel

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Isabel de Lima

- XY411 EGU2012-10311
N. Vercauteren, J. Dahlberg, N. Lam, G. Destouni, and K. Hylander
Spatial variations of temperature on a coastal site in Sweden as a response to insolation
- XY412 EGU2012-6560
S.C.P. Carvalho, M.I.P. de Lima, and J.L.M.P. de Lima
Exploratory analysis of rainfall events in Coimbra, Portugal: variability of raindrop characteristics
- XY413 EGU2012-6064
C.-A. Kuszli, S. Goyette, and C. Etienne
Wind gusts parametrization methods for winter storms in Switzerland with the Canadian Regional Climate Model
- XY414 EGU2012-8308
S.V. Weijs and N. van de Giesen
Probability-weighted historical patterns for downscaling seasonal forecasts using minimum relative entropy
- XY415 EGU2012-14012
M. Diebold, S.V. Weijs, and M.B. Parlange
First results on the subgrid scale variability of blowing snow
- XY416 EGU2012-14256
D.F. Nadeau, H.J. Oldroyd, E.R. Paradyak, C.W. Higgins, and M.B. Parlange
An Evaluation of Local Similarity Scaling Over a Steep Alpine Slope
- XY417 EGU2012-14097
M. Calaf, H. Oldroyd, M. Hultmark, R. Mutzner, and M.B. Parlange
Wind Lidar measurements of sub-grid scale variability in complex terrain
- XY418 EGU2012-14100
H.J. Oldroyd, C.W. Higgins, H. Huwald, J.S. Selker, and M.B. Parlange
Impacts of small-scale variability on the determination of bulk thermal diffusivity in snowpacks
- XY419 EGU2012-14099
H. Huwald, S. Williams, C.W. Higgins, A.W. Nolin, S.A. Drake, J.S. Selker, and M.B. Parlange
Small-scale variability of alpine snow packs from fiber-optic distributed temperature
- XY420 EGU2012-14102
M. Giometto, J. Fang, M. Putti, A. Saetta, S. Lanzoni, and M.B. Parlange
A mixed RKPM/RBF immersed method for FSI simulations
- XY421 EGU2012-12439
H. Lu and F. Porté-Agel
A nonlinear subgrid-scale closure for large-eddy simulation of the atmospheric boundary layer
- XY422 EGU2012-14031
M. Abkar and F. Porté-Agel
A new boundary condition for large-eddy simulation of turbulent boundary layer flow over heterogeneous surfaces
- XY423 EGU2012-14032
G.V. Iungo, J. Coëffé, and F. Porté-Agel
Wind tunnel investigation on wind turbine wakes and wind farms
- XY424 EGU2012-4152
S. Dolaptchiev, U. Achatz, and I. Timofeyev
Stochastic closure for local averages in a finite difference discretization: an application to the forced/inviscid Burgers equation
- XY425 EGU2012-13729
H. M. Perin, A. C. Martinez, L. G. Guimarães, and **W. M. Figueiró**
Parameterization of Compressional Seismic Velocity Fields using the Haar Wavelet

NP3.4/BG2.23/SSS1.7 – Scaling, Nonlinearity, and Complexity in soils (co-organized) – Posters

Convener: A. M. Tarquis | Co-Conveners: E. Perrier, M. Marani, D. Gimenez, R. M. Lark, R. E. Falconer, F. Jimenez-Hornero, A. N. Kravchenko, J. Crawford, M. Steffens, C. W. Mueller, R. Viscarra Rossel

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Daniel Gimenez

- XY426 EGU2012-2287
J.C. Cañasveras, V. Barrón, M.C. Del Campillo, and R.A. Viscarra Rossel
Reflectance spectroscopy: a tool for predicting the risk of iron chlorosis in soils

- XY427 EGU2012-2648
C. Fallico, S. Straface, F. Chidichimo, **A.P. Ferrante**, and S. De Bartolo
Experimental evidences on the scaling behavior of a sandy porous media.
- XY428 EGU2012-5374
S.I.E. Ern, **L. Trombino**, and C. Cattaneo
Micromorphological Aspects of Forensic Geopedology II: Ultramicroscopic vs Microscopic Characterization of Phosphatic Impregnations on Soil Particles in Experimental Burials
- XY429 EGU2012-7695
K. Beerten, N. Vandersmissen, B. Rogiers, and D. Mallants
Assessing soil hydrological variability at the cm- to dm-scale using air permeameter measurements
- XY430 EGU2012-13787
R. Bermudez, A. Marcano Cerdeño, A.M. Tarquis, and D. Andina
Discrimination of different sub-basins on Tajo River based on water influence factor
- XY431 EGU2012-14051
F. Ballesteros, J. de Castro, A.M. Tarquis, and A. Méndez
Analysis of soil images applying Laplacian Pyramidal techniques
- XY432 EGU2012-14052
A.M. Tarquis, M.E. Sanchez, J.M. Antón, J. Jimenez, A. Saa-Requejo, D. Andina, and **J.W. Crawford**
Sensitivity analysis of geometrical and topological parameters to the thresholding soil images
- XY433 EGU2012-14057
A.M. Tarquis, N.R.A. Bird, **E. Perrier**, and J.W. Crawford
Multifractal Analysis in Binary Images
- XY434 EGU2012-14073
H. Millan, A.M. Tarquis, L.D. Pérez, J. Matos, and M. González-Posada
Geostatistical analysis of soil properties at field scale using standardized data
- XY435 EGU2012-14123
P.L. Aguado, J.P. del Monte, R. Moratiel, and A.M. Tarquis
Multiscaling analysis applied to landscape spatial characterization influenced by reservoir level
- XY436 EGU2012-14181
F. Portilla, J.L. Valencia, A.M. Tarquis, and A. Saa-Requejo
Robust regression applied to fractal/multifractal analysis.
- XY437 EGU2012-14185
R. Cumbreira, A.M. Tarquis, G. Gascó, and H. Millán
Prefractal scaling of apparent soil moisture estimated from vertical planes of Vertisol pit images
- XY438 EGU2012-14342
C. Alonso, **R.M. Benito**, and A.M. Tarquis
Comparison of fractal dimensions based on segmented NDVI fields obtained from different remote sensors.
- XY439 EGU2012-14054
A.M. Tarquis, **M.T. Castellanos**, M.C. Cartagena, F. Ribas, M.J. Cabello, A. Arce, and N.R.A. Bird
Scale and space dependencies of Nitrogen variability
- XY440 EGU2012-14359
R. Heck, N.T. Scaiff, D. Andina, and A.M. Tarquis
Influence of voxel size settings in X-Ray CT Imagery of soil in scaling properties
- XY441 EGU2012-260
O.A. Hachay, A.Y. Khachay, and O.Y. Khachay
Geosynergetic Approach for Analyze of Rock State, Theoretical and Experimental Redlts
- XY442 EGU2012-1543
E. Vidal Vázquez, J. G. V. Miranda, and J. Paz-Ferreiro
Multiscale Analysis of Soil Porosity from Hg Injection Curves in Soils from Minas Gerais, Brazil
- XY443 EGU2012-3705
M. Marinho, J. R. Raposo, J. M. Mirás Avalos, and A. Paz González
Statistical and Multifractal Evaluation of Soil Compaction in a Vineyard
- XY444 EGU2012-13613
C. dos Santos Bonini, M. C. Alves, and A. Paz González
Multifractal Characteristics of Bimodal Mercury Pore Size Distribution Curves
- XY445 EGU2012-14371
J. Rodriguez-Gonzalez, A. Saa-Requejo, J.A. Gómez, J.L. Valencia, P. Zarco, and **A.M. Tarquis**
Soil surface roughness and porosity under different tillage systems
- XY446 EGU2012-14210
M. Leopold, J. Völkl, D. Dethier, J. Huber, and M. Steffens
Characteristics of a paleosol and its implication for the Critical Zone development, Rocky Mountain Front Range of Colorado, USA.

K. Frieler

Room: 13

Chairperson: n.n.

- 13:30–13:45 EGU2012-1888
H.L. Cloke, A. Weisheimer, F. Pappenberger, and T.N. Palmer
 A perturbed land surface parameter experiment with the ECMWF seasonal forecasting system
- 13:45–14:00 EGU2012-5016
Y. ORSOLINI, R. SENAN, A. CARRASCO, G. BALSAMO, P. DOBLAS-REYES, F. VITART, A. WEISHEIMER, and R. BENESTAD
 Impact of snow initialization on sub-seasonal forecasts
- 14:00–14:15 EGU2012-6007
 S C Chapman, **D A Stainforth**, and N W Watkins
 Evaluating the sensitivity of local temperature distributions to global climate change
- 14:15–14:30 EGU2012-8445
T. D. Hewson
 The new Met Office strategy for seasonal forecasts
- 14:30–14:45 EGU2012-8742
J. Baehr, M. Botzet, K. Froehlich, L. Kornblueh, S. Tietsche, and W. Mueller
 Towards a Seasonal Prediction System using MPI-ESM
- 14:45–15:00 EGU2012-10098
C. Buontempo and C. Hewitt
 Seasonal and decadal predictions toward climate services.
- Chairperson: Andreas Fischer
- 15:30–15:45 EGU2012-9729
E B Suckling and L A Smith
 Do quantitative decadal forecasts from GCMs provide decision relevant skill?
- 15:45–16:00 EGU2012-11176
J.-F. Guérémy and N. Laanaia
 Decadal forecasts with CNRM-CM5. Sensitivity to the inclusion of the stratosphere
- 16:00–16:15 EGU2012-8473
M. Dubrovsky and M. Trnka
 Probabilistic climate and agroclimatic scenarios for Europe (PRASCE project results)
- 16:15–16:30 EGU2012-1873
C. Kerkhoff, H. R. Künsch, and C. Schär
 Relations between RCMs and GCMs in the ENSEMBLES simulations
- 16:30–16:45 EGU2012-6073
P.A.G. Watson, D.J. Karoly, M.R. Allen, N. Faull, and D.S. Lee
 Quantifying uncertainty in the dynamical response to ozone recovery
- 16:45–17:00 EGU2012-3264
A. Sokolov, J. Scott, E. Monier, C.A. Schlosser, D. Kicklighter, and S. Dutkiewicz
 Examination of Climate Response to Historical and Projected Forcings Over Years 850-4000 with the MIT IGSM.

CL3.3/NP5.4 – Centennial, decadal, seasonal and monthly climate predictions (co-organized) – Posters

Convener: M. A. Liniger | Co-Conveners: G. J. van Oldenborgh, S. Vannitsem, F. J. Doblas-Reyes, R. Knutti, J. D. Annan, K. Frieler

Hall Z | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

- Z74 EGU2012-2969
A. Maidens, A. Arribas, A. Scaife, C. MacLachlan, K.A. Peterson, and J. Knight
 What explains the successful Met Office seasonal forecast of winter 10/11
- Z75 EGU2012-2596
K. Fan
 A prediction model for the Atlantic Basin tropical storm frequency using a year-to-year increment approach
- Z76 EGU2012-3128
J. Bustamante, S. C. Chou, and G. Sueiro
 10- Year Eta Model Seasonal Forecast Climatology over South America
- Z77 EGU2012-1265
C. Jiang, G. Lagerloef, and S. Springer
 Relationship between PDO and basin-scale ocean circulation variations

- Z78 EGU2012-10302
J.M. Eden, M. Widmann, **S. Wild**, G.R. Evans, and J.G. Hughes
Pacific SST influence on spring precipitation in Addis Ababa, Ethiopia
- Z79 EGU2012-78
Y. Kuleshov, D. Jones, H. Hendon, A. Charles, A. Cottrill, E-P. Lim, S. Langford, R. de Wit, and K. Shelton
Enhancing seasonal climate prediction capacity for the Pacific countries
- Z80 EGU2012-2990
A. Maidens, A. Arribas, K.A. Peterson, C. MacLachlan, M. Vellinga, M. Gordon, A. Williams, and D. Fereday
Upgrade to GloSea4, the Met Office seasonal forecasting system: Improved resolution and assimilated sea-ice.
- Z81 EGU2012-2892
M. Hirschi, M. Dubrovsky, C. Spirig, J. Samietz, P. Calanca, A. P. Weigel, A. M. Fischer, and M. W. Rotach
Monthly forecasting of agricultural pests in Switzerland
- Z82 EGU2012-10664
L A Smith and D A Stainforth
Putting Weather back into the Definition of Climate
- Z83 EGU2012-11444
H. Du, F. Niehorster, and L.A. Smith
Insightful Measures of Predictive Skill in Seasonal Forecasts
- Z84 EGU2012-10983
T. Maynard, **E B Suckling**, and L A Smith
Skill Scores for Probabilistic Climate and Weather Prediction
- Z85 EGU2012-7718
R. Gangsto, A. P. Weigel, C. Appenzeller, **A. Fischer**, and M. A. Liniger
Evaluating decadal predictions - some considerations on bias correction and cross-validation
- Z86 EGU2012-8991
S. M.W. Higgins, **H.L. Du**, and L.A. Smith
Constraints on Rational Model Weighting, Blending and Selecting when Constructing Probability Forecasts given Multiple Models
- Z87 EGU2012-3089
W. Mueller, D. Matei, J. Jungclaus, H. Haak, H. Pohlmann, D. Notz, J. Kröger, J.-S. von Storch, J. Baehr, and J. Marotzke
The MPI-M CMIP5 Decadal Prediction Experiments
- Z88 EGU2012-7664
T. Spanghel, M. Schröder, A. Hense, F. Kaspar, R. Hollmann, R. Glowienka-Hense, and S. Stolzenberger
The VeCAP project: Verification, Calibration and Assessment of Predictability of medium-range climate predictions using satellite data
- Z89 EGU2012-9615
J. Servonnat, J. Mignot, E. Guilyardi, D. Swingedouw, and S. Labetoule
Testing surface initialisation strategies for decadal projections in a perfect model framework
- Z90 EGU2012-1097
B Wouters, W Hazeleger, GJ van Oldenborgh, and S Drijfhout
Multimodel Decadal Predictability of the Subpolar Gyre
- Z91 EGU2012-2611
V. Zunz, **H. Goosse**, J. Jungclaus, and S. Dubinkina
Evaluating the Decadal Prediction Skill of the Sea Ice Concentration in the Southern Ocean
- Z92 EGU2012-11958
L.-P. Caron, C.G. Jones, F.J. Doblas-Reyes, and M. Caian
Multi-year forecast of Atlantic tropical cyclone activity using EC-Earth
- Z93 EGU2012-107
G. Wang
A novel approach in predicting non-stationary time series by combining external forces
- Z95 EGU2012-8525
T. Toniazzo and S.J. Woolnough
CMIP-5 model errors in the tropical Atlantic
- Z96 EGU2012-9497
A Lopez, E Suckling, and L.A. Smith
Pattern scaled climate change scenarios: are these useful for adaptation?
- Z97 EGU2012-7797
A. Fischer, A. P. Weigel, C. Buser, R. Knutti, C. Schär, H. R. Künsch, M. A. Liniger, and C. Appenzeller
Climate Change Projections for Switzerland based on a Bayesian Multi-Model Approach
- Z98 EGU2012-7130
J. D. Annan, J. C. Hargreaves, and K. Tachiiri
A common fallacy in climate model evaluation

- Z99 EGU2012-11000
C. J. Rye, M. R. Allen, R. G. Jones, N. Massey, F. Otto, S. Rosier, and The climateprediction.net team
 Assessment and Selection of GCM Perturbed Physics Ensemble Members Using Observed Top-of-Atmosphere Fluxes
- Z100 EGU2012-6865
K. Tachiiri, J.C. Hargreaves, J.D. Annan, C. Huntingford, and M. Kawamiya
 Allowable carbon emissions for a medium mitigation scenario
- Z101 EGU2012-4193
T. Simon, Ch. Ohlwein, A. Hense, and C. Simmer
 Probabilistic Quantification of Heavy Future Rainfall Events via Statistical Downscaling for the Poyang Catchment in China
- Z102 EGU2012-1496
H. Reddad, M. Bakhat, and B. Damnati
 Climate change and precipitation evolution in Ifran region (Middle Atlas of Morocco).
- Z103 EGU2012-7362
E. Bergin, W. Buytaert, C. Onof, and H. Wheeler
 Downscaling of rainfall in Peru using Generalised Linear Models
- Z104 EGU2012-12832
 A.J. Ansorge, **R.W. Arritt** and the The MRED Team
 Precipitation intensity in an ensemble of downscaled seasonal forecasts
- Z105 EGU2012-4780
J. Hnilica
 Statistical correction of daily precipitation data from the climate models

NH5.3/NP 7.3/OS2.6 – Nonlinear Dynamics of the Coastal Zone (co-organized) – Orals

Convener: I. Didenkulova | Co-Conveners: E. Pelinovsky

Room: 1

Chairperson: n.n.

- 10:30–10:45 EGU2012-1302
R. Grimshaw
 The reduced Ostrovsky equation: integrability and breaking
- 10:45–11:00 EGU2012-6167
H. Kalisch
 Mechanical balance laws for a class of Boussinesq systems
- 11:00–11:15 EGU2012-8764
O. Bokhove and E. Gagarina
 Hamiltonian Boussinesq Model with Sheared Currents
- 11:15–11:30 EGU2012-3372
G.M. Reznik and V. Zeitlin
 Nonlinear excitation of trapped waves by Poincaré waves in the coastal waveguides
- 11:30–11:45 EGU2012-4149
V. Liapidevskii and A. Chesnokov
 Stability and horizontal mixing in shear shallow flows
- 11:45–12:00 EGU2012-2676
S. P. Pudasaini
 Tsunami Generated by a Two-Phase Submarine Debris Flow

LUNCH BREAK

Chairperson: n.n.

- 13:30–13:45 EGU2012-1577
E.G. Morozov and A.V. Marchenko
 Asymmetric tide in Spitsbergen fjords
- 13:45–14:00 EGU2012-3641
A. Ezersky and N. Abcha
 Laboratory modelling of run-up amplification due to resonant waves
- 14:00–14:15 EGU2012-4007
F. Løvholt and G. Pedersen
 Modelling highly non-linear waves with depth integrated models

- 14:15–14:30 EGU2012-2669
E. K. Lindstrøm, G. Pedersen, A. Jensen, and A. Bertelsen
 Evolution of boundary layers on beaches
- 14:30–14:45 EGU2012-6732
M. Tian, A. Sheremet, and J. Smith
 A Hyperbolic Nonlinear Wave Model Based On The Stream Function Formulation
- 14:45–15:00 EGU2012-7500
J. B. Frandsen, M. Mier-Torrecilla, M. Zurita-Gotor, and D. M. Holman
 Predictions of nearshore hydrodynamics based on free-surface lattice Boltzmann approximations

NH5.3/NP 7.3/OS2.6 – Nonlinear Dynamics of the Coastal Zone (co-organized) – Posters

Convener: I. Didenkulova | Co-Conveners: E. Pelinovsky

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: I. Didenkulova and E. Pelinovsky

- XY274 EGU2012-11784
O. Khvostova and E. Averbukh
 On the dynamics of nonlinear, unsteady landslide flow within the smoothed particle hydrodynamics
- XY275 EGU2012-764
I. Nikolkina and I. Didenkulova
 Waves generated by landslides in rivers: data of Nizhniy Novgorod region
- XY276 EGU2012-1085
Sh. Chatraee and I. Didenkulova
 Effective fully-reflective boundary conditions at the shore for modeling of wave processes in long bays
- XY277 EGU2012-110
 I. Didenkulova and **A. Rodin**
 Statistics of waves within a ship wake
- XY278 EGU2012-112
A. Rodin, I. Didenkulova, and E. Pelinovsky
 Nonlinear interaction of large-amplitude unidirectional waves in shallow water
- XY279 EGU2012-1390
P. Denissenko, I. Didenkulova, E. Pelinovsky, and J. Pearson
 Laboratory study of statistical characteristics of nonlinear long wave runup on a beach
- XY280 EGU2012-120
 M Cannalire and **E. Pelinovsky**
 Soliton propagation over a submarine hill: The variable-coefficient Korteweg - de Vries framework
- XY281 EGU2012-13244
A. Osborne
 Coastal Zone Dynamics in 2+1 Dimensions: Theory and Hyperfast Modeling
- XY282 EGU2012-4126
E. Gagarina, O. Bokhove, and J.J.W. van der Vegt
 Hamiltonian Boussinesq Model with Horizontally Sheared Currents.
- XY283 EGU2012-9441
T. Lyubimova, A. Lepikhin, V. Konovalov, Ya. Parshakova, and A. Tiunov
 Mixing in three-dimensional turbulent flow near the river confluence
- XY284 EGU2012-12096
M. Drivdal and J.E.H. Weber
 Mean Lagrangian drift in continental shelf waves
- XY285 EGU2012-12182
 V. Vasilieva and **O. Shishkina**
 An effect of the near-bottom pycnocline on the loads of the bottom hill
- XY286 EGU2012-6816
I. Tereshchenko, A. Filonov, and A. Anis
 Internal Nonlinear Tides on the Mexican Pacific Shelf
- XY287 EGU2012-6162
A. Filonov, M.F. Lavin, L.B. Ladah, and I. Tereshchenko
 The dynamics of internal tidal waves in Todos Santos Bay, Baja California, during experiment FLOO-2007
- XY288 EGU2012-518
J.M. Magalhaes and J.C.B. da Silva
 Internal solitary wave generation and refraction observed at the Estremadura Promontory off the west Iberian Coast (Portugal)
- XY289 EGU2012-9237
T. Reisner, H. Steeb, and J. Renner
 A numerical investigation on the fluid flow at the interface of a porous and a free flow domain

- XY290 EGU2012-9761
T. Szekely, L. Marie, and Y. Morel
Numerical model and observations of interactions between coastal shelf tidal front and a barotropic jet.
- XY291 EGU2012-9267
D. Lyubimov, T. Lyubimova, and D. Baidina
Travelling waves above the canopy of aquatic vegetation

Thursday, 26 April

HS7.1 – Precipitation: from measurement to modelling and application in catchment hydrology (co-listed) – Orals

Convener: R. Uijlenhoet | Co-Conveners: A. Langousis, C. Onof, A. Berne, P. Burlando, T. Bellerby, G. Grossi, A. Carsteanu

Room: 33

Chairperson: Remko Uijlenhoet

- 08:30–08:45 EGU2012-100
N. Peleg and E. Morin
Convective rain cells: radar-derived spatio-temporal characteristics and synoptic patterns
- 08:45–09:00 EGU2012-2653
I. Emmanuel, H. Andrieu, E. Leblois, and N. Janey
Influence of rainfall spatial variability on hydrological modelling: a simulation approach
- 09:00–09:15 EGU2012-2692
W. J. Vanhaute, S. Vandenberghe, K. Scheerlinck, B. De Baets, and N. E. C. Verhoest
Improving the extreme value behaviour of Bartlett-Lewis rectangular pulse models
- 09:15–09:30 EGU2012-3317
G. Bruni, J.A.E. ten Veldhuis, T. Otto, and H. Leijnse
Rainfall resolution from weather radars and their application in urban drainage modelling
- 09:30–09:45 EGU2012-3665
O. Rakovec, P. Hazenberg, P. J. J. F. Torfs, A. H. Weerts, and R. Uijlenhoet
Generating spatial precipitation ensembles: impact of temporal correlation structure
- 09:45–10:00 EGU2012-5023
C. J. Skinner, H. Greatrex, T. J. Bellerby, and D. Grimes
Ensemble Characterisation of Precipitation-Uncertainty in the Hydrological Modelling of the Senegal River Basin

COFFEE BREAK

Chairperson: Tim Bellerby

- 10:30–10:45 EGU2012-5430
H. Lebrezn and A. Bárdossy
Defining random and systematic error in precipitation interpolation
- 10:45–11:00 EGU2012-5477
L. Nicotina, A. Hilberts, S. Eppert, and D. Lohmann
Long term modelling of precipitation and temperature at the continental scale
- 11:00–11:15 EGU2012-8904
P.-A. Versini, M. Berreguer, and D. Sempere-Torres
Reconstruction of historical precipitation based on radar fields: application on Catalonia region (Spain)
- 11:15–11:30 EGU2012-9579
J.-C. Huang, C.-K. Yu, J.-Y. Lee, L.-W. Cheng, T.-Y. Lee, and S.-J. Kao
From Tropical Cyclone Tracks to Flood lead-time Predictions over a Mesoscale Mountainous Watershed
- 11:30–11:45 EGU2012-10100
F. Fenicia, L. Pfister, J. Iffly, D. Kavetski, and R. Uijlenhoet
Rainfall estimation with microwave links: a substitute for rain gauges? Results from a long-term experiment in Luxembourg-City.
- 11:45–12:00 EGU2012-10334
M. Savina
Local Area Weather Radar in Alpine Setting

HS7.1 – Precipitation: from measurement to modelling and application in catchment hydrology (co-listed) – Posters

Convener: R. Uijlenhoet | Co-Conveners: A. Langousis, C. Onof, A. Berne, P. Burlando, T. Bellerby, G. Grossi, A. Carsteanu

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Remko Uijlenhoet and Tim Bellerby

- A78 EGU2012-1076
A. El Hassan, H. Sharif, H. Xie, J. Terrance, and J. McClelland
Physical Modeling of Hydrologic Processes in South Central Texas
- A79 EGU2012-2908
S.A.P. de Jong, R.W. Hut, R. Bagree, and N.C. van de Giesen
Dense network of disdrometers in an urban environment
- A80 EGU2012-3070
C.Z. van de Beek, H. Leijnse, P. Hazenberg, and **R. Uijlenhoet**
Close-range radar rainfall estimation and error analysis
- A81 EGU2012-3811
C. Liang, F. Van Ogtrop, and V. Willem
Model Sensitivity to Parameters in the Simple 1-D Land-Atmosphere Model
- A82 EGU2012-5652
E. Rabiei, U. Haberlandt, M. Sester, and D. Fitzner
Areal rainfall estimation using moving cars as rain gauges - modeling study and laboratory experiment
- A83 EGU2012-5896
A. Overeem, H. Leijnse, and **R. Uijlenhoet**
Sampling uncertainties of precipitation estimates from satellites using a climatological radar rainfall data set
- A84 EGU2012-5937
A. Overeem, H. Leijnse, and **R. Uijlenhoet**
Country-wide rainfall maps from a commercial cellular telephone network
- A85 EGU2012-6818
C.- A. Chen, C. Chou, and C.- T. Chen
Estimation of Thermodynamic and Dynamic Contribution on Regional Precipitation Intensity and Frequency Changes under Global Warming
- A86 EGU2012-7969
M. Herrnegger and H.-P. Nachtnebel
From runoff to precipitation: Predicting catchment precipitation by inverting a conceptual rainfall-runoff model
- A87 EGU2012-8531
V. Kaleris, A. Langousis, and K. Siampi
Case study for the identification and evaluation of rainfall-runoff models
- A88 EGU2012-10373
A. Paschalis, P. Molnar, S. Fatichi, and P. Burlando
Stochastic modeling of high resolution space-time precipitation fields
- A89 EGU2012-10410
L. Gaal, P. Molnar, and J. Szolgay
Multivariate modelling of storm characteristics on the basis of copulas in Switzerland
- A90 EGU2012-10417
M. Savina and P. Burlando
Alpine radar conversion for LAWR
- A91 EGU2012-10511
M. Heistermann, Th. Pfaff, and **S. Jacobi**
wradlib - An Open Source Library for Weather Radar Data Processing
- A92 EGU2012-11079
A. Verworn and U. Haberlandt
Benefit of merging precipitation from rain gauges and radar for event based and continuous simulations of floods
- A93 EGU2012-11337
E. Volpi, A. Fiori, and M. Di Lazzaro
Exploring the variability of the hydrologic response due to rainfall spatial heterogeneity: Analytical derivations and numerical simulations
- A94 EGU2012-13736
L. Cunha, B. Seo, W. Krajewski, and R. Mantilla
Investigating the effects of rainfall uncertainty on flood prediction across scales
- A95 EGU2012-1711
T. Y. Gan, J. Hanrahan, and C. C. Kuo
Validation of regional precipitation-related indices dynamically downscaled from ERA-Interim Reanalysis Data by a Mesoscale Atmospheric Model
- A96 EGU2012-2400
J.A.E. ten Veldhuis, C. Maksimovic, D. Schertzer, and P. Willems
High resolution rainfall data for urban hydrology, flood modelling and prediction
- A97 EGU2012-3727
S. Grimaldi, A. Petroselli, and N. Romano
Mixing the Green-Ampt model and Curve Number method as an empirical tool for rainfall excess estimation in small ungauged catchments.

- A98 EGU2012-4643
H. Li, C-Y Xu, H. Chen, Z.X. Zhang, and H.L. Xu
Evaluation of interpolating methods for daily precipitation at various station densities
- A99 EGU2012-6227
R. Arsenault and F. Brissette
Determining the optimal spatial distribution of weather station networks for lumped and distributed hydrological modelling purposes using RCM datasets
- A100 EGU2012-9218
K. Vormoor and T. Skaugen
Temporal disaggregation of daily meteorological grid data
- A101 EGU2012-9355
T. Pluntke, D. Pavlik, and C. Bernhofer
Reduction of uncertainty of hydrological modelling using different precipitation inputs
- A102 EGU2012-10469
Y. Derin and K. K. Yilmaz
Evaluation of Multiple Satellite-based Rainfall Products over a Topographically Complex Watershed
- A103 EGU2012-10896
F. Serinaldi and C.G. Kilsby
Analysis and modelling of spatio-temporal properties of daily rainfall over the Danube basin

HS7.3/CL2.9/NP1.3 – Climate, water and health (co-organized) – Posters

Convener: A. Langousis | Co-Conveners: A. Jutla, A. Kolovos, A. A. Carsteanu, G. Christakos

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Andreas Langousis

- A139 EGU2012-585
H.-L. Yu, S.-J. Yang, and Y.-C. Lin
A climate-based spatiotemporal prediction for dengue fever epidemics: a case study in southern Taiwan
- A140 EGU2012-12919
M. Bray and D. Han
Comparative study on Climate Change Policies in the EU and China
- A141 EGU2012-1979
L. Righetto, S. Islam, Z.H. Mahmud, E. Bertuzzo, L. Mari, R. Casagrandi, M. Gatto, I. Rodriguez-Iturbe, M. Blokesch, and A. Rinaldo
Presence and viability of *V. Cholerae* in the waters of rural Bangladesh (Matlab area)
- A142 EGU2012-3607
M.V. Podimata, E.S. Bekri, and P.C. Yannopoulos
Proposing buffer zones and simple technical solutions for safeguarding river water quality and public health
- A143 EGU2012-3990
A S Akanda and A S Jutla
Hydroclimatic drivers, Water-borne Diseases, and Population Vulnerability in Bengal Delta
- A144 EGU2012-6046
W. Wagner and **R.A. Kidd**
The Use of Near-Real-Time Global ASCAT Soil Moisture Observations for Monitoring of Water Hazards
- A145 EGU2012-4710
J. Derx, A.H. Farnleitner, M. Zessner, and A.P. Blaschke
Water temperature effects on virus and DOC transport during riverbank infiltration
- A146 EGU2012-8731
E. Bertuzzo, L. Mari, L. Righetto, R. Casagrandi, M. Gatto, I. Rodriguez-Iturbe, and A. Rinaldo
An epidemic model for the future progression of the current Haiti cholera epidemic
- A147 EGU2012-7831
L. Baltesiu, M.T. Gomoiu, R. Mudura, G. Nicolescu, and V. Purcarea-Ciulacu
Contributions to integrative knowledge of West Nile virus reported in Romania - methods and tools for managing health-environment relationship at different spatial and temporal scales
- A148 EGU2012-6507
J. Pilz, **M. Mohsin**, and A. Gebhardt
A bivariate pseudo Gamma distribution with application to acid rain data
- A149 EGU2012-7639
S. F. Tseng, B. M. Hsu, K. H. Huang, H. Y. Hsiao, P. M. Kao, S. M. Shen, H. F. Tsai, and J. S. Chen
Detection and Identification of *Salmonella* spp. in Surface Water by Molecular Technology in Taiwan
- A150 EGU2012-7551
H. F. Tsai, B. M. Hsu, K. H. Huang, C. Y. She, P. M. Kao, S. M. Shen, S. F. Tseng, and J. S. Chen
Detection and Identification of Free-living *Amoeba* from Environmental Water in Taiwan by PCR Method

A151 EGU2012-7696

S. Burak and R. Meddeb

Natural disaster vulnerability and human-induced pressure assessment in small islands developing states: A case study in the Union of the Comoros

SC2/NP1.6 – Short Course: Nonlinear Time Series Analysis (co-organized) – Orals

Convener: R. V. Donner | Co-Conveners: J.F. Donges

Room: 25

Chairperson: n.n.

08:30–10:00

Chairperson: n.n.

10:30–12:00

NP3.4/BG2.23/SSS1.7 – Scaling, Nonlinearity, and Complexity in soils (co-organized) – Orals

Convener: A. M. Tarquis | Co-Conveners: E. Perrier, M. Marani, D. Gimenez, R. M. Lark, R. E. Falconer, F. Jimenez-Hornero, A. N. Kravchenko, J. Crawford, M. Steffens, C. W. Mueller, R. Viscarra Rossel

Room: 18

Chairperson: C. W. Mueller

08:30–08:45 EGU2012-2896

R. M. Lark

Quality measures for geostatistical prediction of log-normal soil properties.

08:45–09:00 EGU2012-14154

M. A. Marinho, **J. R. Raposo**, M. Valcárcel Armesto, J. Dafonte Dafonte, and A. Paz González
Characterization of Soils and Tertiary-Quaternary Sediments by Electrical Resistivity Tomography in Terra Chá, Lugo, Spain

09:00–09:15 EGU2012-1963

F. Cresto Aleina, V. Brovkin, S. Muster, J. Boike, L. Kutzbach, and S. Zuyev
Poisson-Voronoi Diagrams and the Polygonal Tundra

09:15–09:30 EGU2012-6552

A Paz González, M. Valcarcel Armesto, J. Dafonte Dafonte, J. M. Mirás Avalos, R. da Silva Días, M. A. Marinho, and C. A. de Abreu
Charactering Spatial Variability of Soil Properties Measured on a Transect by Multifractal Analysis

09:30–09:45 EGU2012-466

D. Gimenez and S-W Yoon

Using Entropy to Quantify Soil Structure from Water Retention and Texture Data

09:45–10:00 EGU2012-14184

K. Olechko, P. Patiño, and A.M. Tarquis

The number comb for a soil physical properties dynamic measurement

10:00–10:15 EGU2012-14209

A. Pohlmeier, S. Haber-Pohlmeier, M. Bechtold, J. Vanderborght, and H. Vereecken

Magnetic resonance imaging of slow water flow during infiltration and evaporation by tracer motion

COFFEE BREAK

Chairperson: R. M. Lark

10:30–10:45 EGU2012-4535

E. Inselsbacher and T. Näsholm

Microdialysis as a novel tool for in-situ monitoring of diffusive fluxes of plant-available nitrogen

10:45–11:00 EGU2012-8182

R. E. Falconer, G Battaia, and W Otten

A pore scale model of Soil Organic Matter (SOM) dynamics and microbial colonisation

11:00–11:15 EGU2012-4631

M. Leue, H.H. Gerke, and R.H. Ellerbrock

Characterization of soil organic matter composition at intact preferential flow path surfaces

11:15–11:30 EGU2012-8472

S. Engels, B. Marschner, and H. Zepp

Analysing soil moisture reactions to precipitation for soil moisture regionalization

- 11:30–11:45 EGU2012-13769
J. Pett-Ridge, M. Keiluweit, J. Bougoure, P.K. Weber, M. Kleber, and P. Nico
 Joining NanoSIMS and STXM/NEXAFS to visualize soil biotic and abiotic processes at the nano-scale
- 11:45–12:00 EGU2012-14058
 A.M. Tarquis, P.L. Gonzalez-Nieto, and **N.R.A. Bird**
 3D Soil Images Structure Quantification using Relative Entropy
- 12:00–12:15 EGU2012-14183
 M. Capa-Morocho, **M. Ruiz-Ramos**, S.M. Hapca, A. Houston, and A.M. Tarquis
 Topology of a percolating soil pore network

HS7.2/AS1.20/CL5.16/NH1.3/NP3.6 – Precipitation uncertainty and variability: observations, ensemble simulation and downscaling (co-organized) – Posters

Convener: R. Deidda | Co-Conveners: T. Bellerby, G. Grossi, A. Langousis, X. L. Wang, S. Vogl, P. Laux, H. Kunstmann

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Roberto Deidda

- A104 EGU2012-1147
G. Naumann, P. Barbosa, H. Carrao, A. Singleton, and J. Vogt
 Monitoring drought conditions and their uncertainties in areas with sparse precipitation data. Evaluation of different precipitation datasets in Africa.
- A105 EGU2012-2934
R.A.I. Wilcke, T.M. Mendlik, and A.G. Gobiet
 Physical Consistency of Multi-Parameter Error-Correction and Downscaling of Regional Climate Models
- A106 EGU2012-3421
M. Siam, M. Nour, and A. Wagdy
 A Comparison of Statistical Downscaling Approaches to study the Impacts of Climate Change on the Hydrological Cycle of Upper Blue Nile basin
- A107 EGU2012-3465
R. Remesan and T. Bellerby
 Sensitivity and dependence of mesoscale downscaled prediction results on different parameterizations of convection and cloud microphysics
- A108 EGU2012-3680
H. Sharif, C. Furl, and M. Al-Zahrani
 Rainfall Climatology over Asir Region, Saudi Arabia
- A109 EGU2012-3922
J. B. Gilmore, J. P. Evans, and S. C. Sherwood
 The influence of physics parameterizations on precipitation extremes in the Newcastle east coast low of 2007
- A110 EGU2012-4010
E. Maeda, J. Arevalo, and C. Carmona-Moreno
 Effects of time-series length and gauge network density on rainfall climatology estimates in Latin America
- A111 EGU2012-4231
C. Nyunt, H. Yamamoto, A. Yamamoto, T. Nemoto, M. Kitsuregawa, L. Wang, and T. Koike
 Bias correction and Downscaling of GCM for basin scale simulation
- A112 EGU2012-4665
E. Mair, G. Bertoldi, S. Della Chiesa, G. Niedrist, L. Egarter Vigl, and U. Tappeiner
 An approach to improve precipitation estimation to model the water budget in Alpine catchments
- A113 EGU2012-5087
L. Dobor, Z. Barcza, Á. Havasi, and N. Fodor
 Preparation of high resolution climate scenarios for agricultural impact analysis in Hungary
- A114 EGU2012-5859
C. Dobler
 Downscaling precipitation extremes in a complex Alpine catchment
- A115 EGU2012-6448
S. Thober, L. Samaniego, and R. Kumar
 Evaluation of Regional Climate Models: Extremes important for Hydrological Projections
- A116 EGU2012-6891
N. Ohara, M.L. Kavvas, S. Kure, Z.Q. Chen, and S. Jang
 Model-based Estimation of Maximum Precipitation for the 1997 Storm Event Over American River Watershed, California, USA
- A117 EGU2012-7420
S.D. Blazkova, K.J. Beven, and M. Martinkova
 Hazard and vulnerability to climate change of the Skalka dam in Czech Republic

- A118 EGU2012-7612
R. Deidda, G. Mascaro, M. Hellies, L. Baldini, and S. Sebastianelli
A systematic analysis of precipitation retrieved by a Polarimetric Doppler ground radar in Central Italy
- A119 EGU2012-7755
A. Langousis and V. Kaleris
A statistical approach to resolve incompatibilities between measured runoff data and daily estimates of spatially averaged rainfall
- A120 EGU2012-8266
Q. Zhang, H. Körnich, and K. Holmgren
How well do reanalyses represent the southern African precipitation?
- A121 EGU2012-8952
I. Anders and K. Haslinger
Varying trends in precipitation and temperature at different elevations in the European Alps? - A regional climate modelling perspective with COSMO-CLM
- A122 EGU2012-9087
R. Sasse, G. Schädler, H. Feldmann, and Ch. Kottmeier
Generation of Regional Climate Ensembles Using Atmospheric Forcing Shifting
- A123 EGU2012-9432
R. Haas, K. Born, A. Georgiadis, M. K. Karremann, and J. G. Pinto
Statistical Downscaling of Large-Scale Wind Signatures Using a Two-Step Approach
- A124 EGU2012-9736
H.L. Cloke, F. Pappenberger, T. Eckel, R. Buizza, and K. Bogner
The probabilistic Forecast Convergence Score (pFCS)
- A125 EGU2012-10021
P-E. Mellander, S.G. Gebrehiwot, A.I. Gärdenäs, W. Bewket, and K. Bishop
Summer Rains in the Upper Blue Nile Basin: half a century of past and future spatiotemporal patterns
- A126 EGU2012-10836
N. Salzmänn, M. Rohrer, D. Acuna, P. Calanca, and C. Hugger
Assessment of future regional precipitation pattern for an Andes region in Southern Peru
- A127 EGU2012-11128
M. Piazza, J. Boe, C. Page, E. Sanchez-Gomez, and L. Terray
21st century snowfall changes over the French Alps : the role of temperature
- A128 EGU2012-11725
M. Gosset and **R. Roca**
Propagation of Rainfall Products uncertainties in hydrological applications : Studies in the framework of the Megha-Tropiques Satellite Mission
- A129 EGU2012-11754
D. D'Onofrio, V. Artale, S. Calmanti, J. von Hardenberg, E. Palazzi, and A. Provenzale
Stochastic rainfall downscaling of the PROTHEUS regional climate model
- A130 EGU2012-11831
M. Giorgio and R. Greco
Modelling of external and internal intermittence of rainfall data via a simple event based stochastic model
- A131 EGU2012-12028
L.G. Lanza, **M. Colli**, and P. La Barbera
On the influence of rain gauge performance on extreme events statistics: the case of weighing gauges
- A132 EGU2012-12045
M. Muerth, B. Gauvin St-Denis, R. Ludwig, and D. Chaumont
Analysis of the effects of correcting biases in RCM precipitation fields with the local intensity scaling method for a small alpine catchment
- A133 EGU2012-13381
S Samadi, C. Wilson, H. Moradkhani, and S. Gummeneni
Uncertainty analysis of statistically downscaled temperature and precipitation regimes in a semi arid catchment
- A134 EGU2012-13397
E. Tan
An Investigation of Extreme Precipitation in Turkey
- A135 EGU2012-13458
M.A. Campo, **J.J. Lopez**, and J.P. Rebole
Rainfall Stochastic models
- A136 EGU2012-13562
J C Soto-Sandoval and A P Jacquin
Problems with the interpolation of precipitation amounts in mountainous catchments using traditional techniques

- A137 EGU2012-13611
A. Maire, C. Fouchier, P. Arnaud, and Y. Aubert
 Assessment of the daily areal reduction factor of precipitations with distributed rainfall data: a means of improvement of a prediction method of extremes events in France.
- A138 EGU2012-14167
R. Deidda, G.N. Caroletti, V. Luccarini, M. Marrocu, M. Puliga, G. Pusceddu, and A. Speranza
 An intercomparison and verification of outputs of several climate models on representative Mediterranean catchments

NP5.2 – Predictability, Dynamics, Inverse Problems and Data Assimilation – Orals

Convener: O. Talagrand | Co-Conveners: J. Trampert, prof van Leeuwen, Z. Toth, S. Vannitsem, S. Hallerberg, A. Zadra, C. Reynolds, I. Szunyogh, JM Lopez, D. Pazó

Room: 28

Chairperson: n.n.

- 08:30–08:45 EGU2012-14245
P Friederichs, S Bentzien, L Bierdel, and S Memmel
 Predicting high-impact weather based on the COSMO-DE ensemble prediction system
- 08:45–09:00 EGU2012-11923
L A Smith
 Sustainable Odds: Towards Quantitative Decision Support when Relevant Probabilities are not Available
- 09:00–09:15 EGU2012-13147
 G.-H.C. Ng, **D. McLaughlin**, D. Entekhabi, and A. Ahanin
 The role of model dynamics in ensemble Kalman filter performance for chaotic systems
- 09:15–09:30 EGU2012-14137
K Mosegaard
 Nonlinear inversion and the information barrier
- 09:30–09:45 EGU2012-3235
A. Horbach and H.-P. Bunge
 Estimating the time evolution of the geoid: An application of the adjoint method in global mantle circulation models
- 09:45–10:00 EGU2012-12899
H. Nagao and T. Higuchi
 Fault Parameter Estimation from Coseismic Infrasound Variation Excited by a Large Earthquake

COFFEE BREAK

Chairperson: n.n.

- 10:30–10:45 EGU2012-11442
M. Dikpati and J. Anderson
 Implementing sequential data assimilation in a flux-transport solar dynamo model for reconstructing meridional flow
- 10:45–11:00 EGU2012-6464
 M. Vrettas, **D. Cornford**, and M. Oppen
 Mean Field Variational Bayesian Data Assimilation
- 11:00–11:15 EGU2012-5862
Y. Tang and D. Chen
 Nonlinear measurement function in the Ensemble-Kalman filter and a practical application of the Sigma-point Kalman filter
- 11:15–11:30 EGU2012-2388
I. Roulstone and S. Delahaies
 Data Assimilation for the Carbon Cycle
- 11:30–11:45 EGU2012-5507
Q. Errera and R. Ménard
 Spectral Representation of Spatial Correlations in Variational Assimilation and Application to Stratospheric Chemistry Data Assimilation
- 11:45–12:00 EGU2012-12877
M. Ades and P.J. van Leeuwen
 The equivalent weights particle filter
- 12:00–12:15 EGU2012-3391
M. Jardak and O. Talagrand
 Bayesianity of Ensemble Variational Assimilation

12:15–12:30 EGU2012-12316

L.J. Neef and K. Matthes

Assimilation of Earth Rotation Parameters into NCAR's Community Atmosphere Model

NP5.2 – Predictability, Dynamics, Inverse Problems and Data Assimilation – Posters

Convener: O. Talagrand | Co-Conveners: J. Trampert, prof van Leeuwen, Z. Toth, S. Vannitsem, S. Hallerberg, A. Zadra, C. Reynolds, I. Szunyogh, JM Lopez, D. Pazó

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

XY630 EGU2012-1898

A. Ismail-Zadeh, I. Tsepelev, and S. Honda

Numerical approach to inverse problems in geodynamics: Application to lithosphere subduction

XY631 EGU2012-2357

H.-P. Bunge and A. Horbach

Paleo Structure of the Earth's mantle derived from Fluid Dynamic Inverse Theory

XY632 EGU2012-2067

M. Markovic and F. Santos

Cooperative inversion of magnetotelluric and seismic data sets

XY633 EGU2012-4909

A. Solonen, J. Hakkarainen, A. Ilin, M. Laine, H. Haario, J. Tamminen, E. Oja, and H. Järvinen

On closure parameter estimation in chaotic systems

XY634 EGU2012-11048

H. Du and L.A. Smith

Parameter Estimation with Ignorance

XY635 EGU2012-9892

P..J. van Leeuwen

Why perturbing observations in data assimilation is incorrect.

XY636 EGU2012-13386

P.J. van Leeuwen

Optimal proposal densities for particle filters

XY637 EGU2012-10314

A. Fowler and P. J. van Leeuwen

Measures of observation impact in non-Gaussian data assimilation

XY638 EGU2012-395

E. Klimova

An Efficient Data Assimilation Algorithm Based on the Ensemble Kalman Filter

XY639 EGU2012-3013

J. Ruiz, **M. Jardak**, and O. Talagrand

Inter-comparison of ensemble data assimilation schemes with a shallow water equations model

XY640 EGU2012-3107

M. R. Koohkan and M. Bocquet

Inversion of atmospheric tracers and the representativeness error: Coupling 4D-Var with a simple subgrid statistical model

XY641 EGU2012-10000

G. Ueno

A Bayesian approach for estimating stable observation noise covariance

XY642 EGU2012-8245

H.-J. Song

Preservation of Gaussianity in the Ensemble Retrospective Optimal Interpolation

XY643 EGU2012-3221

M. Yaremchuk and D. Nechaev

Covariance localization with diffusion-based correlation model

XY644 EGU2012-9181

S. Nakano and T. Higuchi

Applicability of the particle filter for high-dimensional problems using a massively parallel computer

XY645 EGU2012-1885

L. Nerger, W. Hiller, and J. Schroeter

The Parallel Data Assimilation Framework PDAF - a flexible software framework for ensemble data assimilation

XY646 EGU2012-5817

R. Cintra and H. Campos Velho

Global Temperature Assimilation using Artificial Neural Networks in SPEEDY Model: Satellite Observation

- XY647 EGU2012-9125
G. Quattrocchi, C-E. Testut, N. Ayoub, P. De Mey, G. Reffray, J. Chanut, and Y. Drillet
 Error dynamics in a coastal configuration of NEMO using stochastic modeling: first steps towards Data Assimilation in the Bay of Biscay
- XY648 EGU2012-12165
S. Thual, N. Ayoub, and B. Dewitte
 Constraint of the ocean vertical structure by sea level data in an intermediate coupled model of the equatorial Pacific
- XY649 EGU2012-9458
F. Weidle, Y. Wang, C. Wittmann, J. Tang, and F. Xia
 Implementation of stochastic parameterization of surface variables in ensemble forecasts
- XY650 EGU2012-5675
S. Skachko, Q. Errera, S. Chabrillat, and Y. Christophe
 Ensemble-based data assimilation for stratospheric chemistry
- XY651 EGU2012-14395
S. Hallerberg, J. Bröcker, H. Kantz, and L. A. Smith
 Predicting failures of point forecasts
- XY652 EGU2012-2024
B. Van Schaeybroeck and S. Vannitsem
 Toward post-processing ensemble forecasts based on hindcasts
- XY653 EGU2012-4309
D. Pazó, J. M. López, and M. A. Rodríguez
 How to improve forecasting with bred vectors by using the geometric norm
- XY654 EGU2012-4824
N. Becker, U. Ulbrich, R. Klein, and P. Lorenz
 Wind speed differences between a regional and global climate model simulation and their relation to the circulation
- XY655 EGU2012-13583
F. Wetterhall, H. L. Cloke, Y. He, J. Freer, and F. Pappenberger
 Conditioning model output statistics of Regional Climate Model precipitation on circulation patterns

NP5.3 – Nonlinear optimal modes and their applications in predictability, sensitivity and stability studies – Orals

Convener: M. Mu | Co-Conveners: W. Duan

Room: 17

Chairperson: Mu Mu, Wansuo Duan

- 15:30–15:45 EGU2012-3284
M. Mu, Z.N. Jiang, W.S. Duan, Y.S. Yu, and Q. Wang
 Similarities between optimal precursors and optimally growing initial errors in onset prediction—ENSO, Blocking and Kuroshio Current
- 15:45–16:00 EGU2012-6740
Y. Tang and D. Chen
 Information-based potential seasonal climate predictability
- 16:00–16:15 EGU2012-4528
F. Sévellec and A. V. Fedorov
 Excitation of SST anomalies in the eastern equatorial Pacific by oceanic optimal perturbations
- 16:15–16:30 EGU2012-3810
J. P. Li and R. Q. Ding
 Temporal-spatial distribution of atmospheric predictability limit by local dynamical analogues
- 16:30–16:45 EGU2012-1525
S. Peng
 The application of CNOP in the target observations for a winter storm in the middle-lower branches of Yangtze River
- 16:45–17:00 EGU2012-1537
K. Zhu, F. Zhou, and X. Wang
 The application of Conditional Nonlinear Optimal Perturbation to the binary typhoons interaction over the western Pacific
- 17:00–17:15 EGU2012-3282
Z.N. Jiang, M. Mu, and D.H. Luo
 The dynamics of eddy-driven North Atlantic Oscillation explored by using conditional nonlinear optimal perturbation

NP5.3 – Nonlinear optimal modes and their applications in predictability, sensitivity and stability studies – Posters

Convener: M. Mu | Co-Conveners: W. Duan

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Wansuo Duan, Mu Mu

- XY656 EGU2012-6721
W. Duan and C. Wei
The "spring predictability barrier" for ENSO predictions and its possible mechanism: results from a fully coupled model
- XY657 EGU2012-131
Q. Zheng, J. X. Sha, and X. Q. Lu
On the feasibility and effectivity of genetic algorithm to VDA with discontinuous "on-of " switches
- XY658 EGU2012-203
Y. Yu, M. Mu, W. Duan, and **T. Gong**
Contribution of the location and spatial pattern of initial error to uncertainties in El Nino predictions
- XY659 EGU2012-288
B. Wang, Z. Huo, and L. Zheng
The extended application of the conditional nonlinear optimal parameter perturbation method in the Common Land Model
- XY660 EGU2012-1106
G. Sun and M. Mu
Evaluating uncertainties in the simulated soil carbon in China using a nonlinear method
- XY661 EGU2012-1107
G. Sun and M. Mu
The nonlinearly combined response of the grassland ecosystem to human activity and climate change
- XY662 EGU2012-1475
Q. Wang, M. Mu, and H. A. Dijkstra
Predictability study of Kuroshio path variation: Effects of initial error and model parameter errors on the prediction
- XY663 EGU2012-1476
Q. Wang, M. Mu, and H. A. Dijkstra
Application of conditional nonlinear optimal perturbation method to finding the optimal precursors of Kuroshio large meander
- XY664 EGU2012-1955
R. Zhang, W.S. Duan, and Y.S. Yu
Role of nonlinearities associated with air-sea coupling processes in El Nino's phase-locking
- XY665 EGU2012-3283
Z.N. Jiang and D.H. Wang
Conditional nonlinear optimal perturbations: behaviors during the evolution of cold vortices over Northeast China
- XY666 EGU2012-3618
B. Wang, Z. Huo, and Y. Yuan
Study of aridification in the Inner Mongolia with the conditional nonlinear optimal parameter perturbation method
- XY667 EGU2012-3805
R. Q. Ding, J. P. Li, and K.-H. Seo
Predictability of the Madden-Julian oscillation estimated using observational Data
- XY668 EGU2012-3820
X. Qin
The Sensitive Regions Identified by CNOPs of Three Typhoon Events
- XY669 EGU2012-3828
X. Qin and M Mu
Influence of conditional nonlinear optimal perturbations sensitivity on typhoon track forecasts

NP6.3/AS2.4 – Turbulence in the Atmosphere (co-organized) – Orals

Convener: C. Yagüe | Co-Conveners: F. Tampieri, J Cuxart

Room: 17

Chairperson: Francesco Tampieri

- 13:30–13:45 EGU2012-206
D. Pino, M. Lothon, F. Lohou and the BLLAST campaign Team
Boundary Layer Late Afternoon and Sunset Turbulence: the BLLAST 2011 experiment
- 13:45–14:00 EGU2012-11170
S. Martin, J. Bange, and F. Beyrich
Observing of entrainment using small UAS

- 14:00–14:15 EGU2012-13748
AB Nunes, **HF Campos Velho**, and P. Satyamurty
Different parameterizations for wind variance applied to the convective boundary layer growth modeling
- 14:15–14:30 EGU2012-13056
S. Serafin, L. Strauss, and V. Grubišić
Mesoscale and Large-Eddy Simulations of Wave-Induced Boundary-Layer Separation
- 14:30–14:45 EGU2012-7302
M. A. Jimenez and J. Cuxart
The contribution of the surface heterogeneities in the generation of elevated turbulence above the Low-Level Jets
- 14:45–15:00 EGU2012-1127
L. Caporaso, A. Riccio, **F. Di Giuseppe**, and F. Tampieri
The structure of the stable boundary layer as from radiosounding profiles and eddy correlation measurements
- 15:00–15:15 EGU2012-3256
A. A. Grachev, E. L. Andreas, C. W. Fairall, P. S. Guest, and P. O. G. Persson
Upper limit of applicability of the local similarity theory in the stable atmospheric boundary layer

NP6.3/AS2.4 – Turbulence in the Atmosphere (co-organized) – Posters

Convener: C. Yagüe | Co-Conveners: F. Tampieri, J. Cuxart

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Carlos Yagüe

- XY670 EGU2012-6033
M. Tijera, **G. Maqueda**, C. Yagüe, and J.L. Cano
Daily variation of the fractal dimension of the velocity components in the turbulent surface layer
- XY671 EGU2012-646
C. Román-Cascón, C. Yagüe, M. Sastre, and G. Maqueda
Pressure fluctuations associated to rainy days during BLLAST campaign
- XY672 EGU2012-657
M. Sastre, C. Yagüe, C. Román-Cascón, G. Maqueda, and S. Viana
Characterization of evening atmospheric boundary layer transitions from a sonic anemometer and an array of microbarometers during the BLLAST field campaign
- XY673 EGU2012-9490
D. Martinez, F. Molinos, and J. Cuxart
Evolution of the temperature profile within the surface layer under stable conditions during the BLLAST campaign
- XY674 EGU2012-12872
J. Reuder, M.O. Jonassen, and H. Ólafsson
The Small Unmanned Meteorological Observer SUMO: Recent developments and applications of a Micro-UAS for atmospheric boundary layer research
- XY675 EGU2012-4077
F. Tampieri, C. Yagüe, and S. Viana
Similarity scales in the stable boundary layer: a test against data.
- XY676 EGU2012-8174
I. Pietroni, S. Argentini, R. Sozzi, P. Martano, A. Bolignano, and I. Petenko
Estimate of the roughness length and displacement height from sonic anemometers
- XY677 EGU2012-3153
C. Dall'Ozzo, B. Carissimo, L. Musson-Genon, E. Dupont, and M. Milliez
Intercomparison of different subgrid-scale models for the Large Eddy Simulation of the diurnal evolution of the atmospheric boundary layer during the Wangara experiment
- XY678 EGU2012-2338
U. Rizza, G.A. Degrazia, and M.M. Miglietta
LES investigation of a baroclinic PBL for the sunset decay of convective turbulence
- XY679 EGU2012-3161
K. Suselj and J. Teixeira
Eddy-diffusivity/Mass-flux parameterization for boundary layer and shallow convection in the global NASA GEOS5 model
- XY680 EGU2012-6390
J.R. Garcia and J.P. Mellado
Direct Numerical Simulation of a Dry Shear-free Convective Boundary Layer
- XY681 EGU2012-7857
D. Hertwig, R. Nguyen van yen, G. Patnaik, and B. Leiti
Atmospheric turbulence in urban environments: large-eddy simulation and experiment

- XY682 EGU2012-653
K. Babi? and Z. Benceti? Klai?
 Vertical profiles of TKE in suburban, stable, ground-based layer
- XY683 EGU2012-12784
J. Pinel, S. Lovejoy, and D. Schertzer
 TAMDAR aircraft data, anisotropic scaling and spurious scale breaks in wind statistics

NP6.4/PS9.4 – Solar wind and astrophysical turbulence and shocks (co-organized) – Posters

Convener: L. Sorriso-Valvo | Co-Conveners: J. M. Redondo, E. Meshkov

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: M. Diez

- XY684 EGU2012-3112
 E. Leonardis, **S. C. Chapman**, R. Nicol, and C. Foullon
 Generalized similarity in finite range turbulence in in-situ temporal, and line-of-sight spatial observations.
- XY685 EGU2012-3407
P.-L. Sulem, T. Passot, and D. Laveder
 Temporal intermittency of Alfvénic turbulence dissipation: effect of intermediate shock instabilities
- XY686 EGU2012-5210
N. Bakas
 Stability of a compressible shear flow
- XY687 EGU2012-8711
A.S. Lipatov, E.C. Sittler Jr., R.E. Hartle, and J.F. Copper
 Effects of "shot" noise on excitation of the small-scale electromagnetic fluctuations in the inner heliosphere:
 hybrid modeling
- XY688 EGU2012-10961
D. Burgess, C. Haynes, and E. Camporeale
 Simulations of turbulent relaxation in solar wind plasma and the role of reconnection
- XY689 EGU2012-11282
H. Hietala, K. Andréevová, R. Vainio, and H. E. J. Koskinen
 On foreshock dynamics in shock-shock interaction
- XY690 EGU2012-12168
A. Balogh and S. Perri
 Observations of the balance between Alfvénic fluctuations and convected magnetic structures in different solar
 wind regimes
- XY691 EGU2012-13231
P. Kovács, G. Vadász, and B. Heilig
 Intermittent plasma fluctuation in the terrestrial foreshock
- XY692 EGU2012-14013
A.M. Matulka, P.L. Gonzalez-Nieto, J.M. Redondo, and A.M. Tarquis
 Velocity and Vorticity Fields of a Turbulent Plume under different experimental conditions

NP7.2 – Wind-wave-current interactions, internal waves in stratified media and ocean mixing – Posters

Convener: P. Fraunie | Co-Conveners: P. Bouruet-Aubertot, M. Diez, V. Rey, L. Ostrovsky

Hall X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: V. Rey

- XY693 EGU2012-694
J. Charland, V. Rey, and J. Touboul
 Part of evanescent modes in the normally incident gravity surface wave's energy layout around a submerged
 obstacle
- XY694 EGU2012-1519
O. A. Godin
 Incompressible wave motion of inhomogeneous, compressible fluids in a gravity field
- XY695 EGU2012-2950
H. van Haren and L. Gostiaux
 Great Meteor Seamount revisited: DETAILED INTERNAL WAVE TURBULENCE
- XY696 EGU2012-7472
I.V. Zagumennyi and Yu.D. Chashechkin
 Dynamics of flows induced by a motionless or uniformly moving thin strip in a continuously stratified fluid

- XY697 EGU2012-7542
V.F. Kalinichenko and Yu.D. Chashechkin
 Formation of Fine Structures in Uniform Suspension under Standing Waves Action
- XY698 EGU2012-7587
A.V. Kistovich and Yu.D. Chashechkin
 Stratification and Dissipation Effects in Running 2D Surface and Internal Gravity Waves
- XY699 EGU2012-9324
S. Nurijanyan, O. Bokhove, and J. J. W. Van der Vegt,
 Hamiltonian discontinuous Galerkin FEM for linear inertial waves

OS1.2 – The North Atlantic: natural variability and global change (co-listed) – Orals

Convener: M. Rhein | Co-Conveners: R.J. Greatbatch

Room: 12

Chairperson: Richard Greatbatch

- 08:30–08:45 EGU2012-1770
M. Rhein, D. Kieke, and R. Steinfeldt
 The Circulation of Newly Formed Deep Water in the Atlantic
- 08:45–09:00 EGU2012-4891
C. Mertens, M. Rhein, and F. R. Karbe
 Transport variability in the western subpolar North Atlantic at 47°N
- 09:00–09:15 EGU2012-3096
C. S. Meinen and S. L. Garzoli
 Physical mechanisms involved in Deep Western Boundary Current variability at 26.5°N
- 09:15–09:30 EGU2012-4160
D. Kieke, M. Rhein, I. Yashayaev, and B. Klein
 Spreading of Labrador Sea Water in the vicinity of the Mid-Atlantic Ridge in the central subpolar North Atlantic
- 09:30–09:45 EGU2012-4879
 F. Richter, D. Sidorenko, and **J. Schroeter**
 On estimating the circulation in the North Atlantic from altimetry and ARGO data
- 09:45–10:00 EGU2012-13143
 M. G. Magaldi, **T. W. N. Haine**, and R. S. Pickart
 On the nature and variability of the East Greenland Spill Jet

COFFEE BREAK

Chairperson: Monika Rhein

- 10:30–10:45 EGU2012-1544
M. Latif, J. Ba, R. Greatbatch, S. Gulev, N. Keenlyside, T. Martin, and W. Park
 Interannual, Decadal and Centennial Variability in the North Atlantic Sector
- 10:45–11:00 EGU2012-2398
A. A. Cimadoribus, M. den Toom, S. S. Drijfhout, and H. A. Dijkstra
 Sensitivity of the Atlantic Meridional Overturning Circulation to South Atlantic freshwater anomalies.
- 11:00–11:15 EGU2012-871
L. C. Allison, E. Hawkins, T. Woollings, and L. Jackson
 Mechanisms and impacts of decadal-scale fluctuation events in the Atlantic Meridional Overturning Circulation in unforced climate model simulations
- 11:15–11:30 EGU2012-5921
I. Medhaug, H.R. Langehaug, T. Eldevik, O.H. Otterå, T. Furevik, and M. Bentsen
 Mechanisms for decadal scale variability in the North Atlantic Ocean circulation in the Bergen Climate Model
- 11:30–11:45 EGU2012-7661
E. Frajka-Williams, S. A. Cunningham, T. Kanzow, W. E. Johns, C. Meinen, H. L. Bryden, M. O. Baringer, and G. D. McCarthy
 Dramatic Interannual Variability in the Atlantic Meridional Overturning Circulation (AMOC) at 26°N
- 11:45–12:00 EGU2012-4625
T. Kanzow, M. Lankhorst, E. Frajka-Williams, U. Send, S. A. Cunningham, R. Bingham, J. Karstensen, and C. W. Hughes
 Meridional coherence and divergence of the Atlantic Meridional Overturning Circulation (AMOC)
-

LUNCH BREAK

Chairperson: Dagmar Kieke

- 13:30–13:45 EGU2012-8268
S. Josey and J. Grist
 Exploring the surface forced variability of the North Atlantic circulation
- 13:45–14:00 EGU2012-1501
T. Woollings, J. M. Gregory, M. Meyers, J. G. Pinto, and D. J. Brayshaw
 Ocean-atmosphere interaction in the Atlantic storm track response to climate change
- 14:00–14:15 EGU2012-2212
N. Barrier, A.M Tréguier, and C. Cassou
 Impact of winter weather regimes on the North Atlantic oceanic circulation
- 14:15–14:30 EGU2012-1140
I. Manola and F. Selten
 Differences in the wave guide characteristics of the jet stream in positive and negative phases of the NAO
- 14:30–14:45 EGU2012-2194
W. P. Sijp, J. M. Gregory, R. Tailleux, and P. Spence
 The key role of the western boundary in linking the AMOC strength to the north-south pressure gradient.
- 14:45–15:00 EGU2012-5993
S. Elipot, E. Frajka-Williams, C. Hughes, S. Olhede, and M. Lankhorst
 Basin-wide response of the North Atlantic Meridional Overturning Circulation to wind stress forcing

Chairperson: Richard Greatbatch

- 15:30–15:45 EGU2012-2117
X. Zhai, H.L. Johnson, D.P. Marshall, and O.A. Saenko
 Significant sink of ocean eddy energy near western boundaries and its potential influence on the large scale ocean circulation
- 15:45–16:00 EGU2012-7086
M. Walter, C. Mertens, M. Dengler, and M. Rhein
 North Atlantic Current variability and associated mixing at the Mid-Atlantic Ridge
- 16:00–16:15 EGU2012-8752
S. Gregorio, T. Penduff, B. Barnier, J.-M. Molines, and J. Le Sommer
 Low-frequency variability of the Atlantic MOC in the eddying regime : the intrinsic component.
- 16:15–16:30 EGU2012-9248
M. Li, C. Mertens, M. Walter, and M. Rhein
 Spatial variation of diapycnal mixing from hydrographic surveys in the subpolar North Atlantic
- 16:30–16:45 EGU2012-2818
A. Marzocchi, J. J.-M. Hirschi, N. P. Holliday, S. A. Cunningham, S. Masina, and A. C. Coward
 Establishment of the North Atlantic subpolar circulation in an eddy-resolving ocean model
- 16:45–17:00 EGU2012-1714
A.V. Fedorov and F. Sevellec
 The leading, interdecadal mode of the Atlantic meridional overturning circulation in a hierarchy of ocean and coupled models

Friday, 27 April

ERE1.2 – Wind Power Meteorology (co-listed) – Orals

Convener: G. Giebel | Co-Conveners: AM Sempreviva, Dr. Baidya Roy

Room: 19

Chairperson: n.n.

- 08:30–08:45 EGU2012-8708
G. V. Iungo, Y.-T. Wu, and F. Porté-Agel
 Multi-component wind measurements of wind turbine wakes performed with three LiDARs
- 08:45–09:00 EGU2012-3975
S. Bradley
 The Gust SODAR
- 09:00–09:15 EGU2012-11844
R. Calif and F.G. Schmitt
 Estimating of a nonlinear power curve for a Wind Turbine Generator
- 09:15–09:30 EGU2012-11101
F. Porté-Agel, Y.T. Wu, and H. Lu
 Interactions between wind farms and the atmospheric boundary layer
- 09:30–09:45 EGU2012-10022
A. Bichet, M. Wild, D. Folini, and C. Schär
 Causes for decadal changes in wind speed on the North Hemispheric land surfaces
- 09:45–10:00 EGU2012-3065
S. Jerez, R. M. Trigo, J. P. Montavez, R. Lorente-Plazas, and D. Pozo-Vazquez
 The North Atlantic Oscillation and the Wind Power in the Iberian Peninsula

COFFEE BREAK

Chairperson: Gregor Giebel

- 10:30–10:45 EGU2012-4235
A. Devis, M. Demuzere, and N.P.M. van Lipzig
 A statistical model to downscale GCM output to wind speeds at turbine rotor height
- 10:45–11:00 EGU2012-10524
P. A. Jimenez and J. Dudhia
 Improving the representation of resolved and unresolved topographic effects on surface wind in the WRF model
- 11:00–11:15 EGU2012-13936
J. Jiang, D. Koracin, R. Hamilton, D. Hagen, and K.C. King
 Modeling Feasibility of a Proposed Renewable Energy System with Wind and Solar Resources and Hydro Storage in Complex Terrain
- 11:15–11:30 EGU2012-13715
 G. U. Bhaskar and **C. A. Schlosser**
 Characterization of wind, solar and combined resource in Europe
- 11:30–11:45 EGU2012-10634
C. Stathopoulos, A. Kaperoni, G. Galanis, and G. Kallos
 New Dynamical-Statistical Techniques for Wind Power Prediction
- 11:45–12:00 EGU2012-6052
LM Miller, F Gans, and A Kleidon
 Jet stream wind power as a renewable energy resource: little power, big impacts

ERE1.2 – Wind Power Meteorology (co-listed) – Posters

Convener: G. Giebel | Co-Conveners: AM Sempreviva, Dr. Baidya Roy

Hall XL | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Gregor Giebel

- XL1 EGU2012-318
F. Prattico, F. Petroni, and G. D'Amico
 First and second order semi-Markov chains for wind speed modeling

- XL2 EGU2012-957
N. Kirchner Bossi, S. Salcedo Sanz, L. Carro Calvo, L. Prieto, and R. Garcia Herrera
Surface Wind Speed Patterns from Synoptic Pressure Series employing different soft-computing algorithms
- XL3 EGU2012-976
E. Unal, E. Tan, S. S. Menten, F. Caglar, M. Turkmen, Y. S. Unal, B. Onol, and E. T. Ozdemir
A Comparison Of Primitive Model Results Of The Short Term Wind Energy Prediction System (Sweeps): WRF vs MM5
- XL4 EGU2012-2667
A. Hidalgo, J. F. González-Rouco, P. A. Jiménez, J. Navarro, E. García-Bustamante, E. E. Lucio-Eceiza, J. P. Montávez, A. Y. García, and L. Prieto
Onshore and offshore wind resource evaluation in the northeastern area of the Iberian Peninsula: quality assurance of the surface wind observations
- XL5 EGU2012-2756
K. Starosta, J. Linkowska, and A. Mazur
Local wind conditions in Poland.
- XL6 EGU2012-4787
B.-K. Seo, S.-W. Lee, J.-Y. Byon, S.-H. Jeon, Y.-S. Park, and Y.-J. Choi
Development and improvement of the wind resources map over South Korea
- XL7 EGU2012-5497
E. Avolio, S. Federico, A.M. Sempreviva, C.R. Calidonna, and M. Courtney
Testing the data assimilation technique for short-term wind forecast in the PBL: a case study
- XL8 EGU2012-10767
G. Kallos, G. Galanis, C. Spyrou, C. Kalogeri, A. Adam, and P. Athanasiadis
Offshore Energy Mapping for Northeast Atlantic and Mediterranean: MARINA PLATFORM project
- XL9 EGU2012-11241
Y.T. Wu and F. Porté-Agel
Effect of atmospheric turbulence on wind turbine wakes: An LES study
- XL10 EGU2012-11394
E. Stuetz, G. Steinfeld, D. Heinemann, and J. Peinke
Parameterization of wind farms in COSMO-LM
- XL11 EGU2012-13019
W. Zhang, C.D. Markfort, and F. Porté-Agel
Wind-tunnel experiments of scalar transport in aligned and staggered wind farms
- XL12 EGU2012-13238
C.D. Markfort, W. Zhang, and F. Porté-Agel
Turbulent flow and scalar flux through and over aligned and staggered wind farms
- XL13 EGU2012-13636
M. H. Rosgaard, **G. Giebel**, T.S. Nielsen, A. Hahmann, P. Sørensen, and H. Madsen
Integrated Wind Power Planning Tool
- XL14 EGU2012-4964
K. Baumann-Stanzer, H.V. Tran, H. Kaufmann, E. Koch, C. Lotteraner, and M. Piringer
Site assessment for wind farms in Austria - ground-based remote-sensing and modelling
- XL15 EGU2012-979
E. E. Lucio-Eceiza, J. F. González-Rouco, J. Navarro, H. Beltrami, P. A. Jiménez, E. García-Bustamante, and A. Hidalgo
A quality assured surface wind database in Eastern Canada
- XL16 EGU2012-2784
T. Sile, J. Sennikovs, and U Bethers
Estimation of wind regime from combination of RCM and NWP data in the Gulf of Riga (Baltic Sea)
- XL17 EGU2012-3515
J. Reuder and M. Jonassen
The potential of micro-UAS for turbulence measurement in wind parks
- XL18 EGU2012-5353
F. Petroni, **G. D'Amico**, and F. Prattico
A reward semi-Markov process with memory for wind speed modeling
- XL19 EGU2012-12718
M. Boquet and L. Thobois
Wind Resource Assessment Campaign with Lidars and Met Mast in Large and Complex Sites
- XL20 EGU2012-10387
B. Witha, G. Steinfeld, D. Heinemann, and **E. Stütz**
High-resolution offshore wake simulations with the LES model PALM
- XL21 EGU2012-2409
J. Courtney, C. Sweeney, and P Lynch
High resolution probabilistic forecasting for wind energy applications.

XL22 EGU2012-11757

R. Lorente-Plazas, J.P. Montavez, J.A. García-Valero, J.J. Gómez-Navarro, S. Jerez, R. Baró, P.A. Jiménez, and P. Jiménez-Guerrero
Spatial and temporal wind variability over Spain and its relationship with synoptic weather types

HS7.2/AS1.20/CL5.16/NH1.3/NP3.6 – Precipitation uncertainty and variability: observations, ensemble simulation and downscaling (co-organized) – Orals

Convener: R. Deidda | Co-Conveners: T. Bellerby, G. Grossi, A. Langousis, X. L. Wang, S. Vogl, P. Laux, H. Kunstmann

Room: 33

Chairperson: Roberto Deidda

08:30–08:45 EGU2012-1181

E. Morin

To know what we cannot know: Global mapping of minimal detectable absolute trends in annual precipitation

08:45–09:00 EGU2012-7261

H. J. D. Sørup, M. Sunyer, O. B. Christensen, K. Arnbjerg-Nielsen, and P. S. Mikkelsen

Extreme and mean rainfall differences in observational data used as reference in climate studies

09:00–09:15 EGU2012-4866

V. Thiemeig, R. Rojas, V. Levizzani, and A. De Roo

Validation of satellite-based precipitation estimates over different African River Basins

09:15–09:30 EGU2012-8989

R. Roca, P. Chambon, I. Jobard, and N. Viltard

Investigating the error budget of tropical rainfall accumulations derived from combined passive microwave and infrared satellite measurements

09:30–09:45 EGU2012-9730

T. Bellerby

Ensemble conditional precipitation simulation from spatiotemporally heterogeneous multiplatform satellite data sets.

09:45–10:00 EGU2012-1400

S. Dance and A. Seed

Characterizing Radar Rain gauge Errors for NWP Assimilation

COFFEE BREAK

Chairperson: Tim Bellerby

10:30–10:45 EGU2012-8146

M.A. Sunyer, H.J.D. Sørup, H. Madsen, D. Rosbjerg, and K. Arnbjerg-Nielsen

Comparing Regional Climate Model output to observational data sets for extreme rainfall

10:45–11:00 EGU2012-8780

S.C. van Pelt, J.J. Beersma, T.A. Buishand, B.J.J.M. van den Hurk, and P. Kabat

Evaluation of the probability distribution of the future change in extreme precipitation

11:00–11:15 EGU2012-2728

G.G.S. Pegram and A. Bárdossy

Multiscale spatial recorelation of RCM precipitation downscaling to correct predictions over large areas and small

11:15–11:30 EGU2012-1280

J. Chen, F. Brissette, and D. Chaumont

Uncertainty of empirical downscaling methods in quantifying the hydrological impact of climate change

11:30–11:45 EGU2012-13756

F.S. Mpelasoka, S. Charles, F.H. Chiew, G. Fu, and S. Beecham

Assessment of CMIP5 GCM daily predictor variables for statistical downscaling

11:45–12:00 EGU2012-8150

G. Mascaro, R. Deidda, and M. Hellies

Robust characterization of rainfall intermittency in Sardinia and identification of physical controls

LUNCH BREAK

Chairperson: Andreas Langousis

- 13:30–13:45 EGU2012-8190
G.T. Diro, A.M. Tompkins, and X. Bi
 Dynamical downscaling of ECMWF ensemble seasonal forecast over East Africa with RegCM3
- 13:45–14:00 EGU2012-8417
A. Champion, K. Hodges, and L. Bengtsson
 Dynamically Downscaling Precipitation from Extra-Tropical Cyclones
- 14:00–14:15 EGU2012-13440
E. Brisson, N.P.M. van Lipzig, and M. Demuzere
 Downscaling precipitation at convection resolving scale using COSMO-CLM.
- 14:15–14:30 EGU2012-4684
A. Sharma, F. Woldemeskel, R. Mehrotra, and B. Sivakumar
 An error model for GCM precipitation and temperature simulations
- 14:30–14:45 EGU2012-13531
F Wetterhall, H. L. Cloke, Y He, J Freer, and F Pappenberger
 Modelling climate impact on floods under future emission scenarios using an ensemble of climate model projections
- 14:45–15:00 EGU2012-2478
P. Horton, M. Jaboyedoff, and C. Obled
 Calibration of the analogue method for precipitation forecasting by means of genetic algorithms
- Chairperson: Stefanie Vogl
- 15:30–15:45 EGU2012-12765
H. W. Rust, M. Vrac, M. Lengaigne, and B. Sultan
 Towards downscaling precipitation for Senegal - An approach based on generalized linear models and weather types
- 15:45–16:00 EGU2012-5863
M. Milan and C. Simmer
 A Sequential Ensemble Prediction System at Convection Permitting Scales
- 16:00–16:15 EGU2012-10486
A. F. Prein, A. Gobiet, M. Suklitsch, H. Truhetz, N. K. Awan, K. Keuler, and G. Georgievski
 Added Value of Convection Resolving Climate Simulations
- 16:15–16:30 EGU2012-2843
D. Cane, S. Barbarino, L. Renier, and C. Ronchi
 Regional Climate Models Downscaling in the Alpine Area with Multimodel SuperEnsemble
- 16:30–16:45 EGU2012-9829
 S. Vogl, P. Laux, **W. Qiu**, G. Mao, and H. Kunstmann
 Copula-based assimilation of radar and gauge information to derive bias corrected precipitation fields
- 16:45–17:00 EGU2012-10864
N. Addor, N. Salzmänn, T. Ewen, and J. Seibert
 Bias-correction conditioned on circulation patterns for ENSEMBLES precipitation simulations in mountainous regions

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

Convener: J. M. Redondo | Co-Conveners: J. LaCasce, M. J. Olascoaga, Karolyi, A. Mariano, P. López González-Nieto

Room: 28

Chairperson: n.n.

- 08:30–08:45 EGU2012-869
E. Boland, A. F. Thompson, E. Shuckburgh, and P. H. Haynes
 The Formation of Non-Zonal Jets over Sloped Topography
- 08:45–09:00 EGU2012-9732
A. Rodríguez-Santana, M. Emelianov, V. Paka, S.N. Estrada-Allis, M. Arcos-Pulido, M. Hernández-Arencibia, D. Barahona, B. Aguiar-González, A. Marrero-Díaz, P. De la Fuente, F. Machín, and J.L. Pelegrí
 Diapycnal Mixing in the Cape Ghir upwelling region
- 09:00–09:15 EGU2012-1216
R. Malek-Madani
 Computing Coherent Structures from a Shallow Water Model of the Chesapeake Bay
- 09:15–09:30 EGU2012-3585
S. Berti and G. Lapeyre
 Lagrangian reconstructions of tracer fields at ocean surface
- 09:30–09:45 EGU2012-3818
S. E. Scott, I. I. Rypina, L. J. Pratt, and M. G. Brown
 Analyzing Fluid Flows and Understanding Transport via Ergodicity Defect Analysis

09:45–10:00 EGU2012-2759

L. Averbukh, O. Kurkina, and A. Kurkin

Dynamics of surfactants in the field of edge and internal waves in coastal areas

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

Convener: J. M. Redondo | Co-Conveners: J. LaCasce, M. J. Olascoaga, Karolyi, A. Mariano, P. López González-Nieto

Hall X/Y | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: n.n.

XY284 EGU2012-6271

S. Riha and C. Eden

Lagrangian Signatures of Baroclinically Unstable Flow in a Primitive Equation Model: From the Onset to the Decay of Exponential Perturbation Growth

XY285 EGU2012-13513

J.D. Flanagan, E.A. Haun, A.S. Lefler, and T. Radko

On the Dynamics of Thermohaline Staircases

XY286 EGU2012-14014

M. Diez, J.M. Redondo, O.B. Mahjoub, and E. Sekula

Turbulent Diffusion in Non-Homogeneous Environments

XY287 EGU2012-9297

A.-C. Schulz, T. H. Badewien, and O. Zielinski

Estimation of Turbulence in an East Frisian Tidal Channel

XY288 EGU2012-3486

H.I.S. Nogueira, C. Adduce, E. Alves, and M.J. Franca

Periodic cycle of stretching and breaking of the head of gravity currents

XY289 EGU2012-13700

D. Balwada, K. Speer, J.H. LaCasce, and B. Owens

Preliminary results from DIMES: Dispersion in the ACC

XY290 EGU2012-4501

F. Huhn, A. von Kameke, V. Pérez-Muñuzuri, M. J. Olascoaga, and F. B. Beron-Vera

Zonal jets in the Madagascar plankton bloom

XY291 EGU2012-10131

R. Abernathy, J. Marshall, and R. Tulloch

Global Tracer-Based Diagnostics of Eddy Mixing from AVISO Satellite Velocities

XY292 EGU2012-4460

F. Huhn, A. von Kameke, P. Montero, S. Allen-Perkins, A. Venancio, and V. Pérez-Muñuzuri

Surface transport in the Ria de Vigo - Transport barriers in a tidal estuary with a complex geometry

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

Convener: Y. D. Chashechkin | Co-Conveners: K. Bajer

Room: 28

Chairperson: n.n.

10:30–10:45 EGU2012-36

P. Berloff

Dynamics of oceanic multiple zonal jets, waves, and vortices

10:45–11:00 EGU2012-6203

E. V. Stepanova and T.O. Chaplina

Pictures of the dye transport in the compound vortex

11:00–11:15 EGU2012-13912

G. Fitton, I. Tchiguirinskaia, D. Schertzer, and S. Lovejoy

Multifractal Analysis of Velocity Vector Fields and a Continuous In-Scale Cascade Model

11:15–11:30 EGU2012-8189

V.E. Prohorov

Flow Visualization and Acoustic Signal Detection in the Process of Drop Impact on the Surface of a Liquid

11:30–11:45 EGU2012-2607

P. Fraunie, J.M. Redondo, A. Schaeffer, A. Molcard, P. Forget, and P. Garreau

Vortices generation mechanisms in North western Mediterranean Sea

11:45–12:00 EGU2012-7334

A. Vasiliev

Calculation of periodic flows in a continuously stratified fluid

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

Convener: Y. D. Chashechkin | Co-Conveners: K. Bajer

Hall X/Y | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Yu.Chashechkin

- XY293 EGU2012-6223
T.O. Chaplina and E.V. Stepanova
The oil body formation and breakup in the compound vortex
- XY294 EGU2012-6216
A.A. Budnikov and E.V. Stepanova
The modeling of the garbage patch formation in the Ocean
- XY295 EGU2012-7369
R. Bardakov and **A. Vasiliev**
Visualization periodic flows in a continuously stratified fluid.
- XY296 EGU2012-7987
V.G. Baydulov
Symmetries of Inhomogeneous Fluid Equations: from Balanced Relationships to the Internal Waves Equations
- XY297 EGU2012-8041
V.A. Gorodtsov
Incompressible Perturbations in Uniformly Stratified Viscous Heat-Conducting Fluid
- XY298 EGU2012-8147
A.Yu. Ilyinykh
Transport of Substances on Different Stages of Processes Initiated by Free Fallen Drop Impact on Surface of Quiescent Water

NP6.6 – Magnetic reconnection and turbulence in Space, Laboratory and Astrophysical Systems – Orals

Convener: G. Lapenta | Co-Conveners: A. Lazarian, A. Retino`, S. Poedts

Room: 28

Chairperson: n.n.

- 13:30–13:45 EGU2012-2852
T. Intrator, A. Lazarian, and G. Lapenta
Turbulent Reconnection in Space and Laboratory Plasmas
- 13:45–14:00 EGU2012-6212
V. Olshevsky, A.L. Restante, and G. Lapenta
Coronal mass ejection initiation with different MHD codes
- 14:00–14:15 EGU2012-11931
P. Henri, F. Califano, M. Faganello, and F. Pegoraro
Vortex induced collisionless reconnection at the magnetopause - magnetosphere boundary
- 14:15–14:30 EGU2012-12646
A. Nordlund and **K. Galsgaard**
Scaling of turbulent and hierarchical reconnection
- 14:30–14:45 EGU2012-4488
A. Vapirev, A. Divin, S. Markidis, and G. Lapenta
Interchange instability development in dipolarization front structure during reconnection in collisionless 3D PIC simulations
- 14:45–15:00 EGU2012-9500
P. Ricci, A. Fasoli, I. Furno, S. Jolliet, J. Loizu, A. Masetto, B.N. Rogers, and C. Theiler
Global simulations of plasma turbulence in laboratory plasmas
- 15:00–15:15 EGU2012-207
R. Wang, R. Nakamura, Q. Lu, A. Du, T. Zhang, W. Baumjohann, Y. Khotyaintsev, M. Volwerk, M. André, M. Fujimoto, T. Nakamura, A. Fazakerley, J. Du, W. Teh, E. Panov, B. Zieger, Y. Pan, and S. Lu
Asymmetric current sheet and multiple secondary magnetic islands during magnetic reconnection with a guide field

NP6.6 – Magnetic reconnection and turbulence in Space, Laboratory and Astrophysical Systems – Posters

Convener: G. Lapenta | Co-Conveners: A. Lazarian, A. Retino`, S. Poedts

Hall X/Y | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: n.n.

- XY299 EGU2012-1372
G. Lapenta, S. Markidis, L. Bettarini and the SWIFF Team at KU Leuven Team
2D and 3D turbulent reconnection as a benchmark within the SWIFF project
- XY300 EGU2012-2360
G. Belmont, N. Aunai, and R. Smets
Kinetic equilibrium as the initial condition for asymmetric reconnection in hybrid simulations
- XY301 EGU2012-3060
B. Hnat, S. C. Chapman, G. Gogoberidze, and R. T. Wicks
Turbulence and other processes for the scale-free texture of the fast solar wind
- XY302 EGU2012-6071
S. Markidis, P. Henri, G. Lapenta, M.V. Goldman, D. Newman, and S. Eriksson
Kinetic features of magnetic reconnection in a plasmoid chain
- XY303 EGU2012-6773
A. Retinò, D. Sundkvist, A. Vaivads, and F. Sahraoui
In situ observations of reconnection and associated particle energization in turbulent plasmas
- XY304 EGU2012-8382
O. Šebek, P. M. Trávníček, P. Hellinger, G. Lapenta, R. Keppens, V. Olshevsky, A. L. Restante, and T. Hendrix
Kinetic structure of collisionless reconnection: hybrid simulations
- XY305 EGU2012-8550
J. Deca, S. Markidis, A. Divin, G. Lapenta, and **A. Vapirev**
3D implicit PIC simulations of solar wind - moon interactions
- XY306 EGU2012-9596
I. Furno, A. Fasoli, F. Avino, A. Bovet, K. Gustafson, D. Irají, B. Labit, J. Loizu, P. Ricci, and C. Theiler
A comprehensive study of electrostatic turbulence and transport in the laboratory basic plasma device TORPEX
- XY307 EGU2012-10401
A. Beresnyak
Anisotropy of MHD Turbulence and its Influence on Reconnection
- XY308 EGU2012-11879
P. Henri, F. Califano, M. Faganello, O. Šebek, J. T. Frederiksen, S. Markidis, F. Pegoraro, P. Hellinger, P. M. Travnicek, A. Nordlund, and G. Lapenta
Magnetopause Challenge: SWIFF benchmark of the magnetized Kelvin-Helmholtz instability
- XY309 EGU2012-12271
H.H. Tran and K. Miegel
Operation of Dautieng reservoir for impacting to the risk of flooding in downstream under climate change
- XY310 EGU2012-13937
J. T. Frederiksen, G. Baumann, K. Galsgaard, T. Haugbølle, and Å. Nordlund
Magnetic Reconnection at a Three-dimensional Solar Null Point

HS7.5/NP8.3 – Hydroclimatic stochastic (co-organized) – Orals

Convener: S. Grimaldi | Co-Conveners: D. Koutsoyiannis, A. A. Carsteanu, X. L. Wang

Room: 34

Chairperson: Alin Carsteanu

- 15:30–15:45 EGU2012-4469
S. Vandenberghe, B. Graeler, M.J. van den Berg, S. Grimaldi, A. Petroselli, B. De Baets, and N.E.C. Verhoest
Joint return periods in hydrology: a critical and practical review focusing on the synthetic design hydrograph estimation
- 15:45–16:00 EGU2012-7545
M.J. van den Berg, N.E.C. Verhoest, and B. De Baets
Fitting asymmetrical copulas for rainfall downscaling
- 16:00–16:15 EGU2012-8386
B Henley, **M Thyer**, and G Kuczera
Climate-informed stochastic hydrological modeling: Incorporating decadal-scale variability using paleo data
- 16:15–16:30 EGU2012-10563
S.M. Papalexiou and D. Koutsoyiannis
A global survey on the distribution of annual maxima of daily rainfall: Gumbel or Fréchet?
- 16:30–16:45 EGU2012-11242
N. Schütz, N. Makarava, and M. Holschneider
Deciphering scale-dependencies and trend changes in hydrological time series using Bayesian inversion

16:45–17:00 EGU2012-11573

E. Baratti, A. Montanari, A. Castellarin, J.L. Salinas, A. Viglione, and G. Blöschl

A maximum likelihood approach to jointly estimating seasonal and annual flood frequency distributions

HS7.5/NP8.3 – Hydroclimatic stochastics (co-organized) – Posters

Convener: S. Grimaldi | Co-Conveners: D. Koutsoyiannis, A. A. Carsteanu, X. L. Wang

Hall A | Display Time 08:00–17:00

Author in Attendance: 13:30–15:00

Chairperson: Demetris Koutsoyiannis

A213 EGU2012-817

H. Alizadeh and S.J. Mousavi

Stochastic physical ecohydrologic-based model for estimating irrigation requirement

A214 EGU2012-1448

H. Tyralis and D. Koutsoyiannis

A Bayesian approach to hydroclimatic prognosis using the Hurst-Kolmogorov stochastic process

A215 EGU2012-4388

E. Houdalaki, M. Basta, N. Boboti, N. Bountas, E. Dodoula, T. Iliopoulou, S. Ioannidou, K. Kassas, S. Nerantzaki, E. Papatriantafyllou, K. Tettas, D. Tsirantonaki, S.M. Papalexiou, and D. Koutsoyiannis

On statistical biases and their common neglect

A216 EGU2012-5678

H. Müller and U. Haberlandt

Space-time variability of random cascade model parameters for rainfall disaggregation

A217 EGU2012-993

P. Dimitriadis, D. Koutsoyiannis, and Y. Markonis

Spectrum vs Climacogram

A218 EGU2012-2620

K. Qian, J. Lv, X. Wang, and L. Wan

Study on climate change in the source region of the Yangtze River from 1957 to 2010

A219 EGU2012-7416

S. Fatichi, P. Burlando, V.Y. Ivanov, and E. Caporali

A stochastic methodology for simulating long-term hourly time series of meteorological variables across a continuous of elevations

A220 EGU2012-9745

R Ratan and **V. Venugopal**

Depth-Duration Characteristics of Global Tropical Rainfall

A221 EGU2012-10433

S. Spina, F. Lombardo, E. Ridolfi, F. Russo, and F. Napolitano

Uncertainty in rainfall-runoff modelling: an application of GLUE approach to the Rome's urban area.

A222 EGU2012-11116

J. Rodriguez and A. Bardossy

MCMC estimation of the V-copula and t-V-copula with censored data

A223 EGU2012-11788

P. Kossieris, D. Koutsoyiannis, C. Onof, H. Tyralis, and A. Efstratiadis

HyetosR: An R package for temporal stochastic simulation of rainfall at fine time scales

A224 EGU2012-12222

D. Schlabing, M. Eder, M. Frassl, K. Rinke, and A. Bárdossy

Stochastic Downscaling for Hydrodynamic and Ecological Modeling of Lakes

A225 EGU2012-12745

P. Dimitriadis and D. Koutsoyiannis

On the stochastic structure of isotropic turbulence

A226 EGU2012-13596

B. Escobedo-Trujillo and **A. A. Carsteanu**

Fractional Lévy Motions: A fresh look at dependence and climate-scale variability

OS1.2 – The North Atlantic: natural variability and global change (co-listed) – Posters

Convener: M. Rhein | Co-Conveners: R.J. Greatbatch

Hall X/Y | Display Time 08:00–17:00

Author in Attendance: 10:30–12:00

Chairperson: Reiner Steinfeldt

XY311 EGU2012-1052

L.I. Carracedo, M. García, H. Mercier, P. Conde, P. Lherminier, F.F. Pérez, and M. Gilcoto

Interannual variability of water masses transports across A25-OVIDE section (subpolar atlantic gyre)

- XY312 EGU2012-1069
A.E. Vyazilova and A.V. Smirnov
Links between thermohaline anomalies in Northwest Atlantic and Nordic Seas
- XY313 EGU2012-5128
C. Denker, D. Kieke, B. Klein, H. Klein, and M. Rhein
Water mass properties on their way over the Mid-Atlantic-Ridge through the Faraday Fracture Zone
- XY314 EGU2012-4363
A. Smirnov and A. Korablev
Structure and long-term variability of oceanographic characteristics in the Nordic Seas derived from observed and gridded (DIVA software) datasets
- XY315 EGU2012-5810
A. Rubchenia, A. Popov, A. Fedorova, and N. Lebedev
Interpretation of time series (salinity and temperature) layers in North Atlantic from 1950 to 2011
- XY316 EGU2012-5570
E. Tzortzi, C.P. Gommenginger, S. Josey, and M.A. Srokosz
How does surface salinity and rain affect the North Atlantic ocean circulation?
- XY317 EGU2012-4967
C. Mielke, E. Frajka-Williams, and J Baehr
Observed and simulated seasonal variability of the AMOC at 26°N and 41°N
- XY318 EGU2012-6122
O. Khmel'nitskaya
Using the optimum multiparameter analysis to study the water masses of the North Atlantic
- XY319 EGU2012-9770
E. Burrillon, S.S. Drijfhout, and H.A. Dijkstra
Cause and effect of variations in the sinking of deep water in the MOC
- XY320 EGU2012-12738
M.-j. Messias, A. J. Watson, P. J. Brown, and B.A. King
Evidence of Greenland Sea Water at 24 degrees N from the Greenland Sea Tracer Experiment
- XY321 EGU2012-13372
M. G. Magaldi and T. W. N. Haine
Hydrostatic and non-hydrostatic simulations of the East Greenland Spill Jet
- XY322 EGU2012-6282
L. Schneider, D. Kieke, K. Jochumsen, M. Rhein, D. Quadfasel, E. Varotsu, N. Serra, E. Colbourne, and I. Yashayaev
Export of Labrador Sea Water through Flemish Pass
- XY323 EGU2012-4708
M. Korhonen, B. Rudels, U. Schauer, S. Pisarev, B. Rabe, and A Wisotzki
Reduction of salinity and temperature observed in the Atlantic layer in the eastern Eurasian Basin of the Arctic Ocean in summer 2011
- XY324 EGU2012-5218
C. Troupin and F. Machín
Negative wind anomalies generated a diminution of productivity in the North Atlantic in 2010
- XY325 EGU2012-1953
A. Nummelin
Convection in the Greenland Sea in winter 2010-2011: Comparison between model and observations
- XY326 EGU2012-5900
N. C. Wells
MOC, Heat Storage and Surface Heat Flux in 2009/2010.
- XY327 EGU2012-2127
N. Danialt, H. Mercier, P. Lherminier, A. Sarafanov, and A. Falina
The 2002-2010 mean circulation across the Greenland to Portugal A25-OVIDE section
- XY328 EGU2012-1399
X. Zhao and J. Li
Winter-to-Winter Recurrence (WWR) of Air-Sea System in the Northern Hemisphere
- XY329 EGU2012-7641
T. Martin, M. Latif, and A. Reintges
Uncertainties in freshwater and MOC predictions in the North Atlantic region
- XY330 EGU2012-3099
W. Mueller, D. Matei, M. Bersch, J. Jungclaus, K. Lohmann, and J. Marotzke
A 20th-century reanalysis forced ocean model to recover North Atlantic climate variability from 1870-2007
- XY331 EGU2012-11293
A. Born, T.F. Stocker, and A.B. Sandø
Salt transport in the Irminger Current: a regional and a global model
- XY332 EGU2012-9630
S.M. Olsen and **T. Schmith**
Greenland meltwater experiments

- XY333 EGU2012-8828
D. V. Sein, M. Gröger, E. Maier-Reimer, and **U. Mikolajewicz**
Modeling anthropogenic Climate Change of the northwest European Shelves and the northeast Atlantic
- XY334 EGU2012-7148
B. Filyushkin, S. Moshonkin, **S. Myslenkov**, and N. Kozhelupova
Simulation of interannual variability of overflow transport through the Denmark Strait
- XY335 EGU2012-10826
Y.-O. Kwon and C. Frankignoul
Multi-decadal Variability of Atlantic Meridional Overturning Circulation in the Community Climate System Model 3
- XY336 EGU2012-5594
A. Born, T.F. Stocker, C.C. Raible, and A. Levermann
Is the Atlantic subpolar gyre bistable in comprehensive coupled climate models?
- XY337 EGU2012-5884
A. Megann, A. New, and A. Blaker
Model representation of salinity anomalies and the stability of the North Atlantic overturning circulation
- XY338 EGU2012-6093
M. Sonnewald, J. J.-M. Hirschi, and R. Marsh
Oceanic dominance of interannual subtropical North Atlantic heat content variability
- XY339 EGU2012-6482
M. Brunetti, E. Fenu, and M. Beniston
Stability properties of the North Atlantic Ocean Circulation
- XY340 EGU2012-10074
Y. Ruprich-Robert and C. Cassou
Mechanisms of the North Atlantic multidecadal internal variability in the CNRM-CM5 model
- XY341 EGU2012-3109
B. Tiedje, A. Köhl, and J. Baehr
North Atlantic heat transport and AMOC: Potential predictability in the subtropical and subpolar gyre
- XY342 EGU2012-11526
H. Pillar, D. Marshall, and H. Johnson
The Dependence of the Atlantic Overturning Circulation on Meridional Density Gradients
- XY343 EGU2012-4886
K. Shimizu
Dynamics of long baroclinic Rossby waves along 26°N in the Atlantic
- XY344 EGU2012-2192
W. P. Sijp
Characterising meridional overturning bistability as a dynamical system using a minimal set of state variables.
- XY345 EGU2012-3129
E. D. da Costa and M. Juckes
Structural Uncertainty in the Winter NAO index
- XY346 EGU2012-5138
T. Christoudias, A. Pozzer, and J. Lelieveld
Influence of the North Atlantic Oscillation on air pollution transport
- XY347 EGU2012-7364
J. de Laat and M. Crok
A late 20th century European climate shift
- XY348 EGU2012-8421
M.V. Anisimov, V.I. Byshev, S.N. Moshonkin, V.G. Neiman, Ju.A. Romanov, I.V. Serykh, and V.B. Zalesny
On a Short-Term Climate Change in the North Atlantic Ocean
- XY349 EGU2012-13175
V.A. Melnikov, L.V. Moskalenko, N.N. Golenko, and M.N. Golenko
Boreal Atmospheric circulation patterns on the basis of the world network weather station data
- XY350 EGU2012-13435
J. A. Añel, M. Blanco-Durán, L. Gimeno, and L. de la Torre
Recovery of meteorological data for the observatory of A Guarda, Spain

