### EGU General Assembly 2012

**Programme Group Programme**  
**OS – Ocean Sciences**

<table>
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<tr>
<th>Date</th>
<th>Programme Group</th>
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<td><strong>Tuesday, 24 April</strong></td>
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<td>CL5.11, NP3.1, OS1.1, OS4.3, OS4.5</td>
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<td><strong>Wednesday, 25 April</strong></td>
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<td>AS1.7/NP1.4, BG3.1, CL4.3, NP2.1, NHS3/NP 7.3/OS2.6, OS3.1,</td>
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<td><strong>Thursday, 26 April</strong></td>
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<td>BG1.7, OS1.2, OS1.4, CL4.5/OS1.8, OS2.3, OS4.6/EOS3, OS5.1/AS1.8, OS5.2</td>
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<td><strong>Friday, 27 April</strong></td>
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<td>CL4.4, NP6.1, CL4.2/OS1.3, OS1.6, CL4.6/AS1.15/OS1.7, OS2.2/EG3/CL2.12</td>
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</tbody>
</table>
Monday, 23 April

GD2.3/GMPV6.8/SM3.6/TS9.8 –Heat flow and thermal regime of the lithosphere: Deep and surface processes (co-listed) – Orals
Room: 22
Chairperson: n.n.

08:30–08:45 EGU2012-14378
JH Davies and DR Davies
Revised Estimate of Earth’s Surface Heat Flow: 47 ± 2 TW

08:45–09:00 EGU2012-10762
T. A. Jordan, F. Ferraccioli, and R. C. Hindmarsh
Rifting, heat flux, and water availability beneath the catchment of Pine Island Glacier

09:00–09:15 EGU2012-7411
S. Umino and A. Okugawa
A New Geothermometer Using Crystal Size Variations of the Sheeted Dikes: Insight Into the Thermal Structure of The Upper Oeanic Crust

09:15–09:30 EGU2012-9338
F. Schütz and A. Förster
Surface heat flow of southern Israel based on new borehole data

09:30–09:45 EGU2012-6942
I. T. Kukkonen, V. Rath, L. Kivekäs, J. Šafanda, and V. Úrmak
Geothermal Studies of the Outokumpu Deep Drill Hole, Finland: Vertical variation in heat flow and palaeoclimatic implications

09:45–10:00 EGU2012-13626
M. Purucker
Heat flow inferred from satellite magnetic data over the Antarctic

GD2.3/GMPV6.8/SM3.6/TS9.8 –Heat flow and thermal regime of the lithosphere: Deep and surface processes (co-listed) – Posters
Hall XL | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: n.n.

XL182 EGU2012-4499
M.T Tesauro, M.K Kaban, S.C Cloetingh, and W.M Mooney
A New thermal and compositional model of the North American lithosphere

XL183 EGU2012-8095
A.P.M. Vaughan, N. Kusznir, F. Ferraccioli, and T.A.R.M. Jordan
Regional Heat-flow Prediction for Antarctica using Gravity Inversion Mapping of Crustal Thickness and Lithosphere Thinning

XL184 EGU2012-7277
V. Spichak, O. Zakharova, and A. Goidina
3D thermal structure of the Hengill geothermal area (Iceland) revealed from electromagnetic sounding data and temperature well logs

XL185 EGU2012-9895
I. Rogozhina, J. M. Hagedoorn, Z. Martinec, K. Fleming, and M. Thomas
Applicability and limitations of large-scale ice-sheet modeling for constraining subglacial geothermal heat flux

XL186 EGU2012-13345
R Klenner and W Gosnold
Heat Flow and the Pleistocene Ice Margin

XL187 EGU2012-9216
Y. Popov, R. Romushkevich, D. Gorobtsov, and D. Korobkov
Vertical Variations In Heat Flow Inferred From Experiments In Deep Boreholes

GM8.3 –Coastal zone geomorphologic interactions: natural versus human-induced driving factors (co-listed) – Orals
Convener: M. Stancheva | Co-Conveners: A. Baas, G. Anfuso, H. Tönnisson
Room: 21
Chairperson: Hannes Tönnisson and Margarita Stancheva
08:30–08:45  EGU2012-11105  
A. Aiello, F. Canora, R. Pellicani, and G. Spilotro  
Natural and anthropogenic factors in coastal dynamic: two cases in Southern Italy

08:45–09:00  EGU2012-10863  
A. Rilo, P. Freire, R. Ceia, R.N. Mendes, J. Catalão, and R. Taborda  
Human effects on estuarine shoreline decadal evolution

09:00–09:15  EGU2012-500  
A. Anderson  
Aeolian Coastal Landscapes in changes (a study from Tauthuna, Estonia)

09:15–09:30  EGU2012-5560  
G. Alexandrakis and S. Poulos  
The anticipated spatial loss of microtidal beaches in the next 100 years due to sea level rise.

09:30–09:45  EGU2012-5856  
J. Curoy, C.A. Moses, and D.A. Robinson  
Longshore Sediment Transport on a Macrotidal Mixed Sediment Beach, Birling Gap, United Kingdom.

09:45–10:00  EGU2012-12815  
M. Sedrati and E. J. Anthony  
Chronic erosion in Wissant Bay coast, northern France - Causes and trials of management projects

COFFEE BREAK

Chairperson: Margarita Stancheva and Andreas Baas

10:30–10:45  EGU2012-1652  
D.W.T. Jackson  
116 years of misplaced management: Portballintrae, Northern Ireland

10:45–11:00  EGU2012-43  
M. O’Shea and Dr. J. Murphy  
Investigating the Hydrodynamics of a Breached Barrier Beach

11:00–11:15  EGU2012-279  
M.A. de Schipper, S. de Vries, R. Ranasinghe, A.J.H.M. Reniers, and M.J.F. Stive  
Morphological developments after a beach and shoreface nourishment at Vlugtenburg beach, the Netherlands

11:15–11:30  EGU2012-11272  
L.S. Esteves, J. Foord, and H. Draux  
The shift from hold-the-line to management retreat and implications to coastal change: Farlington Marshes, a case of conflicts

11:30–11:45  EGU2012-13691  
A.M. Carapuço, R. Taborda, M.C. Freitas, T. Silveira, C. Andrade, C. Lira, and C. Pinto  
The impact of coastal interventions: between the myth and the reality

11:45–12:00  EGU2012-13767  
R. Young and K. Peek  
Preparing Coastal Parks for Future Sea Level Rise

GM8.3 – Coastal zone geomorphologic interactions: natural versus human-induced driving factors (co-listed) – Posters

Convener: M. Stancheva | Co-Conveners: A. Baas, G. Anfuso, H. Tõnisson

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Andreas Baas, Margarita Stancheva and Hannes Tõnisson

XL254  EGU2012-10626  
J.V. Monnot, J.J. Diez Gonzalez, and S. del Saz Cordero  
The wave criteria for coastal zoning

XL255  EGU2012-13772  
A. Griffith and R. Young  
Observations of coastal systems using low-cost, high-resolution, balloon and kite-based aerial imagery

XL256  EGU2012-538  
N. Kopan-Ovdienko, N. Volobueva, and S. Ogorodov  
The Ob Estuary (Kara Sea) Coastal Dynamics Interannual Variability Assessment

XL257  EGU2012-2157  
H. Tõnisson, K. Orviku, A. Kont, and Ü. Suursaar  
Coastal geomorphic processes and their relation to hydrodynamic conditions in Osmussaar Island, Baltic Sea
A. Palazov, R. Young, M. Stancheva, and H. Stanchev
Changes of Bulgarian Coastal Dune Landscape under Anthropogenic Impact

K. Al Quraishi, N. Al Balushi, A. Roepert, M. Rupprechter, and G. Hoffmann
Late Quaternary delta evolution on an uplifted coastal area (Wadi Haida Sultanate of Oman, Arabian Peninsula)

A. Herman, J. Urba?ski, and A. Wochna
Numerical modeling of storm-induced morphodynamic changes at a micro-tidal sandy coast

I. Catianis, C. Ungureanu, and A. Stanica
Preliminary sediments quality assessment of the Midia Port aquatorium - Black Sea - Romania

J. Trindade and A. Ramos-Pereira
Modeling extreme beach retreat and erosion volumes. A tool for susceptibility analysis.

R. Mani Murali, P Vethamony, and A.K. Singh
Shoreline and seabed level changes along the central Orissa coast, India

D. Bertoni, F. Ciavola, E. Grottoli, and G. Sarti
Transport of marked pebbles in short periods of time on a coarse clastic beach (Marina di Pisa, Italy)

R. Bakhtyar, A. Dastghieb, D. Roelvink, and D.A. Barry
3D modelling of nearshore coastal morphodynamics

Palaeogeographic evolution of Alykes lagoon, Pydna, Northern Greece during the Holocene, based on geomorphological and sedimentological data.

N. Kosevich
White Sea Islands: contemporary relief dynamics and history of the development.

A. Rubino, A. Androsov, and N. Voltzinger
3D dynamics in the Strait of Messina

G. Hoffmann, M. Rupprechter, A. Roepert, K. Al Quraishi, N. Al Balushi, C. Grützner, and K. Reichert
Quaternary coastal evolution of Oman (Arabian Peninsula) - a quantitative approach

M. Garcin, A. Baills, M. Yates, G. Le Cozannet, T. Bulteau, E. Salai, and J. Sauter
Relative impact of sea level rise, wave climate and anthropogenic actions on the recent shoreline changes of the Pacific Islands

OS2.1 – Open Session on Coastal and Shelf Seas – Orals
Convener: J. van der Molen | Co-Conveners: H. E. de Swart, G.I. Shapiro
Room: 5
Chairperson: Huib de Swart

A. Rubino, A. Androsov, and N. Voltzinger
3D dynamics in the Strait of Messina

J. Hopkins, J. Sharples, and J. M Huthnance
On-shelf transport of slope water lenses within the seasonal pycnocline: A new cross-shelf edge exchange mechanism
09:00–09:30  EGU2012-5  
D. Yuan  
Cross-shelf Water Exchange Between the Kuroshio and the Northern Marginal Seas of China

09:30–09:45  EGU2012-3481  
A. Bower and Y. Abualnaja  

09:45–10:00  EGU2012-1396  
G.I. Shapiro  
Can tidal energy farms create temperature fronts in the coastal ocean?

COFFEE BREAK

Chairperson: Georgy Shapiro

10:30–10:45  EGU2012-7555  
Analysing the tidal dynamics of the interfacial layer in the Strait of Gibraltar and its biological implications

10:45–11:00  EGU2012-202  
Variation of the Kuroshio nutrient stream in the East China Sea during 1987-2009

11:00–11:15  EGU2012-10461  
N. Demchenko  
Comparative analysis of the vernal and wintry thermally-induced structural front in the Baltic Sea on base of field data

11:15–11:30  EGU2012-308  
Simulation of density-driven current in a semi-enclosed bay in the Yellow Sea by a robust diagnostic model with synchronous observation data

11:30–11:45  EGU2012-13900  
A. Guarnieri, N. Pinardi, P. Oddo, G. Bortoluzzi, and M. Ravaioli  
Modelling the baroclinic circulation with tidal components in the Adriatic Sea

11:45–12:00  EGU2012-3499  
H. E. de Swart, A. Nnafie, R. Garnier, and R. Calvete  
Effects of wave-topography feedbacks and radiation stresses on the nonlinear dynamics of shoreface-connected sand ridges

OS2.1 – Open Session on Coastal and Shelf Seas – Posters  
Convener: J. van der Molen | Co-Conveners: H. E. de Swart, G.I. Shapiro
Hall X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Johan van der Molen

XY385  EGU2012-673  
S. L. Ward, S. P. Neill, and J. D. Scourse  
Impacts of past and future sea-level rise on shelf sea sediment dynamics

XY386  EGU2012-1202  
A. Polukhin and P. Makkaveev  
The contribution and spatial distribution of Ob and Yenisei runoff on surface layer of the Kara Sea.

XY387  EGU2012-2741  
F. Santos, M. Gómez-Gesteira, M. deCastro, I. Álvarez, and M.C. Sousa  
Trends of coastal and oceanic ST along the Western Iberian Peninsula over the period 1975-2006.

XY388  EGU2012-3263  
F. Wobus, G.I. Shapiro, M.A.M Maqueda, and J.M. Huthnance  
3D numerical simulations of dense water cascading in an idealised laboratory setting

XY389  EGU2012-3288  
H.G. Cho, D.C. Kim, and H.-I. Yi  
Clay mineral evolution in the central Yellow Sea mud deposits

XY390  EGU2012-4072  
Evaluation of wind vectors measured by QuikSCAT using ocean buoy data along the Galician coast (NW Iberian Peninsula)
OS2.4 – Upwelling events, coastal-offshore exchange processes and their impact on the marine ecosystem under changing climate conditions – Orals
Convener: K. Myrberg | Co-Conveners: A. Lehmann, J. Hopkins
Room: 7
Chairperson: Jo Hopkins

13:30–13:45 EGU2012-2668
E. Salusti and F. Bignami
On the temperature, salinity, velocity and potential vorticity of a cold filament off the southern tip of Sicily

13:45–14:00 EGU2012-4185
K. Myrberg, A. Lehmann, and K. Höflich
A statistical approach on upwelling in the Baltic Sea based on the analysis of satellite data for 1990-

14:00–14:15 EGU2012-9848
Z. Lachkar and N. Gruber
The future of coastal upwelling ecosystems: the impact of potential wind changes on ocean acidification and coastal hypoxia

14:15–14:30 EGU2012-11110
K. Getzlaff and A. Lehmann
The general circulation of the Baltic Sea in the context of climate variability

14:30–14:45 EGU2012-11074
P.M.A. Miranda, J.M.R. Alves, and N. Serra
Recent trends in Iberian upwelling simulated by ROMS

14:45–15:00 EGU2012-312
B. Barreiro and E. D. Barton
Iberian and California-Oregon Upwelling Systems: trends and status of two upwelling systems at the same latitude over the last four decades.

OS2.4 – Upwelling events, coastal-offshore exchange processes and their impact on the marine ecosystem under changing climate conditions – Posters
Convener: K. Myrberg | Co-Conveners: A. Lehmann, J. Hopkins
Hall X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Kai Myrberg

XY412 EGU2012-5393
J. H. Bettencourt, C. Lopez, and E. Hernandez-Garcia
Oceanic three-dimensional Lagrangian Coherent Structures in the Benguela ocean region.

XY413 EGU2012-6789
J.E. Wood and M. Roughan
The origin and variability of major cold water events observed off Sydney, Australia

XY414 EGU2012-10110
Carbon exchange between the northwest European continental shelf and the North Atlantic Ocean

XY415 EGU2012-10339
T. A. S. Rasmussen, S. M. Olsen, B. Hansen, K. M. H. Larsen, and H. Hátún
Physical control of the Faroe shelf spring bloom

XY416 EGU2012-13480
A. Lehmann, H.-H. Hinrichsen, and K. Myrberg
Alongshore and offshore volume transports related to upwelling regions in the Baltic Sea

XY417 EGU2012-6417
J. Gan, H. Ho, and L. Liang
Dynamics of intensified downwelling circulation over a widened shelf

XY418 EGU2012-13590
A. Lehmann and E. Gurova
Combined SAR/IR satellite data and circulation model analysis of upwelling in the Baltic Sea

XY419 EGU2012-13469
P. Estrade
Estimation of the vertical velocities associated with coastal upwelling using models and observations

XY420 EGU2012-11510
A. Pietri, P. Testor, V. Echevin, A. Chaigneau, L. Mortier, G. Eldin, C. Grados, and A. Albert
Absolute geostrophic velocities off the coast of Southern Peru as observed from glider data

SSS3.4/BG2.26/OS3.5 – Stabilization of organic matter in soils, sediments and marine dissolved organic matter (co-organized) – Orals
13:30–13:45  EGU2012-818  
Physical controls on organic matter stability

13:45–14:00  EGU2012-13952  
Long term drainage alters plant biodiversity and soil C- and N-storage

14:00–14:15  EGU2012-9482  
**A. Miltner**, R. Kindler, J. Achtenhagen, K. Nowak, C. Girardi, and M. Kästner  
Stabilization of microbial biomass in soils: Implications for SOM formation and xenobiotics degradation

14:15–14:30  EGU2012-5586  
**L. Tranvik**, C Gudasz, B Koehler, and D Kothawala  
Inland water transformation and stabilization of terrestrial organic carbon during transport from soil to sea

14:30–14:45  EGU2012-5819  
Carbon cycling in polycyclic driftsand sequences

14:45–15:00  EGU2012-10263  
**J Niggemann**, G Gerdts, and T Dittmar  
Molecular-level dynamics of refractory dissolved organic matter

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**SSS3.4/BG2.26/OS3.5 – Stabilization of organic matter in soils, sediments and marine dissolved organic matter**

**co-organized**

(Hall XY | Display Time 08:00–19:30)

Author in Attendance: 17:30–19:00

Chairperson: n.n.

**XY565**  EGU2012-20  
**P. Rovira**, L. Lopez-Sangil, and V.R. Vallejo  
Organic matter stabilization in mediterranean forest soils: interaction with fine mineral matter

**XY566**  EGU2012-180  
**F. Sakellariadou**  
Studies of the DOM aqueous extracts from coastal marine sediments

**XY567**  EGU2012-475  
**Y. H. Xiao**, T. Sara-aho, and A. V. Vähätalo  
Contribution of ferric iron to the absorption by chromophoric dissolved matter

**XY568**  EGU2012-2202  
**M. Morizumi** and T. Mutsunaga  
Temporal change in molecular weight distribution of hot-water extractable organic nitrogen from cattle manure compost buried in soil using high-performance size exclusion chromatography with chemiluminescent nitrogen detection

**XY569**  EGU2012-4805  
**Z. Y. Zhu**, J. Zhang, Y. Wu, and L. Shao  
Particulate organic matter in the northwest East China Sea: Implications from amino acids enantiomers

**XY570**  EGU2012-5961  
Universal molecular features of refractory dissolved organic matter in fresh- and seawater

**XY571**  EGU2012-6407  
Evolution of soil organic matter energetic and chemical composition during long-term bare fallow: implications for soil carbon vulnerability to global change

**XY572**  EGU2012-6932  
**O. Vishnyakova**, G. Chimitdorzhieva, and D. Andreeva  
Composition of Humic Acids of the Lake Baikal Sediments

**XY573**  EGU2012-8718  
**T. Tesi**, M.A. Goñi, L. Langone, R.A. Wheatcroft, S. Miserocchi, and L. Bertotti  
Early diagenesis of recently deposited organic matter: a 9-yr time-series study of a flood deposit
Nature and origin of the resistant carbonaceous polymorphs involved in the fossilization of biogenic soil-aggregates

Fractionation and characterization of soil organic carbon during transition to organic farming

Stabilization of diverse microbial residues in California and Puerto Rico Forest Soils

Soil carbon sequestration and mineralization potential in an old-field revegetated with shrubs in semi-arid climate conditions

High field NMR Spectroscopy and FTICR Mass Spectrometry: Powerful Discovery Tools for the Characterization of Marine Dissolved Organic Matter

Organic carbon accumulation and reactivity in central Swedish lakes during the Holocene

Molecular characterisation of soil organic matter by laser-desorption ionization Fourier-transform ion cyclotron resonance mass spectrometry (LDI-FT-ICR-MS)

Sinks and sources of dissolved organic matter in permeable sediments of the coastal North Sea

How to trace organic matter input by living plants into and within the soil?

An overstepped segmented lagoon complex on the KZN continental shelf, South Africa

Late Quaternary activity and lateral variability of regional deformation belts in marine foreland settings: the South-Western Adriatic margin case study

Interactions between down-slope and along-slope processes on the South China Sea Slope off southwestern Taiwan: Processes, products, and depositional models

Laboratory investigation of coupled deformation and fluid flow in mudrock: implications for slope stability in the Ursa Basin, Gulf of Mexico

Deep-tow geophysical survey above large exhumed mantle domains of the eastern Southwest Indian ridge

Depth anomalies in old oceanic lithosphere
OS4.1 – Open session on Operational Oceanography – Orals
Room: 9
Chairperson: jacopo.chiggiato, Eric Dombrowsky

08:30–08:45 EGU2012-2161
**E. Coelho**, G. Peggion, C. Rowley, and P. Hogan
Stochastic Plume Simulations for the Fukushima Accident and the Deep Water Horizon Oil Spill

08:45–09:00 EGU2012-4672
**N. Hoareau**, M. Umbert, A. Turiel, J. Ballabrera, and M. Portabella
Data assimilation and data fusion in a regional simulation

09:00–09:15 EGU2012-9475
Recent developments of the Mercator Océan ocean monitoring and forecasting system and corresponding product quality

09:15–09:30 EGU2012-2160
The Arctic Cap Nowcast Forecast System

09:30–09:45 EGU2012-6606
**E.V. Stanev**, J. Schulz-Stellenfleth, J. Staneva, and J. Seemann
Coastal Ocean State Estimates and Forecasts based on HF Radar Data
Estimation of the uncertainty of a climate model using an ensemble simulation

Authors: A. Barth, P. Mathiot, and H. Goosse

OS4.1 – Open session on Operational Oceanography – Posters
Hall X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Richard Allard, Emanuel Coelho

XY421 EGU2012-5254
Giders for Research, Ocean Observation and Management - GROOM

XY422 EGU2012-5412
N. McConnell
Validation of the FOAM-NEMO system in the Indian Ocean

XY423 EGU2012-6094
M.-H. Rio, L. Bessières, C. Boone, C. Dufau, and M.-I. Pujol
Three ocean state indicators from altimeter products

XY424 EGU2012-9850
B. Mourre, J. Chiggiato, and R. Onken
Skill comparison between 3-D super-ensemble and ensemble Kalman Filter for short-term ocean prediction

XY425 EGU2012-9929
CORA: In situ re-qualified dataset at the Coriolis data center

XY426 EGU2012-10061
Real Time In Situ data management system for EuroGOOS: A ROOSes-MyOcean joint effort

XY427 EGU2012-11314
S. Piacsek, P. Posey, L. Smethurst, J. McClean, D. Hebert, and R. Allard
Arctic Ocean Watermasses: Volumes, Locations and Variabilities Derived from Models, Climatologies and Observations

XY428 EGU2012-3083
P. D. Farrar and A. C. Mask
Testing and Implementation of the Navy’s Operational Circulation Model for the Mediterranean Sea

XY429 EGU2012-3252
P. Hogan, P. Thoppil, C. Rowley, and E. Coelho
Multi and Single Model Ensemble Forecasting in the Gulf of Mexico

XY430 EGU2012-13144
H. Radhakrishnan, I. Moultas, D. Hayes, G. Zodiatis, and G. Georgiou
On Improving the Operational Performance of the Cyprus Coastal Ocean Forecasting System

XY431 EGU2012-5620
L. Holinde, T. H. Badewien, and O. Zielinski
Water level derived from pressure data - a validation tool and analysis of time series data from the East Frisian Wadden Sea

XY432 EGU2012-3259
B.T Nadiga and W.R. Casper
Blending dynamic and static estimates of error covariance to enable successful ocean data assimilation

XY433 EGU2012-856
L. Ponsoni, J.-P. Hermand, and I. C. A. da Silveira
Deep Thermal Front (southeastern Brazilian coast) see through acoustics: a preliminary study from an operational oceanography perspective

XY434 EGU2012-6572
G. McCarthy, D. Smeed, and S. Cunningham
Glider Observations as part of an AMOC monitoring array

XY435 EGU2012-13608
Intercomparison and validation of operational coastal-scale models, the experience of the project MOMAR.

OS4.4 – Physical and biogeochemical ocean modelling: development, assessment, and applications – Orals
Convener: D. Ham | Co-Conveners: S. Danilov, T. Penduff, S. M. Griffies, M. Levy
Room: 2
Chairperson: n.n.

13:30–13:45 EGU2012-7798
300 year simulation with the coupled FESOM/ECHAM5 model

13:45–14:00 EGU2012-550
**A.V. Gusev**, N.A. Diansky, and V.B. Zalesny
Numerical simulation of the ocean general circulation and its climatic variability for the 1948-2007 using the INMOM

14:00–14:15 EGU2012-3710
**A. Romanou**, WW Gregg, J. Romanski, G. Russell, and R. Bleck
Climate change simulations using the two NASA-GISS climate models coupled to ocean biogeochemistry

14:15–14:30 EGU2012-7965
A modeling study on bio-physical process associated with ENSO

14:30–14:45 EGU2012-945
**E. Chernyavskaya** and L. Timokhov
Statistical model of interannual variability of the Arctic Ocean surface layer salinity in winter

14:45–15:00 EGU2012-3517
**E. Ludewig** and T. Pohlmann
On the Effect of Offshore Wind Parks on Ocean Circulation

Chairperson: n.n.

15:30–15:45 EGU2012-2736
**V.O. Ivchenko**, B. Sinha, V.B. Zalesny, R. Marsh, and A. Blaker
Integral constraints in zonal flows with parameterized potential vorticity fluxes

15:45–16:00 EGU2012-13552
**J. Demange**, L. Debreu, P. Marchesiello, and E. Blayo
On the use of a depth-dependent barotropic mode for free surface ocean models

16:00–16:15 EGU2012-1365
Discretizing the Gent-McWilliams velocity and isopycnal diffusion with a discontinuous Galerkin finite element method

16:15–16:30 EGU2012-5912
**L. Vollmer** and C. Eden
Thickness diffusivities from linear stability analysis derived from observational data

16:30–16:45 EGU2012-8899
**C. Kratzenstein**, T. Slawig, and A. Griewank
Parameter Identification in Ocean Models via Oneshot Optimization

16:45–17:00 EGU2012-5233
**D. A. Ham**, P. E. Farrell, S. W. Funke, and M. E. Rognes
Fully automatic adjoints: a robust and efficient mechanism for generating adjoint ocean models

OS4.4 – Physical and biogeochemical ocean modelling: development, assessment, and applications – Posters
Convener: D. Ham | Co-Conveners: S. Danilov, T. Penduff, S. M. Griffies, M. Levy

**Hall X/Y | Display Time 08:00–19:30**
Author in Attendance: 17:30–19:00
Chairperson: n.n.

XY436 EGU2012-13738
**R. Reboreda**, D. Santaren, C. G. Castro, X.A. Alvarez-Salgado, R. Nolasco, H. Queiroga, and J. Dubert
Solving the equation for the Iberian upwelling biogeochemical dynamics: an optimization experience

XY437 EGU2012-12226
**M. Marta-Almeida**, R Reboreda, C Rocha, J Dubert, R Nolasco, N Cordeiro, T Luna, A Rocha, J Lencart e Silva, H Queiroga, A Peliz, and M Ruiz-Villarreal
operational modelling and forecasting of the Iberian shelves ecosystem

XY438 EGU2012-12707
**R. Khabeev**, K. Ushakov, and R. Ibrayev
Global ocean simulation with INM-IO eddy-resolving model

XY439 EGU2012-12747
**K.V. Ushakov**
Study of long-term characteristics of the INM RAS - IO RAS World Ocean model.
XY440  EGU2012-427
  X. Wang, Q. Wang, D. Sidorenko, S. Danilov, J. Schröter, and T. Jung
  Assessment of an Arctic Ocean model in a global configuration using the Finite Element Sea-ice Ocean Model (FESOM)

XY441  EGU2012-485
  J. Du, J. Zhu, C. Pain, F. Fang, and A. Avdis
  An eddy resolving tidal-driven ocean model of the South China Sea using an unstructured mesh

XY442  EGU2012-782
  J. Kuhlmann, H. Dobslaw, M. Thomas, and C. Petrick
  Modelling the ocean around South Africa: Interactions between the Agulhas Current and the ACC

XY443  EGU2012-839
  I. Russo, A. Storto, and S. Masina
  Impact of ERA-Interim forcing fields corrections on ocean state eddy-permitting OGCM simulation (1989-2010)

XY444  EGU2012-2930
  G.I. Shapiro, J. Pickering, and M.V. Luneva
  Optimising the vertical grid for numerical simulations of the Black Sea dynamics

XY445  EGU2012-5414
  E. Exarchou, J.-S. Von Storch, and J. Jungclaus
  Impact of tidal mixing with different scales of bottom roughness on the general circulation in the ocean model MPIOM

XY446  EGU2012-2967
  G.I. Shapiro, F. Cheng, and R. Thain
  Sensitivity of ocean model simulation in the coastal ocean to the resolution of the meteorological forcing

XY447  EGU2012-6967
  Y.-G. Park
  Dependence of tracer injection on the horizontal resolution in a numerical model

XY448  EGU2012-4861
  P. Itkin, R. Gerdes, C. Köberle, and S. Adams
  Role of Fast Ice in the Laptev Sea Shelf Circulation

XY449  EGU2012-10253
  A. Fuchs, A. Androsov, S. Harig, W. Hiller, and N. Rakowsky
  Numerical Aspects of Nonhydrostatic Implementations Applied to a Parallel Finite Element Tsunami Model

XY450  EGU2012-13362
  I. Rosso, A.M. Hogg, P.G. Strutton, and A.E. Kiss
  The Vertical Transport in the Ocean: a Pump Driven by Meso and Submesoscale Structures

ESSI.1.2/OS4.7 – Informatics in Oceanography and Ocean Science (co-organized) – Orals
Convener: G. M. R. Manzella | Co-Conveners: D. M. A. Schaap, A. Alvarez
Room: 25
Chairperson: Dick Schaap

13:30–13:45 EGU2012-1163
  G. Breitbach and H. Krasemann
  Web Services as Building Blocks for an Open Coastal Observing System

13:45–14:00 EGU2012-1258
  Effective Management of Ocean Biogeochemistry and Ecological Data: the BCO-DMO Story

14:00–14:15 EGU2012-1638
  M. Fichaut, D. Schaap, G. Maudire, and G.M.R. Manzella
  SeaDataNet: Pan-European infrastructure for ocean and marine data management

14:15–14:30 EGU2012-1643
  A. Novellino, D. Schaap, G.M.R. Manzella, S. Pouliquen, and P. Gorringe
  EMODnet Physical Parameters (EMODNet PP) Portal

14:30–14:45 EGU2012-4601
  H. Glaves and D. Schaap
  Geo-Seas - building a unified e-infrastructure for marine geoscientific data management in Europe

14:45–15:00 EGU2012-6399
  R. Proctor, P. Blain, and S. Mancini
  Oceans of Data : the Australian Ocean Data Network

AS2.2/OS5.3 – Turbulence in the atmospheric and oceanic boundary layers (co-organized) – Orals
Convener: A.S. Petrosyan | Co-Conveners: S. Belcher
Room: 8
Chairperson: A. Petrosyan
13:30–13:45  EGU2012-8368
MW Rotach
Inhomogeneity of atmospheric boundary layers in complex terrain

13:45–14:00  EGU2012-9448
C. Meneveau and W. Anderson
Dynamic surface roughness model for LES of atmospheric boundary layer flow over multi-scale terrain with power-law height spectra

14:00–14:15  EGU2012-4758
A.-S. Smedman and E. Sahlee
Swell and UVCN regimes - competing mechanisms influencing the exchange of scalars over the ocean

14:15–14:30  EGU2012-13102
C.D. Markfort, W. Zhang, F. Porté-Agel, and H.G. Stefan
Effect of canopy and topography induced wakes on land-atmosphere fluxes of momentum and scalars

14:30–14:45  EGU2012-3883
C.C.C. Wong and C.H Liu
Turbulent Plume Dispersion over Two-dimensional Idealized Urban Street Canyons

14:45–15:00  EGU2012-2561
S. Chambers, A.G. Williams, W. Zahorowski, A. Griffiths, and J. Crawford
Investigating fetch effects and local mixing using near-surface radon gradient measurements

15:00–15:15  EGU2012-3659
D. Barantiev, E. Batchvarova, and M. A. Novitzky
Boundary layer structure during sea breeze conditions at Ahtopol, Bulgaria

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AS2.2/OS5.3 – Turbulence in the atmospheric and oceanic boundary layers (co-organized) – Posters
Convener: A.S. Petrosyan | Co-Conveners: S. Belcher
Hall X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: A. Petrosyan

XY123  EGU2012-1862
G. Buffett, E.A. Vsemirnova, and D Klaeschen
Stochastic Heterogeneity Mapping to quantify turbulence in horizon layers of thermohaline staircases in the Mediterranean Outflow Water

XY124  EGU2012-2563
S. Chambers, A.G. Williams, A. Griffiths, J. Crawford, and W. Zahorowski
Radon-222, a proxy for vertical mixing of emissions in the urban nocturnal boundary layer

XY125  EGU2012-2564
A. Griffiths, S. Chambers, S. Parkes, A.G. Williams, and M. McCabe
Improving lidar-based mixing height measurements with radon-222

XY126  EGU2012-3902
Y.K. Ho and C.H. Liu
Wind Tunnel Measurements of Turbulent Boundary Layer over Hypothetical Urban Roughness Elements

XY127  EGU2012-7195
T. He, S. Stanic, K. Bergant, and F. Gao
Observations of tropospheric structure over the complex terrain of SW Slovenia with scanning lidars and radiosonde

XY128  EGU2012-8330
M. Balmaz and F. Georgescu
Study of the Low- Level jet characteristics in winter season between 1959 and 1982 for Bucharest’s airports

XY129  EGU2012-9004
V. M. Gryani, C. Lüpkers, and J. Hartmann
Effective geometry based parametrization of the neutral drag coefficients for different sea ice morphology regimes

XY130  EGU2012-9061
C. Messager and V. Faure
Forecast atmospheric surface fields versus in-situ and remote observations from Agulhas region to 57°S in 2008

XY131  EGU2012-10703
W.C. Cheng and F. Porté-Agel
Evaluation of subgrid-scale models in large eddy simulation of flow past a two-dimensional block

XY132  EGU2012-11175
M.A. Gusakova and L.N. Karlin
Modeling of global surface air temperature
XY133  EGU2012-12672
P. Dimitriadis and P. Papanicolou
Statistical analysis of turbulent positively buoyant jets

XY134  EGU2012-12716
Zone of flow establishment in turbulent jets

XY135  EGU2012-11326
M. Abkar and F. Porté-Agel
The influence of a very large wind farm on turbulent transport in the atmospheric boundary layer

XY136  EGU2012-13192
L. Garcia-Carreras, D.J. Parker, J.H. Marsham, P. Rosenberg, F. Marenco, and J. Mcquaid
The vertical structure of the Saharan boundary layer: Observations and modelling

XY137  EGU2012-14376
K.V. Karelsky and A.S. Petrosyan
Modeling of particulate plumes transportation in boundary layers with obstacles

XY138  EGU2012-87
OCARINA : a new platform dedicated to measurements of Air-Sea fluxes

XY139  EGU2012-1847
B. Maronga, D. van Dinther, A. Moene, and S. Raasch
Derivation of turbulent structure parameters from large-eddy simulations and comparison with large-aperture scintillometer data and aircraft observations.

XY140  EGU2012-1949
Mr. Chan and Dr. Liu
Large-eddy simulation of flows over idealized urban areas in thermal stratification

XY141  EGU2012-3888
K. K. Leung and C. H. Liu
On the Aerodynamic Characteristics over Idealized Two-Dimensional Urban Street Canyon Models

XY142  EGU2012-7859
C. Garbe and J. Schnieders
Structure of Small-Scale Turbulences at the Free Air-Water Interface

XY143  EGU2012-12106
A. Segalini, E. Deusebio, J. H. M. Fransson, and P. H. Alfredsson
Analysis of coherent structures in canopy flows
Tuesday, 24 April

CL5.11 – EuroFORUM 2012: Major achievements and perspectives in scientific ocean and continental drilling (co-listed) – Orals
Room: 16
Chairperson: n.n.

13:30–13:45 EGU2012-2847
J. Inwood, S. Morgan, A. Mcgrath, S. Davies, H. Foster, and J. Lofi
Characterization of New Jersey Shelf Sedimentation using geochemical and physical properties: IODP Expedition 313

13:45–14:00 EGU2012-7352
T. Wiersberg, M.-L. Doan, A. M. Schleicher, K. Horiguchi, N. Eguchi, and J. Erzinger
In situ gas concentrations in the Kumano forearc basin from drilling mud gas monitoring and sonic velocity data (IODP NanTroSEIZE Exp. 319 Site C0009)

14:00–14:15 EGU2012-9834
A 500,000-Year-Long Sediment Archive of Lake Van in Eastern Anatolia

14:15–14:30 EGU2012-9841
Extreme Dead Sea drying event during the last interglacial from the ICDP Dead Sea Deep Drill Core

14:30–14:45 EGU2012-13385
W. Clyde, S. Wing, P. Gingerich and the BBCP Science Team
Bighorn Basin Coring Project (BBCP): High-Resolution Continental Records of Early Paleogene Hyperthermals

14:45–15:00 EGU2012-1824
R. Stein, B. Coakley, N. Mikkelsen, M. O’Regan, and C. Ruppel
Future scientific drilling in the Arctic Ocean: Key objectives, areas, and strategies
Chairperson: R. Stein, U. Harms

15:30–15:45 EGU2012-7682
The Baltic Sea IODP project “Paleoenvironmental evolution of the Baltic Sea Basin through the last glacial cycle

15:45–16:00 EGU2012-8958
The Neogene monsoon and oceanic currents in the Indian Ocean: The Maldives archipelago.

16:00–16:15 EGU2012-5807
> Exploring the Scandinavian Mountain Belt by Deep Drilling (COSC)

16:15–16:30 EGU2012-7104
C Mevel, R Gatilff, J Ludden, G Camoin, B Horsfield, and A. Kopf
Towards a distributed infrastructure for research drilling in Europe

16:30–16:45 EGU2012-12592
B. Esmael, R Fruhwirth, A. Arnaout, and G. Thonhauser
Operations Recognition at Drill-Rigs

16:45–17:00 EGU2012-14018
H.-J. Wallrabe-Adams, M. Diepenbroek, H. Grobe, R. Huber, U. Schindler, and J. Collier
IODP Scientific Earth Drilling Information Service

CL5.11 – EuroFORUM 2012: Major achievements and perspectives in scientific ocean and continental drilling (co-listed) – Posters
Hall Z | Display Time 08:30–19:30
Author in Attendance: 17:30–19:00
Chairperson: C. Escutia
Z105  EGU2012-11635  
Middle to Late Eocene Carbonate Accumulation Events in the Equatorial Pacific - new geochemical records from IODP Exp 320/321 and ODP Leg 199

Z106  EGU2012-5892  
The ICDP Dead Sea Deep Drilling Project: An overview and the potential for high-resolution records of floods and droughts in the Levant

Z107  EGU2012-14264  
J Hernandez-Molina, D. Stow, C. Alvarez-Zarikian and the Expedition 339 Scientists Team  
Onset, evolution and effects of the Mediterranean Outflow: Preliminary Results of IODP Expedition 339 in the Gulf of Cadiz

Z108  EGU2012-6207  
M. Schreck, J. Matthesien, and R. Stein  
The Neogene of the Iceland Sea - Paleoenviromental reconstructions using marine palynomorphs

Z109  EGU2012-6718  
K. Katsuki, B.K. Khim, and B. Song  
Latest Miocene and Pliocene paleoceanographic condition in the Southern Ocean based on silicoflagellate assemblage

Z110  EGU2012-12680  
J.J. Gonzalez, C Escutia, F.J. Espejo, T Williams, R.M. McKay, S. Passhier, T. van de Flierdt, L. Tauxe, H. Brinkhuis and the Carlota Escutia Team  
Records of glacial-interglacial variability during the Pliocene: IODP Expedition 318 - Site U1361

Z111  EGU2012-12607  
M. Kobayashi, M. Iwai and the Expedition 318 Scientists Team  
Upper Miocene-Pliocene diatoms in the Southern Ocean: IODP Site U1361 on the continental rise off Wilkes Land, Antarctica

Z112  EGU2012-14473  
G.B. Dunbar  
Mg/Casea surface temperatures during the Marine Isotope Stage 31 collapse of the Ross Ice Shelf

Z113  EGU2012-7650  
B.D.A. Naafs, J Hefter, P Ferretti, R Stein, and G.H. Haug  
Sea surface temperatures did not control the first occurrence of Hudson Strait Heinrich Events during MIS 16

Z114  EGU2012-9427  
C Ohlendorf, C Gebhardt, and the PASADO science team  
A step towards the identification of eolian input in the 51 ka BP sediment record of Laguna Potrok Aike in southeastern Patagonia

Z115  EGU2012-12857  
A. Fehr, R. Pechnig, J. Inwood, J. Lofi, F.P. Bosch, and C. Clauser  
Thermophysical properties derived from lab measurements and downhole logging at New Jersey Shallow Shelf (IODP Expedition 313)

Z116  EGU2012-9581  
Petrographical and geochemical characteristics of the sheeted dyke-gabbro transition zone in ODP/IODP Hole 1256D

Z117  EGU2012-6976  
N. T. Arndt and the Barberton Drilling Team  
Peering into the Cradle of Life: Scientific Drilling in the Barberton Greenstone Belt, South Africa

Z118  EGU2012-3228  
J. Trela, E.C. Ferré, J. Deans, R. Anma, A. Morris, and Expedition 335 Scientific Party  
Shape-preferred orientation (SPO) of oceanic gabbros at IODP Hole 1256D: Implications for magmatic processes

Z119  EGU2012-12550  
A. Rüggeberg, A. Foubert, A. Vertino, D. Van Rooij, S. Spezzaferri, J.-P. Henriert, W.-C. Dullo, and COCARDE Science Community  
COCARDE: new view on old mounds - an international network of carbonate mound research

Z120  EGU2012-9416  
C. Gebhardt, L. Naudts, L. De Mol, and M. De Batist  
Seismic investigation of Lake Issyk-Kul, Kyrgyzstan

Z121  EGU2012-7644  
H. Lorenz and C. Juhlin  
The Swedish Deep Drilling Program - projects and status 2012
Simple, Affordable and Sustainable Borehole Observatories for Complex Monitoring Objectives


A new scientific drilling infrastructure in Sweden

J.-E. Rosberg and H. Lorenz

New tools and applications for the retrieval of cores under in situ pressure

M. Rothfuss, E. Anders, W. H. Müller, T. Rothenwänder, and D. Wunsch

Model-Based Hookload Monitoring and Prediction at Drilling Rigs using Neural Networks and Forward-Selection Algorithm

A. Arnaut, R. Fruhwirth, M Winter, B. Esmael, and G. Thonhauser

Using Real-time Event Tracking Sensitivity Analysis to Overcome Sensor Measurement Uncertainties of Geo-Information Management in Drilling Disasters

S. Tavakoli, S. Poslad, R Fruhwirth, and M. Winter

Rig Side Online Drilling Support System for Prediction and Prevention of Upcoming Crises

B. Jandl, M. Winter, R. Fruhwirth, F. Riedel, and H. Zeiner

Science Data Management for a CO2-Sequestration project

K. Behrends and R. Conze

Nonlinear, scaling and complex Physical and Biogeophysical Processes in the Atmosphere and Ocean

F.G. Schmitt

Scaling comparison of high frequency simultaneous oceanic and atmospheric temperature time series

S.B. Zongo and F.G. Schmitt

High frequency study of nutrient fluxes variability in a small river

S. K. Seo and K. Kim

Dynamical behaviors of meteorological variations using the multifractal detrended fluctuation analysis

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

T.V. Belonenko and V.R. Foux

Barotropic standing-progressive Rossby waves

V. Lucarini and G. Zappa

Baroclinic stationary waves in aquaplanet models

S. Lovejoy, D. Schertzer, and D. Varon

Do GCM’s predict the climateâ€¦ Or the low frequency weather?

W. Jung, D. Lee, and K. Kim

Characteristics of networks in sea surface temperatures

G. Bel and Y. Ashkenazy

The relation between the statistics of open ocean currents and the temporal correlations of the wind

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
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.

OS1.1 – Open Session on Ocean Circulation (including Fridtjof Nansen Medal Lecture) – Orals
Convener: T. Kanzow | Co-Conveners: J. Hirschi, E. Frajka-Williams
Room: 12

Chairperson: Torsten Kanzow

13:30–13:45  EGU2012-1633
CJ Wright and RB Scott
Current Meter Measurements of Ocean-Bottom Eddy Dissipation

13:45–14:00  EGU2012-6384
K.I.C. Oliver
The apparent efficiency of gravitational potential energy generation by diapycnal mixing in the ocean

14:00–14:15  EGU2012-4777
b. sinha, a. t. blaker, j. j.-m. hirschi, s. bonham, m. brand, s. a. josey, r. s. smith, and j. marotzke
mountains, no mountains and the Atlantic Meridional Overturning Circulation

14:15–14:30  EGU2012-7471
T. Graham, L. Jackson, M. Menary, and M. Palmer
Freshwater pulse experiments in a coupled climate model with bistable AMOC: testing the theory

14:30–14:45  EGU2012-13280
I. Koszalka, T. W. N. Haine, and M. G. Magaldi
Fates and transformation of Denmark Strait Overflow Water revealed by Lagrangian particles in a high resolution ocean model

14:45–15:00  EGU2012-1715
P. Haertel and A.V. Fedorov
What controls stratification, overturning, and water masses in an ocean with a fully adiabatic interior?

Chairperson: Eleanor Frajka-Williams

15:30–15:45  EGU2012-13503
N. Maximenko, J. Hafner, and R. Lumpkin
Pathways of marine debris in statistical and diagnostic ocean circulation models

15:45–16:00  EGU2012-4784
R. Marsh, N. Skliris, S.A. Josey, and B.A. de Cuevas
The forcing, shaping and possible consequences of ocean salinity changes in the global ocean

16:00–16:15  EGU2012-9774
O. Marchal
A Rauch-Tung-Striebel smoother for the interpretation of long time series of ocean observations

16:15–16:30  EGU2012-858
M. Kersalé, A. A. Petrenko, A. M. Doglioli, F. Nencioli, J. Bouffard, and I. Dekeyser
Role of mesoscale eddies on exchanges between coastal regions

16:30–16:45  EGU2012-5702
A. Teles-Machado and A. Peliz
Atlantic Iberian Margin currents and eddies on a 20 yr high resolution simulation

16:45–17:00  EGU2012-13349
R. F. Sanchez Leal, C. González-Pola Muñiz, M. Ruiz Villarreal, A. Peliz, L. M. Fernández Salas, J. García Lafuente, and A. Lavín Montero
Recent observations of the Mediterranean water in the Eastern Gulf of Cadiz: flow-topography interactions.

OS1.1 – Open Session on Ocean Circulation (including Fridtjof Nansen Medal Lecture) – Posters
Convener: T. Kanzow | Co-Conveners: J. Hirschi, E. Frajka-Williams
XY333  EGU2012-109  
A modified algorithm for estimating Absolute Salinity in the global ocean

XY334  EGU2012-226  
R. Durazo  
Poleward flows along the transitional region of the Northeastern Pacific

XY335  EGU2012-296  
N. Kalashnikova and A. Demidov  
Decadal changes of the Intermediate, Deep and Bottom Water Mass Characteristics in the Atlantic Ocean

XY336  EGU2012-298  
E. Krayushkin and A. Demidov  
The distinctive features of the North Atlantic Deep Water components origin, structure and propagation in the Atlantic Ocean

XY337  EGU2012-1038  
Z. Wang and D. Yuan  
Nonlinear Dynamics of Two Western Boundary Currents Colliding at a Gap

XY338  EGU2012-2721  
M. Vogt, W. Roether, S. Vogel, and J. Sueltenfuss  
Improving the accuracy of helium and neon measurements in ocean waters

XY339  EGU2012-3494  
E. Heslop, S. Ruiz, J. Allen, and J. Tintoré  
High sub-seasonal variability in water volume transports, revealed through a new ocean monitoring initiative using autonomous gliders

XY340  EGU2012-4547  
S. Tippenhauer and T. Kanzow  
Horizontal mapping of near-seafloor vertical mixing in the central valley of the Mid-Atlantic Ridge

XY341  EGU2012-4581  
A. Peliz and S. Kida  
On the connection between the Mediterranean Outflow-driven Beta-plume and the Azores Current.

XY342  EGU2012-5703  
A. Rabitti, H. van Haren, T. Gerkema, and L. R. M. Maas  
On the West Atlantic Ocean Equatorial boundary layer

XY343  EGU2012-6929  
C. Collins, T. Margolina, and T. Rago  
Comparison of Shipboard Hydrographic Time Series off California and Hawaii

XY344  EGU2012-7651  
H. S. Min and J.-H. Park  
Hydrographic structure in the Northwest Pacific Ocean in stream function space

XY345  EGU2012-7669  
Monitoring the ocean from observations

XY346  EGU2012-7973  
Y. Aksenov, A.J.G. Nurser, S. Bacon, and A.C. Coward  
Simulations of the Arctic Boundary Current in an eddy-resolving global ocean model

XY347  EGU2012-8516  
A. Barbosa Aguiar, A. Peliz, A. Teles-Machado, and X. Carton  
A statistical study of MO eddies in a 20 yrs high resolution simulation

XY348  EGU2012-10681  
W. Wang, A. Koehl, and D. Stammer  
The Deep Meridional Overturning Circulation in the Indian Ocean Inferred from the GECCO Synthesis

XY349  EGU2012-11768  
A. Marrero-Díaz, A. Rodríguez-Santana, M. Hernández-Arencibia, F. Machín, and L. García-Weil  
Advective and diapycnal diffusive oceanic flux in Tenerife - La Gomera Channel

XY350  EGU2012-12196  
An inverse model to estimate the origin of the Canary Current in Autumn 2009

XY351  EGU2012-12293  
R. Waldman, J. Mignot, and C. Frankignoul  
Seasonal AMOC variability at 26.5°N in two coupled models and a forced ocean model: comparison to observations
XY352  EGU2012-13525
B. Aguiar-González, S. Hormazábal, A. Rodríguez-Santana, J. Cisneros-Aguirre, and A. Martínez-Marrero
Observations of inertial oscillations affected by mesoscale activity in the Northeast Atlantic Ocean

XY353  EGU2012-13752
B. Martínez-Lopez, J. Zavala-Hidalgo, and A. Quintanar
Loop Current Rings and Seasonal Cycle

OS4.3 – Ocean Remote Sensing – Posters
Hall X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: A. Alvera-Azcárate, E. Devred and S. Mecklenburg

XY354  EGU2012-1248
G. Vanyushin, V. Borisov, M. Bogdanov, and T. Bulatova
Using satellite data for monitoring temperature conditions in fishing areas of the Northeast Atlantic for improving prognosis of fishery.

XY355  EGU2012-1304
L.G. Evers, A Van Geyt, and M Snellen
Passive probing of the Atlantic Ocean's SOFAR channel with hydro-acoustic observations from earthquakes

XY356  EGU2012-1314
C. Guo, V. Vlasenko, W. Alpers, N. Stashchuk, and X. Chen
Short internal waves trailing strong internal solitary waves in the South China Sea

XY357  EGU2012-2804
C. C. Lin, C. R. Ho, and Y. H. Cheng
Sea Level Rise in Tuvalu

XY358  EGU2012-2641
C.-R. Ho, Y.-H. Cheng, C.-Y. Lin, N.-J. Kuo, and S.-J. Huang
A Study of Typhoon Intensity Change by Data Mining Technique

XY359  EGU2012-2770
S.-J. Huang, Y.-T. Chan, N.-J. Kuo, and C.-R. Ho
Effects of sea surface characteristics on typhoon evolution using multi-satellite data

XY360  EGU2012-3266
F. Beron-Vera, Y. Wang, M. Olascoaga, G. Haller, and G. Goni
Objective identification and tracking of eddies in altimetry data

XY361  EGU2012-5176
C. Troupin, A. Alvera-Azcárate, and J.-M. Beckers
Reconstruction and analysis of QuikSCAT wind measurements with an EOF-based technique

XY362  EGU2012-6152
I. Bashmachnikov, D. Boutov, J. Dias, A. Aguiar, and J.H. Monteiro
Surface signature of a meddy while interacting with the Azores current

XY363  EGU2012-7315
D.H. Lee, J.S. Hwang, H.S. Yun, B.I. Min, and Y.C. Suh
Computation of Complete Bouguer Anomalies using Satellite Marine Gravity Models in East Sea, Korea

XY364  EGU2012-7584
K.-W. Gurgel, T. Schlick, D. Figueroa, and A. Dzvonkovskaya
Observing the 2011 Honshu Tsunami at the Coast of Chile by HF radar

XY365  EGU2012-7778
A. Turiel, M. Umbert, N. Hoareau, J. Ballabera-Poy, and M. Portabella
Singularity Analysis: a powerful image processing tool in remote sensing of the oceans

XY366  EGU2012-8246
A Kerguelen regional Sea Level product to support the KEOPS2 experiment

XY367  EGU2012-9090
Z.-W. Zheng and C.-R. Ho
The impact of ENSO on upper ocean response to a typhoon

XY368  EGU2012-10529
Studying luminescent characteristics of the specific surfactants in various regions of the Baltic Sea

XY369  EGU2012-13162
M.P. Clarizia, M. di Bisceglie, C. Galdi, C. Gommenginger, and M. Srokosz
On the influence of ocean waves on simulated GNSS-R delay-doppler maps
<table>
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<th>Authors</th>
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<tr>
<td>XY370</td>
<td>EGU2012-11148</td>
<td><strong>P. Cipollini</strong>, J. Benveniste and the COASTALT Team</td>
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<tr>
<td></td>
<td>COASTALT Project's contribution to the development and dissemination of coastal altimetry</td>
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<td>XY371</td>
<td>EGU2012-1113</td>
<td><strong>S. M. Barbosa</strong> and M. J. Fernandes</td>
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<td>Space-time variability of geophysical corrections from the COASTALT coastal altimetry product in the west Iberia region</td>
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<td>Remote sensing of the coastal ocean with standard geodetic GNSS-equipment</td>
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<td>Evaluation of the Global Tidal Models versus Satellite Altimetry and Local Tide gauge data, a Case Study in Persian Gulf and Oman Sea</td>
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<tr>
<td>XY374</td>
<td>EGU2012-10480</td>
<td><strong>E.G.R. Gonzalez Rodriguez</strong> and A.T.C. Trasviña Castro</td>
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<td>Mesoscale in the coastal zone of the Southern Baja California Peninsula, through color images</td>
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<td>The influence of suspended matter on a water column correction approach for case 2 coastal waters on remote sensing data</td>
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<tr>
<td>XY379</td>
<td>EGU2012-13903</td>
<td><strong>V. Vantrepotte</strong>, H. Loisel, D. Dessailly, and X. Mériaux</td>
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<td>Optical classification of contrasted coastal waters</td>
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<td>Sea Surface Salinity and Ocean Color Observations in the Northern Gulf</td>
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<td>XY382</td>
<td>EGU2012-2504</td>
<td><strong>J. Font</strong> and the SMOS L2OS Team</td>
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<td>SMOS ocean salinity: improvements and issues after two years of operations</td>
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<td>XY383</td>
<td>EGU2012-4328</td>
<td><strong>J. Köhler</strong>, M. Sena Martins, and D. Stammer</td>
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<td>Analysis of Sea Surface Salinities as seen by SMOS</td>
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<tr>
<td>XY384</td>
<td>EGU2012-4673</td>
<td><strong>M. Umbert</strong>, N. Hoareau, A. Turiel, J. Ballabrera, and M. Portabella</td>
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<tr>
<td>XY385</td>
<td>EGU2012-6209</td>
<td><strong>E. Slominska</strong>, W. Marczewski, and J. Slominski</td>
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<td>SMOS over Antarctica - a short story of massive iceberg</td>
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<tr>
<td>XY386</td>
<td>EGU2012-7464</td>
<td>X. Yin, <strong>J. Boutin</strong>, N. Martin, J. Vergely, and P. Spurgeon</td>
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<td>Wind induced errors on retrieving SSS with SMOS brightness temperature</td>
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</table>
Coincident Retrieval of Sea Surface Salinity from the Northern Gulf of Mexico Using SMOS and STARRS During the 2011 COSSAR Airborne Campaign.

OS4.5 – SENSEnet: Marine sensor development for the 21st Century – Orals
Convener: D. Connelly | Co-Conveners: V. Garçon, F. Wenzhoefer
Room: 9
Chairperson: Douglas Connelly

08:30–08:45 EGU2012-3774
K. Johnson
Chemical Sensors for a Global Observing System

08:45–09:00 EGU2012-2102
C. Barus, W. Giraud, D. Thouron, M. Comtat, V. Garçon, M. Armengaud, and N. Striebig
Electrochemical microsensor for in situ measurements of dissolved silicate in marine systems

09:00–09:15 EGU2012-4408
A. Meier, N.M. Tsaloglou, D. Connelly, B. Keevil, and M. Mowlem
Analysis of hyper-baric biofilms on engineering surfaces formed in the Deep Sea

09:15–09:30 EGU2012-12890
M.-N. Tsaloglou, C.M. Loukas, J.M. Ruano-López, H. Morgan, and M.C. Mowlem
An integrated microfluidic sensor for real-time detection of RNA in seawater using preserved reagents

09:30–09:45 EGU2012-14050
S Borisov and I Klimant
New Optical Sensing Materials for Application in Marine Research

09:45–10:00 EGU2012-11984
M. Marcelli, V. Piermattei, and U. Mainardi
T-Flap advances: instrumental and operative implementation

COFFEE BREAK

Chairperson: Veronique Garcon

10:30–10:45 EGU2012-11471
D. Donis, F. Janssen, M. Böttcher, D. McGinnis, M. Holtappels, and F. Wenzhöfer
Application of an eddy correlation system for the estimation of oxygen benthic fluxes in coastal permeable sediments impacted by submarine groundwater discharge

10:45–11:00 EGU2012-11143
J. Chapman, A. Lawlor, and F. Regan
Bio-inspired Design Approached Antifouling Strategies

11:00–11:15 EGU2012-11894
U. Marzocchi, N.P. Revsbech, L.P. Nielsen, and N. Risgaard-Petersen
Distant electric coupling between nitrate reduction and sulphide oxidation investigated by an improved nitrate microscale biosensor

11:15–11:30 EGU2012-11060
K. Koop-Jakobsen, J. Fischer, and F. Wenzhöfer
A novel Multi-Fiber Optode sensor system (MuFO) for monitoring oxygen

11:30–11:45 EGU2012-4435
A. Chennu, N. Volkenborn, F. Janssen, and L. Polerecky
Mapping the in situ microscale distribution of microphytobenthic biomass in coastal sediments: a hyperspectral methodology

11:45–12:00 EGU2012-2324
E. R. Reggiani and R. G. J. Bellerby
An autonomous spectrophotometric system for high resolution measurement of seawater pH

OS4.5 – SENSEnet: Marine sensor development for the 21st Century – Posters
Convener: D. Connelly | Co-Conveners: V. Garçon, F. Wenzhoefer
Hall X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Douglas Connelly
Microfluidic technology for in-situ detection of iron at low concentration in seawater

The use of photo-mosaics, bathymetry and sensor data into geographic information system for site description and faunal distribution analysis at the Menez Gwen Hydrothermal vent field

Hydroacoustic investigation of the emissions of gas from the seabed in fieldwork and experimental studies

Quality control of long-term oxygen and related observations at the Koljoe Fjord Observatory, Sweden

Low-cost instrumentation for high-resolution coastal monitoring

Results of instrumental and operative implementation of T-Flap

Next generation in-situ optical Raman sensor for seawater investigations

Introducing a new high sensitive surface-enhanced Raman substrate for monitoring PAHs in sea-water

Electrochemical methods for autonomous chemical (phosphate and oxygen) monitoring in the ocean in the Oxygen Minimum Zone

Switchable trace oxygen optode - combining the principle of the STOX electrode with optical oxygen sensors

Towards nanomolar nutrients sensors for the marine environment.

A new device for high precision in situ sediment temperature profile measurements at the seafloor

Improvement and use of an optical pCO2 sensor in the marine environment

Multivariate statistical methods used in sensor development and on-line analyzing of data from marine observatories

The role of continuous monitoring as a decision support tool: A Dublin Port deployment.

Development of a colorimetric micro-sensor for seawater pH analysis: microfluidic design and oceanic deployment

ESSI1.2/OS4.7 – Informatics in Oceanography and Ocean Science (co-organized) – Orals
Convener: G. M. R. Manzella | Co-Conveners: D. M. A. Schaap, A. Alvarez
Room: 25
Chairperson: Giuseppe Manzella
15:30–15:45  EGU2012-8644
G. Griffiths, J. Blower, X. Yang, T. Loubrieu, and K. Haines
Web-based visualisation of ocean data in MyOcean

15:45–16:00  EGU2012-9816
Y. Sagarminaga, I. Galparasoro, R. Reig, and J.A. Sánchez
Development of ITSASGIS-5D: seeking interoperability between Marine GIS layers and scientific multidimensional data using open source tools and OGC services for multidisciplinary research.

16:00–16:15  EGU2012-8517
S. Bainbridge
Cloud-based serviced-orientated data systems for ocean observational data - an example from the coral reef community

16:15–16:30  EGU2012-7935
A. Sokolov, P. Axe, S. Bock, S. Kaitala, O. H. Manscher, M. Rodríguez-Medina, R. Olsön, I. Priha, and K. Tikka
Access to distributed marine databases on the Baltic Sea

16:30–16:45  EGU2012-10503
T. Hamre, S. Sandven, A. Leadbetter, V. Gouriou, D. Dunne, M. Grant, M. Treguer, and Ø. Torget
EUMIS - an open portal framework for interoperable marine environmental services

16:45–17:00  EGU2012-11036
E. Boldrini, B. Broeren, D. M. A. Schaap, S. Nativi, and G. M. R. Manzella
Revision and documentation of the CDI metadata model as a ISO 19115 profile

17:00–17:15  EGU2012-10663
C. Wosniok, G. Breitbach, and R. Lehfeldt
A Common Metadata System for Marine Data Portals

17:15–17:30  EGU2012-11439
T. Loubrieu, J. Dorandeu, V. Claverie, K. Cordier, Y. Barzic, O. Lauret, T. Jolibois, and J. Blower
MyOcean Information System : achievements and perspectives
Using Numerical Models in the Development of Software Tools for Risk Management of Accidents with Oil and Inert Spills
Wednesday, 25 April

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

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**BG3.1 – Oxygen depletion in land-locked, coastal and open ocean systems of the present and past – driving mechanisms, impacts and recovery (co-listed) – Orals**

Convener: C. P. Slomp | Co-Conveners: J. Middelburg, A. Boetius  
**Room: 23**

Chairperson: Caroline Slomp

08:30–08:45  
**EGU2012-10421**  
**S. Lefort**, Y. Gratton, A. Mucci, I. Dadou, and D. Gilbert  
Hypoxia in the bottom water of the St. Lawrence Estuary: Is this ecosystem on borrowed time?

08:45–09:00  
**EGU2012-6045**  
**C. Berg**, V. Vandieken, B. Thamdrup, and K. Jürgens  
Significance of archaeal nitrification in hypoxic waters of the Baltic Sea
09:00–09:15  EGU2012-5690
G.L. Jessen, A. Lichtschlag, D. Donis, F. Wenzhöfer, C.J. Schubert, A. Ramette, and A. Boetius
Changes in microbial community structure under variable oxygen conditions at the Crimean shelf (Black Sea)

09:15–09:30  EGU2012-7041
S. Schimanke and H.E.M. Meier
Past and future changes of hypoxia in the Baltic Sea simulated with a Regional Climate Model

09:30–09:45  EGU2012-12547
T. Jilbert, C. P. Slomp, and D. J. Conley
Phosphorus dynamics and productivity during modern and past intervals of coastal hypoxia

09:45–10:00  EGU2012-9350
S. Sommer, L. Bohlen, A.W. Dale, K. Wallmann, A. Noffke, C. Hensen, T. Mosch, and O. Pfannkuche
Nitrogen cycling across the Peruvian oxygen minimum zone surface sediments

BG3.1 – Oxygen depletion in land-locked, coastal and open ocean systems of the present and past – driving mechanisms, impacts and recovery (co-listed) – Posters
Convener: C. P. Slomp | Co-Conveners: J. Middelburg, A. Boetius
Post Area BG | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Caroline Slomp

BG51  EGU2012-5071
J. Karstensen, B. Fiedler, P. Brandt, A. Körtzinger, R. Zantopp, D. Wallace, G. Krahmann, M. Visbeck, and J. Hahn
Severe dead-zone eddies in the open North Atlantic Ocean

BG52  EGU2012-11447
M. Holtappels, F. Janssen, A. Lichtschlag, J. Fischer, F. Wenzhöfer, A. Boetius, and M. Kuypers
Highly dynamic oxygen conditions and increased denitrification in Crimean Shelf sediments (Black Sea)

BG53  EGU2012-1881
Y. He, E. Stanev, and J. Stanova
Black Sea Biochemistry: Variability of Suboxic Zone as seen in continuous observations and 3D Numerical Simulations

BG54  EGU2012-9869
A. Noffke, S. Sommer, A.W. Dale, V. Bertics, and O. Pfannkuche
Internal nutrient loading of ammonium and phosphorus across the benthic boundary layer of the oxic to anoxic Gotland Basin (Baltic Sea)

BG55  EGU2012-12678
Sediment trace metals as a recorder of bottom water redox conditions in the Baltic Sea over the Holocene

BG56  EGU2012-7330
A. Stigebrandt, D. Hansson, and B. Liljebland
Minimum oxygen concentrations in the deepwater of enclosed stratified marine basins of arbitrary hyposography as determined by organic loading and vertical mixing and their dependences on atmospheric and marine boundary conditions

BG57  EGU2012-390
Episodic estuarine hypoxic events: integrating the biogeochemistry, hydrology and climate on a sub-tropical floodplain, eastern Australia

BG58  EGU2012-455
B. Y. Queste, L. Fernand, T. D. Jickells, and K. J. Heywood
Spatial extent and historical context of North Sea oxygen depletion in August 2010

BG59  EGU2012-7629
D. Langlet, E. Geslin, E. Metzger, B. Riedel, M. Stachowitsch, M. Zuschin, C. Baal, and F. Jorissen
Foraminiferal response to long-term anoxia: In situ experiment in the Gulf of Trieste (Northern Adriatic Sea)

BG60  EGU2012-4490
P. Kraal, R. T. Bush, E. D. Burton, and M. D. Cheetham
Physical and chemical drivers of iron, phosphorus and sulfur cycling in a eutrophied shallow estuary

BG61  EGU2012-4796
K. Oguri, T. Toyofuku, C. Fontanier, R. Schiebel, L.J. de Noojer, K. Koho, G.J. Reichart, and H. Kitazato
Oxygen concentration profiles and the consumption rates at the sediment-water interface off Hachinohe, Northeastern Japan.

BG62  EGU2012-4652
A. Pavlidou, I. Hatziianestis, and R. Psillidou-Giouranovits
Dissolved Oxygen decrease near the bottom of the Inner Saronikos Gulf affected by the Athens Sewage Outfall
**BG63**  EGU2012-12509

**A. Dreier, L. Stannek, M. Blumenberg, M. Taviani, M. Sigovini, C. Wrede, V. Thiel, and M. Hoppert**

Isotopic fingerprints of bacterial chemosymbiosis in the bivalve Loripes lacteus

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**CL4.3 – Mediterranean Climate: from past to future (co-listed) – Orals**

Convener: P. Lionello  |  Co-Conveners: C.M. Goodess, F. Abrantes, M. Tsimplis

**Room: 16**

**Chairperson: C. Goodess**

08:30–08:45  EGU2012-6637


The MedCLIVAR program and the climate of the Mediterranean region

08:45–09:00  Young scientist poster presentations

09:00–09:15  EGU2012-9847

**M Rogerson, EJ Rohling, GR Bigg, and J Ramirez**

Why does the Mediterranean Outflow vary through time?

09:15–09:30  EGU2012-8770

**S. Alessio, C. Taricco, G. Vivaldo, and M. Ghil**

Modern decrease of δ18O in Mediterranean sediments over the last 150 y: anthropogenic forcing and natural variability

09:30–09:45  EGU2012-13625

**J.-P. Savy, K.M. Yao, F. Touratier, and C Goyet**

Temporal evolution of the anthropogenic CO2 and acidification of the northwestern Mediterranean Sea, from the mid-1990s to the mid-2000s

09:45–10:00  EGU2012-2657

**J. Llasses, G. Jordà, and D. Gomis**

Optimal spatio-temporal design of an hydrographic sampling aimed to monitor climate change in the Mediterranean Sea

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**COFFEE BREAK**

Chairperson: I. Bladé

10:30–10:45  EGU2012-1673

**J. Romanski, A. Romanou, M. Bauer, and G. Tselioudis**

Atmospheric Forcing of the Eastern Mediterranean Transient by Midlatitude Cyclones

10:45–11:00  EGU2012-10946

**M. Gaetani and M. Pasqui**

A synoptic characterization of the Saharan dust transport in the Mediterranean basin

11:00–11:15  EGU2012-4573

**K. Schepanski and P. Knippertz**

Soudano-Saharan Depressions and their Importance for Precipitation and Dust - a new Perspective on a classical synoptic Concept

11:15–11:30  EGU2012-3956

**P. Nabat, F. Solmon, S. Somot, and M. Mallet**

Implementation of a new emitted dust size distribution in a RCM over the Mediterranean region: application to the impact of aerosols on the Mediterranean climate

11:30–11:45  EGU2012-8974

**A. Polonsky and M. Bardin**

Variability of Mediterranean cyclonic activity associated with the NAO and AMO

11:45–12:00  EGU2012-5932

**S. Josey**

To What Extent Do Atmospheric Modes Of Variability Determine Mediterranean Sea Surface Heat Exchange?

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**LUNCH BREAK**

Chairperson: P. Lionello
I. Bladé, B. Liebmann, D. Fortuny, and G.-J. van Oldenborgh
The summer North Atlantic Oscillation (SNAO) in CMIP3 models and related uncertainties in precipitation projections in the Euro-Mediterranean region

E. Hertig, J. Jacobite, A. Paxian, G. Vogt, S. Seubert, and H. Paeth
Statistical assessments of extreme precipitation and dry periods in the Mediterranean area until the end of the 21st century

J. A. Áñel and the The Weatherathome.net Team
Weatherathome.net: useful simulations for the Mediterranean region

A.-L. Lereboullet, G. Beltrando, and D.K. Bardsley
Climate change and viticulture in Mediterranean climates: the complex response of socio-ecosystems. A comparative case study from France and Australia (1955-2040)

A.G. Koutroulis, I.K. Tsanis, and D. Jacob
Projections of water resources availability in Crete for the 21st century under the global change perspective

S. Somot, F. Sevault, M. Déqué, M. Herrmann, C. Dubois, R. Aznar, E. Padorno, E. Alvarez-Fanjul, G. Jordà, M. Marcos, and D. Gomis
Regional ocean climate change scenarios for the Mediterranean Sea: assessing the uncertainties along the 21st century.

C. Dubois, S. Somot, S. Calmanti, A. Carillo, M. Déqué, A. Dell’Aquila, A. Elizalde, S. Gualdi, D. Jacob, B. L’Hévéder, L. Li, P. Oddo, G. Sannino, E. Scoccimarro, and F. Sevault
Future projections of the surface heat and water budgets of the Mediterranean Sea in an ensemble of coupled atmosphere-ocean regional climate models.

B. Wilhelm, F. Arnaud, P. Sabatier, C. Crouzet, E. Brisset, F. Guiter, J.L. Reyss, E. Chaumillon, K. Tachikawa, E. Bard, and J.J. Delannoy
1.4 kyrs of flash flood events in the Southern European Alps: implications for extreme precipitation patterns and forcing over the north-western Mediterranean area

L. Vidal, A. Pothin, M. Revel, K. Tachikawa, M. Garcia, C. Sonzogni, and E. Bard
Climate Variability in the Levant basin during the last deglaciation

R. Zech, M. Zech, S. Markovic, and Y. Huang
Humid glacials, arid interglacials? Results from a multiproxy study of the loess-paleosol sequence Crvenka, Serbia

Constraints on Mg/Ca-paleothermometry in the western Mediterranean Sea

G. Jordà, J. Llasses, and D. Gomis
Can we trust Mediterranean hydrographic data products (MEDAR, EN3, Ishii) for climate studies?

M. Gómez, L. Gimeno, R. Nieto, A. Drumond, and L. Prieto
Variability of the moisture sources around the Mediterranean Basin during 1980-2000
**Z114**  EGU2012-1121  
**C.M. Goodess, M.D. Agnew, D. Hemming, C. Giannakopoulos** and the CIRCE RL11 Team  
Integrated assessment in the Mediterranean: the CIRCE case studies

**Z115**  EGU2012-1557  
**JD Ruiz Sinoga, JF Martinez Murillo, MA Gabarron Galeote** and **JM Senciales Gonzalez**  
Analysis of dry periods using the DDSLR index in the Mediterranean southern Spain

**Z116**  EGU2012-3720  
**G. Jordà, M. Marcos, M. Gómez** and **D. Gomis**  
Wind wave climate in the Western Mediterranean under climate change scenarios

**Z117**  EGU2012-2465  
**A. Martínez-Asensio, M. Marcos, G. Jordà, D. Gomis** and **M. Gómez**  
Calibration of a wind wave hindcast (1958-2008) in the Western Mediterranean using buoy data.

**Z118**  EGU2012-2712  
**M. Tanarhte, P. Hadjinicolaou** and **J. Lelieveld**  
Intercomparison of temperature and precipitation datasets based on observations in the Mediterranean and the Middle-East

**Z119**  EGU2012-6008  
**M. Stéfanon**  
Dynamical effects of vegetation on the 2003 summer heat waves

**Z120**  EGU2012-6166  
**M. Revel, N. Combourieu Nebout, E. Ducassou, S. Migeon, M. Ismail, S. Bernasconi** and **O. Peyron**  
Temporal evolution of the Ethiopian monsoon intensity since the last 25,000 years from the Nile suspended discharges record.

**Z121**  EGU2012-9538  
**E. Romano, E. Volpi** and **F. Stefanucci**  
Analysis of temperature trends, heat and cold waves in Central Italy (1952-2008)

**Z122**  EGU2012-6263  
**P. Pereira, A. Sanchez-Lorenzo, J.-A. Lopez-Bustins** and **C.-J. Lolis**  
Trends in summer tropical nights on the Iberian Peninsula and their connection with large-scale atmospheric circulation patterns

**Z123**  EGU2012-8804  
**C. Pizzigalli, P. Lionello, Ahmed Hassan Fahmi, Ghada Al-Naber, Muhammad Shatanawi, Khaldoun Shatanawi, Zohra Lili Chabaane, Mohamed Wael Hamed Al Askhar, Mohamed Magdy Abdel Wahab** and **Haifa Goma Ben Mailod**  
Precipitation climatology for the North African and Middle East areas of the Mediterranean Region using a collection of in situ observation

**Z124**  EGU2012-6605  
**P. Lionello**  
The climate of the Venetian and North Adriatic region: variability, trends and future change

**Z125**  EGU2012-6582  
**M. Reale** and **P. Lionello**  
Climate change over Venetia (north-east Italy)

**Z126**  EGU2012-7085  
**K.M. Nissen, U. Ulbrich, G.C. Leckebusch** and **J.G. Pinto**  
Mediterranean cyclones and wind storms in a changing climate

**Z127**  EGU2012-6361  
**A. Bleta, P.T. Nastos** and **A. Matzarakis**  
Assessment of bioclimatic conditions in Crete Island, Greece

**Z128**  EGU2012-8188  
**R. Marcos, M. Turco, M.C. Llasat** and **P. Quintana-Seguí**  
Application of a statistical downsampling method to detect inhomogeneities in a temperature time series

**Z129**  EGU2012-2599  
**J. Kysely, L. Gaal, S. Begueria, R. Beranova** and **J. I. Lopez-Moreno**  
Uncertainties of climate change scenarios of precipitation extremes in the Mediterranean based on ENSEMBLES RCMs

**Z130**  EGU2012-9351  
**M. Dubrovsky, P. Duce, B. Arca** and **G. Pellizzaro**  
Multi-GCM Climate Projection for the Mediterranean and Related Impact on the Forest Fire Risk (with a stress on Sardinia)

**Z131**  EGU2012-11833  
**C.M Gouveia, R.M. Trigo, S.M. Begueria** and **S Vicente-Serrano**  
Drought influence on vegetation behavior in Mediterranean basin

**Z132**  EGU2012-12272  
**C. Oikonomou, M. El-Maayar** and **M.A. Lange**  
Investigating wheat yield response to climatic extremes in the Mediterranean region under current and projected future climatic conditions
NP2.1 – ENSO: Dynamics, Predictability and Modelling (co-listed) – Orals
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 Nino 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
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. Dommenget, T. Bayr, and C. Frauen
Analysis of the Non-linearity in the Pattern and Time Evolution of El Nino/Southern Oscillation

10:00–10:15 EGU2012-6697
Influence of Indian Ocean Dipole and Pacific recharge on following year's El Nino: interdecadal robustness.

NP2.1 – ENSO: Dynamics, Predictability and Modelling (co-listed) – Posters
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. Illig, 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 Nino 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 Nino events induced by optimal precursory disturbances

XY377  EGU2012-6874  
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

NP3.1 – Nonlinear, scaling and complex Physical and Biogeophysical Processes in the Atmosphere and Ocean (co-listed) – 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. Mezermate**, 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?

OS1.1 – Open Session on Ocean Circulation (including Fridtjof Nansen Medal Lecture) – Orals
Convener: T. Kanzow | Co-Conveners: J. Hirschi, E. Frajka-Williams

Room: D
Chairperson: Peter Koltermann
15:30–16:30  EGU2012-14458  
P.Y. Le Traon  
From satellite altimetry to operational oceanography and Argo: three revolutions in oceanography  
(Fridtjof Nansen Medal Lecture)

**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. Lindstrom, 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
I. Nikolkina and I. Didenkulova  
Waves generated by landslides in rivers: data of Nizhniy Novgorod region

Sh. Chatraee and I. Didenkulova  
Effective fully-reflective boundary conditions at the shore for modeling of wave processes in long bays

I. Didenkulova and A. Rodin  
Statistics of waves within a ship wake

A. Rodin, I. Didenkulova, and E. Pelinovsky  
Nonlinear interaction of large-amplitude unidirectional waves in shallow water

P. Denissenko, I. Didenkulova, E. Pelinovsky, and J. Pearson  
Laboratory study of statistical characteristics of nonlinear long wave runup on a beach

M Cannalire and E. Pelinovsky  
Soliton propagation over a submarine hill: The variable-coefficient Korteweg - de Vries framework

A. Osborne  
Coastal Zone Dynamics in 2+1 Dimensions: Theory and Hyperfast Modeling

F. Gagarina, O. Bokhove, and J.J.W. van der Vegt  
Hamiltonian Boussinesq Model with Horizontally Sheared Currents.

T. Lyubimova, A. Lepikhin, V. Konovalov, Ya. Parshakova, and A. Tiunov  
Mixing in three-dimensional turbulent flow near the river confluence

M Drivdal and J.E.H. Weber  
Mean Lagrangian drift in continental shelf waves

V. Vasilieva and O. Shishkina  
An effect of the near-bottom pycnocline on the loads of the bottom hill

I. Tereshchenko, A. Filonov, and A. Anis  
Internal Nonlinear Tides on the Mexican Pacific Shelf

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

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)

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

T. Szekeley, L. Marie, and Y. Morel  
Numerical model and observations of interactions between coastal shelf tidal front and a barotropic jet.

D. Lyubimov, T. Lyubimova, and D. Baidina  
Travelling waves above the canopy of aquatic vegetation

Y. Bao, F. L. Qiao, and Z. Y. Song  
The historical global carbon cycle simulation of FIO-ESM

OS3.1 – "Sensitivity of marine ecosystems, biogeochemical cycles and carbon uptake to global change". – Posters
Hall X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: n.n.
Changes in carbonate ion concentrations of deep and intermediate Southern Ocean waters over the past 25 kyr

Anthropogenic CO2 estimates in the Southern Ocean: storage partitioning in the different water masses.

Is phytoplankton responsible for pumping CO2 in the Weddell Sea?

Spatial and temporal changes in the subtropical North Atlantic along 24.5°N in terms of pH and other variables of the CO2 system

An estimate of anthropogenic carbon into the north east Atlantic between Scotland and Iceland

Historical changes in carbon dioxide (CO2) and dimethyl sulphide (DMS) emissions in the eutrophied Southern North Sea

Investigation on mechanisms controlling export production at the LGM with an biogeochemical ocean model

Reef fish dynamic response to climatic variability in a warm eastern Mediterranean semi-enclosed basin

Investigation on mechanisms controlling export production at the LGM with an biogeochemical ocean model

The future coastal ocean: the impact of increased stratification on biological production and carbon cycling

The influence of iron limitation on the growth and activity of Crocosphaera watsonii, an unicellular diazotrophic cyanobacterium

Diapycnal Nutrient Fluxes in the Cape Ghir upwelling region

Sea-Salt Aerosol Mass Concentration Oscillations After Rainfall, Derived From Long-Term Measurements

Investigating primary marine aerosol properties: CCN activity of sea salt and mixed particles

Coastal and rain-induced wind variability depicted by scatterometers
<table>
<thead>
<tr>
<th>Time</th>
<th>ID</th>
<th>Title</th>
<th>Author(s)</th>
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</thead>
<tbody>
<tr>
<td>08:30–09:00</td>
<td>EGU2012-1694</td>
<td>Observing the oceanic mesoscale processes with satellite altimetry: the state of the art and outlook</td>
<td>L.-L. Fu</td>
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<tr>
<td>09:00–09:15</td>
<td>EGU2012-2605</td>
<td>Observations of mesoscale eddies in the North Pacific</td>
<td>Y.H. Cheng and C.R. Ho</td>
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<tr>
<td>09:30–09:45</td>
<td>EGU2012-9908</td>
<td>Impacts of Hurricane Igor on the mixed-layer depth and phytoplankton bloom over the Grand Banks</td>
<td>G. Han, Z. Ma, and N. Chen</td>
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<tr>
<td>09:45–10:00</td>
<td>EGU2012-13068</td>
<td>Small-Scale and Short-Term Variability of Sea Surface Temperature and Their Role in the Error of Gridded Data Sets</td>
<td>A. Kaplan</td>
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<tr>
<td>10:30–11:00</td>
<td>EGU2012-13411</td>
<td>CryoSat2: Observing the Arctic</td>
<td>K. Giles, S. Laxon, A. Ridout, R. Willatt, S. Hendricks, C. Hass, and J. Beckers</td>
</tr>
<tr>
<td>11:00–11:15</td>
<td>EGU2012-8283</td>
<td>Global altimetric marine gravity field mapping. The impact of Cryosat-2 data.</td>
<td>O. B. Andersen and L. Stenseng</td>
</tr>
<tr>
<td>11:15–11:30</td>
<td>EGU2012-6580</td>
<td>Improved altimetric performance of Cryosat-2 SAR mode over the open ocean and the coastal zone</td>
<td>C. Gommenginger, C. Martin-Puig, S. Dinardo, D. Cotton, and J. Benveniste</td>
</tr>
<tr>
<td>11:45–12:00</td>
<td>EGU2012-3452</td>
<td>New algorithm for simultaneous retrieval of aerosols and marine parameters in coastal waters</td>
<td>K. Stamnes, W. Li, Y. Fan, B. Hamre, O. Frette, A. Folkestad, K. Sørensen, and J. J. Stamnes</td>
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<td>13:30–13:45</td>
<td>EGU2012-11249</td>
<td>Error introduced by wavelength correction schemes relating reflectance data from different satellite ocean colour missions</td>
<td>G. Sclep and F. Mélin</td>
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<tr>
<td>13:45–14:00</td>
<td>EGU2012-11524</td>
<td>Accuracy assessment of satellite Ocean colour products in coastal waters.</td>
<td>G. Tiilstone, A. Lotliker, and S. Groom</td>
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<tr>
<td>14:00–14:15</td>
<td>EGU2012-6058</td>
<td>Sea surface salinity as measured by SMOS and by autonomous platforms: impact of rain</td>
<td>J. Boutin, N. Martin, J.L. Vergely, G. Reverdin, and S. Morisset</td>
</tr>
<tr>
<td>14:15–14:30</td>
<td>EGU2012-6669</td>
<td>Aquarius Status and SMOS Cross-Calibration Over Oceans</td>
<td>G Lagerloef, Y Kerr, E Anterrieu, T. Jackson, R. Bindlish, and H. Kao</td>
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<td>14:30–14:45</td>
<td>EGU2012-8720</td>
<td>Sea Surface Salinity Observations from Space: a new tool to monitor the oceanic freshwater cycle as well as ocean/land &amp; ocean/ atmosphere interactions</td>
<td>N. Reul, B. Chapron, J. Tenerelli, S. Fournier, and Y. Quilfen</td>
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</table>
Improving SMOS retrieved salinity: characterization of systematic errors in reconstructed and modelled brightness temperature images
Thursday, 26 April

BG1.7 – Terrestrial organic matter dynamics during land-ocean transport in the Arctic. (co-listed) – Orals
Convener: J. E. Vonk | Co-Conveners: V. Alling, P. J. Mann
Room: 24
Chairperson: P. J. Mann & J. E. Vonk

15:30–15:45 EGU2012-3206
D.A. Hansell and R.T. Letscher
The surface Arctic Ocean: A dynamic reservoir of terrigenous dissolved organic carbon

15:45–16:00 EGU2012-4237
V.V. Gordeev
Seasonal and multi-annual variations of the North Dvina river input into the White Sea (Russia)

16:00–16:15 EGU2012-10122
L. Sánchez-Garcia, J.E. Vonk, V. Alling, B. Van Dongen, A. Charkin, D. Kosmach, O. Dudarev, I. Semiletov, and Ö. Gustafsson
Molecular, isotopic and gas-flux investigations of thaw-eroding reliefs of the Arctic Coastal-Ice complex in three different systems of the East Siberian Arctic Shelf

16:15–16:30 EGU2012-3212
Seasonal Variability and Chemical Composition of Carbon Export by the Yukon River, Alaska

16:30–16:45 EGU2012-13072
C. W. Mueller, S. Loeppmann, C. Hoeschen, J. Kao-Kniffin, and J. Bockheim
Organic matter stabilization in Cryosols of Northern Alaska - a combined NMR and NanoSIMS study

16:45–17:00 EGU2012-6924
Photochemical and microbial transformation of terrestrial dissolved organic matter - Lena River vs. rivers in mid and low latitudes

BG1.7 – Terrestrial organic matter dynamics during land-ocean transport in the Arctic. (co-listed) – Posters
Convener: J. E. Vonk | Co-Conveners: V. Alling, P. J. Mann
Poster Area BG | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: P. J. Mann & J. E. Vonk

BG1 EGU2012-5972
E. Karlsson, A. Charkin, O. Dudarev, I. Semiletov, J.E. Vonk, L. Sánchez-Garcia, A. Andersson, and Ö. Gustafsson
Carbon isotopes and lipid biomarker investigation of sources, transport and degradation of terrestrial organic matter in the Buor-Khaya Bay, SE Laptev Sea

BG2 EGU2012-11054
E. Karlsson, V. Brüchert, A. Charkin, O. Dudarev, I. Semiletov, and Ö. Gustafsson
Combined molecular biomarker - microbial incubation approach to investigate organic matter mineralization in the East Siberian Shelf Sea sediments

BG3 EGU2012-6587
K.M. Schreiner, T.S. Bianchi, M.A. Allison, A.J. Miller, and F. Marcantonio
Changes in Terrestrial Organic Carbon Delivery to the Colville River Delta and Adjacent Simpson's Lagoon Over the Late Holocene

BG4 EGU2012-10536
M.R. Oosterwoud, S.E.A.T.M. van der Zee, J.C.L. Meeussen, and E.J.M. Temminghoff
Master function for the solid:solution equilibrium of DOC in taiga and tundra soils of N. Russia: experimental and modeling results

BG5 EGU2012-9551
P J Mann, R M Spencer, P J Hernes, S E Tank, R Striegl, R Y Dyda, B J Peterson, J W McClelland, and R M Holmes
Dissolved Organic Matter Land-Ocean Linkages in the Arctic

BG6 EGU2012-9444
P J Mann, W Sobczak, J E Vonk, A Davydova, J Schade, E Bulygina, S Davydov, N Zimov, and R M Holmes
Enzymatic regulation of organic matter metabolism in Siberia's Kolyma River Watershed
EGU General Assembly 2012

BG7 EGU2012-8971
V. Alling, L. Sánchez-García, S. Pugach, D. Porcelli, C. Humborg, C.-M. Mörth, B. van Dongen, O. Dudarev, I. Semiletov, and Ö. Gustafsson
Extensive degradation of terrestrial POC and DOC over the Eastern Arctic Siberian Shelf

BG8 EGU2012-7268
Ö. Gustafsson and G. Destouni
On the use of Arctic rivers as integrators of water and carbon release from permafrost thawing

BG9 EGU2012-1370
Fate of terrestrial colored dissolved organic matter (CDOM) in the Arctic Ocean: exported or removed?

BG10 EGU2012-8533
High reactivity of ancient permafrost carbon upon hydrological release

BG11 EGU2012-11878
C. G. Griffin, J. W. McClelland, J. E. Vonk, R. M. Holmes, and K. E. Frey
Chromophoric dissolved organic matter during the Mackenzie River spring freshet: Observations and freeze-thaw experiments

BG12 EGU2012-8376
M. Rhein
The Circulation of Newly Formed Deep Water in the Atlantic

BG13 EGU2012-8610
Degradation of terrestrial organic carbon, primary production and out-gassing of CO2 along the Laptev and East Siberian Seas as inferred from ?13C values of DIC

BG14 EGU2012-6376
G. Mollenhauer, S. Kusch, and J. Rethemeyer
Characterizing the export of fossil carbon from permafrost soils of Spitsbergen using compound-specific radiocarbon dating

BG15 EGU2012-2114
Microbial decomposition of terrigenic organic matter discharged into the Baltic Sea

BG16 EGU2012-12287
M. Winterfeld
Age distribution of permafrost soil & surface water particulate organic carbon in the Lena Delta, Siberia

BG17 EGU2012-12248
M. Winterfeld, M. Goni, and G. Mollenhauer
Terrestrial organic matter sources and distribution along a land-ocean transect in Siberia derived from lignin phenol composition

OS1.2 – The North Atlantic: natural variability and global change – 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
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. Cimatoribus, 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. Reyers, 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. Taileux, 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

OS1.4 – The Southern Ocean and its Role in the Global Climate System – Posters
Hall A | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Y.-H. Park, R. Timmermann, K. Heywood

A273 EGU2012-456
Physical and biogeochemical observations of the Ross Sea polynya using Seagliders during the 2010-2011 austral spring

A274 EGU2012-4856
**K J Heywood**, S Fielding, S Schmidtke, D Guihen, A F Thompson, and G Griffiths
Seaglider observations of ocean physics and biology in the Northwest Weddell Sea

A275 EGU2012-355
**N Mackay**, A Watson, M-J Messias, and J Ledwell
Diapycnal diffusivity in Drake Passage

A276 EGU2012-7808
K. Sheen, A.C. Naveira-Garabato, and **J. A. Brearley**
Investigating turbulent mixing rates and the internal wave field in the Southern Ocean: microstructure and finestructure data from DIMES

A277 EGU2012-7851
J.A. Brearley, **K.L. Sheen**, and A.C. Naveira-Garabato
First Year Observations of Antarctic Circumpolar Current Variability and Internal Wave Activity from the DIMES Mooring Array

A278 EGU2012-1904
On the Antarctic Slope Front and Current crossing of the South Scotia Ridge

A279 EGU2012-9797
**V. Haid**, R. Timmermann, L. Ebner, and G. Heinemann
Impact of coastal polynyas on sea ice production and water mass modification in the southwestern Weddell Sea

A280 EGU2012-11070
D. Walker, **A. Jenkins**, M. Brandon, K. Assmann, and D. Shoosmith
Oceanographic observations at the shelf break of the Amundsen Sea, Antarctica

A281 EGU2012-693
**Dr Rusciano**, Dr Speich, Dr Arhan, Dr Blanke, and Dr Ollitrault
Interocean exchanges and spreading of the Antarctic Intermediate Water south of Africa

A282 EGU2012-7606
**A. Gritsenko** and R. Tarakanov
Front Structure in the Area South of Africa on Satellite Altimetry Data and Hydrophysical Section in December 2009

A283 EGU2012-8733
**D. Sidorenko**, V. Ivchenko, S. Danilov, and J. Schröter
Variability of transport through the Drake Passage and its link to the meridional pressure gradient

A284 EGU2012-4467
**G. Sgubin**, S. Pierini, and H. A. Dijkstra
Intrinsic low-frequency variability of the Argentine Basin flow, and its interaction with the Antarctic Circumpolar Current
A285 EGU2012-5610
**Q. Wang, S. Danilov, E. Fahrbacher, J. Schroeter, and T. Jung**
On the impact of wind forcing on the seasonal variability of Weddell Sea Bottom Water transport

A286 EGU2012-3353
**S. Close, H. Goosse, and F. Massonnet**
The role of Southern Ocean salinity in determining Antarctic sea ice variability

A287 EGU2012-3197
**W. Rath** and R.J. Greatbatch
Impact of Surface Velocity Dependence of the Wind Stress on the Dynamics of the Southern Ocean

A288 EGU2012-5769
**N. Bakas, P. Ioannou, and N. Constantinou**
Stochastic structural stability theory of the Antarctic Circumpolar Current

A289 EGU2012-7526
**T. Kuhlbrodt, L. C. Shaffrey, and J. M. Gregory**
Ocean heat uptake processes in the Southern Ocean in HiGEM1.2, a climate model with an eddy-permitting ocean

A290 EGU2012-7527
**C. Wilson, J. R. Blundell, C. W. Hughes, M. Mazloff, E. Shuckburgh, and A. F. Thompson**
The structure and stability of transport and mixing barriers in the Antarctic Circumpolar Current

A291 EGU2012-8587
**L. C. Allison, H. L. Johnson, and D. P. Marshall**
Spin-up and adjustment of the Antarctic Circumpolar Current and global pycnocline

A292 EGU2012-10566
**T. Janjic, R. Timmerman, and J. Schroeter**
Improved representation of Southern Ocean fronts in a finite element ocean model

A293 EGU2012-2799
**A. Buß, O. Huhn, J. Sültenfuß, and M. Rhein**
Upwelling in the Atlantic sector of the Southern Ocean inferred from helium isotope disequilibrium

A294 EGU2012-6128
**S. Torres-Valdes, L. Jullion, A. Naveira-Garabato, and P. J. Brown**
The contribution of the Weddell Sea to the global biogeochemical cycles

A295 EGU2012-8790
**T. Tesi, L. Langone, M. Ravaoli, L. Capotondi, and F. Giglio**
Particulate export vs lateral advection in the Antarctic Polar Front (Southern Pacific Ocean)

A296 EGU2012-12252
**A. Lourantou, C. Lo Monaco, C. Brunet, C. Ridame, and N. Metzl**
Seasonal to decadal pH and fCO2 changes in the subtropical, sub-antarctic and polar waters of the SW Indian ocean

A297 EGU2012-10939
**D. Spreng, M. E. Weber, G. Kuhn, P. Rosén, and H.-G. Röhling**
Bioproductivity in the Southern Ocean since the last Interglacial - new high-resolution biogenic opal flux records from the Scotia Sea

**CL4.5/OS1.8 – Global and regional sea level rise and variability: from past to future (co-organized) – Orals**
Convener: S. Jevrejeva | Co-Conveners: A. Cazenave, A. Grinsted

**Room: 16**

**Chairperson: Grinsted**

13:30–13:45 EGU2012-102
**H. Palanisamy, B. Meyssignac, D. Peng, A. Cazenave, and M. Becker**
Regional sea level variability in the Caribbean and South China Sea over 60 years from 1950-2009

13:45–14:00 EGU2012-2347
**J. Williams** and C. W. Hughes
Coherence of off-shore steric height and island sea level.

14:00–14:15 EGU2012-2672
**A.B.A. Slangen, R.S.W. van de Wal, and L.L.A. Vermeersen**
Can we explain regional relative sea-level variations for the period 1961-2003?

14:15–14:30 EGU2012-3348
**G. Woppelmann** and **M. Marcos**
Coastal sea level rise in southern Europe and the nonclimate contribution of vertical land motion

14:30–14:45 EGU2012-3554
**E. Giarolla** and R. Matano
Low-Frequency Variability of the Southern Ocean Circulation
14:45–15:00 EGU2012-5612
F. M. Calafat and D. Chambers
Mechanisms of decadal sea level variability in the Eastern North Atlantic and the Mediterranean Sea
Chairperson: Cazenave

15:30–15:45 EGU2012-6029
M. Geyer and D. Salas y Melia
An assessment of the contribution of the Greenland ice sheet to future sea level rise

15:45–16:00 EGU2012-7273
D. Volkov and F. Landerer
The Genesis of Sea Level Variability in the Barents Sea

16:00–16:15 EGU2012-7510
T. Kuhlbrodt and J. M. Gregory
The spatial structure of simulated ocean heat uptake in the CMIP3 and CMIP5 climate models

16:15–16:30 EGU2012-8632
K. S. Madsen and T. Schmith
Decadal sea level variations in the North Atlantic and Arctic Oceans

16:30–16:45 EGU2012-9155
M. Carson, A. Köhli, and D. Stammer
Low-frequency sea surface height variability from long control runs of coupled models

16:45–17:00 EGU2012-9802
K. von Schuckmann, J.-B. Saltée, C. Cabanes, P.-Y. Le Traon, F. Gaillard, S. Speich, and M. Hamon
The role of Argo steric sea level within the global sea level budget

CL4.5/OS1.8 – Global and regional sea level rise and variability: from past to future (co-organized) – Posters
Convener: S. Jevrejeva | Co-Conveners: A. Cazenave, A. Grinsted
Hall X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Jevrejeva

XY197 EGU2012-2146
E.P.H. Bregman, I.Kant Baltic Federal State University, Kaliningrad, Russia; Utrecht University, the Netherlands and O.A. Druzhinina, I.Kant Baltic Federal State University, Kaliningrad, Russia
Post-glacial coast development and human settling of the North European Ice Marginal Landscape (IML)

XY198 EGU2012-3077
B. Meyssignac, O. Henry, P. Prandi, A. Cazenave, and D. Stammer
Past sea level reconstruction over the Arctic Ocean since the mid-1950s

XY199 EGU2012-3304
R. Torres and M. Tsimplis
Seasonal sea level cycle in the Caribbean Sea

XY200 EGU2012-3305
R. Torres and M. Tsimplis
Sea level trends and interannual variability in the Caribbean Sea

XY201 EGU2012-3831
S. Jevrejeva, J. Moore, and A. Grinsted
Trends and acceleration in regional sea levels

XY202 EGU2012-3699
Estimating ENSO influence on the global mean sea level during 1993-2010

XY203 EGU2012-3874
S. Jevrejeva, J. Moore, and A. Grinsted
About the difference between sea level projections by 2100 using semi-empirical and process based models.

XY204 EGU2012-4764
M. Benavent, J. Armoso, and E. J. Vélez
Tides at the east coast of Lanzarote Island

XY205 EGU2012-5062
R. V. Donner, R. Ehrcke, S. M. Barbosa, J. Wagner, J. F. Donges, and J. Kurths
Spatial patterns of linear and nonparametric long-term trends in Baltic sea-level variability

XY206 EGU2012-5493
M. Wenzel and J. Schroeter
Regional and global sea level change since 1900 estimated from tide gauges and altimetry

XY207 EGU2012-6050
M. Hewelt, B. Mizi?ski, and T. Niedzielski
Implementing algorithms for modelling and prediction of sea level change using threshold models
XY208  EGU2012-6286
G. Chepurin and J. Carton
Sea level Atlantic-to-Arctic: an examination of the altimeter record

XY209  EGU2012-6811
E. C. Pavlis, K. Evans, P. Milas, D. Paradissis, B. A. Massinas, and X. Frantzis
Aegean Sea Level Network: Eastern Mediterranean Altimeter Calibration Network - eMACnet

XY210  EGU2012-6331
J.J. Martinez Benjamin, J. Gili, R. Lopez, A. Tapia, E. Bosch, B. Perez, and F. Pros
Monitoring Sea Level by Tide Gauges and GPS at Barcelona and Estartit Harbours

XY211  EGU2012-7671
G. Metreveli, N. Tsivtsivadze, K. Tavartqiladze, G. Dokhnadze, L. Lagidze, and N. Motsonelidze
Characteristic Features of Sea Level Series Analysis in the World Ocean Current Climatic Eustasy Research

XY212  EGU2012-6746
T. Suzuki and M. Ishii
Decadal to inter-decadal sea level changes in the North Pacific

XY213  EGU2012-10078
A. Hibbert
The Semiannual Oscillation of Southern Ocean Sea Level

XY214  EGU2012-6765
A. Fadil, P. Denys, and R. Tenzer
Sea Level Rise In New Zealand: Vertical Land Motion from GPS, and Combined Satellite Altimetry And Tide Gauge Sea Level Records

XY215  EGU2012-10420
The Permanent Service for Mean Sea Level: A review of recent updates

XY216  EGU2012-14377
M. Ablain, Y. Faugere, G. Larnicol, N. Picot, A. Cazenave, and J. Benveniste
Improvement of global and regional mean sea level derived from satellite altimetry multi missions

XY217  EGU2012-7704
L. Scarascia and P. Lionello
Links between Sea Level in the northern Adriatic sea and large scale patterns

XY218  EGU2012-12935
Y. Cheng and O.B. Andersen
Sea level annual cycle in sea level from tide gauges, altimetry and ocean models in the Polar Seas

XY219  EGU2012-14142
M. Beenstock, E. Frank, D. Felsenstein, and Y. Rengewertz
Tide Gauge Location and the Measurement of Global Sea Level Rise

XY220  EGU2012-13526
S. Esselborn
Patterns of Sea Level Variability in the North Atlantic

XY221  EGU2012-12100
A. Bonaduce and N. Pinardi
Low frequency Sea Level Variability: correlation between altimetry and tide gauges in the Mediterranean Sea

XY222  EGU2012-11534
S. Morucci, R. Inghilesi, and A. Orasi
Analysis of Long-Term Sea Level Variation in the Italian Seas

XY223  EGU2012-1536
S. chen, P. Tkach, and P. Malanotte-Rizzoli
The forced and free response of the South China Sea to the large scale monsoon system

XY224  EGU2012-2746
P. L. Svendsen, O. B. Andersen, and A. A. Nielsen
Sea level reconstruction from satellite altimetry and tide gauge data

XY225  EGU2012-11013
A. Ollivier, G. Valladeau, J.F. Legeais, Y. Faugere, N. Picot, and P. Femenias
Towards an improved altimeter time series for Envisat climate applications

XY226  EGU2012-3726
D. Gomis and G. Jordà
Inconsistencies in sea level pressure trends between different atmospheric products. Impact on sea level trend estimation

XY227  EGU2012-8688
T. Schmith, S. Johansen, and P. Thejll
Statistical analysis of global surface temperature and sea level using cointegration methods

XY228  EGU2012-11364
B.D. Hamlington, R.R. Leben, and K.-Y. Kim
Improving Sea Level Reconstructions Using Non-Sea Level Measurements
OS2.3 – Oceanography at coastal scales. Modelling, coupling and observations – Posters
Convener: A. Sánchez-Arcilla | Co-Conveners: E. Stanev, J. Wolf, S. Carniel
Hall A | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Dr. Sandro Carniel

A298 EGU2012-1135
C. S. Kim, H. S. Lim, K. S. Park, and J. S. Yang
Coastal water quality modeling accounting for groundwater influence in tidal lake in Korea

A299 EGU2012-1909
M. Grifoll, A. Aretxabaleta, M. Espino, and J.C. Warner
Current variability and momentum balance in the along-shore flow for the Catalan inner-shelf.

A300 EGU2012-3133
L. Lamas, A. Peliz, P. Oliveira, and J. Dias
Cross-shore flow on the inner-shelf off southwest Portugal

A301 EGU2012-3208
T. Keen, T. Campbell, and J. Dykes
Geospatial Analysis of Tidally Driven Flow in Mississippi Sound, U.S.A.

A302 EGU2012-4865
M.C. Sousa, N. Vaz, I. Alvarez, and J.M. Dias
Wind forcing response of the dispersal of Minho estuarine plume

A303 EGU2012-6044
F. Gouillon, M. Boutet, R. Baraille, and Y. Morel
River plume dynamics: sensitivity to the river numerical implementation and model grid resolution

A304 EGU2012-7631
D. Pujol and H. Nepf
Breaker-generated turbulence in and above a seagrass meadow

A305 EGU2012-7744
R. Tolosana-Delgado, A. Soret, O. Jorba, J.M. Baldasano, and A. Sánchez-Arcilla
Coupling of WRF meteorological model to WAM spectral wave model through surface roughness at the Balearic Sea: impact on wind and wave forecasts

A306 EGU2012-8018
P. de Ruggiero, E. Napolitano, R. Iacono, S. Pierini, G. Spezie, A. Montuori, and M. Migliaccio
Circulation modeling of a Tyrrenhian coastal area, with an analysis of Cosmo SkyMed SAR wind forcing capabilities

A307 EGU2012-8995
Impacts of a beach nourishment on hydrodynamics and morphodynamics during storms and consequences on the health of Posidonia meadows

A308 EGU2012-9046
Integration of numerical modeling and observations for the Gulf of Naples monitoring network

A309 EGU2012-10089
J. Fernandez, M. Grifoll, and M. Espino
Sediment dispersal mechanism in North-western Mediterranean Sea during a storm event due to a flash-flood river

A310 EGU2012-11766
A. Lefebvre and C. Winter
A numerical investigation of flow separation over bedforms in tidal flows

A311 EGU2012-11907
R. Limeburner, Y. Abualnaja, and R. Beardsley
Bottom Pressure Variability in the Red Sea

A312 EGU2012-12465
N. El-Allaoui, T. Serra, and M. Soler
Wave induced velocities inside and outside a riparian seagrass bed.

A313 EGU2012-12469
T. Raub, K. Getzlaff, A. Lehmann, and D. Jacob
Comparison of air-sea fluxes in REMO and BSIOM at the Baltic Sea

A314 EGU2012-12504
P. Osuna, B. Esquivel-Trava, and F. J. Ocampo-Torres
About the role of the source terms on the spatial structure of the wave field in hurricanes

A315 EGU2012-12947
A. Russo, A. Coluccelli, M. Deserti, A. Valentini, A. Benetazzo, and S. Carniel
An operational coupled wave-current forecasting system for the northern Adriatic Sea
A316  EGU2012-192
x. Lu, T. Soomere, E. Stanev, and J. Murawski
Event driven approach for the identification of the environmentally safe fairway in the south-western Baltic Sea and Kattegat

A317  EGU2012-351
A. Gianni and I. Zacharias
Modelling the interactions between semi-enclosed anoxic basins and the open sea

A318  EGU2012-561
E Alevizos
Low-Altitude Coastal Aerial Photogrammetry for High-Resolution Seabed Imaging and Habitat Mapping of Shallow Areas

A319  EGU2012-813
P. Xu, X. Mao, L. Zhao, Z. Liu, and W. Jiang
In-situ and numerical study on tidal asymmetry in Xiangshan bay

A320  EGU2012-1838
w Fu
A pre-operational 3-D variational data assimilation system in the North/Baltic Sea

A321  EGU2012-2713
A. Jordi, A. Amores, S. Montserrat, and G. Basterretxea
Sources of short-term sea level oscillations in a natural harbor and their influence on sediment resuspension (Maó, Mediterranean Sea)

A322  EGU2012-3237
F. Falcini, S. Fagherazzi, and D. Jerolmack
Wave-supported sediment gravity flows currents: effects of fluid-induced pressure gradients

A323  EGU2012-3388
A. Trasviña-Castro, O. Aburto-Oropeza, E. González-Rodríguez, and M.A. Cosío-López
Cabo Pulmo: a comparison between in situ and satellite oceanographic measurements

A324  EGU2012-4736
P. Hall
Modelling a storm surge event in Liverpool Bay with FVCOM.

A325  EGU2012-5221
M. Sclavo, F. Barbariol, A. Benetazzo, and S. Carniel
Wave Energy assessment in the NW Adriatic Sea

A326  EGU2012-5461
Implementation and validation of a 3D wave-induced current model from the surf zone to the inner-shelf

A327  EGU2012-5487
S. Nash, M. Hartnett, A. McKinstry, E. Ragnoli, and D. Nagle
High resolution modelling and observation of wind-driven surface currents in a semi-enclosed estuary

A328  EGU2012-5616
R. Mendes, M. C. Sousa, N. Vaz, M. deCastro, and J. M. Dias
A preliminary study of the Ria de Aveiro plume dispersal

A329  EGU2012-7215
D. Pujol, T. Serra, J. Colomer, and X. Casamitjana
Effects of seagrass structure on a wave dominated flow

A330  EGU2012-8020
I. Noehren, G. Breitbach, and F. Schroeder
GMES and Down-stream Services Following User Requirements: Examples on Regional And Coastal Scale

A331  EGU2012-8207
M. Rahbani
Applicability of a numerical model to predict vertical distribution of suspended sediment concentration along the depth in Dithmarschen Bight

A332  EGU2012-10584
F. M. Falcieri, A Bergamasco, A Coluccelli, and A Russo
River runoff and coastal dynamics behavior: daily variability versus monthly mean discharges.

A333  EGU2012-10684
E. Ragnoli, F. O Donncha, and M. Hartnett
Characterizing ocean gyres formation within a bay using vorticity and HF radar measurements

A334  EGU2012-11385
P. Cipollini, P. Harwood, H. Snaith, S. Vignudelli, L. West, S. Zecchetto, and C. Donlon
The use of coastal altimetry to support storm surge studies in project eSurge

A335  EGU2012-11405
M. T. Delpey, F. Ardhuin, and P. Otheguy
Effects of waves on water dispersion in a semi-enclosed estuarine bay
A336  EGU2012-11929  
A.-C. Bennis, F. Dumas, F. Ardhuin, B. Blanke, and J. Lepesqueur  
Mixing and bottom friction: parametrization and application to the surf zone

A337  EGU2012-12825  
J. Molemaker  
Sub-Mesoscale Flows in the Coastal Ocean

A338  EGU2012-12967  
H. Tolvanen and T. Suominen  
In situ sampling in coastal waters - in search for an adequate spatial resolution for chlorophyll monitoring

OS3.1 – 'Sensitivity of marine ecosystems, biogeochemical cycles and carbon uptake to global change'. – Orals  
**Room: 9**  
Chairperson: Veronique Garçon, Reiner Steinfeldt, Roberto Sabia

08:30–08:45  EGU2012-5123  
R Sanders, R Lampitt, J Riley, F Lemoigne, C Marsay, S Giering, and A Martin  
Modelling the non steady state downward flux of particles at the PAP site in 2009

08:45–09:00  EGU2012-11077  
J. R. Clark, S. J. Daines, and T. M. Lenton  
Controls on phytoplankton cell size distributions in contrasting physical environments

09:00–09:15  EGU2012-6089  
S. Torres-Valdes, T. Tsubouchi, S. Bacon, and A. Naveira-Garabato  
Export of Nutrients from the Arctic Ocean

09:15–09:30  EGU2012-5154  
J. Karstensen, M. Villagarcia, J. Fischer, A. Körtzinger, S. Hartman, and O. Linnas  
Seasonal and interannual near-surface nitrate variability in the subpolar North Atlantic

09:30–09:45  EGU2012-8383  
F. Planchon, A.-J. Cavagna, D. Cardinal, L. André, and F. Dehairs  
Late summer carbon export and remineralisation in the Southern Ocean determined with the combined 234Th and particulate biogenic Ba tracers

09:45–10:00  EGU2012-11531  
A. F. Rios, A. Velo, R. Steinfeldt, S. Khatiwala, L. Bopp, and F. F. Perez  
Comparisons of anthropogenic CO2 storage between Models and Observations in the North Atlantic Ocean

**COFFEE BREAK**

Chairperson: Veronique Garçon, Reiner Steinfeldt, Roberto Sabia

10:30–10:45  EGU2012-10742  
M. Pavic, S. Cunningham, P. Brown, U. Schuster, and A. Watson  
Variability of carbon fluxes across 24.5°N of the North Atlantic since 1992

10:45–11:00  EGU2012-644  
A. Lourantou and N. Metzl  
Decadal evolution of carbon sink within a strong bloom area in the subantarctic zone

11:00–11:15  EGU2012-7476  
R. Steinfeldt, M. Rhein, and D. Kieke  
Anthropogenic carbon uptake by North Atlantic Deep Water

11:15–11:30  EGU2012-7779  
Climatically-Active Gases in the Eastern Boundary Upwelling and Oxygen Minimum Zone (OMZ) Systems

11:30–11:45  EGU2012-5336  
Using satellite data to determine sea spray aerosol production.

11:45–12:00  EGU2012-8783  
N. Reul, Y. Quilfen, B. Chapron, J. Vialard, E Vincent, J. Tenerelli, C Boyer de Montégut, D. Vandemark, and M Lengaigne  
Observations of Ocean surface response to Hurricane Igor: A Salty Tropical Cyclone Wake observed from Space
OS4.6/EOS3 – Ocean Science Outreach and Education (co-organized) – Posters

Convener: V. Rosmorduc | Co-Conveners: V. Byfield, D. De Staerke, M. Srinivasan

Hall A | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: n.n.

A339  EGU2012-25
C.-M. Liu and I.-C. Chen
Taiwan’s experience in ocean education at the level of junior high school: a textbook-editing project of MEEP

A340  EGU2012-3609
V. Byfield
Using Oceanography to Support Active Learning

A341  EGU2012-5189
P. Tuddenham and K. Bishop
15 Years of Ocean Education and Outreach Activities by the College of Exploration.

A342  EGU2012-8377
M. Stroobant, M. Locritani, D. Marini, L. Sabbadini, C. Carmisciano, G. Manzella, M. Magaldi, S. Aliani and the DLTM Team
The Ligurian Cluster for Marine Technologies (DLTM): matching local research and industrial needs on oceanographic data.

A343  EGU2012-10613
C. Thompson, A. W. Bingham, L. Plesea, C. Alarcon, and J. R. Hall
State of the Ocean: Presenting Near Real Time Ocean Parameters and Contextual Layers on Google Earth as an Exploration and Discovery Tool for Public Consumption

A344  EGU2012-11418
B.D. Hamlington and R.R. Leben
Climate Science Education for Underrepresented Students through Collaboration with CABPES

OS5.1/AS1.8 – Internal Gravity Waves (co-organized) – Orals


Room: 7

Chairperson: n.n.

08:30–08:45  EGU2012-13510
A. O’Leary, D. Parker, J. Peakall, A. Ross, P. Knippertz, and J. Marsham
Interfacial waves generated by gravity currents in two-layer fluid.

08:45–09:00  EGU2012-13628
M. A. C. Teixeira, J. L. Argain, and P. M. A. Miranda
Orographic gravity wave drag amplification by parametric resonance

09:00–09:15  EGU2012-9418
H.-J. Choi and H.-Y. Chun
Impacts of Convective Gravity Wave Drag in the Southern Hemisphere Winter Stratosphere

09:15–09:30  EGU2012-4930
S. Remmler, M. D. Fruman, S. Hickel, and U. Achatz
3D DNS and LES of Breaking Inertia-Gravity Waves

09:30–09:45  EGU2012-13325
R. Sharman, S. Trier, and T. Lane
Convectively-generated gravity waves and clear-air turbulence (CAT)

09:45–10:00  EGU2012-5120
A. Schneider, A. Theuerkauf, M. Gerding, and F.-J. Lübken
In-situ turbulence observations in the stratospheric wind and temperature field with LITOS

COFFEE BREAK

Chairperson: n.n.

10:30–10:45  EGU2012-10211
T. Gerkema and H. van Haren
Absence of internal tidal beams due to non-uniform stratification

10:45–11:00  EGU2012-11962
s. falahat and j. nycander
Comparison of computed tidally generated internal waves in the deep ocean with turbulence observation
11:00–11:15 EGU2012-6285
A.K. Kaminski and M.R. Flynn
Modal decomposition of tidally-forced internal waves

11:15–11:30 EGU2012-1589
A. Hertzog, M. J. Alexander, and R. Plougonven
Intermittency of gravity-wave momentum flux in the stratosphere

11:30–11:45 EGU2012-2766
S. Borchert, U. Achatz, F. Rieper, and M. D. Fruman
Gravity Wave Emission by Spontaneous Imbalance of Baroclinic Waves in the Continuously Stratified Rotating Annulus

11:45–12:00 EGU2012-13327
L. Strauss, S. Serafin, and V. Grubišić
Wave-induced boundary-layer separation: A case study comparing airborne observations and results from a mesoscale model

OS5.2 – Surface Waves and Wave-Coupled Effects in Lower Atmosphere and Upper Ocean – Orals
Convener: A. Babanin | Co-Conveners: M. Onorato, F. Qiao

Room: 9
Chairperson: n.n.

13:30–13:45 EGU2012-11981
P. Liu
On a set of 20th century monumental events that shaped the modern discipline of ocean wind wave's research

13:45–14:00 EGU2012-13132
A. Osborne
Construction of Fast Numerical Methods for Nonlinear Wave Equations

14:00–14:15 EGU2012-8424
K. Trulsen, T. M. Arnesen Taklo, and J. C. Nieto Borge
Experimental validation of the linear dispersion relation, application to the interpretation of radar images

14:15–14:30 EGU2012-7032
A. Iafrati and D. Durante
Detailed simulations of air-water interaction phenomena in ocean waves

14:30–14:45 EGU2012-6621
J. Gemmrich and C. Garrett
Characteristics of inertial currents observed in offshore wave records

14:45–15:00 EGU2012-13045
X. Bertin, K. Li, A. Roland, J.F. Breilf, and E. Chaumillon
Short-wave contributions in the storm surge associated with Xynthia, February 2010, western France

Chairperson: n.n.

15:30–15:45 EGU2012-1053
L. Cavaleri, M. Hemer, and B. Fox-Kemper
Wind waves and climate

15:45–16:00 EGU2012-7569
M. Dobrynin and J. Murawsky
Wind waves in a changing climate projected using CMIP5 experiments

16:00–16:15 EGU2012-946
R. Rashmi, P. Vethamony, and V. M. Aboobacker
Air-sea interactions during tropical cyclone in the Indian Ocean

16:15–16:30 EGU2012-12148
Yu. Troitskaya, E. Ezhova, A. Semenova, and I. Soustova
Effect of sea sprays on air-sea momentum exchange at severe wind conditions

16:30–16:45 EGU2012-12240
A. Soloviev, S. Matt, and A. Fujimura
Disruption of the air-sea interface and formation of two-phase transitional layer in hurricane conditions

16:45–17:00 EGU2012-4825
U. Hogstrom, A. Smedman, and A. Rutgersson
Air-sea interaction features in the Baltic Sea and at a Pacific trade-wind site - an inter-comparison study
Friday, 27 April

**CL4.4 – Modern and Palaeomonsoon (co-listed) – Orals**

**Room: 13**
Chairperson: n.n.

08:30–08:45  EGU2012-7138
The glacial Indian summer monsoon - precipitation changes during Heinrich and D-O events in NE India

08:45–09:00  EGU2012-4749
**N. Basavaiah** and N. Juyal
Indian Summer Monsoon: A Reconstruction Based on Terrestrial Archive During the Last 30 ka from Indian Subcontinent

09:00–09:15  EGU2012-12731
**H. Schulz**, P. Munz, K. Pascher, A. Lückge, B. Gaye, and M. Kucera
Reconstruction of westerly and monsoonal atmospheric systems affecting climate of Central Asia: a view from sediment records of the Eastern Mediterranean and the Northern Arabian Sea

09:15–09:30  EGU2012-1659
**P.D. Clift**, D. Hu, P. Böning, S. Wan, and H. Brumsack
Deep-sea weathering and erosion records of monsoon variations in the northern South China Sea

09:30–09:45  EGU2012-7293
**K. Raghavan**, T.P. Sabin, M. Mujumdar, and P. Priya
Extreme monsoon precipitation events over South Asia in a warming world

09:45–10:00  EGU2012-8604
**A. Menon**, A. Levermann, and J. Schewe
Future increase of west African monsoon due to sea ice melt

**CL4.4 – Modern and Palaeomonsoon (co-listed) – Posters**

**Hall Z | Display Time 08:00–17:00**
Author in Attendance: 13:30–15:00
Chairperson: n.n.

Z64  EGU2012-187
Indian Summer Monsoon Variability and its Physical Mechanisms in the last Millennium

Z65  EGU2012-2480
**J. Schewe**, A. Levermann, and H. Cheng
A critical humidity threshold for monsoon transitions

Z66  EGU2012-5777
**K. Rehfeld**, N. Marwan, S. Breitenbach, and J. Kurths
Holocene monsoon variability as resolved in small complex networks from palaeodata

Z67  EGU2012-9974
**S. Wild**, G.C. Leckebusch, D.J. Befort, and U. Cubasch
South Asian Monsoon Variability and its Relation to Midlatitude Teleconnections

Z68  EGU2012-13093
**M. P. Karami**, A. Berger, N. Herold, and Q. Z. Yin
A climate model study of an intense Asian Monsoon in a La Niña-like climate of MIS-13

Z69  EGU2012-227
**S. P. Prizomwala**, N. Bhatt, A. M. Hirt, and W Winkler
High Resolution Mid to Late Holocene Paleoclimatic Reconstruction from the Mudflats of Gulf of Kachchh Coast, Western India

Z70  EGU2012-701
The last deglaciation in NE India reconstructed from a stalagmite from Mawmluh cave

Z71  EGU2012-927
**Y Dixit**, DA Hodell, and CA Petrie
Holocene monsoon variability inferred from palaeolake sediments in NW India.
Z72  EGU2012-2018
S. Prasad, N Basavaiah, A Anoop, B Plessen, P Menzel, B Gaye, A Brauer, M Wiesner, R Naumann, and N Nowaczyk
Holocene climate variability inferred from geochemical proxies in monsoonal Central India

Z73  EGU2012-4170
A. Böl and B. Gaye
A high resolution 2000 year record of monsoon variability in the Arabian Sea

Z74  EGU2012-4206
P. Menzel, B. Gaye, M. Wiesner, S. Prasad, N. Basavaiah, M. Stebich, A. Anoop, N. Riedel, and A. Brauer
Indications of human activity from amino acid and amino sugar analyses on Holocene sediments from lake Lonar, central India

Z75  EGU2012-4831
A. Dalimeyer, M. Claussen, Y. Wang, and U. Herzschuh
Spatial differences in the Holocene precipitation change within the Asian monsoon region - a model data comparison

Z76  EGU2012-5238
A.T. Gourlan, C. Chauvel, and C. Voisin
\( ^{14} \text{C} \) Nd IN SEAWATER RECORDS OCEAN TEMPERATURE CHANGES WITH A TIME DELAY

Z77  EGU2012-6648
A. Anoop, S. Prasad, R. Krishnan, R. Naumann, P. Dulski, S. Gärber, N. Basavaiah, K. Deenadayalan, and A. Brauer
Extreme events and spatiotemporal changes in the westerlies and Indian summer monsoon during the early-mid Holocene in NW Himalayas

Z78  EGU2012-8116
X. Huang, H. Oberhansli, M. Mathis, S. Prasad, and H. von Suchodoletz
A Holocene lacustrine record of Lake Sonkul: hydro-climatic changes in central Asia and possible interactions between westerlies and Asian monsoon

Z79  EGU2012-12692
A 16 ka lacustrine 18O record from High Himalaya reflecting the Indian Monsoon variability

NP6.1 – Mixing, Diffusion and Lagrangian transport in Geophysical Flows. (co-listed) – Orals
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
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. (co-listed) – Posters
Room: 28
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. Abernathey, J. Marshall, and R. Tulloch
Global Tracer-Based Diagnostics of Eddy Mixing from AVISO Satellite Velocities

XY292  EGU2012-4460
Surface transport in the Ria de Vigo - Transport barriers in a tidal estuary with a complex geometry

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. Korablhev
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. Khmelnitskaya
Using the optimum multiparameter analysis to study the water masses of the North Atlantic
XY319  EGU2012-9770
E. Burrellon, 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. Machin
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

XY327  EGU2012-2127
N. Danailut, 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. Sande
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. Frankignou
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 Last 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

CL4.2/OS1.3 – Inter-Ocean Gateways: Past, Modern and Future Processes and Environments (co-organized) – Orals
Room: 16
Chairperson: K. Husum, U. Schauer

08:30–08:45  EGU2012-6063
J. Müller, K. Werner, and R. Stein
Holocene sea ice in the main Arctic gateway

08:45–09:00  EGU2012-7773
S. Aagaard-Sørensen, K. Husum, M. Hald, T. Marchitto, and F. Godtfiebsen
Holocene Atlantic Water temperature reconstruction in the Nordic Seas based on foraminiferal Mg/Ca ratios

09:00–09:15  EGU2012-10679
M. Blaschek and H. Renssen
The Influence of Greenland melt water on the temporal and spatial response of the Holocene Thermal Maximum in the Nordic Seas: a modelling study

09:15–09:30  EGU2012-11593
L. de Steur, E. Hansen, C. Mauritzen, and A. Beszczynska-Moëller
Transport of the East Greenland Current in Fram Strait

09:30–09:45  EGU2012-3640
Atlantic Water inflow into the Arctic Ocean through the St. Anna Trough

09:45–10:00  EGU2012-13807
P. E. Isachsen and O. A. Nest
The air-sea transformation and diapycnal overturning circulation within the Nordic Seas

COFFEE BREAK
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
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<tbody>
<tr>
<td>10:30–10:45</td>
<td><strong>EGU2012-9810</strong>&lt;br&gt;T. W. N. Haine and K. Stewart&lt;br&gt;Arctic Freshwater Export: Prospects, Impacts, and Challenges</td>
</tr>
<tr>
<td>10:45–11:00</td>
<td><strong>EGU2012-4543</strong>&lt;br&gt;V.S. Lien, F. Vikebe, and Ø. Skagseth&lt;br&gt;A mechanism for fluctuations between Atlantic inflow branches to the Arctic</td>
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<td>11:00–11:15</td>
<td><strong>EGU2012-7621</strong>&lt;br&gt;R Zahn and GATEWAYS project members&lt;br&gt;Saltwater transport through the Indian-Atlantic ocean gateway: Does it modulate the Atlantic MOC?</td>
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<tr>
<td>11:15–11:30</td>
<td><strong>EGU2012-8978</strong>&lt;br&gt;M. Prange, V. Varma, and M. Schulz&lt;br&gt;Inter-ocean gateway flows during the present and last interglacial periods</td>
</tr>
<tr>
<td>11:30–11:45</td>
<td><strong>EGU2012-7269</strong>&lt;br&gt;F. Lamy, H.W. Arz, R. Kilian, O. Baeza Urrea, M. Caniupan, C. Kissel, and C. Lange&lt;br&gt;Millennial-scale ocean current intensity changes off southernmost Chile and implications for Drake Passage throughflow</td>
</tr>
<tr>
<td>11:45–12:00</td>
<td><strong>EGU2012-9842</strong>&lt;br&gt;I. N. McCave, S.C. Crowhurst, C.-D. Hillenbrand, and G. Kuhn&lt;br&gt;Constant flow speed of the ACC through Drake Passage between glacial maximum and Holocene.</td>
</tr>
</tbody>
</table>

**CL4.2/OS1.3 – Inter-Ocean Gateways: Past, Modern and Future Processes and Environments (co-organized) – Posters**


<table>
<thead>
<tr>
<th>Hall Z</th>
<th>Display Time 08:00–17:00</th>
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<tbody>
<tr>
<td>Author in Attendance: 13:30–15:00</td>
<td></td>
</tr>
<tr>
<td>Chairperson: K. Husum, L. Jonkers</td>
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</tbody>
</table>

| Z30 | **EGU2012-14476**<br>S. Berben, K. Husum, and M. Hald<br>Sub-centennial Holocene fluctuations of surface water masses in the western Barents Sea |
| Z32 | **EGU2012-10651**<br>F.J. Davies, H Goosse, and H Renssen<br>Simulating the natural variability of the freshwater budget of the Arctic ocean from the mid to late Holocene using LOVECLIM |
| Z33 | **EGU2012-1993**<br>C. Dylmer, J. Giraudeau, E. Frédérique, A. de Vernal, J. Knies, K. Husum, and S. Belt<br>Northward advection of Atlantic Water in Fram strait during the late Holocene: a view from mixed layer proxies |
| Z34 | **EGU2012-6030**<br>J.C. Faust, J. Knies, J. Giraudeau, and G. Milzer<br>Geochemical investigations of fjord surface sediments as basis for Holocene climate change studies in the Trondheimsfjord area |
| Z35 | **EGU2012-7635**<br>D.E. Groot, S. Aagaard Sørensen, K. Husum, and M. Hald<br>Holocene intermediate and bottom water mass reconstructions of the western Barents Sea |
| Z36 | **EGU2012-2716**<br>A. Navarro Rodriguez, P. Cabedo Sanz, S. Belt, T. Brown, J. Knies, K. Husum, and J. Giraudeau<br>Analysis of sea ice and phytoplankton biomarkers in marine sediments from the Nordic Seas - a calibration study |
| Z37 | **EGU2012-2958**<br>I. Maier, M. Felix, J. Knies, and U. Mann<br>Historic surface water productivity changes in the Barents Sea |
| Z38 | **EGU2012-2887**<br>G. Milzer, J. Giraudeau, J. Faust, J. Knies, S. Schmidt, and C. Rühlemann<br>Benthic Foraminiferal Stable Isotope and Dinocyst Assemblages in Sediments of the Trondheimfjord Area (Mid-Norway): Proxies for Regional Oceanographic and Climate Changes? |
| Z39 | **EGU2012-2962**<br>T. Pados and R. F. Spielhagen<br>Modern distribution of planktic foraminifers in the Fram Strait (Arctic Ocean) compared to sea floor species assemblages |
B. Sternal, W. Szczuciński, M. Forwick, M. Zajęczkowski, S. Lorenc, and T.O. Vorren
Sedimentary record of postglacial variability in near-bottom currents, sediment supply and ice rafting on the continental shelf off SW Spitsbergen

M. M. Telesiński and R. F. Spielhagen
Late Glacial and Holocene paleoceanography of the central and northern Greenland Sea based on foraminifera, stable isotopes and sediments

K. Werner, R.F. Spielhagen, E. Kandiano, and H.C. Hass
Stepwise transition from deglacial/Early Holocene to modern-like conditions in the eastern Fram Strait, sub-Arctic north, inferred from planktic foraminifer fauna and sea surface temperatures

K. Werner, M. Frank, C. Teschner, M. Zieringer, and R.F. Spielhagen
Holocene fluctuations of neodymium isotope ratios in eastern Fram Strait sediments - An indication for deepwater variability?

G. Chepurin and J. Carton
Sub-arctic and Arctic sea surface temperature and its relation to ocean heat content 1982-2010

F. Greil and A. Beszczynska-Möller
Statistical analysis of oceanographic fields in Fram Strait

B. I. Moat, S. A. Josey, B. Sinha, and J. P. Grist
Response of the Fram Strait transport to surface density forcing

S.N. Moshonkin, A.V. Gusev, V.B. Zalesny, A.V. Bagno, and N.A. Diansky
Numerical modelling of the Atlantic Water inflow in Arctic Ocean and Beaufort Gyre fresh water content climatic variability

C. Roth, E. Behrens, and A. Biastoch
The impact of the Atlantic-Arctic exchange on rising ocean bottom temperatures and the fate of gas hydrates

U. Schauer, A. Beszczynska-Möller, T. Krumpen, F. Greil, and E. Fahrbach
Warming of the Atlantic water in Fram Strait and its impact on the ice cover

F. Wobus, G.I. Shapiro, J.M. Huthnance, and M.A.M. Maqueda
The piercing of the Atlantic Layer by a dense water cascade in an idealised modelling study inspired by the Storfjorden overflow

M. Årthun, T. Eldervik, L. H. Smersrud, Ø. Skagseth, and R. B. Ingvaldsen
Quantifying the influence of Atlantic heat on Barents Sea ice variability and retreat

N. Barrier, D. Ferreira, and J. Marshall
Impact of opening of the Central America Seaway on climate in a coupled atmosphere-ocean-sea-ice model

K. Braun, M. Bar-Matthews, A. Ayalon, C. Marean, A. I. R. Herries, R. Zahn, and A. Matthews
Influences of the Agulhas Current on South African terrestrial climate as inferred from speleothem stable isotope records

C. Brierley and A Fedorov
Can inter-ocean gateways explain long-term cooling since the early Pliocene?

E. Khadun, J.v.d. Lubbe, T. Blanz, and R. Schneider
80 kyr record of palaeoceanographic conditions from southeastern Africa

G. Marino, R. Zahn, P. Ziveri, M. Ziegler, I.R. Hall, and H. Elderfield
Impact of the salt leakage through the Indian-Atlantic ocean gateway on the Atlantic MOC

M. Parari and R. Zahn
Do variations in Mozambique Channel hydrography impact the marine climatology of the Agulhas gateway between the Indian Ocean and Atlantic?

C. Purcell, G. Knorr, I. Hall, and G. Lohmann
The influence of Agulhas Leakage dynamics on the Atlantic Meridional Overturning Circulation during glacial-interglacial transitions
Northward intrusion of South Pacific intermediate water along the Philippine coast as seen from a global GCM

Evolution of the southeast Atlantic thermocline during Marine Isotopic Stages 6-5: is it related to variations in the Agulhas Leakage?

Investigating the impact of millennial scale Agulhas Current System variability on global ocean circulation and climate

Core top particle component analysis from the southwestern Indian Ocean

Pleistocene ice-rafted debris events recorded at the Agulhas Plateau - indicators of intermittent Indian-Atlantic gateway closure

OS1.4 – The Southern Ocean and its Role in the Global Climate System – Orals

Room: 5

Chairperson: Y.-H. Park, K. Heywood

08:30–08:45 EGU2012-2787
O. Huhn, M. Rhein, and K. Bulsiewicz
Early results from combined historic chlorofluorocarbon and first sulphur hexafluoride measurements in the Weddell Sea - variability of ventilation rates and anthropogenic carbon

08:45–09:00 EGU2012-804
M. S. Donnelly, H. Leach, and V. Strass
Modelling the Weddell Gateway: An Inverse Approach to Determining Volume Transport at the Lazarev Sea

09:00–09:15 EGU2012-6440
K. J. Heywood and C. P. Chavanne
Variability of volume transport of the Antarctic Slope Current in the Southeast Weddell Sea

09:15–09:30 EGU2012-7820
M. Årthun, K. W. Nicholls, L. Boehme, and M. A. Fedak
Seasonal evolution of ocean conditions over the southern Weddell Sea continental shelf

09:30–09:45 EGU2012-8161
E. Fahrbach, K. J. Heywood, M. Hoppema, G. Rohardt, and A.F. Thompson
Variability in the properties of the bottom water in the Weddell Sea

09:45–10:00 EGU2012-6870
Spatial-temporal variation of warm circumpolar deep water in central Amundsen Sea

COFFEE BREAK

Chairperson: K. Heywood, R. Timmermann

10:30–10:45 EGU2012-8059
S. Waterman, A. C. Naveira Garabato, and K. L. Polzin
The Southern Ocean FINEstructure project: Turbulent dissipation and mixing rates and mechanisms in a Southern Ocean mixing hotspot.

10:45–11:00 EGU2012-6413
S. Gille, A. Gilroy, M. Mazloff, R. Morrow, U. Zajaczkovski, and N. Zilberman
Warming in the Southern Ocean: Assessing the impact of eddies and meandering fronts

11:00–11:15 EGU2012-5362
R. Tarakanov
On the penetration depth of the Antarctic Circumpolar Current

11:15–11:30 EGU2012-2206
M. Latif, T. Martin, and W. Park
Multi-Centennial Variability Controlled by Southern Ocean Convection: Mechanisms and Global Impacts
11:30–11:45  EGU2012-11064  
**j.-b. sallee, R. Matear, S Rintoul, and A Lenton**  
The physical transport of anthropogenic carbon into the Southern Ocean interior

11:45–12:00  EGU2012-13333  
**S. Dwivedi, T. W. N. Haine, and C. E. Del Castillo**  
A Biochemical Upper Ocean State Estimate in the Southern Ocean GasEX Region

**OS1.6 – Ocean dynamics and Air-sea interactions within the tropics – Orals**  
Convener: A. LAZAR | Co-Conveners: M. Dengler, P. Chang  
**Room: 9**  
Chairperson: Ping Chang, Marcus Dengler, Alban Lazar

13:30–13:45  EGU2012-13437  
**P. Estrade, A. Lazar, and S. Ndoye**  
Estimation of the vertical velocities associated with large scale dynamics

13:45–14:00  EGU2012-11446  
Nearshore wind stress and sea surface temperature mesoscale coupling in the Peru upwelling region

14:00–14:15  EGU2012-11438  
Investigation of the ocean-atmosphere-continent coupling in the Gulf of Guinea and West Africa at intraseasonal timescales in boreal spring and summer with a regional atmospheric model (WRF)

14:15–14:30  EGU2012-7730  
**I. Richter, S. Behera, B. Taguchi, Y. Masumoto, and T. Yamagata**  
Two types of Atlantic Niños: ENSO-like vs. off-equatorially forced events

14:30–14:45  EGU2012-3136  
**P. Brandt, R. J. Greatbatch, S.-H. Didwischus, M. Claus, V. Hormann, A. Funk, and M. Dengler**  
Equatorial deep jets in the Atlantic Ocean

14:45–15:00  EGU2012-11334  
**K. Drushka, E. Guilyardi, M. Lengaigne, J. Vialard, and H. Bellenger**  
Westerly wind bursts and the dynamical response of the western Pacific warm pool

Chairperson: Marcus Dengler, Alban Lazar, Ping Chang

15:30–15:45  EGU2012-11117  
**L. Shay**  
Tropical Cyclone Induced Air-Sea Interactions Over Oceanic Fronts

15:45–16:00  EGU2012-1874  
**K. Balaguru, P. Chang, R. Saravanan, L.R. Leung, Z. Xu, M. Li, and J.-S. Hsieh**  
Effect of Ocean Barrier Layers on Tropical Cyclone Intensification

16:00–16:15  EGU2012-11855  
**C.M. Patricola, P. Chang, R. Saravanan, and R. Montuoro**  
The Effect of Atmosphere-Ocean-Wave Interactions and Model Resolution on Hurricane Katrina in a Coupled Regional Climate Model

16:15–16:30  EGU2012-4923  
**H. Berger, A.M. Tréguier, and N. Perenne**  
Dynamic contributions to the sea surface salinity variations along the equator and the coast of the Gulf of Guinea

16:30–16:45  EGU2012-5910  
**M. Schlundt, G. Krahmann, P. Brandt, J. Karstensen, and K. Bumke**  
Mixed layer freshwater budget in the eastern tropical Atlantic during 2011 cold tongue development

16:45–17:00  EGU2012-1651  
**G Alory, C Maes, T Delcroix, N Reul, and S Illig**  
Seasonal dynamics of Sea Surface Salinity off Panama: the Far Eastern Pacific Fresh Pool

**OS1.6 – Ocean dynamics and Air-sea interactions within the tropics – Posters**  
Convener: A. LAZAR | Co-Conveners: M. Dengler, P. Chang  
**Hall X/Y | Display Time 08:00–17:00**  
Author in Attendance: 10:30–12:00  
Chairperson: Alban Lazar, Ping Chang, Marcus Dengler

**XY351**  
**D. Banyte, T. Tanhua, M. Visbeck, D. Wallace, J. Karstensen, G. Krahmann, A. Schneider, and L. Stramma**  
Diapycnal diffusivity at the upper boundary of the North Tropical Atlantic oxygen minimum zone
XY352  EGU2012-13724  
M. Dengler, P. Brandt, M. J. McPhaden, S. Thomsen, G. Krahmann, T. Fischer, P. Freitag, and R. Hummels  
Upper ocean mixing processes and their impact on the mixed layer heat balance during the onset of the  
Atlantic Cold Tongue.

XY353  EGU2012-888  
M. Martin-Rey, I. Polo, B. Rodríguez-Fonseca, A. Lazar, S. Labetoulle, and C. Peter  
The influence of the Subtropical Highs in the development of the Atlantic Niños since 1970s

XY354  EGU2012-10937  
H. Kao and G. Lagerloef  
Identifying the Western Pacific Salinity Front Using Aquarius Measurement

XY355  EGU2012-1071  
A. L. Dieng, S. M. Sall, A. Lazar, and L. Eymard  
cyclogenesis: effects of surface ocean conditions on the birth of tropical depressions off the West African  
coasts

XY356  EGU2012-1149  
M. Diakhate, A. Lazar, G. de Coetlogon, and A. T. Gaye  
Ocean-atmosphere interactions in the Tropical Atlantic at intraseasonal timescales

XY357  EGU2012-1631  
Y. Wang  
Compensation of Meridional Heat Transport: Testing the Bjerknes Hypothesis in a Freshening World

XY358  EGU2012-11797  
J. Peña-Izquierdo, J.L. Pelegrí, and E. Mason  
Water mass renovation in the northeastern Tropical Atlantic

XY359  EGU2012-11824  
M. Leduc-Leballeur, G. De Coëtlogon, and L. Eymard  
Role of air-sea interactions on the coastal rainfall in the Gulf of Guinea during boreal spring

XY360  EGU2012-7149  
B. Thompson and P. Tkalich  
SST Variability over the Southern South China Sea: Local effects and Remote forcing

XY361  EGU2012-9005  
J. Hahn, P. Brandt, A. Körtzinger, R. J. Greatbatch, G. Krahmann, and A. Funk  
Fine- to mesoscale oxygen variability at intermediate depth in the tropical North East Atlantic along 23°W

XY362  EGU2012-5797  
H. Ding, N. Keenlyside, and M. Latif  
Sensitivity of Equatorial Atlantic Variability to Mean State Biases

XY363  EGU2012-891  
J. A. Kurczyn, E. Beier, M.F. Lavín, and A. Chaigneau  
Mesoscale eddies in the NE Pacific tropical-subtropical zone.

XY364  EGU2012-1620  
G. Caniaux, H. Giordani, J.-L. Redelsperger, and M. Wade  
Role of vertical velocities in the cooling of the Atlantic cold tongue

CL4.6/AS1.15/OS1.7 – Tropical Climate Variability and Teleconnections: past, present and future (co-organized) –  
Orals
Convener: B. Rodríguez de Fonseca | Co-Conveners: E. Mohino, T. Losada, J. Garcia-Serrano, F. Kucharski, I. Polo
Room: 16
Chairperson: Fred Kucharski and Belen Rodríguez

13:30–13:45  
EGU2012-1524  
H. Tatebe, Y. Imada, M. Kimoto, and H. Hasumi  
South Pacific Ocean controls the phase reversal and periodicity of the decadal and bi-decadal ENSO-like  
variabilities

13:45–14:00  
EGU2012-1875  
H. Dayan, J. Vialard, T. Izumo, M. Lengaigne, and P. Terray  
External interannual ENSO forcing: which regions outside equatorial Pacific may influence the evolution  
of ENSO?

14:00–14:15  
EGU2012-2177  
C. Frauen and D. Dommenget  
Influences of the tropical Indian and Atlantic Oceans on the predictability of ENSO

14:15–14:30  
EGU2012-12977  
I. Polo, B. W. Dong, and R. T. Sutton  
Tropical Interannual Variability Changes from a Substantial Weakening of the Atlantic Meridional  
Overturning Circulation
14:30–14:45 EGU2012-533
J. Lopez-Parages and B. Rodriguez-Fonseca
Multidecadal modulation of El Niño influence on the Euro-Mediterranean rainfall

14:45–15:00 EGU2012-6146
L. Terray
Modes of forced and internal decadal variability in the Tropics and ExtraTropics from CMIP5 models
Chairperson: Belén Rodríguez and Irene Polo

15:30–15:45 EGU2012-10239
B.-M. Joseph
Predictability of rainy season onset and cessation in east Africa

15:45–16:00 EGU2012-10340
PA. Monerie, B. Fontaine, and P. Roucou
Future changes in the African monsoon through a pool of CMIP5 models

16:00–16:15 EGU2012-12365
Low-frequency Sahel rainfall variability and Atlantic Sea Surface Temperatures during the last century

16:15–16:30 EGU2012-12870
B. Cook, J. Yoon, and N. Zeng
Future Drying of the Southern Amazon Projected by IPCC Climate Models

16:30–16:45 EGU2012-7225
B. Scherlin-Pirschier, C. Deser, S.-P. Ho, C. Chou, W. Randel, and Y.-W. Kuo
Upper tropospheric and lower stratospheric ENSO signal derived from GPS radio occultation temperature

16:45–17:00 EGU2012-3869
E. Lim, H. Hendon, and H. Rashid
Dynamical forecast of low-frequency variability of the Southern Annular Mode

CL4.6/AS1.15/OS1.7 – Tropical Climate Variability and Teleconnections: past, present and future (co-organized) – Posters
Convener: B. Rodríguez de Fonseca | Co-Conveners: E. Mohino, T. Losada, J. Garcia-Serrano, F. Kucharski, I. Polo
Hall Z | Display Time 08:00–17:00
Author in Attendance: 10:30–12:00
Chairperson: Fred Kucharski and Irene Polo

Z81 EGU2012-980
A. Fischel, M.-S. Seidenkrantz, M. Kucera, and A. Kujipers
Holocene climate variability in the tropics - high resolution records from the Anegada-Jungfern Passage, NE-Caribbean

Z82 EGU2012-5528
V. Khon, W. Park, M. Latif, I. Mokhov, and B. Schneider
The Hadley and Walker circulations and changes of the hydrological cycle during the Holocene and Eemian from climate model simulations

Z83 EGU2012-4574
H.-G. Lim and S.-W Yeh
Volcanic effect on the tropical sea surface temperature in a millennium coupled model simulation

Z84 EGU2012-4297
N.S. Fuckar, R. Farneti, S.P. Xie, E. Maroon, and D.M.W. Frierson
Could changes in the extratropical ocean circulation modify the mean tropical climate and ITCZ?

Z85 EGU2012-4380
M. Fujita, M. Hara, and H. G. Takahashi
Diurnal cycle of precipitation over the eastern Indian Ocean off Sumatra Island during different IOD phases

Z86 EGU2012-9584
R. Farneti, F. Kucharski, and F. Molteni
On the mechanisms of Interdecadal Pacific Oscillation-type variability

Z87 EGU2012-12885
I. Polo, M. Martin-Rey, B. Rodriguez-Fonseca, C. R. Mechoso, and F. Kucharski
Processes in the Influence of Tropical Atlantic Sea Surface Temperatures on Pacific La Nina Onset

Z88 EGU2012-13488
B. Rodríguez de Fonseca, I. Polo, T. Losada, E. Mohino, and R. Mechoso
Non stationary impact of the Equatorial Atlantic on the El Niño Southern Oscillation

Z89 EGU2012-13050
T. Losada and B. Rodríguez-Fonseca
Atmospheric Response to Changes in the Atlantic Equatorial Mode and in the Background State of SST.
A G Turner, B M Harris, and E J Highwood
Monsoon collapse following tropical super-volcanic eruptions

T. Bayr and D. Dommenget
The Land-Sea Warming Contrast as the Driver of Tropical Sea Level Pressure Changes

F. Kucharski, N. Zeng, and E. Kalnay
A further assessment of vegetation feedback on decadal Sahel rainfall variability

D. Folini, D. Baumgartner, and M. Wild
20th century precipitation changes in the Sahel region: sensitivity studies with ECHAM5-HAM

C. Seiler
Climate Variability and Trends in Bolivia

A G Turner, M Joshi, E S Robertson, and S J Woolnough
The effect of Arabian Sea optical properties on SST biases and the South Asian summer monsoon in a coupled GCM

C. Williams, R. Allan, and D. Kniveton
Comparing atmosphere-land surface feedbacks from models within the tropics (CALM). Part 1: Evaluation of CMIP5 GCMs to simulate the land surface-atmosphere feedback

Spatial structure and potential predictability of summer precipitation in Ethiopia

F.S. Syed, H. Körnich, and M. Tjernström
On the fog variability over south Asia

V. Platonov, E. Semenov, and E. Sokolikhina
Extreme La-Nina 2010/11 and the vigorous flood at the north-east of Australia.

J. Collins, D. Roache, and J. Yoo
Assessment of the 2011 Atlantic Hurricane Season

e. scoccimarro, s. gualdi, and a. navarra
Hurricanes interaction with the Arctic Climate

P. Braesicke, S. H. Ooi, and A. A. Samah
Borneo Vortices: A case study and its relation to climatology

J. Runge and J. Kurths
A model-free definition of coupling strength for assessing the influence between climatic processes

M. Jacques-Coper and S. Brönnimann
Summertime Climate Variability and Teleconnections over Southern South America during the 20th Century

I. Herceg Bulic
ENSO impact on North Atlantic/European region in a changing climate

E.-C. Chang, S.-W. Yeh, S.-Y. Hong, J.-E. Kim, and R. Wu
Analysis on a teleconnection patterns between tropical ocean SSTs and extratropics by using a global downscaled precipitation dataset

S.-M. Lim and S.-W. Yeh
Possible link the tropical SST anomalies and Arctic Oscillation on the low-frequency timescales during the boreal winter

On the relationship between the climate variability in middle-low latitudes of the Southern Hemisphere and central Antarctica over the past 350 years

OS2.2/EG3/CL2.12 – Advances in understanding of the multi-disciplinary dynamics of the Southern European Seas (Mediterranean and Black Sea) (co-organized) – Orals
13:30–13:45  EGU2012-787
M. Bensi, V. Cardin, and M. Ga?i?
Thermohaline variability and mesoscale activities observed at the E2M3A deep site in the south Adriatic Sea

13:45–14:00  EGU2012-12099
Carbon Flux to the Deep in three open sites of the Southern European Seas

14:00–14:15  EGU2012-11948
I. Bouloubassi, A. Gogou, S. Stavrakakis, A. Sanchez-Vidal, and M. Grégoire
Downward biogenic fluxes in the SW Black Sea: dynamics of their compositional and temporal patterns

14:15–14:30  EGU2012-178
S. Karimova
Satellite observations of eddies in the Baltic, Black and Caspian seas

14:30–14:45  EGU2012-2755
A. Pascual, J. Bouffard, S. Ruiz, B. Buongiorno Nardelli, and R. Escudier
Recent advances on mesoscale variability in the Western Mediterranean Sea: complementarity between satellite altimetry and other sensors

14:45–15:00  EGU2012-4692
A. Peliz
Alboran jets, gyres and eddies in a 20-year high resolution simulation

15:30–15:45  EGU2012-6229
Study of the exchange flow through the Strait of Gibraltar with the NEMOMED8 Ocean Circulation Model: model validation, interannual variability and trends.

16:00–16:15  EGU2012-11230
A. Elizalde and U. Mikolajewicz
Resolving explicitly the Black Sea in the Mediterranean Sea simulations using a fully coupled atmosphere-ocean model.

16:30–16:45  EGU2012-4437
G. Mattia, M. Vichi, M. Zavatarelli, and P. Oddo

16:45–17:00  EGU2012-11669
L. Velea, R. Bojariu, and T. Chronis
Evaluation of air-sea exchange over Black Sea from a regional climate simulation
Seasonal and Inter-annual signals in the Mediterranean Outflow observed in Espartel Sill (western Strait of Gibraltar) during the last decade

P. Censi, M. Raso, F. Saiano, and P. Zuddas
HOW Zr/Hf AND Gd ANOMALY SIGNATURES CAN DEPICT SOLID-LIQUID INTERACTIONS IN SEAWATER

Variability of the Black Sea from My Ocean Black Sea Monitoring and Forecasting Center Products

V.S. Arkhipkin, E.A. Malyarenko, and G.V. Surkova
Analysis of storm waves on the Caspian Sea

V. Dorofeyev, T. Oguz, G. Korotaev, and L. Sukhikh
Hindcast and Forecast of the Black Sea Ecosystem on the Basis of 3D Interdisciplinary Model

D. Boutov and A. Peliz
Atmospheric forcing and Sea Surface Temperature response in the Gulf of Cadiz-Alboran Sea system in a 20 years simulation

E. Clementi, M. Zavatarelli, P. Oddo, G. Volpe, S. Colella, and V. Djurdjevic
Validation of a 3D coupled physical-biogeochemical model in the Adriatic Sea

S. Ruiz, L. Renault, B. Garau, and J. Tintoré
Underwater glider observations and modeling of an abrupt mixing event in the upper ocean

A.I. Kubryakov, G.K. Korotayev, F.-X. Thoorens, O. Liungman, and C. Ambjorn
New tool for the Black Sea environmental safety: BlackSea Track Web

Variability of the Black Sea from My Ocean Black Sea Monitoring and Forecasting Center Products

B. Petelin, V. Malacic, A. Malej, M. Kukar, and I. Kononenko
Multi-level Association Rules and Directed Graphs for the Lagrangian Analysis of the Mediterranean Ocean Forecasting System (MFS)

F.N. Gippius and V.S. Arkhipkin
Hydrological regime of the Black Sea waters: numerical modeling

A. K. Stips, E. Garcia Gorriz, and G. Lessin
Linear trends or regime shifts: statistical analysis of data and biogeochemical model simulations for the last 50 years in the Aegean Sea

B. L’Hévéder, L. Li, F. Sevauet, and S. Somot
Interannual variability of deep convection in the Gulf of Lions in a Atmosphere-Ocean Regional Climate Model for the Mediterranean area.

S. Riha and A. Peliz
An Idealized Isopycnal 2-Layer Model of the Alboran Sea

T. Churilova and V. Suslin
Black Sea spectral bio-optical models based on satellite data and their applications for assessment of spatial and temporal variability in waters transparency, chlorophyll a content and primary production

R. Balbin, A. Aparicio, J.L. López-Jurado, and M.M Flexas
Interannual variability of Dissolved Oxygen values around the Balearic Islands

A. Aparicio, J.L. López-Jurado, R. Balbin, J. Jansá, and B. Amengual
IBAMar 2.0: 36 years sampling on the Western Mediterranean Sea

Impact of climate change scenarios in the Mediterranean Sea from a regional ocean model
XY386  EGU2012-9349  
M. Adani, G. Korres, P. Oddo, and N. Pinardi  
Coupling OGCM and Wave model trough the drag coefficient

XY387  EGU2012-12232  
The WMDW path from its formation place to the Gibraltar gateway.

XY388  EGU2012-7836  
R. Soczka Mandac and B. Bogunović  
Spatial and temporal variability of R1 in the Bay of Koper (Gulf of Trieste)

XY389  EGU2012-4851  
G. Sannino and A. Carillo  
Effect of explicit tides in an eddy resolving Mediterranean model with increased resolution at Gibraltar.

XY390  EGU2012-12855  
A. Capet, J.M Beckers, A. Barth, and M. Grégoire  
Interannual variability of Black Sea's hydrodynamics and connection to atmospheric patterns: model study.

XY391  EGU2012-716  
N. Sokolikhina, E. Semenov, and E. Sokolikhina  
Meteorological and Synoptic Aspects of the Novorossiysk Bora Forming and Evolution

OS2.3 – Oceanography at coastal scales. Modelling, coupling and observations – Orals
Convener: A. Sánchez-Arcilla | Co-Conveners: E. Stanev, J. Wolf, S. Carniel
Room: 12
Chairperson: Dr. Emil Stanev

08:30–08:45  EGU2012-5077  
A. Benetazzo, M. Sclavo, and A. Bergamasco  
Assessment of current effect on waves in a semi-enclosed basin

08:45–09:00  EGU2012-2665  
A. Sánchez-Arcilla, A. Soret, J. Wolf, M. Espino, and M. Sclavo  
Modelling framework for coastal-scale oceanographic predictions

09:00–09:15  EGU2012-10048  
J. Fernandez, J. Lopez, F. Jerez, F. Hermosilla, and M. Espino  
Coastal Operational Oceanography: understanding user needs

09:15–09:30  EGU2012-1906  
M. Grifoll, J.C. Warner, M. Espino, and A. Sánchez-Arcilla  
Multi-scale coupled modelling of waves and currents on the Catalan shelf.

09:30–09:45  EGU2012-7419  
K. Wahle, A. Behrens, and H. Guenther  
Wave current interaction in the German Bight and Wadden Sea

09:45–10:00  EGU2012-13461  
J. Wolf, L.R. Bricheno, J.E. Brown, and R. Bolaños  
A coupled modelling system for the Irish Sea and Liverpool Bay with application to coastal flood forecasting and beyond

COFFEE BREAK

Chairperson: Dr. Judith Wolf

10:30–10:45  EGU2012-2163  
C. A. Blain, M. K. Cambazoglu, R. S. Linzell, K. M. Dresback, and R. L. Kolar  
Wind Error and Strategies for Mitigation in Modeling Coastal Dynamics

10:45–11:00  EGU2012-968  
F. J. Ocampo-Torres, P. Osuna, H. García-Nava, and L. Cavaleri  
Exploring the effect of opposing swell on the wave growth through numerical simulation of the wave directional spectrum

11:00–11:15  EGU2012-8288  
M. Liste, M. Grifoll, I. Keupers, and J. Monbaliu  
Numerical simulation of the river and urban discharges into the Sea: Application to the Catalan Coast.

11:15–11:30  EGU2012-9352  
Estimation of coastal density gradients
11:30–11:45  EGU2012-11897  
Numerical simulation of the coastal dispersion associated with river discharges in the Mediterranean Sea  

11:45–12:00  EGU2012-11722  
J. Lepesqueur, F. Ardhuin, and A.-C. Bennis  
Bottom friction and wave-induced roughness  

**LUNCH BREAK**  

Chairperson: Prof. Agustin Sanchez-Arcilla  

13:30–13:45  EGU2012-300  
G.L. Liu, Z. Liu, and H.W. Gao  
The Importance of Synchronized Observations in Coastal Seas with Large Intra-Tidal Temperature Variation and Intermittent Thermocline  

13:45–14:00  EGU2012-470  
N. Villacieros-Robineau, J.H. Herrera, C.G. Castro, S. Piedracoba, and G. Rosón  
First studies of bottom boundary currents in the Ría de Vigo (NW Iberian upwelling system)  

14:00–14:15  EGU2012-9552  
M. Palmer, C. O’Neill, C. Spingys, C. Mahaffey, and J. Polton  
The Fate and Fortune of the River Mersey Plume: Using Ocean gliders to validate and improve coupled coastal ocean models.  

14:15–14:30  EGU2012-12416  
J. Schulz-Stellenfleth, E.V. Stanev, and J. Seemann  
Analysis of one year of HF radar data acquired in the German Bight  

14:30–14:45  EGU2012-12387  
W. Petersen, J. Staneva, S. Grayek, J. Schulz-Stellenfleth, and E. Stanev  
FerryBox within the Coastal Observatory COSYNA: Examples of observations and potential benefit for data assimilation in hydrodynamic models  

14:45–15:00  EGU2012-12649  
C. Dufau, S. Labroue, S. Peyridieu, F. Collard, M. Cancet, A. Guillot, N. Picot, and T. Guinle  
The PISTACH product: altimeter data for coastal ocean  

**OS5.1/AS1.8 – Internal Gravity Waves (co-organized) – Posters**  
Hall X/Y | Display Time 08:00–17:00  
Author in Attendance: 10:30–12:00  
Chairperson: n.n.  

XY392  EGU2012-2041  
L. Hoffmann, M. J. Alexander, and X. Xue  
Global Occurrence Frequencies of Stratospheric Gravity Waves from Atmospheric Infrared Sounder Observations  

XY393  EGU2012-6895  
A. J. McDonald  
Coherent gravity wave occurrence rates in paired satellite observations  

XY394  EGU2012-6208  
A.G. Pavelyev, V. Gubenko, Y.-A. Liou, K. Zhang, A.A. Pavelyev, J. Wickert, and Yu. Kuleshov  
Radio occultation criterion and detection of internal gravity waves  

XY395  EGU2012-4999  
A.C. Bushell, D.R. Jackson, and N. Butchart  
Assessing and improving the representation of sources for non-orographic gravity wave schemes in Earth-System Models  

XY396  EGU2012-5167  
F. Lott, L. Guez, and P. Maury  
A stochastic parameterization of non-orographic gravity waves, impact on the equatorial stratosphere  

XY397  EGU2012-7810  
F. Lott, R. Plougonven, and J. Vanneste  
Gravity waves generated by sheared three-dimensional potential vorticity anomalies  

XY398  EGU2012-250  
Z. Jing and Y. Qi  
Persistent phytoplankton bloom and surface cooling induced by the internal tidal mixing
S. Tobias and P. Bartello
Sensitivity of stratified turbulence to the buoyancy Reynolds number

On the application of WKB theory for the simulation of multi-scale gravity wave interactions

C. Glawe, R. Klein, A.R. Kerstein, and H. Schmidt
Towards the simulation of gravity waves using the One-Dimensional Turbulence model

O.E. Kurkina, A.A. Kurkin, and E.A. Rouvinskaya
Higher-order weakly nonlinear theory for internal waves in three-layer fluid

Topographic internal waves in the laboratory: two experiments carried in the CNRM-GAME stratified water tank

K.C. Viner, C.C. Epifanio, and J.D. Doyle
Resonant Instability in Steady Mountain Waves with Realistic Background Conditions

H. Teitelbaum, M. Moustaoui, and A. Mahalov
Variation of the intensity of waves on Sierra Nevada (Owens Valley) due to the proximity of a Cyclone

B.L. Kristinsdóttir and H. Ölfsson
If there is a mountain nearby, the wind extremes are gravity waves

C.-M. Liu, W.-Y. Hsu, R.-Y. Yang, and H.-H. Hwung
Experimental study on the wave damping for the fluid-mud system

A. Pleskachevsky and S. Lehner
Sea state variability observed by high resolution satellite radar images

I. Shugan, Hwung-Hweng Hwung, and Ray-Yeng Yang
Wave - current interactions

V. Grigorieva, S. Badulin, and S. Gulev
Voluntary Observing Ship (VOS) data as an experimental background of wind-sea studies

A. Mironov, D. Hauser, and C.A. Guerin
Airborne measurements of the statistics of breaking waves and their simultaneous microwave radar return

A. Mironov, D. Hauser, M. Kosnik, V. Dulov, and C.A. Guerin
Statistical characterization of short wind-waves from stereo images of the sea surface

V. C. Khon, I. I. Mokhov, F. A. Pogarskiy, A. Rinke, K. Dethloff, and H. Matthes
Changes of sea wave activity in the Arctic during the 21st century from climate model simulations

A. Babanin
Swell-Dissipation Function for Wave Models
XY418  EGU2012-3280
C.-H. Ting, A. Babanin, and D. Chalikov
Dependence of Drag Coefficient on the Wind Gustiness

XY419  EGU2012-4337
On computing nonlinear wave-wave interactions - open questions and latest developments

XY420  EGU2012-4387
M. Ghantous, A. Babanin, and D. Chalikov
Non-breaking wave induced ocean mixing

XY421  EGU2012-12187
Yu. Troitskaya, E. Ezhova, D. Sergeev, A. Kandaurov, G. Baidakov, and M. Vdovin
On effect of wind surface waves on mass and momentum transfer in a stratified turbulent boundary layer

XY422  EGU2012-6439
J.C. Nieto-Borge and K. Reichert
Analysis of wave groupiness in space and time derived from time series of marine radar images of the sea surface

XY423  EGU2012-3593
F. L. Qiao, Z. Y. Song, and Y. J. Song
The surface wave-induced vertical mixing in the ocean can improve the performance of climate models

XY424  EGU2012-3796
Q. Shu, F. Qiao, Z. Song, C. Xia, and Y. Yang
Improvement of MOM4 by including non-breaking surface wave-induced vertical mixing

XY425  EGU2012-3982
Y. Song, F. Qiao, and Z. Song
Ocean wave induced mixing effects on SST by cloud-radiation feedback in tropical atmosphere

XY426  EGU2012-10227
A. D. Jenkins, I. Barstad, A. Gupta, and M. Adakudlu
Modelling wave—boundary layer interaction for wind power applications

XY427  EGU2012-11947
F. J. Ocampo-Torres, P. Osuna, H. García-Nava, B. R. Furevik, and H. Branger
Detailed studies on the effect of combined wind-sea and opposing swell on the ocean-atmosphere fluxes

XY428  EGU2012-3576
C.-A. Guérin and G. Caulliez
Higher-order statistical analysis of short wind wave fields

XY429  EGU2012-13120
K. Lisæter and N. Winther
A coupled wave-atmosphere model for offshore weather forecasting

XY430  EGU2012-10508
VM Aboobacker, P. Tkalich, SK Gulev, and V. Grigorieva
Wind wave variability in the South China Sea

XY431  EGU2012-714
S.V. Samiksha, P. Vethamony, V.M. Aboobacker, and R. Rashmi
Role of south Indian Ocean swells in modulating the north Indian Ocean wave climate through modelling and remote sensing

XY432  EGU2012-6018
L. Bricheno, A. Soret, J. Wolf, and O. Jorba
The effect of high resolution winds on modelling surface waves

XY433  EGU2012-13519
J. Wolf and L.R. Bricheno
The wave climate of the NW European Continental Shelf