# EGU General Assembly 2011

Programme Group Programme  
OS – Ocean Sciences

### Monday, 04 April
- BG1.5
- OS1.2/CL2.2
- OS1.6/AS2.5/CL2.11
- OS2.1
- OS2.2/EG10
- AS1.5/NP3.11/OS2.6
- AS3.11/OS3.5
- BG1.6/OS3.7/SSS4.6

### Tuesday, 05 April
- CL1.1
- CL2.10
- ESSI7
- HS6.7
- OS1.3
- OS3.1
- GM8.4/OS3.6/SSP1.6/TS4.7
- OS4.3

### Wednesday, 06 April
- HS10.1/GM8.1
- NP2.1
- OS1.1
- NH5.3/NP7.3/OS2.5
- OS3.2
- OS3.4/EG9
- OS4.1/CL4.11
- OS4.2
- OS4.8/EOS9
- NP7.1/OS5.3

### Thursday, 07 April
- BG3.2
- BG7.3
- ESSI2
- GI-4
- OS4.4
- OS4.6
- OS4.7
- OS5.1/AS1.6
- OS5.2

### Friday, 08 April
- CR9.1
- OS1.4
- CL2.5/OS1.5
- HS10.2/OS2.3
- NH5.2/NP7.4/OS5.5
Monday, 04 April

**BG1.5 – Remote Sensing in the Biogeosciences (co-listed) – Orals**
Convener: Frank Veroustraete | Co-Conveners: Willem Verstraeten, Klaus Scipal, Wolfgang Wagner, Inge Jonckheere
Room: 24
Chairperson: Dr. Frank Veroustraete/ Dr. Inge Jonckheere

13:30–13:45  EGU2011-8376
   **Jouni Jussila** and Uwe Rascher
   Developments of Hyperspectral Remote Sensing Systems for Vegetation Research

13:45–14:00  EGU2011-1299
   **Vasileios Kalogirou**, Paolo Ferrarolli, Leila Guerriero, and Andrea Della Vecchia
   Coupling the Tor Vergata microwave scattering model with a plant architectural model

14:00–14:15  EGU2011-9160
   **Stefan Kraft**, Bernardo Carinci Dominguez, Matthias Drusch, Jean-Loup Bezy, Roland Meynart, Luis Guanter, Luis Alonso, and Jose Moreno
   Remote Sensing of Vegetation Fluorescence from Space within the ESA Earth Explorer Programme

14:15–14:30  EGU2011-11332
   **Gabriel Hmimina**, Eric Dufrêne, Nicolas Delpierre, and Kamel Soudani
   Tower-Based Photochemical Reflectance Index measurements to assess ecophysiological responses in a mature deciduous forest.

14:30–14:45  EGU2011-1437
   Malcolm Davidson, **Dirk Schuettemeyer**, Remo Bianchi, and Klaus Scipal
   Campaigns in Support of ESA’s Earth Candidate Mission Concept BIOMASS

14:45–15:00  EGU2011-6011
   Topographic normalization of thermal infrared data

Chairperson: Dr. Willem Verstraeten/ Dr. Wolfgang Wagner

15:30–15:45  EGU2011-173
   **Bernard Pinty**, Jean-Luc Widlowski, Ioannis Andredakis, Michel Verstraete, Olivier Arino, Marco Clerici, Thomas Kaminski, and Malcolm Taberner
   Snowy backgrounds enhance the absorption of visible light in forest canopies

15:45–16:00  EGU2011-6710
   **Peter Caccetta**, John Raison, Robert Waterworth, and Gary Richards
   Linking remote-sensing, ground observations and ecosystem models for improved GHG accounting in land systems

16:00–16:15  EGU2011-10704
   **Iryna Khlystova**, Andreas Richter, Folkard Wittrock, Heinrich Bovensmann, John P. Burrows, Silvia Kloster, and Martin Schultz
   Emission Ratios from satellite measurements

16:15–16:30  EGU2011-11534
   **Eva Boegh** and the NEU_C4 Team
   Mapping leaf nitrogen and leaf area index in European landscapes using high spatial resolution satellite data and the REGularized canopy reFLECtance (REGFLEC) model

16:30–16:45  EGU2011-8685
   **Sanna Kaasalainen**, Teemu Hakala, Juha Suomalainen, and Eetu Puttonen
   Active hyperspectral LiDAR for the study of vegetation

16:45–17:00  EGU2011-5684
   Pasi Raumonen, **Mikko Kaasalainen**, Sanna Kaasalainen, and Harri Kaartinen
   Approximation of volume and branch size distribution of trees from laser scanner data

BG1.5 – Remote Sensing in the Biogeosciences (co-listed) – Posters
Convener: Frank Veroustraete | Co-Conveners: Willem Verstraeten, Klaus Scipal, Wolfgang Wagner, Inge Jonckheere
Poster Area BG | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Dr. Klaus Scipal

BG20  EGU2011-11663
   **Klaus Scipal** and the BIOMASS Mission Advisory Group Team
   Measuring biomass from space - ESA’S BIOMASS Earth Explorer mission candidate
<table>
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| BG21 | EGU2011-12531 | **Temilola Fatoyinbo**, Rafael Rincon, Guoqing Sun, and K. Jon Ranson  
EcoSAR: a P-band Interferometric Synthetic Aperture Radar for Forest structure and biomass measurements |
| BG22 | EGU2011-3288 | **Patrick Chazette**, Kamel Soudani, Philippe Royer, Joseph Sanak, Melody Lardier, Tristan Allouis, Marc Bouvier, and Sylvie Durrieu  
Forest canopy attributes derived from airborne lidar above the Barbeau/Fontainebleau forest |
| BG23 | EGU2011-8801 | **Brenner Silva**, Lukas Lehnernt, Andreas Fries, and Jörg Bendix  
Monitoring vegetation growth in an experimental plot using balloon-air-photography |
| BG24 | EGU2011-6244 | **Dimitry Van der Zande**, **Willem W. Verstraeten**, and Pol Coppin  
A 3D model of the light interception in heterogeneous forest canopies |
Dorsiventral leaf reflectance properties of *Carpinus betulus* L.: An indicator of urban habitat quality |
| BG26 | EGU2011-6184 | **Willem Verstraeten**, Miguel Barrios, Piet Maes, Jan Clement, Jean-Marie Aerts, Marc Van Ranst, and Pol Coppin  
Relating the satellite derived EVI and meteorology with the incidence of Lyme Disease in Belgium |
| BG27 | EGU2011-6115 | **Miguel Barrios**, **Willem W. Verstraeten**, Piet Maes, Jan Clement, Jean-Marie Aerts, Marc Van Ranst, and Pol Coppin  
Spatio-temporal patterns of *Nephropathia epidemica* and Lyme disease incidence in Belgium |
| BG28 | EGU2011-10677 | **Karol Szymankiewicz**, Jaroslaw Zawadzki, and Karol Przedziecki  
Forest type inventory using MODIS and MERIS remote sensing images. Study case: Janowskie forest |
| BG29 | EGU2011-7566 | **Angela Harris** and Jaduandan Dash  
A new approach for estimating northern peatland gross primary productivity using a satellite sensor derived chlorophyll index |
| BG30 | EGU2011-9455 | **Karsten Kotte** and Fabian Löw  
Rapid change detection and salt classification as a promising tool to estimate emission of naturally produced organohalogens from saline ecosystems |
| BG31 | EGU2011-1729 | **Amani Al Abri** and Ray N. Merton  
use of Hyperspectral imagery for mapping and monitoring coral reefs of Galapagos Island, Ecuador |
| BG32 | EGU2011-763 | **Alireza Sadeghi**, Timan Dinter, Marco Vountas, and Astrid Bracher  
Remote sensing of coccolithophore blooms in selected oceanic regions using PhytoDOAS method applied to hyper-spectral satellite data |
| BG33 | EGU2011-7369 | **Meilting Hou**, Shunqian Zhang, Xiaodong Yan, and Qingtao Qing  
Remote sensing detection of droughts and impact assessment based on temperature vegetation dryness index: A case study in Sichuan province, China |
| BG34 | EGU2011-13684 | **Frank Veroustraete**, Willem W. Verstraeten, Qin Li, Chen Xi, Anming Bao, Qinghan Dong, Tie Liu, and Patrick Willems  
Soil Moisture Content Retrieval based on Apparent Thermal Inertia for the Xinjiang province in China |
| BG35 | EGU2011-128 | **Armi May Torrechilla-Guzman**  
Use of Geospatial Technologies in the Assessment of Coral Reefs and Abalone Distribution in Sagay Marine Reserve, Central Philippines |
| BG36 | EGU2011-13303 | **Tiziana Simonello**, Maria Lanfredi, Rosa Coppola, Vito Imbrenda, and Maria Macchiato  
Estimation of persistence properties of vegetation activity trends at regional scale |
| BG37 | EGU2011-9251 | **Daniel Doktor**, Arlena Brosinsky, Angela Lausch, and Ines Merbach  
Comparison of imaging and non-imaging hyperspectral sensors observing vegetation in the laboratory |
| BG38 | EGU2011-7407 | **Inge Jonckheere**, Danae Maniatis, and Danilo Mollicone  
Misrepresenting REDD+ to promote specific technological RS options |

**OS1.2/CL2.2 – The North Atlantic and climate (co-organized) – Orals**
08:30–08:45 EGU2011-4416
Herle Mercier, Pascale Lherminier, Claire Gourcuff, Artem Sarafanov, Anastasia Falina, Nathalie Danailau, Bruno Ferron, Thierry Huck, and Virginie Thierry
Variability of the circulation and heat transport from six occupations of the A25 Greenland-Portugal OVIDE section between 1997 and 2010

08:45–09:00 EGU2011-7199
Kjetil Våge, Robert S. Pickart, Michael A. Spall, Héðinn Valdimarsson, Steingrimur Jónsson, Daniel J. Torres, Svein Østerhus, and Tor Eldevik
Formation of Denmark Strait Overflow Water via boundary currents and transformation in the central Iceland Sea

09:00–09:15 EGU2011-11489
Bogi Hansen, Karin Margretha Larsen, Svein Østerhus, and Detlef Quadfasel
Mixing of the Faroe Bank Channel overflow by convective events

09:15–09:30 EGU2011-12484
Tor Eldevik and Jan Even Ø. Nilsen
Northern constraints on the Atlantic thermohaline circulation

09:30–09:45 EGU2011-6002
Kerstin Jochumsen and Detlef Quadfasel
Denmark Strait exchanges: structure and variability

09:45–10:00 EGU2011-2276
Achim Roessler, Monika Rhein, Christian Mertens, and Dagmar Kieke
Four year transport and pathway time series of the subpolar gyre inferred by integral methods

COFFEE BREAK

Chairperson: Kieke

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

10:45–11:00 EGU2011-3613
Michael A. Spall
On the role of eddies in the heat transport and overturning circulation in the Nordic Seas

11:00–11:15 EGU2011-4645
Anne Marie Treguier, Julie Deshayes, Raphael Dussin, and Jean-Marc Molines
Interannual variability of the subpolar Atlantic and role of eddies: contribution of numerical models at increasing spatial resolution.

11:15–11:30 EGU2011-5721
Erik Behrens, Claus W. Böning, and Arne Biastoch
Can eddies affect the freshwater distribution and the reaction of the MOC in Greenland melting scenarios?

11:30–11:45 EGU2011-7175
Geoffrey Gebbie
Tracking Glacial Ocean Waters from Surface Source to the Seafloor: An Inverse Method Applied to the Last 25,000 years

11:45–12:00 EGU2011-8680
Thomas Martin and Mojib Latif
The long-term freshwater budget and the relation to the MOC in the North Atlantic.

Chairperson: Roessler

15:30–15:45 EGU2011-3407
Dagmar Kieke, Monika Rhein, and Reiner Steinfeldt
Revealing LSW formation from a decade of tracer measurements in the subpolar North Atlantic

15:45–16:00 EGU2011-2739
Amy Bower, Dan Amrhein, and Ross Hendry
Are Labrador Sea Water eddies an important transport mechanism in the AMOC?

16:00–16:15 EGU2011-13214
Igor Yashayaev
Hydrography of the Labrador Sea in the first decade of the 21st century
Tatiana Rykova, Fiamma Straneo, and Amy Bower

Reiner Steinfeldt, Monika Rhein, and Dagmar Kieke
Ventilation, formation, and export rates of North Atlantic Deep Water

Erik van Sebille, Molly O. Baringer, William E. Johns, Christopher S. Meinen, Lisa M. Beal, M. Femke de Jong, and Hendrik M. van Aken
The subtropical signal of Labrador Sea Water variability and the leakiness of the Deep Western Boundary Current

Malick Wade, Guy Caniaux, and Yves DuPenhoat
Oceanic mixed layer heat budget in the Eastern Equatorial Atlantic using ARGO floats and PIRATA buoys

Rebecca Hummels, Marcus Dengler, and Bernard Bourlès
On the variability of diapycnal mixing in the equatorial Atlantic ocean

Catherine Guiavarc’h, John Siddorn, Dave Storkey, and Patrick Hyder
Sensitivity of the Met Office operational ocean forecasting system to atmospheric forcing

Gilles Reverdin, Francesco d'Ovidio, Agnès Desprès, Bernard Bernier, and Nicolas Ferry
Summer-time modification of surface fronts in the North Atlantic Subpolar and Subtropical Gyres

Emmanuel Vincent, Matthieu Lengaigne, Gurvan Madec, Jérôme Vialard, and Sébastien Masson
Sea surface cooling in the wake of Tropical Cyclones: atmospheric and oceanic controls

Enrico Scoccimarro, Silvio Gualdi, Alessio Bellucci, Antonella Sanna, Marcello Vichi, Elisa Manzini, Pier Giuseppe Fogli, Paolo Oddo, and Antonio Navarra
Tropical Cyclones - Ocean feedbacks: Effects on the Ocean Heat Transport as simulated by a High Resolution Coupled General Circulation Model

Ping Chang, Ramalingam Saravanan, Mingkui Li, Jenshan Hsieh, Christina M. Patricola, and Karthik Balagur
A Study of Meso and Frontal Scale Air-Sea Interactions Using a High-Resolution Atlantic Regional Coupled Model

Stefano Materia, Joseph Tribbia, William Large, Gokhan Danabasoglu, and Silvio Gualdi
Impacts of ocean temperature bias along the southwestern African coast

Gaelle de Coëtlogon, Alban Lazar, and Serge Janicot
Intraseasonal variability of the ocean - atmosphere coupling in the eastern atlantique equatorial upwelling

Ralf Hand, Noel Keenlyside, and Nour-Eddine Omrani
The Atmospheric Response to Gulf Stream Variability

Marion Leduc-Leballeur, Laurence Eymard, and Gaëlle de Coëtlogon
Role of air-sea interactions in the onset of coastal rainfall in the Gulf of Guinea

Wan-Ling Tseng, Ben-Jei Tsuang, Noel Keenlyside, and Chia-Ying Tu
Investigating the impact of the diurnal cycle of SST on the atmosphere
OS1.6/AS2.5/CL2.11 – Air-sea interactions from meso to regional scales within the tropics (co-organized) – Posters
Conveners: Alban LAZAR | Co-Conveners: Marcus Dengler, Steve Woolnough, Ping Chang
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Marcus Dengler, Alban Lazar

XY583  EGU2011-14197
Gilles Reverdin, Jacqueline Boutin, Simon Morisset, Nicolas Martin, Claire Hénocq, Fabienne Gaillard, and Nicolas Reul
Tropical near-surface stratification during intense rainfall

XY584  EGU2011-1713
Lili Zeng
Observed seasonal variability of barrier layer in the South China Sea, from meso to regional scales

XY585  EGU2011-5016
Henrick Berger, Anne-Marie Tréguier, Nicolas Reul, and Philippe Craneguy
Seasonal cycle of the low salinity waters in the gulf of Guinea described by satellite measurements and numerical modelling

XY586  EGU2011-5102
Christophe Maes, Joël Sudre, and Véronique Garçon
Detection of the eastern edge of the western Pacific warm pool

XY587  EGU2011-3866
Ali Belmadani, Vincent Echevin, and Boris Dewitte
Impact of intraseasonal equatorial Kelvin waves on eddy activity in an eddy-resolving model of the Humboldt system

XY588  EGU2011-13205
Olaf Dutell, Alban Lazar, and Andreas Oschlies
Realistic representation of light penetration in the upper ocean improves the representation of a structure coupled to the Atlantic Meridional Mode: the Guinea Dome

XY589  EGU2011-1110
Dongseon Kim and SangHwa Choi
Seasonal variability of sea-air CO2 fluxes in the northern East China Sea

XY590  EGU2011-5911
Hervé Giordani and Guy Caniaux
A diagnostic of the vertical velocity for the Equatorial Atlantic

XY591  EGU2011-517
Moussa Diakhate, Alban Lazar, Gaelle de Coetlogon, and Amadou T. Gaye
Local interactions between Sea Surface Temperature and Winds in the Tropical Atlantic at intraseasonal timescales.

XY592  EGU2011-12287
Irene Polo, Alban Lazar, Belen Rodriguez-Fonseca, and Juliette Mignot
Analysis of the time evolution of the Atlantic Equatorial Mode mixed layer heat budget with a coupled GCM

XY593  EGU2011-6973
Charles Williams, Dominic Kniveton, and Russell Layberry
Idealized SST anomaly regional climate model experiments: A note of caution.

XY594  EGU2011-831
Alina Gainusa Bogdan and Pascale Braconnot
Evaluation of the IPSL-CM5 Earth System Model air-sea fluxes in tropical regions

XY595  EGU2011-11186
Jenny Glashoff, Hartmut Borth, and Klaus Fraedrich
Tropical sea surface temperature variability in an idealized atmosphere-ocean column

OS2.1 – Open Session on Coastal and Shelf Seas – Orals
Conveners: Johan van der Molen, Huib E. de Swart, Georgy Shapiro
Room: 11
Chairperson: Johan van der Molen, Huib de Swart

08:30–08:45  EGU2011-2222
Sebastian Grashorn, Karsten Lettmann, and Jörg-Olaf Wolff
Modelling wave propagation and wave-current interaction in the East-Frisian Wadden Sea with the unstructured-mesh modelling system FVCOM-SWAVE

08:45–09:00  EGU2011-1931
Svetla Miladinova and Adolf Stips
Modelling of salinity and temperature variation in the Baltic Sea during the last two decades
09:00–09:15  EGU2011-3027  
Fred Wobus, Georgy I. Shapiro, Miguel A. M. Maqueda, and John M. Huthnance  
Modelling of shelf water cascades on the continental slope

09:15–09:30  EGU2011-7421  
Kai Myrberg and Andreas Lehmann  
Upwelling in the Baltic Sea - a review

09:30–09:45  EGU2011-5061  
Angelo Rubino, Dmitry Romanenkov, Davide Zanchettin, Vanessa Cardin, Dagmar Hainbucher, Manuel Bensi, Alfredo Boldrin, Leonardo Langone, Stefano Miserocchi, and Margherita Turchetto  
On the descent of dense water on a complex canyon system in the southern Adriatic basin

09:45–10:00  EGU2011-13063  
Sonja van Leeuwen, Paul Tett, David Mills, Johan van der Molen, and Piet Ruardij  
Hydrodynamic regimes in the North Sea: using model results to examine changes and variability in mixed, stratified and ROFI regions in the period 1958-2008  

COFFEE BREAK

Chairperson: Johan van der Molen, Huib de Swart

10:30–10:45  EGU2011-9186  
Yan Jia and Alexander Yankovsky  
The impact of ambient stratification on freshwater transport in a river plume

10:45–11:00  EGU2011-12903  
Julio Candela, Paula Perez, Manuel Lopez, Cesar Coronado, Alejandra Sanchez, Erasmo Miranda, and Jose-Maria Robles  
Water exchange in Bahia Todos Santos, Baja California, Mexico.

11:00–11:30  EGU2011-4472  
Fabrice Ardhuin, Aron Roland, Jean-François Filpot, and Fabien Leckler  
Sea state modelling from the global ocean to the beach and coupling with coastal circulations

11:30–11:45  EGU2011-13431  
Paolo Cipollini, Jérôme Benveniste and the COASTALT Team  
COASTALT: an international effort to enable science with coastal altimetry

11:45–12:00  EGU2011-10187  
Nikolaus Groll and Iris Grabemann  
North Sea wave and storm surge conditions for an ensemble of climate change scenarios: an integrated analysis

LUNCH BREAK

Chairperson: Johan van der Molen, Huib de Swart

13:30–13:45  EGU2011-3854  
Alexander Yankovsky and Ziming Ke  
Relative role of subinertial and superinertial long waves in the continental shelf response to the landfall of a tropical cyclone

13:45–14:00  EGU2011-6662  
Laura Tuomi and Kai Myrberg  
The performance of vertical turbulence models in the modeling of hydrodynamics in the Baltic Sea

14:00–14:15  EGU2011-12582  
Ana Rice, Jeffrey Book, Sandro Carniel, Hartmut Prandke, Katrin Schroeder, and Warren Wood  
A qualitative study of the mixing dynamics in the Southern Adriatic Sea in March 2009

14:15–14:30  EGU2011-3398  
John M. Huthnance  
The state of UK seas

14:30–14:45  EGU2011-8832  
Christian Appendini, Fernando Oropeza, Alec Torres-Freyermuth, Paulo Salles, Tonatiuh Mendoza, and José López-González  
Wave modeling performance using different wind reanalysis
Oceans – Coastal and Shelf Seas

OS2.1 – Open Session on Coastal and Shelf Seas – Posters
Conveners: Johan van der Molen, Huib E. de Swart, Georgy Shapiro

Author in Attendance: 17:30–19:00
Chairperson: Johan van der Molen, Huib de Swart

XY596  EGU2011-4618
Georgy Shapiro
Potential changes in the circulation pattern in the Celtic Sea due to tidal energy generation

XY597  EGU2011-3759
Andrea Doglioli, Jean Luc Fuda, Nicolas Grima, Francesco Nencioli, Anne A. Petrenko, and Gilles Rougier
LATEX_tools: a software package for navigation in a Lagrangian reference frame

XY598  EGU2011-1641
Dae Choul Kim, Gwang Soo Lee, Young Kyo Seo, Hi Il Yi, and Sungho Bae
Chirp acoustic profiles and physical properties of late Quaternary sediments in the southeastern Yellow Sea

XY599  EGU2011-1863
Michaela Markovic, Sabine Hüttl-Kabus, Birgit Klein, Uwe Mikolajewicz, Holger Klein, and Dimity Sein
Influence of North Atlantic variability on the North Sea

XY600  EGU2011-2024
Kui Wang, Jianfang Chen, Haiyan Jin, Hongliang Li, Shengquan Gao, and Yong Lu
Nutrient Structure and Potential Limitation Factors of the Phytoplankton During Summer and Winter in Changjiang Estuary and Adjacent East China Sea

XY601  EGU2011-2025
Kui Wang, Jianfang Chen, Haiyan Jin, Hongliang Li, Shengquan Gao, and Yong Lu
Nutrient Structure and Potential Limitation Factors of the Phytoplankton During Summer and Winter in Changjiang Estuary and Adjacent East China Sea

XY602  EGU2011-2375
Nikesh Narayan, Birgit Klein, Holger Klein, Sabine Huettel-Kabus, Thomas Pohlmann, Xinping Chen, and Bernhard Mayer
Decadal to inter-annual variability of North Sea in a climate change scenario

XY603  EGU2011-2720
Amy S. Bower and Heather H. Furey
Mesoscale Eddies in the Gulf of Aden and Their Impact on the Spreading of Red Sea Outflow Water

XY604  EGU2011-2830
Yung-Yao Lan, Ben-Jei Tsuang, Noel Keenlyside, and Sheng Fong Lin
Error estimations of dry deposition velocities of air pollutants using 4-m depth temperature under common assumptions

XY605  EGU2011-4684
Raphael Stuhlmeier
Exact edge waves and stratified flow

XY606  EGU2011-5664
Justyna Melier, Dariusz Ficek, Barbara Lednicka, Joanna Sto-Egiert, and Agnieszka Zdun
Absorption properties of suspended particulate matter in the Baltic Sea and Pomeranian lakes

XY607  EGU2011-5690
Barbara Lednicka, Karolina Borzycka, Justyna Melier, and S?awomir Sagan
Remote sensing reflectance in optical district areas of South Baltic

XY608  EGU2011-6516
Jaromir Jakacki, Maciej Janecki, Artur Nowicki, and Lidia Dzierzbicka-Glowacka
Modeling of the Baltic Sea

XY609  EGU2011-6728
Valeria Volpe, Sonia Silvestri, and Marco Marani
Remote sensing retrieval of suspended sediment concentration in shallow waters

XY610  EGU2011-6759
Maciej Janecki, Jaromir Jakacki, Lidia Dzierzbicka-Glowacka, and Artur Nowicki
Modeling of Baltic Sea ice cover using CESM model

XY611  EGU2011-8169
Ruben Alvarado Bustos, John Huthnance, and Ric Williams
Diapycnal mixing and water mass transformation in the Gulf of Cadiz
Ping Zhai and Amy Bower
Dipole generation in the Red Sea forced by the Tokar Wind Jet in summer

Elisa Bruque Pozas, Antonio Sánchez-Román, Jesús García-Lafuente, Javier Delgado, Cristina Naranjo, and Concepción Calero
Seasonal and spatial variability of tidal currents at the mid-west Strait of Gibraltar

Karsten Lettmann, Oliver Bleich, Steffen Retting, Sebastian Grashorn, Dietmar Kraft, and Jörg-Olaf Wolff
Numerical modelling of cooling water inputs into the Jade bay using the unstructured-meshed model FVCOM

Audrey Pasquet, Yves Morel, Rémy Baraille, Tanguy Szekely, and Louis Marié
Dispersion of homogenized water plumes in coastal areas: The Ushant Front

Jens Möller, Sabine Hüttl-Kabus, Nils Schade, Anette Ganke, Holger Klein, Birgit Klein, Hartmut Heinrich, Peter Löwe, Gudrun Rosenhagen, and Birger Tinz
Trend of significant wave height in the North Sea

Ilker Fer and Mostafa Bakhoday Paskyabi
Moored turbulence measurements in the upper ocean: results from a test deployment

Kai Myrberg
Validation of three-dimensional hydrodynamic models of the Gulf of Finland based on a statistical analysis of a six-model ensemble

Keith O’Sullivan and Jimmy Murphy
"3 Dimensional Hydrodynamics and Residence Time of a Marine Lough"

Ulf Gräwe
Implementation of high-order particle-tracking schemes in a water column model

Elodie Charles, Déborah Idier, Rodrigo Pedreros, Gonéri Le Cozannet, Jérôme Thiebot, Fabrice Ardhuin, and Serge Planton
Present and future wave climate analysis along the French mainland Atlantic coast, using wave dynamical downscaling

Vadim Navrotsky, Grigoriy Dolgikh, Elena Kholodkevich, Valeriy Liapidevskii, and Elena Pavlova
Internal waves in shelf zones: from generation till dissipation

Gaelle Herbert, Nadia Ayoub, Florent Lyard, Patrick Marsaleix, Anna Rubio, and Almudena Fontán
Ocean response to storm "Klaus" in the Bay of Biscay from numerical simulations and in situ observations.

Anne A. Petrenko, Ziyuan H. Hu, Andrea M. Doglioli, and Ivan Dekeyser
Generation of coastal mesoscale anticyclonic eddies in the Gulf of Lion (NW Mediterranean)

OS2/EG10 – Advances in understanding of the multi-disciplinary dynamics of the Southern European Seas (Mediterranean and Black Sea) (co-organized) – Orals
Convener: Nadia Pinardi | Co-Conveners: Samuel Somot, Emin Özsoy, Marilaure Gregoire
Room: 7
Chairperson: n.n.

13:30–13:45 EGU2011-6222
George Zodiatis, Dan Hayes, Isaac Gertman, Yianna Samuel-Rhoads, and Andreas Nicolaidis
The mesoscale circulation in the Levantine Basin

13:45–14:00 EGU2011-2491
Karine Béranger, Cindy Lebeaupin Brossier, Marie-Noëlle Houssais, Philippe Drobinski, Michel Crépon, Jonathan Beuvier, Romain Bourdallé-Badie, Yann Drillet, Nicolas Ferry, and Florent Lyard
Impact of the spatial distribution of the wind maximum on the deep convection in the Gulf of Lions and the Ligurian Sea (western Mediterranean)

14:00–14:15 EGU2011-9695
Nadia Pinardi, Mario Adani, Giovanni Coppini, Srdjan Dobricic, Claudia Fratianni, Vladislav Lyubartsev, Paolo Oddo, Marina Tonani, and Marco Zavatarelli
The Mediterranean Sea large scale low frequency ocean variability from 1987 to 2007: a retrospective analysis
14:15–14:30 EGU2011-5018
Gianmaria Sannino, José-Carlos Sanchez-Garrido, Luca Liberti, and Lawrence Pratt
The effects of nonhydrostaticity on the simulated exchange flow through the Strait of Gibraltar

14:30–14:45 EGU2011-11148
Eleonora Rinaldi, Bruno Buongiorno Nardelli, Gianluca Volpe, and Rosalia Santoleri
Phytoplankton distribution and variability sources Sicily Channel (Mediterranean Sea) from remote sensing data

14:45–15:00 EGU2011-4662
Svetlana Pakhmonova, Elena Vinogradova, Evgeny Yakushev, Andrey Zatsepin, Galina Shtereva, Valery Chasovnokov, and Oleg Podyomov
On the recent interannual changes of the Black Sea nutrient regime and oxic/anoxic boundary position

Chairperson: Nadia Pinardi ; Emin Özsoy

15:30–15:45 EGU2011-7121
Patrick Lehodey, Inna Senina, and Philippe Gaspar
Modeling Atlantic bluefin tuna spawning habitat and larvae dynamics in the Mediterranean Sea

15:45–16:00 EGU2011-7478
Emanuela Clementi, Marco Zavatarelli, and Paolo Oddo
Simulating the interannual variability of the Adriatic Sea ecosystem

16:00–16:15 EGU2011-14182
Emin Özsoy, Ali Aydo?du, Adil Sözer, and Murat Gündüz
Multi-year variations in the Northern Levantine Basin based on coupled hydrodynamic and ecosystem modeling

16:15–16:30 EGU2011-11844
Arthur Capet, Alexander Barth, Jean Marie Beckers, Alberto V. Borges, Pascal Joassin, Filip Meysman, Karline Soetart, and Marilaure Gregoire
Multidecadal evolution of Black Sea hydrodynamics and biogeochemistry

16:30–16:45 EGU2011-9254
Viktor Dorofeyev, Temel Oguz, and Gennady Korotaev
Modelling of the Long-Term Evolution of the Black Sea Ecosystem

16:45–17:00 EGU2011-9475
Suleyman Tugrul, James W. Murray, Gernot E. Friederich, and Ilkay Salihoglu
Long-term changes in the chemical properties of the Black Sea

OS2.2/EG10 – Advances in understanding of the multi-disciplinary dynamics of the Southern European Seas (Mediterranean and Black Sea) (co-organized) – Posters
Convener: Nadia Pinardi | Co-Conveners: Samuel Somot, Emin Özsoy, Marilaure Gregoire
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Nadia Pinardi ; Marilaure Gregoire

XY625 EGU2011-2165
Jonathan Beuvier, Cindy Lebeaupin-Brossier, Romain Bourdallé-Badie, Florence Sevau1, Samuel Somot, Karine Béranger, Yann Drillet, Nicolas Ferry, and Florent Lyard
Modelling the spreading of the Western Mediterranean Deep Water formed during winter 2004-2005 : role of deep eddies

XY626 EGU2011-7115
Diagnosing termohaline trends of the Atlantic Inflow by Argo data

XY627 EGU2011-11472
Samuel Somot, Florence Sevau1, Jonathan Beuvier, Marine Herrmann, Benoît Meyssignac, Roland Aznar, Gabriel Jordà, Simon Josey, and Michel Déqué
Towards a realistic climate modelling of the Mediterranean Sea over the last 50 years: method and result overview

XY628 EGU2011-11493
Yannis Cuypers, Pascale Bouruet-Aubertot, Claudie Marec, and Jean Luc Fuda
Turbulent mixing in anticyclonic eddies during the BOUM experiment (Mediterranean sea)

XY629 EGU2011-9115
Alexandra Pavlidou and Harilaos Kontoyiannis
Dissolved oxygen and nutrient dynamics in East Mediterranean Sea (Aegean, Ionian and Levantine Seas)
EGU General Assembly 2011

XY630  EGU2011-9233
Vasily Knysh, Artem Miziouk, Vladislav Moiseenko, Alexander Kubryakov, Natalia Inyushina, and Genndy Korotaev
Variability of the Black Sea Dynamics During 1971-1993

XY631  EGU2011-9339
Georgy Shapiro, Dmitry Aleykin, Andrei Zatsepin, Valentina Khan, Valery Prostakishin, Tatiana Akivis, Vladimir Belokopytov, Anton Sviridov, and Vladimir Piotukh
Response of water temperature in the Black Sea to atmospheric forcing: the sensitivity study

XY632  EGU2011-9423
Akif Korkmaz, Heather Cannaby, Viktor Dorofeev, Alexander Kubriyakov, Baris Salihoglu, and Temel Oguz
Interannual variability in the water column structure of the Black Sea (1971 - 2001)

XY633  EGU2011-10195
Marco Marcelli, Viviana Piermattei, Simone Bonamano, and Angelo Perilli
Description of the primary production distribution in the Sardinian Sea (Western Mediterranean), between 2001 and 2004.

XY634  EGU2011-11293
Manel Grifoll, Jordi Solé, and Manuel Espino
A nested model for a water harbour circulation. The case of Barcelona (NW Mediterranean Sea)

XY635  EGU2011-13185
Bettina Fach, Baris Salihoglu, and Temel Oguz
Modeling the influence of hydrodynamic processes on anchovy distribution and connectivity in the Black Sea

XY636  EGU2011-13102
Marina Locritani, Gian Pietro Gasparini, Cosmo Carmisciano, Michela Castellano, and Paolo Povero
The driving forces of the biologic processes along an offshore gradient in the Ligurian basin (Portofino Promontory) during 2006

XY637  EGU2011-8125
Gelsomina Mattia, Marcello Vichi, Byoung An, Marco Zavatarelli, and Paolo Oddo
Variability of the Mediterranean Sea biogeochemistry in the contemporary climate

XY638  EGU2011-2866
Ivica Vilibic and Hrvoje Mihanovic
An application of Self-Organising Maps method in recent Adriatic environmental studies and its perspectives

XY639  EGU2011-9580
John Kirkpatrick, Clara Fuchsman, James T. Staley, Evgeniy Yakushev, and James W. Murray
Anammox and Denitrification in the Black Sea

AS1.5/NP3.10/OS2.6 – Recent Developments in Geophysical Fluid Dynamics (co-organized) – Orals
Room: 14
Chairperson: n.n.

13:30–13:45  EGU2011-13883
Ray Bates
On the relevance of Charney-Drazin (1961) for our understanding of the dynamical influence of the stratosphere on the troposphere.

13:45–14:00  EGU2011-13792
Nathan Paldor
Laplace’s Tidal Equations: Revisiting a 400 year old basic problem of GFD

14:00–14:15  EGU2011-13246
Riwal Plougonven and Chris Snyder
Gravity waves emitted from jets: lessons from idealized simulations

14:15–14:30  EGU2011-1950
Nils Wedi and Piotr Smolarkiewicz
A nonlinear perspective on the dynamics of the MJO: idealized large-eddy simulations

14:30–14:45  EGU2011-4391
Bruno Ribstein and Vladimir Zeitlin
Inertial instability in the 2 layer rotating shallow water model

14:45–15:00  EGU2011-7474
Anna Rabitti and Leo R. M. Maas
Internal inertial wave characteristic paths in a sphere and in a spherical shell

Chairperson: Vanda Grubiši?
15:30–15:45  EGU2011-8908  
Andrew Stewart and Paul Dellar  
A numerical study of cross-equatorial abyssal ocean currents with a complete representation of the Coriolis force

15:45–16:00  EGU2011-513  
Gaele Perret, Thomas Dubos, and Alexandre Stegner  
How oceanic anticyclones are favoured through large-scale and cyclogeostrophic barotropic instabilities

16:00–16:15  EGU2011-4070  
Alexandre Stegner, Gaele Perret, Ayah Lazar, Rui Caldeira, and Charles Dong  
Island wake dynamics: various parameters and regimes of asymmetry

16:15–16:30  EGU2011-910  
Ayah Lazar, Eyai Heifetz, and Alexandre Stegner  
Inertial instability in island wakes

16:30–16:45  EGU2011-2147  
Rieke Heinze and Siegfried Raasch  
Atmospheric vortex streets: structure and properties derived from large eddy simulations

16:45–17:00  EGU2011-7492  
Rui Caldeira, Maxime Schmerber, and Pablo Sangrá  
Oceanic eddy response to atmospheric forcing: near- and far-field consequences

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


Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00
Chairperson: n.n.

XY1  EGU2011-8566  
Ayah Lazar, Alexandre Stegner, Rui Caldeira, Samuel Viboud, and Henri Didelle  
Stability of submesoscale wake vortices in a rotating and stratified shallow-water layer: laboratory experiments.

XY2  EGU2011-10164  
Rui Caldeira, Alain Chelius, Maxime Schmerber, and Pablo Sangrá  
Contribution of island asymmetry and neighboring islands to the formation of oceanic wakes: a quasi-geostrophic study of near- and far-field implications

XY3  EGU2011-10304  
Luis C. Cana Cascallar, Diana Grisolia-Santos, and Leopoldo Álvarez  
Firsts results on the modelling of the Gran Canaria atmospheric wake

XY4  EGU2011-10328  
Luis C. Cana Cascallar, Diana Grisolia-Santos, and Leopoldo Álvarez  
Local flow under weak trade wind flow regime

XY5  EGU2011-3478  
Marion Kersalé, Alvaro J. Peliz, Andrea M. Doglioli, and Anne A. Petrenko  
A numerical study on the collision of a Meddy with a seamount

XY6  EGU2011-7405  
Xavier Couvelard, Isabel B. Araujo, Rui Caldeira, and Ricardo Tome  
Atmospheric-induced effects on the sea surface: Madeira Island wake case study

XY7  EGU2011-3691  
Vanda Grubiši?, Johannes Sachsperger, and Rui Caldeira  
The atmospheric wake of Madeira Island: i-WAKE Campaign

XY8  EGU2011-7987  
Uwe Harlander, Yongtai Wang, Kiril Alexandrov, Torsten Seelig, Christoph Egbers and the MetStröm rotating annulus Team  
Intercomparison of numerical models simulating rotating annulus flows

XY9  EGU2011-12553  
Eckhard Dietze, Heiko Schmidt, Juan Pedro Mellado, and Bjorn Stevens  
Comparison of LES and DNS results for a two-dimensional evaporatively driven cloud-top mixing layer

XY10  EGU2011-2063  
Fabian Senf and Ulrich Achatz  
On generalized linear flows: from compressible to sound-proof dynamics

XY11  EGU2011-5675  
Michael Kurgansky  
Dynamical and statistical characteristics of atmospheric dust devils
Haraldur Ölfsson, Háldán Ágústsson, and Ólafur Rögnvaldsson
Patterns of the fine-scale wind climatology of Iceland from numerical downscaling

Andreas Will and Jack Ogaja
Convergence properties of the spatial schemes in the COSMO model and requirements on higher order spatial convergence

Marcin Kurowski, Bogdan Rosa, and Michał Ziemiański
Upstream effects of the atmospheric flow over a mountain ridge as represented by the anelastic nonhydrostatic model EULAG

Andreas Will and Jack Ogaja
Convergence properties of the spatial schemes in the COSMO model and requirements on higher order spatial convergence

Liang Sun
General stability criteria for inviscid rotating flow

Melitta Fiebig-Wittmaack, Wolfgang Boersch-Supan, Ingeborg Bischoff-Gauss, and Orlando Astudillo
Convergence acceleration for difference equations with flat grids: Application to incompressible atmospheric flow

Remi Tailleux
Compressibility effects in nearly incompressible turbulent stratified fluids: Do they matter or do they not?

Jose M. Redondo, Otman Ben Mahjoub, Roberto Castilla, Margarita Diez, and Emil Sekula
Mixing and diffusion in buoyancy driven self-similar flows

Richard Blender
Instability of planetary flows based on Riemannian geometry

Christoph Egbers, Marcus Gellert, Uwe Harlander, Yongtai Wang, and Günther Rüdiger
Investigation of Stratortotational Instability (SRI) in Taylor-Couette flows with axial temperature gradient

Geert C. M. Vinken, K. Folkert Boersma, Daniel J. Jacob, and Ernst W. Meijer
Accounting for non-linear chemistry of shipping plumes in the GEOS-Chem global chemistry transport model

Hyun Soo Kim, Chul Han Song, Roland von Glasow, Peter Brimblecombe, Jhoon Kim, Rokjin Park, Jung Hun Woo, and Yong Hoon Kim
A numerical study on elevated levels of HCHO within ship-plumes: Source identification and budget analysis

Yonghooon Kim, Hyun Soo Kim, and Chul Han Song
Ship-plume sulfur chemistry in the ITCT 2K2 experiment

Niklas Berg and Johan Mellqvist
Remote ship emission measurements of sulfur dioxide (SO2) and nitrogen dioxide (NO2) from airborne platforms

Mattia Righi, Carolin Klinger, Veronika Eyring, Johannes Hendricks, Axel Lauer, and Andreas Petzold
The climate impact of biofuels in shipping: global model studies of the aerosol indirect effect

Stig B. Dalsøren, Magnus S. Eide, Bjørn H. Samset, Gunnar Myhre, and Øyvind Endresen
Climate and environmental impacts of CO2 reduction from shipping using a cost-effectiveness criterion
XY161  EGU2011-11706
Nele Veldeman, Stijn Janssen, Felix Deutsch, Kris Vanherle, Pieter Lodewijks, Jan Duerinck, and Paul Campling
Integrated Assessment of an Emission Trading Scheme to reduce emissions from international shipping and the related environmental impact over Europe

XY162  EGU2011-11840
Samuele Masieri, Margherita Premuda, Ivan Kostadinov, Fabrizio Ravegna, Daniele Bortoli, Andrea Petritoli, and Giorgio Giovanelli
Flow rate emission and global impact study of ships plumes in Venice lagoon area

XY163  EGU2011-12317
Jerome Hilaire and David Lee
Towards a better representation of ship plume chemistry in a Global Chemistry-Transport Model

XY164  EGU2011-12822
Jana Moldanova
Parameterisation of ship plumes for regional and global models

BG1.6/OS3.7/SSS4.6 – Stabilization of organic matter in soils, sediments and marine dissolved organic matter (co-organized) – Orals
Convener: Samuel Abiven | Co-Conveners: Michael W. I. Schmidt, Thorsten Dittmar
Room: 23
Chairperson: Samuel Abiven

13:30–14:00  EGU2011-5784
Timothy Eglinton, Valier Galy, Bernhard Peucker-Ehrenbrink, Nicholas Drenzek, Angela Dickens, Xiaojuan Feng, Enno Schefuss, Britta Voss, Daniel Montlucon, and Ying Wu
The origin and evolution of organic matter signatures carried by rivers to the oceans

14:00–14:15  EGU2011-1151
Christian Schurig, Rienk Smittenberg, Jürgen Berger, Peter Fittkau, Anja Miltner, and Matthias Kästner
SOM genesis - microbial biomass fragments could be a significant source in newly exposed ecosystems

14:15–14:30  EGU2011-13801
Nimisha Singh, Samuel Abiven, Margaret S. Torn, and Michael W.I. Schmidt
The uncertain future of pyrogenic carbon in terrestrial system

14:30–14:45  EGU2011-3675
Barros Nieves, César Pérez-Cruzado, Josefa Salgado, and Agustín Merino
Monitoring changes in OM in afforested soils by calorespirometry, thermal analysis and NMR

14:45–15:00  EGU2011-8233
Xiaojuan Feng, Jorien E. Vonk, Örjan Gustafsson, Valier Galy, Daniel B. Montlucon, and Timothy I. Eglinton
Fate of lignin in large river systems across different latitudes - Perspectives from compound-specific radiocarbon analysis

Chairperson: Thorsten Dittmar

15:30–16:00  EGU2011-13657
Gerhard J. Herndl and Thomas Reinthal
Refractory deep-ocean dissolved organic matter: Enigmas and inconsistencies about its formation and transformation?

16:00–16:15  EGU2011-2445
Thorsten Dittmar, Jiyoung Paeng, Jutta Niggemann, and Aron Stubbins
Millennium-scale stabilization of marine dissolved organic matter through thermogenesis

16:15–16:30  EGU2011-12611
Yves Gelinas, Karine Lalonde, Alfonso Mucci, and Alexandre Ouellet
The Rusty Sink: Iron Promotes the Preservation of Organic Matter in Sediments

16:30–16:45  EGU2011-13891
Williams T. Cooper, Malek M. Tfaily, Rasha Hamdan, J. Elizabeth Corbett, and Jeffrey P. Chanton
Reactive and Refractory Components of Organic Matter in Peat Soils and their Relation to Climate Change

16:45–17:00  EGU2011-10663
Norbert Hertkorn and Philippe Schmitt-Kopplin
Natural Organic Matter and our Current Capacity to Depict Molecular Dissimilarity

BG1.6/OS3.7/SSS4.6 – Stabilization of organic matter in soils, sediments and marine dissolved organic matter (co-organized) – Posters
Convener: Samuel Abiven | Co-Conveners: Michael W. I. Schmidt, Thorsten Dittmar

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<td>Particulate organic matter in the northwest East China Sea—implications from amino acids enantiomers</td>
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Steffi Rothhardt, Reinhard Gaupp, and Gerd Gleixner
Microbial alteration of organic coatings on sand grains
Tuesday, 05 April

**CL1.19 – Ocean climate viewed through deep-sea corals (co-listed) – Orals**
Convener: Norbert Frank | Co-Conveners: Tina van de Flierdt, Andres Rüggeberg
Room: 13
Chairperson: Norbert Frank, Andres Rüggeberg, Tina van de Flierdt

15:30–15:45 EGU2011-5852
**Armin Form** and Ulf Riebesell
Coping with ocean acidification during long-term exposure in the cold-water coral Lophelia pertusa

15:45–16:00 EGU2011-9518
**Nancy Grumet Prouty**, Brendan Roark, and Alan Koenig
Sub-decadal records of surface water properties recorded in deep-sea corals spanning the last millennium from the Gulf of Mexico

16:00–16:15 EGU2011-7375
**Marcus Gutjahr**, Derek Vance, Claus-Dieter Hillenbrand, and Gerhard Kuhn
Modern Amundsen Sea Circumpolar Deep Water Nd isotope composition and its evolution since the Antarctic Cold Reversal

16:15–16:30 EGU2011-8370
**Eric Douville**, Pascale Louvat, Jerome Gaillardet, Cecile Gonzalez, Norbert Frank, and Marion Gehlen
Boron isotopes in deep sea corals over the last 10,000 years: evidence of ocean acidification at 750m of depth?

16:30–16:45 EGU2011-9132
**Eleni Anagnostou**, Robert Sherrell, and Jess Adkins
Nutrient and carbonate ion change at intermediate depth North West Atlantic: a record from a 15.4ky D. dianthus fossil coral

16:45–17:00 EGU2011-11813
**Jacek Raddatz**, Volker Liebetrau, Anton Eisenhauer, Andres Rüggeberg, Ed Hathorne, Dirk Nürnberg, and Wolf-Christian Dullo
Temperature reconstructions on carbonate mounds (IODP Site 1317) using elemental ratios (Mg/Ca, Mg/Li, Sr/Ca) as well as non-traditional isotope techniques

**CL1.19 – Ocean climate viewed through deep-sea corals (co-listed) – Posters**
Convener: Norbert Frank | Co-Conveners: Tina van de Flierdt, Andres Rüggeberg
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Norbert Frank, Andres Rüggeberg, Tina van de Flierdt

XY230 EGU2011-5486
**Norbert Frank**, Freiwald André, Wienberg Claudia, Van Rooij David, Colin Christophe, de Haas Henk, Buhl-Mortensen Pal, Roberts J. Murray, De Mol Ben and the HERMIONE partners Team
Northeastern Atlantic cold-water coral reefs and climate

XY231 EGU2011-10346
**Andres Rüggeberg**, Paolo Montagna, Matthias López Correa, Jan-Rainer Riethdorf, Jacek Raddatz, Wolf-Christian Dullo, Malcolm McCulloch, Marco Taviani, and André Freiwald
Problems and possibilities of Sr/Ca as a temperature proxy in cold-water coral Lophelia pertusa

XY232 EGU2011-13385
**Morten Bjerager**, Bodil Wesenberg Lauridsen, Finn Surløyk, Lars Stemmerik, Holger Lykke-Anderssen, Nicolas Thibault, Caterina Morigi, and Christoph Korte
Development of cold-water coral reefs in the Early Paleocene of southern Scandinavia

XY233 EGU2011-13946
**Markus Eisele**, Norbert Frank, Claudia Wienberg, Dierk Hebbeln, Matthias Lopéz Correa, Eric Douville, and André Freiwald
Growth of a cold-water coral mound - coral framework accumulation versus the deposition of hemipelagic sediments

XY234 EGU2011-13511
**Bodil Wesenberg Lauridsen**, Morten Bjerager, and Finn Surløyk
Danien cold-water coral reefs from Faxe, Denmark - A unique preservation of aragonite faunas

XY235 EGU2011-9222
**Wolf-Christian Dullo**, Sascha Flögel, Andres Rüggeberg, and Furu Mienis
Ocean Chemistry reflected in Cold Water Coral Reef Occurrences
LONGEVITY AND GROWTH RATES OF DESMOPHYLLUM DIANTHUS IN THE MARMARA SEA AND ITS POTENTIAL AS CENTENNIAL SCALE GEOCHEMICAL DEEP-SEA ARCHIVE

Jean-Carlos Montero-Serrano and the LSCE-GEOTRAC, IDES, HISPEC, RCMG, LOCEAN-IPSL-UPMC Team

Variability in the northeastern Atlantic intermediate water during the past 60 years as recorded by a cold-water coral from the Bay of Biscay

Paolo Montagna, Steve Goldstein, Marco Taviani, Norbert Frank, Malcolm McCulloch, and Helen McGregor

Neodymium isotopes in biogenic carbonates: reliable archives of water mass circulation

Matthias López Correa, Owen Sherwood, Paolo Montagna, Andreas Rüggeberg, Brenden Roak, Evan Edinger, and Malcolm McCulloch

Geochemical Records in Canadian Bamboo Corals, Potentials and Pitfalls

Jean-Carlos Montero-Serrano, Norbert Frank, and Christophe Colin

On the evolution of Mediterranean Sea Water during climate warm stages (MIS 1, 5, 7)

Kirsty C. Crocket, Tina van de Flierdt, Laura F. Robinson, and Jess F. Adkins

Ocean ventilation rates during the last deglaciation: paired radiocarbon and Nd isotope compositions in deep-water corals from the NW Atlantic

CL2.10 – Tropical Climate Variability and Teleconnections: past, present and future (co-listed) – Orals

Convener: Fred Kucharski | Co-Conveners: Belen Rodríguez Fonseca, Nerilie Abram, Teresa Losada, Javier Garcia-Serrano, Elsa Mohino, Irene Polo, Erin McClymont, Erica Hendy

Room: 17

Chairperson: n.n.

08:30–08:45 EGU2011-1306

Li Shi, Harry Hendon, Oscar Alves, Jing-Jia Luo, and Magdalena Balmaseda

How well can we predict the Indian Ocean Dipole?

08:45–09:00 EGU2011-4599

Peter Brandt, Andreas Funk, Verena Hormann, Marcus Dengler, Richard J. Greatbatch, and John M. Toole

A 4.5-year climate cycle of the tropical Atlantic forced by deep equatorial ocean dynamics?

09:00–09:15 EGU2011-11462

Franziska U. Schwarzkopf and Claus W. Böning

Decadal subsurface cooling and sea level fall in the tropical south Indian Ocean caused by Pacific wind forcing

09:15–09:30 EGU2011-13112

Marta Martin del Rey, Irene Polo, Belén Rodríguez-Fonseca, and Fred Kucharski

Multidecadal Variability of El Niño types due to Atlantic remote influence

09:30–09:45 EGU2011-9682

Ingo Richter, Swadhin Behera, Hideharu Sasaki, and Toshio Yamagata

Decadal modulation of the relation between equatorial wind anomalies and Atlantic Niños - implications for predictability

09:45–10:00 EGU2011-6640

Robin Chadwick and Peili Wu

Changes to the tropical circulation in a CO2 ramp-up/ramp-down simulation

COFFEE BREAK

Chairperson: Javier Garcia-Serrano, Teresa Losada, Fred Kucharski

10:30–10:45 EGU2011-11453

Craig Grove, Jens Zinke, Frank Peeters, Tim Scheufen, Sebastian Kasper, Malcolm McCulloch, and Geert-Jan Brummer

Is African rainfall forced from the Pacific on multidecadal timescales?
10:45–11:00  EGU2011-8923  
Teresa Losada, Belén Rodríguez-Fonseca, Elsa Mohino, Serge Janicot, and Juergen Bader  
Impact of the Atlantic-Pacific Niños connection over Sahelian rainfall

11:00–11:15  EGU2011-4880  
Alice Grimm and Christopher Reason  
Teleconnections between South American monsoon, Benguela Niño and southern Africa rainfall

11:15–11:30  EGU2011-10234  
Thomas Toniasso  
The role of tropical-extratropical teleconnections in the seasonal march of the southern Spring circulation.

11:30–11:45  EGU2011-3359  
Reindert Haarsma and Frank Selten  
Anthropogenic changes in the Walker Circulation and the impact on extra-tropical planetary wave structure

11:45–12:00  EGU2011-619  
Isabel Iglesias, Nieves Lorenzo, Belén Rodríguez-Fonseca, Juan Taboada, and Moncho Gómez-Gesteira  
The ENSO signal over Southwestern Europe and its impact on spring rainfall

CL2.10 – Tropical Climate Variability and Teleconnections: past, present and future (co-listed) – Posters
Convener: Fred Kucharski | Co-Conveners: Belen Rodríguez Fonseca, Nerilie Abram, Teresa Losada, Javier Garcia-Serrano, Elsa Mohino, Irene Polo, Erin McClymont, Erica Hendy
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: n.n.

XY242  EGU2011-5880  
Polina Afonina and Dariya Gushchina  
Simulation of El Nino Modoki in the INM_CM5 model.

XY243  EGU2011-627  
Marta Martin-Rey, Irene Polo, Belén Rodríguez-Fonseca, Javier Garcia-Serrano, Teresa Losada, Elsa Mohino, Carlos Roberto Mechoso, and Fred Kucharski  
Analysis of El Niño events from the Atlantic remote influence

XY244  EGU2011-13607  
Tony Lee and Michael McPhaden  
Increasing intensity of El Niño in the central equatorial Pacific

XY245  EGU2011-3394  
Regina Rodrigues, Reindert Haarsma, Edmo Campos, and Tercio Ambrizzi  
The impacts of inter-El Niño variability on the Tropical Atlantic and Northeast Brazil climate

XY246  EGU2011-10330  
Irene Polo, Buwen W. Dong, and Rowan T. Sutton  
Effects of Atlantic Meridional Overturning Circulation Change on Interannual Variability in the Tropical Atlantic and Pacific

XY247  EGU2011-8240  
Deepthi Marathayil, Len Shaffrey, Andrew Turner, and Julia Slingo  
Seasonal evolution of IOD and its sensitivity to the mean state in the HiGEM High Resolution Coupled Climate Model

XY248  EGU2011-7679  
Giovanni Dalu and Marina Baldi  
Nonlinear dynamics in the tropics in the shallow water approximation

XY249  EGU2011-12882  
Christopher Dancel  
A Simple Mechanism to explain the Zonal Dipole Pattern of Surface Salinity across the Atlantic and Pacific Tropics within a Global Warming Scenario

XY250  EGU2011-4733  
Rondrotiana Barimalala, Annalisa Bracco, and Fred Kucharski  
The representation of the South Tropical Atlantic teleconnection to the Indian Ocean in the AR4 coupled models

XY251  EGU2011-4593  
Fred Kucharski, In-Sik Kang, Riccardo Farneti, and Laura Feudale  
Tropical Pacific response to 20th century Atlantic warming

XY252  EGU2011-6487  
Laura Feudale and Fred Kucharski  
Mechanism Connecting African and Indian Monsoon Megadroughts
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<td>Cristina Peña-Ortiz, David Gallego, Pedro Ribera, <strong>Maria del Carmen Álvarez</strong>, and Paulina Ordonez</td>
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<td>Decreasing trend of the Tropical Easterly Jet over Africa</td>
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<td>Sara A. Rauscher, <strong>Fred Kucharski</strong>, and David B. Enfield</td>
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<td>The role of regional SST warming variations in the drying of Meso-America in future climate projections</td>
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<td>Maria Elisa Silva, Teresinha Xavier, and <strong>Sergio Gadelha</strong></td>
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<td>Oceanic influence on Brazilian river outflow</td>
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<td><strong>Petr Pisoft</strong>, Eva Holanova, Jaroslava Kalvova, and Jiri Miksovy</td>
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<td>Global study of the quasi-biennial oscillation by the pseudo-2D wavelet transform</td>
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<td><strong>Jorge A. Amador</strong>, Eric J. Alfaro, Erick R. Rivera, and Blanca Calderon</td>
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<td>Climatic Features and Their Relationship with Tropical Cyclones Over the Intra-Americas Seas</td>
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<td><strong>Ayansina Ayanlade</strong></td>
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<td>Climate change monitoring and its impacts assessment: How can GIS help?</td>
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<td><strong>Hans-F. Graf</strong></td>
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<td>Two El Niño Types and their Teleconnections with Europe</td>
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<td><strong>Annalisa Cherchi</strong>, Simona Masina, and Antonio Navarra</td>
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<td>Tropical Pacific - North Pacific teleconnection in a coupled GCM: Is ENSO a crucial player?</td>
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<td><strong>Jinhee Yoon</strong> and Sang-Wook Yeh</td>
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<td><strong>Julien Crétat</strong>, Yves Richard, Benjamin Pohl, Mathieu Rouault, Chris Reason, and Nicolas Fauchereau</td>
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<td>Recurrent daily rainfall patterns over South Africa and associated dynamics during the core of the austral summer</td>
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<td><strong>Pascale Bracquenot</strong>, Charline Marzin, Masa Kageyama, Didier Swingedouw, and Weipeng Zheng</td>
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<td>Relative impact of insolation changes, fresh water fluxes and ice sheet on African and Asian monsoon characteristics</td>
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<td><strong>Ivana Herceg Bulić</strong> and Fred Kucharski</td>
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<td>Delayed ENSO impact on spring precipitation over North Atlantic/European region</td>
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<td><strong>Javier Garcia-Serrano</strong> and Teresa Losada</td>
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<td>SST-forced ENSO response and internally-driven NAO variability in the Northern Hemisphere midwinter</td>
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**ESSI7 – Earth System Modeling: Strategies and Software (co-listed) – Posters**

Convener: Reinhard Budich | Co-Conveners: Dan Lunt

**Hall XL** | **Display Time 08:00–19:30**

Author in Attendance: 15:30–17:00

Chairperson: n.n.

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<td><strong>Sven Kralisch</strong>, Peter Krause, and Christian Fischer</td>
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<td>JAMS - a Software Framework for Integrated Environmental Modelling</td>
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<td><strong>Paolo Mazzetti</strong>, Stefano Nativi, Mattia Santoro, and Gary Geller</td>
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<td>The GEO Model Web Initiative for Environmental Model Access Interoperability</td>
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<td><strong>Oliver Schmitz</strong>, Derek Karssenberg, Kor de Jong, and Jean-Luc de Kok</td>
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<td>Constructing integrated models: a scheduler to execute coupled components</td>
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<td><strong>Sarah Callaghan</strong>, Mark Morgan, Eric Guiyardi, Sophie Valcke, Charlotte Pascoe, Bryan Lawrence and the METAFOR Project Team</td>
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<td>Supporting the climate community by providing common metadata for climate modelling digital repositories: the METAFOR project.</td>
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Infrastructure for Data-Intensive Seismology: Cross-correlation of distributed seismic traces through the ADMIRE framework

LTDP/FIRST Earth Science User Requirements

Simulation Laboratories for Climate Sciences and Environmental Research

Parallel optimization of IPSL climate model

Open Source GIS tools for Water Resources Management

Towards a coupled climate model with a finite-element sea ice-ocean representation

Fluidity - an open-source, next-generation, fluid dynamics framework

Sea ice thickness temporal evolution during the Arctic freeze-up as seen by SMOS

A strategy for global drought monitoring using SMOS soil moisture observations

Sea ice thickness retrieval in the Baltic Sea using SMOS

Monitoring SMOS data at ECMWF

Boreal Soil Measurements Using L-band Radiometers, SMOS and ELBARA-II

Dealing with Radio Frequency Interference in SMOS Data

Role of air-sea fluxes in the North Atlantic climate variability on interdecadal and interannual time scales

Multidecadal variability of the subpolar gyre of the North Atlantic
09:00–09:15 EGU2011-1658
Katja Lohmann, Johann Jungclaus, Michael Botzet, Helmuth Haak, Stephan Lorenz, and Daniela Matei
Response of the (multi)decadal variability of the Atlantic meridional overturning circulation to suppressed variability in subpolar deep water formation (and overflows)

09:15–09:30 EGU2011-2779
Shane Elipot, Chris Hughes, Eleanor Frajka-Williams, and Miguel Angel Morales Maqueda
Observed latitudinal coherence of the North Atlantic Meridional Overturing Circulation

09:30–09:45 EGU2011-10199
Paul Halloran, Ian Totterdell, Matthew Mannery, Ben Booth, and Nick Dunstone
The Rise and Fall of the North Atlantic CO2 Sink

09:45–10:00 EGU2011-11566
Daniela Matei, Johanna Baehr, Johann Jungclaus, Helmuth Haak, Wolfgang Müller, and Jochem Marotzke
Interannual predictions of the Atlantic Meridional Overturing Circulation at 26.5°N

OS1.2/CL2.2 – The North Atlantic and climate (co-organized) – Posters
Convener: Monika Rhein | Co-Conveners: Richard Greatbatch

Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Steinfeldt

XY677 EGU2011-3595
Dmitry Sein, Uwe Mikolajewicz, Ernst Maier-Reimer, and Matthias Groeger
Downscaling of climate change A1B scenario projection on North Atlantic - European shelves ocean - atmosphere system

XY678 EGU2011-9138
Dorotea Iovino, Christophe Herbaut, and Marie-Noelle Houssais
High-resolution modelling of sea-ice and ocean dynamics in the Nordic Seas

XY679 EGU2011-1482
George Vanyushin, Anatoly Troshkov, Michail Kruzhhalov, and Tatiana Bulatova
The Norwegian and Barents Seas: current temperature conditions (based on satellite data).

XY680 EGU2011-2239
Steingrimur Jonsson and Hedin Valdimarsson
Variability of volume and heat transport of water masses on the north Icelandic shelf

XY681 EGU2011-3703
Eric de Boisseson, Virginie Thierry, Herlé Mercier, and Guy Caniaux
Origin, formation and variability of the Subpolar Mode Water observed over the Reykjanes Ridge

XY682 EGU2011-2354
John 'Paul' Spence, Oleg Saenko, Willem Sjip, and Mathew England
The role of bottom pressure torques on the interior pathways of North Atlantic Deep Water

XY683 EGU2011-1262
Monika Rhein, Dagmar Kieke, and Reiner Steinfeldt
The Deep Western Boundary Current and its role for the propagation of newly formed deep water in the North Atlantic

XY684 EGU2011-3019
Claudia Denker, Dagmar Kieke, Birgit Klein, Holger Klein, and Monika Rhein
Transport over the Mid-Atlantic-Ridge through the Faraday Fracture Zone

XY685 EGU2011-2895
Damien Desbruyeres, Virginie Thierry, and Herlé Mercier
Long-term variability of the North Atlantic Current system in a realistic simulation

XY686 EGU2011-2594
Linn Schneider, Dagmar Kieke, Monika Rhein, and Birgit Klein
Mixed layer evolution in the subpolar North Atlantic measured by Argo floats

XY687 EGU2011-3217
Christian Uhe, Achim Roessler, and Monika Rhein
Transport variability in the North Atlantic Current inferred from satellite altimetry

XY688 EGU2011-3428
Sandrine Mulet, Stéphanie Guinehut, Marie-Hélène Rio, Anne-Lise Dhomps, Laurent Bessieres, Gaël Nicolas, and Gilles Larnicol
Combination of in-situ and satellite observations to monitor the Ocean State: Application to the North Atlantic Ocean

XY689 EGU2011-3666
Vassil Roussenov, Richard G. Williams, M. Susan Lozier, and Doug M. Smith
The effect of gyre-scale property changes on the North Atlantic overturning over the last 50 years
XY690  EGU2011-3682
David Brayshaw, Brian Hoskins, and Michael Blackburn
North Atlantic sea surface temperatures and the structure of the atmospheric storm track

XY691  EGU2011-3481
Mingming Li, Christian Mertens, Maren Walter, and Monika Rhein
Estimate of Diapycnal Mixing from eight Hydrographic Surveys in the Subpolar North Atlantic

XY692  EGU2011-3788
Christopher Piecuch and Rui Ponte
Attributing Climate-Scale Variability in Atlantic Ocean Heat Storage

XY693  EGU2011-14188
Matthias Koeller
Decadal Subpolar Gyre variability and relation to heat exchange in the Nordic Seas

XY694  EGU2011-12600
Francisco Alvarez-Garcia, Maria J. OrtizBevia, and William CabosNarvaez
North Atlantic decadal variability: deconstructing the SST tripole

XY695  EGU2011-11358
Ben Booth, Paul Halloran, and Nick Dunstone
Role of external drivers in historical Atlantic Temperature changes

XY696  EGU2011-13366
Rita Lecci, Simona Masina, Annalisa Cherchi, and Marcelo Barreiro
Sensitivity of the Atlantic Thermohaline Circulation to extreme CO2 forcing

XY697  EGU2011-10105
Christian Rodehacke, Steffen Olsen, Gao Yongqi, Didier Swingedouw, Matthew Menary, Erik Behrens, Arne Biaustock, and Uwe Mikolajewicz
First glance on simulated fresh water releases around Greenland's coast and its impacts on the ocean circulation

XY698  EGU2011-5182
Florian Sévellec and Alexey Fedorov
An Interdecadal Oscillatory Eigenmode of the Atlantic Meridional Overturning Circulation in a realistic Ocean GCM

XY699  EGU2011-5155
Shoshibo Minobe, Masato Miyashita, Akira Kuwano-Yoshida, Hiroki Tokinaga, and Shang-Ping Xie
Atmospheric response to the Gulf Stream: Shallow & Deep Heating Modes

XY700  EGU2011-5098
Joseph Holden and Tim Burt
Long-term change in temperature and rainfall with altitude in Britain

XY701  EGU2011-6339
Charles Troupin and Francisco Machín
Wind-induced temperature anomalies in the tropical and subtropical North Atlantic Ocean in 2010

XY702  EGU2011-885
Anastase Alexandre Charantonis, Sylvie Thiria, Cyril Moulin, and Julien Brajard
Inversion of sea surface data to retrieve the vertical distribution of phytoplankton using a statistical methodology

XY703  EGU2011-2757
Ursula Quillmann, Anne E. Jennings, Tom M. Marchitto, Vivian Underhill, and John T. Andrews
Holocene Evolution of the Irminger Current: a Perspective from the Southwest Iceland Shelf

XY704  EGU2011-2822
Mi-Kyung Sung, Yoo-Geun Ham, Soon-II An, and Jong-Seong Kug
Intraseasonal Phase Transition of the NAO-Like Response to El Nino and Its Alteration by the Tropical North Atlantic SST

XY705  EGU2011-3552
Willem Sijp
Precise calculations of the existence of multiple AMOC equilibria in coupled climate models

XY706  EGU2011-3869
Aixue Hu, Gerald Meehl, and Weiqing Han
Impact of the background conditions on the climate response to external forcings

XY707  EGU2011-3887
Holly Dail and Carl Wunsch
Synthesizing Benthic and Planktonic Proxy Records: State Estimation of the Last Glacial Maximum North Atlantic Circulation

XY708  EGU2011-4142
Jacek Piskozub and Dorota Gutowska
Constraining the MOC influence on the 20th century global temperature trends

XY709  EGU2011-4408
Patrick Scholz and Gerrit Lohmann
Decadal variability in a new high-resolution model of the North Atlantic ocean
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<td>Grant Buffett, Ramon Carbonell, Valenti Sallarès, and Jose Lluis Pelegrí</td>
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<td>Seismic oceanography as a tool to monitor climate change</td>
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<td>Vasily Melnikov, Lidija Moskalenko, and Natalija Kuzevanova</td>
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<td>North-East Black Sea climate system decadal variability</td>
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<td>Fritz Richard Karbe, Monika Rhein, Christian Mertens, Dagmar Kieke, and Maren Walter</td>
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<td>Fran Santos, Moncho Gómez-Gesteira, Maite deCastro, and Isabel Iglesias</td>
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<td>Takasumi Kurahashi-Nakamura, Martin Losch, André Paul, Stefan Mulitza, and Michael Schulz</td>
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<td>Inversion of temperature profiles from satellite data in the tropical Atlantic based on Self Organizing Map</td>
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<th>XY719</th>
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<tr>
<td>Laure Zanna</td>
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<td>Variability and Predictability of observed Atlantic sea surface temperatures</td>
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<tr>
<td>Christopher W. Hughes, Shane Elipot, Miguel Angel Morales Maqueda, and Rory Bingham</td>
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<td>A window on the deep ocean: Demonstration that the steep western Atlantic continental slope acts to filter out mesoscale noise and provides a quiet window into the deep circulation.</td>
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<tr>
<td>Paulo Oliveira and Álvaro Peliz</td>
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<td>Azores Current Winter Pathways</td>
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<tr>
<td>Maureen Conte and John C Weber</td>
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<td>Seasonal, interannual and decadal patterns in deep ocean particle flux in the Sargasso Sea and linkage with upper ocean physics and biology</td>
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<tr>
<td>Ilker Fer, Elin Darelius, and Detlef Quadfasel</td>
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<td>Mesoscale variability of the Faroe Bank Channel Overflow</td>
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<td>Bente Tiedje, Armin Köhl, and Johanna Baehr</td>
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<tr>
<td>Potential predictability of the North Atlantic heat transport based on an oceanic state estimate</td>
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**OS1.3 – Changes in Arctic sea ice and ocean: observations, models and perspectives (including Fridtjof Nansen Medal Lecture) – Orals**

Convener: Ursula Schauer | Co-Conveners: Takashi Kikuchi, Yevgeny Aksenov

**Room: D**

Chairperson: Ursula Schauer

10:30–11:30 EGU2011-14180

**Bert Rudels**

Arctic Ocean circulation and variability - advection and external forcing encounter constraints and local processes (Friktjof Nansen Medal Lecture)

11:30–12:00 Discussions

**LUNCH BREAK**
Room: 6
Chairperson: n.n.

13:30–13:45 EGU2011-8821
Igor Polyakov and the jpo4339 Team
Arctic Ocean warming contributes to reduced polar ice cap

13:45–14:00 EGU2011-10748
Steffen Tietsche, Dirk Notz, Johann Jungclaus, and Jochem Marotzke
Sea-ice data assimilation in coupled climate models - are ice concentration observations sufficient?

14:00–14:15 EGU2011-2186
Chao Li, Dirk Notz, and Jochem Marotzke
CO2 as a driver of sea ice tipping points

14:15–14:30 EGU2011-3460
Torge Martin, Rüdiger Gerdes, and Frank Kauker
On trends in Arctic sea-ice motion: spatial distribution, significance, and the role of the ocean

14:30–14:45 EGU2011-11233
Michael J. Karcher
Should we modify our understanding of surface and mid-depth circulation of the Arctic Ocean?

14:45–15:00 EGU2011-10598
Yevgeny Aksenov, Beverly de Cuevas, Ruediger Gerdes, Elena Golubeva, Michael Karcher, Frank Kauker, An Nguyen, Gennady Platov, Andrey Proshutinsky, Eiji Watanabe and the Martin Wadley (7) and Rebecca Woodgate (8). The Arctic Ocean Model Intercomparison Project, The Pacific Water Experiment Team
Arctic Pathways of the Pacific Water: the Arctic Ocean Model Intercomparison Experiments

Chairperson: Yevgeny Aksenov and Markus Janout

15:30–15:45 EGU2011-5190
Mary-Louise Timmermans, Andrey Proshutinsky, Richard Krishfield, Donald Perovich, Jacqueline Richter-Menge, and John Toole
Surface freshening in the Arctic Ocean’s Eurasian Basin: an apparent consequence of recent change in the wind-driven circulation

15:45–16:00 EGU2011-7476
Benjamin Rabe, Michael Karcher, Ursula Schauer, John M. Toole, Richard A. Krishfield, Sergey Pisarev, Frank Kauker, Rüdiger Gerdes, and Takashi Kikuchi
An assessment of Arctic Ocean freshwater content changes from the 1990s to the 2006 - 2008 period and beyond

16:00–16:15 EGU2011-11854
Peter Schlosser, Rebecca Chan, Robert Newton, William Smethie, and Ronny Friedrich
Changes in age structure and freshwater composition in the Switchyard region of the Arctic Ocean

16:15–16:30 EGU2011-687
Ekaterina Chernyavskaya and Leonid Timokhov
Climatic variability of the thermohaline structure of the Arctic Ocean surface layer and its conditioning factors

16:30–16:45 EGU2011-4643
Gennady Platov, Elena Golubeva, and Viktor Kuzin
Model simulations of Arctic fresh water balance variability

16:45–17:00 EGU2011-10719
Laura Niederdrenk, Dmitry Sein, and Uwe Mikolajewicz
Modeling the Arctic hydrologic cycle and its variability

OS3.1 – IMBER/SOLAS special session. Sensitivity of marine ecosystems and biogeochemical cycles to global change – Orals
Convener: Baris Salihoglu | Co-Conveners: Christoph Garbe, Emilie Brévière
Room: 11
Chairperson: Baris Salihoglu, Emilie Breviere, Christoph Garbe

08:30–08:45 EGU2011-1564
Jean-Pierre Gattuso, Jelle Bijma, Gehlen Marion, Riebesell Ulf, and Turley Carol
Ocean acidification: knowns, unknowns and perspectives

08:45–09:00 EGU2011-5462
Karen Marie Hillgsoe, Katherine Richardson, Jørgen Bendtsen, Jens Tang Christensen, Lise Lotte Sørensen, Torkel Gissel Nielsen, and Maren Molke Lynghsgaard
Changing ocean temperature and phytoplankton community size structure
09:00–09:15 EGU2011-1445  
**Diana Zuniga**, Carmen G. Castro, Fernando Alonso, Eleonora Anfuso, Belen Arbones, Maria Frojan, and Francisco G. Figueiras  
Vertical export of particulate organic carbon in the Ría de Vigo (NW Atlantic upwelling system): the role of physical forcing and phytoplankton community structure

09:15–09:30 EGU2011-10225  
**James Harle**, Jason Holt, Robert Holmes, Icarus Allen, and Manuel Barange  
The sensitivity of the coastal and shelf seas and their primary production to changes in the climate.

09:30–09:45 EGU2011-6248  
**Bronwyn Cahill**, Katja Fennel, and John Wilkin  
Interannual Variability of Primary Production and Carbon Fluxes on Northeast North American Shelf: Sensitivity to Climate Change?

09:45–10:00 EGU2011-9810  
**Johan van der Molen**, John Aldridge, Clare Coughlan, and Piet Ruardij  
Modelling marine ecosystem response to climate change and trawling in the North Sea

COFFEE BREAK

Chairperson: Christoph Garbe, Baris Salihoglu, Emilie Breviere

13:30–13:45 EGU2011-8011  
**Ragu Murtugudde**, John Dunne, and Keith Rodgers  
Dynamic and Thermodynamic Coupling: Implications for ecosystem-BGC response to climate change

13:45–14:00 EGU2011-6569  
**Jason Holt**, Sarah Wakelin, Momme Butenschön, Yuri Artioli, and Icarus Allen  
The sensitivity of physical and ecosystem processes of the northwest European continental shelf to climate change via oceanic, terrestrial and atmospheric vectors.

14:00–14:15 EGU2011-8730  
**Inga Hense**, Sebastian Sonntag, and H. E. Markus Meier  
The future development of Baltic Sea cyanobacteria blooms: A scenario

14:15–14:30 EGU2011-12913  
**Ioanna Bouloubassi**, Dimitri Gutiérrez, Abdelfettah Sifeddine, Sara Purca, Katerina Goubanova, Michelle Graco, David Field, Federico Velazco, Boris Dewitte, and Luc Ortlieb  
Trends of sea surface temperatures and productivity in the Peru upwelling since the mid-twentieth century

14:30–14:45 EGU2011-6482  
**Astrid Bracher**, Tilman Dinter, Bettina Taylor, Alireza Sadeghi, and Elena Torrecilla  
Phytoplankton composition and distribution in the Western Pacific - insights on temporal and spatial dynamics from in-situ and satellite data

14:45–15:00 EGU2011-10076  
**Anna Dammshäuser**, Thibaut Wagener, Diego Gaioro, Maija I. Heller, Peter Streu, and Peter L. Croot  
Atmospheric supply of Al, Fe and Ti to the Atlantic Ocean

Chairperson: Emilie Breviere, Christoph Garbe, Baris Salihoglu

15:30–15:45 EGU2011-3700  
**John Plane**, Ravi Kumar, Samantha MacDonald, Russell Saunders, Benjamin Murray, Anoop Mahajan, Juan Carlos Gomez Martin, and Alfonso Saiz-Lopez  
Halogen Chemistry in the Marine Boundary Layer

15:45–16:00 EGU2011-5207  
**David Ho**, Rik Wanninkhof, Peter Schlüssel, David S. Ullman, and David Hebert  
Towards a universal relationship between wind speed and gas exchange: Gas transfer velocities measured with 3He/SF6 during the Southern Ocean Gas Exchange Experiment

16:00–16:15 EGU2011-6809  
**Anna Rutgersson**, Maria Norman, and Anders Omstedt  
Oceanic convective mixing and the improved air-sea gas transfer velocity applied to the Baltic Sea biogeochemical cycle

16:15–16:30 EGU2011-6012  
**Séférian Roland**, Ludovico Daniele, and Bopp Laurent  
Water mass analysis of effect of climate change on air-sea CO2 fluxes. The Southern Ocean.

16:30–16:45 EGU2011-1957  
**Matthew Woodhouse**, Graham Mann, Ken Carslaw, and Olivier Boucher  
Weak response of CCN to changes in DMS flux: implications for the CLAW feedback in current climate assessments
The estimate of the denitrification using nitrogen gas excess in the Sea of Okhotsk

The Capricorn/Australian plates’ suture highlighted by seamounts morphology

Structural evolution of the southern Molucca Sea, Indonesia: Insights from multibeam bathymetry

Comparison of the sediment dispersal routes between offshore SW Taiwan and Huon Gulf west of Papua New Guinea in incipient oblique arc-continent collision zones

Evidence for a sub-marine active fault along the North-Ecuador South Colombia oblique-convergent margin: implication for fault maturity and tectonic escape

The problem of the 1908 Reggio and Messina earthquake and tsunami sources. A geomorphic perspective

Variations in sedimentation rates in the eastern Marmara Sea (Turkey) as related to bottom morphology, active tectonism, sea-level changes and sediment input patterns

Searching for the seafloor signature of the May 21, 2003 Boumerdês earthquake offshore central Algeria

Deep Structures of the Forearc Region at the Western End of the Ryukyu Subduction-Collision Zone Offshore Eastern Taiwan

Morpho-sedimentary features and longitudinal sediment transport in the Taiwan-Luzon region

Hotspot dominated rifting - The instance of Sãó Miguel (south-eastern Terceira Rift, Azores)
OS4.3 – Ocean Remote Sensing – Orals
Convener: Aida Alvera-Azcárate | Co-Conveners: Guoqi Han, Christine Gommenginger
Room: 7
Chairperson: Aida Alvera-Azcárate and Christine Gommenginger

13:30–13:45  EGU2011-8456
Klaus-Werner Gurgel, Thomas Schlick, Jörg Seemann, and Friedwart Ziemer
Remote Sensing Ocean Currents in the German Bight: HF Radar Measurements and Quality Control

13:45–14:00  EGU2011-8393
Amanda Mims, Chris Ruf, and Darren McKague
Development of a Passive Microwave Ocean Wind Vector Retrieval Algorithm in Tropical Cyclones

14:00–14:15  EGU2011-10476
Salam Sawadogo, Ousmane Farikou, Awia Niang, Julien Brajard, Michel Crépon, and Sylvie Thiria
Spatio-temporal variability of the Senegalo-Mauritanian upwelling from satellite observations

14:15–14:30  EGU2011-10317
Marina Evdoshenko
Meteorological Waves in the Caspian Sea by MODIS Data

14:30–14:45  EGU2011-5939
Aida Alvera-Azcárate, Alexander Barth, and Jean-Marie Beckers
Merging satellite and in situ sea surface temperature data using DINEOF

14:45–15:00  EGU2011-8719
Guoqi Han and Nancy Chen
Climatic sea level variability along the Northwest Atlantic continental slope

Chairperson: Guoqi Han and Aida Alvera-Azcárate

15:00–15:15  EGU2011-3189
Chun Hoe Chow and Qinyu Liu
Quasi-four-month variation of sea surface height along the continental slope in northern South China Sea

15:15–15:30  EGU2011-6762
Joana Fernandes, Nelson Pires, Clara Lázaro, Alexandre L. Nunes, Paolo Cipollini, and Jérôme Benveniste
Zenith tropospheric delays from GNSS and its application to coastal altimetry

16:00–16:15  EGU2011-2968
Grit Freiwald, Martin Losch, Wolf-Dieter Schuh, and Silvia Becker
Synthesis of Mean Dynamic Topography Data and a North Atlantic Ocean Model

16:15–16:30  EGU2011-3599
Karen Guichou, Clothilde Langlais, Peter Oke, Richard Coleman, and Florence Birol
Study of the Leeuwin Current from JASON-1 high rate Altimeter SLA processed with the X-TRACK software

16:30–16:45  EGU2011-11419
Nicolas Picot and Jean-Damien Desjonqueres
Jason-2 altimeter transponder calibration experiment

16:45–17:00  EGU2011-3742
Christine Gommenginger, Cristina Martin-Puig, Salvatore Dinardo, R. Keith Raney, David Cotton, and Jérôme Benveniste
An open ocean retracker for Sentinel-3 and Cryosat altimeter waveforms
Wednesday, 06 April

**HS10.1/GM8.1 – Coasts, Estuaries and Deltas (co-listed) – Orals**
Convener: Hubert H.G. Savenije | Co-Conveners: Andreas Baas, Andrea Rinaldo, Marco Toffolon, Liviu Giosan, Stefan Constantinescu, Carles Ibañez
**Room: 38**
Chairperson: n.n.

08:30–08:45 EGU2011-4867
**Ping Wang**, Tiffany M. Roberts, and Mark H. Horwitz
Deposition of Deepwater Horizon oil spill on Florida and Alabama beaches: At the surface and beneath

08:45–09:00 EGU2011-8101
**David Kelly**, Nicholas Dodd, and Michiel Knaapen
Modelling Tsunami Hydro-Morphodynamics For Real World Applications

09:00–09:15 EGU2011-1616
**Thorsten Albers** and Nicole von Lieberman
Limits of sediment transport formulas in the Wadden Sea - Comparison of measured and computed transport rates

09:15–09:30 EGU2011-7627
**Andrea D’Alpaos**, Simon Marius Mudd, and Luca Carniello
Analytical solutions for salt-marsh equilibrium states and transient dynamics

09:30–09:45 EGU2011-6644
**Luana Stefanon**, Luca Carniello, Andrea D’Alpaos, and Stefano Lanzoni
Laboratory observations on tidal network growth and development

09:45–10:00 EGU2011-13210
**Fantina Madricardo**, Jaroslaw Tegowski, and Sandra Donnici
A multidisciplinary approach for tidal palaeochannel reconstruction: a case study from the lagoon of Venice

**COFFEE BREAK**

Chairperson: n.n.

10:30–10:45 EGU2011-7081
**Albert Kettner**, Fei Xing, Andrew Ashton, Mark Hannon, Carles Ibañez, and Liviu Giosan
Unraveling the impact of humans versus climate on the morphological evolution of the Ebro Delta, Spain.

10:45–11:00 EGU2011-8495
**Gilles Erkens**, Kim Cohen, and Hans Middelkoop
Quantification of the impact of pre-historic land use on suspended sediment accumulation in the Rhine delta

11:00–11:15 EGU2011-4564
**Liviu Giosan**
Are Old World Deltas Human Constructs?

11:15–11:30 EGU2011-1760
**Carles Ibañez**, Liviu Giosan, Enrique Reyes, and John W. Day
The Response of Deltas to Sea Level Rise under Natural- and Human-impacted Conditions

11:30–11:45 EGU2011-5250
**Paul Liu**
Fates of River-Derived Sediments to the Sea: Longshore vs cross-shelf transport

11:45–12:00 EGU2011-5305
**Andrew Ashton**, Liviu Giosan, Albert Kettner, Eric Hutton, and Carles Ibanez
Influence of wave angle distribution and sediment supply variation on plan-view delta morphology: application to the Ebro Delta, Spain

**HS10.1/GM8.1 – Coasts, Estuaries and Deltas (co-listed) – Posters**
Convener: Hubert H.G. Savenije | Co-Conveners: Andreas Baas, Andrea Rinaldo, Marco Toffolon, Liviu Giosan, Stefan Constantinescu, Carles Ibañez
**Hall A | Display Time 08:00–19:30**
Author in Attendance: 15:30–17:00
Chairperson: n.n.
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<td>EGU2011-6464</td>
<td>Kwang Hee Choi, Yeong Bae Seong, Pil Mo Jung, and Su Yong Lee</td>
<td>Pleistocene origin of the shore platforms defined by cosmogenic 10Be exposure dating, west coast of Korea</td>
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<td>A392</td>
<td>EGU2011-3176</td>
<td>Antonio Jabaloy Sánchez, Francisco José Lobo, Antonio Azor, Patricia Bárcenas, Luis Miguel Fernández-Salas, Victor Díaz del Río, José Vicente Pérez-Peña, and Mercedes Vázquez-Vilchez</td>
<td>Holocene coastline changes in the Guadaféo River deltaic system of SE Spain</td>
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<td>A393</td>
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<td>Sukran Acikel, Mehmet Ekmekci, Levent Tezcan, Turker Kurttas, and Deniz Ozbek</td>
<td>Conceptualization of a Brackish Coastal Karst System: Implications For Resilience of a Groundwater Dependent Wetland</td>
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<td>A394</td>
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<td>Holocene coastline changes in the Guadaféo River deltaic system of SE Spain</td>
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<td>A395</td>
<td>EGU2011-4953</td>
<td>Philippe Larroude, Mehdi Dacui, Nicolas Robin, and Raphaël Certain</td>
<td>Comparison of sediment transport formulae 2DH simulation of several storms on a sandy beach</td>
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<td>A396</td>
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<td>Andrew Ashton and Alejandra Ortiz</td>
<td>Overwash controls of basic barrier response to sea-level rise and the potential for transgressive instabilities</td>
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<td>A397</td>
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<td>Oleg Andrejev, Alexander Sokolov, Tarmo Soomere, and Kai Myrberg</td>
<td>Construction of environmentally friendly fairways based on properties of Lagrangian surface transport</td>
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<td>A398</td>
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<td>A399</td>
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<td>Iris Möller, Jasmin Mantilla-Contreras, Tom Spencer, and Adrian Hayes</td>
<td>Wave-vegetation interactions within Baltic coastal reed beds</td>
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<td>A400</td>
<td>EGU2011-9759</td>
<td>David Hill, Sierd de Vries, Matthieu de Schipper, and Marcel Stive</td>
<td>Remote sensing of coastal waves using stereo imaging</td>
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<td>A401</td>
<td>EGU2011-7731</td>
<td>Ying Zhang and Huan Li</td>
<td>A New Method Exploration on the Measurements of the Sand Ridges Changes in Exposed Radial Sand Ridges Area by means of Remote</td>
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<td>A402</td>
<td>EGU2011-1697</td>
<td>Cristina Da Lio, Andrea D’Alpaos, and Marco Marani</td>
<td>Biomorphological modeling of tidal landscapes: the role of physical and biological processes in determining equilibrium states and transient dynamics</td>
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<td>A403</td>
<td>EGU2011-13255</td>
<td>Marco Marani, Andrea D’Alpaos, Marco Santalucia, and Stefano Lanzoni</td>
<td>Marsh margin retreat due to wind waves</td>
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<td>A405</td>
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<td>Chiara De Capitani di Vimercate, Nicoletta Tambroni, and Giovanni Seminara</td>
<td>Is tidal flat hydrodynamics dominantly dissipative?</td>
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<td>A406</td>
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<td>Axel Winterscheid</td>
<td>Analysis of the near-bed morphological processes in a sediment trap in the Tidal Elbe near Hamburg</td>
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<td>Jacqueline Isabella Gisen and Hubert H.G. Savenije</td>
<td>Salt Intrusion in Malaysian Estuaries</td>
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<td>A409</td>
<td>EGU2011-4049</td>
<td>Huayang Cai, Hubert H.G. Savenije, Qingshu Yang, Suying Ou, and Yaping Lei</td>
<td>The influence of recent change in river discharge and bathymetry on tidal wave propagation in the Modaomen estuary, China</td>
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<td>A410</td>
<td>EGU2011-4052</td>
<td>Huayang Cai, Hubert H.G. Savenije, and Marco Toffolon</td>
<td>Exploring linear and nonlinear solutions to the tidal hydraulic equations</td>
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A411 EGU2011-10155
Hou Wen-Shang, Teng Te-Hui, Hsieh Hwey-Lian, Chen Chang-Po, and Huang Shou-Chung
Performance of energy-saving water exchange device used in tidal wetland to improve water quality

A412 EGU2011-10313
Aurelia Caldararu, Gabriel Murariu, Lucian P. Georgescu, and Catalina Iticescu
The interaction between taxa metrics and environmental variables, as indicator of aquatic ecosystem state

A413 EGU2011-12989
Maximiliano Sassi and Ton Hoitink
Towards an extension of the hydraulic geometry concept to include tidal networks

A414 EGU2011-9386
Toru Tamura, Mark Bateman, Yoshiki Saito, Van Lap Nguyen, Thi Kim Oanh Ta, Minh Dao Le, Dan Matsumoto, and Shota Yamashita
Constraining centennial to decadal changes of a deltaic coastline over the last millennia, Mekong River delta, Vietnam

A415 EGU2011-12914
Mikhail Lychagin, Nikolay Kasimov, and Anna Kuryakova
Environmental Geochemistry of the Volga Delta

A416 EGU2011-11057
albert Rovira and Carles Ibáñez
Sediment Budget of the Lowermost Ebro River Basin (Catalonia, Spain)

A417 EGU2011-12339
Alfred Vespermeanu-Stroe, Stefan Constantinescu, Luminta Preoteasa, Florin Tatui, and Liviu Giosan
Present-day changes of St. Gheorghe (Danube) arm mouth long-term evolution pattern

A418 EGU2011-6794
Stefan Constantinescu, Alfred Vespermeanu-Stroe, Ionut Ovejanu, Florin Filip, and Liviu Giosan
Natural and far-field anthropogenic effects on the evolution of St. Gheorghe mouth

A419 EGU2011-4898
Florin Filip, Stefan Constantinescu, and Liviu Giosan
On the evolution of Chilia distributary in Danube delta

NP2.1 – ENSO: Dynamics, Predictability and Modelling (co-listed) – Orals
Convener: Eric Guilyardi | Co-Conveners: Andrew Wittenberg, A. Fedorov, Pascale Braconnot
Room: 18
Chairperson: Eric Guilyardi, Alexey Fedorov

08:30–08:45 EGU2011-4359
Michael McPhaden
The Changing Face of El Niño

08:45–09:00 EGU2011-2429
Tom Russon, Alexander Tudhope, Gabriele Hegerl, Mat Collins, and David Battisti
Towards evaluating natural forced and unforced variability in ENSO: strategies for model / paleo-proxy data inter-comparison

09:00–09:15 EGU2011-2362
Soon-Il An, Ji-Won Kim, Jae-Heung Park, and Seul-Hee Lim
Warming Trends of Tropical Pacific Warm Pool and Cold Tongue SSTs

09:15–09:30 EGU2011-2740
Benjamin Giese, Howard Seidel, and Sulagna Ray
Using SODA Ensemble Reanalyses to Describe ENSO 1871-2008

09:30–09:45 EGU2011-5104
James Lloyd, Eric Guilyardi, and Hilary Weller
The Role of Atmosphere Feedbacks During ENSO in AMIP CMIP3 Simulations

09:45–10:00 EGU2011-7236
Yukiko Imada, Jin Fei-Fei, Masahide Kimoto, and Masahiro Watanabe
ENSO amplitude change in doubled CO2 experiments evaluated by the temperature variance equation

10:00–10:15 EGU2011-6529
Wilco Hazeleger, Geert Jan van Oldenborgh, Karin van der Wiel, Xueli Wang, and Bert Wouters
Changes in ENSO characteristics in EC-Earth

NP2.1 – ENSO: Dynamics, Predictability and Modelling (co-listed) – Posters
Convener: Eric Guilyardi | Co-Conveners: Andrew Wittenberg, A. Fedorov, Pascale Braconnot
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 13:30–15:00
Chairperson: Eric Guilyardi, Alexey Fedorov
OS1.1 – Open Session on Ocean Circulation – Orals
Convener: Torsten Kanzow | Co-Conveners: Joel Hirschi
Room: 6
Chairperson: Torsten Kanzow

08:30–08:45  EGU2011-3911
John Osborne, Alexander Kurapov, Gary Egbert, and P. Michael Kosro
Tidally-induced mixing and enhanced cross-shore transport near coastal capes
08:45–09:00 EGU2011-1259
Maren Walter, Christian Mertens, Marcus Dengler, and Monika Rhein
Fine structure variability associated with the North Atlantic Current crossing the Mid-Atlantic Ridge

09:00–09:15 EGU2011-5959
Nicholas Beaird, Ilker Fer, and Peter Rhines
Dissipation rate and vertical mixing inferred from Seagliders

09:15–09:30 EGU2011-351
Gillian Damerell, Karen Heywood, David Stevens, and Alberto Naveira Garabato
Temporal Variability of Diapycnal Mixing in Shag Rocks Passage

09:30–09:45 EGU2011-1363
Janna Köhler, Christian Mertens, Maren Walter, Monika Rhein, and Torsten Kanzow
Internal waves and associated mixing in the Deep Western Boundary Current at 16°N

09:45–10:00 EGU2011-2629
Mei-Man Lee, George Nurser, Ian Stevens, and Jean-Baptiste Sallee
Winter mixed layer in the southern Indian Ocean in a high-resolution atmosphere-ocean coupled model

COFFEE BREAK

Chairperson: Joel Hirschi

10:30–10:45 EGU2011-1565
Raden Dwi Susanto, Guohong Fang, Rameyo Adi, and Zexun Wei
SITE, western route of Indonesian Throughflow via the South China Sea

10:45–11:00 EGU2011-4195
Dewi Le Bars, Will de Ruijter, and Henk Dijkstra
From the Indonesian Throughflow to the Agulhas Current leakage

11:00–11:15 EGU2011-12731
M. Susan Lozier, Stefan F. Gary, Kristi C. Burkholder, Amy S. Bower, and Claus W. Böning
Lagrangian pathways connecting the subtropical and subpolar gyres in the North Atlantic

11:15–11:30 EGU2011-4754
Stuart Cunningham, Harry Bryden, and Christopher Atkinson
Interannual variability in the Atlantic meridional overturning circulation at 26°N

11:30–11:45 EGU2011-8867
Torsten Kanzow and Stuart Cunningham
Observed and simulated large-amplitude fluctuations of deep northward volume transports in the subtropical North Atlantic

11:45–12:00 EGU2011-7755
Adam Blaker, Joel Hirschi, Bablu Sinha, Beverly de Cuevas, Steven Alderson, Andrew Coward, and Gurvan Madec
The impact of inertia-gravity waves on the MOC in a high resolution ocean model

OS1.1 – Open Session on Ocean Circulation – Posters
Convener: Torsten Kanzow | Co-Conveners: Joel Hirschi

Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Torsten Kanzow, Joel Hirschi

XY524 EGU2011-1263
Artem Sarafanov, Anastasia Falina, Alexey Sokov, Herlé Mercier, Pascale Lherminier, and Claire Gourcuff
Mean full-depth circulation and transports in the North Atlantic across 60N in the 2000s

XY525 EGU2011-11589
Igor Yashayaev, John Loder, and Yuri Geshelin
Hydrographic and Circulation Variability in Orphan Basin, 2004-2010

XY526 EGU2011-1265
Artem Sarafanov, Anastasia Falina, Alexey Sokov, Herlé Mercier, Pascale Lherminier, and Claire Gourcuff
Irminger Sea as a key site for the Atlantic Meridional Overturning Circulation

XY527 EGU2011-8851
Stefan Gary, M. Susan Lozier, Arne Biastoch, and Claus W. Böning
Reconciling tracer and float observations of the export pathways of Labrador Sea Water

XY528 EGU2011-12060
Kevin Oliver
The competition between Atlantic and Antarctic overturning cells
Anastasia Falina, Artem Sarafanov, Alexey Sokov, Herlé Mercier, and Pascale Lherminier
On the shelf water cascading in the Irminger Sea

Vladimir Ivchenko, Dmitry Sidorenko, Sergey Danilov, Martin Losch, and Jens Schrötter
Can sea surface height be used to estimate oceanic transport variability?

Irina Dinu, Marco Bajo, Georg Umgieser, and Adrian Stanica
Factors that influence the current circulation along the Romanian Black Sea coast

Ulf Gräwe, Rene Friedland, and Hans Burchard
The future of the Western Baltic Sea: two possible scenarios

Ricardo F. Sanchez Leal, César González-Pola Muñiz, Manuel Ruiz-Villarreal, Alicia Lavín Montero, Mº Paz Jiménez Gómez, and Ignacio Sobrino Yraola
Shallow traces of the Mediterranean outflow in the Eastern Gulf of Cádiz

Christian Mertens, Maren Walter, Janna Köhler, Jürgen Sültenfuß, and Monika Rhein
Hydrothermal Fluxes at the Mid-Atlantic Ridge, $5^\circ S$

Evgeny Krayushkin and Alexander Demidov
The origin of the North Atlantic Deep Water components in the South Atlantic

Gerard McCarthy, Elaine McDonagh, and Brian King
Variability of thermocline and Antarctic Intermediate Water (AAIW) in the South Atlantic

Dagmar Kieke, Monika Rhein, Oliver Huhn, Reiner Steinfeld, and Birgit Klein
Formation of Antarctic Intermediate Water in the South Atlantic

Remi Tailleux and Angela Maharaj
On the dispersion relation of westward propagating signals in the oceans

Anders Levermann, Matthias Mengel, Andreas Born, and Carl Friedrich Schlöussner
Dynamical threshold may enhance variability of subpolar gyre

Alex Warn-Varnas, Avijit Gangopadhyay, Andre Schmidt, and Jan-Kristian Jensen
Nonlinear studies of Norwegian Coastal Current from Eulerian and Lagrangian point of views.

Ángeles Marrero-Díaz, Pablo Sangrà, Mónica Hernández-Arencibia, Carolina Salinas, Borja Aguilar-González, Alexander Stegner, Angel Rodríguez-Santana, and Cristian Henríquez
Circulation on the slope of South Shetland Islands (Antarctica)

Mónica Hernández-Arencibia, Alexander Stegner, Ángeles Marrero-Díaz, Pablo Sangrà, Borja Aguilar-González, and Carolina Salinas
A new view of the Bransfield Current: a study through rotating laboratory experiments

Robert Tenzer, Ahmed Abdalla, and Robert ?underlík
Comparison of the dynamic sea surface topography with the ocean currents in the Southwest Pacific Ocean and Tasman Sea

Alexandre Ganachaud, Christophe Maes, William Kessler, Gary Brassington and the SPICE contributors Team
SPICE: Southwest Pacific Ocean Circulation and Climate Experiment

Patric Lindahl, Paul Worsfold, Miranda Keith-Roach, Ryuji Asami, and Yasufumi Iryu
Plutonium signature in the Northwest Pacific using modern coral archives

Lijuan Li and Tianjun Zhou
Interannual variation of Kuroshio east of Taiwan Island

Marie-Isabelle Pujol, Gérard Dibarboure, and Emilie Bronner
17 years of altimeter data record for climate and ocean studies

Mary Swapna George, Laurent Bertino, Annette Samuelsen, and Ola M Johannessen
Mini cold pool off the southern tip of India in a Hybrid Coordinate Ocean Model
Wind-Driven cross-equatorial flow in the Indian Ocean

Components of the 3-d Lagrangian Diffusivity Tensor in a Periodic Channel Featuring Zonal Jets

Phenomenology and High-Rayleigh Number Simulations of Horizontal Convection

SST and Mixed Layer Depth Variability in Upwelling Regions

High resolution sea ice-ocean modeling of the Canadian Arctic Archipelago in a global setup: An unstructured mesh modeling approach

Summertime sea-ice reduction related to a drastic change in mixed layer depth and ice deformation in the Eastern Arctic Ocean

The importance of oceanic forcing on Arctic sea ice variability

Greenland Sea sea ice variability over 1979-2007 and its link to the surface atmosphere

The Arctic Ocean Halocline and its variability from 1997 to 2009

The Atlantic and Summer Pacific waters variability in the Arctic Ocean

Pathways and modification of Atlantic Water in the 9km-resolution NAOSIM model

Confluence, mixing, and circulation scheme of Atlantic, Pacific, and Siberian shelf water masses around the Mendeleyev ridge into the central Arctic Ocean

Historical variability of the density stratification in the Laptev Sea

Historical variability of the density stratification in the Laptev Sea

Nutrients variation in the Pacific inflow of the western Arctic Ocean
XY565  EGU2011-8360
Jim Carton, gennady Chepurin, James Reagan, and Sirpa Hakkinen
Decadal Atlantic Water variability in the Nordic Seas

XY566  EGU2011-6603
Ursula Schauer and Sergey Pisarev
Change of heat in the Eurasian Basin of the Arctic Ocean in the last two decades

XY567  EGU2011-4457
Vladimir Ivanov
How summer ice depletion in the Arctic Ocean may affect the global THC?

XY568  EGU2011-8046
Viktor Kuzin, Gennady Platov, and Elena Golubeva
Influence of Interannual Variations in Siberian River Discharge on Redistribution of Freshwater Fluxes in Arctic Ocean and North Atlantic

XY569  EGU2011-9124
Elena Golubeva, Valentina Malakhova, and Dina Yusupova
Sensitivity studies of the Arctic-North Atlantic ice-ocean coupled model

XY570  EGU2011-10990
Gilles Garric and Clément Bricaud
Use of ERAinterim Surface Conditions to drive the Arctic Sea Ice Cover modeled by a Global 1/4° OGCM.

XY571  EGU2011-13048
Ilona Goszczko and Waldemar Walczowski
Variability of the Polar Front in the western Barents Sea in summers 1998-2010

XY572  EGU2011-5673
Markus Janout, Jens Hoelemann, and Harper Simmons
Baroclinic tides and their impact on bottom boundary layer evolution and vertical mixing in the Laptev Sea

XY573  EGU2011-1098
Yueng-Djern Lenn, Tom Rippeth, Chris P Old, Sheldon Bacon, Polyaakov Igor, Ivanov Vladimir, and Holemann Jens
Intermittent intense turbulent mixing under ice in the Laptev Sea Continental Shelf

XY574  EGU2011-4466
Natalia Kuzmina, Bert Rudels, Victor Zhurbas, Tapani Stipa, and Natalia Zhurbas
On the structure and dynamical features of interleaving in the Arctic Ocean

NH5.3/NP7.3/OS2.5 – Nonlinear Dynamics of the Coastal Zone (co-organized) – Orals
Convener: Ira Didenkulova | Co-Conveners: Efim Pelinovsky
Room: 4
Chairperson: n.n.

13:30–13:45  EGU2011-3048
Geir Pedersen
Stationary runup patterns on a sloping beach

13:45–14:00  EGU2011-5389
Valery Liapidevskii
Shallow water equations for breaking surface waves

14:00–14:15  EGU2011-103
Ira Didenkulova and Efim Pelinovsky
Nonlinear wave evolution and runup in inclined channels

14:15–14:30  EGU2011-8891
Alec Torres-Freyermuth, Jack A. Puleo, Duvrabka Pokrajac, and Paulo Salles
RANS Modelling of Swash Zone Hydrodynamics

14:30–14:45  EGU2011-3200
Deepak Vatvani, Niels Zweers, Hans de Vries, Vladimir Makin, and Maarten van Ormondt
Storm surge and wave simulations in the Gulf of Mexico using a consistent drag relation for atmospheric and storm surge models

14:45–15:00  EGU2011-1692
Eugene Morozov, Alexey Marchenko, and Sergey Muzylev
Supercooling and water structure near the fjord glacier

Chairperson: n.n.

15:30–15:45  EGU2011-13867
Chiang C. Mei, I-Chi Chan, Philip L.-F. Liu, Zhenhua Huang, and Weiguo Zhang
Long waves through emergent coastal vegetation

15:45–16:00  EGU2011-1935
Roger Grimshaw and Evans Osaisai
A simple model of the effect of bottom sediment transport on wave set-up
16:00–16:15  EGU2011-12030
Tatyana Lyubimova, Yanina Parshakova, Natalya Shumilova, Shengping Luo, and Bernard Roux
Modeling of the near-field distribution of pollutants from a multi-port coastal outfall

16:15–16:30  EGU2011-4680
Boris Katsnelson, Mohsen Badiey, and James Lynch
Observation of nonlinear internal waves in the Shallow Water 2006 experiment and interference of low-frequency sound waves in the long-range propagation

16:30–16:45  EGU2011-11369
Yannis Cuypers, Pascale Bourret Aubertot, Pascal Lazure, Antonio Lourenço, Michel Lurven, Marc Sourriceau, and Lourdes Velo-Suarez
Non linear internal tides, turbulent mixing and their impact on phytoplankton distribution in the continental shelf of South Brittany

16:45–17:00  EGU2011-3551
Tim Boyd, Mark Inall, Dumont Estelle, and Griffiths Colin
AUV observations of mixing in the tidal outflow from a Scottish sea loch

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NH5.3/NP7.3/OS2.5 – Nonlinear Dynamics of the Coastal Zone (co-organized) – Posters
Convener: Ira Didenkulova | Co-Conveners: Efim Pelinovsky
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Ira Didenkulova, Efim Pelinovsky

XY342  EGU2011-44
Ekaterina Shurgalina and Efim Pelinovsky
Formation of an abnormal wave in case of interaction with a vertical barrier

XY343  EGU2011-4628
My Ha Dao, Eng Soon Chan, and Pavel Tkalich
Fine-scale processes of plunging wave in deep water

XY344  EGU2011-8505
Erick Javier Lopez Sanchez and Gerardo Ruiz Chavarria
Numerical study of particle transport due to periodic movement of water in a system of two oceanic basins connected by a channel

XY345  EGU2011-4279
Olga Shishkina
Linear and non-linear mechanisms of formation of edge internal waves in the shelf zone

XY346  EGU2011-4865
Alexander Yankovsky, Legna Torres-Garcia, and Raymond Torres
Interaction of tides, river discharge and bathymetric forms in the Santee River, SC, USA

XY347  EGU2011-12323
Anatoly Filonov and Iryna Tereshchenko
The high amplitude internal waves generated at San Esteban sill in the Gulf of California

XY348  EGU2011-62
Artem Rodin and Efim Pelinovsky
Large-amplitude simple and shock waves in shallow water

XY349  EGU2011-5069
Onno Bokhove, Elena Gagarina, Anthony Thornton, Jaap van der Vegt, and Wout Zweers
Bore Soliton Splash

XY350  EGU2011-830
Adrien Poupardin, Nicolas Bourneton, Grégory Pinon, Elie Rivoalen, Jérôme Brossard, and Gaële Perret
Vortex dynamics around an immersed structure

XY351  EGU2011-105
Ira Didenkulova and Efim Pelinovsky
Long wave interaction with the sea wall in a basin of variable depth

XY352  EGU2011-109
Irina Nikolkina, Ira Didenkulova, Efim Pelinovsky, and Narcisse Zahibo
Runup of landslide-generated waves

XY353  EGU2011-5111
Peter Denissenko, Ira Didenkulova, Jonathan Pearson, and Efim Pelinovsky
Statistical characteristics of the non-linear run-up measured in a wave flume

XY354  EGU2011-4484
Byung Ho Choi, Victor Kaitserenko, Efim Pelinovsky, Kyeong Ok Kim, and Byung Il Min
Combination of 2D numerical simulations of long waves in a basin of variable depth with 1D analytical runup formulae
XY355  EGU2011-104
Ira Didenkulova, Efim Pelinovsky, Tarvo Soomere, Kevin Parnell, and Maija Viška
Beach response on the interplay of two wave systems: ship wakes and winds waves

XY356  EGU2011-7894
claude Vella, francois Demory, victor Canut, philippe Dussouillez, and Thomas Jules Fleury
First evidence of accumulation of mega boulders on the Mediterranean rocky coast of Provence (southern France).

OS3.1 – IMBER/SOLAS special session. Sensitivity of marine ecosystems and biogeochemical cycles to global change – Posters
Convener: Baris Salihoglu | Co-Conveners: Christoph Garbe, Emilie Brévière
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 15:30–17:00
Chairperson: Baris Salihoglu, Emilie Breviere, Christoph Garbe

XY575  EGU2011-1875
Sergey Piontkovski and Michel Claereboudt
Arabian Sea is getting less productive

XY576  EGU2011-2973
Sebastian Rütten, Reiner Steinfeldt, Jürgen Sülenfuß, Marcus Dengler, and Monika Rhein
Coastal upwelling off Mauritania inferred from helium isotope disequilibrium

XY577  EGU2011-3221
Birgit Schneider
Sensitivity of different formulations of the seawater CaCO3 saturation state (?CO3, Ω ) to ocean acidification: implications for pelagic CaCO3 dissolution in ocean biogeochemical models

XY578  EGU2011-3258
Anke Dürkop and Birgit Schneider
Sensitivity of pelagic CaCO3 dissolution to ocean acidification in an ocean biogeochemical model

XY579  EGU2011-3305
Martin Vogt, Wolfgang Roether, Juergen Sueltenfuss, and Sandra Vogel
Obtaining high-precision solubilities of helium and neon in fresh water and seawater

XY580  EGU2011-3349
Qiang Shi, Gert Petrick, and Douglas Wallace
a experimental study of volatile halocarbon production in seawater

XY581  EGU2011-3566
Evridiki Mesarchaki, Jonathan Williams, Andrea Pozzer, Kerstin Richter, and Bernd Jähne
Air-sea exchange of volatile organic compounds - Experimental results from a wind wave canal facility

XY582  EGU2011-4170
Sophie Beauvais, Nicolas Metzl, Nicolas Gruber, and Jean-Pierre Gattuso
The Integrated Marine Biogeochemistry and Ecosystem Research Project: Support of Ocean Carbon Research

XY583  EGU2011-4826
Lavinia Patara, Martin Visbeck, Simona Masina, Gerd Krahmann, and Marcello Vichi
Marine biogeochemical responses to the North Atlantic Oscillation in a coupled climate model

XY584  EGU2011-5278
Marc d’Orgeville, Matthew England, and Willem Sipij
Sensitivity of atmospheric CO2 to changes in ocean circulation: role of the surface chemistry

XY585  EGU2011-7363
Aridane G. Gonzalez, J. Magdalena Santana-Casiano, Melchor Gonzalez-Dávila, and Norma Pérez
The effect of Dunaliella tertiolecta organic exudates on the Fe(II) oxidation kinetic in seawater

XY586  EGU2011-7394
Sophie Tran, Bernard Bonsang, Valerie Gros, Ilka Peek, and Roland Sarda-Esteve
The marine source of CO and NMHC in the Arctic Ocean in summer 2010: spatial variability, vertical distributions and impact of the biology.

XY587  EGU2011-7796
Anna Orlikowska, Christian Stolle, Falk Pollehne, Klaus Jürgens, and Detlef E. Schulz-Bull
Behaviour of VHOCs in a coastal sea surface during a short term mesocosm experiment

XY588  EGU2011-9346
Baris Salihoglu, Bettina Fach, Heather Cannaby, Temel Oguz, Viktor Dorofeev, Alexander Kubriyakov, and Ekin Akoglu
Seasonal variability of the Black-Sea ecosystem: A modelling study

XY589  EGU2011-9388
Ekin Akoglu, Baris Salihoglu, Simone Libralato, Temel Oguz, and Cosimo Solidoro
Ecological Evolution of the Black Sea from 1960s to 1990s: An integrity check
Artur Nowicki, Lidia Dzierzbicka-Glowacka, Jaromir Jakacki, and Maciej Janecki
A new marine ecosystem model for Baltic Sea

Artur Nowicki, Anna Lemieszek, Lidia Dzierzbicka-Glowacka, and Iwona Maria Zmijewska
The effects of food concentration, temperature and salinity on reproductive of Temora longicornis in the Baltic Sea

Jean-Pierre Gattuso, Lina Hansson and the EPOCA consortium Team
European Project on OCEan Acidification (EPOCA)

Stefan Raimund, Yann Bozec, Marc Vernet, Vincent Rossi, Véronique Garçon, Yves Morel, and Pascal Morin
Distribution of volatile iodinated organic compounds in the Iberian upwelling system

Imke Grefe and Jan Kaiser
Measurements of N2O concentrations in the surface ocean with an off-axis ICOS analyser

Sophie Chollet, Erik Buitenhuis, and Corinne Le Quere
Effect of temperature and light intensity on diatoms growth rate: impact on biogeochemical cycles

Li-Ping Hung, Christoph Garbe, and Wu-ting Tsai
On the impact of macroscale wave-current dynamics in the interfacial exchange processes

OS3.2 – From physical to biogeochemical processes: ocean mesoscale and sub-mesoscale impact on marine ecosystem and climate variability – Orals
Convener: Ananda Pascual | Co-Conveners: John Allen, Bruno Buongiorno Nardelli, Marina Levy, Anthony Kettle, Emma Young
Room: 7
Chairperson: Bruno Buongiorno Nardelli / Anthony Jamie Kettle

08:30–08:45  EGU2011-467
Romain Pennel, Alexandre Stegner, and Karine Béranger
Transport across and along the shelf induced by coastal eddies

08:45–09:00  EGU2011-8573
John Allen and Adrian Martin
Baroclinic Instability: the physical transport route through stratification

09:00–09:15  EGU2011-2661
Rosemary Morrow
Resolving small-scale ocean dynamics from altimetry

09:15–09:30  EGU2011-503
Romain Escudier, Ananda Pascual, Jérôme Bouffard, Bruno Buongiorno Nardelli, Isabelle Pujol, and Gilles Larnicol
Surface characterization of oceanic (sub)mesoscale through high resolution optimal interpolation : application to the NW Mediterranean Sea

09:30–09:45  EGU2011-5792
Cristóbal López, Emilie Tew Kai, Vincent Rossi, Joel Sudre, Emilio Hernandez-Garcia, and Veronique Garcon
Oceanic coherent structures, and the behavior of marine ecosystems

09:45–10:00  EGU2011-9569
Peter Gaube, Jeffrey Early, Dudley Chelton, Roger Samelson, and Michael Schlax
The Influence of Nonlinear Mesoscale Eddies on Oceanic Chlorophyll

COFFEE BREAK

Chairperson: John Allen / Marina Levy

10:30–10:45  EGU2011-4418
Craig Lee, Eric A. D’Asaro, Mary Jane Perry, Katja Fennel and the The NAB08 Team
The 2008 North Atlantic Spring Bloom Experiment: Bloom Evolution at the Patch Scale

10:45–11:00  EGU2011-3342
Marie-Hélène Radenac, Patricia E. Plimpton, Anne Lebourges-Dhaussy, and Michael J. McPhaden
Acoustic backscatter observations of zooplankton: responses to environmental forcing in the equatorial Pacific from diurnal to interannual time-scales

Programme Group Programme OS  38
11:00–11:15 EGU2011-8036

Rose Campbell, Frédéric Diaz, ZiYuan Hu, Andrea Doglioli, Anne Petrenko, and Ivan Dekeyser

Eddy induced coastal plankton community changes in a coupled numerical model of the Gulf of Lion

11:15–11:30 EGU2011-8603

Fanny Chenillat, Pascal Rivièrè, Peter Franks, and Bruno Blanke

NPGO index and Cross-Shore Dynamics Variability of the Southern California Current Ecosystem

11:30–11:45 EGU2011-10507

Bruno Buongiorno Nardelli, Ananda Pascual, Marie-Helene Rio, Francesco Bignami, Yann Drillet, Stephanie Guinehut, Gilles Larnicol, Sandrine Mulet, Simon Ruiz, and Joaquin Tintorè

MESoSCale dynamical Analysis through combined model, satellite and in situ data (MESCLA): project presentation and first results

11:45–12:00 EGU2011-1553

Romain Bourdalle-Badie, Clement Bricaud, Corinne Derval, Yann Drillet, Gilles Garric, and Olivier Le Galloudec

Evaluation of the new Mercator global eddy-resolving (1/12) ocean model: Mean state, day-to-day variability and mesoscale activity.

OS3.2 – From physical to biogeochemical processes: ocean mesoscale and sub-mesoscale impact on marine ecosystem and climate variability – Posters

Convener: Ananda Pascual | Co-Conveners: John Allen, Bruno Buongiorno Nardelli, Marina Levy, Anthony Kettle, Emma Young

Halls X/Y | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Ananda Pascual / Emma Young

XY597 EGU2011-3697

Renaud Dussurget, Florence Birol, and Rosemary A. Morrow

Fine-resolution altimetry data for a regional application in the Bay of Biscay

XY598 EGU2011-7009

Guillaume Dencausse and Rosemary Morrow

Confronting mesoscale and sub-mesoscale tracer patterns obtained from altimeter-derived lagrangian sea surface advection south of Tasmania with in-situ data

XY599 EGU2011-6287

Francesco Nencioli, Andrea M. Doglioli, Anne A. Petrenko, and Francesco d'Ovidio

Influence of (sub)mesoscale anticyclones on the coastal biogeochemical processes in the western part of the Gulf of Lion (NW Mediterranean)

XY600 EGU2011-872

jerome bouffard, Lionel Renault, Simon Ruiz, Ananda Pascual, Claire Dufau, Gilles Larnicol, and Joaquin Tintorè

Sub-surface small scale eddy dynamics from multi-sensor observations and modelling

XY601 EGU2011-5113

Rosa Balbín, Maria del Mar Flexas, Jose Luis López-Jurado, Angel Amores, Sebastian Montserrat, Marta Marcos, and Ideados Team

Hidrographyc conditions and vertical velocities at a front detected at the Soller area during an IDEADOS Project survey

XY602 EGU2011-5627

Ángel M. Amores, Sebastià Monserrat, Marta Marcos, Maria del Mar Flexas, Rosa Babil, and Jose Luis López-Jurado

Temporal variability of hydrographic conditions around the Balearic Islands from two mooring lines.

XY603 EGU2011-8493

Cristina Naranjo, Jesús García-Lafuente, Javier Delgado, Jose C. Sánchez-Garrido, and Antonio Sánchez-Román

Does the Western Alboran Gyre help ventilate the West Mediterranean Deep Water through Gibraltar?

XY604 EGU2011-12733

Angel Rodriguez-Santana, Francisco Machin, Pablo Sangra, Antonio Martinez-Marrero, and Angeles Marrero-Diaz

Vertical Mixing of Nutrients in the Canary Basin

XY605 EGU2011-9983

Simón Ruiz, Mikhail Emelianov, Josep Lluís Pelegrí, Ananda Pascual, and Evan Mason

Observations and modelling of a shallow baroclinic anticyclonic eddy off Cape Bojador

XY606 EGU2011-9001

Torsten Kanzow, Gerd Krahnmann, Johannes Karstensen, Thomas Ohde, Andreas Funk, and Mario Müller

Glider fleet-based, multi-parameter observations in the tropical Northeast Atlantic
**Exploring Frontogenesis Processes on new Satellite Sea Surface Temperature Data Sets**

Mounir Lekouara and Ian Robinson

**A dynamical Constraint on the Vertical Structure of Biogeochemical Tracers**

Laure Zanna and David Marshall

**Vertical motion analysis through combined model, satellite and in situ data. Preliminary results of the MESCLA project**

Ananda Pascual, Simón Ruiz, Bruno Buongiorno Nardelli, Stéphanie Guinehut, Yann Drillet, Sandrine Mulet, Marie-Hélène Rio, Francesco Bignami, Gilles Larnicol, and Joaquin Tintoré

**Persistent and highly contrasting biological patterns in the southwestern sector of the Atlantic Ocean: relating local circulation to phytoplankton pigment biomass**

Ines Borrione and Reiner Schlitzer

**The impact of mesoscale and submesoscale features on the upper-ocean density and nutrient fields of the North Pacific subtropical gyre**

Francois Ascani, Kelvin Richards, Yanli Jia, and Hideharu Sasaki

**Eddies and chlorophyll in the Southern Ocean**

Ivy Frenger, Nicolas Gruber, Reto Knutti, and Matthias Münich

**Characterization of phytoplankton communities by optical properties in the Atlantic Ocean**

Bettina B. Taylor, Elena Torrecilla, Anja Bernhardt, Rüdiger Röttgers, and Astrid Bracher

**Variability in fish larval retention at South Georgia, Southern Ocean: insights from numerical modelling**

Emma Young, Eugene Murphy, Michael Meredith, Jenny Rock, and Gary Carvalho

**Temporal variability of a dominant zooplankton species in the North Sea- A modeling study**

Chuanxi Xing and Inga Hense

**Phytoplankton ecoregions controlled by hydrographical conditions in NW African upwelling**

Daura Vega Moreno, Montserrat Montero, Jesús Morales, Carolina Llerandi, María José Rueda, and Octavio Llinás

**Dynamics of nutrients and phytoplankton Chl a influenced by mesoscale and sub-mesoscale physical processes in the Gulf of Finland (Baltic Sea)**

Nelli Rünk, Aet Meerits, Natalja Buhhalco, Inga Lips, Villu Kikas, Taavi Liblik, and Urmas Lips

**Key copepod species of upwelling reflecting environmental changes in the eastern Arabian sea : a multi-decadal study**

Rosamma Stephen

**Evaluation of the dispersion of marine pollutants associated with a river discharge by means of numerical simulations and satellite analysis**

Roberto Inghilesi, Arianna Orasi, Cinzia Pizzì, Francesco Bignami, Rosalia Santoleri, and Luisa Ottolenghi

**Prognosis of Future Regime Shifts of the Ecosystem of the Central Baltic Sea (PRORES)**

Thomas Raub, Philipp Lorenz, Daniela Jacob, Beate Ratter, Christian Möllmann, and Axel Temming

**Large-scale circulation accounts for otolith chemistry in juvenile Dissostichus eleginoides on the Patagonian Shelf.**

Olga Shatova, David Kowek, Maureen H Conte, and John C Weber

**Coccolithophore estimates of paleotemperature changes in the Southeast Pacific over the past ~27 kyr and comparison to other proxies.**

Mariem Saaavedra-Pellittero, Karl-Heinz Baumann, José-Abel Flores, Frank Lamy, Aleix Cortina, and Francisco Javier Sierro

**Deep Sea Frontier - A European Challenge (co-organized) – Orals**
Convener: Achim Kopf | Co-Conveners: Timothy F. Ferdelman, Heiko Pälike, Catherine Mevel, Antje Boetius

**Room:** 7

Chairperson: Achim Kopf, Antje Boetius

15:30–15:45 EGU2011-9065

**Achim Kopf** and the DS3F Steering Committee Team

The Deep-Sea and Sub-Seafloor Frontier initiative - a key to link EC research and international scientific ocean drilling

15:45–16:00 EGU2011-4820

**Timothy F. Ferdelman** and Judith McKenzie

The Deep Sea and Sub-seafloor Frontier: Past, present and future links in sedimentary seafloor and sub-seafloor ecosystems

16:00–16:15 EGU2011-12642

**Antje Boetius**, Frank Wenzhöfer, Alban Ramette, Felix Janssen, Dirk de Beer, Thomas Soltwedel, Michael Klages, Christoph Waldmann, and Olaf Pfannkuche

Observing deep-sea ecosystem shifts related to global change and human impact

16:15–16:30 EGU2011-3850

**Jurgen Mienert**, Stefan Bünz, Hafldi Haflidason, and Shyam Chand

Scientific Ocean Drilling in Norwegian-Arctic Continental Margins To Determine Gas Hydrate Energy and Active Methane Venting

16:30–16:45 EGU2011-3213

**R John Parkes** and the R John Parkes Team


16:45–17:00 EGU2011-7150

**Catherine Mevel** and Maria Ask

Improving technologies for sub seafloor sampling and instrumentation

OS4.1/CL4.11 – **Open session on Operational Oceanography (co-organized)** – Orals

Convener: Richard Allard | Co-Conveners: Eric Dombrowsky, Michel Rixen, Emanuel Coelho

**Room:** D

Chairperson: Richard Alard and Michel Rixen

08:30–08:45 EGU2011-3510

**Eric Dombrowsky**, Pierre Bahurel, and Frédéric Adragna

The MyOcean GMES Marine Core Service for ocean monitoring and forecasting version 1 is now open

08:45–09:00 EGU2011-8724

**Stéphane Law Chune**, Yann Drillet, Pierre Daniel, and Pierre De Mey

Improving Mercator operational configurations for drift modelling applications

09:00–09:15 EGU2011-3468

**Jean-Michel Lelouché**, Olivier Le Galloudec, Benoît Tranchant, Charles-Emmanuel Testut, Eric Greiner, Gilles Garric, Romain Bourdallé-Badie, Marie Drévilleon, Charly Regnier, and Yann Drillet

Overview and recent improvements of the global Mercator Ocean operational systems

09:15–09:30 EGU2011-3340

**Clément Fontana**, Pierre Brasseur, Jean-Michel Brankart, and Maëva Doron

Sequential ocean color data assimilation in a coupled physical-biogeochemical model of the North Atlantic

09:30–09:45 EGU2011-12956

**Laurent Bertino**, Pavel Sakov, and Francois Counillon

The TOPAZ ocean and sea ice pilot reanalysis (2003 - 2008)

09:45–10:00 EGU2011-7488

**Marco Bajo**, Luciana Bertotti, and Luigi Cavaleri

Use of ensemble forecast meteorological fields to force a storm surge model

**COFFEE BREAK**

Chairperson: Eric Dombrowsky and Emanuel Coelho

10:30–10:45 EGU2011-3897

**Alexander Kurapov**, Peng Yu, Gary Egbert, and John Allen

Data assimilation in a real-time coastal ocean forecast model off Oregon (US west coast)
10:45–11:00  EGU2011-8645  
James While and Mathew Martin  
SST data assimilation in the 7km Atlantic Margin Model: initial results

11:00–11:15  EGU2011-8878  
Richard Allard, Tomothy Campbell, Travis Smith, John Cook, Sue Chen, Frank Bub, Mark Swenson, and Daniel Geiszler  
The Coupled Ocean /Atmosphere Mesoscale Prediction System (COAMPS): Plans for Operational Implementation at Navy Production Centers

11:15–11:30  EGU2011-5481  
Alexander Barth, Jacopo Chiggiaito, Aida Alvera-Azcarate, Baptiste Mourre, Jean-Marie Beckers, Jochen Horstmann, and Michel Rixen  
Assimilation of high-frequency radar currents in the Ligurian Sea

11:30–11:45  EGU2011-8892  
Charlie N. Barron, Tamara L. Townsend, Robert W. Helber, and Jan M. Dastugue  
Improved synthetic ocean profiles for assimilation into operational ocean models

11:45–12:00  EGU2011-6670  
Andrea Storto, Simona Masina, and Srđjan Dobrić  
Evaluating the impact of different observing networks in the global ocean through ensemble simulations

OS4.2 – Ocean salinity applications based on SMOS data – Posters  
Convener: Susanne Mecklenburg | Co-Conveners: Jordi Font, Nicolas Reul, Matthias Drusch  
Halls X/Y | Display Time 08:00–19:30  
Author in Attendance: 15:30–17:00  
Chairperson: Susanne Mecklenburg, Matthias Drusch

XY624  EGU2011-6534  
Meike Sena Martins, Nuno Serra, and Detlef Stammer  
Variability of Sea surface salinity as seen by the Argo Profilers in the Atlantic Ocean between 2000 and 2010 and as simulated by a high resolution OGCM.

XY625  EGU2011-8331  
Nadya Vinogradova and Rui Ponte  
Potential for temporal aliasing in satellite-derived SSS measurements

XY626  EGU2011-8373  
Audrey Hasson, Thierry Delcroix, Sophie Cravatte, Jean-Marc Molines, and Nicolas Reul  
An assessment of the mixed-layer salinity budget in the tropical Pacific ocean, 1989-2009

XY627  EGU2011-8465  
Fran Fabra, Estel Cardellach, and Antonio Rius  
Potential contributions of GNSS-R towards salinity retrieval in SMOS-like missions

XY628  EGU2011-8704  
Jacqueline Boutin, Gilles Reverdin, Nicolas Martin, Simon Morrisset, Xiaobin Yin, Antonio Lourenço, Fabienne Gaillard, Jean Rolland, Jordi Font, Christophe Maes and the GLOSCAL SMOS CAL/VAL Team  
Sea surface salinity as measured by SMOS and by surface autonomous drifters

XY629  EGU2011-9828  
Nina Hoareau, Joaquim Ballabrer, Jérôme Gourron, Sofia Kalaroni, Marta Umbert, Justino Martinez, and Fernando Pérez  
Surface salinity assimilation in the Macaronesian Region

XY630  EGU2011-10086  
Jordi Font, Jérôme Gourron, Carolina Gabarró, Marco Talone, Fernando Pérez, Alessandra Monerris, Joaquín Villanueva, and Oscar Alonso  
Overview of the SMOS Level 3 Salinity Products as Provided by Spanish CP34

XY631  EGU2011-10229  
Carolina Gabarro, Justino Martinez, Veronica Gonzalez, Roberto Sabia, Jerome Gourron, Marco Talone, Sergio Montero, Sebastian Guimbard, Fernando Perez, and Jordi Font  
Assessment of the impact on the SSS of the frequency calibration of the Local Oscillators of SMOS

XY632  EGU2011-12371  
Derek Burrage, David Wang, Joel Wesson, Paul Hwang, Stephan Howden, Jordi Font, and Carolina Gabarro  
SMOS Observations of the Gulf of Mexico and Caribbean Sea: Evaluating Surface Salinity Retrieval and Roughness Correction Performance.

OS4.3 – Ocean Remote Sensing – Posters  
Convener: Aida Alvera-Azcárate | Co-Conveners: Guoqi Han, Christine Gommenginger  
Halls X/Y | Display Time 08:00–19:30  
Author in Attendance: 15:30–17:00  
Chairperson: Christine Gommenginger and Guoqi Han
XY633  EGU2011-829  
**Charles Troupin**, Aida Alvera-Azcárate, Alexander Barth, and Jean-Marie Beckers  
EOF analysis of Sea Surface Temperature in the Canary Island - Madeira region

XY634  EGU2011-3267  
**Fabien Léger**, Marie-Hélène Radenac, Pierre Dutrieux, Gérard Eldin, and Christophe Menkes  
Seasonal variability of the New Guinea Coastal Current using along-track altimetry

XY635  EGU2011-3383  
**Marie-Hélène Radenac**, Monique Messié, and Christelle Bosc  
Intraseasonal to interannual zonal displacements of the very oligotrophic waters of the Pacific warm pool: a multi-satellite approach

XY636  EGU2011-3479  
**Sabine Arnault** and Jean Luc Melice  
TROPICAL ATLANTIC OCEAN CIRCULATION FROM ALTIMETRY AND ARAMIS data

XY637  EGU2011-4263  
**Malgorzata Stramska**  
Comparison of regional estimates of particulate organic carbon export in the North Atlantic estimated from SeaWiFS ocean color

XY638  EGU2011-4266  
**Malgorzata Stramska** and Jagoda Bialogrodzka  
Temporal and regional variability of vertical attenuation coefficient for downwelling irradiance in the Baltic Sea derived from SeaWiFS ocean color

XY639  EGU2011-5363  
**Fedor Khrapchenkov**  
Upwelling effect, features of the distribution transformed Amur waters and eddies along the northern coast of Sakhalin Island from the satellite imaging data (2006-2007) and hydrological measurements

XY640  EGU2011-4830  
**Hugh Mortimer**, Tim Nightingale, and Wayne Tubby  
Satellite based Sea Surface Temperature (SST) measurement validation using the SISTeR (Scanning Infrared Sea Surface Temperature Radiometer) instrument from the Queen Mary 2

XY641  EGU2011-6811  
Nicolas Picot and **Francois Boy**  
CryoSat Processing Prototype, LRM Processing on CNES Side

XY642  EGU2011-6399  
**George Zodiatis**, Yianna Samuel-Rhoads, Dmitry Soloviyov, Dan Hayes, and Gregory Konnaris  
Monitoring the Levantine Basin through the use of multiple satellite remote sensing products

XY643  EGU2011-8899  
Ugo Pinho and **Antonio Neves**  
Were the sea conditions harsher in 2010 for the Northeast coast of Rio de Janeiro state - Brazil? A 14 year analysis of remote sensing, in-situ wave data and NCEP reanalysis

XY644  EGU2011-8946  
**Yves Tanguy** and Sabine Arnault  
Variability from 1992 to 2009 of the thermal structures in the tropical Atlantic using inversion methodology

XY645  EGU2011-8973  
Nicolas Picot and **Francois Boy**  
CryoSat Processing Prototype, how to generate LRM like echoes with SAR data and a Comparison to DUACS SLA over high latitudes

XY646  EGU2011-9051  
**Stefano Pierini**, Maurizio Migliaccio, Paola De Ruggiero, Antonio Montuori, and Francesco Nunziata  
Surface wind speed retrieval from COSMO-SkyMed SAR data, with application to coastal circulation modeling

XY647  EGU2011-5827  
Per Knudsen, Marie-Helene Rio, Jerome Benveniste, and Toolbox Team  
GOCE User Toolbox for Operational Oceanography

XY648  EGU2011-11646  
**Susana Barbosa**, M. Joana Fernandes and the COASTALT Team  
Validation of experimental COASTALT coastal altimetry products along the Portuguese coast

XY649  EGU2011-11873  
**Jean Kormann**, Berta Blescas, Valenti Sallarés, and Naiara Korta  
High-resolution mapping of temperature and salinity from full waveform inversion of synthetic seismic data

XY650  EGU2011-3278  
**Ulf Klein**, Bruno Berruti, Craig Donlon, Johannes Frerick, Constantin Mavrocordatos, Jens Nieke, Bernd Seitz, Juergen Stroede, and Helge Rebhan  
Sentinel-3 Mission Status

XY651  EGU2011-3438  
Daouda Diouf, **Julien Brajard**, Awa Niang, Salam Sawadogo, Michel Crépon, and Sylvie Thiria  
Atmospheric correction and chlorohyline-a restitution in presence of Saharan dusts.
OS4.8/EOS09 – Ocean Science Outreach and Education (co-organized) – Posters
Convener: Vinca Rosmorduc | Co-Conveners: Joachim Dengg, Danielle De Staerke, Margaret Srinivasan, Valborg Byfield

Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 15:30–17:00
Chairperson: Vinca Rosmorduc

XY653 EGU2011-1379
Albert Gerdes
Marine Science on YouTube - The Role of Video Documentaries in Outreach and Education

XY654 EGU2011-1111
Chi-Min Liu and I-Chun Chen
Taiwan's experience in ocean education at the level of junior high school: a textbook-editing project of MEEP

XY655 EGU2011-4524
Joachim Dengg and Sally Soria-Dengg
Outreach in Ocean Sciences as a Direct Contribution to Education

XY656 EGU2011-5137
Vinca Rosmorduc, Jérôme Benveniste, Émile Bronner, and Sander Niemeijer
Basic Radar Altimetry Toolbox: tools to teach altimetry

XY657 EGU2011-8822
Jennifer Skene, Catherine Halversen, and Lynn Uyen Tran
The Communicating Ocean Sciences Network: Universities, Oceanographic Institutions, Science Centers, Aquariaums, and Schools Working Together to Improve Education and Public Outreach Efforts

XY658 EGU2011-9209
Sally Soria-Dengg and Joachim Dengg
Bringing the Ocean to the Classroom

XY659 EGU2011-12816
Danielle De Staerke, Vinca Rosmorduc, and Annie Richardson
ARGONAUTICA, an educational project using satellite data to understand the ocean change and its effects on marine animals.

XY660 EGU2011-13261
Katrin Knickmeier
Public Outreach - School program with multimedia presentation about climate change in the Arctic

NP7.1/OS5.3 – Non linear waves, wind-wave-current interactions, internal waves in stratified media and ocean mixing and coastal hydromorphology (co-organized) – Posters
Convener: Vincent Rey | Co-Conveners: Lev Ostrovsky, M. Stive, Philippe Fraunie, Vincent Rey, Margarita Diez, Pascale Bouruet-Aubertot

Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 10:30–12:00
Chairperson: Pascale Bouruet-Aubertot

XY514 EGU2011-1035
Philippe Fraunie, Jose M Redondo, and Anna Matulka
Detection of waves and vortices in North Western Mediterranean

XY515 EGU2011-2582
Roham Bakhtyar, Alessandro Brovelli, and David Andrew Barry
Effects of wave characteristics and beach groundwater table on the nearshore morphology and aquifer dynamics

XY516 EGU2011-4864
Yiing Jang Yang, Ren-Chieh Lien, Ming-Huei Chang, and Tswen Yung Tang
Pressure perturbations induced by mode-1 depression internal solitary waves

XY517 EGU2011-4363
Ekaterina Ruvinskaya, Oxana Kurkina, Andrey Kurkin, Alexey Kuzin, and Michail Barenboim
Nonlinear dynamics of intensive internal waves in bounded stratified basins

XY518 EGU2011-7296
Qiang Wang, Tao Xing, and Weidong Zhou
Topographic-Rossby Wave on the shelf of the northern South China Sea investigated by the numerical model

XY519 EGU2011-7698
Mostafa Bakhoday Paskyabi, Ilker Fer, and Alastair D. Jenkins
Wind-wave and current interactions in the upper ocean
XY520  EGU2011-10111
  **Sagar Bora,** Segey Danilov, and Gerrit Lohmann
  wave sensitivity to grid resolution, frequency, and pathways

XY521  EGU2011-2978
  **Maria Obregon,** Ramon Fernandez-Feria, and Yury Stepanyants
  Stationary solutions of the extended reduced Ostrovsky equation

XY522  EGU2011-1406
  **B. Edward McDonald**
  Bidirectional and unidirectional waves in Hertzian chains

XY523  EGU2011-7043
  **Julien Touboul** and Vincent Rey
  Bottom pressure distribution due to wave reflection at a submerged obstacle
Thursday, 07 April

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

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

Room: 24

Chairperson: Caroline Slomp & Antje Boetius

13:30–13:45  EGU2011-13933  
*Tage Dalsgaard,* Bo Thamdrup, Donald Canfield, Loreto De Brabendere, Niels Peter Revsbech, and Osvaldo Ulloa

Biogeochemistry of the eastern tropical south Pacific oxygen minimum zone

13:45–14:00  EGU2011-8848  
*Loreto De Brabendere,* Bo Thamdrup, Don E Canfield, Tage Dalsgaard, Niels Peter Revsbech, and Osvaldo Ulloa

High resolution depth profiles of anammox and denitrification in the OMZ off northern Chile

14:00–14:15  EGU2011-5241  
*Allan Devol,* Bonnie Chang, and Wajih Naqvi

The isotopic composition of nitrogen gas in oxygen deficient zones

14:15–14:30  EGU2011-6617  
*Frank Wenzhoefer,* Jan P Fischer, Moritz Holtappels, Daphne Donis, Anna Lithschlag, Felix Janssen, and Antje Boetius

Spatio-temporal variations in water column oxygen concentrations at the Crimean Shelf and their effects on biogeochemical processes

14:30–14:45  EGU2011-2363  
*Zeynep Erdem* and M. Namik Çaatatay

Effect of Mediterranean Inflow on Redox Conditions of the Istanbul Strait Outlet Area of the Black Sea

14:45–15:00  EGU2011-11964  
*Holger Brix,* Curtis Deutsch, Taka Ito, Hartmut Frenzel, and LuAnne Thompson

Temporal variability of hypoxic zones

Chairperson: Greg Cowie & Hiroshi Kitazato

15:30–15:45  EGU2011-2749  
*Karin Limburg,* Carina Olson, Yvonne Walther, Caroline Slomp, Darren Dale, and Hans Heie

Detecting hypoxia through otolith chemistry in modern and prehistoric Baltic Sea cod

15:45–16:00  EGU2011-1069  
*Lisa Levin,* Anna Lee McGregor, Guillermo Mendoza, Clare Woulds, Peter Cross, Greg Cowie, Andrew Gooday, and Hiroshi Kitazato

Macrofaunal colonization patterns across the India margin oxygen minimum zone

16:00–16:15  EGU2011-2464  
*Andrew Gooday,* Kate Larkin, and Ana Aranda da Silva

Benthic foraminifera: key members of benthic communities within the Arabian Sea OMZ

16:15–16:30  EGU2011-1000  
*Clare Woulds,* Hisami Suga, Matthew Schwartz, Tim Brand, Greg Cowie, and Hiroshi Kitazato

Benthic nutrient dynamics across the Pakistan and Indian margins

16:30–16:45  EGU2011-11907  
*Karoliina Koho,* Leon Moodley, Lara Pozzato, Tanja Moerdijk-Poortvliet, Karline Soetaert, Jack Middelburg, and Gert-Jan Reichart

Organic matter reactivity across the northern Arabian Sea Oxygen Minimum Zone

16:45–17:00  EGU2011-756  
*William Ross Hunter,* Bart Veugel, and Ursula Witte

Patterns of microbial nitrogen incorporation and retention in oxygen minimum zone sediments: An in situ 13C:15N labelling approach.

17:00–17:15  EGU2011-8124  
*Tom Jilbert,* Caroline Slomp, and Bo Gustafsson

Beyond the Fe-P-redox connection: Preferential regeneration of phosphorus from organic matter as a key control on Baltic Sea nutrient cycles

17:15–17:30  EGU2011-10680  
*Florian Scholz,* Christian Hensen, Anna Noffke, Anne Rhode, and Klaus Wallmann

Early diagenesis of trace metals (V, Mo, U) in sediments of the Peruvian upwelling area: response to oxygen dynamics in the water column

**BG3.2 – Oxygen depletion in land-locked, coastal and open ocean systems of the present and past – driving impacts and recovery (co-listed)** – Orals
EGU General Assembly 2011

mechanisms, impacts and recovery (co-listed) – Posters
Convener: Caroline P. Slomp | Co-Conveners: Antje Boetius, Daniel Conley, Hiroshi Kitazato, Greg Cowie, Clare Woulds

Poster Area BG | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Clare Woulds & Caroline Slomp

BG1 EGU2011-2023
Hidetaka Nomaki, Kentaro Inoue, Hisami Suga, and Hiroshi Kitazato
Algal carbon processing by benthic foraminifera and microbes across the Arabian Sea Oxygen Minimum Zone

BG2 EGU2011-4667
Marie Zahnert, Annekatrin J. Enge, Markus M. Moeseneder, Ursula Witte, Michal Kucera, and Petra Heinz
Recent benthic foraminifera in the oxygen minimum zone at the Western Indian margin, Arabian Sea

BG3 EGU2011-3550
Carol White and Clare Woulds
Tracer studies on organic matter cycling by benthic fauna across the Arabian Sea (Indian margin) oxygen minimum zone

BG4 EGU2011-1198
Greg Cowie, Steve Mowbray, Helen Mathesen, Rebecca McKenzie, Michelle Lewis, Amy Anderson, and Carol White
Comparative geochemistries of sediments from stations spanning the OMZ across the Arabian Sea margins of Pakistan, India and Oman

BG5 EGU2011-5296
Hiroshi Kitazato
Submersible dive cruise at lower transition of the Arabian Sea OMZ of the western Indian continental slope: Logistics, rationale and brief results

BG6 EGU2011-3089
Ursula Witte, Will R Hunter, Lisa L Levin, and Markus M Moeseneder
Processing of phytodetrital carbon by benthic communities across the Indian margin oxygen minimum zone investigated via in situ isotope labelling experiments

BG7 EGU2011-3944
Kazumasa Oguri and Hiroshi Kitazato
Oxygen dynamics at sediment-water interface in Arabian Sea continental margin: results from planar oxygen optode experiments in situ

BG8 EGU2011-1991
Hartmut Schulz, Ulrich von Rad, Venugopalan Ittekkot, and Helmut Erlenkeuser
Particle flux to the continental slope of the NE Arabian Sea - a comparison of water column and seafloor estimates from the Oxygen Minimum Zone off Pakistan

BG9 EGU2011-8922
Klaas G.J. Nierop, Gert-Jan Reichart, and Jaap S. Sinninghe Damsté
The transformation of macromolecular organic matter within and below the oxygen minimum zone in the Arabian Sea.

BG10 EGU2011-9402
Peter Kraal, Caroline P. Slomp, Daniel C. Reed, Gert-Jan Reichart, and Simon W. Poulton
Sedimentary phosphorus and iron cycling across the Arabian Sea oxygen minimum zone

BG11 EGU2011-9905
Caroline P. Slomp, Daniel C. Reed, Tom Jilbert, Haydon P. Mort, and Bo. G. Gustafsson
Phosphorus cycling and carbon burial in low-oxygen marine settings: Insights from modern basins

BG12 EGU2011-11704
Joanna Norkko, Daniel C. Reed, Karen Timmerman, Alf Norkko, Bo G. Gustafsson, Erik Bonsdorff, Caroline P. Slomp, Jacob Carstensen, and Daniel J. Conley
A welcome can of worms? Hypoxia mitigation by an invasive species

BG13 EGU2011-9354
Felix Janssen, Jan Fischer, Jana Friedrich, Moritz Holtappels, Gaute Lavik, Anna Lichtschlag, Nelli Sergeeva, Christoph Waldmann, Frank Wenzhoefer, and Antje Boetius
Oxygen conditions and biogeochemical responses in Black Sea ecosystems: Investigations by the EU-Project HYPOX

BG14 EGU2011-9315
Felix Janssen, Christoph Waldmann, Antje Boetius and the HYPOX project Team
Hypoxia monitoring in aquatic ecosystems: a short introduction to target sites, scientific approach and first results (7 FP EU-project HYPOX)

BG15 EGU2011-3704
Mathias K. Kfir, Carsten J. Schubert, and Bernhard Wehrli
Heterogeneity at the oxic-anoxic interface in the water column of Lake Zug, Switzerland.
BG16  EGU2011-1063
Jana Friedrich, Marian-Trajan Gomoiu, Felix Janssen, and Dan Secrieru
Conceptual Understanding of Hypoxia Effects on Ecosystems - Example: the Black Sea's North-Western Shelf (EU-FP7 "HYPOX")

BG17  EGU2011-10172
Anna Lichtschlag, Felix Janssen, Jan P. Fischer, Frank Wenzhoefer, Gerhard Jessen, and Antje Boetius
Mat-forming sulfide-oxidizing bacteria thriving in the hypoxic zone of the Crimean shelf (Black Sea)

BG18  EGU2011-10147
Anna Lichtschlag, Frank Wenzhoefer, Felix Janssen, Ulrich Struck, Daphne Donis, Gerhard Jessen, and Antje Boetius
Effect of varying oxygen conditions on biogeochemical processes and benthic activities at the Crimean shelf of the Black Sea

BG19  EGU2011-9125
Moritz Holtappels, Anna Lichtschlag, Yudi Ihsan, Antje Boetius, Namik Ça?atay, Gaute Lavik, and Marcel Kuypers
Coupled denitrification - sulfide oxidation stimulated by the inflow of oxic Mediterranean waters into the anoxic layers of the Black Sea

BG20  EGU2011-5306
Feng Xuwen, Yu Xiaoguo, Chen Jianfang, Li Hongliang, Zhang Weiyin Weiyan, and Shi Xuefa
Sedimentary records of eutrophication and hypoxia in the Changjiang Estuary over the last 100 years

BG21  EGU2011-12993
Nelli Sergeyeva, Sofia Mazlumyan, and Anna Lichtschlag
Meiobenthic communities of hypoxic conditions of the Bosphorus Strait (Black Sea)

BG22  EGU2011-8877
Loreto De Brabandere, Bo Thamdrup, and Niels Peter Revsbech
Oxygen contamination during anoxic incubations

BG23  EGU2011-6058
Jasmin Franz, Gerd Krahmann, Gaute Lavik, Patricia Grasse, and Ulf Riebesell
Distribution of phytoplankton in the tropical Eastern South Pacific in relation to hydrographic and nutrient conditions

BG24  EGU2011-5806
Birgit Nagel, Tim Schlarbaum, Volker Mohrholz, and Kay Emeis
N-cycling in the suboxic Benguela upwelling system from dual N and O isotopic composition of nitrate

BG25  EGU2011-465
Kry Stallia Kountoura and Ierotheos Zacharias
Description of the mechanism leading to the development of seasonal anoxia in Amvrakikos Gulf, Greece.

BG26  EGU2011-6521
Alexandra Pavlidou, Christos Anagnostou, Harilaos Kontoyiannis, and Roza Psyllidou-Giouranovits
Oxygen depletion in a semi-enclosed area of Aegean Sea (East Mediterranean)

BG27  EGU2011-11787
Niels van Helmond, Daniel Reed, Caroline Slomp, and Henk Brinkhuis
Determining the roles of productivity and preservation during formation of sapropel S1 in the eastern Mediterranean

BG28  EGU2011-2425
Ryan P. North and David M. Livingstone
Applicability of a 1D hypolimnetic oxygen depletion model to deep Swiss lakes

BG29  EGU2011-5318
Iana Tsandev, Daniel C. Reed, and Caroline P. Slomp
Phosphorus diagenesis in deep-sea sediments: sensitivity to water column conditions and global scale implications

BG30  EGU2011-11367
Svetlana Pakhomova and Evgeniy Yakushev
Iron and manganese species at the redox-interfaces in the Black Sea, the Baltic Sea and the Oslo Fjord

BG31  EGU2011-4362
Evgeniy Yakushev
Influence of mixing on the biogeochemical structure of the water column redox interface: model simulations for the Black Sea, the Gotland Deep and the Oslo fjord

BG32  EGU2011-370
Yunchang He
Black Sea biogeochemistry: the numerical model response to decadal atmospheric variability during 1960-2000

BG33  EGU2011-3071
Itzel Ruvalcaba Baroni and Caroline P. Slomp
Modeling ocean biogeochemistry in the Cretaceous: what triggered ocean anoxia?
BG34  EGU2011-5317
Kazumi Ozaki and Eiichi Tajika
Modeling oceanic redox conditions during the Phanerozoic: Constraints from a one-dimensional ocean biogeochemical cycle model

BG35  EGU2011-6887
Michael Kaminski, Severyn Kender, and Agnieszka Ciurej
The first record of Pliocene-Pleistocene dysoxic benthic foraminiferal assemblages in the Bering Sea: Initial results from IODP Expedition 323

BG36  EGU2011-11913
Micha Ruhl, Robert Frei, and Christian J. Bjerrum
Marine Anoxia during Large Igneous Province formation at the Triassic-Jurassic transition?

BG7.3 – Biogeochemical function and diversity of chemosynthetic deep sea ecosystems (co-listed) – Posters
Convener: Nadine Le Bris | Co-Conveners: Laurent Toffin, Janine Felden, Douglas Connelly, Jozée Sarrazin, Dirk de Beer
Poster Area BG | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: n.n.

BG59  EGU2011-4814
Petra Pop Ristova, Frank Wenzhöfer, Alban Ramette, Matthias Zabel, David Fischer, Sabine Kasten, and Antje Boetius
Biogeochemical Activities and Associated Biodiversity at the Gigantic Pockmark Regab - A Multidisciplinary Study

BG60  EGU2011-9515
Antje Boetius, Janine Felden, Frank Wenzhöfer, Dana Yoerger, Rich Camilli, Chris German, Karine Olu, Tomas Feseker, and Dirk DeBeer
Changes in biogeochemical activity and habitat zonation associated with mud displacement (Haakon Mosby Mud Volcano, Barents Sea)

BG61  EGU2011-8665
Clara F. Rodrigues, Sébastien Duperron, Ana Hilário, and Marina R. Cunha
Chemosymbiotic species from cold seeps around NE Atlantic

BG62  EGU2011-2261
Julie Ponsard, Marie-Anne Cambon-Bonavita, Magali Zbinden, Gilles Lepoint, André Joassin, Laure Corbari, Bruce Shillito, and Philippe Compère
Inorganic carbon incorporation and nutritional transfers in the chemosynthetic ectosymbiosis harbourted by the Atlantic hydrothermal vent shrimp Rimicaris exoculata

BG63  EGU2011-2405
Mélissa Trevisan, Laure Corbari, Sarah Samadi, and Philippe Compère
Diet and digestive microbial symbioses in amphipod crustaceans from deep-sea wood falls in the Pacific Ocean.

BG64  EGU2011-9311
Inês Martins, Richard P. Cosson, Virginie Riou, Pierre Marie Sarradin, Jozée Sarrazin, Ricardo S. Santos, and Ana Colaço
Relationship between metal levels in the vent mussel Bathymodiolus azoricus and local microhabitat chemical characteristics of Eiffel Tower (Lucky Strike)

BG65  EGU2011-11516
Carole Decker, Christian Le Gall, and Karine Olu-Le Roy
First in situ respiratory measurement of vesicomyid bivalves at a cold-seep site (REGAB pockmark off Congo)

BG66  EGU2011-11570
Carole Decker, Sébastien Duperron, and Karine Olu-Le Roy
Multi-gene characterization of endosymbionts associated with two vesicomyid bivalve species co-occurring at a pockmark in the Gulf of Guinea

BG67  EGU2011-13572
Raul Bettencourt, Miguel Pinheiro, Conceição Egas, Isabel Rodrigues, and Ricardo Santos
Sequencing the transcriptome of Bathymodiolus azoricus: new possibilities for the understanding of biological processes at deep-sea hydrothermal vents

BG68  EGU2011-11150
Antje Buß, Maren Walter, Christian Mertens, Jürgen Sültenfuß, and Monika Rhein
Hydrothermal 3He in the near field of natural CO2 seeps in the Okinawa Trough

BG69  EGU2011-7765
Leonardo Contreira, Mustafa Yucel, Jean-Pierre Bruilport, Maurice Comtat, and Nadine Le Bris
Comparative Asessment of Potentiometric and Voltammetric Sensors for Autonomous Monitoring in Deep Sea Sulfidic Environments
BG70  EGU2011-8919


Development of robust micro-colourimetric analysers for in situ detection and long term monitoring of trace metals in seawater.

BG71  EGU2011-6216

Xiang Xiao, Jinquan Chen, Wei Xie, Anna-Louise Reysenbach, Stefan M Sievert, AnLong Xu, and Fengping Wang

Comparative metagenomics of microbial communities inhabiting different hydrothermal chimneys

BG72  EGU2011-13556

Alejandro Estradas-Romero, Katy Juárez-López, and Rosa Maria Prol-Ledesma

First description of bacterial populations at shallow hydrothermal vents

BG73  EGU2011-2820

Sungjae Lee, Kanghee Cho, Bongju Kim, Daewoong Wi, Nagchoul Choi, and Cheonyoung Park

Effect of Bacterial attachment to surface of pyrite on bioleaching efficiency using indigenous acidophilic bacteria

BG74  EGU2011-2808

Daewoong Wi, Bongju Kim, Kanghee Cho, Nagchoul Choi, Sungjae Lee, and Cheonyoung Park

Characteristics of copper matte bioleaching using indigenous acidophilic bacteria for recovering the valuable resources

BG75  EGU2011-2811

Bongju Kim, Kanghee Cho, Daewoong Wi, Nagchoul Choi, Sungjae Lee, and Cheonyoung Park

Effect of temperature on efficiency of galena bioleaching using indigenous acidophilic bacteria

BG76  EGU2011-2816

Kanghee Cho, Bongju Kim, Daewoong Wi, Nagchoul Choi, Sungjae Lee, and Cheonyoung Park

Characteristics of chalcopyrite bioleaching using indigenous acidophilic bacteria for recovering the valuable resources

ESSI2 – Informatics in Oceanography (co-listed) – Orals

Convener: Giuseppe M.R. Manzella | Co-Conveners: Dick M. A. Schaap, Sissy Iona

Room: 19

Chairperson: Giuseppe Manzella

10:30–10:45  EGU2011-1802

Dick Schaap and SeaDataNet Consortium

SeaDataNet: Development of a Pan-European infrastructure for ocean and marine data management

10:45–11:00  EGU2011-2098

Stefano Salon, Giorgio Bolzon, Anna Teruzzi, Paolo Lazzari, Simone Campagna, and Federico Ficarelli

E-Infrastructures for the operational forecasts of the biogeochemical state of Mediterranean Sea: experiences from DORII and MyOcean projects

11:00–11:15  EGU2011-3529

Helen Glaves, Dick Schaap and the Geo-Seas Consortium Partners Team

Geo-Seas - building a unified e-infrastructure for marine geoscientific data infrastructure in Europe

11:15–11:30  EGU2011-3939

Stephen Miller, Helen Glaves, Suzanne Carbotte, Robert Arko, Cynthia Chandler, Dru Clark, Aaron Sweeney, and Karen Stocks

Rolling Deck to Repository: Opportunities for US-EU Collaboration

11:30–11:45  EGU2011-6797

Cristina Tronconi and Vega Forneris

Realization of European interoperability in Ocean Science via the CNR-ISAC informatic infrastructure, based upon open-source technology implemented on a Grid environment.

11:45–12:00  EGU2011-11957

David Mills, Kathryn Keeble, Rodney Forster, Simon Keeble, Stephen Malcolm, and Jon Rees

The EMECO Marine Data Tool - an ‘on-line’ data integration and synthesis information system for marine environmental assessments

ESSI2 – Informatics in Oceanography (co-listed) – Posters

Convener: Giuseppe M.R. Manzella | Co-Conveners: Dick M. A. Schaap, Sissy Iona

Hall XL | Display Time 08:00–19:30

Author in Attendance: 17:30–19:00

Chairperson: Dick Schaap
XL189  EGU2011-1803
Marco Gambetta and Giuseppe M.R. Manzella
Implementation of quality control procedures by means of

XL190  EGU2011-1827
Roger Proctor
Australian initiatives in marine information infrastructure

XL191  EGU2011-8578
Cynthia Chandler, Molly Allison, Robert Gromon, Patrick West, Stephan Zednick, and Andrew Maffei
Developing an Ontology for Ocean Biogeochemistry Data

XL192  EGU2011-10279
Matteo Vinci, Alberto Brosich, Alessandro Altenburger, Fabio Brunetti, Alessandra Giorgetti, Stefano Kuchler, and Elena Partescano
Real-time system to automatic harvesting of several marine data types, granting interoperability and resilience, using ISO and OGC standards

XL193  EGU2011-10647
Angelos Lykardopoulou, Gilbert Maudire, Konstantinos Kalkavouras, Valérie Harscoat, Marc Coriou, and Athanasia Iona
Monitoring large computer networks and distributed services - The SeaDatanet Project Experience

XL194  EGU2011-9671
Md Sumon Shahriar, Paulo De Souza, and Greg Timms
Smart Information Retrieval for Marine Sensor Data

XL195  EGU2011-11549
Charles Troupin, Jean-Marie Beckers, Damien Sirjacobs, Michel Rixen, Pierre Brasseur, Jean-Michel Brankart, Alexander Barth, Aida Alvera-Azcárate, Arthur Capet, Mohamed Ouberdous and the DIVA Team
Advanced Data Interpolating Variational Analysis. Application to climatological data.

XL196  EGU2011-11545
Pekka Alenius, Rikka Hietala, Kimmo Tikka, Seppo Kaitala, Sanna Kujansuu, Riitta Olsonen, Ilkka Priha, and Mikko Virkunen
Quality comes first in system design

XL197  EGU2011-13326
Charles Troupin, Jean-Marie Beckers, Mohamed Ouberdous, Alexander Barth, Marie-Eve Toussaint and the SeaDataNet Team
Overview and progresses of the SeaDataNet regional climatologies

XL198  EGU2011-10889
The EuroSITES open ocean observatory network: the data managers' perspective

GI-4 – Instrumentation, measurement strategies and methods for ocean-based geoscience investigations (co-listed) – Orals
Convener: Christoph Waldmann | Co-Conveners: Laura Beranzoli, Ingrid Puillat-Felix
Room: 42
Chairperson: C. Waldmann

08:30–09:00  EGU2011-3687
The EuroSITES open ocean observatory network: Results and future vision

09:00–09:30  EGU2011-5288
John Orcutt, Frank Vernon, Matthew Arrott, Oscar Schofield, Cheryl Peach, Alan Chave, Mark James, and Michael Meisinger
A proposal for an integrated ocean network for long-term climate and seafloor studies
09:30–09:45  EGU2011-9697  
**John Graybeal**, John Orcutt, Frank Vernon, Matthew Arrott, Oscar Schofield, Cheryl Peach, Alan Chave, Mark James, and Michael Meisinger  
The design of the NSF Ocean Observatories Initiative Cyberinfrastructure  

09:45–10:00  EGU2011-2270  
**Paolo Favali**, Ingv Team, Infn Team, and Tecnomare S.p.A.  
NEMO-SN1 (western Ionian Sea, off Eastern Sicily): Example of architecture of a cabled observatory 

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**COFFEE BREAK**

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10:30–10:45  EGU2011-5517  
**Pierre Marie Sarradin**, Ana Colaço, Mathilde Cannat, Jérôme Blandin, Julien Legrand, Jozée Sarrazin, Javier Escartin, and The Momar d partners  
The MOMAR-D-project: a challenge to monitor the Lucky Strike vent field in real-time.  

10:45–11:00  EGU2011-5429  
Cansun Guralp, Suleyman Tunc, Samim Ada, Chris Pearcey, and **Horst Rademacher**  
A New Concept for Multidisciplinary Cabled Ocean Bottom Systems: the Marmara Sea Network  

11:00–11:15  EGU2011-10060  
Lucie Pautet, Chris Barnes, **Mairi Best**, Benoit Pirenne, and Fern Johnson  
NEPTUNE Canada cabled ocean observatory: latest developments and opportunities  

11:15–11:30  EGU2011-8529  
**Jérôme Blandin**, Julien Legrand and the MoMAR-D engineering & science (1), (2), (3), (4) Team  
Technical Advances in Near Real Time Seafloor Monitoring Implemented for the MoMAR-D Project  

11:30–11:45  EGU2011-8794  
**Jean-Yves Royer**, Julie Perrot, Claude Guennou, Jean-François D’Eu, and Cédric Brachet  
Autonomous-hydrophone arrays: a powerful tool for long-term monitoring of geological processes, biological activity and iceberg tremors over large and remote areas of the ocean  

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**GI-4 – Instrumentation, measurement strategies and methods for ocean-based geoscience investigations (co-listed)**  
– Posters  
Convener: Christoph Waldmann | Co-Conveners: Laura Beranzoli, Ingrid Puillat-Felix  
**Hall A | Display Time 08:00–19:30**  
Author in Attendance: 17:30–19:00  
Chairperson: I. Puillat  

A78  EGU2011-3892  
**Jurgen Mienert**, Stefan Bünz, Benedicte Ferre, Gaurav Dutta, and Vipul Silwal  
Long-Term Seismological Observations of Eruptions of the Håkon Mosby Mud Volcano at the Barents-Sea Continental Margin (ESONET- LOOME Demonstration Mission)  

A79  EGU2011-4666  
**Eiichi Asakawa**, Fumitoshi Murakami, Yoshihiro Sekino, Taku Okamoto, Koji Ishikawa, Hitoshi Tsukahara, Motonori Higashinaka, and Takuya Shimura  
Development of Vertical Cable Seismic System  

A80  EGU2011-10837  
**Giuseppe Puglisi**, Salvatore Gambino, Paolo Favali, and Riccardo Papaleo  
Guidelines for seafloor geodesy nearby of Sicilian active volcanic area  

A81  EGU2011-9678  
**Claire D’Este**, Paulo de Souza, Chris Sharman, and Simon Allen  
Automated Design of a Low-Cost Marine Sensor Network  

A82  EGU2011-5618  
**Francesco Chierici**, Luca Pignagnoli, Davide Embriciaco, and Stephen Monna  
The tsunami detector prototype deployed in the Gulf of Cadiz: data collection and functionality evaluation  

A83  EGU2011-5680  
**Francesco Chierici**, Luca Pignagnoli, Davide Embriciaco, and Stephen Monna  
The tsunami detector prototype installed on board of SN1-cabled abyssal station.
<table>
<thead>
<tr>
<th>A84</th>
<th>EGU2011-10682</th>
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<tbody>
<tr>
<td><strong>Arnulf Schiller</strong>, Klaus Klune, David Ottowitz, and Ingrid Schattauer</td>
<td>On the Ability of Airborne Electro-Magnetic Systems for Areal Indirect Measurement of Seawater Temperature/Salinity with Depth Resolution</td>
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<th>A85</th>
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<tbody>
<tr>
<td><strong>Viviana Piermattei</strong>, Marco Marcelli, Alice Madonia, and Umberto Mainardi</td>
<td>Technological advances in fluorimetric measure: TFLAP upgrade</td>
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<th>A86</th>
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<tr>
<td><strong>Mikhail Smirnov</strong>, Svetoslav Marechek, and Mikhail Danilytchev</td>
<td>Ground based L-band microwave measurements in the Black sea</td>
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<th>A87</th>
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<tbody>
<tr>
<td><strong>Dale Green</strong> and Francois Leroy</td>
<td>Adding a spatial and temporal dimension to Multidisciplinary Seafloor Observatories</td>
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**OS3.4/EG9 – Deep Sea Frontier - A European Challenge (co-organized) – Posters**

Convener: Achim Kopf | Co-Conveners: Timothy Ferdelman, Heiko Pälike, Catherine Mevel, Antje Boetius

**Halls X/Y | Display Time 08:00–19:30**

**Author in Attendance: 10:30–12:00**

**Chairperson: Timothy Ferdelman, Catherine Mevel**

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<tr>
<th>XY601</th>
<th>EGU2011-2368</th>
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<tbody>
<tr>
<td><strong>Beth Orcutt</strong>, Laura Lapham, and Peter Girguis</td>
<td>Introducing MIMOSA - A Microbial Methane Observatory for Seafloor Analysis</td>
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<th>XY602</th>
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<tr>
<td><strong>Hans Roy</strong>, Jens Kallmeyer, Rishi R Adhikari, Britta Gribsholt, Bo B Jørgensen, and Steven D’Hondt</td>
<td>Aerobic microbial respiration in ancient oxic sediments below the Subtropical Gyres</td>
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<tr>
<td><strong>Timothy Ferdelman</strong>, Wiebeke Ziebis, and James McManus</td>
<td>North Pond: A model for the biogeochemical development of an open ocean sub-seafloor sedimentary ecosystem?</td>
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<th>XY604</th>
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<tr>
<td><strong>Alan Jamieson</strong> and Imants Priede</td>
<td>Biological investigation and exploration of the hadal zone (6000 - 11,000 m)</td>
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<tr>
<td><strong>Bo Barker Jørgensen</strong> and R. John Parkes</td>
<td>The deep biosphere - a European challenge</td>
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<tr>
<td><strong>Nils Risgaard-Petersen</strong>, Laura M Wehrmann, Heather N Schrum, Emily A Walsh, Youngsook Huh, Minoru Ikehara, Timothy G Ferdelman, and Steven D’Hondt</td>
<td>Organic matter mineralization in the deep subseafloor sediment of the northeastern Bering Sea Slope (IODP Exp. 323)</td>
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<tr>
<td><strong>Anthony Grehan</strong></td>
<td>CoralFISH: Ecosystem based management of corals, fish and fisheries in the deep waters of Europe and beyond</td>
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<tr>
<td><strong>Miquel Canals</strong> and Vasilis Likousis</td>
<td>The Deep Sea &amp; Sub-Seafrontiers: Sediment Dynamics and Geohazards</td>
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<tr>
<td><strong>Xavier Tubau</strong>, Galderic Lastras, Miquel Canals, Oriol Veres, David Amblas, Xavier Rayo, Aaron Micallef, and Hermesione Shipboard Party</td>
<td>Geomorphology of the Foix submarine canyon system, NW Mediterranean Sea</td>
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<tr>
<td><strong>Oriol Veres</strong>, Galderic Lastras, Miquel Canals, Sara Lafuertea, Ben De Mol, David Amblas, Ruth Durán, Sergio Costa, Aaron Micallef, Christian Berndt and the HERMESIONE Shipboard Team</td>
<td>Relief forming processes in the Elvissa channel, Western Mediterranean</td>
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XY613  EGU2011-9104
Achim Kopf and the IODP 748-full2 proponents Team
Drilling and monitoring of natural and man-made landslide trigger mechanisms at the Ligurian slope (Mediterranean Sea): the tsunamigenic 1979 Nice Airport landslide, southern France

XY614  EGU2011-10204
Bernard Avril, Roberto Azzolini, Paola Campus, Paul Egerton, Niall McDonough, and Bonnie Wolff-Boenisch
Towards a European, Multidisciplinary Research Strategy in Polar, Deep-Sea, Environmental sciences

XY615  EGU2011-10480
Angelo De Santis, Phil Weaver, and DS3F Work Package 8 Working Group
Deep sea frontier infrastructure and synergy in Europe

XY616  EGU2011-3204
Cemil Gürbüz, Dogan Kalafat, Mehmet Y?lmazer, Süleyman Tunç, and Sezim Güvercin
Marmara Sea Bottom Observatory (MSBO) Project and Preliminary Results From First Observations

XY617  EGU2011-10622
Sarah Davies, Mike Lovell, Peter Fitch, Jenny Inwood, and Joanne Tudge
Optimising subsurface characterisation from core and logs: applications for the deep-sea frontier

XY618  EGU2011-9076
Achim Kopf and Pierre Henry
Real-Time Amphibic Monitoring and Borehole Observatories (RAMBO)

OS4.1/CL4.11 – Open session on Operational Oceanography (co-organized) – Posters
Convener: Richard Allard | Co-Conveners: Eric Dombrowsky, Michel Rixen, Emanuel Coelho
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Michel Rixen and Emanuel Coelho

XY619  EGU2011-2813
Robin Wedd, Oscar Avles, and Yonghong Yin
Multi-Variate Salinity Assimilation Pre- and Post-Argo

XY620  EGU2011-2951
Pierre Mathiot, Christof Konig Beatty, Hugues Goosse, Thierry Fichefet, and Francois Massonnet
Assimilation of sea ice freeboard and concentration data in a coupled ice-ocean model.

XY621  EGU2011-2969
Melanie Juza, Bernard Barnier, and Thierry Penduff
Contribution of the shallow water areas not sampled by the Argo floats to the variability of the global ocean heat content

XY622  EGU2011-3062
Nicolas Freychet
Ocean data assimilation with a reduced rank smoother

XY623  EGU2011-3348
Uwe Stöber and James N. Moum
Automated detection of nonlinear internal waves from seafloor pressure time series

XY624  EGU2011-3516
Laurent Parent, NicolasFerry, Gilles Garric, Olivier Legalloudec, Charles-emmanuel Testut, Bernard Barnier, Eric Greiner, Stephanie Guinehut, Clement De boyer montegut, and Clement Bricaid
GLORYS2: A Global ocean reanalysis simulation of the period 1992-present

XY625  EGU2011-3640
Lea Wynn and Mark Cobb
Mode Water in the Sea of Japan: A Study on the Reproducibility of Mode Water in the Data-Assimilating Regional Navy Coastal Ocean Model

XY626  EGU2011-3826
Sheila Natali Estrada Allis, Rui Caldeira, Xavier Couvelard, Francisco Machín, Ángel Rodríguez Santana, and Pablo Sangrà
Towards the construction of a validated numerical system to study the mesoscale dynamics of the North East Atlantic (2003-2006)

XY627  EGU2011-4941
Atanas Palazov, Veselka Marinova, Violeta Slabakova, and Asen Stefanov
Bulgarian Activities in the building of Black Sea In Situ Thematic Assembly Centre within MyOcean project

XY628  EGU2011-6336
George Galanis, George Zodiatis, Dan Hayes, Andreas Nikolaidis, and George Kallos
CYCOFOS new wave forecasting system incorporating sea currents

XY629  EGU2011-6903
Claire Dufau, Isabelle Pujol, Yannice Faugère, and Marie-Hélène Rio
Regional High-Resolution Altimeter Products for Model Assessment and Data Assimilation
OS4.2 – Ocean salinity applications based on SMOS data – Orals

XY630  EGU2011-8983
   **Jay Veeramony**, Mark Orzech, and Hans Ngodock
   Twin Experiment Study Using a Discretized Adjoint Model for SWAN

XY631  EGU2011-12171
   **Svetlana Losa**, Jens Schröter, Sergey Danilov, Lars Nerger, Tijana Janjić, and Frank Janssen
   Assimilating NOAA SST data into BSH operational circulation model for the North and Baltic Seas: What can we learn about the model and data

XY632  EGU2011-11519
   **Abdelali El Moussaoui**, Coralie Perruche, Eric Greiner, and Marion Gehlen
   Integration of biogeochemistry and ecology model to Mercator ocean systems

XY633  EGU2011-9916
   **Marta Umbert**, Nina Hoareau, Joaquim Ballabrera, and Marcos Portabella
   Multivariate statistical model for the air-sea heat fluxes

XY634  EGU2011-10683
   **Baptiste Mourre**, Jacopo Chiggiato, Fabian Lenartz, and Michel Rixen
   Ocean temperature uncertainty forecast from 3-D super-ensemble modelling

XY635  EGU2011-10725
   **Baptiste Mourre** and Alberto Alvarez
   Operational glider adaptive sampling during REP10 experiment

XY636  EGU2011-10112
   **Juan Fernandez**, Gabriel Jorda, Vicente Gracia, and Manuel Espino
   Operational sediment transport modelling in the Western Mediterranean. System implementation and quality assessment

XY637  EGU2011-11110
   **Gianluca Volpe**, Simone Colella, Rosalia Santoleri, Vega Forneris, and Cristina Tronconi
   Operational oceanography in the Mediterranean Sea: the ocean colour satellite observing system

XY638  EGU2011-12875
   **Sebastian Grayek**, Joanna Stanova, Johannes Schulz-Stellenfleth, Wilhlem Petersen, and Emil V. Stanev
   Use of FerryBox surface temperature and salinity measurements to improve model based state estimates for the German Bight

XY639  EGU2011-12265
   **David Lewis**, Richard Gould, Adam Lawson, Zhongping Lee, Paul Martinolich, Ronald Vaughan, Samir Ahmed, Alex Gilerson, Tristan Harmel, and Giulietta Fargion
   Vicarious Calibration of the Hyperspectral Imager for Coastal Oceans (HICO) to Improve Bio-Optical Property Retrievals for Hydrodynamic Models

XY640  EGU2011-11193
   **Johannes Schulz-Stellenfleth**, Emil Stanev, and Joanna Stanova
   Assimilation of HF radar data into a 3D primitive equation model to improve forecasts of the circulation in the German Bight

XY641  EGU2011-8793
   **Didier Jourdan**, Mathilde Faillot, and Claire Maraldi
   SOAP-3: An example of integrated oceanographic information system for naval applications

XY642  EGU2011-4404
   **Xunqiang Yin**, Fangli Qiao, Changshui Xia, and Yongzeng Yang
   Using Ensemble Adjustment Kalman Filter to assimilate Argo profiles in a coastal OGCM

XY643  EGU2011-3790
   **Atanas Palazov**, Emil Stanev, Georgi Korchev, Elisaveta Peneva, and Violeta Slabakova
   Development of National research infrastructure as a Bulgarian component of the Euro ARGO network - Bul ARGO

XY644  EGU2011-8833
   **Ed Blockley** and Alistair Sellar
   Assessment of ocean currents in the FOAM system: site-specific vs. feature based analysis

XY645  EGU2011-8896
   **Byoung Woong An**, Antti Westerlund, and Tapani Stipa
   Validation of the Baltic Sea Ice ensemble forecasting

XY646  EGU2011-9898
   **Marta Umbert** and Joaquim Ballabrera
   Do EnKFs compare to 4D-Var to retrieve model parameters? The case of a deterministic model assimilating deterministic and stochastic observations

XY647  EGU2011-11250
   **Nicolas Ferry**, Bernard Barnier, Stéphanie Guinehut, Keith Haines, Simona Masina, Laurent Parent, Sandrine Mulet, Maria Valdivieso, and Andrea Storto
   The global ocean reanalysis effort of MyOcean: description and early results
OS4.4 – Physical and biogeochemical ocean modelling: development, assessment, and applications – Orals
Convener: David Ham | Co-Conveners: Thierry Penduff, Sergey Danilov, Stephen M. Griffies, Marina Levy
Room: 6
Chairperson: David Ham

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

10:45–11:00  EGU2011-259
Colin Cotter
The Holy Grail for unstructured grid ocean modelling: a finite element pair on triangles without spurious modes

11:00–11:15  EGU2011-385
Sean Vitousek and Oliver Fringer
Physical vs. Numerical Dispersion in Nonhydrostatic Ocean Modeling

11:15–11:30  EGU2011-7786
Julien Le Sommer, Francesco d'Ovidio, and Gurvan Madec
Parameterization of subgrid stirring in eddy resolving ocean models.

11:30–11:45  EGU2011-9223
Matthieu Leclair and Gurvan Madec
Î©z-coordinate, an Arbitrary Lagrangian-Eulerian coordinate separating high and low frequency motions

11:45–12:00  EGU2011-1517
Jarle Berntsen
A perfectly balanced method for estimating the internal pressure gradients in sigma-coordinate ocean models

LUNCH BREAK

Chairperson: Thierry Penduff

13:30–13:45  EGU2011-849
Flora MacTavish, Colin Cotter, and Matthew Piggott
An idealised model of the restratification after open ocean deep using an unstructured mesh

13:45–14:00  EGU2011-955
Hannah Hiester, Matthew Piggott, and Peter Allison
The use of adaptive meshes in ocean modelling: considerations from simulations of the lock-exchange flow
14:00–14:15  EGU2011-3396  
Marion Meinville, Pierre Brasseur, Jean-Michel Brankart, Bernard Barnier, Thierry Penduff, and Jean-Marc Molines  
Optimal adjustment of atmospheric forcing parameters for long term simulations of the global ocean circulation

14:15–14:30  EGU2011-3499  
Chuanyu Liu, Armin Koehl, and Detlef Stammer  
Estimating Eddy Induced Tracer Mixing Parameters through Global Ocean Data Assimilation Synthesis

14:30–14:45  EGU2011-12242  
Matthias Hofmann and Miguel Angel Morales Maqueda  
Changing mid-latitude westerlies and their impact to Southern Ocean eddies in a coarse resolution ocean model.

14:45–15:00  EGU2011-3957  
Hiroaki Tatebe, Masao Kurogi, Tatsuo Suzuki, Yukio Tanaka, Hiroyasu Hasumi, Masayoshi Ishii, and Masahide Kimoto  
Long-term modulations of mesoscale eddy activities in the Kuroshio-Oyashio confluence zone represented in a high-resolution coupled model, and further model development toward better predictions

Chairperson: Marina Lévy

15:30–15:45  EGU2011-8451  
Gennady Chepurin, James Carton, Scott C. Doney, and Ivan Lima  
Impact of Improved Ocean Physical State Estimates on Simulated Interannual Air-Sea CO2 Flux Variations

15:45–16:00  EGU2011-4782  
Diego Santaren and Nicolas Gruber  
The relative benefit of different observations for constraining parameters of a marine biogeochemistry/ecological model

16:00–16:15  EGU2011-12283  
Wolfgang Koeve and Heiner Dietze  
Evaluating coupled ecosystem ocean circulation models: can we trust the concept of preformed nutrients?

16:15–16:30  EGU2011-9451  
Olaf Duttel, Iris Kriest, Samar Khatiwala, and Andreas Oschlies  
Coupling of a complex biogeochemical model with the Transport Matrix Method: quantification of the impact of margin iron input on the ecosystem.

16:30–16:45  EGU2011-9317  
Michael Lange, Tony Field, Cheng-Chien Liu, Jon Hill, and Gerard Gorman  
Fast and accurate multi-spectral optics in an ocean model

16:45–17:00  EGU2011-13525  
Mattheus P. Ueckermann and Pierre F.J. Lermusiaux  
High Order Schemes for Biogeochemical Ocean Dynamics

OS4.6 – Ocean Science in Support of Marine Renewable Energy – Posters  
Convener: Daniel Conley | Co-Conveners: Phil Hosegood  
Halls X/Y | Display Time 08:00–19:30  
Author in Attendance: 15:30–17:00  
Chairperson: Daniel Conley; Merrick Haller

XY648  EGU2011-2832  
Mark Hemer and David Griffin  
The wave energy resource along Australia’s southern margin

XY649  EGU2011-4304  
Gianmaria Sannino, Andrea Bargagli, Adriana Carillo, Luca Libertti, Vittorio Ruggiero, and Piero Lanucara  
Assessment of the present and near future wave potential along the Mediterranean coasts: a high resolution numerical modeling study.

XY650  EGU2011-6802  
Jean-François Dorville, Raphael Cécé, Juvenal Dufaur, Sandrine Samot, Sony Broussillon, Maïna André, and Rudy Blonbou  
Determination of the marine potential energy in the French West Indies for the building of energy converter pilot

XY651  EGU2011-9445  
Merrick Haller, Pukha Lenee-Bluhm, David Newborn, Tuba Ozkan-Haller, Ken Rhinefrank, David Hill, David Honegger, and Aaron Porter  
Experiments on the near-field and far-field wave effects of WEC arrays
XY652 EGU2011-9622
Fotis Sotiropoulos, Leonardo P. Chamorro, Seokkoo Kang, and Roger Arndt
On the structure of turbulence around hydrokinetic turbines in an open channel: Experiments and numerical simulations

XY653 EGU2011-11944
Francisco J. Ocampo-Torres and Pedro Osuna
Energy resources evaluation from wave records and historical simulation in the coastal region of the Baja California Peninsula

XY654 EGU2011-11950
George Kallos, George Galanis, Christina Mitsakou, Panos Athanasiadis, Christos Spyrou, Sarantis Sofianos, and Christina Kalogerri
Energy resource mapping at the framework of MARINA PLATFORM project

XY655 EGU2011-12472
Roberto Mínguez, Antonio Espejo, Antonio Tomás, Melisa Menéndez, Fernando J. Méndez, and Inigo J. Losada
Directional Calibrated Wind and Wave Reanalysis Databases using Instrumental Data for Optimal Design of Off-Shore Wind Farms

XY656 EGU2011-13546
Rosa María Prol-Ledesma, Carlos Lechuga Deveze, Manel Fernández Ortiga, Antonio Correia, Evgueni Shumilin, Carles Canet, Dayán Rodríguez, and Viridiana Vázquez
High heat flow and gas discharge in a nascent spreading center in the northern Gulf of California

XY657 EGU2011-13863
Daniel Conley and Martin Austin
The Use of HF Radar for Resource Assessment

OS4.7 – Ocean Dynamics and Oil spills – Orals
Convener: Richard Camilli | Co-Conveners: Michael Twardowski, Samuel Djavidnia, Michel Rixen
Room: 7
Chairperson: Richard Camilli, Michael Twardowski, Samuel Djavidnia

10:30–10:45 EGU2011-3560
Kenneth Grembowicz, Jerry Townsend, Robert Wahl, and Richard Myrick
Naval Oceanographic Office Activities Related to the Deepwater Horizon Oil Spill

10:45–11:00 EGU2011-6187
Michela De Dominicis, Nadia Pinardi, George Zodiatis, and Robin Lardner
Advanced marine oil spill modelling for short term forecasting and applications to the Mediterranean Sea

11:00–11:15 EGU2011-11597
Caterina Sara Livia Grimaldi, Irina Coviello, Teodosio Lacava, Nicola Pergola, and Valerio Tramutoli
RST analysis of optical satellite data for oil spill detection and monitoring: the deepwater horizon platform accident

11:15–11:30 EGU2011-13349
Olaf Trieschmann, Leendert Bal, Marin Chintoan-Uta, Samuel Djavidnia, Anne Marie Hayes, Marc Journel, Pedro Lourenco-Bento, Sonja Pelizzari, and Jorge del Rio Vera
CleanSeaNet: The integrated European satellite based oil spill and vessel detection service of EMSA

11:30–11:45 EGU2011-13808
Corey Koch, Joseph Needoba, Leslie Slasor, Andrew Barnard, Michael Twardowski, Casey Moore, Cristina Orrico, Scott Pegau, and Paula Cople
In-situ tracking of oil spectral fluorescence: field data, lab studies, and development of advanced sensors

11:45–12:00 EGU2011-14129
Richard Camilli and Dana Yoerger
Quick and Dirty: Alternative Methods for Estimating Oil Flow Rate from the Macondo Well

OS4.7 – Ocean Dynamics and Oil spills – Posters
Convener: Richard Camilli | Co-Conveners: Michael Twardowski, Samuel Djavidnia, Michel Rixen
Halls X/Y | Display Time 08:00–19:30
Author in Attendance: 15:30–17:00
Chairperson: Samuel Djavidnia, Michael Twardowski, Richard Camilli

XY658 EGU2011-2209
Suman Singha and Tim Bellerby
ANN-based image segmentation and feature extraction to distinguish oil spills from ‘look-alike’ spots in SAR imagery
OS5.1/AS1.6 – Internal Gravity Waves (co-organized) – Orals
Convener: Riwal Plougonven | Co-Conveners: Ulrich Achatz, Erich Becker, Chantal Staquet
Room: 7
Chairperson: Riwal Plougonven

13:30–13:45 EGU2011-8258
Lars Hoffmann and M. Joan Alexander
Occurrence Frequency of Convective Gravity Waves during the North American Thunderstorm Season

13:45–14:00 EGU2011-11235
Pascale Bouruet-Aubertot, Yannis Cuypers, Bruno Ferron, Denis Dausse, Olivier Ménage, and Agus Atmadipoera
Turbulent mixing and its relationship with internal tides in the Indonesian Throughflow as inferred from the INDOMIX cruise

14:00–14:15 EGU2011-5383
Robert Scott, John Goff, Alberto Garabato, and George Nurser
Characteristics of lee wave generation in the World Ocean

14:15–14:30 EGU2011-2524
Daniel Ruprecht and Rupert Klein
A Reduced Model for Nonlinear Interactions of Gravity Waves with Deep Convective Clouds
Roger Grimshaw, Karl Helfrich, and Ted Johnson
The effect of rotation on internal solitary waves

Mark Fruman, Ulrich Achatz, and Stefan Hickel
Simulation of breaking inertia-gravity waves using direct numerical simulation and implicit large-eddy simulation

OS5.1/AS1.6 – Internal Gravity Waves (co-organized) – Posters
Convener: Riwal Plougonven | Co-Conveners: Ulrich Achatz, Erich Becker, Chantal Staquet
Halts X/Y | Display Time 08:00–19:30
Author in Attendance: 17:30–19:00
Chairperson: Riwal Plougonven

Hye-Yeong Chun and Young-Ha Kim
Effects of the Convective Gravity-Wave Drag Parameterization in the Global Forecast System of the Met Office Unified Model in Korea

Corwin Wright and John Gille
HIRDLS observations of gravity wave momentum fluxes over monsoon regions

Rafael Posada, José Luis Sánchez, Eduardo García-Ortega, José Luis Marcos, and Laura López
Characterization of favourable conditions for gravity wave generation during snow precipitation events using remote sensing and modelling

Mohammad Mirzaei, Ali R. Mohabalhojeh, Christoph Züllicke, and Farhang Ahmadi Givi
Inertia-gravity waves generated in a moist baroclinic wave simulation

Kelvin Richards, Andrei Natarov, Yuji Kashino, and Wataru Sasaki
The impact of near-inertial waves on mixing in the equatorial oceanic thermocline

Matthieu Leclair, Nicolas Grisouard, Louis Gostiaux, Francis Auclair, and Chantal Staquet
Reflexion of a plane wave from a slope and wave-induced mean flow

Jose Carlos Sanchez-Garrido, Gianmaria Sannino, Luca Liberti, Jesus Garcia Lafuente, and Larry Pratt
Three-dimensional generation of nonlinear internal tides in the Strait of Gibraltar

Chuncheng Guo, Xueen Chen, Vasily Vlasenko, and Nataliya Stashchuk
Numerical simulation on the transformation of large amplitude second mode internal solitary waves over a slope-shelf topography

Antonio Martinez-Marrero and Juan M. Ugía
Observations of near-inertial current variability associated with the passage of island-generated eddies

Nikolaos Bakas and Brian Farrell
On the role of nonnormality in the overreflection of gravity waves

Riwal Plougonven, Albert Hertzog, and Lionel Guez
Non-orographic and orographic sources of gravity waves above Antarctica and the Southern Ocean

Peter Spichtinger and Fabian Fusina
Orographic gravity waves in a time-dependent flow

Marko Zirk and Rein Rõõm
Orographic Drag Formation in Nonhydrostatic Pressure-Coordinate Dynamics I. Spectral Drag Resonances

Alexandre Paci, Christoph Knigge, Dieter Etling, Ted Johnson, Gavin Esler, Sebastien Cazin, Emmanuel Cid, Olivier Eiff, and Laurent Lacaze
Topographic internal waves in the laboratory: two recent experiments carried in the CNRM-GAME stratified water tank

Yvan Dossmann, Francis Auclair, and Alexandre Paci
Interaction of internal gravity waves generated over a ridge with strong density gradients
XY687 EGU2011-13401
Marius Opsanger Jonassen, Hálfdán Ágústsson, Haraldur Ólafsson, and Joachim Reuder
On the persistency of mountain generated gravity waves in Iceland.

XY688 EGU2011-8620
Shaun Lovejoy, Julien Pinel, and Daniel Schertzer
Atmospheric waves and fractional order wave equations: waves as emergent high Reynolds number phenomena

OS5.2 – Surface Waves and Wave-Coupled Effects in Lower Atmosphere and Upper Ocean – Orals
Convener: Alexander Babanin | Co-Conveners: Miguel Onorato, Fangli Qiao
Room: 11
Chairperson: n.n.

08:30–08:45 EGU2011-4955
Validation of numerical waves models in strong currents, a tribute to Owen Phillips.
Fabrice Ardhuin and Aron Roland

08:45–09:00 EGU2011-13650
On the extension of the Wave Action Equation for higher order depth and current effects
Aron Roland, Tai-Wen Hsu, Jian-Ming Liau, Yaron Toledo, and Shan-Hwei Ou

09:00–09:15 EGU2011-4644
Evolution of random wind wave fields under rapidly changing wind
Victor Shira and Sergei Annenkov

09:15–09:30 EGU2011-9313
Air-sea interface in hurricane conditions
Alexander Soloviev, Silvia Matt, and Atsushi Fujimura

09:30–09:45 EGU2011-4892
Laboratory investigation and direct numerical simulation of wind effect on steep surface waves
Yuliya Troitskaya, Danii Sergeev, Oleg Druzhinin, Alexander Kandaurov, and Olga Ermakova

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

10:45–11:00 EGU2011-2889
Energy dissipation mechanisms in spilling and in highly aerated plunging breaking events
Alessandro Iafrati

11:00–11:15 EGU2011-10306
Dissipation regimes for short wind waves
Guillemette Caulliez

11:15–11:30 EGU2011-809
Non-linear interactions of wind-sea and opposing swell determined through bispectral analysis
Francisco J. Ocampo-Torres

11:30–11:45 EGU2011-2042
Scales of nonlinear relaxation and balance of wind-driven seas
Sergei I. Badulin and Vladimir E. Zakharov

11:45–12:00 EGU2011-2266
New generation of Wind and Wave climate handbooks
Leonid Lopatoukhin, Alexander Boukhinovsky, and Ekaterina Chernysheva

LUNCH BREAK

Chairperson: n.n.

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LUNCH BREAK

Chairperson: n.n.
13:30–13:45 EGU2011-3519
Peter Janssen
Ocean Wave effects on the daily cycle in SST

13:45–14:00 EGU2011-3930
Johannes Gemmrich and Svein Vagle
Observations of wave-induced mixing

14:00–14:15 EGU2011-4324
Yeli Yuan and Ming Lu
A unified theory of waves in a general ocean

14:15–14:30 EGU2011-1932
Anna Rutgersson, Björn Carlsson, Rajesh Kumar, Alvaro Semedo, Øyvind Sætra, and Øyvind Breivik
Impact of surface waves on the atmosphere in a coupled wave-atmosphere regional climate model

14:30–14:45 EGU2011-1080
Lev Shemer and Andrey Zavadsky
On Reynolds stresses over wind waves

14:45–15:00 EGU2011-3906
Paul Hwang
Ocean Surface Roughness and Remote Sensing

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NP7.1/OS5.3 – Non linear waves, wind-wave-current interactions, internal waves in stratified media and ocean mixing and coastal hydromorphology (co-organized) – Orals
Convener: Vincent Rey | Co-Conveners: Lev Ostrovsky, M. Stive, Philippe Fraunie, Vincent Rey, Margarita Diez, Pascale Bouruet-Aubertot
Room: 17
Chairperson: Vincent Rey

15:30–15:45 EGU2011-8220
Vladimir V. Mitkin and Yuli D. Chashechkin
Visualization of Stratified Flows past 2D Bluff Obstacles

15:45–16:00 EGU2011-11275
Pascale Bouruet-Aubertot, Hans van Haren, and Pascale Lelong
Stratified inertial subrange as inferred from in situ measurements in the bottom boundary layer of Rockall Channel

16:00–16:15 EGU2011-896
Victor Bakhanov, Nikolai Bogatov, Aleksei Ermoshkin, Vadim Lobanov, Olga Kemarskaya, Irina Repina, and Victor Titov
The full-scale investigations of the action of internal waves and inhomogeneous flows on the wind waves in the White Sea

16:15–16:30 EGU2011-12826
Nataly Zaytseva, Konstantin A. Gorshkov, and Irina Anatolievna Soustova
Compound solitons of Gardner equation with variable coefficients of cubic nonliarity

16:30–16:45 EGU2011-11681
Aleksei Ermoshkin, Irina Soustova, Konstantin Gorshkov, Vyacheslav Dubina, Yulia Troitskaya, and Natalia Zaitseva
Analysis of intense internal wave evolution in the Seas of Japan and Okhotsk using satellite data from synthetic aperture radar and radiometers

16:45–17:00 EGU2011-12106
Vladimir A. Kalinichenko and Yuli D. Chashechkin
Structuring and Restructuring of Suspensions in Standing Waves in Tank with and without Topography
Friday, 08 April

**BG7.3 – Biogeochemical function and diversity of chemosynthetic deep sea ecosystems (co-listed) – Orals**

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

**Room:** 24

**Chairperson:** n.n.

08:30–08:45 EGU2011-13085

*Dirk de Beer*, Antje Boetius, Jean-Paul Foucher, Tom Feseker, Chris German, Dana Yoerger, Richard Camilli, and James Kinsey

Observations on volcanic activity of a cold seep, the Hakon Mosby Mud Volcano, (HMMV)

08:45–09:00 EGU2011-7308

*Tomas Feseker*, Dirk de Beer, Jean-Paul Foucher, François Harmegnies, Julien Legrand, Jerome Blandin, Frank Wenzhöfer, and Antje Boetius

Long-term observation suggests tidal forcing of mud volcanic activity at Håkon Mosby mud volcano, Barents Sea slope

09:00–09:15 EGU2011-6677

*Eric Boschker*, Tanja Moerdijk-Poortvliet, and Dirk de Beer

Chemoautotrophy at the Hakon Mosby Mud Volcano: in-situ rates and active Bacteria.

09:15–09:30 EGU2011-3871

*Jurgen Mienert*, Doug Connelly, Jens Greinert, Rachel James, Miguel Veloso, Veit Huhnerbach, Jon Campbell, and Sven Iversen

Chemosynthesis in the Arctic margins

09:30–09:45 EGU2011-9853

*Janine Felden*, Frank Wenzhöfer, Anna Lichtschlag, Petra Pop Ristova, Dirk deBeer, and Antje Boetius

Temporal changes in chemosynthetic community distribution and biogeochemical processes at the Amon mud volcano (Nile Deep Sea Fan)

09:45–10:00 EGU2011-362

*Daniela Zeppilli*, Marianna Mea, Cinzia Corinaldesi, and Roberto Danovaro

Mud volcanoes in the Mediterranean Sea are hot spots of exclusive meiofaunal species

**COFFEE BREAK**

Chairperson: n.n.

10:30–10:45 EGU2011-5548

*Jozée Sarrazin*, Jérôme Blandin, Julien Legrand, Christian Le Gall, and Pierre-Marie Sarradin

Mussel community changes and environmental dynamics at Tour Eiffel, MAR

10:45–11:00 EGU2011-7653

*Michael Aron*, Jozée Sarrazin, Pierre-Marie Sarradin, and Grégoire Mercier

Analysing the temporal dynamics of chemosynthetic ecosystems by using automated image processing tools

11:00–11:15 EGU2011-4878

*Franck Lartaud*, Marc de Rafelis, Crispin Little, Germain Bayon, Benoît Ildefonse, Jérôme Dyment, and Nadine Le Bris

Fossil bivalves in the Rainbow area: new insight into the diversity and evolution of chemosynthetic communities.

11:15–11:30 EGU2011-3791

*Ana Colaço*, Nereida Cordeiro, Marina Cunha, Sylvie Gaudron, Silvia Lino, and Ricardo Serrão Santos

Trophiic structure of colonization modules at chemosynthetic habitats: a comparative approach

11:30–11:45 EGU2011-5513


Denitrification as the dominant N-elimination process in hydrothermal vents of the Juan de Fuca Ridge, North-East Pacific Ocean

11:45–12:00 EGU2011-3114

*Philippe Compère*, Sarah Samadi, Magali Zbinden, Gilles Lepoint, Pierre Becker, Sébastien Duperron, Chantal De Ridder, Françoise Gaill, and Caroline Hoyoux

Decapod crustaceans from deep-sea wood falls in the South Pacific Ocean: diet, trophic level and symbioses.
08:30–08:45  EGU2011-2264  Göran Björk, Christian Stranne, and Karin Borenäs  On the Response of the Arctic Ocean Ice Thickness to External Forcing Perturbations

08:45–09:00  EGU2011-899  Julienne Stroeve, Allan Frei, and Debjani Ghatak  Arctic Sea Ice Influences on Northern Hemisphere Precipitation

09:00–09:15  EGU2011-1674  Daniel Pollak, Marika Holland, and David Bailey  Understanding Changes in the Arctic Basin Sea Ice Mass Budget as Simulated by CCSM4- Implications from Melt Season Characteristics and the Surface Albedo Feedback

09:15–09:30  EGU2011-2622  Daniela Flocco and Daniel Feltham  Incorporation of a new melt pond scheme into a GCM sea ice model component

09:30–09:45  EGU2011-11487  Martin Vancoppenolle, Cecilia Bitz, Thierry Fichefet, Hugues Goosse, Christiane Lancelot, and Jean-Louis Tison  Sensitivity of a one-dimensional, multi-layer, sea ice-microalgae model

09:45–10:00  EGU2011-66  Jiayun Zhou, Jean-Louis Tison, Hajo Eicken, Chris Petrich, Nicolas-Xavier Geilfus, Frédéric Brabant, Gauthier Carnat, Tim Papakyriakou, Bernard Heinesch, and Bruno Dellile  O2/Ar and CH4 measurements in sea ice: clues for the key status of sea ice in the climate system

Chairperson: Daniel Feltham


10:45–11:00  EGU2011-3471  Jan van Angelen, Michiel van den Broeke, and Ron Kwok  Analysis of wind driven sea ice export through Fram Strait using a high resolution climate model

11:00–11:15  EGU2011-10915  Aleksey Marchenko and Dmitry Brazhnikov  Characteristics of ice cover drift and structure in axially symmetric solutions of sea ice dynamics models with elastic-plastic rheology

11:15–11:30  EGU2011-9658  Peter Sammonds, Ben Lishman, and Daniel Feltham  Sea ice dynamics: the role of friction

11:30–11:45  EGU2011-3456  Michel Tsamados, Daniel Feltham, and Alexander Wilchinsky  Implementation of a new anisotropic rheology into a GCM sea ice component

11:45–12:00  EGU2011-10228  Laurent Bertino, Tim Williams, Dany Dumont, and Alison Kohout  A model for waves-in-ice and sea ice dynamics in the marginal ice zone

Chairperson: Daniel Feltham

XL117  EGU2011-6970  Lars H. Smedsrud, Torge Martin, and Jens Debernard  Grease ice parameterisation in sea-ice ocean models
Nikhil Radia, Daniel Feltham, and Miguel Angel Morales Maqueda
Formation of frazil ice in leads and polynyas

Harry Horton, Daniel Feltham, and Ann Keen
The role of atmospheric jets in ice edge dynamics

Alexander Wilchinsky and Daniel Feltham
Modelling Coulombic failure of sea ice with leads

Philipp Griewank and Dirk Notz
Modelling Sea-ice Desalination

Adrian Turner, Elizabeth Hunke, and Cecilia Bitz
Modeling microphysics and salinity evolution of sea ice

Olivier Lecomte, Thierry Fichefet, and Martin Vancoppenolle
Inclusion of a multi-layer thermodynamic snow scheme in a large scale sea-ice model

Sergey Muzylev, Aleksey Marchenko, and Eugene Morozov
Seiche Motions in Ice-Covered Lakes: Theory and Observations

Nuala Carson, Miguel Angel Morales Maqueda, Clare Postlethwaite, and Harry Leach
Fast Ice

Kay Huebner, Dirk Notz, and Karl-Hermann Wiener
Impact of Snow on Sea Ice Growth

Kay Huebner, Davide Zanchettin, and Johann-Jungclaus
Multi-decadal Variability of simulated Sea Ice Cover

Pierre Rampal, Jérôme Weiss, Clotilde Dubois, Jean-Michel Campin, and Gaël Forget
IPCC climate models do not capture Arctic sea ice drift acceleration: Consequences in terms of sea ice thinning and decline

Jan-Peter Schulz
Introducing a sea ice scheme in the mesoscale NWP model COSMO-EU of the German Weather Service

Matthieu Chevallier, David Salas y Melia, Vincent Vionnet, Gilles Garric, Sophie Belamari, and Eric Brun
Sea ice-Ocean modeling at CNRM-GAME for global climate studies: recent improvements of the sea-ice component

Andreas Born, Kerim H. Nisancioglu, Christoph C. Raible, and Thomas F. Stocker
Dynamical Impact of Changes in Arctic Sea Ice

Svenja Kohnemann, Günther Heinemann, David Schröder, Sascha Willmes, and Cornelia Koeberle
Investigation of regional sea ice budgets in the Arctic using the sea ice/ocean model NAOSIM

Sandra Barreira
Differences between temporal (S-Mode) and spatial (T-Mode) principal component analysis of Antarctic sea ice monthly concentration anomalies: relationship with climate variables.

Jan Sedlacek, Olivia Maritus, and Reto Knutti
Influence of the Barents Sea on the summer temperature in Europe and Asia

Anna Luomaranta, Jari Haapala, Hilppa Gregow, Kimmo Ruosteenoja, Kirsti Jylhä, and Ari Laaksonen
The changes in the Baltic Sea ice cover by 2050

Maddalena Bayer-Giraldi, Ilka Weikusat, and Gerhard Dieckmann
A novel antifreeze protein from sea ice diatoms and its influence on ice microstructure

Elizabeth Weatherhead, Jim Maslanik, Peter Boveng, Michael Cameron, Robyn Angliss, Erin Moreland, and Robert Gray
New methods for analyzing sea ice and its influence on biological life
OS1.4 – The Southern Ocean and its Role in the Global Climate System – Orals
Convener: Young Hyang Park | Co-Conveners: Michael Meredith, Ralph Timmermann
Room: 6
Chairperson: Young-Hyang Park

08:30–08:45 EGU2011-4489
Helen Phillips and Nathan Bindoff
The observed baroclinic structure of the Antarctic Circumpolar Current

08:45–09:00 EGU2011-12636
Nicolas Wienders, Kevin Speer, and Breck Owens
Preliminary results from the subsurface Lagrangian component of the DIMES Experiment

09:00–09:15 EGU2011-9053
Stephen Riser and Annie Wong
Multi-year Observations Under Seasonal Ice in the Antarctic Using Arrays of Profiling Floats

09:15–09:30 EGU2011-12148
Christine Provost, Alice Renault, Nicolas Barré, Nathalie Sennéchael, Véronique Garçon, Joël Sudre, and Oliver Huhn
Two repeat crossings of Drake Passage in austral summer 2006: short term variations and evidence for considerable ventilation of intermediate and deep waters.

09:30–09:45 EGU2011-7680
Verena Haid, Ralph Timmermann, Lars Ebner, and Günther Heinemann
Coastal polynyas in the southwestern Weddell Sea: sea ice production and bottom water formation

09:45–10:00 EGU2011-6849
Tijana Janjic, Jens Schroeter, Roman Savcenko, Wolfgang Bosch, Alberta Albertella, Reiner Rummel, and Olaf Klatt
Impact of assimilation of dynamic ocean topography from radar altimetry and GRACE/GOCE geoid on Weddell Gyre

COFFEE BREAK

Chairperson: Young-Hyang Park

10:30–10:45 EGU2011-9480
Ute Hausmann, Arnaud Czaja, and Dudley Chelton
Observed mesoscale eddy sea surface temperature imprints

10:45–11:00 EGU2011-4274
Alexa Griesel, Julie McClean, Sarah Gille, Janet Sprintall, and Mathew Maltrud
How well do Lagrangian diffusivities parameterize the effects of eddies in the Southern Ocean of an eddying model?

11:00–11:15 EGU2011-13400
Ivana Cerovecki, Lynne Talley, and Matthew Mazloff
Southern Ocean air-sea buoyancy flux from an ocean state estimate: can ocean observations provide a valuable constraint on the atmospheric state?

11:15–11:30 EGU2011-3317
Hela Sekma and Young-Hyang Park
Poleward heat transport at the SACCF over the Kerguelen Plateau

11:30–11:45 EGU2011-8010
Julien Le Sommer and the SouthernCross project science Team
Control of Southern Ocean sea surface temperature variability by air-sea fluxes in an eddy resolving model

11:45–12:00 EGU2011-2833
John 'Paul' Spence, John Fyfe, and Andrew Weaver
Southern Ocean response to strengthening winds in an eddy-permitting global climate model

OS1.4 – The Southern Ocean and its Role in the Global Climate System – Posters
Convener: Young Hyang Park | Co-Conveners: Michael Meredith, Ralph Timmermann
Halls X/Y | Display Time 08:00–17:00
Author in Attendance: 13:30–15:00
Chairperson: Young-Hyang Park

XY400 EGU2011-136
Oliver Huhn, Monika Rhein, Klaus Bulsiewicz, and Gerd Rohard
Early results from first sulphur hexafluoride measurements in the Weddell Sea
XY401  EGU2011-77  Carolina O. Dufour, Julien Le Sommer, Marion Gehlen, James C. Orr, Jennifer Simeon, and Bernard Barnier  Response of Southern Ocean natural carbon cycle to a positive phase of the Southern Annular Mode

XY402  EGU2011-3485  Torge Martin, Wonsun Park, and Mojib Latif  Two types of multi-centennial variability of the Southern Ocean deep convection: How sea ice tips the scale

XY403  EGU2011-3796  Jessica Makowski, Don Chambers, and Jennifer Bonin  Using Ocean Bottom Pressure from GRACE to Understand Transport Variations of the Antarctic Circumpolar Current

XY404  EGU2011-4852  Sergey Lebedev and Svetlana Shauro  Climatic variability of the Antarctic Circumpolar Current position and its intensity based on remote sensing data

XY405  EGU2011-6379  Mariana Soppa and Astrid Bracher  Phytoplankton size-classes in the Southern Ocean: a remote sensing approach

XY406  EGU2011-6818  Matthew Donnelly, Harry Leach, and Volker Strass  Modelling the Lazarev Sea: An Inverse Approach to Determining Mass Transport


XY408  EGU2011-8503  Yaokun Li and Jiping Chao  A two-equilibrium theory for the Antarctic Circumpolar Current (ACC) and its associated meridional circulation

XY409  EGU2011-9625  Maxim Nikurashin and Raffaele Ferrari  Global energy conversion rate from geostrophic flows into internal lee waves in the deep ocean

XY410  EGU2011-11560  Emanuela Rusciano, Sabrina Speich, and Michel Arhan  Observations of the interocean exchanges and spreading of the Antarctic Intermediate Water south of Africa

XY411  EGU2011-12213  Ramiro Ferrari, Christine Provost, Alice Renault, Nicolas Barré, Nathalie Sennéchael, and Jae Hak Lee  A study of the Antarctic Circumpolar Current (ACC) and its associated meridional circulation


XY413  EGU2011-13078  Arnaud David, Sabrina Speich, and Bruno Blanke  The Southern Ocean frontal system south of Africa calculated from satellite-derived dynamic height

XY414  EGU2011-13765  Nicolas Barré, Christine Provost, Nathalie Sennéchael, and Alice Renault  Structure of the Antarctic Circumpolar Current in Drake Passage observed from satellite altimetry

XY415  EGU2011-2286  Roman Tarakanov  Circulation of Circumpolar and Pacific Deep Waters near the Shackleton Ridge, Drake Passage

XY416  EGU2011-4354  Clothilde Langlais, Steve Rintoul, and Andreas Schiller  Eddy response to wind forcing in the Southern Ocean

XY417  EGU2011-4481  Lavinia Patara, Claus Böning, Arne Biastoch, and Erik Behrens  Towards the development of a modeling framework for the study of Southern Ocean variability from interannual to multi-decadal time scales

XY418  EGU2011-7976  Maxim Nikurashin and Geoffrey Vallis  A theory of deep stratification and overturning circulation in the ocean


XY420  EGU2011-9989  Nadine Tisnérat-Laborde, Bruno Delille, Melchor Gonzalez-Davila, Juana Magdalena Santana-Casiano, Louise Bordier, Christine Hatté, Christophe Moreau, Martine Paterne, Marie Boyé, and Sabrina Speich  Evolution of dissolved inorganic radiocarbon in the eastern Atlantic sector of the Southern Ocean
XY421  EGU2011-10471
Margarita Palmer, Damià Gomis, Maria del Mar Flexas, Gabriel Jordà, Alberto C. Naveira-Garabato, Loic Jullion, and Takamasa Tsubouchi
Water mass pathways, transports, and biochemical properties over the South Scotia Ridge west of 50ºW

XY422  EGU2011-11968
Alice Renault, Christine Provost, Ramiro Ferrari, Nicolas Barré, Nathalie Sennéchael, and Jae Hak Lee
Three years of velocity, temperature and salinity time series in the Yaghan Basin, Northern Drake Passage

XY423  EGU2011-13604
Tony Lee, Will Hobbs, Josh Willis, Daria Halkides, Ichiro Fukumori, Ed Armstrong, Akiko Hayashi, Tim Liu, Bill Patzert, and Ou Wang
Record warming in the South Pacific and western Antarctica associated with the 2009-10 El Nino

CL2.5/OS1.5 – Global and regional sea level rise and variability (co-organized) – Orals
Convener: Svetlana Jevrejeva | Co-Conveners: Anny Cazenave, Aslak Grinsted
Room: 15
Chairperson: Aslak Grinsted

08:30–08:45  EGU2011-3244
pierre prandi, michael ablain, nicolas picot, and anny cazenave
Sea level variability in the Arctic Ocean from satellite altimetry

08:45–09:00  EGU2011-3793
Christopher Piecuch and Rui Ponte
Low-Frequency Variability in Regional Sea Level: The Roles of Advection, Diffusion and Surface Buoyancy Fluxes

09:00–09:15  EGU2011-4343
john Moore, svetlana Jevrejeva, and aslak Grinsted
The historical global sea level budget

09:15–09:30  EGU2011-5508
Riccardo Riva, Jonathan Bamber, David Lavallée, and Bert Wouters
Sea-level fingerprint of continental water and ice mass change from GRACE

09:30–09:45  EGU2011-6046
Bo Christiansen, Torben Schmith, and Peter Thejll
How well can we reconstruct global sea level rise and variability?

09:45–10:00  EGU2011-6278
Isabel M. Vigo, José M. Sánchez Reales, Mario Trottini, and Benjamin F. Chao
Mediterranean sea level variations with regional acceleration/deceleration during 1993-2008

COFFEE BREAK

Chairperson: n.n.

10:30–10:45  EGU2011-8229
Stefan Rahmstorf, Martin Vermeer, and Mahé Perrette
Robustness of semi-empirical sea level projections

10:45–11:00  EGU2011-8956
Ichiro Fukumori
Distinguishing Sea Level Change due to Heating and Freshwater Input from Redistribution by Ocean Circulation

11:00–11:15  EGU2011-9264
Christopher W. Hughes, Joanne Williams, Rory Bingham, Chris Wilson, and Vladimir Stepanov
Contributions of bottom pressure and steric signals to regional sea level variability: Extracting the physics from numerical models.

11:15–11:30  EGU2011-13130
Mahé Perrette, Riccardo Riva, Felix Landerer, and Malte Meinshausen
Probabilistic projection of regional sea-level

11:30–11:45  EGU2011-13300
Gabriel Jordà, Damià Gomis, Francisco M. Calafat, and Marta Marcos
Understanding Mediterranean sea level long term variability trough a simple conceptual model. Local versus remote forcing.

11:45–12:00  EGU2011-1405
Julian Kuhlmann, Henryk Dobslaw, and Maik Thomas
Improved Modelling of Sea-Level Patterns by Incorporating Loading and Self-Attraction
Andrzej Jankowski and Wieslaw Maslowski

Dependence of sea level variability in the Nordic Seas on the NAO - results from a Pan-Arctic coupled ice-ocean model

Robert Tenzer and Vladislav Gladkikh

Analysis of the tide-gauge records in New Zealand

Curtis Collins, Affonso Mascarenhas, and Rodney Martinez

Structure of Ocean Circulation between the Galapagos Islands and Ecuador

Svetlana Jevrejeva, John Moore, and Aslak Grinsted

Is the present-day rate of sea level rise unprecedented compared to the last 300 years?

Marta Marcos, Bernat Puyol, Carmen Herrero i Navarro, María Jesús García Fernández, Guy Woppelmann, Andy Plater, Tim Shaw, and Frazer Bird

The long sea level record at Cadiz (Southern Spain) from 1880 to 2010

Samantha Royston, Kevin Horsburgh, and Jonathan Lawry

Application of a soft rule-based model to storm surge and sea level variability

Luca Scarascia and Piero Lionello

Links between Sea Level in the NORTHER ADRIATIC SEA and large scale patterns

Erricos C. Pavlis, Paraskevas Milas, Keith Evans, Demitris Paradissis, Basil Massinas, and Xenophon Frantzis

THE EASTERN MEDITERRANEAN ALTIMETER CALIBRATION NETWORK - eMACnet

Ole Baltazar Andersen, Yongcun Cheng, and Tina Hvid

Regional Sea level change in the Arctic Ocean from a combination of radar and laser altimetry, tide gauges and ocean models

Andrew Matthews, Elizabeth Bradshaw, Kathy Gordon, Simon Holgate, Svetlana Jevrejeva, Lesley Rickards, Mark Tamisiea, and Philip Woodworth

The Permanent Service for Mean Sea Level: A review of recent updates

Ivica Vilbic, Jadranka Sepic, Marta Marcos, and Gabriel Jorda

Mediterranean sea level variability changes and projections at high frequencies (1-100 days)

Detlef Stammer, Neeraj Agarwal, Peter Herrman, Armin Köhl, and Roberto Mechoso

Response of the Coupled Ocean-Atmosphere System to Greenland Ice Melting

Gilles Larnicol

The ESA Sea Level CCI project

Michael Whitworth

Sea level rise and storminess for the south-west of England

Svetlana Jevrejeva, John Moore, and Aslak Grinsted

Sea level projections with new generation of scenarios for climate change

Olivier Henry, Pierre Prandi, and Anny Cazenave

Arctic sea level changes and variability.

Frauke Albrecht, Ralf Weisse, and Hans von Storch

Regional Mean Sea Level Changes in the German Bight

Andrey Proshutinsky and Igor Ashik

Rates of sea level change in the Arctic Ocean and decadal variability
XL47  EGU2011-8313
Kristin Richter, Jan Even Øie Nilsen, and Helge Drange
Contributions to sea level variability along the coast of Norway during the past 60 years

XL48  EGU2011-9191
Philip Thompson, Gary Mitchum, and Mark Merrifield
Decadal variability in sea level rise rates

XL49  EGU2011-9726
David Hill, Stephen Griffiths, Dick Peltier, Benjamin Horton, and Torbjorn Tornqvist
High-resolution numerical modeling of tides in the western Atlantic, Gulf of Mexico, and Caribbean Sea during the Holocene

XL50  EGU2011-10044
Roelof Rietbroek, Sandra-Esther Brunnenbend, Jürgen Kusche, and Jens Schröter
What can GRACE gravimetry and altimetry tell us about sea level contributors?

XL51  EGU2011-11865
Simona Masina, Andrea Storto, Srdjan Dobricic, Pierluigi Di Pietro, Ida Russo, and Antonio Navarra
Impact of data assimilation and model resolution on sea level rise and variability

HS10.2/OS2.3 – Lakes and inland seas (co-organized) – Orals
Convener: Peter Zavialov | Co-Conveners: Jana Friedrich, Elena Roget
Room: 33
Chairperson: n.n.

13:30–13:45  EGU2011-13755
Cvetanka Popovska
Tectonic Lakes-Climatic and Anthropogenic Impacts

13:45–14:00  EGU2011-10284
Sebastiano Piccolroaz and Marco Toffolon
Modelling climate change impacts on deep water renewal in Lake Baikal

14:00–14:15  EGU2011-134
Kür?ad Kadir Erli? and M.Nam?k Ça?atay
Late Pleistocene to Holocene water exchanges between the Marmara and Black seas and wa-ter level changes: new evidence from high-resolution seismic and core studies

14:15–14:30  EGU2011-7919
Georg Umgiesser, Christian Ferrarin, Andrea Cucco, Angel Perez Ruzafa, Francesca De Pascalis, Michel Ghezzo, Debora Bellafiore, and Marco Bajo
A comparison study of 6 Mediterranean lagoons with numerical modeling

14:30–14:45  EGU2011-10459
Fabio Güttler, Simona Niculescu, Francis Gohin, Yannick Lageat, and Ioan Grigora?
Comparing turbidity patterns of Danube Delta waters with remote sensing techniques: from deltaic lakes to the western Black Sea coastal zone

Chairperson: J.Friedrich

15:30–15:45  EGU2011-12075
Victor Stepanenko, Andrey Martynov, Klaus D. Joehnk, Marjorie Perroud, Xing Fang, Zack M. Subin, Frank Beyrich, Annika Nordbo, Dmitrii Mironov, and Jussi Huotari
Thermal regime and water-atmosphere interactions of shallow mid-latitude lakes: a case study within the framework of the Lake Model Intercomparison Project

15:45–16:00  EGU2011-4168
Peter Zavialov, Slava Kremenetskiy, Valeriy Peresypkin, Oleg Kopelevich, Ruey-Chy Kao, and Chung-Feng Ding
Submarine Groundwater Discharge in Taiwan Strait

16:00–16:15  EGU2011-8473
Alfred Wüest
Near-sediment oxygen dynamics in lakes

16:15–16:30  EGU2011-460
Areti Gianni and Ierotheos Zacharias
Morphology and anoxia in enclosed seas: Aitoliko lagoon - Greece

16:30–16:45  EGU2011-9848
Elena Debolskaya and Evgeny Yakushev
The mathematical modeling of the Shatura lakes ecological state

16:45–17:00  EGU2011-10590
Noel Urban, Galen McKinley, Cory McDonald, and Val Bennington
Carbon cycling in inland seas: contrasts among the Laurentian Great Lakes
Jana Friedrich, Sorin Balan, Marian-Trajan Gomoiu, Sebastian Naehler, Dan Secrieru, Sara Wilcken, and Oliver Zieinski
Monitoring the Formation of Hypoxia on the North-Western Black Sea Shelf

A355  EGU2011-13757
Ivar Murdmaa, Ramiz Aliev, Nikolay Esin, Elena Ivanova, Vyacheslav Krylenko, and V i Rudnev
Rapid sapropel accumulation on the upper continental slope of the NE Black Sea during the past century: a response to the global warming?

A356  EGU2011-1552
Philipp Schneider and Simon Hook
Global trends in lake surface temperatures observed from space

A357  EGU2011-1458
Peter Makkaveev and Peter Zavialov
Interannual and interdecadal variability of pH in the seas of Russia

A358  EGU2011-13799
Francesc Forcat, Elena Roget, Lidia Dmitriieva, Marina Shatunova, and Valentina Khan
Evaluation of different errors in lake dynamics due to a poor determination of cloud cover

A359  EGU2011-382
Alexander Osadchiev and Peter Zavialov
Mzymta river plume dynamics in the eastern part of the Black Sea: observations and modeling

A360  EGU2011-533
Alexander Izhitsky and Peter Zavialov
Latest Observations of Thermohaline Structure and Circulation of the Dying Aral Sea

A361  EGU2011-547
Natalia Zhurbas
Effect of river plume on Ekman drift velocity in the sea surface layer (dimensional analysis and numerical simulation)

A362  EGU2011-13957
Vera Rostovtseva, Dmitriy Khlebnikov, Vadim Pelevin, Boris Konovalov, Peter Zavialov, Alexandre Grabovskiy, Oleg Abramov, and Georgiy Karlsen
Mapping small-scale river plumes in the Black Sea using shipboard spectrophotometry and fluorimetry

A363  EGU2011-4136
Anthony Kettle and Richard Back
Combined Water and Heat Budget to Constrain the Vertical Flow in a Meromictic Lake

A364  EGU2011-6333
Natalya Demchenko
Development of the seasonal thermally-induced front in the Baltic sea after cold winter 2010

A365  EGU2011-8514
Anh Dao Le T., Francesca De Pascalis, Georg Umgiesser, and Walter Wildi
Seasonal thermal structure variations of Lake Geneva using 3D finite element modeling

A366  EGU2011-10796
Maria Magdalena Eder, Dirk Schlабing, Marieke Frassl, Karsten Rinke, and András Bárdossy
Climate sensibility of a large lake - a scenario study using a 3D hydrodynamic model and a statistical weather generator

A367  EGU2011-10781
Philip Wallhead
Inference using plankton models forced by spline interpolations: a study of algal loss processes in Lake Geneva

A368  EGU2011-151
Sebastian Naehler, Adrian Gilli, Rienk Smittenberg, and Carsten Schubert
Use of lipid biomarkers to reconstruct past hypoxia and past environmental conditions in two Swiss lakes

A369  EGU2011-13900
Torben Gentz and Michael Schlüter
High resolution mapping of methane concentrations measured by membrane inlet mass spectrometry around pockmarks in Lake Constance, in the North Sea and in the North Atlantic west of Svalbard

A370  EGU2011-13636
Chen Yi-Ron and Hou Wen-Shang
The relationship between variations of the fish fauna and water quality of the Feitsui reservoir in Taiwan
XY424  EGU2011-11577
David Ham
Automated adjoints: towards a robust method for generating adjoint ocean models

XY425  EGU2011-5139
Ricardo Matano and Elbio Palma
The upstream spreading of bottom-trapped plumes

XY426  EGU2011-954
Simon Funke, Chris Pain, Stephan Kramer, and Matthew Piggott
A wetting and drying algorithm for non-hydrostatic models with combined pressure/free-surface

XY427  EGU2011-11728
Dmitry Sidorenko, Qiang Wang, Sergey Danilov, and Jens Schröter
FESOM under Coordinated Ocean-ice Reference Experiment forcing

XY428  EGU2011-13465
Qiang Wang, Dmitry Sidorenko, Xuezhu Wang, Claudia Wekerle, Sergey Danilov, and Jens Schröter
Global FESOM simulations under the framework of interannual Coordinated Ocean-ice Reference Experiments (CORE-II)

XY429  EGU2011-3432
Raphael Dussin, Mélanie Juza, Bernard Barnier, Jean-Marc Molines, Thierry Penduff, and Gilles Garric
Impact of vertical resolution in an eddy-permitting Ocean Global Circulation Model forced with ERA-Interim

XY430  EGU2011-3586
Karen Guihou, Yann Ourmieres, and Bruno Zakardjian
Assessment of a NEMO-based downscaling experiment for the North-Western Mediterranean region: impacts on the Northern Current and comparison with ADCP data and altimetry products.

XY431  EGU2011-931
Xi Lu
Numerical study of the water exchange in the Western Baltic Sea

XY432  EGU2011-1383
Moritz Mathis and Thomas Pohlmann
A Projected Forecast of Hydrodynamic Conditions in the North Sea Using Bias Corrected Atmospheric Forcing Data

XY433  EGU2011-2575
Yangchun Li and Yongfu Xu
Sensitivity of the uptake of bomb 14C to the air-sea exchange scheme in the Pacific Ocean model

XY434  EGU2011-4059
Yongfu Xu and Qi Ba
Tritium uptake in the ocean general circulation model of the Pacific Ocean

XY435  EGU2011-4519
Young-Gyu Park
North Pacific Intermediate Water from two NOAA/GFDL coupled models, CM2G and CM2M

XY436  EGU2011-13554
Robin Matthews
Observational Datasets for Ocean Acidification Modelling

XY437  EGU2011-6851
Ana Cordeiro Pires, Rita Nolasco, Jesus Dubert, and Alfredo Rocha
Assessing future climate change in the Iberian Upwelling System using a multi-model mean ensemble

XY438  EGU2011-2234
Igor Shulman, Mark Moline, Bradley Penta, Stephanie Anderson, Matthew Oliver, and Steven Haddock
Modeling and observations of coupled bio-optical, bioluminescent and physical properties.

XY439  EGU2011-10376
Jon Hill, Ekaterina Popova, David Ham, Matthew Piggott, and Meric Srokosz
Ocean ecosystem modelling in an adaptive mesh model: a performance evaluation

XY440  EGU2011-8379
Thomas Slawig, Malte Prieß, and Slawomir Koziel
Surrogate-based optimization of parameters in a marine ecosystem model

XY441  EGU2011-8735
James While, Ian Totterdell, and Mathew Martin
Assimilation of pCO2 data into a global biogeochemical model
Steve Jones, Corinne Le Quéré, and Christian Rödenbeck
Global Interpolation of Surface Ocean pCO2

Marion Fraysse, Christel Pinazo, Vincent Faure, and Ivane Pairaud
3D coupled physical and biogeochemical modelling approach: limitation on biological productions by the different nutrients in Marseilles coastal area.

Moacyr Araujo, Nathalie Lefèvre, Nadège Bouchonneau, Carlos Noriega, and Marcus Silva
Simulating the tropical Atlantic air-sea CO2 exchange with a Regional high resolution ocean modeling system

Marcus Silva, Nadège Bouchonneau, Carlos Noriega, Nathalie Lefèvre, and Moacyr Araujo
Modeling biogeochemical cycles in the Southwestern tropical Atlantic

Victor Gorochakov, Vladimir Ryabchenko, Nikolay Diiansky, and Svetlana Pugalova
Modeling the seasonal and inter-annual variability of physical and ecosystem characteristics in the upper layer of the Central-Eastern North Atlantic

Rosa Reboreda, Jesus Dubert, Rita Nolasco, Martinho Marta-Almeida, Henrique Queiroga, Carlos Rocha, and Nuno Cordeiro
Three-dimensional modeling of phytoplankton and zooplankton seasonal distribution in the Iberian upwelling system

Ruoying He, Dennis McGillicuddy, Donald Anderson, Bruce Keafer, and Yizhen Li
Predicting Coastal Circulation and Harmful Algal Blooms in the Gulf of Maine: From Ensemble Seasonal Forecasting to Data Assimilative Hindcasting

Alexander Babanin and Dmitry Chalikov
Numerical investigation of turbulence generation in non-breaking potential waves

Jonas Takeo Carvalho and Valdir Innocentini
Wind wave climate along Brazilian coast using a spectral partitioning algorithm

Dejun Dai, Fangli Qiao, Wojciech Sulisz, Lei Han, and Alexander Babanin
An Experiment on the Non-Breaking Surface-Wave-Induced Vertical Mixing

Vladimir Dulov and Maria Kosnik
A Field Study of 2D-Wavenumber Spectra of Short Wind Waves

Alina Galchenko, Alexander Babanin, and Dmitry Chalikov
Influence of wind forcing on evolution and breaking of nonlinear wave groups.

Georgia Kalantzi, Christine Gommenginger, and Meric Srokosz
Spectral wave dissipation, operational wave models and observations: is there a way of improving wave forecasts?

Charles-Antoine Guérin and Guillemette Caulliez
Statistical properties of short wind waves: a high resolution laboratory study

Mark Hemer, Kathleen McInnes, and Roshanka Ranasinghe
Projected future wave climate along Australia's eastern margin

Rajesh Kumar, Anna Rutgersson, and Prasad Kumar
Impact of rain in modifying wave height in a coupled wave - climate model
Theoretical description of breaking crests distributions measured in field conditions

Statistical properties of short wind-waves obtained from photo-stereo observations of sea surface.

Direct numerical simulation of the boundary layer induced by surface gravity waves

Numerical investigation of a novel wave-action transfer model for near-resonant water waves

The improvement of ocean and climate models through surface wave: From mean state to long-term variations

Infrared imaging of near-surface eddies generated by steep and by breaking surface waves.

Two-way coupling of ROMS and WWM models

The establishment of the atmosphere-wave-ocean circulation coupled models-The improvement of CGCMs's simulations by the wave-induced vertical mixing

Dependence of Drag Coefficient on the Directional Spreading of Ocean Waves

Field observations of the mixed layer depth in the Indian Ocean: effect of wave-induced turbulence

Investigation of statistical parameters of turbulent air flow over waved water surface by direct numerical simulation

Characteristics of interfacial transport in a wind-driven gravity-capillary surface wave

Wave statistics in seasonally ice-covered seas

Influence of water droplet size variations on propagation of the pressure wave above water surface

On wave motions at the steep slope of a coral reef

The Establishment of the Wave-circulation Coupled Model and Its Application

Programme Group Programme OS

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

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

Room: 4

Chairperson: n.n.

08:30–08:45 EGU2011-3927

Elzbieta Bitner-Gregersen and Alessandro Toffoli

Probability of occurrence of rogue waves

08:45–09:00 EGU2011-102

Ira Didenko

Freak waves in the coastal zone of the Baltic Sea
09:00–09:15  EGU2011-1804  
Georg Lindgren and Finn Lindgren  
Stochastic 3D Lagrange waves, asymmetry properties and consequences for marine safety

09:15–09:30  EGU2011-1551  
Leonid Lopatoukhin, Alexander Boukhanovsky, and Ekaterina Chernysheva  
Climatic wave spectra of extreme wind waves

09:30–09:45  EGU2011-6052  
Miguel Onorato and Alessandro Torffoli  
The role of the modulational instability in the interaction of waves and currents

09:45–10:00  EGU2011-4810  
Odin Gramstad, Jean-Michel Lefevre, and Karsten Trulsen  
Model and case study for freak waves in crossing swell and wind sea

**COFFEE BREAK**

Chairperson: n.n.

10:30–10:45  EGU2011-9094  
Gerassimos Athanassoulis and Konstantinos Belibassakis  
Fully nonlinear water waves of high amplitude, propagating in finite depth

10:45–11:00  EGU2011-13724  
Alexander Dyachenko and Vladimir Zakharov  
On canonical equation for water waves

11:00–11:15  EGU2011-3943  
Walter Craig  
Nonlinear water wave interactions

11:15–11:30  EGU2011-2013  
Nail Akhmediev, Adrian Ankiewicz, Jose-Maria Soto-Crespo, and John M. Dudley  
Rogue Waves: Early Warning vs Forecast

11:30–11:45  EGU2011-1933  
Roger Grimshaw and Sergei Annenkov  
Water wave packets propagating over variable depth

11:45–12:00  EGU2011-1977  
Sergei Annenkov and Victor Shrira  
Self-similar evolution of wind wave statistical momenta

**LUNCH BREAK**

Chairperson: n.n.

13:30–13:45  EGU2011-137  
Anna Sergeeva, Lev Shemer, and Alexey Slunyaev  
effects of occasional wave breaking on extreme wave statistics in stochastic modeling

13:45–14:00  EGU2011-1253  
Yang-Yih Chen and Hung-Chu Hsu  
Theoretical and Experimental study of Nonlinear water waves on uniform current

14:00–14:15  EGU2011-4226  
Victor Shrira and Alexey Slunyaev  
Rogue waves on jet currents caused by nonlinear evolution of trapped modes

14:15–14:30  EGU2011-1036  
Sergey Dobrokhotov, Vladimir Nazaikinskiy, and Brunello Tirozzi  
Explicit Asymptotics for Waves and Vortices with Small Amplitudes on the Shallow Water Created by Localized Sources and their Applications

14:30–14:45  EGU2011-288  
Karima Khusnutdinova  
The effect of an internal wave on breaking surface waves and the oceanic subsurface bubble layer

14:45–15:00  EGU2011-1975  
Tatiana Talipova and Oxana Kurkina  
Modulation instability and hazardous internal waves in South China and Baltic Seas

NH5.2/NP7.4/OS5.5 – Extreme Sea Waves (co-organized) – Posters
Roman Shamin  
**Numerical Simulation of FreakWaves: Detection, Predict and Breaking**

Shiqiang Yan and Qingwei Ma  
**Fully Non-linear Investigation of Freak Waves and their Interaction with Winds and Currents**

Alexey Slunyaev, Anna Sergeeva, and Efim Pelinovsky  
**Rogue wave modeling: Approximate vs fully nonlinear wave simulations**

Arnida L. Latifah and E. van Groesen  
**Investigations of coherence in extreme water waves**

Efim Pelinovsky and Ira Didenkulova  
**Freak waves in the nonlinear non-dispersive shallow-water waves**

Efim Pelinovsky and Dong-Jiing Doong  
**Freak wave observations in Taiwanese and Russian waters**

Andrey Zaistsev, Efim Pelinovsky, Ahmet Yalciner, Ceren Ozer, and Irina Kostenko  
**Studies of Freak Waves in southern Part of Okhotsk Sea**

Ira Didenkulova and Irina Nikolkina  
**Freak waves in 2006-2010**

Amin Chabchoub and Norbert Hoffmann  
**The Peregrine Breather Solution in a water wave tank**

Ekaterina Shurgalina and Efim Pelinovsky  
**Life-time of freak waves of different shapes: dispersive focusing framework**

Huiming Zeng and Karsten Trulsen  
**Variation of kurtosis over non-uniform bathymetry**

Hubert Branger, Laurent Grare, Christian Kharif, Pierre Lubin, Stephane Glockner, Pauline Robin, and Olivier Kimmoun  
**Wind effects on waves propagating to the shore: experimental and numerical investigations**

Roland Thomas and Christian Kharif  
**Stability of a Stokes' wave train in the presence of uniform vorticity**

Antonio Lechuga  
**Large amplitude edge waves on a beach**

Oxana Kurkina, Tatiana Talipova, Efim Pelinovsky, Tarmo Soomere, and Ayrat Giniyatullin  
**Prognostic characteristics of internal waves for the Baltic Sea**

Nikolay Makarenko, Janna Maltseva, and Alexei Kazakov  
**Extreme internal waves in a weakly stratified shear flows**

Andrey Serebryan and Cho-Teng Liu  
**Observations of large-amplitude internal wave of the second mode in Luzon Strait**

Dmitry Arkhipov, Georgy Khabakhpashev, Anatoly Litvinenko, and Nurziya Safarova  
**Combined approach to a simulation of the interaction of nonlinear spatial waves in seas with gently sloping bottom**

Elena Alekeenko, Bernard Roux, Alexander Sukhinov, and Christian Kharif  
**Influence of currents and wave propagation on the seagrass meadows development in shallow water systems (near shoreline)**
XY282  EGU2011-1573
Ekaterina Batcyna, Nikolay Petrukhin, and Efim Pelinovsky
Strong wave amplification in the atmosphere with large temperature gradients

XY283  EGU2011-536
Shalva Gagoshidze
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