

Jonsmod 2012
Programme (09 May 2012)
BREST, France
21th – 23th May 2012

MONDAY 21 May

08:00	Coach leaves Brest downtown for IFREMER
08:30 – 09.00	Registration (Coffee, tea available)
09.00 – 09.15	Welcome
SESSION I – [CHAIR – Franck Dumas]	
09.20 – 09.40	Speaker 1-1 Assimilation of Sea Surface Temperature in the MARS3D regional modelling system using Ensemble Kalman Filter Catherine Heyraud ¹ , Stéphane Raynaud ¹ , Philippe Craneguy ² , Franck Dumas ³ , Guillaume Charria ³ 1) Actimar, Brest, France 2) ACRI-ST, Brest, France 3) IFREMER, Plouzané, France
09.40 – 10.00	Speaker 1-2 Operational numerical modeling of the Southeastern Brazilian Shelf circulation Carlos A. de S. França ¹ , Patrick Luyten ² and Edmo J. D. Campos ¹
10.00 – 10.20	Speaker 1-3 Numerical simulation of flow and aquaculture waste dispersion in a curved channel Alfatih Ali ^{1,2} , Øyvind Thiem ¹ and Jarle Berntsen ² Tomas Torsvik 1)Bergen Center for Computational Science, Norway. 2)University of Bergen, Norway
10.20 – 10.40	Speaker 1-4 Coastal dispersion model reliability in accidental situation (Fukushima,Japan), how to make the most of in-situ measurements? Bailly Du Bois P. ¹ , Laguionie P. ¹ , Garreau P. ² , Theetten S. ² 1) IRSN/PRP/SERIS/LRC Rue Max Pol Fouchet - BP10, Cherbourg-Octeville, 50130, France 2) IFREMER/DYNECO/PHYSÉD Technopôle de Brest-Iroise, Plouzané, 29280, France
10.40 – 11:00	Speaker 1-5 Numerical Modelling of Wind-Driven Circulation Behind a Large Wind Farm In the presence of Surface Gravity Waves Mostafa Bakhoday Paskyabi and Ilker Fer University of Bergen, Geophysical Institute, Allegaten 70, 5007 Bergen, Norway.
11.00 – 11.20	BREAK
11.20 – 11.40	Speaker 1-6 The typhoon season of 1971 in the coastal area of the Red River delta in North Vietnam K. Baetens, P. Luyten, T. Tran Anh and V. Vu Duy MUMM, Belgium
11.40 – 12.00	Speaker 1-7 Hurricane-induced bottom stirring on the Louisiana-Texas continental shelf João Lima Rego ¹ , Katherine Cronin ¹ , Patrick Hesp ² , Deepak Vatvani ¹ , Amanda M. Evans ³ and Matthew E. Keith ³ 1)Marine and Coastal Systems Unit, Deltares (Delft, The Netherlands) 2)Geography and Anthropology Dept., Louisiana State University (Baton Rouge, La, U.S.A) 3)Tesla Offshore LLC. (Baton Rouge, La, U.S.A)
12:20 – 12:40	Speaker 1-8 Analysis of the atmospheric influence in water level modelling along the Iberian Atlantic coast Francisco J. Campuzano ¹ , Ligia Pinto ¹ , Rodrigo Fernandes ¹ , Paulo Chambel ² ,Luís Fernandes ³ and Ramiro Neves ¹ 1) Maretec – Instituto Superior Técnico, Lisbon (Portugal) 2) HIDROMOD, Modelação em Engenharia, Lda., Lisbon (Portugal) 3) Freelance consultant
12:40 – 13:00	Speaker 1-9 On the predictability of nearshore and harbors sea levels. Carlo BRANDINI ¹ , Francesco PASI ¹ , Stefano TADDEI ¹ , Maria FATTORINI ¹ ,Alberto ORTOLANI ¹ . CNR Ibimet & Consorzio LaMMA, Via Madonna del Piano 10 Sesto Fiorentino (FI) Italy.
13.00 – 14.20	LUNCH

MONDAY 21 May**SESSION II – [CHAIR – Nataliya Stashchuk]**

14.20 – 14.40	<p>Speaker 2-1 Morphological modelling of an intertidal flat nourishment in the Eastern Scheldt, The Netherlands Katherine Cronin¹, Bas Borsje¹, Harriëtte Holzhauer¹, Ilse de Mesel², Tom Ysebaert² and Anneke Hibma³ 1)Marine and Coastal Systems Unit, Deltares, PO Box 177, 2600 MH, Delft, The Netherlands; 2)IMARES – Institute for Marine Resources & Ecosystem Studies, PO Box 77, 4400 AB Yerseke 3)Ecoshape Building with Nature, Van Oord Dredging and Marine Contractors BV, PO Box 8574, 3009 AN Rotterdam, The Netherlands</p>
14.40 – 15.00	<p>Speaker 2-2 Modelling the fate and transport of suspended sediments and contaminants in the Scheldt River and Estuary with the finite element model SLIM Olivier Gourgue, Anouk de Brauwere, Benjamin de Brye, Eric Deleersnijder Institute of Mechanics, Materials and Civil Engineering (IMMC)Université catholique de Louvain</p>
15.00 – 15.20	<p>Speaker 2-3 Modelling wave propagation and hydrodynamics in the East-Frisian Wadden Sea Sebastian Grashorn, Karsten Lettmann, and Jörg-Olaf Wolff University of Oldenburg, ICBM, Carl-von-Ossietzky-Str. 9-11, 26111 Oldenburg, Germany</p>
15.20 – 15.40	<p>Speaker 2-4 Data assimilation in coastal ocean modelling and forecasting Herman Gerritsen¹, Martin Verlaan^{1,2}, Julius Sumihar¹, Firmijn Zijl¹ 1)Deltares, P.O. Box 177, 2600 MH, Delft, Netherlands 2)Technical University Delft, Faculty of Applied Mathematics</p>
15.40 – 16.00	BREAK
16:00 – 16.20	<p>Speaker 2-5 Realistic high resolution modeling of the Northern Mediterranean Current (NC) using the NEMO code : impact of model parametrisation at lateral and open boundaries and validation with observations. Karen GUIHOU MIO,CNRS Université de Toulon et du Var</p>
16.20 – 16.40	<p>Speaker 2-6 Sea Surface Temperature (SST) modelling in the Sea of Iroise. Assessment of boundary conditions. Nicolas Guillou¹, Georges Chapalain¹ and Eric Duvieilbourg² 1) LGCE, CETMEF, Technopôle Brest-Iroise, 29280 Plouzané, France 2) LEMAR, IUEM, Technopôle Brest-Iroise, 29280 Plouzané, France</p>
16.40 – 17.00	<p>Speaker 2-7 Short internal waves trailing strong internal solitary waves in the South China Sea studied by a numerical model and Envisat synthetic aperture radar images Chuncheng Guo^{1,3}, Vasiliy Vlasenko¹, Werner Alpers², Nataliya Stashchuk¹, Xueen Chen³ 1) School of Marine Science and Engineering, University of Plymouth, Plymouth, UK 2) Center for Marine and Atmospheric Sciences, Institute of Oceanography, University of Hamburg, Hamburg, Germany 2) College of Physical and Environmental Oceanography, Ocean University of China, Qingdao, China</p>
17.00 – 17.20	<p>Speaker 2-8 Progress in the development and use of a finite element hydrodynamic model Eric Deleersnijder¹, Fernando Andutta², Sébastien Blaise¹, Sylvain Bouillon¹, Hans Burchard³, Anouk de Brauwere¹, Benjamin de Brye¹, Thomas De Maet¹, Philippe Delandmeter¹, Eric Delhez⁴, Thierry Fichefet¹, Olivier Gourgue¹, Emmanuel Hanert⁴, Hidayat Hidayat⁵, Ton Hoitink⁶, Ozgur Karatekin⁶, Tuomas Kärnä¹, Jonathan Lambrechts¹, Vincent Legat¹, Samuel Melchior¹, Jaya Naithani¹, Alice Pestaux¹, Chien Pham Van¹, Jean-François Remacle¹, Maximiliano Sassi⁵, Bruno Seny¹, Karim Slaoui¹, Sandra Soares Frazao¹, Benoît Spinewine¹, Christopher Thomas¹, Martin Vancoppenolle⁷, Bart Vermeulen⁵, Eric Wolanski² 1)Université catholique de Louvain, Louvain-la-Neuve, Belgium 2) James Cook University, Townsville,Australia 3) Baltic Sea Research Institute, Warnemünde, Germany 4) Université de Liège, Belgium 5) University of Wageningen, The Netherlands 6) Royal Observatory of Belgium, Brussels, Belgium 7) Institut Pierre Simon Laplace, Paris, France</p>
17.20– 17.40	<p>Speaker 2-9 Spatial Pattern of Hits to the Nearshore from a Major Marine Highway in the Gulf of Finland Bert Viikmäe ,Institute of Cybernetics at Tallinn University of Technology; Estonia</p>
18:30 – 20:30	Icebreaker: drinks and warm and cold snacks (in IFREMER)
20:30	Departure of coach from IFREMER to Brest Centre

TUESDAY 22 May

08:30 Coach leaves Brest downtown for IFREMER

SESSION III – [CHAIR- Lars Peter ROED]

09.00 – 09.20	Speaker 3-1 A study of the fresh water plume and its interaction with barotropic tidal currents in Liverpool Bay using an unstructured-mesh model Jiuxing Xing and Alan Davies ;National Oceanography Centre, Liverpool, UK Philippe Fraunie Mediterranean Institute of Oceanography, University of Toulon Var, France
09.20 – 09:40	Speaker 3-2 Calibration of a New Generation Flood Forecasting Model for the Northwest European shelf and North Sea using data assimilation techniques (OpenDA) Firmijn Zijl , Martin Verlann, Herman Gerritsen Deltares, P.O. Box 177, 2600 MH Delft, The Netherlands
09.40 – 10.00	Speaker 3-3 Coastal circulation response to physical forcing; Application of MARS-3D model for studying dispersal processes in the eastern English Channel . N. Jouanneau , A. Sentchev Laboratoire d'Océanologie et de Géosciences (UMR8187 du CNRS), Wimereux, France F. Dumas DYNECO/PHYSED, Ifremer, Centre de Brest, Plouzané, France
10.00 – 10.20	Speaker 3-4 Modelling the Krakatoa tsunami propagation on the European Atlantic Shelf. M. KARPYTCHEV , D. CHEVAILLIER, H. HEBERT LIENSs CNRS UMR 7266 - University of La Rochelle (France)
10.20 – 10.40	Speaker 3-5 Modelling the dynamics of a large-scale river plume and Their effect on nutrient distribution Robert McEwan¹ , Maeve Lohan ² , Nataliya Stashchuk ³ and Vasiliy Vlasenko ¹ 1)School of Marine Science and Engineering, 2)School of Geography, Earth and Environmental Sciences, University of Plymouth, Plymouth, Devon, PL4 8AA, UK
10:40 – 11.00	BREAK
11.00 – 11:20	Speaker 3-6 Modelling larval dispersal of the great scallop in the English Channel A. Nicolle¹ , F. Dumas ³ , E.Thiébaut ^{1,2} 1) CNRS, UMR 7144, Adaptation et Diversité en Milieu Marin, Station Biologique de Roscoff, 29680 Roscoff (France) 2) UPMC Univ Paris 06, UMR 7144, Station Biologique de Roscoff, 29680 Roscoff, France 3) IFREMER, Plouzané (France)
11.20 – 11.40	Speaker 3-7 NW Mediterranean sea model toward the study of the climate change impacts on the coastal ecosystems I. Pairaud¹ , P. Garreau ² , N. Bensoussan ³ , J. Garrabou ⁴ 1) LER PAC, Centre IFREMER Méditerranée, zone portuaire de Brégallion - BP330, 83507 La Seyne sur Mer Cedex, France. 2) DYNECO/PHYSED, Centre IFREMER de Bretagne - BP 70, 29280 Plouzané, France. 3) IPSO FACTO, SARL, Pôle Recherche Océanologie et Limnologie, 37 rue Saint-Sebastien, 13006 Marseille, France. 4) Institute of Marine Sciences (ICM-CSIC), passeig Maritim de la Barceloneta 37-49, 08003 Barcelona, Spain
11.40 – 12,00	Speaker 3-8 Cancelled
12:20 – 12:40	Speaker 3-9 3D coupled physical-biogeochemical modeling in a coastal area: Study of Rhone River diluted water intrusion in Marseille's Bay Fraysse M. , Pairaud I.L., Faure V. and Pinazo C. IFREMER Méditerranée -LER/PAC (FRANCE)
12:40 – 13.00	Speaker 3-10 Processes analysis in the Channel of Toulon: model/measures Christiane Dufresne IRSN - Zone Portuaire de Brégallion, BP330, 83507 La Seyne sur Mer, France

13.00 – 14:20 **LUNCH**

TUESDAY 22 May –**SESSION IV – [CHAIR - Erik de Goede]**

14.20 – 14.40	Speaker 4-1 Evaluation of results from eddy resolving models: Methods and examples Lars Petter Røed and Nils Melsom Kristensen Norwegian Meteorological Institute and Department of Geosciences, University of Oslo; Norway
14.40 – 15.00	Speaker 4-2 An Ensemble based time-local H_infty filter for efficient storm surge forecasting M. U. Altaf^{1,2}, T. Butler³, I. Hoteit², X. Luo², C. Dawson³, T. Mayo³ ¹ Delft Institute of Applied Mathematics, Delft University of Technology, Delft, The Netherlands, ² King Abdullah University of Science and Technology, Saudi Arabia ³ Institute for Computational Engineering and Sciences (ICES), University of Texas at Austin, Austin, USA
15.00 – 15.20	Speaker 4-3 Shelf break Frontal Circulation near the Sable Gully of Nova Scotia Shiliang Shan¹, Jinyu Sheng¹, Blair Greenan² 1)Department of Oceanography, Dalhousie University Halifax, Canada, B3H4R2 2)Ocean Sciences Division, Bedford Institute of Oceanography Department of Fisheries and Oceans Dartmouth, Canada, B2Y4A2
15.20 – 15.40	Speaker 4-4 3D numerical simulations of the baroclinic tides in the Celtic Sea Nataliya Stashchuk and Vasiliy Vlasenko School of Marine Science and Engineering, University of Plymouth, Plymouth, Devon, PL4 8AA, UK
15.40 – 16.00	BREAK
16:00 – 16.20	Speaker 4-5 Characterization of local transport properties in ocean models Tomas Torsvik Institute of Cybernetics, Tallinn University of Technology, Tallinn, Estonia
16.20 – 16.40	Speaker 4-6 Prediction of Ocean State Estimate by assimilation of temperature and salinity data. A case study for the southern North Sea Joanna Staneva, Johannes Schulz Stellenfleth Institute for Coastal Research, HZG ; Germany
16.40 – 17.00	Speaker 4-7 Numerical study of circulation, hydrography and sea-ice conditions in the Gulf of St. Lawrence and Scotian Shelf using a coupled ocean-ice model Jorge Urrego-Blanco and Jinyu Sheng Dalhousie University, Halifax, Canada
17.00 – 17.20	Speaker 4-8 On the mechanism of A-type and B-type internal solitary wave generation in the northern South China Sea Vasiliy Vlasenko¹ Chuncheng Guo ¹ , Nataliya Stashchuk ¹ , and Xueen Chen ² 1) School of Marine Sciences and Engineering, Plymouth University, UK 2)College of Physical and Environmental Oceanography, Ocean University of China
17.20 – 17.40	Speaker 4-9 3D-Flow Flexible Mesh: a showcase of hydrodynamical applications on flexible unstructured grids Van DAM Arthur, Erik de Goede ; Deltares Netherlands
18:30	Departure of coach from IFREMER to Brest
20:00	Conference dinner in "Gens de Mer" on Brest harbour

WEDNESDAY 23 May

08:30 Coach leaves Brest downtown for IFREMER

SESSION V – [CHAIR: Patrick Luyten]

09.00 – 09.20	Speaker 5-1 Classification of water masses using empirical orthogonal functions Karina Hjelmervik¹ , Karl Thomas Hjelmervik² 1)Vestfold University College, P.O. Box 2243, NO-3103 Tønsberg, Norway 2)Norwegian Defence Research Establishment, P.O. Box 115, NO-3191 Horten, Norway
09.20 – 09:40	Speaker 5-2 Improving Storm surge modeling along the French (Atlantic and English Channel) coast Idier D., Muller H., Dumas F., Pineau-Guilhou L., Paradis D., Créach R., and R. Pedreros BRGM , METEOFRACTION, IFREMER/DYNECO/PHYSED ; FRANCE
09.40 – 10.00	Speaker 5-3 Study of the seasonal cycle of the biogeochemical processes in the NW Mediterranean sea using a 3D coupled model Mars3D-Eco3M. Elena Alekseenko, Virginie Raybaud, Benedicte Thouvenin, Pierre Garreau, Melika Baklouti IFREMER DYNECO-PHYSED BP 70 ; 29280 Plouzané / Université de Marseille, France
10.00 – 10.20	Speaker 5-4 A generic approach to the concept of water renewal timescales Benjamin de Brye¹, Anouk de Brauwere^{1,2}, Olivier Gourgue^{1,2}, Eric Delhez³, Eric Deleersnijder¹ 1 Université catholique de Louvain (UCL), Louvain-la-Neuve, Belgium 2 Vrije Universiteit Brussel (VUB), Brussels, Belgium 3 Université de Liège, Liège, Belgium
10.20 – 10.40	Speaker 5-5 How to reduce salinity intrusion in rivers, with application to the Rotterdam Waterway? Erik de Goede, Yann Friocourt; Deltares, Delft (NL)
10:40 – 11.00	BREAK
11.00 – 11:20	Speaker 5-6 On the use of a depth-dependent barotropic mode for free surface ocean models J. Demange, L. Debreu INRIA and Laboratoire Jean Kuntzmann, Grenoble, France P. Marchesiello IRD and LEGOS, Toulouse, France E. Blayo University of Grenoble and Laboratoire Jean Kuntzmann, Grenoble, France
11.20 – 11.40	Speaker 5-7 Why the Euler-scheme in particle-tracking is not enough: The shallow- sea pycnocline test case Ulf Gräwe¹, Eric Deleersnijder², S. Hyder A. M. Shah³, Arnold W. Heemink³ 1) Leibniz Institute for Baltic Sea Research (IOW), Seestraße 15, 18119 Warnemünde, Germany 2) Institute of Mechanics, Materials and Civil Engineering (IMMC), Université catholique de Louvain, 4 Avenue G. Lemaître, 1348, Louvain-la-Neuve, Belgium 3) Delft Institute of Applied Mathematics (DIAM), Delft University of Technology, Mekelweg 4, 2628CD Delft, the Netherlands
11.40 – 12,00	Speaker 5-8 On the wave-current interactions A.-C. Bennis^{1,2,3}, F. Ardhuin^{3,2}, F. Dumas², B. Blanke¹ 1- University of Western Brittany, LPO, 6 avenue Le Gorgeu, Brest, France. 2- Ifremer, DYNECO/PHYSED, Technopole pointe du diable, Plouzané, France. 3- Ifremer, LOS, Technopole pointe du diable, Plouzané, France.
12:20 – 12:40	Speaker 5-9 On the effects of surface waves on three dimensional near-shore hydrodynamics Saeed Moghimi ;Institute for Baltic Sea Research , Rostock
12:40 – 13.00	Speaker 5-10 Drift forecast with Mercator-Océan velocity fields in the Western Mediterranean Sea and the Angola offshore zone Law Chune Stéphane Mercator-Océan : 8/10 rue Hermes Parc Technologique du Canal
13.00 – 14:20	LUNCH

WEDNESDAY 23 May**SESSION VI – [CHAIR: Franck Dumas]**

14.20 – 14.40	Speaker 6-1 Intercomparison and validation of operational high resolution coastal scalemodels between the Tyrrhenian and Ligurian Sea. Carlo BRANDINI ¹ , Sylvain COUDRAY ² , Stefano TADDEI ¹ , Maria FATTORINI ¹ , Letizia COSTANZA ¹ , Chiara LAPUCCI ¹ , Pierre GARREAU ² , Pierre POULAIN ³ , Riccardo GERIN ³ , Luca CENTURIONI ⁴ . 1) CNR Ibimet & Consorzio LaMMA, Via Madonna del Piano 10 Sesto Fiorentino (FI) Italy. 2) IFREMER, France. 3) OGS, Trieste, Italy. 4) Scripps Institution of Oceanography, San Diego, US
14.40 – 15.00	Speaker 6-2 Simulating the Hydrodynamics of San Quintin bay. Isabel Ramírez, R. Blanco, R. Vázquez and G. Ramírez CICESE ; Mexico
15.00 – 15.20	Speaker 6-3 Multi-scale coupled modelling along the Catalan coast Manel Grifoll Laboratori d'Enginyeria Marítima / Universitat Politècnica de Catalunya C. Jordi Girona, 1-3, 08028 Barcelona
15.20 - 15.40	Speaker 6-4 Spectral nudging : application to downscaling in Mediterranean Sea Pierre Garreau ; Garnier Valérie ; IFREMER/DYNECO/PHYSED Brest ; FRANCE
15.40 – 16.00	BREAK
16.00 – 16.20	Speaker 6-5 Prediction of Ocean State Estimate by assimilation of temperature and salinity data. A case study for the southern North Sea Joanna Staneva, Johannes Schulz Stellenfleth Institute for Coastal Research, HZG ; Germany
16.20 – 16.40	Speaker 6-6 Cancelled

17.00 – 18.00 Closing remarks