

IMUM 2018 Workshop Program

Location: MPI-M Hamburg, Bundesstr. 53, Seminarroom 022/023

Tuesday, September 11

	Title	Speaker
9:00-	Arrival and Registration	
9:30-10:15	Energetically Consistent Models (Invited Talk)	C. Eden
Session:	Regional and Coastal Modelling	
10:15-10:45	Generation of operational forecasts on demand: the OPENCoastS platform	A. B. Fortunato, A. Oliveira, J. Rogeiro, J. Teixeira, A. Azevedo, J. Gomes, M. David, J. Pina
10:45-11:15	Coffee Break	
11:15-11:45	FESOM-C: coastal dynamics on mixed unstructured meshes	V. Fofonova, A. Androsov, I. Kuznetsov, S. Danilov, S. Harig, N. Rakowsky, D. Romanenkov, V. Zinchenko, K.H. Wiltshire
11:45-12:15	A practical test case for modelling intertidal areas	D. Greenberg, F. Lyard
12:15-14:00	Lunch Break	
14:00-14:45	The problem of numerically-induced mixing (Invited Talk)	K. Klingbeil
14:45-15:15	German Bight Estuaries: An inter-comparison study from the perspective of numerical modeling	B. Jacob
15:15-15:45	Simulating the Columbia River estuary and plume with Thetis	T. Kärrnä S. Kramer, L. Mitchell, D. Ham, M. D. Piggott, A. Baptista
15:45-16:15	Coffee Break	
16:15-16:45	Influence of estuarine and coastal morphology on tidal characteristics of adjacent coastal waters (ALADYN –C)	K. Hubert
16:45-17:15	Hydrodynamic and biogeochemical estuarine modelling with precompiled FlexSem	J. Larsen
17:15-17:45	A numerical study of the estuarine plume in the Congo River	V. Vallaeys, J. Lambrechts E. Hanert E. Deleersnijder

Parallel sessions:

18:00 -	Poster Session	
18:00-19:00	OPENCoastS short course	

Wednesday, September 12

Session	Computational Methods	
9:00-9:30	An anisotropic mesh adaptation framework for coastal simulations	N. Barral, J. Wallwork, S. Kramer, A. Angeloudis, G. Gorman, M. Piggott
9:30-10:00	Towards Model Adaptivity - Localized nonhydrostatic wave modeling	J. Behrens, A. Jeschke, L. Wegener
10:00-10:30	Gravity wave noise in adaptive vertical grids	R. Bleck
10:30-11:00	Coffee Break	
11:00-11:45	Perturbation equations for all-scale atmospheric dynamics (Invited Talk)	P. Smolarkiewicz
Session	Global Modelling	
11:45-12:15	FESOM: Global ocean simulation on variable-resolution triangular meshes	D. Sidorenko, S. Danilov, Q. Wang, P. Scholz, V. Aizinger, D. Barbi, O. Gurses, S. Harig, N. Koldunov, D. Sein, M. Smolentseva, T. Rackow, N. Rakowski, T. Semmler, C. Wekerle, T. Jung
12:15-14:00	Lunch Break	
14:00-14:30	The Finite Volume Sea Ice-Ocean Model (FESOM 2.0) with the arbitrary Lagrangian Eulerian (ALE) vertical coordinates: possibilities, performance and scaling	P. Scholz, S. Danilov, D. Sidorenko
14:30-15:00	The Model for Prediction Across Scales, MPAS-Ocean	M. Petersen
15:00-15:30	Filtering without Tears: ICON-O, its methodology and some experiments	P. Korn
15:30-16:00	How to select ocean model resolution for global climate simulations ?	D. Sein, N. Koldunov, S. Danilov, D. Sidorenko, C. Wekerle, W. Cabos, T. Rackow, P. Scholz, T. Semmler, Q. Wang, T. Jung
16:00-16:30	Coffee Break	
16:30-17:00	The HAMBURG Ocean Carbon Cycle model in the icosahedral general ocean circulation model ICON-O	I. Stemmler, T. Ilyina, J. Maerz, P. Korn, H. Paulsen, K. D. Six
17:00-17:30	Sea-ice modeling on unstructured meshes	N. Kodunov, S. Danilov, D. Sidorenko, Q. Wang, N. Hutter

Wednesday, 19:30 Conference Dinner at “Restaurant Block Bräu” at Hamburg Harbour

Thursday, September 13

Session:	Computational Methods	
9:00-9:30	What is the optimal mesh layout for unstructured C-grid ocean models?	D. Engwirda
9:30-10:00	Grid modes on triangular meshes	S. Danilov, A. Kutsenko
10:00-10:30	Adaptive vertical discretization techniques for baroclinic flows in estuaries	B. Reuter, V. Aizinger
10:30-11:00	Coffee Break	
11:00-11:45	Recent advances and new trends in the design of bound-preserving finite element schemes for transport problems (Invited Talk)	D. Kuzmin
Session:	Regional and Coastal Modelling	
11:45-12:15	Modeling tools for an Integrated River-Delta-Sea system investigation: the Pan-European Research Infrastructure DANUBIUS-RI	G. Umgiesser, D. Bellafigliore, F. Pascalis, J. Icke, A. Stanica
12:15-14:00	Lunch at Restaurant Arkadasch	
14:00-14:30	Two-layer inter-basin exchange. Unstructured-grid approach	E. Stanev
14:30-15:00	A new non-hydrostatic pressure 2D/3D solver for the T-UGOm model	F. Lyard
15:00-15:30	Cross-scale oceanography in the Adriatic Sea	G. Umgiesser, C. Ferrarin, S. Davolio, D. Bellafigliore, M. Ghezzi, F. Maicu, W. Mc Kiver, O. Drofa, M. Bajo, F. Pascalis, P. Malguzzi, L. Zaggia, G. Lorenzetti, G. Manfe
15:30-16:00	Salt intrusion under sea level rise	Y. Zhang
16:00-16:30	Coffee Break	
16:30-17:00	Dynamics of the Baltic Sea Straits via Numerical Simulation of Exchange Flows	E. Stanev, J. Pein, S. Grashorn, Y. J. Zhang, C. Schrum
17:00-17:30	A 3D model to simulate dissolved oxygen dynamics in the Elbe Estuary	I. Holzwarth, K. Wirtz

Friday, September 14

9:30-10:00	Eddy properties and dynamics in Fram Strait: a comparison of two high resolution simulations with FESOM1.4 and ROMS	C. Wekerle, T. Hattermann, L. Crews, Q. Wang, S. Danilov, T. Jung
10:00-10:30	Adjoint-based calibration of an unstructured mesh regional tidal model, with an application to storm surge simulation	S. Warder
10:30-11:00	Coffee Break	
11:00-11:30	Comparing different approaches to ocean model horizontal resolution distribution for unstructured meshes with FESOM2	O. Gurses, N. Koldunov, D. Sidorenko, S. Danilov
End of IMUM 2018		