

Programme of  
The Eighth International  
Workshop on Unstructured  
Mesh Numerical Modelling of  
Coastal, Shelf & Ocean Flows

16-18 September 2009

Université catholique de Louvain

Venue:

Auditorium SUD01

Place Croix du Sud, Louvain-la-Neuve

[www.uclouvain.be/umm2009](http://www.uclouvain.be/umm2009)

## Wednesday 16 September

0830	Registration
0930	Introduction
	<b>Chair: Vincent Legat</b>
0940	Development of an FVCOM model off Newfoundland, <i>Han et al.</i>
1000	Finite elements and finite volumes --- where to seek for the best setup, <i>Danilov et al.</i>
1020	Quantifying numerical dissipation in spectral element discontinuous Galerkin simulations of stratified turbulence, <i>Iskandarani et al.</i>
1040	<b>Break</b>
	<b>Chair: Vincent Legat</b>
1110	Novel non-hydrostatic numerical schemes based on Discontinuous Galerkin finite element methods, <i>Ueckermann et al.</i>
1130	The Discontinuous Galerkin Method for Geophysical Flow Applications, <i>Laüter et al.</i>
1150	Flooding and drying and the $P1$ - $P1^{NC}$ element: problems and finite volume solutions, <i>Cui et al.</i>
1210	New global setup of FEOM, <i>Sidorenko et al.</i>
1230	Hurricane wave and circulation computations using the coupled unstructured SWAN+ADCIRC model in the Gulf of Mexico, <i>Westerink et al.</i>
1250	<b>Lunch</b>
	<b>Chair: Matthew Piggott</b>
1400	RiCOM, a FE regional ocean model: New applications and tweaks, <i>Walters</i>
1420	Efficient high resolution flow models, <i>Stelling and Casulli</i>
1440	Development and validation of a Discontinuous Galerkin baroclinic ocean model, <i>Blaise et al.</i>
1500	A multi-scale, finite-element model of the macrotidal Scheldt Estuary, <i>de Brye et al.</i>
1520	Application of UnSWAN for wave hindcasting in the Dutch Wadden Sea, <i>Zijlema</i>
1540	<b>Break</b>
	<b>Chair: Matthew Piggott</b>
1610	Numerical Study of the Tide and Tidal Dynamics in the Indonesian Seas, <i>Yu and Yang</i>
1630	Modelling tsunami waves on various scales, <i>Harig et al.</i>
1650	Tsunami modelling using unstructured grids. Interaction between tides and tsunami waves, <i>Androsov et al.</i>
1710	Robust methods for high accuracy tidal modelling in coastal and shelf seas, <i>Lyard and Roblou</i>
1730	Towards Multiscale Embedded Free-surface Data-Assimilative Modeling for Regional Physical-Biogeochemical Dynamics, <i>Lermusiaux and Haley</i>
1800	<b>Walking Dinner - Beer and Cheese</b>

## Thursday 17 September

0900	<b>Chair: Jens Schroeter</b> Simulating Spring-Neap Salinity Variations in Knight Inlet, Canada, <i>Foreman et al</i>
0920	Investigation of the spreading and dilution of domestic waste water inputs into the Jade bay using the finite-volume model FVCOM, <i>Lettmann et al</i>
0940	A high resolution model for the Canadian Arctic Archipelago, <i>Terwisscha van Scheltinga et al.</i>
1000	Modelling of the marine coast of Sao Tomé: Accounting for the various scales of the hydrodynamic processes, <i>Bertrand et al.</i>
1020	<b>Break</b>
1100	<b>Chair: Jens Schroeter</b> Applications of Delfin to high resolution tidal modelling of the southern North Sea, <i>Pietrzak et al.</i>
1120	Modelling the Dardanelles Strait Outflow Plume using a Coupled Model System, <i>Blain et al.</i>
1140	Regional ocean modelling of the North West Approaches, <i>Nelson and Hill</i>
1200	Fitting the Ocean onto a graphics card: towards running ICOM on massively parallel processors, <i>Markall et al</i>
1220	<b>Lunch</b>
1400	<b>Chair: Mohamed Iskandarani</b> Conservative interpolation between general unstructured meshes via supermesh construction, <i>Farrell et al.</i>
1420	Influences of Mesh Adaptivity on Geophysical Fluid Simulations, <i>Maddison et al.</i>
1440	The inner element subgrid scale model for stabilisation of scalar transport, fluid flow and free surface problems, <i>Candy et al.</i>
1500	Simulating biology on a 1D Adaptive Unstructured Mesh, <i>Hill et al.</i>
1520	A finite element method to solve sea ice dynamics, <i>Bouillon</i>
1540	<b>Break</b>
1600 - 1645	<b>Talk hosted by Emmanuel Hanert</b>
1645	<b>Cultural Tour in the Ruines of Villers-la-Ville's Abbey</b>
1900	<b>Dinner in « Le Moulin » at Villers-la-Ville</b>

## Friday 18 September

	<b>Chair: Pierre Lermusiaux</b>
0900	Application of FESOM in regional and global modelling, <i>Wang et al.</i>
0920	Using automatic differentiation to optimize parameters of shallow water models in tidal applications, <i>Massmann</i>
0940	Comparing the performance of iterative solvers in high aspect ratio domains, <i>Iskandarani et al.</i>
1000	Flooding and drying in an unstructured grid finite volume three-dimensional hydrostatic model, <i>Kleptsova et al.</i>
1020	<b>Break</b>
	<b>Chair: Pierre Lermusiaux</b>
1120	Flow acceleration and separation tests for non linear models, <i>Greenberg et al.</i>
1140	Lagrangian particle trajectories as a tool to investigate entrainment, transport and mixing in density driven flows, <i>Garcia-Sagrado et al.</i>
1200	Solving the pressure Poisson equation in the large-aspect ratio ocean domain, <i>Kramer and Cotter</i>
1220	<b>End of UMM2009</b>