

IMUM24 - Programme

| Monday 28 October | | | |
|-------------------|---------------------------------------|---|--|
| 12:30 | Registration and lunch | | |
| 14:00 | Hanert & Deleersnijder | UCLouvain | Welcome message |
| 14:20 | Danilov | Alfred Wegener Institut | Analysis of discrete variance decay and spurious mixing |
| 15:00 | Logemann | Helmholtz Zentrum Hereon | The ICON Mesh Splitter |
| 15:20 | Coffee break | | |
| 15:50 | De Le Court | UCLouvain | Assessing the performances of SLIM3D for multi-GPU simulations |
| 16:10 | Arpaia | CNR-ISMAR | An adaptive finite element solver for the shallow water equations with irregular bathymetry |
| 16:30 | Lermusiaux | MIT | Towards Coupled Nonhydrostatic-Hydrostatic Hybridizable Discontinuous Galerkin Method |
| 16:50 | Gourgue | Royal Belgian Institute of Natural Sciences | A convolution method to assess subgrid-scale interactions between flow and patchy vegetation in biogeomorphic models |
| 17:10 | Poster session and ice breaker | | |

| Tuesday 29 October | | | |
|--------------------|--------------------------|---|---|
| 09:30 | Lermusiaux | MIT | Deep Reinforcement Learning for Adaptive Mesh Refinement |
| 10:10 | Jordan | The University of Edinburgh | Adjoint-based optimisation for calibration of a Thetis shallow-water equation model for tidal array design |
| 10:30 | Scherpereel | UCLouvain | Assessing the impact of bridge construction and land reclamation on water residence time in Kuwait Bay |
| 10:50 | Coffee break | | |
| 11:20 | Larsen | Aarhus University | Models of flow around windmill foundations and primary production in an Arctic fjord |
| 11:40 | Noujas | National Centre for Coastal Research (NCCR) | Morphological Changes of Beaches on the Southwest Coast of India Due to Climate Change |
| 12:00 | Bajo | CNR-ISMAR | Application of an unstructured model with an ensemble Kalman filter to make a coastal sea-level reanalysis dataset in the Mediterranean Sea |
| 12:20 | Dobbelaere | UCLouvain | Investigating the link between the Port of Miami dredging and the onset of the stony coral tissue loss disease epidemics |
| 12:40 | Lunch | | |
| 14:00 | Nielsen | DHI | An unstructured finite volume scheme for Boussinesq-type equations |
| 14:40 | Delandmeter | Fugro | Seabed Mobility for Offshore Wind Farm Development |
| 15:00 | Breugem | IMDC NV | On high order interpolation for Semi-Lagrangian schemes on unstructured triangular meshes |
| 15:20 | Toorman | KULeuven | New subgrid-scale process models for sediment-laden flows solved with the finite-element modelling suite TELEMAC-MASCARET |
| 15:40 | Coffee break | | |
| 16:10 | Thomas | Moody's | On modelling 50,000 years of storm surges around Australia |
| 16:30 | Vasarmidis | DEME | The Non-hydrostatic Model SWASH as an Engineering Tool for Wave Propagation in Coastal and Port Environments |
| 16:50 | Madani | DHI | Adaptive Meshing for Mitigating Numerical Dilution in Sediment Plume Modeling of Moving Dredgers |
| 19:00 | Conference dinner | | |

| Wednesday 30 October | | | |
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| 09:30 | Remacle | UCLouvain | Quad- and Hex-meshing using Gmsh |
| 10:10 | Konyssova | Alfred Wegener Institut | Changes in tide-driven transport in intertidal environments in response to rising sea levels. Case study of Sylt-Rømø Bight |
| 10:30 | Alaerts | UCLouvain | Simulating the hydrodynamics of the Danube River, Delta and Black Sea continuum |
| 10:50 | Coffee break | | |
| 11:20 | Greenberg | Bedford Institute of Oceanography | The influence of vertical resolution on the circulation using a 3D barotropic model |
| 11:40 | Pelckmans | Uantwerpen | Modelling flood wave propagation in a small tropical estuary: the role of mangrove channel density |
| 12:00 | Closing message and lunch | | |

| Posters | | | |
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| P1 | Khangaonkar | University of Washington | Eliminating smoothing and depth distortion need for management of sigma-pressure gradient errors in Salish Sea fjord setting using SCHISM and LSC2 Coordinate System |
| P2 | Gürses | Alfred Wegener Institut | Ocean biogeochemistry in the coupled ocean-sea ice-biogeochemistry model FESOM2.1-REcoM3 |
| P3 | Paladio-Hernandez | CNR-ISMAR | Comparison of different vertical layer discretization for Saltwater Intrusion in the Po Delta River using SHYFEM |
| P4 | Randresihaja | UCLouvain | Assessing the sensitivity of storm surge simulations to the atmospheric forcing resolution |
| P5 | Van Eetvelt | UCLouvain | Preliminary assessment of the environmental impact of NEOM coastal developments on the Northern Red Sea coral reefs |
| P6 | Versaen | UCLouvain | Multi-scale modelling of the water and sediment fluxes from the Nile Delta to the Suez Canal |
| P7 | Johnson | Imperial College | Application of machine learning error estimation in goal-oriented mesh adaptation to tidal turbine array modeling |