Conference program

Wednesday 12 October 2016

8h45 - 9h15 Welcoming participants
9h15 - 9h30 Introduction by Cerema (Philippe Sergent, Scientific Director)
9h30 - 10h00 News of the Telemac-Mascaret system (Christophe Coulet, President of the Consortium)
10h00 - 11h30 Session 1 River and urban flood (Chairman: Dr Sébastien Bourban)

Alexander Breugem A regional model for South East Asia in Telemac2D model (15’)
Gabriele Harb Optimization of bed shear stresses at the head of a reservoir to prevent future sediment deposition (15’)
Matthew Lewis Estuarine impact modelling: the importance of sub-daily river forcing for small catchments (15’)
Pierre-Louis Ligier Implementation of a rainfall-runoff model in Telemac2D (15’)
Sven Smolders Culverts modelling in Telemac2D and Telemac3D (15’)
Anne-Laure Tibéri-Wadier Construction of a flood forecasting model on the Odet river (Finistère, France) with Mascaret (15’)

12h00 - 13h00 Session 2 Sediment processes (Chairwoman: Rebekka Kopmann)

Christina Seegers Suspended sediment depositions in the impoundment of Iffezheim barrage: effect of turbulent flow resolution with Telemac3D (15’)
Damien Alliau Using an eco-friendly flushing event to calibrate 3D sediment transport model through a reservoir: the case study of Champagnex run-of-river dam on the Rhône River, France (15’)
Damien Alliau Evaluating 3D hydraulic conditions to favor sediment transport and erosion through a reservoir: the case study of Champagnex run-of-river dam on the Rhône River, France (15’)
Eddy J. Langendoen Improved numerical modelling of river morphodynamics near actively eroding streambanks (15’)

14h30 - 16h30 Session 3 Sediment processes (Chairman: Dr Thomas Benson)

Florent Taccone Improving Telemac on a simple test case to simulate runoff and erosion generation (15’)
Rebekka Kopmann Cross-sectional variation of bed-load transport: comparison of measurements and simulations (15’)
Florian Cordier Numerical modelling of graded sediment transport in a recirculating flume and comparison with experimental data (15’)
Germain Antoine Tridimensional numerical modelling of the suspended sediment transport dynamic in Loire river (15’)
Jorge D. Abad Numerical modelling of bank migration in the Wabash river using geotechnical methods in Telemac/Sisyph (15’)
Magali Jodeau Three-dimensional numerical modelling of sediment transport with Telemac3D: validation of test cases and consistency between 2D and 3D sediment transport simulations (15’)
Matthieu de Linares Morphological modelling in reservoirs: the experience of Artelia (15’)
Michiel Knaapen Blyth estuary, Suffolk (United Kingdom). Modelling mud in 3D (15’)

17h00 - 18h00 Session 4 Water quality (Chairman: to be defined)

Alan Cooper Telemac-3D and seamounts (10’)
Nathalie Durand 3D numerical modelling of hydrodynamics in the Berre lagoon (10’)
Nicolas Claude Development of a module of dynamic riparian vegetation in Telemac2D/Sisyph (10’)
Olivier Gourgue A sub-grid scale vegetation to simulate long-term hydrodynamics in intertidal area (10’)
Thomas Benson Putting fish in the tank: an agent based model with flow interaction (10’)
Vito Bacchi Modelling the dispersion of the 137Cs in the coastal waters of Fukushima using Telemac 3D (10’)

Lunch 13h00-14h30

Coffee break 11h30-12h00

Coffee break 16h30-17h00
Thursday 13 October 2016

8h30 - 9h00   Welcoming participants
9h00 - 10h30  Session 5 Numerical methods (Chairman: Riadh Ata)
   Adrien Bourgoin Development of large-eddy simulations approach with Telemac3D (15’)
   Agnès Leray New framework for convergence studies in Telemac (15’)
   Cédric Goeury Sensitive analysis and uncertainty quantification in 2D morphodynamic model using a newly implemented API for Telemac2D/Sisyphé (15’)
   Clemens Dornfann Implementation of a new turbulence model in Telemac2D: the depth average Mixing Length Model (15’)
   Constantin Schweiger Sensitivity studies in the context of a complex 3D river model application using a quantitative evaluation method (15’)
   Frédéric Pons Use of hydraulic models in a semi-automatic flood hazard maps : Cartino (15’)

10h30-11h00 coffee break

11h00 - 12h30 Session 6 Sediment processes (Chairman: Dr Michiel Knaapen)
   Jeroen Stark Intertidal area changes and its effect on tidal asymmetry in estuary channels (15’)
   N. Huybrechts or Pablo Tassi 2D and 3D numerical study of the Montevideo bay hydrodynamics and fine sediment dynamics (15’)
   Pat Prodanovic Wave transformation library for Telemac: a strategy for reducing computation times in coastal sediment transport studies (15’)
   Peter Robins Hydrodynamic and morphodynamic modelling of a complex tidal channel (15’)
   Sven Smolders Suspended sediment transport in the Scheldt estuary: coupling DELWAQ and SISYPHE with Telemac3D (15’)
   Tatiana Maximova The Scheldt estuary model, Scaldis, updated for 2050 with statistical synthetic boundary conditions (15’)

12h30-14h00 lunch

14h00 - 16h00 Session 7 Numerical methods (Chairman: Riadh Ata)
   Jean-Michel Hervouet Latest news on distributive schemes and dry zones: the ERIA scheme (15’)
   Kévin Camus Performance optimizing for open Telemac-Mascaret using GPU accelerator (15’)
   Marie Brunel Comparison of 2D and 3D model for the lower Rhine part from Xanten to Emmerich (15’)
   Markus Reisenbüchler Implementation of a new layer subroutine for fractional sediment transport in Sisyphé (15’)
   Pengze Wang Towards the modelling of submerged bottom structures with vertical walls using Telemac3D (15’)
   Rafieh Helbi Reliable parallel HPC simulations with open Telemac (15’)
   Bert Pulzar Application of finite volume schemes for the bed load part of the bed evolution equation (15’)
   Yue Yin Simulation of the flow around a submerged structure using the immersed boundary method (15’)

16h00-16h30 coffee break

16h30 - 17h30 Session 8 Sediments, sustainability, data assimilation, Flood forecasting (Chairman: Pablo Tassi)
   Sébastien Bartélémy Joint 1D/2D hydraulic model coupling, 2D model decomposition and 1D data assimilation for real-time flood forecasting (10’)
   Simon Mouradian Telemac model archive: Harnessing the power of Google Earth (10’)
   Pierre-Louis Ligier Modelling complex vertical structures with Telemac-3D (10’)
   Uwe Merkel Studying Karman vortex streets with the new Telemac-AD-3D v7p1 (10’)
   Adlane Rebai Study of ocean circulation by coupling with global ocean model (10’)
   Punit Bhola Benchmarking the 2D hydraulic models for flood forecast application (10’)

End of the conference 17h30