

## Conference Program

**Wednesday, 18.10.2017**

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**Welcoming participants and Registration** 13:00 – 14:00

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### **WELCOME ADDRESSES and CONSORTIUM SESSION**

#### **Welcome addresses**

Prof. Dr. Gerald Zenz, *Institute of Hydraulic Engineering (TU Graz)*  
 Prof. Dr. Horst Bischof, *Vice Rector for Research (TU Graz)* 14:00 – 15:30  
 Dr. Rebekka Kopmann, *President of the TELEMAC-MASCARET consortium*

**Consortium session** with presentation of the TELEMAC-MASCARET modules  
 Members of the TELEMAC-MASCARET consortium

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#### **KEYNOTE LECTURE**

**Sébastien E. Bourban (HR Wallingford)** 15:30 – 16:00  
**The Earth by TELEMAC**  
*Sébastien E. Bourban, Michael S. Turnbull and Alan J. Cooper*

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**Coffee Break** 16:00 – 16:30

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### **COASTAL HYDRODYNAMICS**

An overview on the capabilities of the TELEMAC-MASCARET system to deal with tsunamis: feedbacks from TANDEM project 16:30 – 16:50  
*Riadh Ata, Marine le Gal, Damien Violeau*

Validation of a TELEMAC-3D model of a seamount 16:50 – 17:10  
*Alan J. Cooper, Jeremy Spearman (Speaker: Sébastien E. Bourban)*

Inundation Risk due to a Landslide-Generated Tsunami in the North Sea 17:10 – 17:30  
*Rohit Kulkarni, Nicolas Zimmermann, Thijs Lanckriet, Alexander Breugem*

Development of a Hindcast Wave State Database in Northwest Pacific Ocean 17:30 – 17:50  
*Jian Shi, Antoine Joly*

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**Visit of the lab** 18:30 – 20:00

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## Thursday, 19.10.2017

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**Welcoming participants** 08:30 – 09:00

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### NUMERICAL METHODS

Presentation of SALOME-HYDRO (2.0)  
*Sophie Bacchi* 09:00 – 09:20

Development of a Large-Eddy- Simulation approach with Telemac-3D  
*Adrien Bourgoïn, Sylvain Guillou, Jérôme Thiébot, Riadh Ata, Sofiane Benhamadouche* 09:20 – 09:40

An experiment of adaptive mesh in hydraulics  
*Thierry Fouquet, Matthieu Secher, Gerald Nicolas* 09:40 – 10:00

Performance Optimization for TELEMAC-MASCARET using GPU accelerators  
*Yoann Audouin, Hamza Belaoura, Frank Hulsemann* 10:00 – 10:20

PyTelTools: Python scripts and GUI to automate Telemac post-processing tasks  
*Luc Duron, Yishu Wang* 10:20 – 10:40

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**Coffee Break** 10:40 – 11:20

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### WATER WORKS and ENERGY

Turbine array interactions and performance in TELEMAC-3D  
*Enda Murphy, Julien Cousineau, Mitchel Provan* 11:20 – 11:40

The Rance Tidal Power Plant Model  
*Christophe Cochet, Malo Lambert* 11:40 – 12:00

3D modelling of the Lilla Värtan Bay in Stockholm to assess the impacts of an on-water housing project  
*Pierre-Louis Ligier, Anders Söderström* 12:00 – 12:20

NESTOR: Sediment management module of TELEMAC  
*Boris Glander* 12:20 – 12:40

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**Lunch** 12:40 – 14:00

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## Thursday, 19.10.2017

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### SEDIMENT I

A new gravity-driven runoff and erosion model for TELEMAC <i>Florent Taccone, Germain Antoine, Nicole Goutal, Olivier Delestre</i>	14:00 – 14:20
C-VSM-II: Large Scale and Long Time Simulations with Sisyphe's Continuous Vertical Grain Sorting Model <i>Uwe H. Merkel</i>	14:20 – 14:40
Numerical estimation of bedform roughness <i>Frederik Folke, Sven Wurms</i>	14:40 – 15:00
Hydraulic 2D Model of Landslide Generated Wave – Cases of Chehalis Lake and Chambon Lake <i>Thomas Viard</i>	15:00 – 15:20
Numerical modelling of the sediment dynamics in Saint-Martin-la-Porte reservoir, France <i>Mathieu Secher, Aurélie André, Eric Valette, Anne-Laure Besnier, Pablo Tassi</i>	15:20 – 15:40

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**Coffee Break** 15:40 – 16:20

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### WATER QUALITY

Oil spill modelling: A case study in the Gulf of Guinea <i>Anne Levasseur, Olivier Bertrand, Philippe Reveau</i>	16:20 – 16:40
Assessment of nutrients and macroalgae growth in Poole Harbour, UK <i>David Haverson, John Aldridge, Karen Edwards</i>	16:40 – 17:00
Modelling potential drivers of fish kill events in Sulaibikhat Bay, Kuwait <i>John Bacon, David Haverson, Michelle Devlin, Roger Phillips</i>	17:00 – 17:20
Analysis of time-step size and initial particle distribution effects on particle dispersal studies <i>Jonathan Demmer, Peter Robins</i>	17:20 – 17:40

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**Banquet** 19:30 – 22:00  
**GÖSSER Bräu**

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## Friday, 20.10.2017

<b>Welcoming participants</b>	08:30 – 09:00
<b>RIVER and URBAN FLOODS</b>	
Mapping of Flood Dynamics Due to Sea Level Rise in Dyfi Estuary <i><u>Aasem Khatrush</u>, Shunqi Pan</i>	09:00 – 09:20
Flood Wave Modelling and Risk Analysis of Overtopped Embankment Dams <i><u>Gabriele Harb</u>, Hannes Badura, Wolfgang Troy</i>	09:20 – 09:40
Modelling of river dike breach type physical test flow with Telemac-2D <i><u>Yohannis Birhanu Tadesse</u>, Peter Fröhle</i>	09:40 – 10:00
Sensitivity analysis of urban flood flows to hydraulic controls <i><u>Shangzhi Chen</u>, P.-A.Garambois, P. Finaud-Guyot, G. Dellinger, Abdelali Terfous, Abdallah Ghenaim</i>	10:00 – 10:20
Comparison of 2D numerical models for the simulation of river flooding in a semi-urban area <i><u>Robert Stöffler</u>, Clemens Dorfmann</i>	10:20 – 10:40
<b>Coffee Break</b>	10:40 – 11:20
<b>DATA ASSIMILATION</b>	
Interoperability applications of TELEMAC-MASCARET System <i><u>Y. Audouin</u>, C. Goeury, F. Zaoui, R. Ata, S. El Idrissi Essebtey, A. Torossian, D. Rouge</i>	11:20 – 11:40
Optimal calibration of TELEMAC-2D models based on a data assimilation algorithm <i><u>C. Goeury</u>, A. Ponçot, J.-P. Argaud, F. Zaoui, R. Ata, Y. Audouin</i>	11:40 – 12:00
Uncertainty analysis approximation for non-linear processes using Telemac-AD <i><u>Guilherme Dalledonne</u>, Rebekka Kopmann, Jan Riehme, Uwe Naumann</i>	12:00 – 12:20
Global Sensitivity Analysis applied to the Telemac2D numerical forecast model of high water levels in the Gironde estuary <i><u>Vanessya Laborie</u>, Nicole Goutal, Sophie Ricci, Matthias de Lozzo, Philippe Sergent</i>	12:20 – 12:40
<b>Lunch</b>	12:40 – 14:00

**Friday, 20.10.2017**

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**SEDIMENT II**

COURLIS: a new sedimentology 1D module for MASCARET <i>Eric Valette, Matthieu Secher, Philippe Ung, Nicole Goutal, Magali Jodeau</i>	14:00 – 14:20
Temporal variability of contaminated sediments in a strongly regulated reservoir of the upper Rhine River <i>G. Antoine, T. Pretet, M. Secher, A. Clutier</i>	14:20 – 14:40
Numerical assessment of the impact of climate change on the sediment yield in alpine catchments <i>Sebastian Gegenleithner, Clemens Dorfmann, Josef Schneider</i>	14:40 – 15:00
<b>Closing Ceremony</b>	15:00 – 15:15

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