

## PROGRAMME DAY 2 – 16 April

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- 08:30 – 09:00**      **KEYNOTE: Acoustic developments for the measurement of sediment processes over bedforms**  
**Peter D. Thorne**  
Professor at National Oceanography Centre, United Kingdom
- 09:00 – 10:25**      **SESSION 4: HYDRODYNAMIC AND MORPHODYNAMIC MODELLING**  
**Chair: Jim Best**  
Professor at University of Illinois at Urbana-Champaign, United States
- 09:00 – 09:20      *Modeling Dune dynamics in situations with bimodal sediment distributions*  
M.A.F. Knaapen, J. Willis & J.H. Harris
- 09:20 – 09:40      *Sediment transport distribution along equilibrium sand dunes*  
S. Naqshband et al.
- 09:40 – 10:00      *Influence of time- and depth-dependent eddy viscosity on the formation of tidal sandwaves*  
P.C. Roos & H.M. Schuttelaars
- 10:00 – 10:07      *Numerical simulation of turbulent sediment transport*  
O. Durán, B. Andreotti & P. Claudin (Presentation by P. Claudin)
- 10:08 – 10:15      *Sand ripple volume generator for underwater acoustic models, a cellular automaton Monte-Carlo approach*  
P. Staelens, Y. Dupont & J.-P. Henriot
- 10:15 – 10:25**      **Questions**
- 10:25 – 10:55**      **Coffee break**
- 10:55 – 12:10**      **SESSION 5: BEDFORM EVOLUTION AND PROPERTIES**  
**Chair: Sophie Le Bot**  
Maître de Conférences at Rouen University, France
- 10:55 – 11 :15      *Object Burial by Bedforms: Results from instrumented modules, new data analysis concepts*  
T. Wever & C. Jenkins
- 11:15 – 11:35      *Analysis of coherent flow structures over alluvial dunes revealed by multi-beam echo-sounder acoustic backscatter*  
S.M. Simmons et al.
- 11:35 – 11:42      *Evolution of secondary cellular circulation flow above submarine bedforms imaged by remote sensing techniques*  
I. Hennings & D. Herbers
- 11:43 – 11:50      *Sorting patterns over tidal sand waves: comparing field observations with theoretical predictions*  
T. Van Oyen, P. Blondeaux & D. Van den Eynde
- 11:51 – 11:58      *Deep-water bottom current dynamics: processes, products & challenges*  
D. Van Rooij
- 12:00 – 12:10**      **Questions**
- 12:10 – 13:30**      **Lunch and poster session**
- 13:30 - 14:00**      **KEYNOTE: Large-eddy simulations in dune-dynamics research**  
**Ugo Piomelli**  
Professor at Queen's University, Canada

- 14:00 – 15:05**      **SESSION 6: HYDRODYNAMIC AND MORPHODYNAMIC MODELLING**  
**Chair: Tomas Van Oyen**  
 Postdoc researcher at Ghent University, Belgium
- 14:00 – 14:20      *On the influence of bed permeability on flow in the leeside of coarse-grained bedforms*  
 G. Blois et al. (Presentation by J. Best)
- 14:20 – 14:27      *Flow structures over fixed 2D bedforms in transient states*  
 C.A. Unsworth et al.
- 14:28 – 14:35      *Three-dimensional spatial variations of suspended sediment concentration over vortex ripples*  
 A.M. Penko & J Calantoni
- 14:36 – 14:43      *Variation of flow separation over large bedforms during a tidal cycle*  
 A. Lefebvre et al.
- 14:44 – 14:51      *Hydrodynamic modeling over a sand wave field at São Marcos Bay, Brazil*  
 L. Samaritano et al. (Presentation by F.M. Chagas)
- 14:55 – 15:05**      **Questions**
- 15:05 – 15:35**      **Coffee break**
- 15:35 – 17:10**      **SESSION 7: PRACTICAL APPLICATIONS AND HUMAN INFLUENCES**  
**Chair: Yves Plancke**  
 Senior Research Engineer at Flanders Hydraulics Research, Belgium
- 15:35 – 15:55      *Bed form dynamics in relation to headwater discharge and human influences in the tidal Elbe river, Germany*  
 N. Gehres et al.
- 15:55 – 16:15      *How the Belgian wind farm business made us discover the challenging environment of marine sand dunes*  
 A. Bolle, M. Mathys & P. Haerens
- 16:15 – 16:35      *Gravel dunes generated during ice-jam floods, Tom River, Western Siberia*  
 A. Vershinin et al. (Presentation by R. Kostaschuk)
- 16:35 – 16:42      *On the role of fine-sand dune dynamics in controlling water depth changes in Rio Parapeti, Serrania Borebigua (Southern sub-Andean zone of Bolivia)*  
 N. de Ville, D. Petrovic & M.A Verbanck
- 16:43 – 16:50      *Evolution of bed form height and length during a discharge wave*  
 J.J. Warmink, R.M.J. Schielen & C.M. Dohmen-Janssen
- 16:51 – 16:58      *Essential facts of the monitoring of the sand extraction and its impact on the Flemish banks on the Belgian continental shelf from 2003 to 2012*  
 M. Roche et al.
- 17:00 – 17:10**      **Questions**
- 17:10 – 17:30**      **Future of MARID**  
**Thierry Garlan**  
 Senior scientist (Dr) at the French Naval Hydrographic and Oceanographic Service
- 17:30 – 17:45**      **AWARDS**
- 19:00**              **Conference dinner at Brewery Halve Maan, Bruges**