



International Conference, Nantes, 6 & 7 October 2014
Centre IFREMER

Small scale morphological evolution of coastal, estuarine and river systems

Local processes, bank erosion and meandering

Monday, October 6th, 2014

9h00: Registration

9h45 - 10h10: **Opening session:** Jacques Binot, General Director, IFREMER - Nantes
 Daniel Loudière, Chairman of SHF
 P.L. Viollet, Chairman of Scientific & Technical
 Committee of SHF

10h10 - 11h10 **SESSION 1: Local processes and experimental studies**

Chair : Pierre-Louis Viollet

- Grade control structure Influences on steep slope stream dynamics: bed level fluctuations and sediment transport variations
 G. Piton, A. Recking, *IRSTEA, Univ. of Grenoble (F)*
- Stability of sandy slopes under hydrodynamic forces
 A.R. Silva, I. Falorca, C. Fael, *University of Beira Interior (Portugal)*
- Pier shape and alignment effects on local scour
 C. Fael, R. Lança, A. Cardoso, *Univ. of Beira Interior, of Algarve, of Lisboa (Portugal)*

11h10 - 11h40: coffee break

11h40 - 13h00 **SESSION 2: Morphodynamic patterns in marine and
 estuarine environments**

Chair : François Sabatier

- Medium term time dependent morphodynamic modelling of beach profile evolution in Ada, Ghana
 B. Verheyen, V. Gruwez, N. Zimmermann, A. Bolle, P. Wauters, *IMDC nv (Belgium)*

- Fromentine inlet ebb-tidal delta: Hydro-sedimentary processes and morphodynamics
A. Deshoulières, B. Waeles, C. Labaune, X. Bertin, *CREOCEAN, U. la Rochelle (F)*
- Spatio-temporal evolution of salt marshes and their tidal creek networks in a sandy infilled and managed macro-tidal estuary: the Authie estuary, France
C. Marion, E. J Anthony, *CNAM Intechmer, Univ of Caen, Aix-Marseille University (F)*
- Simulating tidal marshes evolution in estuarine systems under climate change, using a schematic process-based 3D model
P. Le Hir, F. Cayocca, J. Vareilles & C. Bouvier, *IFREMER DYNECO (F)*

13h00 - 14h30: **lunch**

14h30 - 15h10 SESSION 3 : River morphology

Chair : Pierre Le Hir

- River mobility on « roof plains »: a rational management in Provence
S. David, V. Durin, C. Vairon, B. Van Lunsen, *INGEROP, SABA, C. communes du Golfe de St-Tropez (F)*
- Numerical analysis of bed changes after estuary barrage and weir construction in Nakdong river, Korea
U. Ji, E. Jang, *Korea Institute of Civil Eng. & Building Technology (Korea)*

15h10 - 15h40 Posters session

- River bank protection by a trawl net device
O. Boucher, P. Sergent, D. Michon, *CEREMA DTecEMF, S-Able, (F)*
- Approach to morphodynamic processes of the lower Argens river and sediment transport modeling at the mouth
E. Tiriau, R. Grinda, M. Vincent, *ARTELIA Eau & Environnt, CG du Var (F)*
- Travertine environments, evolutions and potential: is it possible to restore them?
L. Collange, S. David, *Conseil Général du Var, INGEROP (F)*
- Numerical modeling of fine-grained sediments remobilization in heavily polluted streams, Case study: Elbe & Bilina rivers
J. Kaiglova, P. Jirinec, J. Langhammer, *B. Jansky, Charles Univ. Prague, DHI (Czech Rep.)*
- Geomorphological monitoring of reactivation digging along the embanked Rhône river
W. Brasier, Y. Laffont, *Compagnie Nationale du Rhône (F)*
- Assessment of the coarse sediment connectivity degree on a fluvial meander reach of the Cher river
T. Dépret, E. Gautier, J. M. Hooke, D. Grancher, *Univ. Paris I & Liverpool (F & UK)*

15h40 - 16h20: **coffee break**

16h20 - 17h20 SESSION 4 : Bank evolution and meandering

Chair : H. Jacob Vested

- Characterizing and modeling the lateral channel migration rate at a regional-scale: application to the Rhone-Méditerranée basin
A. Alber, H. Piégay, *DREAL Centre, ENS Lyon (F)*
- Control of duration, frequency and intensity of floods on the Cher meanders morphogenesis
T. Dépret, E. Gautier, J.M. Hooke, D. Brunstein, *Univ. Paris I & Liverpool (F & UK)*

- Scouring assessment in curves
F. Fruchart, *Easy Hydro (F)*

17h20 - 17h30 SHF AWARD 1

Prix Henri Milon, prize winner :Fanny Arnaud (ENS Lyon)

17h30 - 17h50 invited lecture

Using historical and experimental geomorphology for restoring rivers

F. Arnaud, H. Piégay, L. Schmitt, A.J. Rollet, David Béal, *ENS Lyon, Univ. Caen, Strasbourg (F)*

17h50 - 18h00 SHF AWARD 2

Grand prix Hydrotechnique, prize winner :Jean-Michel Hervouet (EDF)

18h00 - 19h00 : ice-break around the posters

Tuesday, October 7th, 2014

9h00 - 10h20 SESSION 5 : Formation and evolution of bars

Chair : Stéphane Rodrigues

- A discussion on the role of large scale turbulence to the formation of alternate bars and meanders
A. Da Silva, *Queen's University (Ca)*
- Numerical studies on the effect of the spatial lag between bar formation and forcing in straight channels
G. Duro, A. Crosato, P. Tassi, *IHE UNESCO, EDF ST Venant Lab. (Netherlands - F)*
- Numerical simulations of a sequence of bars in symmetric and non-symmetric large-amplitude meandering channels
D. Wang, P. Tassi, K. El Kadi, A. Mendoza, Abad J, E. Langendoen, *EDF St-Venant Lab., University of Pittsburgh, US Dept Agriculture (F & USA)*
- Development of bars in a large sand bed braided rivers
Shampa, M. Mostafa Ali, Bangladesh, *University of Eng & Technology (Bangladesh)*

10h20 - 10h50: coffee break

10h50 - 11h50 SESSION 6 : Braided streams

Chair : Pablo Tassi

- The morphodynamics of braided streams
A. Recking, F. Liebault, P. Leduc, S. Lallias-Tacon, H. Piégay, B. Belletti, S. Dufour, *IRSTEA, CNRS, Univ. of Grenoble, Florence, Rennes (F & Italy)*
- Numerical simulation of estuarine and river morphology
H.J. Vested, S. Tjerry, B. Christensen, I. Dubinski, *DHI (Denmark & USA)*
- Upper Drac River Restoration project: restoration of a braided river bed incised in clay substratum through sediment reloading & bed widening
F. Laval, O. Vento, E. Guilmin, C. Jousse, V. Koulinski, B. Breilh, *BURGEAP, ETRM, CLEDA (F)*

11h50 - 12h50 Discussion & round-table on requirements for numerical morphodynamic simulations

Chair : Florence Cayocca

13h00 - 14h20: lunch

14h20 - 15h40 SESSION 7 : Restoration projects

Chair (to be confirmed) : Adrien Alber

- Numerical modeling of morphological stability of proposed restoration measures along the river Havel
P. Jirinec, R. Buchta, B. Monninkhoff; C. Tomsu, *DHI, NABU Pjbuuro (Czech Rep. & Germany)*
- Sediment transport supply in the Old Rhine river through controlled bank erosion : case of lateral channel reactivation
K. El Kadi, F. Lebert, C. Leroux, A. Clutier, D. Aelbrecht, A. Barillier, K. Pinte, J. R. Malavoi, A. Garnier, *EDF R&D LNHE, EDF DPIH (F)*
- Monitoring after river restoration work on two construction sites
A. de Bonviller, J. Berthelot, J.P. Vandelle, J.P Grandmottet, *ISL, SIALIS (F)*
- Definition of the morphological restoration plan for the Loire River between Angers and Nantes
B. Cortier, T. Lepelletier, B. Prud'homme Lacroix, P. Peeters, P. Bona, *HYDRATEC, GIP Loire Estuaire (F)*
- The role of riverine vegetation in controlling channel morphology
N. Thommeret, S. Dunesme, V. Tamisier, C. Bilodeau, F. Gob, *Univ. Paris I & Paris VII (F)*

Closing session (exchanges with the audience)

Steering and organizing committee chaired by : Pierre Le Hir (IFREMER)

Pierre-Louis Viollet (SHF)
Régis Walther (Artelia)
Philippe Davy (Géosciences-Rennes)
Benoît Camenen (Iristea-Lyon)
Pablo Tassi (Laboratoire St-Venant)
François Métivier (IPGP)
Jean-René Malavoi (EDF)

Hervé Piégay (ENS Lyon)
Anton Schleiss (EPFL)
Florence Cayocca (Ifremer)
Stéphane Rodrigues (Univ. Tours)
François Sabatier (CEREGE)
Jean-Georges Phillips (SHF)
Neda Sheibani (SHF)

		
		

at <http://www.shf-hydro.org/170-1-manifestations-16.html>