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)

SHF 25 rue des Favorites 75015 PARIS  www.shf-hydro.org
• 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 & Environ, 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

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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. Belleti, 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 substratrum through sediment reloading & bed widening
  F. Laval, O. Vento, E. Guilmin, C. Jousse, V. Koulninski, 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 Pjburo (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)          Hervé Piégay (ENS Lyon)
Régis Walther (Artelia)           Anton Schleiss (EPFL)
Philippe Davy (Géosciences-Rennes) Florence Cayocca (Ifremer)
Benoît Camenen (Irstea-Lyon)      Stéphane Rodrigues (Univ. Tours)
Pablo Tassi (Laboratoire St-Venant) François Sabatier (CEREGE)
François Métivier (IPGP)          Jean-Georges Phillips (SHF)
Jean-René Malavoi (EDF)           Neda Sheibani (SHF)