[PROVISIONAL] Scientific program for RiverFlow 2018 conference

Lyon-Villeurbanne, France
5 - 7 September 2018

Wednesday 5 September

08:30	**Opening Ceremony**			
09:30	**Keynote lecture: Ellis Penning** Interactions between flow and vegetation: translating knowledge from academic research to daily water management			
10:15	**Break**			
10:45 - 12:45	**Parallel sessions - 1**			
	Hydrodynamics within vegetation	**Scour around structures**	**Computational methods and code calibration**	**Sediment case studies (modelling)**
10:45	Drag and Reynolds stress distribution within submerged vegetation canopies N. Nikora, V. Nikora	Viscosity effects on local scour around vertical structures in clear-water conditions C. Manes, F. Coscarella, A. Rogers, R. Gaudio	Hydrograph estimation at upstream ungauged sections on the Secchia River (Italy) by means of a parallel Bayesian inverse methodology A. Ferrari, M. D'oria, R. Vacondio, P. Mignosa, M. G. Tanda	One-Dimensional Modeling of Transport and Fate of Coal Ash in a River-Reservoir System M. Altinakar, N. Pophet, X. Chao, R. Marsooli
11:05	LES modelling of a flow within an infinite array of randomly placed cylinders: Anisotropy characterization A. M. Ricardo, D. Grigoriadis, R. Ferreira	Similitude of scour around bridge piers O. Link	LiDAR resolution and catchment-inclusive hydrodynamic models G. Smart	Field data and regional modeling of sediment supply to Emilia-Romagna's river mouths S. Cilli, P. Billi, L. Schippa, E. Grottoli, P. Ciavola
11:25	Cycloid flows induced by the large horizontal coherent structures in the vegetated compound channel. H. S. Truong, W. Uijttewaal	Scouring due to submerged sills A. Dudill, J. Vasquez, D. Mclean	Interpolation of water surface profiles in unsteady open channel flow using the adjoint method based on two-dimensional shallow water equations A. Watanabe, T. Kojima, M. Tetssuaki, M. Kazuhiko, S. Hiromi, T. Shinjiro	The influence of transverse slope effects on large scale morphology in morphodynamic models A. Baar, M. Boechat Albernaz, W. Van Dijk, M. Kleinhans
11:45	Flow structures in a shallow channel with lateral bed-roughness variation Y. Akutina, M. Rouzes, F. Moulin, O. Eiff	Investigation of local scour around tandem piers for different skew-angles S. Memar, M. Zounemat-Kermani, A-A. Beheshti, G. De Cesare, A. J. Schleiss	Numerical simulation of 2D real large scale floods on GPU: the Ebro River I. Echeverribar, M. Morales-Hernández, P. Brufau, P. García-Navarro	A gravity-driven runoff and erosion model for sediment transfers at the catchment scale F. Taccone, G. Antoine, O. Delestre, N. Goutal
12:05	Shallow flow over a bed with a lateral change of roughness V. Dupuis, F. Moulin, S. Cazin, M. Marchal, P. Elyakime, J-D. Barron, O. Eiff	Prediction of Bridge Pier Scour Depth and Field Scour Depth Monitoring F-Z. Lee, J-S. Lai, Y-B. Lin, K-C. Chang, X. Liu, C-C. Huang	Application of a 3-D CFD model to investigate flood-related engineering problems D. Horna Munoz, G. Constantinescu	Estimation of sand suspension in a secondary channel of an alpine river B. Camenen, G. Dramais, A. Buffet, F. Thollet, C. Le Bescond, M. Lagouy, C. Berni, J. Lecoz
12:25	Near wake of emergent vegetation patches in shallow flow S. Wunder, M. Trevisson, C. Heckele, L. Chagot, B. Murphy, S. Mclelland, F. Moulin, O. Eiff	Equilibrium scour morphology downstream of rock sills under unsteady flow conditions S. Pagliara, M. Palermo	Advanced numerical models for the propagation of floods with high-sediment concentrations in mountain rivers M-T. Contreras, C. Escauriaza	Performance of a groyne in controlling flow, sediment and morphology around a tributary confluence K. Michioku, Y. Osawa, K. Kanda
12:45	**Lunch**			
14:10 - 16:10	**Parallel sessions - 2**			
	Vegetation and sediment transport	**Suspended sediment fluxes**	**Sediment modelling**	**Fishways**
14:10	Influence of flood regime on riparian vegetation dynamics in rivers with alternate bars C. Jourdain, N. Claude, G. Antoine, P. Tassi, F. Cordier	Suspended sediment dynamics by event typology and its siltation effect in a semi-arid snowmelt-driven basin A. Millares, A. Moñino, S. Arjona, A. Baquerizo	Fluvial sediment transport: From the beginnings into the future W. H. Hager	Fish behavior and fish guidance at hydro power intake screens for fish protection and downstream passage F. Geiger, C. Mathilde, P. Rutschmann
14:30	Effect of vegetation on flows and sediment transport S. Amel, R. Hela, L. Cassan, G. Belaud	Geomorphological factors influencing hysteresis patterns between suspended load and flow rate in Alpine rivers C. Misset, A. Recking, C. Legout, A. Poirel, M. Cazilhac	Coupled method for the numerical simulation of 1D shallow water and Exner transport equations in channels with variable cross-section S. Martínez-Aranda, J. Murillo, P. García-Navarro	Field measurements of the attractivity of bypasses for fishfriendly trashrack F. Lemkecher, L. David, D. Courret, L. Chatellier
14:50	Transport and deposition of fine sediment in a channel partly covered by flexible vegetation W. Box, K. Västilä, J. Järvelä	Sediment rating and annual cycles of suspended sediment in German upland rivers T. Hoffmann, J. Blöthe, G. Hillebrand	Three dimensional simulation of non-uniform sediment transport based on multi-phase Eulerian approach: application to debris flow K. Ota, H. Suto, T. Sato	Hydropower dams threaten freshwater Chilean fish species: what dams and what species? A. Laborde, O. Link, E. Habit
15:10	Flume experiments on vegetated alternate bars G. Calvani, S. Francalanci, L. Solari	Establishment of a rating curve for suspended sediment transport by means of ADCP measurements N. Ruther, R. Aleixo, M. Guerrero, S. Sørås, S. Stokseth	Application of a Eulerian two-phase flow model to scour processes A. Mathieu, T. Nagel, C. Bonamy, J. Chauchat, Z. Cheng, X. Liu, T-J. Hsu	Fish swimming kinematics in a turbulent wake: to spill or not to spill? V. Muhawenimana, C. Wilson, J. Cable
15:30	Flow structure around an actual willow patch under different depth conditions C. Lee, D. Kim, S. Kim, U. Ji, J. H. Kim, D. Ko	Getting information on suspended sediments in a large river from acoustic backscatter A. Vergne, J. Lecoz, C. Berni	The 3D Numerical Study on Flow and Sediment Properties of a River with Grouped Spur Dikes X. Han, P. Lin, G. Parker	Development and Tests of a 3D Fish-Tracking Videometry System for an Experimental Flume M. Detert, C. Schütz, R. Czerny
15:50	Roots Characteristics of a flexible and mature vegetation: preliminary results of experimental investigation in a meandering laboratory flume D. Termini, A. Di Leonardo	Phenomenological description of scaling laws of sediment transport S. Dey, S. Z. Ali	Large-eddy simulation study of turbulent flow around a rectangular spur dike S. Kang	Performance of a fish pass for multiple species: scale model investigation D. Bousmar, X. Rollin, L. Van Audenhaege, E. Courtois
16:10	**Break**			
16:40 - 18:30	**Poster session** *Poster list on page 4*			
18:30 - 20:30	**Welcome reception** *Espace Tête d'Or*			

Thursday 6 September

08:00	Keynote lecture: Anton Schleiss
	The challenge of restoring dynamics by river engineering: where to find the truth about river flow - in the computer, in the lab or in the field?

08:45 - 10:25 — Parallel sessions - 3

	Physical Models	Driftwood - part 1	Sediments: large-scale/field studies	Flooding processes and compound channels
08:45	Multiple approach for the design of the labyrinth spillway on the Nam Teng river, Myanmar: concept design ? CFD ? Physical model. *F. Bigillon, B. Venås, A. Løvoll*	Defining and characterizing wood-laden flows in rivers using home videos *V. Ruiz-Villanueva, L. Bürkli, B. Mazzorana, L. Mao, D. Ravazzolo, P. Iribarren, E. Wohl, M. Stoffel*	Phenomenology of meandering of a straight river *S. Z. Ali, S. Dey*	Influence of floodplain and riparian vegetation in the conveyance and structure of turbulent flow at compound channels *J. Fernandes, J. Leal, A. Cardoso*
09:05	Scale model of a training dam using lightweight granulates *B. Vermeulen, B. Matthijs, T. Hoitink, A. Sieben, K. Sloff, M. Van Der Wal*	Large wood recruitment and mobility in steep mountain streams of contrast European landscapes *T. Galia, V. Škarpich, R. Tichavský*	Determining the dynamics of coarse bedload transport using passive indirect monitoring: time-dependent variability at event to inter-annual scales *P. Downs, P. Soar*	Drag determination of an array of square cylinders subjected to shear flow in a compound channel *M. Gymnopoulos, P. Prinos, E. Alves, R. Ferreira*
09:25	Flow Bifurcation at a Longitudinal Training Dam: Effects on Local Morphology *T. De Ruijsscher, S. Naqshband, T. Hoitink*	Using tree-rings to determine large wood residence time and transport pulses in a gravel-bed river *M. Boivin, T. Buffin-Bélanger, D. Arseneault*	Bar dynamics and sediment transport pulses in gravel-bed channels *B. Dhont, C. Ancey, P. Bohorquez*	An analytical solution for non-uniform flow in compound channels *K. Devi, B. S. Das, J. R. Khuntia, K. K. Khatua*
09:45	Dam-break on an idealised hill side: preliminary results of a physical model *S. Cordero, A. Cagninei, D. Poggi*	The influence of large wood and rootwads on flow patterns and bed morphology in a moving bed channel *S-C. Chen, M-C. Liang, S. Tfwala*	Impact of flow variability and sediment characteristics on channel width evolution *A. Vargas-Luna, A. Crosato, P. Byishimo, W. Uijttewaal*	An analytical solution for flow estimation of a meandering compound channel *A. Pradhan, K. K. Khatua*
10:05	Experimental assessment of alluviation downstream of Hun-lock, Belgium *C. Swartenbroekx, C. Savary, D. Bousmar*	Effects of a large woody debris accumulation on channel-bed morphology during flood events *G. Spreitzer, H. Friedrich, J. Tunnicliffe*	Development of a method for suspended sediment transport monitoring by means of ADCP measurements *R. Aleixo, M. Guerrero, N. Ruther, S. Stokseth*	Discharge and location dependency of calibrated main channel roughness: case study on the River Waal *B. Domhof, K. Berends, J. Warmink, A. Spruyt, S. Hulscher*

10:25	Break

10:55 - 12:35 — Parallel sessions - 4

	Experimental hydrodynamics - part 1	Driftwood - part 2	Bedform and sediment transport	Management of hydrological extremes
10:55	Velocity field and drag force measurements of a cube and a hemisphere mounted on an artificial bed surface roughness *P. Nardone, K. Koll*	Experimental study of the transient motion of floats reproducing floating wood in rivers *H. Ghaffarian, D. Lopez, N. Riviere, E. Mignot, H. Piegay*	Quantification of bed-load transport over dunes *K. Lockwood, P. Grover, A. M. Ferreira Da Silva*	The German National Flood Protection Programme: evaluating the impact of supra-regional flood protection measures on extreme floods using hydrodynamic modelling *C. Schuh, M. Hatz*
11:15	Experimental measurements of flood-induced impact forces on exposed elements *M. Sturm, B. Gems, F. Keller, B. Mazzorana, S. Fuchs, M. Papathoma-Köhle, M. Aufleger*	Studies on driftwood motions around obstacles by laboratory and numerical experiments *I. Kimura, K. Kitazono*	A flume study to investigate the contribution of main-channel bedforms on levee formation *T. Branß, F. Núñez-González, A. Dittrich, J. Aberle*	Hydraulic function of the kasumi levee system on the Kurobe Alluvial Fan of the 19th century *H. Senoo, T. Ishikawa*
11:35	Turbulent kinetic energy in a water worked stream *E. Padhi, S. Dey, N. Penna, R. Gaudio, V. R. Desai*	Calibration of a numerical model for the transport of floating wooden debris *E. Persi, G. Petaccia, S. Sibilla, J. I. García-Palacín, P. Brufau, P. García-Navarro*	Influence of hydrology, sediment supply and sediment sorting on bar morphodynamics (Loire River, France) *F. Cordier, P. Tassi, N. Claude, A. Crosato, S. Rodrigues, D. Pham Van Bang*	Balancing river restoration measures around a river bifurcation : a case study from the Netherlands. *R. Schielen, B. Voortman, T. Driessen*
11:55	Dam break over mobile bed: characterisation of the flow by means of pressure distribution and bed shear stress. *I. Fent, M. J. Franca, S. Soares-Frazão*	Hazards due to large wood accumulations: Local scour and backwater rise *I. Schalko, L. Schmocker, V. Weitbrecht, R. M. Boes*	Geomorphic effects of gravel augmentation on the Old Rhine River downstream from the Kembs dam (France, Germany) *V. Chardon, L. Schmitt, H. Piégay, F. Arnaud, J. Serouilou, J. Houssier, A. Clutier*	Recalculation of historical streamflow series. Impact assessment and valorization. *A. Belleville, D. Sevrez*
12:15	Experiments on turbulence and near bank vorticities in an open channel sharp bend *A. Farhadi, C. Sindelar, M. Tritthart, H. Habersack*	Spillway blockage caused by large wood in reservoirs *P. Furlan, M. Pfister, J. Matos, A. Schleiss*	Hydrodynamic Simulation of an Irregularly Meandering Gravel-Bed River: Comparison of MIKE 21 FM and Delft3D Flow models *P. Parsapour-Moghaddam, C. Rennie, J. Slaney*	Experimental and numerical analyses on the capacity and the control management of a large flood retention basin situated at the Inn River in Tyrol *A. Lindermuth, B. Gems, S. Walder, M. Aufleger, I. Kampel, C. Waldhoer*

12:35	Lunch

14:00 - 15:40 — Parallel sessions - 5

	Experimental hydrodynamics - part 2	Dams and reservoirs - part 1	Bedload measurements	Urban floods
14:00	Comparison of velocity and turbulence profiles obtained with a Vectrino Profiler and PIV *J. Lacey, J. Duguay, B. Macvicar*	Numerical study on reservoir sediment management by adding excavated sediment downstream of dams in Japan *S. Kantoush, T. Suzuki, Y. Takemon, K. El Kadi Abderrezzak, R. Ata, T. Sumi, M. Saber*	Experimental bed active layer survey with active RFID scour chains: Example of two braided rivers in the French Alps (the Drac and the Vénéon) *G. Brousse, G. Arnaud-Fassetta, F. Liébault, D. Vasquez-Tarrio*	Study of dam break flow interaction with urban settlements over a sloping channel *I. Stamataki, J. Zang, E. Buldakov, T. Kjeldsen, D. Stagonas*
14:20	Experimental study of the surface oscillations induced by a shallow flow past a lateral cavity *L. Engelen, S. Creëlle, L. Schindfessel, T. De Mulder*	Numerical modelling of bank failures during reservoir draw-down *N. R. Olsen, S. Haun*	Application of the wavelet transform to sediment grain sizes analysis with an impact plate for bedload monitoring in sediment bypass tunnels *T. Koshiba, T. Sumi*	A Study on Evacuation Safety at Inundated Stairs by using Real-scale Hydraulic Model Experiment *M. Kim, D. H. Lee, J-S. Kim, J. H. Eom*
14:40	Predicting the vortex shedding frequency at the interface of lateral cavities *C. Perrot-Minot, E. Mignot, N. Riviere, R. Perkins*	Design optimization of permeable sediment traps for fluvial bed load transport. *A. Roth, S. Schwindt, M. Jafarnejad, A. J. Schleiss*	Measuring bedload grain size distributions with passive acoustic measurements *T. Geay, S. Zanker, T. Petrut, A. Recking*	Sewer overflow in the urban model MURI *T. Chibane, A. Paquier, S. Benmamar*
15:00	Advanced characterization techniques of the scour hole around a bridge pier model *A. M. Bento, L. Couto, J. P. Pêgo, T. Viseu*	Three-dimensional numerical modeling of hydraulics and morphodynamics of the Schwarzenbach reservoir *K. Mouris, F. Beckers, S. Haun*	An estimate of bedload discharge in rivers with passive acoustic measurements: towards a generalized calibration curve. *S. Zanker, T. Geay, A. Recking, A. Hauet, M. Clement*	Numerical study of building drag dissipation formulations in the integral porosity shallow water model *I. özgen, M. Bruwier, J. Zhao, D. Liang, P. Archambeau, B. Dewals, K. Kobayashi, S. Oishi, R. Hinkelmann*
15:20	Flow distribution in diverging compound channels using improved independent subsection method *B. S. Das, K. Devi, S. Proust, K. K. Khatua*	Sediment balance of a cascade of alpine reservoirs based on multi-decadal data records *S. Guillén Ludeña, P. A. Manso, A. J. Schleiss, B. Schwegler, J. Stamm, A. Fankhauser*	On bedload measurement performances of high-resolution acoustic (ACVP) and conductivity (CCP) profilers *G. Fromant, R. Mieras, T. Revil-Baudard, D. Hurther, J. Puleo, J. Chauchat*	1D/2D porosity model for urban flood modeling: case of a dense street networks *P. Finaud-Guyot, P. Garambois, S. Chen, G. Dellinger, A. Ghenaim, A. Terfous*

15:40	Break

16:10 - 17:50 — Parallel sessions - 6

	Computational hydrodynamics	Dams and reservoirs - part 2	Field measurements of sediment transport	Urban porosity models
16:10	Implicit 2D surface flow models performance assessment: Shallow Water Equations vs. Zero-Inertia Model *J. Fernández-Pato, M. Morales-Hernández, P. García-Navarro*	Direct field observations of massive bedload and debris flow depositions in open check dams *G. Piton, F. Fontaine, H. Bellot, F. Liebault, C. Bel, A. Recking, T. Hugerot*	Bedload transport in a steep alpine stream: assessment of sediment mobility and virtual velocity using the bedload tracking *R. Rainato, L. Picco, D. Oss Cazzador, L. Mao*	Investigation of distributed-porosity fields for urban flood modelling using single-porosity models *S. Soares-Frazão, F. Franzini, J. Linkens, J-C. Snaps*
16:30	Novel approaches for large-scale two-dimensional hydrodynamic modelling of rivers *M. Yossef, J. De Jong, A. Spruyt, M. Scholten*	Experimental investigation of reservoir sediments *F. Beckers, S. Haun, M. Noack*	Evaluation of an acoustic Doppler technique for bed-load transport measurements in sand-bed rivers *S. Conevski, A. Winterscheid, N. Ruther, M. Guerrero, C. Rennie*	Modelling urban floods using a finite element staggered scheme with porosity and anisotropic resistance *D. P. Viero*
16:50	Numerical shockwave anomalies in the resolution of the Shallow Water Equations with bed variations *A. Navas-Montilla, J. Murillo*	Toward an operational approach for the characterization and modelling of fine sediments dynamics in reservoirs *C. Peteuil, M. Jodeau, M. De Linares, E. Valette, D. Alliau, C. Wirz, T. Fretaud, G. Antoine, M. Sécher*	Improving bedload transport determination by grain-size fraction using the Swiss plate geophone recordings at the Erlenbach stream *D. Rickenmann, N. Steeb, A. Badoux*	Improvement of anisotropic porosity models with a merging technique *M. Bruwier, P. Archambeau, S. Erpicum, M. Pirotton, B. Dewals*
17:10	Vortex-Resistance Hypothesis: Large Eddy Simulation of Turbulent Flow in Isolated Pool-Riffle Units *H. Dashtpeyma, B. Macvicar*	Influence of lateral embayments on suspended sediment transport under unsteady flow conditions *C. Juez, M. Thalmann, A. Schleiss, M. Franca*	Characterization of bed load discharge in flood bores and very unsteady flows in an ephemeral channel *E. Halfi, J. Johnson, D. Katoshevski, I. Reid, J. Laronne, V. Deshpande, Y. Peretz*	Integral porosity shallow water model at district scale - Case study in Nice *F. Amann, I. özgen, M. Abily, J. Zhao, D. Liang, K. Kobayashi, S. Oishi, P. Gourbesville, R. Hinkelmann*
17:30	IDDES Evaluation of Oscillating Hydraulic Jumps *V. Jesudhas, F. Murzyn, R. Balachandar*	Estimating reservoir sedimentation at large dams in India *D. Froehlich*	Numerical simulation of bedload tracer transport associated with sand bar formation, bank erosion, and channel migration *T. Iwasaki, S. Yamaguchi, H. Yabe*	Experimental validation of transient source term in porosity-based shallow water models *V. Guinot, S. Soares-Frazão, C. Delenne*

08:00	**Keynote lecture: Hervé Piégay**
	The Rhône River, France: applying integrative sciences to sustainable management

08:45 - 10:25	**Parallel sessions - 7**			
	Turbulent structures	**Ecological survey**	**Sediments: laboratory experiments**	**River Experiment Center of Andong, Korea**
08:45	Large and very large scale motions in rough-bed open-channel flows S. Cameron, V. Nikora, M. Stewart, A. Zampiron	Quantification of the morphodynamics and ecological functionality of a Mediterranean river M. Chapuis, A. Aït Elabas, K. Souriguère, F. Compagnon, V. Mayen, B. Terrier	Erosion of fine sediments from a rough bed M. Trevisson, O. Eiff	Flow patterns over vegetation patches in the natural channel Y. Ryu, J. Kang, U. Ji, S. H. Jung, C-L. Jang, E. Penning
09:05	Turbulent structure inside and above shallow to deep canopies L. Chagot, F. Moulin, P. Elyakime, O. Eiff	Geomorphic identification of physical habitat features in a large, altered river system L. Guertault, G. Fox, S. Brewer	Impact of bed surface arrangement on bedload rate: comparisons between loose, armored and water-worked beds. E. Perret, B. Camenen, C. Berni	New methods for predicting and measuring dispersion in rivers J. Nelson, R. Mcdonald, C. Legleiter, P. Kinzel, T. Terrell-Ramos, Y. Higashi, I. W. Seo
09:25	Turbulence structures of nonuniform rough open channel flow P. Williams, V. Roussinova, R. Balachandar	Dynamic characterization of meandering channels planform L. Dominguez, R. Gutierrez, Y. Ponte, J. Abad	On experimental censorship of bed load particle hops F. Ballio, S. Fathel, D. Furbish, A. Radice	Experimental study on the performance analysis of river levee using new substance for improving earth surface resistance D. Ko, J. Kang, S. Kim, Y. Ryu
09:45	Coherent Flow Structures in a Shallow Mixing Layer Developing over 2-D Dunes G. Kirkil	Predicting floodplain inundation and vegetation dynamics in arid wetlands S. Sandi, P. Saco, G. Kuczera, L. Wen, N. Saintilan, J. Rodriguez	Propagation of sediment fronts in a laboratory flume A. Radice, S. Unigarro	Estimation of critical uncertainty sources in discharge measurements using controlled experimental conditions D. Kim, A. Despax, M. Muste, J. Le Coz
10:05	Flow structure in compound open-channel flows in the presence of transverse currents S. Proust, V. I. Nikora	Impacts of gravel-bed rivers transformation on fluvial ecosystems and human society: examples from the Czech flysch Carpathians V. Škarpich, M. Kubín, T. Galia, S. Ruman, J. Hradecký	Experimental study of riverbank protection with bio-engineering techniques S. Posi, L. Montabonnet, A. Recking, A. Evette, H. Bellot, F. Ousset, X. Ravanat, G. Piton, L. Solari	Improvement of Uncertainty Assessment of Discharge Estimated by Velocity-Area Method J. Kim, D. Kim, G. Son, D. Lee

10:25	**Break**

10:55 - 12:35	**Parallel sessions - 8**			
	Mixing processes	**River management and restoration**	**Investigating bedload processes**	**Innovative in-situ measurements (discharge) - part 1**
10:55	Longitudinal dispersion coefficient in compound open channel with rigid vegetation on flood plain A. Keshavarzi	Morphodynamic effects of stone and wooden groynes in a restored river reach B. Zaid, P. Nardone, M. Nones, C. Gerstgraser, K. Koll	A PIV-based method to measure spatial gradients in bedload transport over a dune R. Terwisscha Van Scheltinga, H. Friedrich, G. Coco	Bedload measurements on Large Rivers in the United States D. Abraham, T. Mcalpin, K. Jones
11:15	Impact of initial conditions on the prediction of the spread of thermal pollution in rivers M. Kalinowska, P. Rowiński, A. Magnuszewski	River Improvement Techniques for Mitigating River Bed Degradation and Channel Width Reduction in the Sandy Hii River where Sediment Transport Occurs at Normal Times G. Takahisa, S. Fukuoka	Grain and bedform roughness properties isolated from gravel-patch DEMs S. Bertin, J. Groom, H. Friedrich	Shore-based monitoring of flow dynamics in a steep bedrock canyon river S. Ansari, C. Rennie, J. Venditti, E. Kwoll, K. Fairweather
11:35	Turbulent flow dynamics and mass transport processes in a natural surface storage zone using field data and numerical simulations J. Sandoval, C. Escauriaza, E. Mignot, L. Mao	On the morphological evolution of restored banks: case study of the Meuse river G. Duró, A. Crosato, M. Kleinhans, W. Uijttewaal	Experimental observations on sorting patterns of heterogeneous sediment mixtures in low constrained flows C. Carbonari, F. Tanganelli, A. Recking, L. Solari	Estimating uncertainties in hydraulically-modelled rating curves for discharge time series assessment V. Mansanarez, I. Westerberg, S. Lyon, N. Lam
11:55	Flow and turbulence driven water surface roughness and gas exchange velocity in streams C. Noss, P. Bodmer, K. Koca, A. Lorke	Numerical groyne layout optimisation for restoration projects in large rivers: An adaptive approach towards a desired morphodynamic equilibrium M. Glas, M. Tritthart, M. Liedermann, S. Pessenlehner, H. Habersack	Vertical grain size sorting in bedload transport on steep slopes with a coupled fluid-discrete element model P. Frey, R. Chassagne, R. Maurin, J. Chauchat	Wavenumber-frequency analysis of river surface texture to improve accuracy of image-based velocimetry K. Tani, I. Fujita
12:15	Mixing processes at an ice-covered river confluence P. Biron, T. Buffin-Bélanger, N. Martel	Development and implementation of ecological and economical flood protection measures at an alpine river U. Stephan, S. Kainz, M. Hengl, A. Bickel	Stress balance for a viscous flow with a single rolling particle E. Biegert, B. Vowinckel, L. Hua, E. Meiburg	Development of Aerial Space Time Volume Velocimetry for Measuring Surface Velocity Vector Distribution from UAV I. Tsuji, K. Tani, I. Fujita, Y. Notoya

12:35	**Lunch**

14:00 - 15:40	**Parallel sessions - 9**			
	Flow resistance over rough bed	**Bank erosion**	**Bedload and bed evolution modelling**	**Innovative in-situ measurements (discharge) - part 2**
14:00	Depth-averaged velocity and bed shear stress in unsteady open channel flow over rough bed J. R. Khuntia, K. Devi, S. Proust, K. K. Khatua	Wave Erosion of Cohesive and non-Cohesive Embankments: Laboratory Experiments Y. Ozeren, D. Wren	Bedload transport modelling using kinetic theory V. Matousek, S. Zrostlik	Velocity profile and depth-averaged to surface velocity in natural streams: a review over a large sample of rivers A. Hauet, T. Morlot, L. Daubagnan
14:20	An experimental investigation on the flow resistance over a porous gravel bed surface and its non-porous counterpart C. U. Navaratnam, J. Aberle, J. Qin, P-Y. Henry	Impact Analysis of Sand Dredging from Alluvial Tidal River M. K. Islam, N. A. Kibriya, M. M. Dustegir	Lagrangian modeling of bedload movement via the impulse entrainment method M. Wyssmann, T. Papanicolaou	The estimation of the uncertainty associated with rating curves of the river Ivinhema in the state of Paraná/Brazil L. Maldonado, D. Kazay, E. Romero
14:40	Bedload transport and hydro-abrasive erosion at steep bedrock rivers and hydraulic structures M. Müller-Hagmann, C. Auel, I. Albayrak, R. Boes	Numerical Simulation of lateral dike breaching due to overtopping B. Dewals, I. Rifai, K. El-Kadi Abderrazek, M. Greco, C. Di Cristo, M. Iervolino, A. Leopardi, A. Vacca	A well-posed model for mixed-sediment river morphodynamics V. Chavarrias, G. Stecca, R. J. Labeur, A. Blom	Monitoring and analysis of lowland river discharge T. Hoitink
15:00	Effect of aspect ratio on higher order moments of velocity fluctuations in a rough open channel flow experiment. M. Mahananda, P. R. Hanmaiahgari	Numerical modelling of cantilever failure and effect of slump blocks on meander migration K. R. Arnez Ferrel, I. Kimura, Y. Shimizu	A simple non-equilibrium bedload transport equation for the formation of dune in a shallow-water flow over an erodible bed P. Cañada-Pereira, P. Bohorquez	Measurement of inundating flow from a broken enbankment by using video images shoot from a media helicopter I. Fujita, Y. Notoya, T. Furuta
15:20	Reducing Darcy coefficient by using drag reduction methods in open-channel flows: effect on discharge capacity and potential application to mitigate river flooding impact E. Mignot, N. Riviere, A. Lefevre, B. Quillien	River bank erosion opposite to transverse groynes A. Crosato, J. Bonilla Porras, A. Pinkse, T. Tiga	Stochastic bedload transport in mountain streams I: models C. Ancey, P. Bohorquez	Estimating the long-term evolution of river bed levels using hydrometric data J. Le Coz, G. Smart, D. M. Hicks, V. Mansanarez, B. Renard, B. Camenen, M. Lang

15:40	**Break**
16:00 - 17:00	**Closing Ceremony**

A - River morphodynamics and restoration

Experimental investigation of low-angle dune morphodynamics
S. Naqshband, B. Wullems, T. De Ruijsscher, T. Hoitink

Validation of high-precision effects of a movable riverbed simulation using unmanned aerial vehicles and structure from
M. Denda

Dune geometry estimation using apparent bedload velocity as predictor variable
G. Gilja, N. Kuspilić

Sediment management in tidal river: A case study of East Beel Khuksia, Bangladesh
R. Talchabhadel, H. Nakagawa, K. Kawaike

Targeted water release to flush fine sediment out of bypassed section of the Durance River downstream four dams
R. Loire, H. Piégay, L. Bêche, Q. Dumoutier, J. Mosseri

Analysis for Underwater Sound on Natural River Habitat
J-E. Gu, S. H. Jung, J. Kang, H. Woo

Quantification of potential recruitment of large woody debris in mountain catchments considering the effects of vegetation on hydraulic and geotechnical bank erosion and shallow landslides
E. Gasser, A. Simon, P. Perona, L. Dorren, J. Hübl, M. Schwarz

Effect of riparian vegetation roots on development of meander bends in Tarim River, Northwest China
G-A. Yu, Z. Li, H. Q. Huang, W. W. Yao

Bulk scaling of flow characteristics in the interior of sparse, emergent and rigid vegetation patch
S. Maji, P. Hanmaiahgari

Experiments with sediment replenishment in a residual flow reach: comparison of field data with laboratory experiments
S. Stähly, A. Maître, M. Franca, C. Robinson, A. Schleiss

Hydraulics of braided river dynamics. Insights from flume experiments.
R. Vesipa, C. Camporeale, L. Ridolfi

Limiting the development of riparian vegetation in the Isère River: physical and numerical modelling study
N. Claude, K. El Kadi Abderrezzak, M. Duclercq, P. Tassi, C. Leroux

Self-adjustment process of flow pathway in a narrow curved channel
H. Hayakawa, T. Kitao, N. Sato

Morphological development of river widenings with variable sediment supply
C. Rachelly, V. Weitbrecht, D. F. Vetsch, R. M. Boes

Calibration procedure of hydraulic simulations for the microhabitat method.
L. Cassan, H. Roux, D. Courret, S. Richard

A Study on the applicability of optical remote sensing techniques in river
J. H. Kim

B - Hydraulic structures and their effects on bed, flow regime and ecology

Estimating large woody debris volume and distribution floated and accumulated in reservoir using aerial photographs
W. Suzuki, S. Kobayashi, S. Kantoush, Y. Takemon, T. Sumi

Degradational response of engineered alluvial channels to changes in the upstream controls and channel width: Simplified 1D numerical simulations
M. Tewolde

Experimental study of the bed morphology downstream of a sluice gate
L. Carvalho, E. Carvalho, R. Aleixo, M. M. Lima

Measurement and control of high suspended sediment concentration during kurobe river sediment flushing with
T. Sumi, S. Morita

Experimental study of the velocity field induced by a propeller jet in an inland-ship model and the related bed scour
F. Núñez-González, K. Koll, D. Spitzer

Evaluating an optimum slit check dam design by using a 2D unsteady numerical model
S. Tfwala, S-C. Chen

Scour monitoring on bridge pier ? methodology and implementation
E. Florens, C. Chevalier, F. Larrarte, F. Schmidt, E. Durand

Factors influencing the sediment delivery ratio of the Three Gorges Reservoir
D. Wang, C. Hu, C. Fang, J. Guan, L. Zhang

Experimental study of submerged vanes in intakes under sediment feeding conditions
A. Bor Turkben

Three dimensional flow structures around a deep scour hole
A. Tominaga, N. Sassa, Y. Hara, Y. Kuno

Numerical Modelling of turbidity currents with ANSYS CFX and TELEMAC 3D
M. Jodeau, J. Feng, S. Chamoun, G. De Cesare, A. Schleiss

Hydraulic potential of the Lower Vistula (Poland)
M. Szydlowski, R. Szymkiewicz, D. Gasiorowski, J. Hakiel, P. Zima

Reservoir sedimentation impact downstream in a semi-arid basin with greenhouse cultivation
S. Arjona, A. Millares, A. Baquerizo

Comparing of circular and square collars operation in reduction of local scour around bridge piers
S. R. Khodashenas

C - Sediment and pollutant dynamics in rivers

Temporal variability of contaminated sediments in a strongly regulated reservoir of the upper Rhine River
G. Antoine, T. Pretet, M. Secher, A. Clutier

Questions in the quantitative analysis of sediment load - example of three major rivers in Hungary
E. A. Tamas, J. Ficsor

Comparison of standardized methods for suspended solid concentration measurements in river samples
G. Dramais, B. Camenen, J. Le Coz, C. Le Bescond, F. Thollet, M. Lagouy, A. Buffet, C. Berni

Using high-resolution bedload transport tracer measurements to investigate the characteristics of bedload transport over a large urban flood event
F. Berteni, B. Plumb, W. Annable, G. Grossi

D - Fluid Mechanics and sediment processes

Hydraulic physical model production with Computer Numerically Controlled (CNC) manufacturing techniques.
P-Y. Henry, J. Aberle, C. Navaratnam, N. Ruther

Sediment properties in the fluvial and estuarine environments of the Mekong river
H-A. Le, N. Gratiot, W. Santini, O. Ribolzi, S. Soares-Frazão, E. Deleersnijder

2D numerical simulation of meander morphology
M. S. Banda, S. Niewerth, J. Aberle

Observation and analysis of long-periodic modes in an open channel confluence with dominant tributary inflow
L. Schindfessel, T. De Mulder, M. Loccufier

Numerical analysis of flood with a double grid model
G. Morikawa, I. Kimura

COURLIS: a new sedimentology 1D module for MASCARET
M. Sécher, P. Ung, E. Valette, M. Jodeau, N. Goutal

Experimental Studies on the Formation of Air-core inside the Drop Shaft
D. S. Rhee, H. Seong, I. Park, H-J. Kim

Two-dimensional Pollutant Transport Simulations in Natural Streams with Horizontal Recirculation Zone
I. Park, H. Seong, H-J. Kim, D. S. Rhee

A Well-balanced Finite Volume Scheme for Shallow Water Equations with Porosity: Application to Modelling Flow through Rigid Vegetation
M-H. Le, V. Dubos, M. Oukacine, N. Goutal

Feature Tracking Velocimetry applied to Airborne Measurement Data from Murg Creek
L. Cao, V. Weitbrecht, D. Li, M. Detert

Mesh Sensitivity of an LES model of a 3D sediment-driven gravity current
J. Pelmard, H. Friedrich, S. Norris

An Eulerian-Lagrangian numerical method to predict bubbly flows
E. Mitrou, B. Fraga, T. Stoesser

Modelling river hydro-sedimentary fluxes during a high magnitude flood event
J. Lepesqueur, R. Hostache, N. Martinez-Carreras, C. Tailliez, C. Hissler, L. Manceau, C. Delus, B. Loson, E. Montarges-Pelletier

Numerical simulations on mixing of passive scalars in river confluences
S. Pouchoulin, E. Mignot, N. Riviere, J. Le Coz

An enhanced depth-integrated model for flows over a negative step with hydraulic jump
T. Uchida

Comparison of Large Woody Debris Prototypes in a Large Scale Non-flume Physical Model
> *B. Perry, C. Rennie, A. Cornett, P. Knox*

The spillway design for the dam's height over 300 meters
> *Y. Wei, Y. Chen, X. Li, X. Ma*

Inferring thermal turbulent structures properties in the wake of an array cylindrical obstacles
> *S. Mulahasan*

Non-intrusive techniques to measure roll waves level evolving in a flume.
> *G. Maciel, E. Da Cunha, Y. Sao, A. Toniati, G. Fiorot, F. Ferreira, C. Kitano, V. Gonçalves Junior*

E - Extreme events

Sediment Pulses and Extreme Events: Assessing the Effect of Storm Characteristics on Propagation Dynamics
> *C. Castro-Bolinaga, P. Diplas, R. Bodnar*

A comparative analysis of 3-D representations of urban flood inundation in virtual environments for hazard communication purpose
> *R. De Santis, F. Macchione, P. Costabile, C. Costanzo*

Flood forecasting using a coupled hydrological and hydraulic model (based on FVM) and high-resolution meteorological
> *M. Sanz-Ramos, A. Amengual, E. Bladé, R. Romero, H. Roux*

Flood mitigation through riparian detention in response to climate variability ? a case study in Taiwan
> *K. T. Lee, P-C. Huang*

Combined Influence of Terrain Modell and Roughness in Dam Break Wave Simulation
> *A. Bornschein*

Flood Risk Mapping for Emergency Management by Applying Grid-Based Model
> *K. Y. Han, J. H. Park, H. Choi*

Flood hazard mapping techniques with LiDAR in the absence of river bathymetry data.
> *G. Choné, P. Biron, T. Buffin-Bélanger*

Flood Management at Narrow River Mouth
> *O. Seleem, A. Kadota, P. Aziz*