



Programme

DAY 1: June 14th

08:30: Registration – Polytech Nice Sophia - 1645, Route des Lucioles 06410 BIOT France

09:00 9:15 - Opening

Plenary session

09:15 10:00 - Keynote lecture, 69 - Pietro Marco Congedo, Advanced uncertainty quantification methods for applied hydraulics, INRIA, France

10:00 10:30 - Coffee break

Parallel sessions

Session 1.1.a: Monitoring systems (Part A)

Session Chair: R. Hinkelmann - Amphi A1

- 10:30 5 - Philippe Gourbesville, Decision Support System architecture for real time water management, Polytech Nice Sophia, France
- 10:50 42 - Mingxuan Du, Elodie Zavattero, Qiang Ma, Philippe Gourbesville and Olivier Delestre, Groundwater modeling for a decision support system: the lower Var valley, southeastern France, Polytech Nice Sophia, France
- 11:10 99 - Anaïs Ramos Fuertes, Antoni Palau and Josep Dolz, Application of a two-dimensional water quality model (CE-QUAL-W2) to the thermal impact assessment of a pumped-storage hydropower plant project in a mountainous reservoir (Matalavilla, Sil river) Institut Flumen UPC-CIMNE, Universitat Politècnica de Catalunya, Centre Internacional de Mètodes Numèrics, Spain
- 11:30 40 - Elodie Zavattero, Yunpeng Zhai, Meichun Qin, Mingxuan Du, Olivier Delestre and Philippe Gourbesville, 2D surface water quality model: a forecasting tool for accidental pollution in urban river - Application to the Var river, Polytech Lab, China University of Petroleum, Laboratory J.A. Dieudonné, China & France
- 11:50 33 - Denis Plec, Frédéric Soullignac, Lucas Porto, Bruno Lemaire, Philippe Dubois, Mohamed Saad, Laure Huguenard, Cécile Bernard, Nilo Nascimento and Brigitte Vinçon-Leite, Modelling

- 12:10 31 - Arnaud De Bonviller and Julien Berthelot, Design and monitoring of river restoration work, ISL, France

Session 1.2.a: Methods for Modelling (Part A) Session Chair: M. Gomez - Amphi A2

- 10:30 2 - Guillaume Desquesnes, Guillaume Lozenguez, Arnaud Doniec and Eric Duviella, Large Markov Decision Processes Based Management Strategy of inland waterways in uncertain context, Institut Flumen UPC-CIMNE, Universitat Politècnica de Catalunya, Centre Internacional de Mètodes , Spain & France
- 10:50 14 - François-Xavier Cierco, Pierre-Loïc Rothé, Dragan Amenga Mbengoué and Pierre Balayn, Meta-heuristic optimization method for the calibration of friction coefficients in 1-D open surface channel modelling, ENPC, CNR, CACOH, France
- 11:10 38 - Bobby Minola Ginting, Ralf-Peter Mundani, Artificial Viscosity Technique: A Riemann-Solver-Free for 2D Urban Flood Modelling on Complex Topography, Technical University of Munich, Germany
- 11:30 3 - Pau Segovia, Lala Rajaoarisoa, Fatiha Nejjari, Vicenç Puig and Eric Duviella, Modeling of interconnected flat open-channel flow: application to inland navigation canals, University of Catalunya, Spain
- 11:50 72 - Thierry Lepelletier and Quentin Araud, Implicit formulation for 1D and 2D St Venant equations – Presentation of the method, validation and applications, Hydratec, France
- 12:10 16 - Tabea Broecker, Katharina Teuber, Waldemar Elsesser and Reinhard Hinkelmann, Multiphase modeling of hydrosystems using OpenFOAM, TU Berlin, Germany

Session 1.3: Sediment Interaction Modelling Session Chair: E. Mosselman – Room C3

- 10:30 103 - Igor Kerin, Sanjay Giri and Damir Bekic, Simulation of Levee Breaches Using Delft Models in a Case of the River Drava, University College Cork, Deltares, University of Zagreb, Ireland, Netherlands & Croatia
- 10:50 132 - Ilaria Fent, Sylvie Van Emelen and Sandra Soares-Frazão, Comparison between models used to simulate dam break flows over a mobile bed made of different materials, Catholic University of Louvain, Belgium
- 11:10 98 - Baiti Rahma Maudina, Dwinanti Rika Marthanty and Herr Soeryantono, Protocol Development to Determine Dispersion Coefficient of Conservative Solution in Mobile Bed Model Tank Experiment Using Resource Modelling Associates (RMA) Program, Faculty of Engineering, Indonesia
- 11:30 23 - Wenyi Yao, Lingling Wang and Mian Li, Distributed hydrodynamic model of the rich and coarse sediment area of the Yellow River basin, Yellow River Institute of Hydraulic Research, China
- 11:50 53 - Ngoc Duong Vo, Quang Binh Nguyen, Ngoc and Philippe Gourbesville, Flow near groynes: experimental or computational approaches, University of Nice, Sophia Antipolis, France

Lunch 12:30 - 14:00

Parallel sessions

Session 1.4: Uncertainty Quantification and Data Assimilation: The river Garonne Benchmark **Session Chair: N. Goutal – Amphi A2**

Special session - Uncertainty: a real test case on the Garonne river

- 14:00 104 - Sophie Ricci, Nabil El Mocayd, Nicole Goutal, Mélanie Rochoux, Cédric Gouery, Riadh Ata, Hind Oubanas, Pierre-Olivier Malaterre and Igor Gejadze, Uncertainty quantification for river flow simulation applied to a real test case: the Garonne valley, Cerfacs, IRSTEA, EDF R&D, LHSV, France
- 14:30 107 - Hind Oubanas, Pierre-Olivier Malaterre, Igor Gejadze, Franck Mercier, River discharge estimation under uncertainty from synthetic swot-type observations using variational data assimilation, IRSTEA, CLS, France
- 14:50 32 - Nathalie Bertrand, Maxime Liquet, Denis Moiriat, Lise Bardet and Claire-Marie Duluc, Modelling levee breaches with a 1D hydraulic model HEC RAS the benchmark Garonne, GFZ, IRSN, Germany & France
- 15:10 118 - Vanessya Laborie, Nicole Goutal, Sophie Ricci, Matthias De Lozzo, and Philippe Sergent, Uncertainty quantification in hydrodynamics bidimensional models: the case of Gironde estuary telemac 2D numerical model, CEREMA, CERFACS, LHSV-EDF R&D, France
- 15:30 29 - Vito Bacchi, Claire-Marie Duluc, Lise Bardet, Nathalie Bertrand and Vincent Rebour, Feedback from uncertainties propagation research projects conducted in different hydraulic fields; outcomes for engineering projects and nuclear safety assessment., IRSN, France
- 15:50 105 - Thomas Viard, Matthieu Secher and Cedric Goeury, Navigability evaluation at a confluence with bathymetric variability, EDF - CIH / EDF R&D, France

Session 1.5.a: Physical and Numerical Modelling Complementarity (Part A) **Session Chair: G. de Cesare – Amphi A1**

Special session - Physical models, their place and their complementarity with mathematical models in order to optimize hydraulic structure modelling

- 14:00 66 - Erik Mosselman, Modelling in applied hydraulics: more accurate in decision making than in science? DELTARES, Netherlands
- 14:30 136 - Sébastien Roux, Pierre Balayn, Pauline Bertrand, Frédéric Prin, Bernard Brachet, Hélène Darras and Luca Pinardi Hybrid model study of the Clichy sewage pre-treatment plant, CNR, EGIS, Setec Hydratec, GEPUR, France
- 14:50 34 - Erik Bollaert, Vincent Mano, Rafael Duarte and Martin Jaeggi, Numerical and physical modelling of future Rhône Delta (Switzerland), AquaVision Engineering, Artelia Eau et Environnement, DGE-EAU, Jaeggi Rivers, Switzerland & France
- 15:10 63 - Damien Alliau, Magali Decachard, Carole Wirz, Christophe Peteuil, Sylvain Reynaud and Antoine Vollant, Evaluating 3D hydraulic conditions to favor sediment transport and erosion through a reservoir: hybrid modelling of Champagneux run-of-river dam on the Rhône river, CNR and Optifluides, France

15:30-16:10 - ROUND TABLE: The benefit of physical models: the prescriber's point of view **Moderator:** L. Bazerque (Artelia) **Participants:** S. Aboulouard (SIAAP), Th. Lepelletier (Hydratec), S. Roux (CNR), K. Essyad (BG), D. Clément (HYDRETUDES)

Session 1.2.b: Methods for Modelling (Part B) Session Chair: A. Paquier – Room C3

- 14:00 108 - Jean-Michel Tanguy, Join ANSWER: A participatory science operation to develop educational resources, SHF GIS, France
- 14:20 119 - Klaudia Horváth, Bart van Esch and Jorn Baayen, How to select linearized hydraulic models for model predictive control of open water systems? Eindhoven University, Netherlands
- 14:40 73 - Camille Duran, Thierry Lepelletier and Vincent Mora, Development of a hydraulic modelling platform within an open source environment, Hydratec, Oslandia, France
- 15:00 87 - Euan Russano, Dirk Schwanenberg, Multi-step flow routing using artificial neural networks for decision support, (WaWi), University of Duisburg-Essen (UDE), Germany
- 15:20 75 - Fabian Franzini, Damien Hoedenaeken and Sandra Soares-Frazão, Modelling the flow around islands in rivers using a one-dimensional approach, Catholic University of Louvain, Belgium
- 15:40 76 - Olivier Carlier d'Odeigne, Fabian Franzini, Guilherme Coutinho Machado Da Rosa, Nils Janssens and Sandra Soares-Frazão, Measurement of the free-surface elevation for flows in complex topography using photogrammetry, Catholic University of Louvain, Belgium

Coffee break 16:10 16:40

Session 1.2.c: Methods for Modelling (Part C) Session Chair: M. Abily – Room C3

- 16:40 78 - Kun Guo and Yee-Chung Jin, Numerical simulation of landslide impulsive waves by WC-MPS method, University of Regina, South Korea
- 17:00 64 - Soninbayar Janrai and Philippe Audra, Dam break simulation using DHI-Mike21 in the Eg hydropower plant, Mongolia, Nice Sophia Antipolis University, France

Session 1.1.b: Monitoring systems (Part B) Session Chair: O. Giustolisi - Amphi A1

- 16:40 135 - Antonietta Simone, Daniele Biagio Laucelli, Luigi Berardiand, Orazio Giustolisi, Modularity index for optimal sensor placement in WDNs, Politecnico di Bari, Italy
- 17:00 8 - Philip R. Page, Adnan M. Abu-Mahfouz, Olivier Piller, Matome L. Mothetha and Muhammad S. Osman, Robustness of parameter-less remote real-time pressure control in Water Distribution Systems, Built Environment, Council for Scientific and Industrial Research, Tshwane University, Irstea, France & South Africa
- 17:20 43 - Kazeem Adedeji, Yskandar Hamam, Bolanle Abe and Adnan Abu-Mahfouz, Leakage Detection Algorithm Integrating Water Distribution Networks Hydraulic Model, Tshwane University, South Africa
- 17:40 45 - Kazeem Adedeji, Yskandar Hamam, Bolanle Abe and Adnan Abu-Mahfouz, Pressure Management Strategies for Water Loss Reduction in Large-Scale Water Piping Networks: A Review, Meraka Institute, Council for Scientific and Industrial Research, South Africa

Session 1.5.b: Physical and Numerical Modelling Complementarity (Part B)

Session Chair: D. Roult – Amphi A1

- 16:40 140 - Sébastien Erpicum, Benjamin Dewals, Pierre Archambeau and Michel Pirotton, 15 years of Composite modelling to enhance hydraulic structures studies, ULG, Belgium
- 17:10 112 - Agnès Leroy, Pierre Bourqui, Lionel Dumond and Giovanni De Cesare, Physical and 3D numerical simulation of the flow in the tailrace of a hydroelectric power plant to design fishway entrances, EDF R&D -LNHE, EPFL, France & Switzerland
- 17:30 49 - James Li, Shelley Kuan and Alan Fok, A Scale Model of a Run-of-the-River Hydropower Station with Complex Inlets, Ryerson University, Cole Engineering Group Ltd, Canada
- 17:50 113 - Davide Wüthrich, Sabine Chamoun, Erik Bollaert, Giovanni De Cesare and Anton Schleiss, Hybrid modelling approach to study scour potential of Chancy-Pougny dam stilling basin, EPFL, AquaVision Engineering Ltd., Switzerland
- 18:30 Award Ceremony for SHF Jean Valembois prize, Pierre-Louis Viollet, Chair of the Scientific & Technical Committee of SHF – Amphi A1**

18h50 Cocktail - End of day 1

DAY 2: June 15th

09:00 12:00 Special session Session Chair: Ph. Gourbesville – Amphi A1

- ***Return of Experience - 2015 Riviera Floods***

On the 3rd October 2015, the French Riviera has been affected by extreme precipitations that have generated flash floods and inundations in many coastal cities. The recorded event has affected several thousands of inhabitants and killed 19 persons in tragic circumstances. The estimation of the direct damages has reached about € 850 millions. The special session during SimHydro 2017 will allow to come back on the event and to analyze origins, processes and management strategies. The session will be organized in order to maximize the return of experience for the modeller's community.

Moderator: Philippe Gourbesville

Participants:

- Pascale Vaillant – Deputy Major – Cannes (France)
- Jean Bernard Vitiello – Journalist France 3
- Alix Roumagnac - Predict
- Denis Snidaro – Suez Eau France

10:30 11:00 - Coffee break

Roundtable

Lunch 12:00 13:30

Parallel sessions

Session 2.6.a: Flood and Inundation Forecasting (Part A) Session Chair: Ch. Coulet – Amphi A1

- 13:30 47 - Yannick Dorgigne, Morgan Abily, Leslie Salvan and Philippe Gourbesville, Creation and life of an operational crisis management center in Nice metropolis: consolidation of flood events handling using feedbacks following the 3rd October flood event, Direction de la Prévention et de la Gestion des Risques, Innovative CiTy URE 005, Polytech' Nice, France
- 13:50 101 - Frederic Pons, Mathieu Alquier and Isabelle Roux, Semi-automatic maps for 2015 French riviera floods, Cerema Méditerranée, France
- 14:10 6 - Tsun-Hua Yang, Gong-Do Hwang and Xiu-Man Huang, Combining numerical rainfall forecasts and realtime observations to improve early inundation warnings, Taiwan Typhoon and Flood Research Institute (TTFRI), Taiwan
- 14:30 7 - Sébastien Barthélémy, Sophie Ricci, Thierry Morel, Nicole Goutal and Etienne Le Pape, Joint hydraulic model coupling and data assimilation for real-time flood forecasting, UMR CECI/CERFACS, EDF R&D, SCHAPI, France
- 14:50 116 - Nianqiang Zhang, Jing Wang and Na Li, Research Center on Flood and Drought Disaster Reduction (CDR), IWHR China Institute of Water Resources and Hydropower Research, China
- 15:10 129 - Finn Hansen, Børge Storm, Bertrand Richaud, Anders Klinting, Aurelien Gasc; Flood forecasting on the Chao Phraya river basin in Thailand, DHI, France

Session 2.7.a: 3D and Complex Flow Modelling (Part A) Session chair: P.L Viollet – Room C3

- 13:30 80 - Tung Thanh Vu, Alvin Wei Ze Chew and Adrian Wing-Keung Law, UPC architecture for high performance computational hydrodynamics, (EPMC), Nanyang Technological University, Singapore
- 13:50 133 - Edouard Izard, Laurent Lacaze, Thomas Bonometti and Annaïg Pedrono, Numerical modeling of a granular collapse immersed in a viscous fluid, Arcelor Mittal, IMFT, France
- 14:10 28 - Christian Bourdarias, Stéphane Gerbi and Victor Winckler, Numerical simulation of mixed flows in hydroelectric circuits with temporary flows, Flowmix software, EDF CIH, France
- 14:30 90 - Julien Schaguene, Olivier Bertrand, Guillaume Barjot, Caroline Girard and Benoit Dumout, Determination of the overflow of a storm regulator by using numerical modeling, Artelia Eau et Environnement, France
- 14:50 106 - Pierre Le Fauchaux, David Dorchies, Xuefang Li, Souha Gamri, Cyril Dejean, Séverine Tomas and Gilles Belaud, Modelling flow under baffle sluice gates, Irstea UMR-GEAU, France
- 15:10 114 - Giovanni De Cesare, Khalid Essyad, Paloma Furlan, Vu Nam Khuong and Sean Mulligan, Experimental study at prototype scale of a self-priming free surface siphon, EPFL, BG Ingénieurs Conseil, Switzerland

Session 2.8.a: Urban Flow Modelling (Part A) Session Chair: P.O. Malaterre – Amphitheatre A2

- 13:30 13 - Tariq Chibane, André Paquier and Saadia Benmamar, Coupled 1D/2D hydraulic simulation of the model MURI, IRSTEA, France
- 13:50 17 - Renaud Rohan, Arielle Masson, Christian Arlet, Adlane Rebaï, Claudine Jost and Carine Chaléon, Development of a modeling tool of the Seine River and its main tributaries river flows, Artelia Paris, EPTB Seine Grands Lacs, DRIEE, France
- 14:10 59 - Leslie Salvan, Elodie Zavattero and Philippe Gourbesville, Guidelines for flood and dry threshold definition in two-dimensional hydrodynamic flood modelling tools - An analysis of urban and fluvial situations, Nice University, Polytech Lab., France
- 14:30 60 - Leslie Salvan, Morgan Abily and Philippe Gourbesville, Hydrodynamic coupling for stormwater studies in suburban catchments – study case of the Magnan basin, Nice, Ecole Polytech', France
- 14:50 97 - J. Christophe Bouvier, Nanée Chahinian, Marko Adamovic, Claire Cassé, Anne Crespy, Agnes Cres and Matias Alcoba, Large-scale gis-based urban flood modelling case of the city of Ouagadougou, IRD, UMR HydroSciences, France
- 15:10 21 - Jiayi Wang, Lianjun Zhao and Chao Zhu, Review and optimization of carrying of urban drainage system based on ArcGIS and Model, Yellow River Institute of Hydraulic Research, China

Coffee break 15:30 - 16:00

Parallel sessions

Session 2.6.b: Flood and Inundation Forecasting (Part B) Session Chair: T.H. Yang – Amphi A1

- 16:00 11 - Dongeon Kim, Yabin Sun, Dadiyorto Wendi, Ze Jiang, Shie-Yui Liong and Philippe Gourbesville, Flood modelling framework for Kuching City, Malaysia: overcome the lack of data, National University of Singapore, University of Potsdam, Singapore, France
- 16:20 100 - Konrad Bogner, Katharina Liechti and Massimiliano Zappa, Error correcting and combining multi-model flood forecast systems, Swiss Federal Institute, WSL, Switzerland
- 16:40 74 - Adermus Joseph, Nyankona Gonomy, Yves Zech and Sandra Soares-Frazao, Modelling and analysis of the flood risk at Cavaillon City, Université d'Etat d'Haïti, Louvain Catholic University, Haiti & Belgium
- 17:00 68 - Franziska Tügel, Ilhan Özgen, Ahmed Hadidi, Uwe Tröger and Reinhard Hinkelmann, Modelling of flash floods in wadi systems using a robust shallow water model – Case study el Gouna, Egypt, TU Berlin, Germany

Session 2.7.b: 3D and Complex Flow Modelling (Part B) Session Chair: S. Soares – Amphi A2

- 16:00 89 - Mehdi Pierre Daou, Olivier Bertrand, Eric Blayo and Antoine Rousseau, Tridimensional model coupling using Schwarz's methodology - Application to a water intake of a hydroelectric plant, Artelia, Laboratoire Jean Kuntzmann, INRIA, France
- 16:20 70 - Vincent Libaud, Christophe Daux and Yanis Oukid, Practical capacities and challenges of 3D CFD modelling: feedback experience in engineering projects, Tractebel ENGIE, France
- 16:40 91 - Olivier Bertrand, Julien Schaguene, Pierre-Etienne Loisel, Caroline Girard and Pierre-François Demenet, Three dimensional numerical modelling for flow analysis inside a pumping station, ARTELIA Eau et Environnement, France
- 17:00 131 - Stephan Creelle, Lukas Engelen, Laurent Schindfessel, Pedro Ramos and Tom De Mulder, Experimental investigation of free surface gradients in a 90 degree angled asymmetrical open channel confluence, Ghent University, Belgium
- 17:20 96 - Jie Song, Chunyan Tang, Carlos Serrano Moreno, Myung Eun Lee and Adrian Wing-Keung Law, Study on recirculation between intakes and outfalls of desalination plants, NTU-Hyundai Urban System Centre, Nanyang Technological University, South Korea & Singapore

Gala Diner 19:30 (*Palais de Méditerranée - Nice*)

DAY 3: June 16th

Parallel sessions

09:00 12:00 Workshop animated by Jean-Michel Tanguy (SHF-GIS)

Towards a new generation of Hydraulic Models: Clever, Collaborative, Web-connected

Session 3.9.a: Hydraulic Machinery (Part A)

Session Chair: G. Caignaert – Amphi A1

- 09:00 26 - Jiří Kozák, Pavel Rudolf, Martin Hudec, David Štefan, Rostislav Huzlík, Martin Čala and Ondřej Urban, Investigation of the cavitation within venturi tube: influence of the generated vortex, Brno University, Czech Republic
- 09:20 36 - Jean Decaix, Andres Müller, Arthur Favrel, François Avellan and Cécile Münch, U-RANS simulations and PIV measurements of a self-excited cavitation vortex rope in a Francis turbine, HES Valais, Switzerland
- 09:40 82 - Keyu Zhang, Qiaorui Si, Jianping Yuan and Gerard Bois, Investigation on the contributions to the centrifugal pump performance degradations under air-water inlet two-phase flow conditions, ENSAM Lille, France
- 10:00 121 - Sofien Bouajila, James Brammer, Emmanuel Flores, Claire Segoufin and Thierry Maitre, Modelisation and simulation of Francis turbine inter-blade vortices in partial load conditions, LEGI INP Grenoble, GE, France

Session 3.10.a: Water Systems management (Part A) Session Chair: D. Nohara – Amphi A2

- 09:00 22 - Chao Zhu, Lianjun Zhao and Jiayi Wang, Experimental research on the effects from sediment-laden flow on WES practical weirs discharge capacity, Yellow River Institute of Hydraulic Research, China
- 09:20 15 - Daisuke Nohara, Tomoharu Hori and Yoshinobu Sato, Real-time reservoir operation for drought management considering operational ensemble predictions of precipitation in Japan, Kyoto University, Japan
- 09:40 93 - Ferhati Ahmed, Dahmani Saad and Yebdri Djilali, Development of reservoir management optimal rules : case of Hammam Bouhrara dam Wilaya of Tlemcen, Algeria, University of Bouira, Algeria
- 10:00 44 - Sedigheh Anvari, S. Jamshid Mousavi and Saeed Morid, A multilevel uncertainty-based approach for optimal irrigation scheduling, University of Advanced Technology, Iran

Coffee break 10:20 10:50

Parallel sessions

Session 3.9.b: Hydraulic Machinery (Part B)

Session Chair: C. Alligné – Amphi A1

- 10:50 109 - Cécile Alligné-Münch, Anthony Gaspoz, Sylvain Richard, Vlad Hasmatuchi and Nino Brunner, New Prototype of a Kinetic Turbine for Rivers and Artificial Channels, Switzerland
- 11:10 120 - Clément Jacquet, Regiane Fortes-Patella, Laetitia Balarac and Jean-Bernard Houdeline, Hybrid RANS/LES approach: an accurate methodology to predict S-shape region of reversible pump-turbines, SuperGrid Institute, GE, France

- 11:30 88 - Banglun Zhou, Antoine Dazin, Annie-Claude Bayeul-Lainé, Jianping Yuan, Yaguang Heng, Patrick Dupont and Najib Ouarzazi, “Low cost” approaches for the prediction of rotating instabilities in the vaneless diffuser of a radial flow pump, LML, Jiangsu University, France & China
- 11:50 24 - Prokop Moravec and Pavel Rudolf, Optimization in hydraulic machinery - combination of a particle swarm optimization algorithm and Nelder-Mead algorithm in a diffuser shape optimization, Brno University , Czech Republic

Session 3.10.b: Water Systems management (Part B) Session Chair: Y. Zech – Amphi A2

- 10:50 128 - Aurélien Gasc, Valérie Banneville, Martin Misik, Stanislav Vanecek, Jozef Stoklasa and Marián Kučera, Increasing safety and efficiency of inland navigation with a real-time hydrodynamic model, DHI, France
- 11:10 94 - Anil Aryal, Sangam Shrestha, Jun Magome and Ishidaira Hiroshi, Quantifying the sources of uncertainty in climate projection on hydrologic modelling, University of Yamanashi, Japan
- 11:30 92 - Zhengmiao Li and Qiang Ma, Assessment of the land use change impacts on the hydrological regimes in Haihe river basin, China
- 11:50 46 - Qiang Ma, Mingxuan Du, Elodie Zavattero and Philippe Gourbesville, Assessment of deterministic model over long time period hydrological simulation at ungauged Mediterranean catchment, France
- 12:10 56 - Ngoc Duong Vo, Potential flood risks under climate change in Vu Gia Thu Bon catchment, the University of Da Nang, Polytech’Nice Sophia, Vietnam & France

12:30 13:30 Lunch

Parallel sessions

Session 3.10.c: Water Systems management (Part C) Session Chair: O. Bertrand – Amphi A1

- 13:30 30 - Meriem Chetibi, Sébastien Proust and Saadia Benmamar, Experimental study of flows in a converging channel followed by a prismatic channel with stairs, IRSTEA, France
- 13:50 57 - Ngoc Duong Vo, Assessing impact of construction work on hydrodynamic regime and river morphology with TELEMAT 3D, University of Da Nang, Innovative City lab, Polytech’Nice Sophia, Viet Nam & France
- 14:10 55 - Ngoc Duong Vo, Comparing model effectiveness on simulating catchment hydrological regime, Polytech’ Nice Sophia, France
- 14:30 84 - Gerardo Avendano and Hector Alvarez, Application of Hidden Markov Model (HMM) to modeling structural change in time series environmental, Universidad EAN, Colombia
- 14:50 41 - Giovanni Gomes, Jose Quevedo and Auder Machado, Flow forecasting system downstream the Itaipu dam, Itaipu.Government Py, Bresil

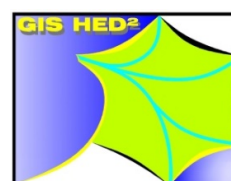
Session 3.11: Flood and Marine Submersion Modelling Session Chair: E. David – Amphi A2

- 13:30 37 - Ilhan Özgen, Morgan Abily, Phillippe Gourbesville, Jiaheng Zhao, Dongfang Liang and Reinhard Hinkelmann, Towards district scale flood simulations using conventional and anisotropic porosity shallow water models with high-resolution topographic information, University of Advanced Technology, Cambridge University, University of Nice Sophia, UK, Germany & France
- 13:50 83 - Eduardo Martínez-Gomariz, Manuel Gomez and Beniamino Russo, Experimental and numerical study of stability of vehicles exposed to flooding, UPC Flumen Research Institute, University of Zaragoza, Spain
- 14:10 86 - Jelena Batca, Philippe Gourbesville, Marc Erlich and Christophe Coulet, Xynthia flood, learning from the past events - Introducing a FRI to stakeholders, Polytech Nice-Sophia, Artelia Eau et Environnement, France,
- 14:30 127 - Jean-Paul Ducatez, Erwan Lecornec, Guillaume Kerambrun and Sandrine Vidal , Coastal risk management plan in Saint-Malo, DHI, France
- 14:50 134 - Charles Audiffren, Valérie Forgues and Richard Marcer, CFD simulation of a tsunami impacting a coastal city including numerous buildings, Principia , France
- 15:10 48 - Asim Shoaib and Tawatchai Tingsanchali, Flood Hazard Assessment Using Hydro-Geospatial Technique: A Case Study of River Chenab from Qadirabad to Trimmu in Pakistan, Pakistan

15:30: Closing of the conference

See SimHydro Partners and Exhibitors on the next page!

We wish to thank our **Partners** :



& our **Exhibitors**

	<p>SETEC HYDRATEC is part of SETEC Group (2500) and is specialized in the field of water engineering</p> <p>SETEC Group is a leading French consulting firm specialized in major national and international development projects. It is entirely owned by its collaborators and is financially independent of any other industrial or bank organizations.</p> <p>HYDRATEC activity spans the whole range of water and air management. It has developed strong expertise in Hydro informatics for the last 30 years , covering a large range of applications in free surface flow (river management, sanitary and drainage networks), pressure flow (water distribution and transient regimes) and air compressible flows (road and railway tunnels,)</p>
	<p>GEOMOD distributes in France and Switzerland hydrology and hydraulics modelling, data management and real-time system software.</p> <p>GEOMOD works in partnership with Innovyze since 1995. It assist you to select the appropriate tools, to install them, provide trainings and technical support.</p>
	<p>The Compagnie Nationale du Rhône is France's second largest producer of electricity and its leading producer of exclusively renewable electricity. Its production comes from a mix of hydropower, wind power and solar power.</p> <p>A fully integrated company and expert in intermittent energy management, CNR controls all the processes from the design and operation of its production facilities to the sale of the energy it produces."</p>

	<p>EDF group, one of the leaders in the European energy market, is an integrated energy company active in all areas of the business: generation, transmission, distribution, energy supply and trading. The Group is the leading electricity producer in Europe. In France, it has mainly nuclear and hydropower generation facilities where 95.9% of the electricity output is CO2-free. The Group is involved in supplying energy and services to approximately 28.6 million customers in France.</p>
	<p>DHI are the first people you should call when you have a tough challenge to solve in a water environment. Whether it is a river, reservoir, an ocean, a coastline, within a city or a factory. Our knowledge of water environments represents 50 years of dedicated research, and real life experience from more than 140 countries. DHI will organize a 1-day free training course on the numerical modelling of dike reaches in river applications. This course will be held using MIKE FLOOD, allowing a dynamic coupling between a1D and 2D model. Free licenses will be provided to participants for the course.</p>
	<p>TENEVIA develops and proposes innovative systems to support environmental monitoring and measuring. Based on our expertise in analysis and image processing in natural environments, these systems aim to provide remote information that can be verified visually using the images. TENEVIA provides solutions to support expert in hydrometry, hydraulics and hydrology and develops tools for decision-makers and stakeholders in water resource management.</p>

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ABOUT SHF

SOCIETE HYDROTECHNIQUE DE FRANCE (S.H.F.), is a non-profit association founded in 1912, in Grenoble (France) inspired by the pre-existing Hydraulic Turbine Commission in the context of the early development of Hydropower in France and neighboring countries. SHF essential aim is the dissemination of research achievements and news in the field of hydrology, water resources management and advances in mechanics of incompressible flows.

SHF endeavors at the forefront and crossroad of research and industrial processes, carries out its activities in the following areas:

in the field of water, under various aspects of resources management, everyday use for human needs, agriculture, industry and transport, including environmental impact and the study of natural phenomena related to hydrology, meteorology, flood, low flows and drought and the more general field of fluid mechanics of all types, industrial applications and hydro machinery.

ANNUAL AWARDS: The Henri MILON award is granted to the author of a scientific publication or thesis related to hydrology. Whilst The Jean VALEMBOS's prize is awarded to one related to the field of fluid mechanics. The winner of the "Grand prix Hydrotechnique" is distinguished for his overall contribution to the fields related to SHF's actual preoccupations and Pierre MASSE award aims a thesis related to social sciences.

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