

SimHydro 2021

Models for complex and global water issues :
Practices and expectations

Program Book

6TH INTERNATIONAL
CONFERENCE
16TH-18TH JUNE 2021
SOPHIA ANTIPOLIS - FRANCE



Membre de UNIVERSITÉ CÔTE D'AZUR



GENERAL INFORMATION

Welcome to SimHydro 2021!

SimHydro 2021 seeks to create a forum for exchanging ideas, for promoting ground-breaking technologies, for proposing new extensive collaborations, for finding new solutions for water issues and modelling approaches. The general theme of the conference will be focused on “ Models for complex and global water issues - Practices and expectations “. The water field is continuously mobilizing models for addressing complex issues and new challenges. Within the context of the climate change, the water issues are exacerbated with the competition among uses. The limited water resources request from the modern societies to review some of the historical paradigms traditionally used and to promote new approaches for a sustainable management. The combined complexity and vulnerability of large urban environments request a deep understanding of water uses and environmental synergy. At the same time, water related natural hazards are contentiously straightening modern societies that have to adapt and implement a more resilient environment. In parallel, in the industrial sector, the search for a high level of efficiency for hydraulic machinery requests to simulate complex processes.

Under all these situations, the models currently used represent only partly the physical phenomena involved, the scale of the processes, the hypothesis included within the different numerical tools, etc. The design and the operation of relevant models represents a challenging task for the modeller who is responsible of the knowledge part of a global system that is dedicated to support the decision makers.

The conference is targeting an international audience and endeavors to collect high value papers that will be published in scientific journals and a specific book (Advances in Hydroinformatics with Spinger Nature).

Hope to see you soon in Sophia Antipolis in June 2021.

SimHydro 2021 will be held in Polytech Nice Sophia, located at **1645 Route des Lucioles, 06410 Biot Sophia Antipolis**. You can reach Polytech Nice Sophia by:

Bus: The bus stop for Polytech Nice Sophia Campus is Inria (Biot).

From Nice : Line 230 “Sophia Express”

From Antibes: Envibus network (envibus.fr)



PROGRAM AT A GLANCE

Time	16th June	17th June	18th June
0830 hrs	Registration		
0900 hrs	Opening Ceremony Keynote Speeches	Planery Session Special Session	Planery Session Keynote Speeches
0930 hrs			
1000 hrs			
1030 hrs	Parallel Sessions I 	Break	Parallel Sessions VI 
1100 hrs			
1130 hrs			
1200 hrs			
1230 hrs	Break	Parallel Sessions IV 	Break
1300 hrs			
1330 hrs			
1400 hrs	Parallel Sessions II 	Parallel Sessions V 	Parallel Sessions VII 
1430 hrs			
1500 hrs			
1530 hrs	Parallel Sessions III 	End of Conference	End of Conference
1600 hrs			
1630 hrs			
1700 hrs	End of Conference	End of Conference	End of Conference
1730 hrs			
1800 hrs			
1900 hrs	End of Conference	End of Conference	End of Conference

LEGEND

 Uncertainties	 Physical Processes & Modelling Methods	 Floods Modelling
 Flash Floods	 Real Time & DSS	 Hydropower
 Coastal Environment & Processes	 Telemac	 Hydroenvironmental Issues
 Numerical Methods & Tools	 Hydrological Extremes Modelling	 Multiphase Flows & Interactions
 Water Services	 WaterEurope	 Methods and Models for Hydrology and
 Nature Based Solution - Reconnect	 AI Technics & Applications Hydrological	 Climate Change

PROGRAM SCHEDULE

DAY 1 | JUNE 16

Opening Ceremony & Keynote Speech	
Time	
0900 - 0915	Opening Speech by Prof. Philippe Gourbesville
0915 - 1000	Keynote Speeches
1000 - 1030	Coffee Break

Parallel Session I	
Time	
1030 - 1230	Uncertainties Flash Floods Coastal Environment & Processes

Uncertainties	
Time	Session Chair: TBD
1030 - 1050	Towards the Reduction of Uncertainty In Hydraulic Models For Unsteady Flows Via A Machine-Learning-Based Surrogate Model by Siham El Garroussi, Sophie Ricci and Matthias De Lozzo
1050 - 1110	Double-Scale Diffusive Wave Model Dedicated to Spatial River Observation and Associated Covariance Kernel for Variational Data Assimilation by Thibault Malou and Jérôme Monnier
1110 - 1130	Uncertainty Quantification in Hydrodynamic Modelling Using the Example Of A 2D Large-Scale Model Of The River Elbe by Rebekka Kopmann and Andreas Schmidt
1130 - 1150	Uncertainty Quantification and Global Sensitivity Analysis with Dependent Inputs Parameters: Application to A Basic 2D-Hydraulic Model by Lucie Pheulpin, Nathalie Bertrand and Vito Bacchi
1150 - 1210	Data Assimilation for Monitoring Hydraulic Recirculation in The Strait of Gibraltar by Nabil El Mocayd and Mohammed Seaid
1210 - 1230	Quantification of Historical Skew Surges: Challenges and Methods by Emmanuelle Athimon, Nathalie Giloy, Thierry Sauzeau, Marc Andreevsky and Roberto Frau

Flash Floods

Time	Session Chair: TBD
1030 - 1050	Risk Analysis for Flash Flood Hazards in China by Qing Li, Qiang Ma, Changzhi Li, Changjun Liu and Bingshun He
1050 - 1110	Determination and Application of Dynamic Rainfall Threshold for Flash Flood Warning by Xiaoyan Zhai, Changjun Liu, Qiang Ma, Ronghua Liu, Xiaolei Zhang and Qi Liu
1110 - 1130	Optimized Reservoir Prior Release Operation for Flood Control Considering Operational Weekly Ensemble Hydrological Forecast by Daisuke Nohara
1130 - 1150	Dam Break Analysis and Flood Inundation Mapping: A Case Study of Pinatubo Crater Lake by Mark Rigel Lorenzo, John Micah Valdez and Arturo Daag
1150 - 1210	Geographical Cluster of Flash Flood Hazards in Jiangxi, China: A Spatial Analysis Perspective by Xiaoxiang Zhang, Yuehong Chen, Xiuqin Fang, Liliang Ren and Qiang Ma
1210 - 1230	Flood Prevention and Mitigation in Small and Medium River Basins with Complex Flood Control Facilities by Kohji Tanaka, Hideaki Nakashima, Masaaki Hashimoto and Hideyuki Yamaji

Coastal Environment & Processes

Time	Session Chair: TBD
1030 - 1050	Modelling Cyclonic Events in The Pacific by Olivier Bertrand, Anne Levasseur, Thibault Oudart and Mehdi Pierre Daou
1050 - 1110	Merenptah: High Tide Level Forecasting Tool with Application To The Gironde Estuary by Nicolas Chini, Cécile Calas, Adelaïde Martin-Herrou, Hélène Habarou, Christian Raffourt and Philippe Bardey
1110 - 1130	Efficiency Assessment of Wave Parameters to Different Typhoon Scenarios in Ninh Thuan Province, Vietnam by Thanh Nhan Duc Tran, Trung Tri Nguyen, Quang Binh Nguyen, Ngoc Duong Vo and Philippe Gourbesville
1130 - 1150	Improving Water Levels Forecast in The Gironde Estuary Using Telemac2D And Data Assimilation to Infer Time-Dependent Boundary Conditions by Vanessya Laborie, Nicole Goutal and Sophie Ricci
1150 - 1210	Implementation of A Hydrologic Model as An Element of The Litter-TEP Service - Marine Litter Tracking and Stranding Forecast for The Understanding of The Coastal Patterns Change by Anne Vallette, Quentin Gunti and Anne-Laure Beck
1210 - 1230	Polder2CÔs: An In-Situ Experimental Site to Improve the Modelling of Levee Failure Processes by Stephan Rikkert and Cédrine Alleon

Parallel Session II

Time

1400 - 1600

Numerical Methods & Tools
Water Services
Nature Based Solution - Reconnect (I)

Numerical Methods & Tools

Time

Session Chair: TBD

1400 - 1420

Local Downscaling of Shallow Water Simulations
by Vincent Guinot and Pacal Finaud-Guyot

1420 - 1440

SW2D-LEMON: A New Software for Upscaled Shallow Water Modeling
by Joao Guilherme Caldas Steinstraesser, Carole Delenne, Pascal Finaud-Guyot, Vincent Guinot, Joseph Luis Kahn Casapia and Antoine Rousseau

1440 - 1500

1D Numerical Tool for Real Time Modelling of a Complex River Network
by Benoît Camenen, Stéphanie Decanis, Laurent Dieval and Jean-Baptiste Faure

1500 - 1520

An Effective Urban Flood Model Accounting for Street-Building Exchanges
by Cécile Choley, Pascal Finaud-Guyot, Pierre-André Garambois and Robert Mose

1520 - 1540

Contribution of A Depth-Dependent Porosity Model for The Rapid Simulation of Flood Inundations
by Vita Ayoub, Carole Delenne, Pascal Finaud-Guyot, Patrick Matgen and Renaud Hostache

1540 - 1600

Numerical and Methodological Developments In 1D+ ISM Models for Operational Purposes
by Yassine Kaddi, François-Xavier Cierco, Jean-Baptiste Faure and Sébastien Proust

Water Services

Time

Session Chair: TBD

1400 - 1420

Numerical Simulations for Multipurpose Reservoirs for Alpine Irrigation
by Théo Gonin, Jérémy Schmid, Damien Pettinaroli, Jean Decaix, Alexandre Gillioz and Cécile Münch-Alligné

1420 - 1440

Smart Data-Models for Optimal Raw-Water Supply System Modelling, Management and Operation
by Panagiotis Kossieris, Christos Pantazis and Christos Makropoulos

1440 - 1500

Energy Efficiency in Water Supply Systems Using Real-Time Monitoring Systems Based on IoT
by Dongwoo Jang, Youn-Gyu Choi, Guoo-Sung Park and In-Jun Yoon

1500 - 1520

Model Predictive Control for Coordinating Pumps in Urban Drainage Systems
by Chengzi Chew

1520 - 1540	Operation of Water Distribution Systems Subject to Energy Spot Prices by Elad Salomons and Mashor Housh
1540 - 1600	Integrating EPANET and FIWARE for Development of Water Distribution System Digital Twins by Chris Sweetapple, Elad Salomons, Franck Le Gall, Ahmed Abid, Lydia Vamvakieridou-Lyroudia, Albert Chen and Joep van den Broeke

Nature Based Solution - Reconnect (I)

Time	Session Chair: TBD
1400 - 1420	RECONNECT Project Presentation by Zoran Vojinovic
1420 - 1440	A Framework for Evaluating Performance of Large-Scale Nature-Based Solutions to Reduce Hydro-Meteorological Risks and Enhance Co-Benefits by Laddaporn Ruangpan and Zoran Vojinovic
1440 - 1500	Managing Droughts in Northern Germany: The RECONNECT NBS Approach and Water Resources Model for Vier- Und Marschlande Area, Hamburg, Germany by Peter Fröhle, Natasa Manojlovic, Yohannis Tadesse, Angelika Gruhn, Christian Ebel and Hartmut Dittrich
1500 - 1520	Opportunities and Challenges of Natural-Based Solutions in Urban Areas - French Case Studies by Jelena Batica and Philippe Gourbesville
1520 - 1540	Terraced Area as Possible Source of Shallow Landslide: Modeling the Collapse Effects in The Portofino Pilot Area of The RECONNECT Project by Guido Paliaga, Steven Ward, Fabio Luino, Laura Turconi and Francesco Faccini
1540 - 1600	Benefits of Green Infrastructure for Flood Mitigation in Small Rural Watersheds - Case Study of The Tamnava River in Serbia by Ranko Pudar and Jasna Plavsic

1600 - 1630 Break

Parallel Session III

Time	
1630 - 1800	Physical Processes & Modelling Methods Real Time & DSS Nature Based Solution - Reconnect (II)

Physical Processes & Modelling Methods

Time	Session Chair: TBD
1630 - 1650	Application of A Modified Parareal Method for Speeding Up the Numerical Resolution of the 2D Shallow Water Equations by Joao Guilherme Caldas Steintraesser, Vincent Guinot and Antoine Rousseau

1650 - 1710	On Kinematic Wave Equation Over A Folding Topography by Pierre Michel and Konstantin Brenner
1710 - 1730	Validation of A General-Purpose Erosion-Sedimentation Model on A Laboratory Experiment by Noémie Gaveau, Carine Lucas and Frédéric Darboux
1730 - 1750	Modelling Culverts in Basilisk by Zied Amama, Nicolas Branco, Cheikh Mangara, Kevis Mbonyinshuti, Qiyu Yu, Thibaut Cottancin, Sarah Vigoureux, Pierre Brigode, Olivier Delestre and Pierre-Yves LagrŽe

Real Time & DSS

Time	Session Chair: TBD
1630 - 1650	Challenges for Realtime DSS: Experience from AquaVar System by Philippe Gourbesville, Masoud Ghulami, Marc Gaetano, Hezouwé Amaou Tallé and Ludovic Andres
1650 - 1710	Development of An Operational Flood Forecasting System for The Basins of Bouregreg and la Chaouia by Aloïs Denervaud and Bertrand Richaud
1710 - 1730	Extraction of Filters Applicable to Flood Forecasting Model and Performance Evaluation by Information Criterion by Masayuki Sugiura and Kohji Tanaka
1730 - 1750	Emergent Watershed Properties Resulting from Real-Time Control by Brooke Mason and Branko Kerkez

Nature Based Solution - Reconnect (II)

Time	Session Chair: TBD
1630 - 1650	Implementation of Nature-Based Solutions for Flood Risk Reduction: Challenges, Opportunities and Progress by Sisay E Debele, Jeetendra Sahani, Katriina Soini, Silvana Di Sabatino and Prashant Kumar
1650 - 1710	Modelling Nature-Based Solutions with Quasi-2D Model by Leng-Hsuan Tseng, Zoran Vojinovic, Meng-Hsuan Wu, Dong-Jiing Doong and Weicheng Lo
1710 - 1730	Bregana River Basin: Hydrodynamic Modeling and Analysis of NBS Suitability Within the RECONNECT Project by Draženka Kvesić, Ratko Ramušćak and Božidar Deduš

DAY 2 | JUNE 17

Planery Session

Time	Session Chair: TBD
0900 - 1200	Special Sessions

Parallel Session IV

Time

1330 - 1530	Telemac Floods Modelling Hydrological Extremes Modelling
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Telemac

Time

Session Chair: TBD

1330 - 1350	Fully Three-Dimensional Sediment Transport Modeling of The Gironde Estuary by Nicolas Huybrechts, Pablo Tassi and Fabrice Klein
1350 - 1410	Calibration Of 1D and 2D Fluvial Models with A Metamodel Based Optimization by Guillaume Bénéfice, Luc Duron, Amaya Villanueva and Rui Yang
1410 - 1430	Coupling Surface Grain-Size and Friction for Realistic 2D Modelling of Channel Dynamics on Massive Bedload Deposition by Matthieu Gonzales de Linares, Florian Ronzani, Alain Recking, Vincent Mano and Guillaume Piton
1430 - 1450	Hydraulic Modelling Studies for The Rehabilitation of Waterways on The Congo River by Olivier Bertrand, Jean-Noël Arnaud, Thibault Oudart and Luc Bazerque
1450 - 1510	Study of Coastline Dynamics and Swell / Bathymetry Interactions: Submersion and Sediment Dynamics by Paguedame Game
1510 - 1530	Simulation of The Alex Storm Flash-Flood in The Vžsubie Catchment (South Eastern France) Using Telemac-2D Hydraulic Code by Mickael Lastes, Aymeric Argence, Alan Gandouin, Clément Imperatrice, Ruida Zhang, Pierre Brigode, Olivier Delestre, Florent Taccone and Rabab Yassine

Floods Modelling (I)

Time

Session Chair: TBD

1330 - 1350	2-D Simulation of Flow Entering A Building by André Paquier, Cheikh Mangara, Emmanuel Mignot, Benjamin Dewals and Xue Fang Li
1350 - 1410	Investigation of The Hydraulics in Flooded Housing Estate by Augustin Doumic, Nicole Goutal and Frédérique Larrarte
1410 - 1430	Modelling and Assessment of Sustainable Urban Drainage Systems in Dense Precarious Settlements Subject to Flash Floods by Luma F. Alves, Carlos O. Galvo, Bervylly F. Santos, Eldson F. de Oliveira and Dem—stenes A. de Moraes
1430 - 1450	Benefit of Coupling 1d-2d Model Over an Urban Area to Assess Runoff During A Storm Event by Nathalie Bertrand, Morgan Abily and Olivier Delestre

1450 - 1510	Possible Urbanization Induced Floods in And on Surrounding Areas of The New Capital City of Indonesia by Dong Eon Kim, Jiandong Liu, Mingyan Wang, Philippe Gourbesville and Shie-Yui Liong
1510 - 1530	Application of A Physics Based Distributed Integrated Hydrological Model in Flood Risk Management by Erwan Allard and Jean-Paul Ducatez

Hydrological Extremes Modelling

Time	Session Chair: TBD
1330 - 1350	Analysis of Extreme Precipitation During the Mediterranean Event Associated with The Alex Storm in The Alpes-Maritimes: Atmospheric Mechanisms and Resulting Rainfall by Raphaël Chochon, Nicolas Martin, Thomas Lebourg and Maurin Vidal
1350 - 1410	Are Hydrologic-Hydraulic Coupling Approaches Able to Reproduce Alex Flash-Flood Dynamics and Impacts on Southeastern French Headwaters? by Pierre Brigode, François Bourgin, Olivier Delestre and Pierre-Yves Lagrèze
1410 - 1430	Improving the Efficiency of Flash Flood Forecasting and Warning System in Thailand by Apimook Mooktaree, Sathit Chantip, Piyamarn Sisomphon and Ticha Lolupiman
1430 - 1450	An Anti-Noise Dealiasing Algorithm for Doppler Weather Radar Data Quality Control by Jiyang Tian, Qi Liu, Changjun Liu and Qiang Ma
1450 - 1510	Comparative Study of Three Rainfall-Runoff Models and The Effect of Climate Change on Flood Forecasting in Tafna Basin by Mohamed Abdelmouiz Takkouk, Mohammed Kamrujjaman Rabin, Saddok Takkouk and Ammar Bouguerne
1510 - 1530	Prediction of Index Rainfall Using A Cubist Model: A Case Study of Chelif Watershed (Algeria) by Chafai Tarfaya and Larbi Houichi

1510 - 1540 Break

Parallel Session V

Time	
1600 - 1800	AI Technics & Applications Floods Modelling (II) WaterEurope

AI Technics & Applications

Time	Session Chair: TBD
1600 - 1620	Further Enhancement of Satellite DEM Resolution and Accuracy Using Machine Learning and Remote Sensing Data by Dong Eon Kim, Jiandong Liu, Ludovic Andres, Philippe Gourbesville, and Shie-Yui Liong
1620 - 1640	A Deep-Learning Method on Velocity Monitoring by Guomin Lyu, Qiang Ma and Changjun Liu
1640 - 1700	Data Quality Control Powered by Statistical Methods and Artificial Intelligence by Siddharth Seshan, Dirk Vries and Johann Poinapen

Floods Modelling (II)

Time	Session Chair: TBD
1600 - 1620	Modelling the Combined Impacts of High River Discharges and Storm Surges on The Inundation of An Ungauged Coastal River Basin by Manh Xuan Trinh and Frank Molkenthin
1620 - 1640	Flood Estimation in Ungauged Catchment Using ENKI Simulation: A Case Study in Norway by Yueyang Chen
1640 - 1700	Wood Debris Risk Analysis and Protection Scenarios of Lourdes City Using Iberwood Model by Margaux Quiniou, Guillaume Piton, Cédric Perrin and Jeremy Savatier
1700 - 1720	A Study on Flood Inundation Mapping of Surma River Floodplain Under Extreme Flood Scenario by Purnima Das, Fahim Ahmad and Afeefa Rahman

WaterEurope

Time	Session Chair: TBD
1540 - 1600	WaterEurope: Hydroinformatics For Water Resources and Water Related Hazards Management in Europe by Philippe Gourbesville, Manuel Gomez, Frank Molkenthin, Caspar Hewett, Grzegorz Sinicyn and Ann Van Griensven
1600 - 1620	Hydroeurope - Watereurope: 20 Years of Practice in Collaborative Engineering for Hydroinformatics by Philippe Gourbesville, Manuel Gomez, Frank Molkenthin, Caspar Hewett, Grzegorz Sinicyn and Ann van Griensven
1620 - 1640	Introduction of Double Master Degree Program: Korea-EU Educational Cooperation by Dongwoo Jang, Hyoseon Park and Gyewoon Choi

DAY 3 | JUNE 18

Planery Session

Time

Session Chair: TBD

0900 - 1000

Keynote Speeches

1000 - 1030

Break

Parallel Session VI

Time

1030 - 1230

Hydropower
Hydroenvironmental Issues
Methods and Models for Hydrology and Climate Change (I)

Hydropower

Time

Session Chair: TBD

1030 - 1050

Numerical Simulation of The Interaction Between the Jet and The Pelton Runner Under Low Head Conditions
by Jean Decaix, Anthony Gaspoz, Steve Crettenand and Cécile Münch-Alligné

1050 - 1110

Numerical Fatigue Life Assessments of a Variable Speed Francis Pump-Turbine at Part Load Operation in Turbine Mode
by Daniel Biner, Drazen Dujic and Cecile Alligne

1110 - 1130

Preliminary Design Validation of a New Run-Of-The-River Hydropower Scheme Using Physical and Numerical Hybrid Modelling
by Samuel Vorlet, Pedram Sahrai, Azin Amini and Giovanni De Cesare

1130 - 1150

Effect of The Variable Speed on The Hydraulic Behavior of The Caniçada Francis Turbine
by Olivier Pacot, Claire Ségoufin, Thomas De-Colombel and Cécile Münch-Alligné

1150 - 1210

Heuristic Shape Optimization of Overflow Spillways
by Fatna Oukaili, Yvan Bercovitz, Cedric Goeury, Fabrice Zaoui, Thomas Fonty and François Jouve

1210 - 1230

Two- And Three-Dimensional Hydrodynamic Models of The Rance Estuary (France) Influenced by The World Second Largest Tidal Power Plan
by Rajae Rtimi, Aldo Sottolichio and Pablo Tassi

Hydroenvironmental Issues

Time	Session Chair: TBD
1030 - 1050	Assessment of Spain Rivers Current and Future Ecological Status Using Urban Wastewater Dilution Factor as A Proxy Indicator by Morgan Abily, Acuña Vicenç, Gernjak Wolfgang, Ignasi Rodriguez-Roda, Manel Poch and Llus Corominas
1050 - 1110	Modelling Radionuclides Transfer at The River-Sea Interface by Adrien Delaval, Céline Duffa and Olivier Radakovitch
1110 - 1130	Towards Web Decision System Support (Web-DSS) For Planning Watershed in Colombia by Viviana Vargas-Franco
1130 - 1150	Towards an Index with Artificial Intelligence to Evaluate Vulnerability to Climate Change in Watersheds in Colombia by Viviana Vargas-Franco
1150 - 1210	Changes of River Discharge and Temperature by Using Distributed Runoff Model with The Global Warming Experiments, Frequency Analysis of Drought and Flood by Akira Kurihara, Kohji Tanaka and Yutaka Ooyagi
1210 - 1230	Three-Dimensional Simulation of Bacterial Pollution in Nice Bay for Operational Applications by Julien Larraun, Rémi Dumasdelage and Olivier Delestre

Methods and Models for Hydrology and Climate Change (I)

Time	Session Chair: TBD
1030 - 1050	Physical Parameter Estimation as An Approach Towards A Global Hydrological Model by Chengzi Chew
1050 - 1110	Flood Analysis and Simulation Attempts of The Newly Proposed Capital City of Indonesia by Mingyan Wang, Shie-Yui Liong, Philippe Gourbesville, Dong Eon Kim and Jiandong Liu
1110 - 1130	Impacts of Climate Change on Water Availability for The Vésubie Catchment, France by Masoud Ghulami, Philippe Gourbesville and Philippe Audra
1130 - 1150	A Spatiotemporally-Mixed-Runoff-Model-Based Artificial Intelligence Parameter Regionalization Application in Henan Province of China by Qiang Ma, Changjun Liu, Liang Guo, Liuqian Ding and Dongya Sun
1150 - 1210	Assess Quality Terrain Data to The Simulation Results Hydrological Regime in Lai Giang Catchment, Vietnam by Quang Binh Nguyen, Thanh Nhan Duc Tran, Ngoc Duong Vo and Philippe Gourbesville
1210 - 1230	Influence of Mesh Size and Topography Resolution on Modeling Hydrological Processes in A Medium-Size Urban and Peri-Urban Catchment by Paguedame Game

1230 - 1400

Break

Parallel Session VII

Time

1400 - 1630

Multiphase Flows & Interactions
Uncertainties
Methods and Models for Hydrology and Climate Change (II)

Multiphase Flows & Interactions

Time

Session Chair: TBD

1400 - 1420

Investigating the Behaviour Of Leaky Barriers with Flume Experiments
And 3D Modelling
by Shannon Leakey, Caspar Hewett, Vassilis Glenis and Paul Quinn

1420 - 1440

A Vaporization Model for Computational Fluid Dynamics Simulations -
Application to Film Boiling
by Charles Brissot, Rudy Valette and Elie Hachem

1440 - 1500

Towards A Discharge Law to Characterize Street-Building Exchanges
During Urban Floods
by Cécile Choley, Pascal Finaud-Guyot, Guilhem Dellinger and Robert
MosePamphile Roy

1500 - 1520

Underground Flow Section Modification Below the New M3 Flon Metro
Station in Lausanne
by Leona Repnik, Samuel Vorlet, Mona Seyfeddine, Pierre Bourqui,
Azin Amini and Giovanni De Cesare

1520 - 1540

Numerical Simulation of The Hydraulic Behavior for Stepped Stairs of The
Metro Station
by Jackson Tellez Alvarez, Manuel Gomez and Beniamino Russo

1540 - 1600

Computational Fluid Dynamic Wave Modelling: Sensitivity Analysis of The
Loading on Offshore Structures
by Thibault Oudart, Sylvain Perrin, Olivier Bertrand and Bruno
Chaffraix

1600 - 1620

Assessment of Smart Heating and Cooling System Based on Thermal Use
of Shallow Aquifer
by Philippe Gourbesville and Masoud Ghulami

Uncertainties

Time

Session Chair: TBD

1400 - 1420

Sensitivity Analysis of The Digital Twin of The Canal of Calais To the Outlet
Gate Modelling
by Roza Ranjbar, Eric Duviella, Lucien Etienne and Jose Maria Maestre

1420 - 1440

Integrated Hydraulic-Hydrological Assimilation Chain: Towards
Multisource Data Fusion from River Network to Headwaters
by Léo Pujol, Pierre-André Garambois, Jérôme Monnier, Pascal
Finaud-Guyot, Kevin Larnier and Robert Mos

1440 - 1500	Meandering of The Venoge River at Bois-De-Vaux: In-Situ Measurements Versus 2D Numerical Predictions by Charlotte Dreger, Erik Bollaert and Olivier Stauffer
1500 - 1520	How to Optimally Represent Riverbed Geometry with A Simplified Cross-Section Shape in Shallow Water Models? by Violeta Alexandra Montoya Coronado, Carole Delenne, Pascal Finaud-Guyot and Renaud Hostache
1520 - 1540	Evaluate the Influence of Groynes System on The Hydraulic Regime in The Ha Thanh River, Binh Dinh Province by Quang Binh Nguyen, Thanh Nhan Duc Tran, Dinh Tam Luc Le, Ngoc Duong Vo and Philippe Gourbesville
1540 - 1600	Comparison of Streamflow Estimated by Image Analysis (LSPIV) And by Hydrologic and Hydraulic Modelling on The French Riviera During 2019 Floods by Sarah Vigoureux, Léa-Linh Liebard, Aubin Chonoski, Etienne Robert, Louis Torchet, Valentin Poveda, Frédérique Leclerc, Jérémy Billant, Rémi Dumasdelage, Olivier Delestre and Pierre Brigode
1600 - 1620	Analysis of Triple Rectangular Plates Configurations Impacts on Local Scour Around Cylindrical Single Bridge Pier by Alireza Pourzaker Arabani and Hooman Hajikandi

Methods and Models for Hydrology and Climate Change (II)

Time	Session Chair: TBD
1400 - 1420	A Rational Performance Criterion for Hydrological Model by Dedi Liu and Qiang Ma
1420 - 1440	Research and Application of Mountain Flood Disaster Prediction and Early Warning System Based on Machine Learning by Wenchuan Wang, Yanwei Zhao, Changjun Liu, Dongmei Xu and Qiang Ma
1440 - 1500	Numerical Assessment of Sediment Supply Impacting Flash Flood Propagation in Mountainous Confluences by Xufeng Yan, Changjun Liu, Dongya Sun, Xiekang Wang and Qiang Ma
1500 - 1520	Flood Risk Assessment and Hydrological Study of Meghna Economic Zone Using Mike 11 by Shahadat Hossain and Sabrina Rashid Sheonty
1520 - 1540	Optimal Operation of Parallel Reservoirs System with Limited Storage Capacity for Flood Mitigation by Thanh Hao Nguyen and Philippe Gourbesville
1540 - 1600	Sizing Flood Control Storage of Reservoirs System in The Vu Gia Thu Bon Catchment by Thanh Hao Nguyen and Philippe Gourbesville

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**6TH INTERNATIONAL
CONFERENCE**
16TH-18TH JUNE 2021
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NICE-SOPHIA

