

## Detailed Congress Programme

Tuesday, 25 June 2019		
	Sala Verde (Green Room)	Sala de Seminarios (Seminar Room)
14:00-15:00	Registration opens at 14:00	
	Conference VII: Session VII.1 <i>Moderators: (to be announced)</i>	Conference IV: Session IV.1 <i>Moderators: (to be announced)</i>
15:00-15:15	The environmental impacts of flow regulation in Spain <i>Silvestre García de Jalón, Marta González del Tánago, Diego García de Jalón</i>	How to account for uncertainty in optimization of urban systems <i>O. Marquez-Calvo, D.P. Solomatine</i>
15:15-15:30	The river continuum theory in the high mountain tropical Andes <i>Jorge Julian Velez, Luz Angela Galindo-Leva, Adela Londoño, Brajhan Guzman, Maria Fanny Ocampo, Erick Jimenez</i>	Urban Water Supply Management in Critical Conditions Using Fuzzy PROMETHEE V Technique <i>Mahsa Ghandi, Abbas Roozbahani</i>
15:30-15:45	Evaluation of Management Strategies under the WFD: Application of Fuzzy ELECTRE Method <i>L. Panagiotou, M. Spiliotis, I. Kagalou</i>	Testing the existence of an Environmental Kuznets Curve for urban water use at river basin scale <i>Alfonso Expósito, María P. Pablo-Romero, Antonio Sánchez-Braza</i>
15:45-16:00	Assessment of Bedload Transport in Sand-Gravel Bed Rivers by Using Nonlinear Fuzzy Regression <i>Matthew Saridakis, Mike Spiliotis, Vlassios Hrissanthou</i>	Developing quantitative metrics to manage water resources for a sustainable future <i>Hassan Tavakol-Davani, Thomas J. Sun, Steven J. Burian</i>
16:00-16:15	Incorporating biological components to analyse the hydrological variability for ecological flow recommendations <i>Christina Papadaki, Vasilis Bellos, Konstantinos Soulis, Elias Dimitriou</i>	Regional rainfall design parameters of Sustainable Urban Drainage Systems based on a stochastic approach. Case study: United States of America <i>Andrea Fanti, Alvaro Sordo Ward, Rodrigo Jodra Lopez, Luis Garrote, Enrica Caporali</i>
16:15-16:30	The role mangrove's communities of coastal wetlands in water flow and retention time, Case Study: subtropical salt marshes of Chabahar Bay <i>Siavash Fereidoon Akbar, Sadegh Partani, Mahnaz Vafadar</i>	A comparison of sediment incipient motion and incipient deposition in open channels <i>Mir Jafar Sadegh Safari, Hafzullah Aksoy</i>
16:30-16:45	<i>Fine sediment budget modelling during storm based events in the Rivers Bandon and Owenabue, Ireland</i> <i>Juan T. Garcia, Joseph R. Harrington, Jungsu Park</i>	Modelling the Effects of Intermittent Water Supply on Quality Deterioration in Terms of Disinfection- By-Products Formation <i>S. Mohan, G.R. Abhijith</i>

Tuesday, 25 June 2019

	Sala Verde (Green Room)	Sala de Seminarios (Seminar Room)
16:45-17:00	Scope of Utilizing Riverine Ecosystem: A case study of River Brahmaputra <u>Gaurav Talukdar</u> , Arup Kumar Sarma	Water Supply Network Rehabilitation: a Case Study <u>Giacomo Viccione</u>
17:00-17:15	Comparative Assesment of Pytoplankton Diversity and Water Quality of two Different Lagoons in Istanbul (Turkey) <u>Nese Yilmaz</u> , Cumhuri Haldun Yardimci, Mohamed Elhag	Evaluation of water losses in drinking water distribution networks in Turkey Cigdem Coskun Dilcan, <u>Goksen Capar</u> , Aslihan Korkmaz, Ozlem Iritas, Yakup Karaaslan, Bulent Selek
17:15-17:30	The role of soil moisture and vegetation cover on biomass growth in water-limited environments <u>Javier Lozano-Parra</u> , Susanne Schnabel, Manuel Pulido, Álvaro Gómez-Gutiérrez, Francisco Lavado-Contador	Development of New and Seamless Surrogate Measure of Hydraulic Reliability of Water Distribution Systems <u>Salah H. A. Saleh</u> , Tiku T. Tanyimboh
17:30-17:45	Ecosystems shifts: implications for groundwater management <u>Encarna Esteban</u> , Elena Calvo, José Albiac	Bilbao city ICMLive Flood Early-Warning and Monitoring System <u>Paloma Batanero Akerman</u> , Eduardo Martinez Olmos, Ignacio Martinez Gonzalez
17:45-18:00	Discussion	Discussion

18:00-19:00	Ice breaker – Cocktail party
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\* The presenting author is underlined

## Detailed Congress Programme

Wednesday, 26 June 2019			
	Salon de Actos (Auditorium)	Sala Verde (Green Room)	Sala de Seminarios (Seminar Room)
09:00-09:45	Inaugural speeches  Keynote Speech (Auditorium) Andreas Schumann: “Challenges in flood risk management”		
	Conference II: Session II.1 <i>Moderators: (to be announced)</i>	Conference I: Session I.1 <i>Moderators: (to be announced)</i>	Conference III: Session III.1 <i>Moderators: (to be announced)</i>
09:45-10:00	Selection of variables to be sampled in water quality monitoring networks <i>Filiz Barbaros, Nilgun B. Harmancioglu</i>	A DSS tool for stochastic optimization of large-scale water resource systems <i>Hector Macian-Sorribes, Manuel Pulido-Velazquez</i>	Entropy Based Regional Precipitation Prediction in Case of Gediz Basin <i>Özgür Bozoğlu, Filiz Barbaros, Türkay Baran</i>
10:00-10:15	Assessing Two Step Cascade Technology for Removing Carbon and Nitrogen from Domestic Wastewater <i>Elia Nabil, Mahmoud Roushdi, Fikry Ghobrial</i>	Assessment of the realisations of EURO-CORDEX projections in the simulation of rainfall regimes in Spain <i>Carlos Garijo, Luis Mediero</i>	Application of an analytical model framework to obtain summer streamflow distribution in Swiss catchments <i>A.C. Santos, M.M. Portela A. Rinaldo, B. Schaefli</i>
10:15-10:30	<i>Biodegradation potential of bacteria capable of growing in an imazalil-rich wastewater</i> <i>I. Alexandropoulou, Z. Mavriou, P. Melidis, D.G. Karpouzas, S. Ntougias</i>	Optimal operation of Bakhtiari and Roudbar dams using differential evolution algorithm <i>B. Moshedzadeh, R. Mansouri, A. Karbakhsh, M. Zounemat-Kermani</i>	A Comparison of Potential Evapotranspiration Methods: for Regional Use in the Aegean Regean, Turkey <i>G.N. Akşan, Ü.G. Bacanlı</i>
10:30-10:45	A Sustainable Technique of Pd-doping on TiO <sub>2</sub> using Plant-based Electron Donor Analytes for Photocatalytic Wastewater Treatment <i>Venkatanarasimha Rao Chelli, Yash Mundhada, Animes Kumar Golder</i>	A regional Depth – Duration - Frequency formulation for sub-hourly extreme rainfall estimates in Sicily under scale invariance <i>Brunella Bonaccorso, Giuseppina Bringandi, Giuseppe Tito Aronica</i>	Determination of Reservoir Inflows from River Basin using Soil and Water Assessment Tool (SWAT) and SWAT-CUP: A Case Study <i>Ch. Praveen Kumar, V.D. Regulwar, S.N. Londhe, V. Jothiprakash</i>
10:45-11:00	Investigation of diapirism effect on Mond River, Bushehr-IRAN, using Remote Sensing <i>Mohsen Farzin, Saeideh Menbari</i>	Effects of non-uniform flow in the mixing layer in compound channels <i>João Nuno Fernandes</i>	Modeling of flows from some springs in the Bouzizi-Seraidi sector (N-E Algerian) <i>H. Majour, A. Hani, S.Hani</i>

## Wednesday, 26 June 2019

	Salon de Actos (Auditorium)	Sala Verde (Green Room)	Sala de Seminarios (Seminar Room)
11:00-11:15	Fate of fluoroquinolone-resistant Salmonella in full-scale wastewater treatment plant and effect of chlorine disinfection <i>Puselesto. Kumalo, <u>Oluayemi Olatunji Awolusi</u>, Sheena Kumari, Faizal Bux</i>	Genetic Algorithm Based Optimization of Multipurpose Cascade Reservoirs for Sustainable Economic Growth <i><u>Muhammad Usman Rashid</u>, Muhammad Azmat, Ali Ajwad</i>	Non stationary duration-frequency modelling of hydro-climatic extremes <i><u>Taha B.M.J. Ouarda</u>, Latifa Youssef, Christian Charron</i>
11:15-11:30	Discussion	Discussion	Discussion
11:30-12:00	Coffee break		
	Conference II: Session II.2 <i>Moderators: (to be announced)</i>	Conference I: Session I.2 <i>Moderators: (to be announced)</i>	Conference III: Session III.2 <i>Moderators: (to be announced)</i>
12:00-12:15	Initiating efficient Sb(V) removal for drinking water by a mechanism of reduction/adsorption sequence <i>Theopoula Asimakidou, George Vourlias, Kyriaki Kalaitzidou, Manassis Mitrakas, <u>Konstantinos Simeonidis</u></i>	Drought and scarcity joint indicators for transboundary Iberian river districts: The case of Minho and Lima river basins <i>Rodrigo Maia, Miguel Costa, Juliana Mendes</i>	Development of a distributed hydrological software application employing novel velocity-based techniques <i><u>Konstantina Risva</u>, Dionysios Nikolopoulos, Andreas Efstratiadis</i>
12:15-12:30	ENFOCAR: An approach to minimize exposure to toxic pollutants of disinfected water <i>Maria del Carmen Aznar-Luque, Cinta Porte, <u>Cristina Postigo</u></i>	Drought monitoring and early warning framework <i><u>George Tsakiris</u>, Harris Vangelis, Dimitris Tigkas, Vasileios Tsakiris</i>	Rainfall-runoff modelling with application of wavelet neural networks in arid and semi-arid regions. Case study: GharehAghaj basin, Southern Iran <i><u>Z. Zarezadeh</u>, M. Rahnemaei</i>
12:30-12:45	Optimum allocation of the pollutant load distributions based on a linked simulation-optimization approach <i><u>M. Tamer Ayyavaz</u>, Derya Sadak, Alper Elci, Mehmet Dilaver, Selma Ayaz</i>	A joint remote-sensing based index for drought identification and characterization in the Caribbean Islands <i><u>Beatrice Monteleone</u>, Brunella Bonaccorso, Mario Martina</i>	Spatial variation in stable isotope and major ion concentrations of surface waters from Lake Balkhash catchment, Kazakhstan <i>Shen Beibei, <u>Jinglu Wu</u></i>
12:45-13:00	Performance evaluation of Forward Osmosis-Reverse Osmosis hybrid system for treatment of produced water from oil production fields <i>Nasim Balouti, <u>Seyyed Mehdi Abedan Dehkordi</u></i>	Drought Analysis with Standardized Precipitation Evapotranspiration Index (SPEI) in Marmara Region, Turkey <i><u>Ü. Güner Bacanlı</u>, <u>G.N. Akşan</u></i>	Towards reducing model error in flow predictions in ungauged basins via a Bayesian approach <i><u>Cristina Prieto</u>, Nataliya Le Vine, Dmitri Kavetski, Eduardo García, César Álvarez, Raúl Medina</i>
13:00-13:15	Selenium removal from water by adsorption onto FeOOH <i><u>K. Kalaitzidou</u>, K. Simeonidis, M. Mitrakas</i>	Considering the use of crop evapotranspiration (ETc) in Reconnaissance Drought Index (RDI) <i><u>D. Tigkas</u>, H. Vangelis, G. Tsakiris</i>	Physics based distributed integrated hydrological model for Yerli sub-catchment, Maharashtra, India <i><u>V.D. Loliyana</u>, P.L. Patel</i>
13:15-13:30	Exploring the spatiotemporal water quality variations and their influencing factors in a large floodplain lake (Poyang Lake) in China <i><u>Bing Li</u>, Guishan Yang</i>	Projecting meteorological drought by SPI in Gediz Basin/Turkey under RCP8.5 scenario <i><u>Umut Kirdemir</u>, Umut Okkan</i>	Hydraulic conductivity spatiotemporal variability in watersheds <i><u>Konstantinos X. Soulis</u>, Paraskevi Londra, George Metaxas, George Kargas</i>

## Wednesday, 26 June 2019

	Salon de Actos (Auditorium)	Sala Verde (Green Room)	Sala de Seminarios (Seminar Room)
13:30-13:45	Modelling surface water quality with limited data: a calibration approach applied to the Middle Tagus Basin (Spain) <i>Antonio Bolinches, Lucia De Stefano, Javier Paredes-Arquiola</i>	Characterization of meteorological drought at various time scales in the Lobo watershed, Côte d'Ivoire <i>Bérenger Koffi, Kouakou Lazare Kouassi, Martin Sanchez Angulo, Zilé Alex Kouadio</i>	Pan evaporation modelling in Central India using soft computing techniques <i>Hadi Sanikhani, Rasul Mirabbasi, Ozgur Kisi</i>
13:45-14:00	Discussion	Discussion	Discussion
14:00-15:00	Light Lunch		
15:00-15:30	Keynote Speech (Auditorium) Micha Werner: "On the (f)utility of supporting water allocation policies with new data sources, models and forecasts"		
	Conference II: Session II.3 Moderators: (to be announced)	Conference I: Session I.3 Moderators: (to be announced)	Conference IV: Session IV.2 Moderators: (to be announced)
15:30-15:45	Polypropylene based nanocomposite membrane with a novel self-assembled coating for seawater treatment via membrane distillation <i>Rajesh Kumar, Mansour Ahmed, Garudachari Bhadrachari, Jibu Thomas</i>	Fuzzy Linear Regression for assessment of drought effects on groundwater level in a coastal unconfined aquifer <i>Christopher Papadopoulos, Mike Spiliotis, Ioannis Gkioungkis, Fotios Pliakas, Basil Papadopoulos</i>	A flexible approach for the design of water distribution systems using Multi-Criteria Decision Analysis <i>Maria da Conceição Cunha, João Marques, Dragan Savic</i>
15:45-16:00	Utilization of Water hyacinths for the Extraction of Heavy Metals from Contaminated Water- Organic Acid Assisted Phytoremediation <i>Rasham Sallah-Ud-Din, Rashid Saeed, Mujahid Farid</i>	Insuring water supply in irrigated agriculture: A proposal for hydrological drought index-based insurance in Spain <i>J.A. Gómez-Limón, M.D. Guerrero-Baena</i>	Water Quality vulnerability assessment and determination of critical control points in drinking water supply systems <i>Stavroula Tsitsifli, Vasilis Kanakoudis, Dionysios Tsoukalas</i>
16:00-16:15	Metal pollution in Blyde and Steelpoort rivers of the Olifants River System, South Africa <i>A. Addo-Bediako, M.R. Mohosana</i>	Approaching drought through human perception based on the sense of sound <i>Irida Tsevreni, Magdalini Tsevreni, Nikolaos Proutsos, Dimitris Tigkas</i>	Effects of spatial correlation of demands on the cost and resilience of water distribution networks: A new design optimization approach <i>Tiku T. Tanyimboh, Salah Saleh</i>
16:15-16:30	Simulation model of wastewater treatment plant with automatic control <i>Jesús Caravaca Vilchez, Javier Antonio Murillo Castarlenas, Adrián Navas Montilla, Sandra López Barcos, María José Tárrega Martí</i>	A Drought Alert system based on seasonal forecasts <i>Elisa Arnone, Marco Cucchi, Sara Dal Gesso, Marcello Petitta</i>	Preliminary Estimation of Spatial and Temporal Synchronization of water Demands in the Capital City of Libya <i>Salah H. A. Saleh, Mohamed Alsharif, Ali Ahmed Elkebir, Edawi Wheida</i>
16:30-16:45	Assessment of Heavy Metals Pollution in Groundwater of Ardabil Aquifer, Iran <i>Mina Rahimi, Vahid Rezaverdinejad</i>	Non-stationary behaviour of extreme events in Portugal: droughts and rainfall trends <i>F.A. Albuquerque, M.M. Portela</i>	On the potential of the first flush concept for sizing criteria of stormwater control practices <i>Sara Todeschini, Sauro Manenti</i>

## Wednesday, 26 June 2019

	Salon de Actos (Auditorium)	Sala Verde (Green Room)	Sala de Seminarios (Seminar Room)
16:45-17:00	Water Quality Assessment using a Modified Water Quality Index: A Case Study of el Abid River – Morocco <i><u>Ismail Karaoui</u>, Abdelkrim Arioua, Mohamed Hssaisoune, Abdelkhalk El Amrani Idrissi, Kamal Ait ouhamchich, Dris Elhamdouni, Wafae Nouaim</i>	Effects of the 2016-2018 drought on Pequenos Libombos reservoir (Maputo, Mozambique): a comparative analysis <i><u>María Bermúdez</u>, Manuel Álvarez, Jerónimo Puertas, Enrique Peña, Ronnie J. Araneda</i>	Best management practices as an alternative for flood and urban storm water control: the study case of a urban watershed in the Metropolitan Area of Rome (Italy) <i><u>F. Recanatesi</u>, C. Giuliani, M. Piccinno, B. Cucca, M.N. Ripa</i>
17:00-17:15	Diapir as the main point of salty pollution in Kakan subwatershed, Central Zagros Mountains, Iran <i><u>Mohsen Farzin</u></i>	Estimation of local drought frequency in a small dam using the daily evapotranspiration rate and precipitation <i><u>M. Mathlouthi</u>, F. Lebdi</i>	RISKNOUGHT: A Cyber-Physical Stress-Testing Platform for Water Distribution Networks <i><u>Dionysios Nikolopoulos</u>, Georgios Moraitis, Dimitrios Bouziotas, Archontia Lykou, George Karavokiros, Christos Makropoulos</i>
17:15-17:30	Microalgae-bioremediation of water containing pesticides: the experience of the BECAS project <i><u>Ester López-García</u>, Maria Vittoria Barbieri, Cristina Postigo, Romina Ávila, Paqui Blánquez, Maria Rambla-Alegre, Vinyet Solà, Teresa Vicent, <u>Miren López de Alda</u></i>	Regional frequency analysis of droughts in Küçük Menderes Basin <i><u>Gülşay Onuşluel Gül</u>, <u>Ayşegül Kuzucu</u>, Ali Gül</i>	Evaluating the investment needs for water and sanitation assets renewal: the case of the Spanish urban water cycle <i><u>Pilar Gracia-de-Rentería</u>, Fatine Ezbakhe, Andrés Guerra, Amelia Pérez Zabaleta, Agustí Pérez Foguet, Mario Ballesteros</i>
17:30-17:45	Ecological status of Greek lakes based on different biological quality elements – criticism on the one out - all out principle <i><u>Chrysoula Ntislidou</u>, Dionissis Latinopoulos, Olga Petriki, Vasiliki Tsiaoussi, Ifigenia Kagalou, Dimitra C. Bobori</i>	Investigation about trends in rainfall in a small island: the case of Madeira Island, Portugal <i><u>Luis Angel Espinosa Villalpando</u>, Maria Manuela Portela, Rui Rodrigues</i>	Quantifying the impact on stormwater management of an innovative ceramic permeable pavement solution in Benicàssim (Spain) <i><u>Jesica Tamara Castillo-Rodríguez</u>, Ignacio Andrés-Doménech, Miguel Martín-Monerris, Ignacio Escuder-Bueno, Sara Perales-Momparler</i>
17:45-18:00	Discussion	Discussion	Discussion

18:00-19:00

General Assembly of EWRA

# Wednesday, 26 June 2019

## Poster Presentations

Conference II	
10:00-13:30	Catalytic ozonation of 4-chlorobenzoic acid and benzotriazole under a continuous flow system <i>Georgios Metaxakis, Efthimia Kaprara, Savvina Psaltou, Anastasios Zouboulis, Manasis Mitrakas</i>
	Fig Leaves ( <i>Ficus carica</i> ) as Adsorbents for Removal of 4-Bromoaniline (4BA) from Aqueous Solutions: Modelling and Optimization <i>Hayet Tizi, Tarek Berrama, Zoubida Bendjama</i>
	Study of scale formed by southern Algeria groundwater on irrigation PVC pipe by degassing CO <sub>2</sub> water <i>Rachid Ketrane</i>
	Design of experiment for chromium (VI) removal with PVC/Aliquat336 polymeric inclusion membrane in MF-FSMC module <i>Said Bey, Hassina Semghouni, Alessandra Criscoli, Alberto Figoli, Francesca Russo, Mohamed Benamor, Enrico Drioli</i>
	Performance of different types of vegetation in wetland systems for wastewater treatment. Life-size test in La Almunia de Doña Godina <i>Oscar Ruiz Lozano, Alejandro Acero Oliete, Beniamino Russo, Marta Lapuente Fabregas</i>
	WaterSpy: Utilizing photonics technology for drinking water quality analysis <i>George Kopsiaftis, Anastasio Doulamis, Nikolaos Doulamis, Athanasios Voulodimos, Matthaïos Bimpas, Aikaterini Angeli, Nikolaos Bakalos, Alessandro Giusti, Panayiotis Philimis, Panayiota Demosthenous</i>
	Evaluation of decision making tree classification algorithm in revealing the process of water quality changes in Lake Urmia, Iran <i>Saeideh Menbari, Mohsen Farzin, Mohammad Zare</i>
	Development of a method for multielemental determination in water by EDXRF with radioisotopic source of 238Pu <i>Camilo Serrano Fuentes, Juan R. Estévez Leyva, Zenaida Carolina Leyva Inzunza</i>
Conference IV	
	Multi-Criteria assessment of flood hazard in urban drainage systems <i>Ioannis M. Kourtis, Chrysaida-Aliki Papadopoulou, Harris Vangelis, Vassilios A. Tsihrintzis</i>
	Development of a hybrid biofilter for stormwater treatment and for the remediation of nitrate-contaminated groundwater <i>Asher Brenner, Amir Aloni, Hodaya Cohen, Or Gradus, Asaf Mor, Oshrat Koren, Semion Shandalov, Yaron Zinger</i>
16:00-17:30	Conference III
	Post-2010 forest fire hydrological changes in the Upper Nahal Oren Basin, Mt. Carmel, Israel: a comparison to pre-fire rates <i>Noam Greenbaum, Lea Wittenberg, Dan Malkinson, Moshe Inbar</i>
	DEM-resolution control on rainfall-triggered landslide modeling within a triangulated network-based model <i>Elisa Arnone, Yannis G. Dialynas, Antonio Francipane, Leonardo V. Noto</i>

Wednesday, 26 June 2019

Poster Presentations

	Field and laboratory toolbox for unsaturated zone hydrological studies <i>Zavridou Efthymia, Markantonis Konstantinos, Kallioras Andreas</i>
	Return-Period Analyses of Maximum and Minimum Events in Malaxa, Crete <i>Mohamed Elhag, Nese Yilmaz</i>
	Soil Water Content Measurements with Time Domain Reflectometry (TDR) <i>Alexandros Papadopoulos, Petros Kofakis, Andreas Kallioras</i>
	Water Level Prediction in a Tidal River Using a Deep Learning Algorithm <i>Giha Lee, Sungho Jung, Daeup Lee</i>
	Modeling of flows from some springs in the Bouzizi - Seraidi sector (N-E Algerian) <i>H. Majour, A. Hani</i>
	Mountain torrent disaster risk analysis based on copula connect function <i>Li Wei, Kuaile Feng, Chengxin Luo</i>
	Conference VII
16:00-17:30	A thorough investigation of energy recovery from tannery effluent in the context of circular economy <i>Evgenios Kokkinos, Vera Proskynitopoulou, Effrosyni Peleka, Anastasios Zouboulis</i>
	Measuring Changes in Water Level Fluctuations and the Associated Effect on the Distribution of Wetland Vegetation in Poyang Lake, China <i>Rongrong Wan, Guishan Yang, Xue Dai</i>
	Promoting urban integration through green Infrastructure incorporation to improve climate governance in cities <i>Nikolaos Proutsos, Constantinia Tsagari, George Karetsos, Alexandra Solomou, Evangelia Korakaki, Evangelia Avramidou, Nikolaos Gounaris, Konstantinos Kontos, Christos Georgiadis, Aimilia Kontogianni, Despina Vlachaki</i>



### Detailed Congress Programme

Thursday, 27 June 2019		
	Sala Verde (Green Room)	Sala de Seminarios (Seminar Room)
	Conference I: Session I.4 <i>Moderators: (to be announced)</i>	Conference V: Session V.1 <i>Moderators: (to be announced)</i>
09:00-09:15	Quantification of expected changes in peak flow quantiles in climate change by combining hydrological modelling with the modified CN method <i>Enrique Soriano, Luis Mediero, Carlos Garijo</i>	On Farm Water-Use Efficiency Investments: Perennials and Climate Change <i>David Adamson, Adam Loch</i>
09:15-09:30	Climatic and anthropogenic factors affecting river discharge in Piranhas-Açu Basin in Brazilian Semiarid: trend test and change-point analysis <i>Lucas Falcao, Ticiano Studart, Maria Manuela Portela</i>	Combined use of river basin network model and analytic hierarchy process in assessing sustainability of water allocation scenarios <i>Bojan Srdjevic, Zorica Srdjevic, Bosko Blagojevic, Ratko Bajcetic</i>
09:30-09:45	Raingauge network extension using a simulated annealing heuristic: main challenges in calibration of algorithm parameters <i>Afef Chebbi, Maria da conceição Cunha, Zoubeida Bargaoui</i>	Risk Identification of Wastewater Reuse for Cooling Water of Steel Factories: (Case Study: Esfahan's Mobarakeh Steel Complex) <i>Salma Arjmandi, Massoud Tabesh</i>
09:45-10:00	SOON: the Station Observation Outlier finder <i>Sara Dal Gesso, Elisa Arnone, Marco Venturini, Marco Cucchi, Marcello Petitta</i>	Utilization of tea factory solid wastes towards polyphenols extraction <i>Suman Saha, Chandan Das</i>
10:00-10:15	Employing innovative technologies and procedures are critical in meeting growing water demands in the arid regions of the world <i>Riaz Ahmed Sahi</i>	Comparison of reference evapotranspiration estimations: Simplified Penman's formulae versus reduced FAO Penman-Monteith <i>John Valiantzas</i>
10:15-10:30	Uncertainty quantification in a dam break flood study due to breach parameters <i>Vasilis Bellos, Vasileios Tsakiris, George Kopsiaftis, George Tsakiris</i>	Irrigation scheduling of cool and warm season turfgrass irrigated with sprinkler irrigation method <i>Süleyman Bezirgan, A. Halim Orta</i>
10:30-10:45	The influence of land use change and urban growth on river flood hazard in Villahermosa (Mexico) <i>Omar S. Areu-Rangel, Luis Cea, Rosanna Bonasia, Victor J. Espinosa-Echavarría</i>	Biogas production from domestic waste and wastewater using bacterial species isolated from animal husbandry <i>P. Shrivastava, R. Shrivastava, A. Vishwanath, P. Bhakre, K. Samal, S.R. Geed, K. Mohanty, C. Das</i>
10:45-11:00	A study on the change in flow parameters due to construction of bridges across River Brahmaputra <i>Prajna Parmita, Rajib Kumar Bhattacharjya</i>	Water management in Turkey: the effects of climate change on agriculture and the economy <i>Clara Sánchez Cerdà, Tolga Pilevneli, Goksen Capar</i>

## Thursday, 27 June 2019

	Sala Verde (Green Room)	Sala de Seminarios (Seminar Room)
11:00-11:15	Variance of Pipe Flow-Series as Surrogate Reliability Measure in design of water distribution networks <i>S. Rathj, R. Gupta</i>	Modified budget of net anthropogenic nitrogen inputs to large watersheds: application in Lower Mondego (Portugal) <i>João Vieira, Maria Conceição Cunha, Ricardo Luís</i>
11:15-11:30	Discussion	Discussion
11:30-12:00	Coffee break	
	Conference I: Session I.5 <i>Moderators: (to be announced)</i>	Conference V: Session V.2 <i>Moderators: (to be announced)</i>
12:00-12:15	How many storms are needed to estimate the maximum annual flood? A continuous, fully-distributed, physically-based model approach <i>Ivan Gabriel-Martin, Alvaro Sordo-Ward, David Santillán, Luis Garrote</i>	Hydro-economic modelling approaches for agricultural water resources management in a Greek Watershed <i>Angelos Alamanos, Nikitas Mylopoulos, Athanasios Loukas, Dionysios Latinopoulos, Stefanos Xenarios</i>
12:15-12:30	WEBFRIS: a web based flood information system for enhanced resilience through risk awareness <i>Mohit Prakash Mohanty, Subhankar Karmakar, Subimal Ghosh</i>	Participatory water governance to protect drinking water resources in an agricultural peri-urban area <i>Maria Vittoria Barbieri, Cristina Postigo, Raimon Roda, Elena Isla-Gil, Gemma Fraces, Anna Casanovas, Enric Queralt, Vinyet Sola, Jordi Martín-Alonso, Agustina De la Cal, Maria Rosa Boleda, Ester López-García, Antoni Ginebreda, Damia Barceló, Miren López de Alda</i>
12:30-12:45	Assessing Operational Reservoir Rules for Evaluating Flood Risk Scenarios Using a Monte Carlo Bivariate Framework – A Case Study in Sicily <i>Angela Candela, Giuseppe T. Aronica</i>	Adaptation of irrigated agriculture to climate change: a review focusing on qualifying agriculture and forest stakeholders <i>Diogo S. Martins, Teresa Afonso do Paço, Gonçalo C. Rodrigues, Luis Mira da Silva, Tiago Pinto, Alexandra Diogo, Conceição Santos Silva</i>
12:45-13:00	A methodology for the assessment of river levee overtopping hydrological risk at ungauged sites <i>Matteo Isola, Enrica Caporali, Luis Garrote, Luis Mediero</i>	Optimal use of groundwater for irrigation purposes in Al-Salhubia area, Al-Muthana Governorate, south Iraq <i>Ali Abdelrahim Obeed Al-Azawi, Ayser Mohammed Al-Shamma'a</i>
13:00-13:15	Nonstationary Frequency Analysis over a Flood Prone Indian Catchment <i>Mousumi Ghosh, Jitendra Singh, Subhankar Karmakar, Subimal Ghosh</i>	Assessment of agricultural drainage water quality changes throughout the sustainability of water resources <i>Engin Yurtseven, Sertan Avci</i>
13:15-13:30	Non-stationary flood frequency analysis in Langat basin, Malaysia <i>Valeriya Filipova</i>	Optimization of pumps working as turbines under economic criteria, in water irrigation networks, to improve sustainability: Case study <i>M. Pérez-Sánchez, H. Montero, FJ Sánchez-Romero, PA López-Jiménez</i>
13:30-13:45	Dam break flood analysis caused by a landslide dam on Siang River, India <i>Prajna Parmita, Rajib Kumar Bhattacharjya</i>	Effects of soil moisture and vegetation cover on soil temperature in water-limited environments <i>Javier Lozano-Parra, Manuel Pulido, Carlos Lozano-Fondón, Susanne Schnabel</i>
13:45-14:00	Discussion	Discussion

## Thursday, 27 June 2019

	Sala Verde (Green Room)	Sala de Seminarios (Seminar Room)
14:00-15:00	Light Lunch	
	Conference I: Session I.6 <i>Moderators: (to be announced)</i>	Conference IX: Session IX.1 <i>Moderators: (to be announced)</i>
15:00-15:15	Calibration procedure of regional flow-duration curves evaluating water resource withdrawal from diversion dam <i>Emanuela Sassu, Riccardo Zucca, Giovanni Maria Sechi</i>	Detection of Vegetation Water Requirement of a Mediterranean Wetland by Satellite Imagery <i>Mert Can Gunacti, Cem Polat Cetinkaya</i>
15:15-15:30	Importance of updating the hydrological frequency analysis when applied to countries with short period of records <i>Aisha Mufti Al-Qurashi</i>	Evaluating the performance of a hydrodynamic model using SAR images <i>Angeliki Gkouma, Ioanna Zotou, Vasilis Bellos, Vassilia Karathanassi, Vassilios A. Tsihrintzis</i>
15:30-15:45	Assessment of extreme hydrological phenomena in the eastern Slovakia <i>Martina Zelenakova, Tatiana Solakova, Maria Manuela Portela, Zuzana Vranayová, Pavol Purcz, Dorota Simonová</i>	Assessment of Reservoir Sedimentation using Landsat Imagery & HEC-HMS Model in Kodar Reservoir Watershed of Chhattisgarh State, India <i>Champat Lal Dewangan, Ishtiyag Ahmad</i>
15:45-16:00	Prediction of suspended sediment yield in the Saf Saf catchment, northeast of Algeria <i>Kamel Khanchoul, Zine El Abidine Boukhrissa</i>	Crop Water Requirement Prediction and Observation of Potential Productivity on the scope of a Mediterranean Agricultural Plot <i>Mert Can Gunacti, Ali Gul, Cem Polat Cetinkaya, Dilek Kahraman, Funda Kidoglu, Sener Ozcelik</i>
16:00-16:15	Quantifying sensitivity to drought: study case in São Paulo and Ceará, Brazil <i>Gabriela de Azevedo Reis, Francisco de Assis de Souza Filho, Renata Locarno Frota, Larissa Zaira Rafael Rolim, Tais Maria Nunes Carvalho</i>	Contribution of Remote Sensing for the Estimation of the Sedimentation of the Beni Haroun Reservoir (Mila Town, Algeria) <i>F.Z. Tebbi, H. Dridi, M. Kalla, H. Baazi</i>
16:15-16:30	Flood Inundation Studies to Protect the National Highways <i>S Mohan, Akash Sinha</i>	Groundwater over-abstraction in Jordan: Impact and Outlook <i>Rebecca Bahls, Ali Subah, Klaus Holzner, Razan Al-Roud, Mohammad Alhyari</i>
16:30-16:45	Water quality of Greek reservoirs: the impact of land cover and water resources management on phytoplankton <i>Valentini Navrozidou, Antonis Apostolakis, Sotiria Katsavouni, Efpraxia Mavromati, Vasiliki Tsiaoussi</i>	Automatic generation of a TIN discrete model for rainfall-runoff transformation and hydraulic propagation based on DEM data <i>Marco Sinagra, Carmelo Nasello, Tullio Tucciarelli, Tommaso Moramarco</i>
16:45-17:00	Investigating the need for inclusion of water quality objectives in water distribution network optimisation models <i>Mercy S. Nyirenda, Tiku T. Tanyimboh</i>	A hybrid GIS-Shannon' Entropy framework for artificial recharge in arid regions plain <i>Seyyed Ahmad Sajadi, Shahrooz Shojaie, Majid kholghi</i>
17:00-17:15	Water Yearbook: A yearly overview of Jordan's water resources <i>Thair Al-Momani, Klaus Holzner</i>	Machine Learning Analyses of Climate Data and Models <i>V.V. Vesselinov, D. O'Malley, B.S. Aelxandrov, C. Furusho, K. Stefan</i>
17:15-17:30	On the use of DPSIR model for defining the water quality determinants of groundwater abstraction in coastal aquifer <i>Samir Hani, Sami Lallahem, Azzedine Hani, Larbi Djabri, Hicham Chaffai, Nabil Bougherira</i>	Optimal location of subsurface dams in arid regions using geographic information system and analytic hierarchy process <i>Seyyed Sadjad Mehdizadeh Mahali, Milad Ghoroghi, Ahmad Naqizadeh</i>

## Thursday, 27 June 2019

	Sala Verde (Green Room)	Sala de Seminarios (Seminar Room)
17:30-17:45	Effect of Shape Parameters on Earthen Embankment Failure due to Overtopping <i>R.M. Kansoh, M. Elkholy, G. Abo-Zaid</i>	Choosing the best route for a marine channel from the Arabian Gulf to Lake Razzazah in Iraq using GIS <i>Suad Mohamed Al-Sadi, Saif Ali Al-Juhaishi, Wisam Al-Hassani</i>
17:45-18:00	Discussion	Discussion

21:00-23:30	Gala Dinner (venue to be announced)
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## Thursday, 27 June 2019

### Poster Presentations

10:00-13:30	Conference I
	Application of stochastic dual dynamic programming in operation optimization of the Jaguaribe-Metropolitano reservoirs system <i>Victor Costa Porto, Francisco de Assis de Souza Filho, Taís Maria Nunes Carvalho, Renan Vieira Rocha, Renata Locarno Frota</i>
	Determination of hedging rule curves to mitigate water supply deficit for a single dam using dynamically dimensioned search method <i>Youngkyu Jin, Sangho Lee</i>
	Exploring the relationship between climate indices and hydrological time series using a machine learning approach <i>Larissa Zaira Rafael Rolim, Francisco de Assis de Souza Filho, Renan Vieira Rocha, Gabriela de Azevedo Reis, Taís Maria Nunes Carvalho</i>
	Reservoir operation under the uncertainties of rainfall-runoff models <i>Renan Vieira Rocha, Francisco de Assis de Souza Filho, Ályson Brayner Sousa Estácio, Victor Costa Porto, Larissa Zaira Rafael Rolim</i>
	Method for Water Sustainability assessment of multipurpose reservoirs: a case study <i>Ályson Brayner Sousa Estácio, Victor Costa Porto</i>
	Integrated model of capacity expansion and operation of water supply systems including non-conventional water sources <i>Taís Maria Nunes Carvalho, Francisco de Assis de Souza Filho, Victor Costa Porto, Gabriela de Azevedo Reis, Larissa Zaira Rafael Rolim</i>
	A proposal framework for Flood Risk assessment in Cultural Heritage sites upon specific ultra-detailed stage-damage functions

# Thursday, 27 June 2019

## *Poster Presentations*

	<i>Julio Garrote, Andrés Díez-Herrero, Cristina Escudero, Ines García</i>
	Development and validation of a flood forecasting system for 3 small catchments in the Northwest of Spain <i>Ignacio Fraga, Luis Cea, Orlando García-Feal</i>
	New approaches toward efficient and robust uncertainty quantification in real-time flood forecasting <i>Vinh Ngoc Tran, Jongho Kim</i>
	The relationship between precipitation depth and weather circulation patterns over Sicily <i>Giuseppe Cipolla, Antonio Francipane, Stephen Blenkinsop, Hayley Fowler, Leonardo Valerio Noto</i>
	Drought occurrence probabilities based on copulas <i>Joao Dehon de Araujo Pontes Filho, Ticiana Marinho Carvalho Studart, Maria Manuela Portela, Francisco de Assis Souza Filho</i>
	Application of the Humidity index in the Crati River basin (Italy) <i>Ernesto Infusino, Tommaso Caloiaro, Francesco Fusto</i>
	Comparative study on the estimation of flood peaks based on the peaks-over-threshold method and annual maximum method <i>G. Onuşuel Gül, A. Gül</i>
	<b>Conference IX</b>
	Evaluation of the water space evolution in the Middle Jaguaribe during the period 2007 to 2017 <i>Renata Locarno Frota, Francisco de Assis Souza Filho, Larissa Zaira Rafael Rolim, Tais Maria Nunes Carvalho, Gabriela de Azevedo Reis</i>
	Optimal sensor placement for watersheds characterization based on the rational method <i>Sergio Zubelzu, Leonor Rodriguez-Sinobas, Daniel Segovia, Andrés Díez</i>
16:00-17:30	Assessment of GPM precipitation data with rain measurement from rain gauge (case study Lorestan, Iran) <i>Abdolnabi Abdeh Kolahchi</i>
	Tropical Rainfall Measuring Mission performance in the measurement of precipitation for the Muriaé sub-basin <i>Renata Locarno Frota, Francisco de Assis Souza Filho, Larissa Zaira Rafael Rolim, Gabriela de Azevedo Reis, Victor Costa Porto</i>
	Towards extracting hydrographic networks using satellite products for soil moisture <i>I. Papageorgaki, I. Nalbantis</i>
	<b>Conference V</b>
16:00-17:30	Smart On-Farm Irrigation of Chia-Nan Irrigation Association of Taiwan <i>Frederick N.-F. Chou, Hao-Chi Lee, Chia-wen Wu</i>
	Evaluation of the Square Root Time model in estimating the evaporation from a bare loam soil <i>George Kargas, Paraskevi Londra, Eleni Karistinou, Dimitrios Katsipis, Konstantinos Soulis</i>

Thursday, 27 June 2019

*Poster Presentations*

Italian approach to quantify water for irrigation  
*Raffaella Zucaro, Marianna Ferrigno, Veronica Manganiello*

Searching for the most accurate method for riverine nutrient load estimation as a function of monitoring frequency  
*Daeryong Park, Momcilo Markus, Myoung-Jin Um, Kichul Jung*



### Detailed Congress Programme

Friday, 28 June 2019			
	Salon de Actos (Auditorium)	Sala Verde (Green Room)	Sala de Seminarios (Seminar Room)
09:00-09:30	Keynote Speech (Auditorium) Alberto Garrido: “Water policy and economic issues”		
	Conference XI: Session XI.1 <i>Moderators: (to be announced)</i>	Conference VIII: Session VIII.1 <i>Moderators: (to be announced)</i>	Conference X: Session X.1 <i>Moderators: (to be announced)</i>
09:30-09:45	Effects of water pricing at river basin scale: the case of Guadalquivir (Southern Spain) <i>M.M. Borrego-Marin, A. Expósito, J. Berbel</i>	Modeling Discontinuous Aquifers using Modified Response Matrix Approach <i>S. Mohan, K. Neenu</i>	Assessment of GCM and Scenario Uncertainty to Project Streamflow Under Climate Change <i>Subhadarsini Das, Umamahesh Nanduri</i>
09:45-10:00	Irrigation technology and water conservation: from panaceas to actual solutions <i>C. Dionisio Pérez-Blanco, A. Hrast-Essenfelder, C. Perry</i>	Analyzing the Groundwater Age and Flow Fractions in Subsurface Hydrologic Systems <i>Nitha Ayinipully Nalarajan, Suresh Kumar Govindarajan, Indumathi M Nambi</i>	Reservoir performance under climate change: validating the storage-yield-reliability approach <i>Alfredo Granados, Alvaro Sordo-Ward, Iván Gabriel-Martin, Luis Garrote</i>
10:00-10:15	Mapping water scarcity in India using Water Poverty Index <i>Ashish Chopra, Parthasarathy Ramachandaran</i>	Estimation of the flow parameters in unsaturated zone using shuffled frog leaping algorithm <i>Mamata Das, B.G. Rajeev Gandhi, Rajib Kumar Bhattacharjya</i>	Assessment of climate change impacts on water supply systems: application to the Pozzillo reservoir, Sicily <i>David Johnny Peres, Antonino Cancelliere</i>
10:15-10:30	Cost-benefit analysis of river restoration in Switzerland <i>Ivana Logar, Roy Brouwer, Amael Paillex</i>	Numerical Groundwater Flow Model of Jordan <i>Mona Dahabiyeh, Mark Gropius</i>	Prediction of future water resources sustainability of the Yellow River under climate change <i>Huijuan Cui</i>
10:30-10:45	A market mechanism for sharing a polluted river <i>Anand Abraham, Parthasarathy Ramachandran</i>	Numerical model of groundwater flow using MODFLOW: Application to western Bursa, Turkey <i>Serdar Korkmaz, Muhammed Zakir Keskin</i>	Preliminary long term changes in inter-annual precipitation variability in a Mediterranean region <i>Antonia Longobardi, Ouafik Boulariah</i>
10:45-11:00	Monitoring the access to water, sanitation and hygiene in the MENA region: survey errors and compositional nature <i>Fatine Ezbakhe, Agustí Pérez-Foguet</i>	Detecting seawater intrusion by using 3D electrical resistivity imaging technique in Dibdibba aquifer at Basrah Governorate south of Iraq <i>Firas H. AL-Menshed</i>	Assessing lake vulnerability to climate change using the coupled MIKE SHE/MIKE 11 model: Case study of Lake Zazari in Greece <i>D. Papadimos, K. Demertzi, D. Papamichail</i>

## Friday, 28 June 2019

	Salon de Actos (Auditorium)	Sala Verde (Green Room)	Sala de Seminarios (Seminar Room)
11:00-11:15	Structural analysis as a supporting tool in Strategic Prospective <i>Renata Locarno Frota, Francisco de Assis Souza Filho, Renan Vieira Rocha, Gabriela de Azevedo Reis, Victor Costa Porto</i>	Identification of Groundwater Zones and Subsurface Lithology in Saint Martin's Island Using Vertical Electrical Sounding <i>Md. Misbah Uddin, Md. Minhazur Rahman, Mohd. Tahmidur Rahman</i>	Transitioning to Sustainable Groundwater Use: an Economic Analysis of Supply and Demand Management Options in California's Central Valley <i>Alvar Escrivá-Bou, Josué Medellín-Azuara, Ellen Hanak, Jay R. Lund</i>
11:15-11:30	Discussion	Discussion	Discussion
11:30-12:00	Coffee break		
	Conference XI: Session XI.2 <i>Moderators: (to be announced)</i>	Conference VIII: Session VIII.2 <i>Moderators: (to be announced)</i>	Conference X: Session X.2 <i>Moderators: (to be announced)</i>
12:00-12:15	Water poverty in large cities in Spain <i>Samara López Ruiz, Cecilia Tortajada, Francisco González-Gómez</i>	Agronomic and Groundwater Nitrate Contamination Modelling in Rural Basin, Central Greece <i>Pantelis Sidiropoulos, Georgios Tziatzios, Lampros Vasiliades, Nikitas Mylopoulos, Athanasios Loukas</i>	Climate Change effects for severe rainfall events in Madrid Region <i>Antonio Lastra de la Rubia, Mónica Ortega Castro, Jaime Botello Herranz</i>
12:15-12:30	Monitoring WASH services at household and community level – Do variations exist? <i>Julio Alejandro Ríos Hernández, Ricard Giné Garriga, Agustí Pérez-Foguet</i>	Identifying the sources of reactive contaminants in groundwater aquifers using simulation-optimization approach <i>Aatish Anshuman, T.I. Eldho</i>	Coupling CFSv2 with ArcSWAT for seasonal hydrological forecasting in a Mediterranean basin <i>Konstantinos Kaffas, Maurizio Righetti, Diego Avesani, Mike Spiliotis, Vlassios Hrissanthou</i>
12:30-12:45	Water Rights Valuation at Atacama Desert, Chile: Transactions Characteristics and Price Dispersion <i>Luis Mateo-Peinado, Lisandro Roco-Fuentes, Manuel Prieto</i>	Upward transport of trichloroethylene vapour in a soil column <i>Chiu-Shia Fen, Chiwei Tsoa, Poyang Yen</i>	Flow Risk Assessment under Climate Change Effect in Yesilirmak Basin, Turkey <i>Ugur Serencam, Ismail Dabanli</i>
12:45-13:00	Critical analysis of cross-subsidies between water users in the cost-recovery calculations: The Guadalquivir River Basin Case in Spain <i>Carmen Hervás-Gámez, Fernando Delgado-Ramos</i>	Origin of an industrial pollution in Berrahal aquifer system, Algeria <i>A. Hani, H. Khelfaoui, H. Chaffai, S. Hani, N. Bougherira, L. Djabri</i>	Integrating top-down and bottom-up approaches for climate change adaptation in the Jucar river basin (Spain) <i>Patricia Marcos García, Manuel Pulido Velázquez</i>
13:00-13:15	Self-financing the purchase of water for environmental purposes through a public water bank <i>Carlos Gutiérrez-Martín, José A. Gómez-Limón, Nazaret Montilla-López</i>	The arsenic and uranium ratios in sediment and groundwater samples as an indicator for contaminated areas from different sources <i>J. Wurl, L. Mendez-Rodríguez, M. Schneider, L. Thomas</i>	A robust method to update local IDF curves and flood maps using global climate model output and weather typing based statistical downscaling <i>María Bermúdez, Luis Cea, Els Van Uytven, Patrick Willems, Jerónimo Puertas</i>
13:15-13:30	Water values: participatory water ecosystem services assessment in the Arno River basin <i>Tommaso Pacetti, Giulio Castelli, Lapo Cecconi, Lorenzo Tilli, Enrica Caporali, Elena Bresci</i>	Investigation of sharp-interface modifications, as surrogates of the variable density models <i>George Kopsiaftis, Vasileios Christelis, Adrian Werner, Aristotelis Mantoglou</i>	Investigations on the impacts of future climate change on the hydrology of a river basin in India using a macroscale hydrological model <i>Pushpendra Raghav, T.I. Eldho</i>



## Friday, 28 June 2019

	Salon de Actos (Auditorium)	Sala Verde (Green Room)	Sala de Seminarios (Seminar Room)
13:30-13:45	Assessment of groundwater safety around contaminated water storage sites <i>Ivan Radelyuk, Kamshat Tussupova, Kulshat Zhapargazinova</i>	Nitrate concentration and transport simulation of a rural basin aquifer under the strict compliance to the E.U. Nitrates Directive (91/676/EEC) <i>Pantelis Sidiropoulos, Nikitas Mylopoulos, Lampros Vasiliades, Athanasios Loukas</i>	Impacts of climate change in European agriculture: the interplay between irrigation and agrifood markets <i>Maria Blanco, Pilar Martinez, Peter Witzke, Jordan Hristov, Guna Salputra, Jesus Barreiro-Hurle</i>
13:45-14:00	Water reliability to meet the socio-economic requirements under uncertain future climate and economic conditions and changing culture <i>Mahnedran Roobavannan, Jaya Kandasamy, Saket Pande, Saravanamuthu Vigneswaran, Murugesu Sivapalan</i>	Study of water infiltration in soil by Richards equations in 3D: summary and methodology validation <i>Ángel del Vigo García, Sergio Zubelzu Mínguez, Luís Juana Sirgado</i>	Comparison between the methodologies for issuance of water resources applied in Brazil and the Tennant method <i>Paulo Victor Freitas Lopes, Izabel Rodrigues Leite, Cleyse Andreia Souza Lima, Aleska Kaufmann Almeida, Isabel Kaufmann de Almeida</i>
14:00-14:15	Discussion	Discussion	Discussion
14:15-15:00	Light Lunch		
15:00-15:30	Keynote Speech (Auditorium) Joaquin Andreu: "Management of complex water resources systems under global change"		
	Conference VI: Session VI.1 Moderators: (to be announced)	Distant Papers Moderators: (to be announced)	Conference X: Session X.3 Moderators: (to be announced)
15:30-15:45	Investigating the behavior of water shortage indices for performance evaluation of a water resources system <i>Nguyen Thi Thuy Linh, Frederick N.-F. Chou</i>	Monte-Carlo simulations for capacity planning and reservoir management for urban water supply systems <i>S. Burak, A.H. Bilge, F. Samanlioglu</i>	Trade-off between environmental flow and water availability: a mesoscale analysis for Europe <i>Alvaro Sordo-Ward, María Dolores Bejarano, Isabel Granados García, Luis Garrote de Marcos</i>
15:45-16:00	Integrated nexus model for sustainable urban sanitation system <i>Tayebeh Zinati Shoa, Matthias. Barjenbruch, Alexander Wriege-Bechtold</i>	Water-Energy-Food Nexus Framework for Quantifying the Embedded Water and Energy in Food Production: A Case Study of Lebanon <i>Ali Karnib, Hatem Haidar</i>	Simulating Maximum Temperature for Future Time Series on Lower Godavari Basin, Maharashtra State, India by using SDSM <i>Y.J. Barokar, V.R. Saraf, D.G. Regulwar</i>
16:00-16:15	Evolution of water use, consumption and energy in the Spanish irrigated sector <i>J. Espinosa-Tasón, C. Gutiérrez-Martín, J. Berbel</i>	An ensemble modelling approach for groundwater salinity prediction <i>Alvin Lal, Bithin Datta</i>	Robust climate change adaptation strategies for the largest irrigated system in the European Union <i>David Haro, Leticia Palazón, Santiago Begueria</i>
16:15-16:30	Feasibility Study for Power and Water Cogeneration Plant in South Coast of Iran <i>Aliasghar Poursarvandi, Ramin Haghighi Khoshkho</i>	Determination of rate of pollution decay coefficient in Talar river, Iran <i>Rostam Sadeghi-Talarposhti, Kumars Ebrahimi, Abdolhosein Hourfar, Sotudeh Hoseini-Ghafari</i>	System dynamics for integrated management of the Jucar River Basin <i>Adrià Rubio Martín, Héctor Macian-Sorribes, Manuel Pulido-Velazquez, Alberto Garcia-Prats</i>

## Friday, 28 June 2019

	Salon de Actos (Auditorium)	Sala Verde (Green Room)	Sala de Seminarios (Seminar Room)
16:30-16:45	The Nexus Approach in Water, Food and Energy: Implemented Cases from Algeria <i><u>Nadjib Drouiche</u>, Rafika Khacheba</i>	Multi-criteria Decision Support Framework for Water Sensitive Stormwater Management in an Urban Residential Complex <i><u>Rose N. Nyawo</u>, Tiku T. Tanyimboh</i>	The challenges facing groundwater development companies in adopting new technologies and procedures in arid regions of the world <i><u>Riaz Ahmed Sahi</u></i>
16:45-17:00	Scenario analysis for energy optimization of pumping plants in complex water supply systems <i><u>Jacopo Napolitano</u>, Giovanni Maria Sechi</i>	Pro-poor policy intervention in urban water management in Kenya: Towards universal access to affordable and safe water coverage <i><u>Anindita Sarkar</u></i>	The effect of climate change on fluvial ecosystems in the Sierra de Guadarrama National Park: past, present and future <i><u>J.M. Santiago</u>, D. García de Jalón, C. Alonso, J. Solana-Gutiérrez</i>
17:00-17:15	Critical review of the Public Participation Process in Drought Management Plans: The Guadalquivir River Basin Case in Spain <i><u>Carmen Hervás-Gámez</u>, Fernando Delgado-Ramos</i>	Modelling water quantity in low impact development solution for stormwater management in residential area: a case study <i><u>Daniela Junqueira Carvalho</u>, Maria Elisa Leite Costa, Cátia dos Santos Conserva, Liza Maria Souza de Andrade, Sergio Koide</i>	Slackwater sediment in a gully network records the increase in maximum probable precipitation due to climate change (Jaén, Spain) <i><u>José David del Moral-Erencia</u>, Pedro Jesús Jiménez-Ruiz, Francisco José Pérez-Latorre, <u>Patricio Bohorquez</u></i>
17:15-17:30	Technical and financial assessment of water supply for a petrochemical company, a case study <i><u>Amir Fouladitajar</u>, Mohammad Rasoul Pourghasem, Mohammad Danaye Manavi</i>	Sugarcane Yield Prediction at Farm Scale Using Remote Sensing and Artificial Neural Network <i><u>Mostafa Rahimi Jamnani</u>, Abdolmajid Liaghat, Nazanin Sadeghi Loyeh</i>	Mapping risk of gully erosion in Mediterranean olive groves affected by climate change (Jaén, Spain) <i><u>Pedro Jesús Jiménez-Ruiz</u>, <u>Patricio Bohorquez</u>, José David del Moral-Erencia, Francisco José Pérez-Latorre</i>
17:30-17:45	Study on optimization of photovoltaic performance of SolWat: A hybrid technology for simultaneous clean water and electricity production <i><u>Natalia Pichel Mira</u>, Marta Vivar García, Manuel Fuentes Conde</i>	Analysis of the variation of the hydrological response of the basin of the Arroyo Albuera, Subcuenca Del Río Luján, Province of Buenos Aires <i><u>Pablo Palmeyro</u>, Tomás Bran, Ignacio Arzuaga, Susana Viñes, Mariana Torrero</i>	Impacts of Changing Precipitation Patterns on Hydrology and Pollutant Transport in a Subsurface-Drained Watershed <i><u>Margaret W. Gitau</u>, Sushant Mehan</i>
17:45-18:00	Discussion	Geostatistical interpolation as a prior model improves accuracy: A comparative synthetic study <i><u>P.S.L. Sarada</u>, B.V.N.P. Kambhammettu</i>  Water losses management in the urban network of Algiers <i><u>Karima Sebbagh</u>, Abdelhamid Safri, Moula Zobot</i>	Discussion

Friday, 28 June 2019

Poster Presentations

	Conference X
	Analysis of the characteristics of dry and wet spells in a Mediterranean region <i>Tommaso Caloiero, Roberto Coscarelli</i>
	Evaluation of climate change impact on Arachthos river discharge using the SWAT model <i>Georgios D. Gikas, Georgios Lampros, Vassilios A. Tsihrintzis</i>
	Analyzing temperature attributes for the last half century in Heraklion – Crete, Greece <i>Nikolaos Proutsos, Evangelia Korakaki, Athanasios Bourletsikas, Konstandinos Kaoukis, Christos Georgiadis</i>
	Sustainability index assessment in the Flumendosa-Campidano water system management (Sardinia, Italy) <i>A. Sullis, A. Ruiu, R. Zucca, G.M. Sechi</i>
	Blue house: Attitudes toward sustainable water use <i>Daniela Kaposztasova, Zuzana Vranayova</i>
	Impacts of climate change on the Tagus Segura Water Transfer <i>Javier Senent-Aparicio, Adrián López-Ballesteros, Francisco Cabezas, Julio Pérez-Sánchez</i>
10:00-13:30	Marginal Utility-based Determination of Water Supply Quantity Considering Climate Change Scenarios <i>Eun-Sung Chung, Patricia Jitta Abdulai, Young Hoon Song</i>
	Conference XI
	A protocol-based integrated microeconomic Positive Multi-Attribute Utility Programming and HEC-HMS modeling framework to assess economic efficiency-water conservation tradeoffs in water reallocation policies <i>Héctor González López, Carlos Dionisio Pérez-Blanco, Arthur Hrast-Essenfelder</i>
	Identification of correlation between residential demand and average income using pool regression model <i>Gabriela de Azevedo Reis, Francisco de Assis de Souza Filho, Thaís Antero Oliveira, Renata Locarno Frota, Taís Maria Nunes Carvalho</i>
	Managing uncertainties in the decision-making process within water users association <i>Zorica Srđević, Bojan Srđević</i>
	Water Transfers from Agriculture: The Impact of Land Fallowing on Aquifer Conditions and Agricultural Production in Northern California <i>Eric Houk, Steffen Mehl, Kevin Anderson</i>
16:00-17:30	Conference VIII
	Coastal aquifer characteristics determination based on in-situ observations: River Neretva Valley Aquifer

Friday, 28 June 2019

Poster Presentations

*Ivan Lovrinovic, Veljko Srzic, Mijo Vranjes, Marko Dzaja*

A hybrid GIS-Shannon' Entropy framework for artificial recharge in arid regions plain  
*Seyyed Ahmad Sajadi, Shahrooz Shojaie, Majid kholghi*

A lagging-theory model for slug test in a confined aquifer with sensitivity analysis  
*Ching-Sheng Huang, Ye-Chen Lin, Cheng-Pai Li, Hund-Der Yeh, Mo-Hsiung Chuang*

Conceptualization and Simulation of an Integrated Pump&Treat and Aquifer Storage and Recovery (ASR) pilot scheme in a saline aquifer  
*M. Perdikaki, A. Kallioras, C. Makropoulos, K. Dimitriadis*

Mathematical Model of Aquifer in Minab Plain using Two-Dimensional Finite Volume Method  
*Amin Hajiahmadi, Mohammad J. Khanjani, Mahla Khoramvar*

Conference VI

16:00-17:30

Impact of e-flow methods on energy production of a run-of-river hydropower plant and fish habitat  
*Alban Kuriqi, Alvaro Sordo-Ward, Antonio N. Pinheiro, Luis Garrote*

**Detailed Congress Programme**

	<b>Saturday, 29 June 2019</b>
09:00-17:00	<p>Field Trip</p> <p>Expected departure at 09:00</p> <p>Excursion to Toledo  (Details will be announced)</p>

**Conferences**

- I. Hydroclimatic Extremes and Water Resources Management
- II. Water Quality and Water Treatment
- III. Hydrological Processes
- IV. Urban Water Management
- V. Agricultural Water Management
- VI. Water-Energy-Food Nexus
- VII. Ecosystems and Environmental Processes
- VIII. Groundwater Hydrology, Contamination and Management
- IX. Geoinformatics, Remote Sensing and Water Resources
- X. Global Change and Water Resources
- XI. Water policy and Socioeconomic Issues

**Distant papers**

Video presentations of distant papers

**Net duration of presentations**

Oral presentations: 12 min - Discussion/questions: 15 min

**Note: Minor amendments in the detailed programme may be made just before the commencement of the Congress**