

### 28th June, Morning

#### Session 13 - Management and Modelling

Chair Room	Maria da Conceição Cunha Auditorium		
Room	Nº	Title	Author
09.00-10.30	182	Multi-objective spatial groundwater allocation by means of cell-based stochastic and simulated evolution	<u><b>Epaminondas Sidiropoulos</b></u> & Dimitrios Fotakis
	73	Modelling Institutional and hydrologic water availability: lessons from the Texas experience	<u><b>Ralph Wurbs</b></u>
	165	The delta model for fresh water policy analysis in The Netherlands	<u><b>Geert Prinsen</b></u> , Frederiek Sperna Weiland & Erik Ruijgh
	199	A linked simulation-optimization model for estimating the Manning's surface roughness in river flows	<u><b>M. Tamer Ayyaz</b></u> , Omer Genc
	24	Flood modelling in complex urban environments	<u><b>Vasilis Bellos</b></u> , George Tsakiris
	302	Optimal redesign of groundwater monitoring networks: a data-driven multi-approach software	<u><b>Emanuele Barca</b></u> , Giuseppe Passarella, Michele Vurro, Alberto Morea
	135	Predicting microcystin concentration in Lake Karla using multiple regression techniques	<u><b>Chrysi Lapidou</b></u> , Ifigenia Kagalou, Maria Chamoglou, TH. Papadimitriou

#### Session 14 - Droughts and Water Scarcity

Chair Room	Micha Werner Room 3		
Room	Nº	Title	Author
09.00-10.30	228	Analysis and modification of meteorological drought indices in diverse hydroclimatic environments	<u><b>Athanasios Loukas</b></u> , Anthoula Anagnostopoulou, Lampros Vasiliades, N. Mylopoulos
	198	Spring Drought Prediction: Portuguese Case	<u><b>João Santos</b></u> , Maria Portela, Inmaculada Pulido-Calvo
	63	Development of high-resolution gridded datasets of monthly temperature for Portugal	<u><b>Tayeb Raziei</b></u> , Isabella Bordi, Diogo Martins, Luis Santos Pereira
	65	Variants of the Palmer Drought Severity Index for Portugal using fine resolution gridded datasets	Diogo Martins, <u><b>Ricardo Rosa</b></u> , Tayeb Raziei, Isabella Bordi, <u><b>Luis Santos Pereira</b></u>
	115	A Fuzzy Multicriteria Categorization of Water Scarcity in Complex Water Resources Systems	<u><b>Mike Spiliotis</b></u> , Francisco Martin-Carrasco, Luis Garrote
	64	On the potential of ground-based GPS measurements for monitoring dry/wet events	<u><b>Isabella Bordi</b></u> , Tayeb Raziei, Alfonso Sutera
	291	SPI-based probabilistic analysis of drought areal extent in Sicily	Brunella Bonaccorso, David J. Peres, Antonio Castano, <u><b>Antonino Cancelliere</b></u>

#### Session 15 - Management and Modelling

Chair Room	Mladen Todorovic Room 3		
Nº	Title	Author	
297	A multi-dimensional analysis of the social-ecological system of the upper Rio Grande-San Luis Valley, Colorado	<u>Ken Mix</u> , Vicente Lopes, Walter Rast	
162	Impacts of vegetation cover on surface-groundwater flow and solute interactions in a semi-arid saline floodplain: A case study on the lower Murray river, Australia	<u>S. Alaghmand</u> , S. Beecham & A. Hassanli	
178	Variability of alpine snow and ice melt and its response to regional climate change in the upper reaches of the Hei River Basin in Northwest China	<u>Changbin Li</u> , Wei Xiong, Jiaguo Qi, Songbing Zou, Linshan Yang, Gaofeng Zhu, Wenjin Yang, Shuaibing Wang	
86	Machine learning techniques for modelling river flow time series in the upper Cauvery river basin	<u>Shivshanker Singh</u> , Parthasarathy Ramachandran	
279	Effects of evapotranspiration and rainfall on HSF constructed wetland performance - numerical simulation	<u>Konstantinos A. Liolios</u> , Konstantinos N. Moutsopoulos, Vassilios A. Tsihrintzis	
280	An ant colony optimization approach for estimating the parameters of the nonlinear Muskingum flood routine model	Halil Karahan, <u>Gurhan Gurarslan</u> , Ozgur Baskan	
258	A sensitivity analysis on the parameters of Clark instantaneous unit hydrograph	<u>Stavros Yannopoulos</u> , Christos Christidis, Athanasios Loukas, Ioanna Giannopoulou	

#### Session 16 - Droughts and Water Scarcity

Chair Room	Paulo Barbosa Auditorium		
Nº	Title	Author	
292	Drought forecasting and warning in Africa: recent advances from the DEWFORA Project	<u>Micha Werner</u> , Washington Nyabeze, Francois Engelbrecht, Florian Pappenberger, Ana Iglesias, Paulo Barbosa, Jean-Marie Kileshye Onema	
241	Economic valuation of drought impacts on urban water supply systems. Application to a Portuguese drought prone area	<u>Eduardo Vivas</u> , Rodrigo Maia	
11.00-12.30 107	Water Quality and Quantity of the Lakes in Arid Xinjiang, NW China	<u>Jinglu Wu</u> , Wen Liu, Haiao Zeng, Long Ma, Ruidong Bai	
290	Drought effects on ecological quality of aquatic systems	<u>Vanessa Ramos</u> , Nuno Formigo, Rodrigo Maia	
40	Modelling drought severity at different timescales using standardized precipitation index and geostatistics: an application in southern Italy	Gabriele Buttafuoco, <u>Tommaso Caloiero</u> , Roberto Coscarelli	
242	Socioeconomic evaluation of drought effects. Main principles and application to Guadiana and Algarve case studies.	<u>Rodrigo Maia</u> , Eduardo Vivas, Ricardo Serralheiro, Mário Carvalho	

### 28th June, Afternoon

#### Session 17 - Urban Water Cycle

Chair Room	José Carlos Pimenta Machado Auditorium		
	Nº	Title	Author
14.30-16.00	106	Pre-processing and visualization of biofilm development in drinking water distribution systems	<u>Eva Ramos-Martínez</u> , Manuel Herrera, Joaquín Izquierdo, Rafael Pérez- García
	43	Reliability Assessment of Urban Water Distribution Networks Under Seismic Loads	Michalis Fragiadakis, <u>Symeon E. Christodoulou</u>
	98	An innovative approach to Floods and Fire Risk Assessment and Management: the FLIRE Project	<u>Chrysoula Papathanasiou</u> , Christos Makropoulos, Maria Mimikou
	103	Flood mitigation at the downstream areas of a transboundary river	<u>Dimitrios Serbis</u> , Chrysoula Papathanasiou, Nikolaos Mamasís
	270	Managing the urban water cycle in a changing environment	Rodrigo Proença de Oliveira, José Saldanha Matos, <u>António Jorge Monteiro</u>
	267	Retrofitting urban infrastructure with green technology for hydrologic restoration, reuse and load reduction	Saurabh Rajee, Michelle Siminari, Ruben Kertesz, Lynn Maccarone, Karl Selzers, Brandon Wood, Peter Simm, <u>John Sansalone</u>

#### Session 18 - Water Reuse, Recycling and Protection

Chair Room	Christos Karavitis Room 3		
	Nº	Title	Author
14.30-16.00	207	Multi-criteria decision making approach for water management under complete uncertainty using RCP 4.5 & 8.5 scenarios	<u>Eun-Sung Chung</u> , Sangho Lee, Sang-Mook Jun, Boram Lee, Yeonjoo Kim
	192	The influence of nutrients on turfgrass response to treated wastewater application, under several saline conditions and irrigation regimes	<u>J. Beltrao</u> , P. J. Correia, M. Costa, P. Gamito, R. Santos And J. Seita
	232	Treatment of olive mill wastewater in pilot-scale natural systems	Georgios D. Gikas, Ioannis D. Tsakmakis, <u>Vassilios A. Tsihrintzis</u>
	108	Modelling the impacts of CSO events on receiving water quality	Marek Sokáč, Yvetta Velísková, <u>Vanda Dubová</u>
	84	Beyond the WFD in lowland soils: zeolite, a project to minimize livestock effluents	Barbara Faccini, Dario Di Giuseppe, Nicoló Colombani, <u>Micol Mastrocicco</u> , Massimo Coltorti
	200	Tracing the nitrate sources of the Yili River in the Taihu Lake watershed: a dual isotope approach	<u>Haiao Zeng</u> , Jinglu Wu