

12th WORLD CONGRESS
on Water Resources and Environment
“Managing Water-Energy-Land-Food under Climatic,
Environmental and Social Instability”



Preliminary Detailed Congress Programme

Tuesday, 27 June 2023

15:00-18:30	Registration
	Auditorium I
16:00-16:30	Congress Opening <i>Moderators:</i> <i>A. Loukas (Chair of EWRA2023) - G. Tsakiris (President of EWRA)</i>
16:30-17:30	Inaugural Speeches
17:30-18:30	Water and the Question of Sustainability and/or Growth Keynote Speaker: Angelos Nikolaos Findikakis <i>Bechtel Corp./Stanford University, U.S.A.</i>
18:30-20:30	Ice Breaker – Cocktail Party

12th WORLD CONGRESS
on Water Resources and Environment
“Managing Water-Energy-Land-Food under Climatic,
Environmental and Social Instability”



Detailed Congress Programme

Wednesday, 28 June 2023

Auditorium I			
09:00-10:00	<p>Flood management challenges in the framework of the SDG 13 Keynote Speaker: María del Carmen Llasat Botija <i>University of Barcelona, Spain</i></p>		
	Auditorium I	Auditorium II	Auditorium III
	<p>Conference I: Session I.1 <i>Moderators:</i> <i>R. Maia & V. Bellos</i></p>	<p>Conference VI: Session VI.1 <i>Moderators:</i> <i>A. Panagopoulos & A. Pagano</i></p>	<p>Conference III: Session III.1 <i>Moderators:</i> <i>H. Kim & I. Kagalou</i></p>
10:00-10:15	<p>Evaluation of climate change impacts on the hydrometeorological variables of the Ceira river basin, in Portugal [0102] <i>M. Costa, J. Mendes, R. Maia</i></p>	<p>Stakeholders' perceptions on water-ecosystem-food nexus challenges in a Mediterranean rural agricultural region [0122] <i>A. Panagopoulos, D. Malamataris, A. Chatzi, K. Babakos, E. Hatzigiannakis, V. Pisinaras</i></p>	<p>Environmental Assessment of Nif Creek in Terms of Microplastics: A Mathematical Modeling Approach [0105] <i>Y. Kazancı, O. Gündüz, N. Baycan</i></p>
10:15-10:30	<p>Cost-Benefit Analysis and Prescriptive Decision Tree Model for Planning Flood Risk Mitigation Measures [0076] <i>J. Napolitano, M. Di Francesco, G.M. Sechi</i></p>	<p>Climate risk assessment for the food system in Pinios River basin, Greece [0158] <i>C. Papadaskalopoulou, D. Tassopoulos, M. Antoniadou</i></p>	<p>Residues of polycyclic aromatic hydrocarbons (PAHs) in waters of the Ili-Balkhash Basin, arid Central Asia [0132] <i>B. Shen, J. Wu</i></p>

10:30-10:45	The potential of nowcasting floods at street-level detail [0204] <u>V. Bellos</u> , C. Costanzo, J. Kalogiros, P. Costabile	A participatory approach for water-energy-food nexus analysis and management: the Isonzo-Soča river basin [0139] <u>V.R. Coletta</u> , A. Imbò, A. Pagano, F. Lombardo, F. Zaffanella, M. Ferri, U. Fratino, R. Giordano	Sustainable Decentralized Domestic Wastewater Treatment Unit Using Hybrid Treatment System [0198] <u>M.K. Younes</u> , A.S. Alshdiefat, I. Al-Smadi
10:45-11:00	Quantifying uncertainty in future runoff estimation based on SSP scenarios [0067] <u>J.H. Kim</u> , S.T. Chae, J.Y. Song, Y.H. Song, E.S. Chung	The Remote Sensing-based Agricultural Water Accounting and Footprint (RS-AWAF) for different river basins and crop management conditions [0175] <u>J. Garrido-Rubio</u> , J. González-Piqueras, A. Ossan, A. Calera	Estimating Water Quality Index of Effluent Water with Artificial Neural Network [0174] <u>H.T. Gültas</u> , Ç. Coşkun Dilcan, D.D. Köksal, Y. Ahi
11:00-11:15	Controls of preferential flow along hillslopes: a case study in a small forested Mediterranean catchment [0200] <u>K. Kaffas</u> , M. Verdone, F.S. Manca di Villahermosa, A. Dani, J. Klaus, C. Segura, M. Macchioli Grande, C. Massari, D. Penna	Strengthening Water-Food-Ecosystem Nexus Management through Learning and Action Alliances: Insights from REXUS and LENSES Projects [0185] B. Willaarts, R. Giordano, I. Portoghese, A. Pagano, M. Bea, <u>E. López-Moya</u>	Evaluation of Microplastic Pollution from Treated Wastewaters in Terrestrial Inland Waters: A Case Study from Nif River [0137] N. Baycan, N. Alyürük, N. Kara, C. Alpergün, <u>Y. Kazancı</u> , O. Gündüz
11:15-11:30	Assessing the impacts of potential climate change on watershed hydrologic response using FDCs [0075] <u>A. Manekar</u> , M. Ramadas	Crop suitability projections in Pinios Region [0157] <u>J.M. Galve</u> , <u>J. Gonzalez-Piqueras</u> , J. Garrido, M. Llanos López, E. Henao, Ch. Papadaskalopoulou, M. Antoniadou, D. Tassopoulos	Architecting Fe ⁰ /Fe ₃ C with Fe ₃ O ₄ redox sites for electrochemical detection of 4-nitrophenol in environmental water [0026] A.F. Baye, <u>H. Kim</u>
	The presenting author is <u>underlined</u>		Each presentation will be followed by a 3-minute discussion

11:30-12:00	Coffee break
-------------	--------------

	Conference I: Session I.2 Moderators: <i>M.M. Portela & M. Neves</i>	Conference VI: Session VI.2 Moderators: <i>G. Bottaro & J. González Piqueras</i>	Conference III: Session II.2 Moderators: <i>V.G. Ioannidou & K. Davididou</i>
12:00-12:15	A novel flow-based multi-model ensemble for runoff simulation using CMIP6 GCMs [0036] <i>S.T. Chae, E.S. Chung, J.H. Kim</i>	The REXUS project: from nexus thinking to nexus doing [0187] <i>J. González-Piqueras, A. Osann</i>	Evaluating the metal removal efficiency of coal mine water treatment schemes across the UK [0190] <i>O. Okeleji, V.G. Ioannidou</i>
12:15-12:30	Generalised Increasing Frequency and Intensity of Tmax Heatwaves in Portugal in the Last Four Decades (1980-2021) [0070] <i>L.A. Espinosa, M.M. Portela</i>	The use of Nature-Based Solutions to support sustainable Water-Ecosystems-Food NEXUS management: the LENSES approach [0155] <i>S. Vanino, A. Di Fonzo, V. Baratella, F. Pucci, N. Nikolaidis, M. Bea, A. Pagano, R. Giordano, S. Fabiani</i>	Treatment of table olive processing wastewater by means of electrocoagulation: effect of key operating parameters [0156] <i>K. Davididou, A.G. Kapagiannidis, D. Gkelezis, A. Chatzimpaliotis, E. Amanatidou</i>
12:30-12:45	Links between GRACE water storage and NAO-EA-SCAND climate patterns in Iberia [0136] <i>M.C. Neves, R.G.M. Neves</i>	Unravelling the complexity of water-ecosystems-food nexus through integrated modelling: the Doñana case study in SW Spain [0166] <i>C. Panciera, A. Pagano, R. Giordano, I. Portoghese, P. Vergine, M. Bea, M. Najar, M.C. Gunacti, G. Onusluel Gul</i>	Origins of water mineralization in a coastal area: The case of Annaba-Echatt-El Hadjar region. (N.E. Algerian) [0051] <i>L. Djabri, H. Bouguerre, Ch.E. Fehdi, S. Bouhsina, N. Boughuerira, H. Chaffai, A. Hani</i>
12:45-13:00	Climate Change Impact on Reservoir Inflows Using Arc-SWAT Model [0151] <i>M.M. Mushtaq, M.U. Rashid, M. Zia, A.N. Nadeem, T. Ashfaq, R. Ahmad</i>	Fuzzy cognitive mapping of stakeholders' perception of water resources management [0060] <i>M.C. Gunacti, C.P. Cetinkaya, A. Gul, G. Onusluel Gul, F. Barbaros</i>	Wastewater recycling for industrial applications using membrane technology; case study, Bandar Abbas wastewater treatment [0037] <i>S. Shojaie, V. Alipour, S. Binaei</i>
13:00-13:15	Implementation of nature-based solutions (NBS) for flood protection in Naxos Island [0063] <i>S.M Kapiris, A.P. Theochari, E. Baltas</i>	Socioeconomic assessment of Nature-based Solutions to support Water-Energy-Food-Environment Nexus challenges: an ecosystem-based approach [0111] <i>G. Bottaro, C. Righetti, M. Masiero, D. Pettenella</i>	Evaluation of human health (neurodegenerative) risks in rice cultivation based on heavy metal and pesticide load in water [0146] <i>F. Dökmen, Y. Ahi, T.T. Dündar, İ. Doğan, Z. Vryzas</i>

13:15-13:30	Temporal variability of annual daily extreme minimum flows in southern Quebec (1930-2020) [0030] <u>A.A. Assani</u>	Evaluating Migration effects in Greece through a Water, Energy, and Food Nexus approach [0100] <u>K. Pappas</u> , C.S. Hamie, B. Daher, S. Williams, T. Rocabado-Apuri	Optimizing the wastewater treatment method for industrial use: a case study of Bandar Abbas city [0173] <u>Sh. Shojaie</u> , S.A. Sajadi, M. Mollaei, H. Amiri
	The presenting author is <u>underlined</u>	Each presentation will be followed by a 3-minute discussion	

13:30-15:30	Light lunch		
-------------	-------------	--	--

	Conference XI Moderators: <i>L. Garrote & M. Spiliotis</i>	Conference VI: Session VI.3 Moderators: <i>E. Baltas & K. Pappas</i>	Conference VIII Moderators: <i>B. Bonaccorso & N. Bougherira</i>
15:30-15:45	Robustness and effectiveness of Mediterranean drought regulatory framework [0182] <u>A. Iglesias</u> , A. Sordo-Ward, P. Bianucci, L. Garrote	The role of hydrogen in the storage of renewable energy sources for small non-interconnected islands [0042] <u>M. Bertsiou</u> , E. Baltas	Water Resources Management Scenarios under Climate Change in the Mediterranean Almyros Basin, in Greece [0029] <u>A. Lyra</u> , A. Loukas
15:45-16:00	Water resources in England & Wales: the rise again of national planning [0045] <u>A. Leonard</u> , J. Amezaga, R. Blackwell, E. Lewis, C. Kilsby	The use of non-conventional water resources for agricultural irrigation in the Segura basin in Spain [0038] <u>C. Villacorta</u> , I. Blanco, A. Gómez, P. Esteve	Laboratory methods for estimating the hydraulic properties of undisturbed soil samples [0074] <u>E. Chrysanthopoulos</u> , C. Pouliaris, K. Markantonis, I. Tsirogiannis, A. Kallioras
16:00-16:15	Determination of criteria's weights via IFWA operator and DEMATEL [0008] <u>T. Bakas</u> , C. Papadopoulos, D. Latinopoulos, <u>M. Spiliotis</u> , I. Kagalou, B. Papadopoulos	A Novel Methodology to Predict the Thermal Powerplants' Water Consumption in the context of Water-Electricity-Climate Nexus [0056] <u>C. Coskun Dilcan</u> , M. Aydinalp Koksak	Groundwater resources hydrochemical evaluation in Oeoides Aquifer System, NE Greece [0018] <u>A. Adamidis</u> , A. Kallioras, I. Gkiougkis, P. Angelidis, F.-K. Pliakos
16:15-16:30	SIGRIAN and DANIA to promote measurement of agriculture water use [0062] <u>V. Manganiello</u> , M. Ferrigno	Development and Implementation of a HRES in Leros Island [0178] <u>S. Skroufouta</u> , A. Lemonis, E. Baltas	Hydrological Modelling of a fractured volcanic aquifer for understanding the role of climate and anthropic uses of water resources on the natural system [0170]

			<i>M. Silipigni, <u>I. Borzi</u>, C. Di Salvo, E. Preziosi, B. Bonaccorso</i>
16:30-16:45	Impact of the Covid-19 on water poverty in Alicante, case study [0047] <u>R. Abad</u>	Discourse over the sustainability of irrigation with desalinated water in light of the water-energy-food nexus [0048] <i>B. Zolghadr-Asli, N. McIntyre, S. Djordjevic, R. Farmani, L. Pagliero, D. Aitken</i>	Pollution risk assessment and vulnerability of aquifer due to nitrates using the DRASTIC LU and Canter LU methods in Almyros, Thessaly, Greece [0035] <i>S. Lepuri, A. Loukas, A. Lyra</i>
16:45-17:00		Assessment of a Hybrid Renewable Energy System to meet water and energy demands in Serifos island [0177] <i>C. Lagaros, A.-F. Papathanasiou, E. Baltas</i>	Numerical Simulation of Seawater Intrusion under the Influence of Groundwater Exploitation in the Annaba Aquifer System, Algeria [0025] <i>S. Hani, N. Bougherira, I. Shahrour, F. Toumi, A. Hani, L. Djabri, H. Chaffai</i>
	The presenting author is <u>underlined</u>		Each presentation will be followed by a 3-minute discussion

17:00-17:30	Coffee break
-------------	--------------

	Auditorium I
17:30-19:00	<p>General Assembly of EWRA</p> <p>Moderators: A. Loukas (Chair of EWRA2023) G. Tsakiris, R. Maia, A. Cancelliere, L. Garrote (EWRA Executive Committee members)</p>

09:00-19:00	Registration desk will remain open during Congress activities
-------------	---

12th WORLD CONGRESS
on Water Resources and Environment
“Managing Water-Energy-Land-Food under Climatic,
Environmental and Social Instability”



Detailed Congress Programme

Thursday, 29 June 2023

Auditorium I			
09:00-10:00	<p>Coupled Human-Nature Systems: Greater Than the Sum of Their Parts?</p> <p>Keynote Speaker: Kaveh Madani Larijani <i>Institute for Water, Environment and Health, United Nations University, Canada</i></p>		
Auditorium I	Auditorium II	Auditorium III	
<p>Conference I: Session I.3 Moderators: <i>A. Cancelliere & A. Spyridis</i></p>	<p>Conference VI: Session VI.1 Moderators: <i>N. Nikolova & D. Pumo</i></p>	<p>Conference IV: Session IV.1 Moderators: <i>E. Getahun & H. Vangelis</i></p>	
10:00-10:15	<p>Estimation of rainfall intensity-duration-frequency curves in future climate change scenarios based on hourly climate model projections [0171] <i>G. Buonacera, N. Palazzolo, A. Cancelliere, D.J. Peres</i></p>	<p>Understanding the impacts of droughts on winter wheat growth in the Po Valley (Italy) through vulnerability curves [0073] <i>I. Borzi, B. Monteleone, M. Arosio, B. Bonaccorso, M. Martina</i></p>	<p>Methodology for flood forecasting and management in a regularized river basin. The case of the Mondego River [0094] <i>J. Mendes, R. Maia</i></p>
10:15-10:30	<p>Non-Stationary Frequency Analysis of Annual Maximum Standard Duration Precipitation [0064] <i>A. Yarcj, T. Baran</i></p>	<p>Crop Switching Optimization in the Indo-Gangetic Plain for Water and Food Sustainability [0124] <i>R. Chakraborti, S. Ghosh</i></p>	<p>Comprehensive hydrologic modeling of a watershed with managed reservoirs for assessing water availability [0019] <i>E. Getahun, A.F. Prada, Z. Zhang, L. Keefer, G. Qie</i></p>

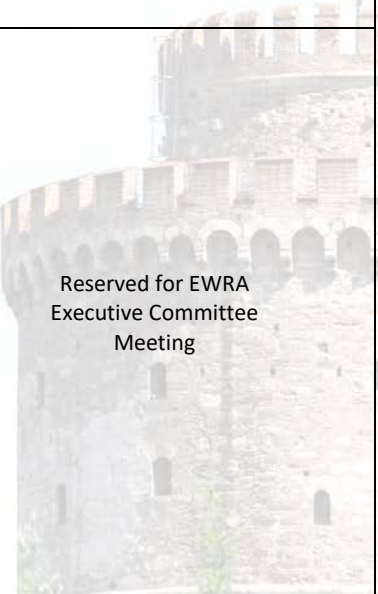
10:30-10:45	Extreme hydrometeorological events and the role of reclamation works and irrigation - drainage systems in the era of climate crisis [0201] <i>D. Tigkas, N. Proutsos, G. Sofou, D. Papalexis, A. Kitsos, H. Vangelis, G. Tsakiris, E. Papadiamantopoulou, K. Stournaras</i>	Covering heating and summer air conditioning needs of school buildings through (Natural) Swallow Geothermal (Open Loop System) installation [0084] <i>E. Argyropoulou, A. Adamidis, M. Vrachopoulos, I. Diamantis</i>	Systematic parameterization of a trans-Himalayan river basin using SUFI-2 and Particle Swarm Optimization algorithms [0163D] <i>B. Kalita, S. Barman, W.R. Singh, R. Kumar Bhattacharjya, M. Kumar Dutta</i>
10:45-11:00	Spatial distribution of Mean Annual Precipitation in Crete using geostatistical methods [0130] <i>G. Kampouris, S. Kontinis, A. Loukas, A. Spyridis</i>	Drought impact on agriculture in Northwest Bulgaria [0140] <i>S. Matev, N. Nikolova, J. Svetozarevic</i>	Is ERA5 able to reproduce flood inundation at the regional scale? A systematic analysis using LISFLOOD-FP [0144D] <i>H. Singh, M.P. Mohanty</i>
11:00-11:15	Trend analysis of gridded daily rainfall indices in Savitri River basin, India [0065] <i>E.S. Namitha, V. Jothiprakash, B. Sivakumar</i>	Time-scale comparative analysis of hydrological alteration by hydropower generation in the Cheakamus and Squamish rivers, Canada [0176] <i>M.D. Bejarano, F. González, D. Tuzlak, F. Poulsen, F. Knight</i>	A novel framework for Low Impact Development (LID) planning and runoff control in urban watersheds [0092] <i>A. Roozbahani, A.H. Nazari, S.M. Hashemy Shahdany</i>
11:15-11:30	Assessment of upstream backwater length on account of extreme inflow events [0106] <i>A. Sahu, I. Ahmad</i>	Monitoring and modelling multilayer green roofs effectiveness for thermal insulation of buildings: the experimental blue-green roof of Palermo [0071] <i>D. Pumo, G. Brucato, F. Alongi, L.V. Noto</i>	
	The presenting author is <u>underlined</u>		Each presentation will be followed by a 3-minute discussion

11:30-12:00	Coffee break
-------------	--------------

	Conference I: Session I.4 <i>Moderators:</i> <i>A. Gül & D. Tigkas</i>	Conference V: Session V.1 <i>Moderators:</i> <i>Y. Ahi & Y. Zhao</i>	Conference IV: Session IV.2 <i>Moderators:</i> <i>E. Tzanou & L. Vasiliades</i>
12:00-12:15	The increasing frequency of heatwaves and extreme droughts in the Lisbon Area, Portugal [0066] <i>M.M. Portela, L.A. Espinosa</i>	An analysis of quality parameters changes in agricultural water systems with Wavelet Transform Model [0088] <i>O. Deniz, Y. Ahi, Z. Aslan, A.H. Orta, F. Dökmen</i>	Incorporating uncertainties in streamflow estimation using two monthly rainfall-runoff models [0123] <i>L. Vasiliades, I. Mastrafthis</i>
12:15-12:30	Economic benefits of including drought information in water resources management [0181] <i>A. Sordo-Ward, P. Bianucci, A. Iglesias, L. Garrote</i>	Estimation of storage capacity with the Gould-Dincer's normal approach using fuzzy and possibility theories [0131] <i>N. Mylonas, C. Tzimopoulos, G. Papaevangelou, B. Papadopoulos</i>	Developing and stabilizing a multivariate mutual information estimator to compute the available information of hydrological datasets [0128] <i>E. Findanis, A. Loukas</i>
12:30-12:45	Propagation of meteorological to hydrological drought: An example of the Middle Struma Valley, Bulgaria [0138] <i>N. Nikolova, R. Stoyanova, K. Radeva</i>	Development of agrohydrology in relation to critical zone science [0050] <i>Y. Zhao, Y. Wang, E. Jobbagy</i>	Turbidity source analysis of the urban lakeside river network [0110] <i>R. Yan, J. Gao</i>
12:45-13:00	Investigating alternative approaches to drought visualisation [0194] <i>H. Vangelis, V. Krassanakis, I. Kourtis, D. Tigkas</i>	Use of gridded data for the evaluation of ten radiation-based potential evapotranspiration models in a forest ecosystem in Greece [0010] <i>A. Bourletsikas, N. Proutsos, I. Argyrokastritis</i>	Assessment of Porsuk River Basin by Using the DPSIR Approach [0113] <i>H.C. Çetin, Y. Şahin</i>
13:00-13:15	Land use and climate change impacts on streamflow and droughts in Küçük Menderes Basin, Türkiye [0142] <i>G. Onuşluoğlu, A. Kuzucu, M. Najar, M. Günaçtı, A. Gül</i>	A WebGIS-based decision support system for leakage control and water quality monitoring in the water supply system of Paramythia city in Greece [0057] <i>K. Panitsidis, S. Tsitsifli, N. Mantas, D. Theodorou, T. Kyriakidis, M. Louta, A. Chasiotis</i>	Impact of the Grand Ethiopian Renaissance Dam on the Lower Nile under different operating scenarios [0161] <i>A. Kuriqi, E.M. Ramadan, I. Abd-Elaty</i>

13:15-13:30	Multivariate analysis of meteorological drought using the D-vine copula in western Iran [0162] <i>N. Jahannemaei, P. Khosravinia, H. Sanikhanj, R. Mirabbasi</i>		Methodological approach for the elaboration of transboundary flood protection action plans [0186] <i>E. Tzanou, C. Skoulikaris, A. Chatzigiannis</i>
	The presenting author is <u>underlined</u>		Each presentation will be followed by a 3-minute discussion

13:30-15:30	Light lunch		
-------------	-------------	--	--

	Conference IX Moderators: <i>P. Sidiropoulos & D. Tigkas</i>	General Session Moderators: <i>M. Gitau & H. Vangelis</i>	EWRA E.C.
15:30-15:45	Fusion of MODIS TERRA and SENTINEL SLSTR Land Surface Temperature Products for Minimizing Gaps in Basin Scale Hydrological Studies [0054] <i>O.G. Şahin, O. Gündüz</i>	Availability and Accessibility of Climate and Water Data: Implications for Water Resources Decision Making and Management in East Africa [0050] <i>M. Gitau, V. Garibay, N. Kiggundu, S. Munishi, D. Moriasi, B. Mati, J. Kisekka, V. Kongo</i>	 <p>Reserved for EWRA Executive Committee Meeting</p>
15:45-16:00	Multi-Criteria Analysis in GIS environment to identify suitable areas for surface water storage in the Pinios River basin, Thessaly, Greece [0129] <i>E. Koutsimari, A. Loukas, D. Fotakis</i>	Developing a smart integrated platform for Leakage Detection on water supply Network of Municipality of Argos, Greece [0072] <i>A. Chasiotis, S. Chasiotis, P.T. Nastos, E. Feloni, M. Bousdeki, T. Manthos, E. Minakaki, C. Theodorakis, K. Sakellariou, T. Kyriakidis, M. Louta</i>	
16:00-16:15	The complexity of the deep uncertainty in hydro-economic models: Assessment using a multi-model ensemble [0014D]	Multi-criteria analysis and characterization of the integrated water resources management model in the Annaba region [0020]	

	<i>H. González-López, C.D. Pérez-Blanco, F. Sapino, A. Hrast-Essenfelder, J.M. Bodoque</i>	<i>A. Hani, D. Nechem, S. Hani, N. Bougherira, F. Toumi, L. Djabri, H. Chaffai</i>	
	The presenting author is <u>underlined</u>	Each presentation will be followed by a 3-minute discussion	

16:15-16:45	Coffee break
-------------	--------------

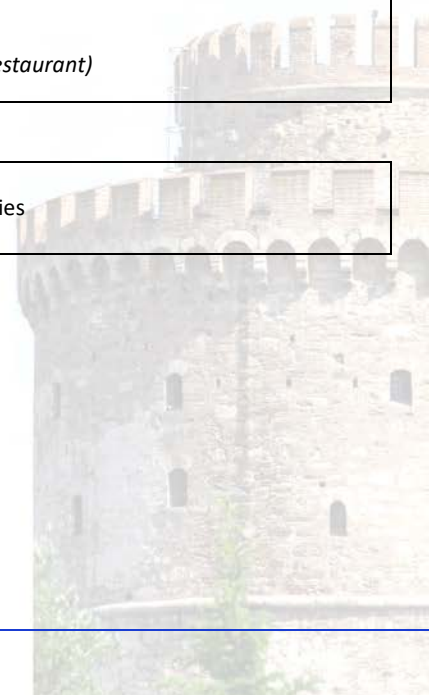
	Poster Session Foyer
	Poster Session A Moderators: <i>G. Papaioannou & P. Sidiropoulos</i>
	Conference I
16:45-17:45	Coupling machine learning algorithms with the tunable q-factor wavelet transform in forecasting the SPEI at the Bogra station in Bangladesh [0053] <i>S.A. Osmani, R. Narimani, J. Baik, J. Lee, C. Jun</i>
	Preliminary analyses of changes in intense precipitation in FVG, northeastern Italy [0068] <i>E. Arnone, D. Treppiedi, V. Zoratti, L.V. Noto</i>
	Runoff study of the upper Torysa sub-basin [0082] <i>P. Nagy, M. Hlinková, M. Dobranský</i>
	Characterization of 1-hour maximum rainfall values in Calabria, southern Italy, by means of the ERA-5 reanalysis [0135] <i>F. Chiaravalloti, R. Coscarelli, T. Caloiero</i>
	Precipitation estimation using weather radar data in Thessaly, Greece during medicane Ianos [0179] <i>G. Karoutsos, N. Tzonichakis, N. Rammos, E. Chrisovergis, P. Sidiropoulos, N. Dalezios</i>
	Sequential meteorological-hydrological-hydraulic modeling as a flash flood forecasting tool: The January 2023 flooding incident in Evrotas river [0189] <i>G. Papaioannou, G. Varlas, A. Papadopoulos, V. Markogianni, L. Vardakas, E. Dimitriou</i>
	Forecasting drought based on projected climate change scenarios [0197] <i>H. Vangelis, I.M. Kourtis, D. Tigkas, I. Nalbantis, V.A. Tsihrintzis</i>
	Evaluation of Climate Change Impacts on a basin in Northern Greece [0199] <i>I.M. Kourtis, C-A. Papadopoulou, M. Papadopoulou, N. Melios, C. Laspidou, V.A. Tsihrintzis</i>

Conference III	
	Current state and physic-chemical characterization of the waters of Oued Gueridjima: drain of domestic liquid effluents (NE Algeria) [0031] <i><u>N. Bougherira</u>, D. Nechem, H. Bouguerra, L. Djabri, H. Chaffai, A. Hani, N. Sedrati</i>
	Preliminary data on antibiotic resistant bacteria in surface waters in Albania [0081] <i><u>E. Hamzaraj</u>, B. Parllaku, S. Zhubi</i>
	Treatment of contaminated water containing two triazole fungicides in pilot-scale horizontal subsurface flow constructed wetlands [0098] <i><u>P. Parlakidis</u>, I. Gounari, A. Georgiou, G. Adamidis, Z. Vryzas, G.D. Gikas</i>
Conference VIII	
	Groundwater resources evaluation in a mountainous aquifer system in NE Greece [0011] <i><u>I. Empliouk</u>, F.-K. Pliakas, A. Kallioras, D. Kaliampakos, T. Tzevelekis</i>
	Assessment of groundwater vulnerability to seawater intrusion in River Lissos Coastal Aquifer System, NE Greece [0021] <i><u>I. Gkiougkis</u>, M. Lappa, A. Adamidis, <u>I. Empliouk</u>, <u>D. Karasogiannidis</u>, C. Pliaka, F.-K. Pliakas, T. Tzevelekis</i>
	Application of the GALDIT method for the study of groundwater vulnerability in River Laspias Coastal Aquifer System, NE Greece [0022] <i><u>I. Gkiougkis</u>, E. Tzini, <u>D. Karasogiannidis</u>, C. Pliaka, <u>I. Empliouk</u>, A. Adamidis, F.-K. Pliakas, E. Evangelou, T. Tzevelekis</i>
	Anthropogenic sources and hydrogeochemical characteristics of groundwater in Mediterranean regions [0085] <i><u>M.M. Ntona</u>, K. Kalaitzidou, M. Mitrakas, G. Busico, M. Mastrocicco, N. Kazakis</i>
	Assessment of groundwater vulnerability to agricultural pollution in River Lissos Coastal Aquifer System, NE Greece [0109] <i><u>V. Karahontzitis</u>, A. Papadopoulou, I. Gkiougkis, A. Kallioras, A. Panagopoulos, F.-K. Pliakas</i>
	Estimating groundwater recharge from precipitation in a coastal Mediterranean aquifer: The case of Marathon [0150] <i><u>M. Perdikaki</u>, A. Kallioras</i>
	SEAWAT application to implement the climates change induced impacts and responses of the Neretva coastal aquifer system in the south-eastern Croatia [0154] <i><u>I. Aljinović</u>, V. Srzić</i>
	Assessment of the hydrochemical status through the application of AkvaGIS tool for an alluvial aquifer in Greece [0160] <i><u>K.S. Panagiotaropoulos</u>, M. Perdikaki, C. Pouliaris, A. Kallioras</i>
	Using integrated methods of artificial aquifer recharge in dry regions with direct participation of stakeholders [0172] <i><u>S.A. Sajadi</u>, M. Ranjbar Minab, M. Mollaei</i>

	<p>Spatiotemporal analysis of historical groundwater drought in a regional UK aquifer based on numerical modelling and the SGI index [0203] <i>V. Christelis, M.M. Mansour, C. Jackson, L. Wang</i></p>
	<p>Comparison of physics-based and data-driven surrogate models in coastal aquifer management [0208] <i>G. Kopsiaftis, M. Kaselimi, A. Voulodimos, E. Protopapadakis, I. Rallis, A. Doulamis, N. Doulamis, A. Mantoglou</i></p>
	<p>Prediction of seawater intrusion using the LSTM Deep Learning method [0209] <i>G. Kopsiaftis, M. Kaselimi, A. Voulodimos, E. Protopapadakis, I. Tzortzis, I. Rallis, A. Doulamis, A. Mantoglou</i></p>
	<p>Please note that the authors are requested to be available during the scheduled poster sessions for questions on their poster</p>

21:00-24:00	<p>Gala Dinner</p> <p><i>The Gala Dinner will take place at “REMVI” Restaurant (Buses will transfer the participants from the City center to the Restaurant)</i></p>

09:00-19:00	<p>Registration desk will remain open during Congress activities</p>
-------------	--



12th WORLD CONGRESS
 on Water Resources and Environment
 “Managing Water-Energy-Land-Food under Climatic,
 Environmental and Social Instability”



Detailed Congress Programme

Friday, 30 June 2023

Auditorium I			
09:00-10:00	<p>Sustainable coastal groundwater management through innovative governance in a changing climate</p> <p>Keynote Speaker: George Karatzas <i>Technical University of Crete, Greece</i></p>		
	Auditorium I	Auditorium II	Auditorium III
	<p>Conference II: Session II.1 <i>Moderators:</i> <i>A.R. Scorzini & C.P. Cetinkaya</i></p>	<p>Conference V: Session V.2 <i>Moderators:</i> <i>C. Evangelides & M. Ferrante</i></p>	<p>Conference VII: Session VII.1 <i>Moderators:</i> <i>M.J. Diamantopoulou & A. Psilovikos</i></p>
10:00-10:15	<p>Estimating flood damage to crops and implications for flood risk assessment [0013] <i>A.R. Scorzini, C. D'Eramo, M. Di Bacco</i></p>	<p>Modeling leakage and optimizing PRV settings for NRW reduction [0120] <i>N.P. Chela, G. Moraitis, Ch. Makropoulos</i></p>	<p>The Habitats' State in the Natura 2000 site "GR2310001" in River Acheloos Delta [0191] <i>A. Psilovikos, T. Papathanasiou</i></p>
10:15-10:30	<p>Fidelity of Machine Learning models in capturing flood inundation through geomorphic descriptors over Ganga sub-basin, India [0145D] <i>V. Tripathi, M.P. Mohanty, H. Singh</i></p>	<p>Analysis of risks related to transients in water distribution systems [0023] <i>M. Ferrante, F. Casinini</i></p>	<p>Machine learning in environmental modeling: A case study with ground-truth data from Seich-Sou suburban forest, Greece [0125] <i>M.J. Diamantopoulou</i></p>

10:30-10:45	Outlining a master plan framework for the design and assessment of flood mitigation infrastructures across large-scale watersheds [0044] <i>P. Dimas, G.K. Sakki, P. Kossieris, I. Tsoukalas, A. Efstratiadis, C. Makropoulos, N. Mamassis, K. Pipili</i>	Agrometeorological simulation and Sentinel-2 images for monitoring maize water demands in Thessaly region (Central Greece) [0188] <i>G.A. Tziatzios, P. Sidiropoulos, M. Spiliotopoulos, N. Alpanakis, I. Faraslis, S. Sakellariou, G. Karoutsos, N.R. Dalezios, N. Dercas</i>	Investigation of harmful cyanobacterial proliferations in Lake Sevan, Armenia [0033] <i>G. Gevorgyan, A. Hovsepyan, T. Khachikyan, A. Hayrapetyan, M. Schultze, K. Rinke</i>
10:45-11:00	Evaluation of drought risk mapping by Kaplan-Meier method [0055] <i>C.P. Cetinkaya, M.C. Gunacti</i>	A new approach to find the economic pipe diameters in a pressurized irrigation network [0058] <i>A. Gravanj, N. Samarinas, C. Evangelides, A. Loukas</i>	Assessment of environmentally minimum level in Lake Volvi based on morphological features [0108] <i>Ch. Doulgeris, R. Nikolaidou, D. Bobori</i>
11:00-11:15	Evaluation of precipitation variability with an entropy-based approach [0059] <i>F. Barbaros, T. Baran</i>	Multi-objective robust optimization design of water distribution networks under 'scenario uncertainty' of demand [0061] <i>R. Magini, M.C. Cunha, J. Marques, E. Ridolfi</i>	Decadal-Scale Reconstruction of Water Storage Changes of the Chagan Lake of China Ramsar wetland Using a Machine Learning Approach [0205] <i>B. Hu, Y. Wu, G. Zhang</i>
11:15-11:30	Agricultural drought risk and vulnerability assessment in Maharashtra, India [0133] <i>G. Ganjir, M.J. Reddy, S. Karmakar</i>	Evolutionary, swarm-based, and hybrid metaheuristic algorithms for the optimal design of water distribution network: A comparative study [0104] <i>S.N. Poojitha, V. Jothiprakash</i>	Influence of soil properties on soil bulk electrical conductivity readings using EMI and FDR technology in non-saline soils of Greece [0017] <i>P.A. Petsetidi, G. Kargas, K. Sotirakoglou</i>

11:30-12:00	Coffee break
-------------	--------------

	Conference II: Session II.2 Moderators: <i>T. Pilevneli & Y.J. Xu</i>	Conference V: Session V.3 Moderators: <i>P.E. Georgiou & M. Ballesteros-Olza</i>	Conference VII: Session VII.2 Moderators: <i>N. Dercas & G. Onusluel Gul</i>
12:00-12:15	Climate change related risks on agricultural water availability in Turkiye [0167] <i>T. Pilevneli, G. Capar, C.S. Cerda</i>	An investigation by laboratory experiments of the impact of intermittent water supply [0027] <i>M. Ferrante, D. Rogers, J. Mugabi, F. Casinini</i>	An approach for assessing the sustainability of Mediterranean wetlands through a tailored handling of drought indices [0183] <i>A. Kuzucu, M. Najar, A. Gul, G. Onusluel Gul, C.P. Cetinkaya</i>
12:15-12:30	Resilience optimization of water quality sensor designs in water distribution networks against cyber-physical attacks [0086] <i>D. Nikolopoulos, G. Moraitis, G. Karavokiros, D. Bouziotas, C. Makropoulos</i>	Treated Wastewater in Precision Agriculture: Performance Evaluation of AUGIAS Ecosystem [0016] <i>M. Louta, F. Papathanasiou, C. Papadopoulos, T. Kyriakidis, K. Banti, I. Karampeli, D. Theodorou, V. Lazaridis, D. Pantelakis, S. Lappos, E. Bagkavou, T. Adamidis, I. Ganatsa</i>	Wetland mitigation functions on hydrological droughts [0206] <i>Y. Wu, J. Sun, L. Chen, M. Blanchette, A.N. Rousseau, Y. Jun Xu, B. Hu, G. Zhang</i>
12:30-12:45	Large river diversion effects on downstream sediment transport and channel dynamics: A case from the lowermost Mississippi River [0118] <i>Y.J. Xu</i>	Risk management of agricultural water supply and distribution systems using FDBN model and MULTIMOORA technique [0093] <i>A. Bozorgi, A. Roozbahani, S.M. Hashemy Shadany, R. Abbassi</i>	Impact of fertilizer management practices and land cover dynamics on nitrate transport to surface waters [0052] <i>M.C. Gunacti, H. Boyacioglu, F. Barbaros</i>
12:45-13:00	Flood mapping using remote sensing and geographical information systems in Karditsa region, Greece [0127] <i>G. Karoni, E. Tzimika, L. Vasiliades, M. Spiliotopoulos, N. Mylopoulos</i>	Runoff prediction in a tropical agricultural watershed: a comparison between machine learning-based and conceptual hydrological models [0101] <i>S. Barbhuiya, M. Ramadas, G.M. Kartick, S. Swarup Biswal</i>	
13:00-13:15	Extreme rainfall and 2D flood modelling in urban catchments to assess flood exposure of buildings. A case study in Thessaloniki city, Greece [0149]	Using Key Performance Indicators and benchmarking techniques to evaluate the use of reclaimed water in irrigation agriculture [0153]	

	<i>C. Iliadis, P. Galiatsatou, V. Glenis, P. Prinos, C.G. Kilsby</i>	<i>M. Ballesteros-Olza, A. Gómez-Ramos, I. Blanco-Gutiérrez, P. Saiz-Valle</i>	
13:15-13:30	Estimation of non-stationary flood frequencies for coastal-fluvial flooding of west-flowing rivers in Kerala, India [0134] <i>S. Bhere, M.J. Reddy</i>		

13:30-15:30	Light lunch
-------------	-------------

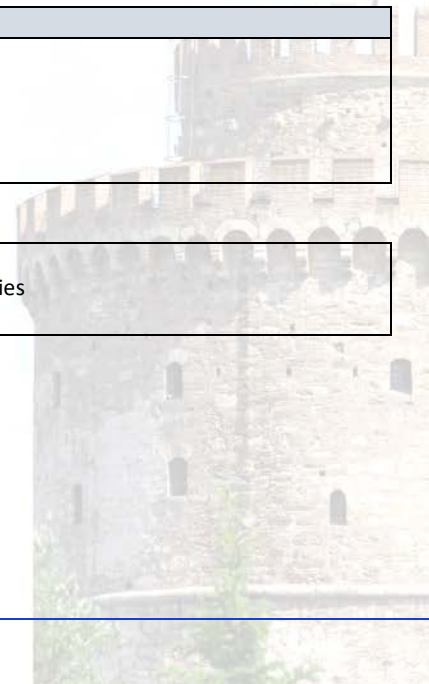
	Poster Session Foyer		
	Poster Session B Moderators: <i>G. Papaevangelou & I.M. Kourtis</i>		
	Conference II		
15:30-16:30	Strategic assessment of causal and preference relations between criteria in water management using the DEMATEL methodology [0009] <i>B. Srdjevic, Z. Srdjevic</i>		
	Fluctuation of bacterial indicators in coastal water at Durrës and Jala beaches [0032] <i>M. Bakalli, I. Malollari, J. Selama</i>		
	Retain for resilience: Natural water retention measures contribution to hydro-meteorological hazards risk reduction at the river basin level [0079] <i>B.B. Matić, B. Karleuša</i>		
	A study on the reservoir system operation to reduce flood discharge at a downstream junction [0117] <i>Y. Choi, S. Yoon, H. Shin, M. Park</i>		
	Drought analysis using SPI under climate change conditions: Application in Chalkidiki Region (Greece) [0193] <i>S. Zacharoudi, D.K. Karpouzos, P.E. Georgiou</i>		
	The role of meteorological factors in recent advances on drought identification in agricultural and forest ecosystems: A short review [0196] <i>N. Proutsos, D. Tigkas, H. Vangelis, G. Tsakiris</i>		

Conference IV	
Future space-temporal and seasonal changes of mean monthly discharges in selected basins of Slovakia [0039] <u>Z. Sabová, A. Liová, Z. Némětová, S. Kohnová</u>	
Hydrological modelling for flood forecasting in the Douro River Basin [0097] <u>M. Ferreira, J. Mendes, R. Maia</u>	
The decadal changes in climate and streamflow in the Balkhash Lake Basin [0143] <u>G. Gan, J. Wu</u>	
Setting for long-term analysis of the hydrological water budget components in a north-eastern Italian basin [0148] <u>V. Zoratti, G. Formetta, E. Arnone</u>	
Conference V	
Investigating vulnerability of urban drainage networks using novel network theory centrality metrics [0087] <u>N. Akbari, B. Omidvar</u>	
A Generic Participatory Decision Support System for Irrigation Management for the case of Cotton [0168] <u>A. Christofides, I.L. Tsirogiannis, N. Malamos, C. Myriounis</u>	
Conference VI	
Applying the Farm Process for assessing irrigation demand and water management in Arta, Greece [0164] <u>K.S. Panagiotaropoulos, C. Pouliaris, E. Chrysanthopoulos, M. Perdikaki, K. Markantonis, A. Kallioras</u>	
Evaluation of rainwater and greywater as sustainable water sources in central European countries [0207] <u>A. Stec, D. Słyś</u>	
Conference VII	
Estimation of soil hydraulic conductivity from disc infiltrometer [0015] <u>I. Logothetis, D. Koka, G. Kargas, P.A. Londra</u>	
Analysis of the relevant legal setting, processes, and actors on Climate Change in Albania [0028] <u>E. Keci</u>	
Impact of Solar net radiation input data source on accuracy of Penman-Monteith Reference Evapotranspiration values [0041] <u>V. Rattayová, M. Garaj, K. Hlavčová, K. Mikulová</u>	
Application of eDNA in fisheries: the case of Polifitou dam-lake (Greece) [0165] <u>A. Lagakis, K. Gkagkavouzis, O. Petriki, C. Ntislidou, T.M. Perivolioti, K. Michailidis, D. Petrocheilou, A. Kouletsos, A. Triantafyllidis, D. Bobori</u>	

	Conference IX
	CN-panEU: Development of a pan-European Curve Number (CN) dataset [0195] <i>I.M. Kourtis, M. Perdikaki, I. Zotou, H. Vangelis, A. Kallioras, V.A. Tsihrintzis</i>
	Conference X
	Green Infrastructure and Agro-environmental Measures for Water Quality Management at the River Basin Scale [0112] <i>G. Ćosić-Flajsig, B. Karleuša, M. Glavan</i>
	Conference XI
	Group preference of criteria for selecting the location of pump stations: better understanding of criteria interrelation through Bayesian BWM [0089] <i>Z. Srđević, B. Srđević, S. Ždero, M. Ilić</i>
	Please note that the authors are requested to be available during the scheduled poster sessions for questions on their poster

	Auditorium I
16:30-17:30	Congress Closure Moderator: <i>A. Loukas (Chair of EWRA2023)</i>

09:00-16:00	Registration desk will remain open during Congress activities
-------------	---



12th WORLD CONGRESS
on Water Resources and Environment
“Managing Water-Energy-Land-Food under Climatic,
Environmental and Social Instability”



Detailed Congress Programme

Saturday, 1 July 2023

	Technical Visit / Field Trip
08:00-20:00	<p>Expected departure at 08:00</p> <p>Aliakmon River Reservoirs</p> <p>Vergina Archeological Site, Vergina Royal Tombs Museum, New Museum of Aigai</p> <p>For details please see the “Technical Visit Programme”</p> <p>Expected return to Thessaloniki at 20:00</p>
	<p>Participants have to register the Technical Visit / Field Trip prior to the Congress start The Technical Visit is available at extra fee</p>

12th WORLD CONGRESS
on Water Resources and Environment
“Managing Water-Energy-Land-Food under Climatic,
Environmental and Social Instability”



Detailed Congress Programme

Guide to sessions

Conferences

- I. Hydrological Extremes and Hazards under Climatic Instability
- II. Water Related Hazards and risks
- III. Water Quality and Advanced Water Treatment
- IV. Hydrological Modelling of Complex River Basins
- V. Urban and Agricultural Water Systems
- VI. Water-Energy-Land-Food Nexus
- VII. Ecosystems and Environmental Processes
- VIII. Groundwater Contamination and Management
- IX. Geoinformatics, Remote Sensing and Big Data Handling
- X. Transboundary River Basin Management and Hydro-diplomacy
- XI. Socioeconomic Aspects and Water Resources Policies and Governance
- XII. Global Water Security

Presentations

- Oral presentations duration: 10 min
- Questions following each oral presentation: 3 min
- During poster sessions authors are requested to be available for questions on their poster

