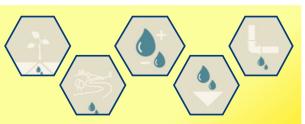




## 1<sup>st</sup> International LIFE REWAT Summer School

Digital water management and waterrelated agroecosystem services: geostatistics, hydroinformatics and groundwater flow numerical modelling



September 3<sup>rd</sup>—14<sup>th</sup>, 2018 Scuola Superiore Sant'Anna Pisa, Italy

# International Workshop

# Digital water and nature based solutions: innovative tools for sustainable water management

10<sup>th</sup> September 2018

Aula Magna - Scuola Superiore Sant'Anna

Piazza Martiri della Libertà, 33 - Pisa (Italy)

Participation is free, limited seats available.

Registration is mandatory. To register, please send an e mail to Simone Maria Piacentini (s.piacentini@santannapisa.it), providing the following info:

- Name
- Surname
- e-mail
- Institution
- Type of Institution (university/research, water utility, river basin authoruty, governmental authority, enterprise, freelance).

Should you change your mind after registering, please let us know before September the  $5^{\rm th}. \,$ 

For further information, please contact:

Simone Maria Piacentini – s.piacentini@santannapisa.it Tel. +39050883506 Partecipazione gratuita, numero di posti limitato.

La registrazione è obbligatoria. Per registrarsi inviare una mail a Simone Maria Piacentini (s.piacentini@santannapisa.it), comunicando:

- Nome
- Cognome
- e-mail
- Ente di appartenenza
- Tipologia di ente (università/ricerca, gestore servizio idrico, autorità di bacino, ente governativo, società di consulenza, libero professionista).

In caso dopo esserti registrato tu decida di non partecipare, ti chiediamo la cortesia di darcene comunicazione entro il 5 Settembre.

Per ulteriori informazioni contattare:

Simone Maria Piacentini – s.piacentini@santannapisa.it Tel. +39050883506







Convener	Start	Finish	Speaker	Presentation title	Affiliation
	08:45	09:10	Registration		
	09:10	09:20	Welcome		
	09:20	09:30	Rudy Rossetto	Opening session	Scuola Superiore Sant'Anna - Institute of Life Sciences Italy
	09:30	09:50	Konstantina Toli	The Non Conventional Water Resources Programme in the Mediterranean: Local solutions for water security	Global Water Partnership– Mediterranean (GWP-Med) Greece
	09:50	10:10	Stefan Uhlenbrook	Nature-base Solutions for Water Management - Key-findings of the UN World Water Development Report 2018	UNESCO World Water Assessment Programme (WWAP) Italy
	10:10	10:30	Elena Lopez-Gunn	Nature based solutions to drecrease water related natural hazards and the Nature Insurance value: the NAIAD project	l-Catalist (H2020 NAIAD project) Spain
	10:30	10:50	Reinder Brolsma	Planning Nature Based Climate Resilience	Deltares The Netherlands
	10:50	11:10		Coffee Break	
	11:10	11:25	Alberto Lamberti	LIFE AGROWETLANDS II: agriculture and water management in an area at risk of salinization	Università degli Studi di Bologna (EU LIFE <i>AGROWETLANDS II</i> project) Italy
	11:25	11:45	Stevie Swenne	LIFE Belini - Green infrastructure for making a leap forward towards good status in the river basin of the Scheldt	Flanders Environment Agency (EU LIFE-IP Belini) Belgium
	11:45	12:00	Rudy Rossetto	Applying nature-based solutions for increasing resilience to water scarcity: the LIFE REWAT experience	Scuola Superiore Sant'Anna - Institute of Life Sciences (EU LIFE <i>REWAT</i> project) Italy
	12:00	12:30	Wolfgang Schmid	Concepts of Participatory Modelling within an Integrated Hydrologic Model Framework	Scientific and Industrial Research Organisation (CSIRO) Australia
	12:30	12:50	Gabriel Anzaldi	Digital Single Market of Water services: Towards Water Predictive Management	Eurecat - Centro Tecnológico de Catalunya (EU <i>ICT4Water</i> initiative) Spain
	12:50	14:00		Discussion	
	14:00	15:00	Lunch		
	15:00	17:00	Round Table From pilot demo-sites/applications to large scale transferability: how to move innovations to the water market Speakers from the morning session as well as representatives from relevant companies/institutions will discuss the role of innovation in the water market and leverages and actions to spread sustainable water management practices to the real world		









#### Rudy Rossetto, Scuola Superiore Sant'Anna - Institute of Life Sciences (Italy)



Rudy Rossetto is Researcher at Scuola Superiore Sant'Anna. Rudy deals with surface and subsurface hydrology and he holds a MSc in Earth Science from Uni. of Pisa (IT), a MSc in Geoenvironmental Engineering from Cardiff Uni. (UK), and a PhD in Engineering Geology from Uni. of Siena (IT). Main research fields are development and application of GIS integrated groundwater and solute transport numerical models to water management issues (special focus on the Mediterranean environment) and the analysis of functionalities of blue infrastructures (phyto-treatment plants and Managed Aquifer Recharge schemes) for the provision of water related agro-ecosystem services. Rudy coordinated the recently funded EU HORIZON 2020 FREEWAT project (FREE and open source software tools for WATer resource management www.freewat.eu)) and WP8 leader in EU FP7 MARSOL (Managed Aquifer Recharge as a solution to drought and water scarcity www.marsol.eu) Sant'Alessio induced riverbank filtration case study. Coordinator of the Italian - Israeli bilater project PHARM-SWAP MED (removal of PHARMaceuticals from the Soil-WAter-Plant continuum in MEDiterranean Environment) and technical coordinator of the EU LIFE REWAT project (www.life-rewat.eu). Since 2012 he is Co-Editor in Chief of Acque Sotterranee-Italian Journal of (http://www.acquesotterranee.online/index.php/acque). Groundwater More info https:// www.researchgate.net/profile/Rudy\_Rossetto

#### Konstantina Toli, Global Water Partnership-Mediterranean (GWP-Med, Greece)



Konstantina Toli holds a BSc in Chemistry and MSc in Environmental Chemistry & Technology. With a diverse experience in various managerial positions, Ms. Toli joined in 2009, as Senior Programme Officer, the Global Water Partnership – Mediterranean (GWP-Med) Secretariat (www.gwpmed.org), one of the 13 regional organisations of the Intergovernmental Organisation (IGO) Global Water Partnership. She has since then been leading and is the focal point within GWP-Med to two agendas in the Mediterranean: (i) Non Conventional Water Resources and Integrated Urban Water Management, and (ii) Water Security-Migration -Employment. She has hands-on experience, having implemented more than 110 small and medium scale water infrastructure projects in 38 Mediterranean islands in 4 European countries (Cyprus, Greece, Italy, Malta), where water scarcity, climate variability and energy challenges jeopardise their sustainable development. She also advises local and national governments on water management issues and is a member of the Greening the Islands Awards Committee.

#### Stefan Uhlenbrook, UNESCO World Water Assessment Programme (WWAP, Italy)



Since November 2015, Professor **Stefan Uhlenbrook** is the Coordinator of the UNESCO World Water Assessment Programme (WWAP programme) and the Director of the Programme Office on Global Water Assessment in Perugia, Italy. Before that he worked at UNESCO-IHE as Professor of Hydrology (since 2005), Deputy Director (Vice-Rector) for Academic and Student Affairs (2000-2014) and Director a.i. (acting Rector; 2014-2015). He did his PhD (1999) and habilitation (2003) at the University of Freiburg, Germany. He is also a professor for experimental hydrology at Delft University of Technology, The Netherlands (since 2009). Professor Uhlenbrook's main expertise includes water assessments, hydrological process research, river basin modelling and water resources management. Many of his research and development projects have demonstrated the impact of global changes on water cycle dynamics in different hydro-climate regions in Africa and Asia. He is keen on translating science-based water knowledge to effective policies and strategies that contribute to environmental, economic and societal sustainability. Therefore, Stefan is involved in supporting Member States in achieving the Sustainable Development Goals (SDG), particularly SDG 6 on Water and Sanitation.









#### Elena Lopez-Gunn, I-Catalist (Spain)



Elena Lopez-Gunn is the Founder and Director of ICATALIST and a Visiting Fellow at University of Leeds (part of the water@leeds in the United Kingdom). She finished her PhD at King's College, London. She holds a Masters from the University of Cambridge, and a Master in Investigative Journalism, Data Management and visualization from the University Juan Carlos I with "El Mundo" newspaper. She was an Associate Professor at IE Business school and a Visiting Senior Fellow at the London School of Economics as Alcoa Research Fellow. Professionally, Elena has collaborated with a number of organizations including UNESCO, FAO, UNDP, EU DG Research and Innovation, universities (Spanish and Dutch) and river basin agencies, the England and Wales Environment Agency, as well as the private sector like Repsol, and NGOs like Transparency International-Spanish Chapter. She has published on a range of topics mainly related to water security, social innovation, collaborative decision making, water governance, evaluation of public policy, knowledge management and transfer. Her current main focus is on climate change adaptation and the role of green infrastructure, as well as groundwater strategic management.

#### Reinder Brolsma, Deltares (The Netherlands)



Reinder Brolsma is a specialist on urban hydrology at Deltares, integrating knowledge on hydrology, urbanheat islands and ecohydrology. He applies his experience to increase flood resilience and water security of urban areas, i.e. water sensitive urban design. He has worked on projects on sustainable drainage systems in e.g. Amsterdam, Rotterdam, Berlin, New Orleans, Oaxaca and Beira. To facilitate the climate adaptation process he had a leading role in the Adaptation Support Tool for co-creating spatial designs of sustainable urban water systems, with successful application in the communities of e.g. Berlin, Utrecht, Guayaquil and London. Next to that he did several measurement and modelling studies on the cooling effect of surface water and vegetation on the urban heat island. His PhD research at Utrecht University focused on the effect of climate change on carbon and water balance of forest ecosystems.

#### Alberto Lamberti, Università degli Studi di Bologna (Italy)



Alberto Lamberti is full professor in Engineering Fluid Mechanics since 1980, in service at the University of Bologna. Member of the Institute of Bologna Academy of Science, of the Editorial board of journals "Coastal Engineering" and of "Studi costieri". Partner and coordinator of PRIN projects, of CEU funded RTD projects and of projects funded by the national and regional goverments on river and coastal engineering. Author of more than 100 publications presented at Conferences and at international journals with referee. His main research areas are: littoral hydrodynamics, sediment transport, coastal engineering, torrent and river engineering.

#### Stevie Swenne, Flanders Environment Agency (Belgium)



Stevie Swenne is an economist and head of international cooperation of Flanders Environment Agency. Over the past 10 years, he facilitated the participation of Flanders Environment Agency in more than 40 EU initiatives including Interreg, LIFE and H2020 projects in the fields of water, air quality and environmental reporting. Pursuing active collaboration between governance, research, industry and a wider public, particular achievements were accomplished by setting up and managing the Interreg NWE Joaquin project (2011-2015) focusing on measuring emerging health-related air quality parameters, and the assessment of the impact of potential measures. With LIFE Belini (2016-2026) he has set up an initiative bringing together all Belgian actors to tackle significant pressures on the water system in the Scheldt river basin. In addition, his particular interest is in the engagement of different stakeholders and the general public on environmental challenges. In this regard he is also the communications lead of the Interreg NSR project TOPSOIL (2016-2020) focusing on groundwater management, and of the Interreg NWE project BE-GOOD (2016-2021) aiming to extract value from public sector open data.









#### Wolfgang Schmid, Scientific and Industrial Research Organisation (CSIRO, Australia)



Wolfgang Schmid is a Senior Research Scientist at the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO). During his time at CSIRO, Dr Schmid has worked on (a) Sustainable water management in Western Australia, (b) Integrated basin modelling projects in South Asia, (c) Bioregional Assessments of the impacts of Coal Seam Gas and coal mining development on water resources, (d) Direct, indirect and cumulative impacts of coal seam dewatering and related land subsidence, and (e) Groundwater pathway analysis to assess impact of fraccing chemicals. Prior to joining CSIRO in 2012, Dr Schmid worked as Assistant Research Professor and Research Hydrologist at the University of Arizona mainly on computational solutions of water resources management in arid and semi-arid areas. He and Randy Hanson from the USGS are the original authors of The Farm Process' for MODFLOW now integrated by the USGS California Water Science Center into MODFLOW-OWHM (http://water.usgs.gov/ogw/modflow-owhm). Before that, Dr Schmid worked as Hydrogeologist in consultancies in Germany and the United Arab Emirates for the German companies GTZ (German Technical Cooperation) and Dornier-Consulting (subsidiary of EADS Germany) with emphasis on groundwater exploration, groundwater modelling, and contaminant hydrogeology.

#### Gabriel Anzaldi, Eurecat - Centro Tecnológico de Catalunya (Spain)



Gabriel Anzaldi has an extensive and multidisciplinary experience along Digital Technology life cycle, holding different positions such as Researcher; Project Manager; R&D Director; and CTO, collaborating with entrepreneurs, SMEs and large companies. He is Electronic Engineering by IESE, Advanced Studies in Electronic Technology by UPC, Telecommunication Engineering by UPM, achieved his MSc in Telecommunications by ITBA, and MSc in communications at the US Signal Centre. As Director of EURECAT's Smart Management Systems Unit, focuses his research on intelligent management tools, interoperable platforms, open data environments and knowledge management solutions, specially implemented to improve collaborative decision making between multi-level stakeholders. In particular, they are highly specialized in applied research of new technologies (Bid Data Analytics, IoT, Artificial Intelligence, Machine Learning, etc.) deployed along multiple water value chains. Mr. Anzaldi collaborates and Co-Lead the ICT4WATER cluster prompted by EASME and EC DG Connect. As EC external Expert, has published the "Action Plan to Digital Single Market for Water services" covering an strategy set of actions and activities related to R&D and possible regulation in the area of digital water; enhancing emerging water issues (current and future trends) in terms of data sharing, interoperability, standardization, smart data, cybersecurity, water awareness, policy and business plans. Membership of professional bodies: Open Geospatial Consortium (OGC®), Water Supply and Sanitation Technology Platform (WssTP), Board of the ICT4Water (Digital Agenda for Europe), Big Data Value Association (BDVA), Alliance for internet of things (AIOTI).











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