

Sessions – Young Water Professionals European Conference 2024

Session A1 – Innovative practices

Monday June 17th 11.30 – 13.00

Full presentation	Cecilie Thryssø	Accelerating innovation: Learnings from a Global Start-up Program
Full presentation	Janina Moschner	Fostering sustainable water resource policies in complex and uncertain futures with qualitative systems analysis and serious games
Full presentation	Chuan Jiet Teo	A conceptual framework for a water efficient process industry: Transition toward circularity
Speed talk	Karoline Sofie Kahr Petersen	Navigating Compliance: Analysis of Sustainable Climate
Speed talk	Enrico Pizzi	Building a synergistic vision for multi-objective control of WRRFs through stakeholder engagement
Speed talk	Katja Barendse	Art-Science Collaborations for Transformative Change in the Water Sector
Creative presentation	Mathias Thuborg Madsen	What strategies can be implemented to increase utilization and minimize risks in large-scale water infrastructure investments in the Global South?

Session A2 – Advances nutrient removal

Monday June 17th 14.00 – 15.30

Full presentation	Koko Kawaura	Microbial encapsulation of nitrifiers, denitrifiers and polyphosphate accumulating organisms for treatment of domestic and industrial wastewater
Full presentation	Sofia Högstrand	Biological vs. chemical phosphorus removal – What are the environmental impacts of a chemical shortage?
Full presentation	Yifan Yang	A machine learning proxy for optimizing start-up phase of de novo anaerobic granulation in well mixed system
Speed talk	Francesco Savio	Influence of sulphate on autotrophic bioelectrochemical denitrification at low temperatures
Speed talk	Giacomo Messina	Detection and characterization of air nanobubbles in wastewater

Session A3 – Decarbonization

Tuesday June 18th 09.00 – 10.30

Full presentation	Silvia Bolognesi	Power-to-gas: tackling operational conditions in electro-methanogenesis for carbon dioxide valorization
Full presentation	David Benjamin Seelmann Freire	El Hierro Hydro-wind Power Plant: A Key Player in the Spanish Island's Energy Self-Sufficiency
Full presentation	Francisca Braga	Unveiling the water-energy nexus: Wastewater reuse for district heating application
Speed talk	Teresa Oltra	LIFE TURBINES-Empowering smart renewable cities through hydropower technology in urban drinking water supply system
Speed talk	Jaume Cotolí Sancho	LIFE ELEKTRA - Circular economy applied to nitrate removal: hydrogen generation and waste recovery in drinking water.
Speed talk	Desara Malluta	A review of technologies for carbon sequestration in wastewater treatment plants.
Speed talk	Tianyu Lei	Dynamic prediction of nitrous oxide emissions in a full-scale industrial wastewater treatment plant using a plant-wide model approach

Session A4 – Sustainable WRRF

Tuesday June 18th 11.00 – 12.30

Full presentation	Reiva Sibi	Simultaneous recovery of energy, nutrients and water from source separated urine using Bio-osmotic Recovery Reactor
Full presentation	Bogna Śniatała	Influence of Operational Conditions on N Recovery from Wastewater Using Gas-Permeable Membrane Technology
Full presentation	Patricia Ruiz Barriga	Electrodialysis technology for nutrient recovery from the effluent of an AnMBR.
Speed talk	Anna Stefania Laino	Non-Linear analysis of a Water Resource Recovery Facility
Speed talk	Ksenija Golovko	Involving wastewater treatment plant operators in digital twin development: workshop experience

Session B1 – Drinking water treatment

Monday June 17th 11.30 – 13.00

Full presentation	Fien Waegenaar	Pilot-scale study: Impact of temperature and water source on drinking water bulk and biofilm microbiome
Full presentation	Katerina Sichrova	Mixed sorbents - A promising way to enhance conventional adsorption during drinking water treatment
Full presentation	Bayan Khojah	Exploring the factors influencing the biological activity in slow sand filters using stable isotope probing
Speed talk	Samuel Yeboah Nyarko	Removal of Organic Matter by Coagulation and Ion-exchange in High-hydrophilic Source Water
Speed talk	Michaela Prokopova	TWIN SKIN - System for monitoring and management of technological units of a drinking water treatment plant
Speed talk	Jaume Cotolí Sancho	Understanding, monitoring, and remediating the spread of chemical, microbiological and plastic pollution in drinking water treatment plants

Session B2 – Advanced water treatment

Monday June 17th 14.00 – 15.30

Full presentation	Lineker Coelho	Development of a portable low-cost voltammetric device to enhance in situ water quality analysis of organic compounds
Full presentation	Simon Duchi	Designing a full-scale ozonation plant for maximum micropollutants removal and minimal bromate formation supported by Computational Fluid Dynamics
Full presentation	Frida Viktor	Quaternary treatment to comply with the upcoming EU Urban Wastewater Directive? - Digital Twins as a decision support tool for wastewater utilities
Speed talk	Gülay Arslan Çene	Enhanced Adsorption of Organic Matter on Powdered Activated Carbon with CaCO ₃ Particles
Speed talk	Egzona Bejtullahu	Comparison of two effluent disinfection tanks with different geometric designs
Speed talk	Alessia Cossettini	Detecting viruses and pathogens in water and wastewater with biosensors

Session B3 – Groundwater and drinking water distribution

Tuesday June 18th 09.00 – 10.30

Full presentation	Mirvahid Mohammadpour Chehrghani	Shark Inspired Riblet Structures for Drag Reduction in Drinking Water Pipelines
Full presentation	Rahul Misra	Decentralized control of Pressure in a large-scale Drinking water distribution network
Full presentation	Nicolaj Schmidt Damgaard	Utilizing Treatment Trains To Treat Complex Pollution In Groundwater Caused By Generational Pollution
Speed talk	Juan Pablo Garcia Montealegre	The groundwater contribution to e-flows: A systematic map
Speed talk	Eric Cowan	The effect of ozone on the biostability of chlorine-treated drinking water
Speed talk	Elisabetta Gover	New curcumin-based polymers for water disinfection

Session B4 – Water resources 2

Tuesday June 18th 11.00 – 12.30

Full presentation	Najib Boubakri	Innovative tool for enhancing water use efficiency in irrigated agriculture
Full presentation	Thomas Pluym	Flow cytometry for online microbial regrowth monitoring in a membrane filtration plant: pilot-scale case study for wastewater reuse
Speed talk	Nil Llopart Aguado	Integrated flotation–filtration desalination pre-treatment for highly challenging water quality scenarios
Speed talk	Igor Luketina	Solar Desalination Greenhouse: A Comprehensive Study of Prototype Design and Performance Analysis

Session C1 – Storm water and nature-based solutions

Monday June 17th 11.30 – 13.00

Full presentation	Ida Linde	How co-benefits of nature-based solutions can enhance the climate resilience business case
Full presentation	Thomas Molnár Karlsson	Chemical fingerprinting of urban runoff using target- and suspect screening analysis
Full presentation	Abdul Ghafoor Nizamani	Categorization Green Walls for Effective Stormwater Management
Speed talk	Lukas Guericke	Assessing the Longevity of CIPP Sewer Liners: A Comprehensive Study of Service Life and Failure Modes
Discussion	Franca Bauer	Navigating complexity in advocating nature-based solutions

Session C2 - Water resources 1

Monday June 17th 14.00 – 15.30

Full presentation	Cecilie Thryssøe	Digital waves in COWI: A case study on a hydraulic model QA tool
Full presentation	Francesca Mangiagli	Multidisciplinary experimental methodology for the evaluation of crops irrigation with reclaimed wastewater
Speed talk	Jan Vespalec	Reuse of laundry wastewater and associated requirements
Speed talk	Matia Mainardis	Fighting water scarcity under climate change: the contribution of treated effluent reuse in agriculture
Speed talk	Umut Kirdemir	How do modeling strategies affect uncertainties in streamflow projections? A case study of Tahtali Dam Basin
Creative presentation	Juan Pablo García Montealegre	Hydrological Modelling in the Cloud with Copernicus products: A hands-on demonstration

Session C3 – Industrial wastewater treatment and non-sewered sanitation

Tuesday June 18th 09.00 – 10.30

Full presentation	Marunga Moureen and Sharon Nakigudde	Weyonje Mobile Application: Providing Pit-Emptying Services through GIS-Enabled Mobile Application.
Full presentation	Daria Popugaeva	Remediation of mine-impacted water in Northern Canada using a nature-based approach
Full presentation	Fabiano Asunis	Improving PHA production by mixed microbial culture through the integration of a selective VFA extraction step
Speed talk	Sharon Nakigudde and Moureen Marunga	A Comparative Study of Pit Emptying Technologies in Informal Settlements

Session C4 – Anaerobic treatment and biogas production

Tuesday June 18th 11.00 – 12.30

Full presentation	Maria Silvia Morlino	Cupriavidus necator as an efficient utilizer of anaerobic digestion residues for polyhydroxyalkanoate production
Full presentation	Felix Müller	Increased methane production through CO ₂ enrichment
Full presentation	Sergi Vinardell	Techno-economic assessment of implementing ex-situ biomethanation in wastewater treatment plants for grid-quality biomethane production
Speed talk	Rebecca Serna-García	Hollow fiber membrane contactor for biogas upgrading
Speed talk	Simon Duchi	Anaerobic digesters mixing performance simulations, considering solids to understand long-term performances
Speed talk	Barbara Tonanzi	Uncovering the anaerobic digestion microbiome: the case of a full-scale mesophilic system

Session D1 – Emerging contaminants

Monday June 17th 11.30 – 13.00

Full presentation	Miriam Pérez Cova	Towards an innovative solution to remove contaminants of emerging concern in water treatment systems
Full presentation	Filippo Fazzino	Spectroscopic indexes to control removal of contaminants of emerging concern through advanced oxidation processes
Full presentation	Alba Rodríguez Otero	Non-target screening of micropollutants for assessing adsorption treatments with different materials on secondary effluent wastewater
Speed talk	Yrsa Larsson	Benzalkonium chloride metabolites – in moving bed biocarrier reactors and WWTPs
Speed talk	Alen Simonic	Enhancing biodegradation of organic micropollutants by methanotrophic microbiomes: insights into the interaction between heterotrophic and methane oxidizing bacteria

Session D2 – PFAS and antibiotic resistance

Monday June 17th 14.00 – 15.30

Full presentation	Maria Kalli	Removal of antibiotic-resistant Escherichia coli and antibiotic resistance genes from the wastewater of constructed wetlands via ultraviolet disinfection
Full presentation	Pinelopi Savvidou	Fate Models Predicting PFAS Removal and Distribution in Activated Sludge Treatment
Full presentation	Dhruv Sharma	LCA & LCC model for water purification treatment trains: A case study on PFAS
Speed talk	Jonathan Guld Christensen	Successful pretreatment for removal of PFAS and regeneration of used adsorption materials
Speed talk	Silvy Rijdsdijk	Electrochemical oxidation of PFAS in reverse osmosis concentrate on a RuO ₂ -IrO ₂ anode
Speed talk	Erica Gagliano	Regeneration of PFAS-laden GAC through microwave irradiation