

WWTAC-2026

6th International Symposium on Water and Wastewater Technologies

from Ancient Civilisations to Modern Times

Napoli (IT) 23 - 25 February 2026



UNIVERSITÀ DEGLI STUDI DI NAPOLI
FEDERICO II



ICOMOS
International Council
on Monuments and Sites
Comitato Nazionale Italiano



UTILITALIA

PROGRAM

23 February 2026

Centro Congressi Università di Napoli
Via Partenope

Rooms: **M**= Aula Magna, I Floor
A= Aula A, Ground Floor
C= Coffee break & Poster, I Floor

TIME	TYPE	EVENT
09:30 - 10:10	M Speech/Intervention	Welcome and Symposium opening - Maria C. Monteleone, Ioannis Kalavrouziotis
10:15 - 10:50	M Speech/Intervention	Keynote Lecture: "Water in the historical timeline of Naples, recent challenges and technological excellence"
10:50 - 11:10	M Logistics	Aula Magna - Logistic information on timetables, activities and trips
11:00 - 11:30	C Break	Coffee break
11:30 - 13:00	M Session	Springs, Thermal Waters and Baths
11:30 - 11:45		› Fortuna Roman Baths. System Modelling and Operational Hypotheses - <i>Francisco Javier Pérez de la Cruz, Technical University of Cartagena</i>
11:45 - 12:00		› Hot water in Roman baths - <i>Gemma Jansen, -</i>
12:00 - 12:15		› A new insight into the bathing of Pompeians - <i>Guel Suermelihindi and Cees Passchier, Johannes Gutenberg University of Mainz</i>
12:15 - 12:30		› Roman Thermae: The Role of Reservoirs in the Imperial Baths of Rome - <i>Elettra Santucci, Newcastle University</i>
11:30 - 12:10	A Speech/Intervention	'Exploring new Paradigms of Water: Deriving Integrated Sustainability from Heritage Practices' - Deeksha Katyal, Professor of Environment Management at i Guru Gobind Singh Indraprastha University
12:00 - 13:00	A Session	Water, Wastewater, Energy & the Environment
12:00 - 12:15		› Water Management in Southern Hispania: Hydraulic Infrastructures and Hydrogeology in Hilltop Cities - <i>María del Mar Castro García, Universidad de Granada</i>
12:15 - 12:30		› From Watershed to Stage: Acheloos River, Hydraulic Technologies, and the Evolution of Ancient Theaters in Western Greece - <i>Konstantinos Kollyropoulos, Municipality of Patras - Ioannis Kalavrouziotis, Hellenic Open University</i>
12:30 - 12:45		› Sustainable Wastewater Treatment: Lessons from Ancient Biofilter Techniques - <i>Mohammad Ramezaniapour, Ara Institute of Canterbury</i>
12:45 - 13:00		› Archimedean screw pumps in hydraulic perpetual motion machines - <i>Aldo Tamburrino, Department of Civil Engineering, University of Chile</i>
13:00 - 15:00	Break	Lunch
15:00 - 16:30	M Session	Aqueducts- Water Supply
15:00 - 15:15		› Mapping Rome's Ancient Aqueducts: Aqua Virgo from Antiquity to GIS - <i>Maria Elisa Amadasi, Scuola Normale Superiore di Pisa</i>
15:15 - 15:30		› Aqueduct water supply - the spring or the river - <i>Guel Surmelihindi, Department of Earth Sciences, University of Mainz - Cees Passchier, Department of Earth Sciences, University of Mainz</i>
15:30 - 15:45		› Extra-Urban Aqueduct Supply and Cistern Size in Latium: A Link? - <i>Joseph Morley, University of Manchester</i>
15:45 - 16:00		› The Byblos Aqueduct: forgotten evidence of ancient water engineering on the Lebanese coast - <i>Hany Kahwagi-Janho, Université du Saint Esprit de Kaslik</i>
16:00 - 16:15		› An update from Amphipolis: the EAA/MYA field survey - <i>Elena Sanchez, Javier Martínez (Universidad de Granada), Efthymis Rizos (Ephorate of Antiquities of Serres)</i>
16:15 - 16:30		› The Sangano Drainage Galleries: a Unique 1859 Infrastructure Still Serving the Drinking Water Supply of the City of Turin - <i>Elisa Brussolo, Società Metropolitana Acque Torino S.p.A.</i>



WWTAC-2026



6th International Symposium on Water and Wastewater Technologies

from Ancient Civilisations to Modern Times

Napoli (IT) 23 - 25 February 2026



UNIVERSITÀ DEGLI STUDI DI NAPOLI
FEDERICO II



ICOMOS
International Council
on Monuments and Sites
Comitato Nazionale Italiano



23 February 2026 (continued)

Rooms: M= Aula Magna, I Floor
A= Aula A, Ground Floor

C= Coffee break & Poster, I Floor

15:00 - 16:30	A	Session	Water Quality & Safety
15:00 - 15:15			› Integrating Water Culture, Smart Metering, and Chlorine Decay Modeling for Urban Water Management - <i>Nguyen Minh Ngoc, Department of Architecture and Civil Engineering [Toyohashi Univ of Technology]</i>
15:15 - 15:30			› Enhancing Water Security in Malaysia: Challenges, Policies, Projects, and Technological Innovations - <i>Sook Huei Chan, Ministry of Energy Transition and Water Transformation</i>
15:30 - 15:45			› Microplastics and water security: Linking pollution levels to future water quality risks - <i>Manya Tyagi, Guru Gobind Singh Indraprastha University, New Delhi</i>
15:45 - 16:00			› Water mills and health - <i>Miquel Salgot, Reial Acadèmia de Farmàcia de Catalunya</i>
16:00 - 16:15			› Wastewater-Based Epidemiology: Water as a Sentinel of Viral Dynamics - <i>Rodrigo De Freitas Bueno, Université Fédérale de IABC [Brazil]</i>
16:15 - 16:30			› Water in the pharmaceutical magistral formulations in the last centuries - <i>Miquel Salgot, Reial Acadèmia de Farmàcia de Catalunya, SCHF</i>
16:30 - 17:00	C	Session	Poster Session
16:30 - 16:40			› From ancient natural attenuation to modern carbon sinks: A bibliometric analysis of biochar-enhanced constructed wetlands - <i>Iara Nobre Carmona (Universidade Federal do Espírito Santo), Fernanda Aparecida Nazário De Carvalho, Gabriela Aguiar Amorim, Kamilla Crystlayne Alves Da Silva, Allana Katiussya Silva Pereira Ananias Dias Júnior (Escola Superior de Agricultura Luiz de Queiroz), Merlindo Jacinto Manjate (Lurio University), and Alina Balu (Universidad de Córdoba),</i>
16:40 - 16:50			› Revitalizing ancient carbon filtration: Performance of vertical flow wetlands amended with residual wood biochars - <i>Iara Nobre Carmona, Marcos Paulo Mazzeo Mariano, Giovanni De Oliveira Garcia, Paulo Renato Souza De Oliveira, Ananias Francisco Dias Júnior (Universidade Federal do Espírito Santo), Kamilla Crystlayne Alves Da Silva, Fernanda Aparecida Nazário De Carvalho, Gabriela Aguiar Amorim (Escola Superior de Agricultura "Luiz de Queiroz")</i>
16:50 - 17:00			› Membrane-Based Approaches for Mitigating Micro/nanoplastic Pollution in Water Effluents - <i>Teresa Poerio, Beatrice Russo, Alberto Figoli (Institute on Membrane Technology)</i>
16:30 - 17:00	C	Break	Coffee break
17:00 - 18:00		Logistics	Meeting of the IWA Specialist Group and Scientific Committee members - Conclusions and remarks on collaborations for the Symposiums organization
18:15 - 20:15		Tour	VISIT TO LAPIS WATER UNDERGROUND MUSEUM-town centre- - One of Naples' "underground attractions," this series of large cavities is accessed 35 m below ground via a panoramic lift and contains archaeological remains from ancient Greek and Roman times. Originally formed by the extraction of building stone, the cavities were later used as an interconnected system for water storage. During World War II, they served as shelters for local inhabitants during air raids.



Find Direction for this Venue in the following pages



WWTAC-2026

6th International Symposium on Water and Wastewater Technologies
from Ancient Civilisations to Modern Times



Napoli (IT) 23 - 25 February 2026

24 February 2026

Centro Congressi Università di Napoli

Via Partenope

Rooms: M= Aula Magna, I Floor

A= Aula A, Ground Floor

C= Coffee break & Poster, I Floor

09:00 - 10:30	M Session	Examples of past water technologies
09:00 - 09:15		› Water management in the Large theatre at Pompeii: interdisciplinarity and challenges - <i>Katerina Gottardo, Durham University</i>
09:15 - 09:30		› Water management and water use in the theatres of Roman Macedonia - <i>GEORGIA ARISTODEMOU, International Hellenic University</i>
09:30 - 09:45		› Changing Needs: How Petra's Water Supply System Evolved From First Century BCE To Second Century CE - <i>Niklas Jungmann, Humboldt Universität zu Berlin</i>
09:45 - 10:00		› Proper or improper functioning? Operations and maintenance of water networks in the Roman Empire - <i>Jesús Acero Pérez, Universidad de Sevilla, UNIARQ – Centro de Arqueologia da Universidade de Lisboa - Laetitia Borau, Ausonius-Institut de recherche sur l'Antiquité et le Moyen âge</i>
10:00 - 10:15		› Water Management in the Houses of Philippi: The Case of the Fourth Insula East of the Forum - <i>Emmanouela Gounari, University of Ioannina</i>
10:15 - 10:25	M Logistics	Details - Social Dinner and Pompeii Trip
10:25 - 11:00	M Speech/Intervention	Keynote Lecture: "From sea to land: the long journey of desalination in human history" - <i>Renato Drusiani, Tania Tellini (Utilitalia), Pietro Tota and Luigi Patimo (Acciona Agua, Milan)</i>
11:00 - 11:30	C Break	Coffee break
11:00 - 11:30	C Session	Poster Session
11:00 - 11:10		› Assessing Parameters for Microorganism Inactivation in Plasma Activated Water - <i>Nino Asatiani, Marina Abuladze, Nelly Sapojnikova, David Gelenidze, Gelashvili Ivane Javakhishvili Tbilisi State University, Georgia</i>
11:10 - 11:20		› Long-Lived Reactive Species in Thermal Arc Plasma Treated Water and Microorganism Disinfection - <i>Nelly Sapojnikova, Nelly Sapojnikova, Nino Asatiani, David Gelenidze, Gela Gelashvili Ivane Javakhishvili Tbilisi State University (TSU), Tbilisi, Georgia</i>
11:20 - 11:30		› Assessment Model for the Impact of Small Hydropower Plant on Aquatic Habitat- Case Study of Wanchangchun Channel - <i>Pin-Han Kuo, Tzu-Han Chiu, National Ilan University</i>
11:30 - 13:00	M Session	Water structures of the Campanian region
11:30 - 11:45		› Ancient Restoration of the Augustan Aqueduct - <i>Wayne Lorenz, Wright Paleohydrological Institute</i>
11:45 - 12:00		› Diachronic Change in Imperial-era Waterproof Lining Technology: Evidence from Pompeii, Oplontis, the Bay of Naples and Rome - <i>Rory McLennan (University of Queensland), Duncan Keenan-Jones (University of Manchester)</i>
12:00 - 12:15		› The Campanian Augustan Aqueduct at Baiae (Naples - Italy) - <i>Daniele De Simone, Soprintendenza per la Città Metropolitana di Napoli - Graziano Ferrari, Associazione Cocceius</i>
12:15 - 12:30		› The supply of Imperial Rome through water infrastructure on the Bay of Naples - <i>Duncan Keenan-Jones, University of Manchester</i>
13:00 - 15:00	Break	Lunch
13:00 - 15:00	Logistics	Networking lunch -Pompeii cross-disciplines research projects - Networking on a multi-year, multi-disciplinary, collaborative new study on ancient Pompeii water management

24 February 2026 (continued)

Rooms: **M**= Aula Magna, I Floor
A= Aula A, Ground Floor

C= Coffee break & Poster, I Floor

15:00 - 16:00	M Session	Ancient Pompeii Water Technologies
15:00 - 15:15		› Industrial Water Uses in Ancient Pompeii - <i>Wayne Lorenz, Wright Paleohydrological Institute</i>
15:15 - 15:30		› The Foro Civile drainage system in Pompeii - Preliminary analysis of ancient and present water flow - <i>Graziano William Ferrari, Associazione Cocceius - Daniele De Simone, Soprintendenza per la Città Metropolitana di Napoli</i>
15:30 - 15:45		› The Knowns and Unknowns of Pompeii public water supply and drainage systems - <i>Maria Carmela Monteleone (Independent Researcher), Duncan Keenan-Jones (University of Manchester), Federico Giletti (Università degli Studi di Napoli Federico II)</i>
15:45 - 16:00		› Water as a display of beauty, life abundance and wealth. Features and typical water consumption of atria (entrances) fountains in the ancient Roman residences of Pompeii - <i>Maria Carmela Monteleone (Independent Researcher) Elena Sánchez López (Universidad de Granada)</i>
16:00 - 16:30	C Break	Coffee Break
16:30 - 18:15	M Session	Water Resources Management
16:30 - 16:45		› Showcasing underground water canals (qanāt/kārīz) in Yazd (Iran) and Turfan (China): issues of Public History - <i>Constantin Canavas, Hamburg University of Applied Sciences</i>
16:45 - 17:00		› Successes and failures in the construction of the emissary of Lake Fucino - <i>Giacinto Libertini, Istituto di Studi Atellani</i>
17:00 - 17:15		› A comprehensive review of the design and performance of Microbial Fuel Cells in conjunction with modification as an eco-friendly means for sustainable energy generation from wastewater - <i>Satarupa Bandyopadhyay, Guru Gobind Singh Indraprastha University, Dwarka, New Delhi</i>
17:15 - 17:30		› Minoan Hydraulic Infrastructure: Conduits and Catchment Systems in Neopalatial Contexts - <i>Caleo Chiara, University of Pisa</i>
17:30 - 17:45		› The Risks and Adaptation Measures for Water Heritage: The Case of Bent Stream Corridor in Ankara - <i>Tugce Halici, Middle East Technical University [Ankara]</i>
17:45 - 18:00		› Bridging Traditional and Modern Water Quality Approaches: A Microplastic Assessment of Surface Waters - <i>Namrata Singh, Guru Gobind Singh Indraprastha University, Dwarka Sector-16C, New Delhi - Deeksha Katyal (deekshakaty@gmail.com), Guru Gobind Singh Indraprastha University, Dwarka Sector-16C, New Delhi</i>
18:00 - 18:20	M Speech/Intervention	Closure of the Conference Sessions and Presentation of Pompeii Trip - <i>Dr. Maria C Monteleone, Prof. Ioannis Kalavrouziotis</i>
19:30 - 21:30	Break	Social Dinner - Antonio & Antonio, Via Partenope 26, Napoli



ANTONIO & ANTONIO IS NEXT TO THE SYMPOSIUM VENUE



WWTAC-2026

6th International Symposium on Water and Wastewater Technologies

from Ancient Civilisations to Modern Times



UNIVERSITÀ DEGLI STUDI DI NAPOLI
FEDERICO II



ICOMOS
International Council
on Monuments and Sites
Consiglio Nazionale Italiano



Napoli (IT) 23 - 25 February 2026



25 February 2026 GUIDED VISIT TO POMPEII WATER STRUCTURES

(PLACES STILL AVAILABLE, € 130 COST INCLUDES COACH, TICKET, GUIDED TOUR AND LUNCH)

8:30 Meet-up

9:00 Coach leaves from Ascensore Monte Echia (see directions below)

10:00 Entrance in Archaeological Park, Visit to water structures with official guide

and expert scholars Maria C Monteleone and Elena Sanchez:

- ☀ Entrance from Porta Marina
- ☀ Piazza del Foro
- ☀ Arco di Druso
- ☀ Arco di Caracalla
- ☀ Casa della Fontana Grande
- ☀ Casa dei Vettii
- ☀ Street fountains and water towers
- ☀ Castellum Divisorium
- ☀ Casa delle Nozze D'Argento, well and water tower
- ☀ Terme Stabiane
- ☀ Fullonica di Stephanus
- ☀ Casa di Octavio Quartione and Praedia di Julia Felix
- ☀ Exit from Amphitheatre

13:00 exit from site, walk to Zi Caterina' restaurant in town centre (Via Roma 20)

15:30 Coaches leaves to get back in Naples



MEETING POINT: NAPLES, ASCENSORE MONTE ECHIA (VIA SANTA LUCIA 128) [DIRECTIONS HERE](#)



WWTAC-2026

6th International Symposium on Water and Wastewater Technologies
from Ancient Civilisations to Modern Times



UNIVERSITÀ DEGLI STUDI DI NAPOLI
FEDERICO II



ICOMOS
International Council
on Monuments and Sites
Comitato Nazionale Italiano



Napoli (IT) 23 - 25 February 2026

VENUES

CENTRO CONGRESSI UNINA VIA PARTENOPE 36

[DIRECTIONS HERE](#)



MUSEO DELL'ACQUA LAPIS

[DIRECTIONS HERE](#)

