

FLOWPATH

NATIONAL MEETING ON HYDROGEOLOGY

DAY 1 WEDNESDAY 14TH JUNE

08:30 Registration

09:00 Opening Session – Introductory Messages

09:30 **Keynote Presentation The Development of Malta's Groundwater Monitoring Framework**
Dr David Macdonald, British Geological Survey

10:00 **COFFEE BREAK – POSTER SESSION**
Session 1: Policies and Practices to Protect Groundwater
Conveners: Dr Stefania Stevanazzi/Dr Ondine Gaerty

10:30 **Keynote Presentation The EU Policy Framework for the protection of Groundwater**
Dr Isaac Ojea Jimenez, DG Environment, European Commission

11:00 **Oral Presentations Mapping of the Hydrological Features of Matese Karst Massif (Southern Italy)** - Guido Leone

11:15 **Assessment of groundwater sustainable yields through the use-drawdown method** - Tony Cauchi

11:30 **Optimization of reservoir operation considering lake-aquifer interaction and conjunctive use of surface and groundwater**
- Ata Joodavi

11:45 **A reproducible procedure to elaborate long groundwater level and abstraction rate time series acquired from data logger, a present-day necessity** - Agnese Redaelli

12:00 **Potential and limits of the Po Plain for the development of open-loop Groundwater Heat Pump Systems (GWHPs) in Italy, the case study of Milan and Turin** - Alessandro Berta

12:15 **Groundwater resources management in mountainous areas: a regional scale approach in Lombardy Region (Northern Italy)** - Stefania Stevenazzi

12:30 **Assessment of karst aquifer spring potential by 3D modelling constrained by geological maps and densely-space airborne and ground geophysics: the MountainHydro project** - Alice Lucchelli

12:45 **Urban groundwater: how to classify cities by a hydrogeological point of view?** - Francesco La Vigna

13:00 **Unconventional pumping tests in carbonate aquifers, without interruption of drinking water exploitation** - Alessia di Giovanni

13:15 **The use of compound-specific isotope analysis (csia) to allocate the potential sources of dissolved chlorinated solvents contaminant in large urban areas: lessons learned from few case studies** - Massimo Marchesi

13:30 **LUNCH – POSTER SESSION**

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DAY 1 WEDNESDAY 14TH JUNE - CONTINUED

Session 2: Special Session on Hydrogeological Studies in Malta
Conveners: Dr Sergio Rusi/Manuel Sapiano

14:30 Keynote Presentation

Dr Ariel Thomas, University of Malta

15:00 Keynote Presentation

Dr Kim Yongcheol, Korea Institute of Geoscience and Mineral Resources

15:30 Oral Presentations Mapping saltwater intrusion via Electromagnetic Induction (EMI) measurements in Pwales Valley (Malta) - Lorenzo De Carlo

15:45 Hydraulic Characterization of Pwales Aquifer in Malta Island - Maria Clementina Caputo

16:00 Hydrogeological Modelling of a Seawater Intrusion Barrier in the Malta Mean Sea Level Aquifer (MSLA) coastal/island carbonate system - Francesco Demichele

16:30 COFFEE BREAK - POSTER SESSION

17:00 Numerically enhanced conceptual modelling (NECoM) applied to the Malta Mean Sea Level Aquifer - Francesca Lotti

17:15 SIGMA: Seismic Imaging of Groundwater for Maltese Aquifers - Dr Matthew Agius

17:30 COST action (OFF-SOURCE, CA21112)- Offshore Freshened Groundwater: An unconventional water resource in coastal regions? - Hiba Wazaz

17:45 Optimising the management of groundwater resources through a better understanding of the role of the vadose zone: Case study from Malta - Luca Laudì

18:00 POSTER SESSION AND SOCIAL EVENT

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DAY 2 THURSDAY 15TH JUNE

- 09:00** **Keynote Presentation The potential contribution of ancient water cultures to groundwater management in achieving the SDGs.**
Dr Eriberto Eulisse, Executive Director, Global Network of Water Museums
- 09:30** **Session 3: Emerging Challenges to Groundwater Quantity and Quality**
Conveners: Dr Claudio Arras/Dr Julian Mamo
- 09:30** **Keynote Presentation Prof Christoph Schuth, Technical University of Darmstadt**
- 10:00** **Oral Presentations**
- 10:00** **Stochastic simulation for defining N03 and F background levels in different groundwater bodies of the Campania Region**
- Gianluigi Busico
- 10:15** **Radar precipitation data as functional input for deriving the potential volume of water available for infiltration: the pilot case of Lombardy Region** - Andrea Citrini
- 10:30** **The sustainable yield of a well in low-permeability fractured aquifers: new insights from pumping tests interpretation** - Chiara Sbarbati
- 10:45** **Multidisciplinary investigation of groundwater flow in unsaturated slopes susceptible to shallow flow slides** - Giovanni Forte
- 11:00** **COFFEE BREAK - POSTER SESSION**
- 11:30** **New insights on groundwater flow of the Tavo tapped karst springs (Gran Sasso aquifer, Central Apennines) using tracer tests** - Valeria Lorenzi.
- 11:45** **Modelling transient groundwater flow dynamics in the Tabriz unconfined aquifer near Urmia Lake (Iran)** - Mattia Gaiolini.
- 12:00** **Climate change resilience in the poor hydrogeological setting of the Northern Apennines: the case of the Nadia spring** - Maria Filippini
- 12:15** **First hydrogeological water balance in the high and middle venetian plain between Mincio and Tagliamento rivers (NE, Italy)**- Davide Cappellari
- 12:30** **Unravelling the aquifer-scale competition for organic substrate in a polluted aquifer by interpreting multivariate statistics through scenario-based hydrogeochemical modelling** - Diego Di Curzio.
- 12:45** **Application of multivariate statistical analysis for the delineation of groundwater bodies: a case study in Campania Region (Southern Italy)** - Stefania Stevenazzi.
- 13:00** **LUNCH - POSTER SESSION**
- 13:15** **Changes in shallow groundwater recharge due to drought impacting the Po River Basin** - Marco Rotiroti
- 14:00** **Groundwater sustainable development in mountainous aquifers for adaptation to the effects of climate change: a case study in the Northern Apennines** - Laura Landi
- 14:15** **Towards groundwater-level prediction using Prophet forecasting method by exploiting a high-resolution hydrogeological monitoring system** - Fronzi Davide
- 14:30** **Groundwater flow modeling for the sustainable exploitation of the Monte Castello aquifer** - Pietro Rai
- 14:45** **Enhanced Thermal Response Test interpretation through MODFLOW-USG and PEST_HP** - Sara Barbieri
- 15:00** **Impact of drought on the piedmont plain (NW, Italy) water resources: current status and predictions in the context of climate change** - Susanna Mancini
- 15:15** **Estimation of transit time along the unsaturated zone in the protection of groundwater resources** -Francesca Lobina
- 15:30** **The role of carbonate faults on groundwater circulation: the case study of Monte Marine Fault (Central Apennines, Italy)**
- Emma Petrella

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DAY 2 THURSDAY 15TH JUNE - CONTINUED

- 15:45 Impact of Climate Change on Water Resources: Considerations Regarding the Uncertain Future of Water Resources in the Central Apennines (Italy) – Walter Dragoni**
- 16:00 COFFEE BREAK – POSTER SESSION**
- 16:30 Session 4: Groundwater Dependent Ecosystems**
Convener: Dr Maria Filippini
- 16:30 Keynote Presentation Diversity, traits, services, vulnerability and conservation of groundwater ecosystems. - Dr Tiziana Di Lorenzo, IRET-CNR**
- 17:00 Novel experimental approaches in Ecohydrodynamics of real vegetated rivers - Giuseppe Francesco Cesare Lama**
- 17:15 Hydrogeological assessment and modelling for the authorisation of water recharge in the Bereg marshes - Eva Kun**
- 17:30 Hydrogeochemical and multi-isotope constraints on the geochemistry of the Bagno dell'Acqua alkaline lake, Pantelleria Island (Southern Italy) - Marino Domenico Barberio**
- 17:45 Climate change and irrigation practices dissociate reduction of N fertilizers from the improvement of water chemistry in groundwater dependent rivers - Edoardo Severini**
- 18:00 Karst lakes fragile environments to be known and protected - Luca Zini**
- 18:15 The contribution of occult precipitation to karst aquifers recharge in semi-arid zones - Laura Sanna**
- 18:30 Towards EuroKarst 2024 (Presentation)**
- 18:35 Concluding Session**
- 20:00 CONFERENCE DINNER**

DAY 3 FRIDAY 16TH JUNE

09:00 Departure to Technical Site Visits

12:00 VISIT TO THE HAGAR QIM NEOLITHIC TEMPLE COMPLEX, FOLLOWED BY LIGHT LUNCH.

A shuttle to the airport will be provided at 14:00hrs directly from the Site Visits. Further Logistical details will be provided on registration.

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