

COST Action CA19120
WATER isotopeS in the critical zONE: from groundwater recharge to plant transpiration

Agenda
Water scarcity workshop
Friday March 31, 2023

University of Dubrovnik, Branitelja Dubrovnika 29, UNIDU Location, and online

<https://zoom.us/j/94068867983?pwd=TURSSTgrMWhQLzdLOFI3NTJLRFBjZz09>

Meeting ID: 940 6886 7983

Passcode: isotopes

8:30-9:00: Registration

9:00-9:05: Welcome

9:05-10:00 Plenary presentations

- Marjolein van Huijgevoort: Understanding drought characteristics and propagation: examples of the 2018 drought
- Christian Massari: Mechanisms of meteorological drought propagation into hydrological systems: seeking feedbacks from WATSON community
- Jared Van Rooyen (online): The Cape Town water crisis: lessons learned from the perspective of an isotope hydrologist

10:00-10:30: Coffee break

10:30-12:00 Short case study presentations focused on methods and limitations

- Gabriele Chiogna: The 2017 drought in the Adige catchment: what can isotope tell us?
- Christine Stumpp (online): Quantification of soil water fluxes in arid and semi-arid regions using water stable isotope approaches
- Francesc Gallart (online): Isotopic fractionation of evaporating waters: effect of sub-daily atmospheric variations and eventual depletion of heavy isotopes
- Adria Barbeta: Isotopic-based evidence of shifting plant water sources in response to drought
- Manuel Sapiano: Isotopes as a tool to support groundwater resources management under water scarcity conditions – case study from Malta
- Josie Geris: Safeguarding the whisky industry - a practical application of isotope data in the context of water scarcity



12:00-13:30: Lunch break (self-organized)

13:30-15:00: World café // small group discussions

- *Data requirements/limitations for understanding effects of droughts on vegetation*
- *Data requirements/limitations for understanding effects of droughts on groundwater/streamflow*
- *Opportunities to advance isotope-science during droughts – how are we prepared for opportunities during the next drought?*

15:00-15:30: Coffee break

15:30-16:30: Story boarding for outreach materials

16:30-17:00: Summary / Conclusion

