

# SECOND WORKSHOP ON WATER PARTITIONING AND PLANT-SOIL INTERACTIONS IN FORESTED AND AGRICULTURAL CATCHMENTS, TUSCANY | ITALY | 26–28 JULY 2022

## Preliminary Program



Date / Time	What happens?	Details	Type
<b>July 25<sup>th</sup></b>			
Evening	Informal get-together	Optional	Social
Evening	Meditation for Scientists	Optional, Mind-prep	Social
<b>July 26<sup>th</sup></b>			
8:00	Registration		Intro
8:20	Welcome and explaining logistics/introductions/360° Highlight Introduction		Intro
8:40	<i>Adria Barbeta: Isotopic discrepancies in plant water pools and their sources</i>		<b>Keynote</b>
9:15	A. Donaldson: Combined isotopic, physiologic, and hydrometric approaches to improve our mechanistic understanding of water use patterns between co-occurring oak species	Plants I	Talk
9:35	J. Radolinski : Impact of elevated CO <sub>2</sub> , temperature, and drought on summer ecohydrological moisture cycling and water transit times in montane grassland		Talk
9:55	<i>Coffee Break</i>		Social
10:20	S. Pires: Influence of sample preparation procedures on water stable isotopes in plant organs using the water-vapor equilibrium method	Plants II	Spark

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10:30	S. Le Gall: Nondestructive isotopic determination of root water uptake profile of contrasted root wheat phenotypes facing water deficit		Spark
10:40	G. Fontenla-Razetto: Water use of hybrid poplar ( <i>Populus deltoides</i> Bart. ex Marsh ´ <i>P. nigra</i> L. 'AF2') growing across contrasting site and groundwater conditions in western Slovakia		Spark
10:50	<b>Introduction World Cafe</b>	World Café I	Discuss
11:00	<b>World Cafe small groups</b>		
12:00	<b>Report back from discussion</b>		
12:30	<b>Lunch</b>	Plants III	Talk
14:00	Paolo Benettin: Can we use leaf water to quantify the seasonal origin of plant water sources?		Talk
14:20	Fabiani/Penna: Experimental evidence of isotopic exchange between sapwood and heartwood for different tree species		Talk
14:40	I. Khalil: Investigation of relative ecosystem fluxes & intrinsic water-use efficiency in a young beech plantation based on measurements of $\delta^{18}O$ , $\delta^2H$ and $\delta^{13}C$		Spark
14:50	A. Meyer Oliveira: Do trees in seasonally flooded forests in the Brazilian savannah depend on floodwater for transpiration?		Spark
15:00	I. van Meerveld: Seasonal dynamics of transpiration and soil water uptake for montane secondary forests in eastern Madagascar		Spark
15:10	<b>Coffee Break</b>		
15:35	<b>World Cafe small groups</b>	World Café II	Discuss
16:35	<b>Report back from discussion</b>		
17:05	<b>Picarro Talk</b>	Sponsor	Talk
17:15	<b>Edaphic Talk</b>		
17:25	<b>UGT Talk</b>		
17:35	<b>Free time / Extra Discussion time</b>		Social
18:00	<b>Meditation for scientists</b>	Optional	Social
19:00	<b>Dinner</b>		Social

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8:00	L. Munoz-Villers: Disentangling Plant-Soil Water Interactions in Tropical Ecosystems	Plant-Soil Interactions	Keynote
8:35	K. Kühnhammer: <i>In situ</i> monitoring of water uptake depths, storage and transport reveals different tree water use strategies		Talk
8:55	S. Seeger: An open-source autosampler for direct vapor equilibration laser spectrometry of stable water isotopes		Talk
9:15	K. Dimitrova-Petrova: Evaluation and communication of plant water sources in co-cropping and agroforestry systems		Spark
9:25	O. Durodola: Tracing water use patterns and carbon interactions in agricultural co-cropping systems using stable water isotopes		Spark
9:35	<b>Coffee Break</b>		Social
10:00	M. Floriancic: Isotopic signals across the forest water cycle	World Café III	Talk
10:20	J.D. Marshall : Three water worlds : species differences in the isotopic composition of transpiration		Talk
10:40	R. Magh: Horizontal, vertical and temporal dynamics of water and nitrogen uptake in two boreal scots pine stands		Talk
11:00	D. Todini: Which water do trees prefer? Insights from a stable isotope approach in different catchment positions		Spark
11:10	L. Alharfouch: Isotope-based understanding of water fluxes in the critical zone at the forest plot scale under Mediterranean climate		Spark
11:20	<b>World Cafe small groups</b>		World Café III
12:20	<b>Report back from discussion</b>		
12:50	<b>Lunch</b>		Social
14:00	B. Morgan: A novel UAV-based approach for measuring evapotranspiration at leaf- to landscape-scales	Isotopes & UAV	Talk
14:20	M. Gerchow: Measuring water isotopes with drones - new approaches for ET partitioning		Talk

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14:40	M. Beyer: Soil water isotopes in seasonally dry forests heavily depend on canopy parameters - UAV-assisted soil water isoscapes		Spark
14:50	C. D'Amato: GEOSPACE-1D for modeling the soil-plant-atmosphere continuum	Isotope-aided modelling	Talk
15:10	F. Bernhard: LWFBrook90.jl – including isotopes into forest water balance		Talk
15:30	T. Attou: An isotope-enabled model for evaluating groundwater recharge and crop water use in irrigated semiarid agricultural settings		Spark
15:40	t.b.d / buffer		Spark
15:50	E.R. Freund: Future resilient forest in a changing climate (FLAME): isotope observations and mechanistic modeling of soil water residence time and vegetation water uptake dynamics		Spark
16:00	<b>Coffee Break</b>		Social
16:10	<b>World Cafe small groups</b>	World Café IV	Discuss
17:10	<b>Report back from discussion</b>		
17:40	Gentile et al.: Grassland and forest mountain experimental catchments	Catchments	Spark
17:50	Ateshyam: Human Health Risk Assessment due to Aquifer Nitrate concentration of Laksar block of District Haridwar, Uttarakhand, India		Spark
18:00	J. Jahengeer: Isotopic Assessment of Nitrate Contamination in Groundwater of Rural area of Western Uttar Pradesh, India		Spark
18:10	<b>Free time / Extra Discussion time</b>		Social
18:30	<b>Meditation for Scientists (optional)</b>		Social
19:00	<b>Dinner</b>		Social
<b>July 28<sup>th</sup></b>			
8:30	J. Kirchner: Partitioning precipitation between streamflow and evapotranspiration using end-member splitting analysis	Atmosphere	Talk
8:50	C. Voigt : The first continuous field record of 17O-excess of atmospheric water vapor: Insights into local evapotranspiration fluxes at a Mediterranean forest site		Talk
9:10	<b>World Cafe small groups</b>	World Café V	Discuss

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9:40	Report back from discussion		
10:00	Coffee Break		Social
10:30	Group discussion ways forward	Goodbye	
12:00	Lunch		
13:30	End of Workshop		