

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

Program



Date / Time	What happens?	Session	Type
July 25th			
Evening	Informal get-together	Optional	Social
Evening	Meditation for Scientists (guided)	Optional	Social
July 26th			
8:00	Registration		Intro
8:30	Welcome, Logistics Introductions & 360° Highlight		Intro
9:00	<i>Adria Barbeta: Isotopic discrepancies in plant water pools and their sources</i>	Plants I	Keynote
9:40	A. Donaldson: Combined isotopic, physiologic, and hydrometric approaches to improve our mechanistic understanding of water use patterns between co-occurring oak species		Talk
10:00	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
10:20	<i>Coffee Break</i>		Social
10:50	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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11:00	S. Le Gall: Nondestructive isotopic determination of root water uptake profile of contrasted root wheat phenotypes facing water deficit		Spark
11:10	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
11:20	M. Hofmann (Picarro)	Sponsor	Talk
11:30	Introduction World Café	Discussion	Group
11:40	World Café I		
13:00	Lunch		Social
14:00	I. van Meerveld : COST Action WATSON: WATER isotopes in the critical zONE: from groundwater recharge to plant transpiration	Plants III	
14:10	Paolo Benettin: Can we use leaf water to quantify the seasonal origin of plant water sources?		Talk
14:30	Fabiani/Penna: Experimental evidence of isotopic exchange between sapwood and heartwood for different tree species		Talk
14:50	I. Khalil: Investigation of relative ecosystem fluxes & intrinsic water-use efficiency in a young beech plantation based on measurements of $\delta^{18}O$, δ^2H and $\delta^{13}C$		Spark
15:00	A. Meyer Oliveira: Do trees in seasonally flooded forests in the Brazilian savannah depend on floodwater for transpiration?		Spark
15:10	I. van Meerveld: Seasonal dynamics of transpiration and soil water uptake for montane secondary forests in eastern Madagascar		Spark
15:20	M.Forster (Edaphic) : Phenology and canopy conductance limit the accuracy of evapotranspiration models		Sponsor
15:30	Coffee Break		Social
16:00	World Café II	Discussion	Group
17:30	Free time / Extra Discussion time		Social
18:00	Meditation for scientists (guided)	Optional	Social
19:00	Dinner		Social

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July 27 th			
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	Coffee Break		Social
10:00	M. Floriancic: Isotopic signals across the forest water cycle		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	K.Konrad (Metergroup): Soil water content + soil water potential: hand in hand for an efficient irrigation	Sponsor	Talk
11:30	World Café III	Discuss	Group
13:00	Lunch		Social

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14:00	C. D'Amato: GEOSPACE-1D for modeling the soil-plant-atmosphere continuum	Isotope-aided modelling	Talk
14:20	F. Bernhard: LWFBrook90.jl – including isotopes into forest water balance		Talk
14:40	T. Attou: An isotope-enabled model for evaluating groundwater recharge and crop water use in irrigated semiarid agricultural settings		Spark
14:50	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
15:00	M. Gerchow: Measuring water isotopes with drones - new approaches for ET partitioning	Isotopes & UAV	
15:20	M. Beyer: Soil water isotopes in seasonally dry forests heavily depend on canopy parameters - UAV-assisted soil water isoscapes		
15:30	Coffee Break		Social
16:30	World Café IV	World Café IV	Discuss
17:45	J. Kirchner: Partitioning precipitation between streamflow and evapotranspiration using end-member splitting analysis	Catchments	Spark
18:05	Gentile et al.: Grassland and forest mountain experimental catchments		Spark
18:15	Free time / Extra Discussion time		Social
18:30	Meditation for Scientists (guided)		Social
19:00	Dinner		Social
July 28th			
8:30	World Café V	Discussion	Group
10:00	Group discussion, ways forward & closure	Goodbye	
12:30	Lunch		