Workshop proceedings

After abstract acceptance, the authors are required to submit a 4-page paper for peer-review and publication in the ISSMGE open-access proceedings. Following RootS25, selected papers will be invited to submit an extended version (full-size journal paper) for peer-reviewed publication in a special issue of an international scientific journal.

Important dates

Abstract submission deadline: **30/06/2025** Abstract acceptance: **15/07/2025** Full Paper submission deadline: **15/09/2025** Notification oral/poster: **30/09/2025** Paper acceptance: **31/10/2025 RootS25** workshop: **6-8/11/2025** Final paper upload: **30/11/2025**

Conference fees

Attendees: € 200.00
Young attendees (PhD students): € 120.00
Social Dinner: € 40.00
Site visit of the Pisciolo field test site: € 50.00

A full-scale experiment is under way at the toe of the Pisciolo slope, where a monitoring system has been installed to measure water and heat fluxes determined by the Soil-Vegetation-Atmosphere interaction.



Scientific committee

David Boldrin, The James Hutton Institute, UK Manuela Cecconi, UniPG, Italy Federica Cotecchia, PoliBa, Italy Anthony Kwan Leung, HKUST, Hong Kong SAR, China Enrique Romero, UPC / CIMNE, Spain Vito Tagarelli, PoliBa, Italy Lidija Zdravkovic, ICL, UK

Organising committee

Manuela Cecconi, UniPG, Italy Federica Cotecchia, PoliBa, Italy Silvano Emanuele Donvito, PoliBa, Italy Giuseppe Pedone, UniTN, Italy Pasquale Perrini, Cinid, Italy Rossella Petti, PoliBa, Italy Vito Tagarelli, PoliBa, Italy

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RootS25

3rd International Workshop on Soil-Vegetation-Atmosphere interaction

Mechanisms, processes and geotechnical engineering implications

Bari, 6-8 November 2025 Politecnico di Bari, Aula "Domus Sapientiae" Via Edoardo Orabona, 4, 70126, Bari





<u>www.roots-25.com</u>

Politecnico

di Bari

RootS25 / Motivation



RootS is an international research group founded in 2023 to advance in the understanding and modelling of Soil-Vegetation-Atmosphere (SVA) interaction, which is key to predict the behaviour of geotechnical systems. These interactions occur within the RootS Environmental Domain (ED), comprising rooted soils, vegetation, and the atmosphere—the core focus of the group's research. The upcoming RootS25 workshop will focus on the properties, constitutive laws, and parameters governing the coupled processes in the RootS ED, as well as on the experimental and numerical strategies to investigate and model these processes.

		Nov. 6th	Nov. 7th	Nov. 8th
Short Agenda	9:00-12:00	Welcome & Session 1 Sub sessions 1a, 1b	Session 2 Sub sessions 2a, 2b, 2c	Site
		Lunch	Lunch	VISIT (Pisciolo
	-18:00	Session 1	Session 3	slope)

Confirmed Keynote Lecturers







Prof. Jean Vaunat

Universitat Politècnica de Catalunya Numerical strategies to model thermo-hydromechanical processes within the soil-vegetationatmosphere (SVA) interaction as top boundary condition of any geotechnical system.

Prof. Jonathan Knappett

University of Dundee Root mechanical reinforcement under both static and dynamic loading conditions, including physical modelling and the seismic response of rooted soils.

Prof. Emer. Hubert Savenije

Delft University of Technology Hydrological system as a dynamic, interconnected organism, highlighting key coupling and interaction processes between the water, the soil, and the vegetation.

RootS25 will be preceded by the special lecture "Geotechnical engineering for a sustainable society"



Prof. Lidija Zdravkovic

Imperial College London 5th of November at 3.00 pm Aula Magna "Domus Sapientiae" (Politecnico di Bari)

RootS25 / Agenda

	05-nov-25					
	15.00-17.00	Special Lecture	Lidija Zdravkovic (Imperial College London)			
06-nov-25						
	09.30-10.00	Opening Remark	is and Welcome			
	10.00-10.40	Keynote lecture	To be communicated			
	10.40-11.10		Coffee Break			
	11.10-12.10	Sub session 1a	Selected contributions			
	12.10-12.50	Keynote lecture	Hubert Savenije (TU Delft)			
	12.50-13.30	Sub session 1b	Selected contributions			
	13.30-14.30		Lunch Break			
	14.30-15.30	Sub session 1c	Selected contributions			
	15.30-16.00		Coffee Break			
	16.00-16.40	Keynote lecture	Jean Vaunat (Universitat Politecnica de Catalunya)			
	16.40-17.40	Sub session 1d	Selected contributions			
07-nov-25						
2 IIOISSAC	09.30-10.10	Keynote lecture	Jonathan Knappett (University of Dundee)			
	10.10-11.10	Sub session 2a	Selected contributions			
	11.10-11.40		Coffee Break			
	11.40-12.40	Sub session 2b	Selected contributions			
	12.40-13.40	Sub session 2c	Selected contributions			
	13.40-14.40		Lunch Break			
C IIOISSAC	14.55-16.15	Session 3	Open discussion for the assessment of the IDENTITY of the RootS group			
	16.15-16.45		Coffee Break			
	14.45-17.45	Session 3	Open discussion from the floor			
08-nov-25						
	09.00-14.00 Site visit - Pisciolo slope and light lunch					

Sub-session 1a: Experimental characterisation of thermo-hydraulic, TH, properties of the rooted soils

Sub-session 1b: Site-scale hydrological processes within the RootS environmental domain – Runoff and Leaf Interception

Sub-session 1c: Monitoring evaporation and transpiration fluxes within the RootS environmental domain

Sub-session 1d: Coupled numerical thermo-hydraulic, TH, modelling of SVA interaction

Sub-session 2a: Experimental laboratory characterisation of the multiscale Bio-Hydro-Chemo-Mechanical behaviour of rooted soils
 Sub-session 2b: Field scale characterisation of the Bio-Hydro-Chemo-Mechanical behaviour of rooted soils

Sub-session 2c: Numerical modelling of the behaviour of rooted soils and boundary value problems under static and dynamic loading conditions

Session 3: Open discussion for the assessment of the IDENTITY of the RootS scientific international group