

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 Environmental Geotechnics (Emerald).

Important dates

Abstract submission deadline: **20/07/2025**

Abstract acceptance: **30/07/2025**

Full Paper submission deadline: **25/09/2025**

Notification oral/poster: **10/10/2025**

Revised paper submission deadline: **24/10/2025**

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 Pisciola field test site: € 50.00

A full-scale experiment is under way at the toe of the Pisciola 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*

Sponsor



Partnership



TC 106
Unsaturated Soils



Contacts



workshop.roots25@gmail.com



www.roots-25.com



[@workshop.roots25](https://www.instagram.com/workshop.roots25)

RootS25

3rd International Workshop on Soil-Vegetation-Atmosphere interaction

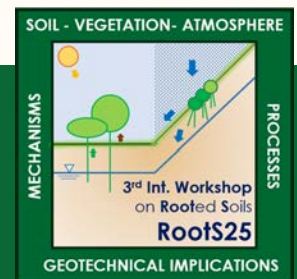
Mechanisms, processes and geotechnical engineering implications

Bari, 6-8 November 2025

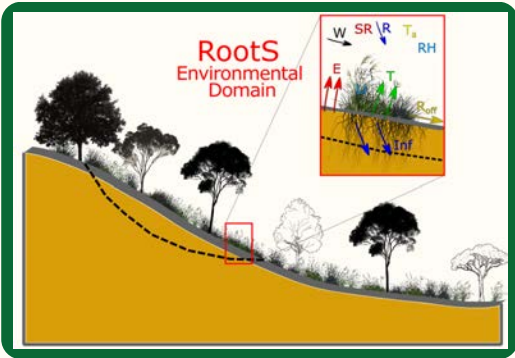
Politecnico di Bari, Aula "Domus Sapientiae"
Via Edoardo Orabona, 4, 70126, Bari



www.roots-25.com



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.

Short Agenda		Nov. 6th	Nov. 7th	Nov. 8th
		9:00-12:00	14:00-18:00	
		Welcome & Session 1 Sub sessions 1a, 1b	Session 2 Sub sessions 2a, 2b, 2c	Site visit (Pisciolo slope)
		Lunch	Lunch	
		Session 1 Sub sessions 1c, 1d	Session 3 Open discussion	

Keynote Lecturers



Prof. Joel Smethurst
University of Southampton
Characterisation of the hydro-mechanical properties of rooted soils and the field observation of embankment behaviour under hydro-mechanical conditions



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.



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. Jean Vaunat
Universitat Politècnica de Catalunya
Numerical strategies to model thermo-hydro-mechanical processes within the SVA interaction as top boundary condition of any geotechnical system.

Invited lecturer opening Session 3 - Discussion



Dr. Heleni Pantelidou
Arup, London
On the use of Nature-Based Solutions in the engineering practice: the industry perspective.

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 Remarks and Welcome	
10.00–10.40	Keynote lecture	Joel Smethurst (University of Southampton)
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 Politècnica de Catalunya)
16.40–17.40	Sub session 1d	Selected contributions
07-nov-25		
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-----	
14.40–15.00	Session 3	Heleni Pantelidou (Arup, London)
15.00–16.15	Session 3	Discussion about the IDENTITY of the RootS group
16.15–16.45	-----Coffee Break-----	
16.45–17.45	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