

6 October 2025

08:30 REGISTRATION

09:00 WELCOME

Pisa Municipality Representative, IRET Director, President Area CNR

09:20 OPENING

Edoardo Costantini, IUSS

SUITMAs and the new Challenges of the IUSS 2025-2034 Decade of Soil Sciences for Sustainable Development

TOPIC 1 SUITMAs as sinks and source of pollutants

09:30 Paula Medejon Rodriguez, IRNAS-CSIC, Spain, *Keynote speaker*

Soil contamination by trace elements in the food chain: experiences in different mining and urban scenarios

10:00 ORAL SESSION

*chairs: Grazia Masciandaro and Ali Boularbah*

Anna Palitseva

From Hotspots to Protocols: What St. Louis Urban Soils Reveal About Contamination and PXRF Reliability

Tom Kunнемann

Evaluation of innovative management practices for urban lawn and their impact on CO2 and N2O emissions

Przemyslaw Charzyński

Prevalence of microplastic and metals contamination in Soils of the irrigated fields and peri-urban the Marrakech Region: An Emerging Environmental Challenge

Liliane Jean-Soro

Effect of the origin of Pb (geogenic vs. anthropogenic) on its accumulation in tomato and butternut grown on moderately contaminated soil.

Abdelaali Ait Saghir

Bioaccumulation of metals in the leaves of coffee (Coffea arabica) and enset (Ensete ventricosum) as affected by home garden agroforestry system in Gedee Zone, Ethiopia

11:00 COFFE BREAK

11:30 ORAL SESSION

*chairs: Meri Barbaferi and Salvatore Engel Di Mauro*

Laila Ait Mansour

Vertical distribution and source attribution of potentially toxic elements in agricultural soils of central morocco: a soil-type and profile-based assessment

Medina Yelii

Circular Economy and Urban Gardens: Formulations of Local Inorganic and Organic Waste to Minimize Harmful Trace Elements Exposure and Pollution

Andrey Dolgikh

Soil Diversity of Urban Green Infrastructure Sites in the Kola Arctic Region

Salvatore Engel-Di Mauro

Soil and Vegetable Trace Element Contamination and Atmospheric Deposition in Urban Community Gardens of Kingston, New York (US)

Michał Snehota

Multi-layer Constructed Technosol Systems: Impact of layering on water regime and heavy metals leaching

Cécile Quantin

Soil Formation on Mining Residues: Impacts on Metal(loid) Dynamics and Consequences for Soil and Water Resources

Tadeusz Magiera

Influence of environmental conditions on the ecological quality of Wood Biomass growing on different Soils and geological Background.

Valérie Cappuyns

Bioaccessibility of Arsenic in Mining Waste and Mining-affected Soils

Demba Diarra

Determining the long-term behavior of deconstruction concrete impacted by hydrocarbons in a circular economy context

13:00 LUNCH BREAK

14:00 POSTER SESSION TOPIC 1-2

TOPIC 2 SUITMAs to conserve and improve soil quality and biodiversity

14:30 Carlos Garcia Izquierdo, CEBAS-CSIC, Spain, *Keynote speaker*

Effects of climate change on soil biodiversity

15:00 ORAL SESSION

*chairs: Silvia Traversari and Masayuki Kawahigashi*

Geoffroy Seré

Reclamation of moderately degraded urban soils: use of a cognitive model to link soil organisms' functional traits to soil processes & functions

Tom Künemann

Litter C:N Ratio and Soil Water Retention drive early CO<sub>2</sub> and N<sub>2</sub>O Emissions from Recycled Litter on Urban Lawns

Engracia Madejón

Enhancing Soil Health and Resilience in Mediterranean Organic Olive Orchards Through Cover Crops and Biocompost

Nour Ismail

Tailoring Calcium Amendment Strategies for Alfalfa: Long-Term Yield Responses to Raw, Burned, and Sulfate-Based Inputs across Contrasting Soils and Stand Types

Wolfgang Burghardt

Rooting underneath sealed Ground. Study of Tree Roots entering Sewers underneath Streets

16:00 COFFE BREAK

16:30 ORAL SESSION

*chairs: Eleonora Peruzzi and Remigio Pardolo*

Korneykova Maria

Functions and Ecosystem Services of Microbial Community in Subarctic Urban Soils

Martina Grattacaso

Impacts of sustainable agronomic practices on Balsamita yield: from soil health to bioactive compounds quality

Kozlova Ekaterina

From Tundra to Subtropics: Agrochemical and Microbiological Parameters of Soils in Landscape Analogs of Zaryadye Park — A Unique Green Roof in the Center of Moscow

Simon Masson

Effect of a Constructed Technosol on the Microbial Functional Diversity in an Urban Afforestation Site

Lisa Le Molier

Soil descaling: just an illusion?

Stéphanie Ouvrard

Pilot-scale in situ assessment of descaling Strategies under different pedo climatic Conditions

Hermine Huot

Effect of the type and degree of compaction of urban soils on the growth and response to water deficit of herbaceous plants

Hullot Olivier

Mine Soil Rehabilitation: Integrating Field-Based Approaches and Remote Sensing Tools

Fadwa Khalfallah

Could invisible effects of land use and management on soil microbial communities durably impact carbon and nitrogen cycling in urban soils?

18:00 DAY CLOSING

POSTER SESSION TOPIC 1-2		
TOPIC	AUTHOR	TITLE
	1 Sung-Chul Kim	Source Appointment of Heavy Metal Pollution in Agricultural Fields Surrounded by Industrial Complex in Korea
	1 Zuzana Vankova	Remediation of contaminated Soils using novel Mn Oxide-Biochar Composites
	1 Hicham El Khalil	Biological Properties of Alfalfa Rhizospheric Soil Under Natural and Anthropogenically Modified Conditions.
	1 Btissam Mandri	Metallic Trace Elements Accumulation By Medicago sativa Grown on Reconstituted Soil Irrigated by Wastewater
	1 Niluka Wickramasinghe	Functionalised Biochar Composites in Assisted Phytostabilisation of Contaminated Soil
	1 David Ramier	Optim'EHAU : a new projet to understand impacts of professional urban agriculture on water ressources
	1 Meri Barbaferi	Distribution of Trace Metals and Rare Earth Elements in Urban and Mining Soils and Their Uptake by Plant
	1 Hugo López-Romano	Quantification And Monitoring of Trace Elements Trace Elements in Rooftop Crops in Madrid: Implications for Food Safety
	1 Michele Di agosto	Phytoremediation-agrivoltaic systems for heavy metals soils decontamination: a review
	1 Tadeusz Magiera	New chance for Polluted Lands: Recovery of agricultural soil function by non-food farming and adapted soil management at degraded sites.
	1 Abdelaali Ait Saghir	Bioaccumulation of metals in the leaves of coffee (Coffea arabica) and enset (Ensete ventricosum) as affected by home garden agroforestry system in Gedee Zone, Ethiopia
	1 Yetao Tang	Source apportionment of mobile heavy metals from artisanal non-ferrous mining site assisted by metallurgical organic pollutants
	1 Thomas Cummins	Data Sources and Screening for Sites with Potential Soil Contamination in Ireland, for forthcoming EU Soil Monitoring Law
	2 Geoffroy Sere	Assessing Soil Health at Former Thermal Power Plant Sites
	2 Sung Chul Kim	Effect of Manure-Based Biochar Application on Soil Chemical Properties and Crop Growth
	2 Carolina dos Santos Batista Bonini	Soil Quality Enhancement through Crop-Livestock Integration: A Four-Year Study in Tropical Agroecosystems
	2 Lenka Bobuřská	Unwelcome Guests, Unseen Consequences: The Microbial Impact of Plant Invasions
	2 Alfredo Bonini Neto	Application of Artificial Neural Networks for the Classification of Different Categories of Agricultural Soils
	2 Björn Kluge	CIApT - Climate adaptation tool for the district of Charlottenburg-Wilmersdorf of Berlin, Germany
	2 Lenka Demková	Edible Mushrooms as Bioindicators of Soil Pollution: Environmental and Health Risk Assessment
	2 Niluka Wickramasinghe	Soil Enzyme Responses to Sewage Sludge Amendments under Contrasting Metal(loid)s Concentrations
	2 Khadija Ait Elallem	Are Native Plants Survivors, or Silent Restorers? Insights from Rhizosphere Soils in Phosphate Mine Sites
	2 Graziela Moraes de Cesare Barbosa	Runoff-induced losses of water, soil, and nutrients under no-till agricultural hillslope in southern Brazil
	2 Pardo Sheila Daniela	Application of biochar amendments for enhancing the quality of agricultural soils contaminated with heavy metals.
	2 Pardo Sheila Daniela	Connecting Adsorption Mechanisms with Heavy Metal Immobilization in Biochar-Amended Contaminated Soils
	2 Thomas Lerch	Urbanization Effects on Soil Microbial Communities and Organic Matter Quality in Paris Region
	2 Margherita Nardelli	Evaluating soil quality and carbon storage in remediated site in Castenaso (Emilia-Romagna, Italy)

08:30 REGISTRATION

TOPIC 3 SUITMA improves and ecosystem services

09:00 Christina Siebe, UNAM, Mexico, *Keynote speaker*

09:30 ORAL SESSION

Marcin Switoniak  
Zhihong Xu  
Julia Oblin  
John Kim

Luke Beesley

10:30 COFFE BREAK

11:00 ORAL SESSION

Remigio Paradelo  
Francesca Vannucchi  
Masayuki Kawahigashi  
Mascetti Gaia  
Sepken A Kaptanoğlu  
Elio Padoan  
Irina Mikajlo  
Giuseppe Picca  
Kabira M'barki  
Gianni Mastrolonardo  
Khan Muneeb Rehman  
Boyer Cyprien

13:00 LUNCH BREAK

14:00 POSTER SESSION TOPIC 3-4

TOPIC 4 SUITMA challenges for the future

14:30 Giacomo Certini, DAGRI UniFi, Italy, *Keynote speaker*

15:00 ORAL SESSION

Cécile Le Guern  
Christophe Schwartz  
Thomas Nehls  
Gebru Zinabu Marsie  
Slava Vasenev

16:00 COFFE BREAK

16:30 ORAL SESSION

Margaux Clesse  
Arnaud Herbreteau  
Sara Acevedo  
Björn Kluge  
Silvia Frezzi  
Hicham El Khalil  
Silke Cram Heydrich  
Carlotta Kolimann  
Andrzej Greinert

18:00 Conference CLOSING

Waste Materials as Resources for Soil Recarbonization: Is it a sustainable solution?

*chairs: Cristina Macchi and Michal Sneto*

Aggerosols - Technosols or natural soils?

Is the Nitrogen cycle still coupled with the Carbon cycle in global forests under climate change?

How can functional soils be constructed ?

The Transplantation of a giant Tree using Peat-based growing Substrates - A Case Study

A geochemical, physical and agronomic evaluation of technosols made from construction and demolition fines mixed with green waste compost.

*chairs: Eliana Tassi and Luke Beesley*

Soil Health in Urban Areas: Use of Compost for Protection and Improvement

Indicators of soil health for evaluating the efficiency of Nature-based Solutions and restoration actions in degraded environments

Positive feedback effect to growth planting black pines on the artificial planting bases

Impactsof Recycled Concrete and Asphalt Aggregates onSoilMicrobial Functions and PhysicochemicalProperties: an Indoor-Mesocosm Experiment

Assessment of Long-Term Effects of Soil Amendments on CO2 Efflux in a Reclaimed Magnesite Site (Preliminary Results)

From urban waste to natural soil preservation: newly constructed technosols evaluation for sustainable urban greening.

From Waste to Soil: Constructing Fertile Technosols with Excavated Mineral Materials, Milled Asphalt and Compost

Turning Waste into Substrates Enhance Rooftop Tomato Production through Microbial Mediation

Microbiological and Enzymatic Responses in Waste-based Reconstructed Soil Profiles

Use of waste materials as feasible strategy for urban de-sealed soil reclamation: evidence from a restoration case study in Prato, Italy

Development of good practices of managing urban "green" to achieve climate change adaptation and mitigation

Effect of Soil Fauna Inoculation on constructed Technosol

The shocking impact of warfare on the soil

*chairs: Francesca Vannucchi and Björn Kluge*

A typology of multifunctional soils for spatial planning: example from Rennes Metropolis (France)

From research to practice: the genesis of a guide to help reduce urban soils sealing

Quantifying ecosystem services of green roof substrates - coupled hydraulic-thermic properties from sample preparation to performance assessment

Ski Slope Management and Its Ecological Impacts on Mountain Grasslands: Soil and Biodiversity Perspectives

University Campuses as Living Labs to study Carbon Stocks and Fluxes in Urban Green Infrastructure?

*chairs: Serena Doni and Thomas Nehls*

Temporal dynamics of urban soil health

Reactivity of Road Asphalt buried in Soils after desealing Operations

Prioritizing urban soil sampling for climate change mitigation based on greenspace management intensity and urban heat analysis

Climate adaptation by de-sealing public street spaces in Berlin: Blue-Green Perspectives

Exploring the Link between Land Take and Soil Sealing in European Cities

Development of an Interactive Platform for Processing Soil Characterization Data Using Artificial Intelligence.

To walk, observe and interpret urban Soils

Carbon Storage and Age of Sealed Urban Soils: A Case Study from Berlin's Oldest Marketplace

Construction and Demolition Waste as parent material of Constructosols

POSTER SESSION TOPIC 3-4

TOPIC

AUTHOR

3 Anna Świercz  
3 Anna Świercz  
3 Geoffroy Sere  
3 Ludwika Poręba  
3 Lobzenko Ilya Pavlovich  
3 John Kim  
3 Razbar Azad Wahab  
3 Olga Romzaykina  
3 Chengcheng Feng  
3 Lauren Porter  
3 Kabira M'barki  
3 Serena Doni  
3 Samantha Spinoso-Sosa  
3 Silvia Traversari  
3 Rugana Imbaná  
4 Andrea Salvucci  
4 Cécile Le Guern  
4 Remigio Paradelo  
4 Rossella Moscarelli  
4 Takuya Takahashi  
4 Wolfgang Burghardt  
4 Nicolas Mangin  
4 Dvornukow Yuri  
4 Pierferdinando Lamberti  
4 Andrzej Greinert  
4 Kolja Thestorff  
4 Eleonora Peruzzi

TITLE

Evaluation of the content of potentially toxic metals in environmental samples of the Belnianka River (southern Poland) in the light of geochemical indicators.  
The use of bypass dust from cement plants and fruit and vegetable processing waste for the production of mineral-carbon material in the reclamation of acidified soils.  
A Formulation Support Tool for the Design of Functional Constructed Technosols  
Mitigating Effect of Green Infrastructure on the Impact of Urbanisation on Ecosystem Services of Urban Soils  
Urbic Technosols of the Imeretinskaya Lowland (Russia) - Soils of the Olympic Construction Site  
The Transplantation of giant Trees using Peat-based growing Substrates - Success Stories  
Hybrid Green Roof System combining Constructed Wetland and Semi-intensive Green Roof with Recycled Crushed Brick Substrate: experimental and numerical study  
Soil Constructions of Nature-based Solutions (NBS) for moderate Climate: Monitoring and Modelling  
What drives Ecosystem Services' Delivery by constructed Urban Soils in Wageningen: the first Outcomes of the social Survey and Field Experiment  
Synergies between urban Ecosystem Services of biochar-amended circular, engineered Soils are soil-texture dependent and diminish with intensified Stormwater Events  
Are Native Plants Survivors, or Silent Restorers? Insights from Rhizosphere Soils in Phosphate Mine Sites  
GreenLife4Seas project: a new LIFE for sediments and shells recovery and reuse  
What's Beneath the Surface? - How Surface Management Shapes Soil Function in Urban Green Spaces  
Sustainable nitrogen fertilization to optimize chili pepper production in organic agriculture  
Constructed Technosol-based reclamation following the 2019 Brumadinho tailings dam collapse (Minas Gerais, Brazil)  
Surface Sealing Characteristics Shape Soil Properties in Urban and Peri-Urban Areas: Case Evidence from the REUSES Project  
Towards a webtool helping spatial planners and designers to better integrate soil in their process and practice  
Urban Soil Threats in the European Union, a Systematic Review  
Road Infrastructures and the direct and induced Impacts on Soil Sealing. An Analysis on the Highway A35, in Italy  
Soil Formation Processes promote Spatial Dependence of Physicochemical Properties in Anthropogenic Soils  
Podosol: Soil of unfertilized walkways, squares and roads  
Impacts of the first world war on the properties and functioning of forest soils in the Champagne region (France)  
Soil type and content of macro-elements determine hotspots of Cu and Ni accumulation in soils of subarctic industrial barren: inference from a cascade machine learning?  
Soilless Substrates from Buffalo Livestock Waste and Zeolite-rich Tufts  
Lignite as a Source of modern manufactured Soil organic Improvers  
Distribution and Mobility of Ammunition-derived heavy Metals in historic Shooting Range Soils in the Berlin Metropolitan Area  
Efficiency of Nature-based Solutions in Urban Areas: Identifying Soil-Plant-Atmosphere Indicators