



UNIVERSITÀ  
DEGLI STUDI DI BARI  
ALDO MORO

# ELS 2014

**The Earth Living Skin: Soil, Life and Climate Changes**

**22-25 September 2014**

**Old Central Post Office Building, Bari – Italy**

President **Prof. Teodoro Miano**

**FINAL PROGRAMME**

**22 23 24 25**

## WELCOME BY THE ORGANIZING COMMITTEE

We are extremely pleased to welcome you at **ELS 2014 - the Earth Living Skin: Soil, Life and Climate Changes** - the first Conference organized under the auspices of the Soil System Sciences (SSS) Division of the European Geosciences Union (EGU).

**ELS 2014 is held from 22<sup>nd</sup> to 25<sup>th</sup> September 2014, in the Old Central Post Office Building** (Vecchio Ufficio Centrale delle Poste), Piazza Cesare Battisti (opposite the Central University building “Palazzo Ateneo”), **downtown Bari**.

The Conference sets up the ambitious goal of studying soils as the main environmental interface where atmosphere, hydrosphere, biosphere and geosphere design and model incredible living systems. Here, physical, chemical and biological reactions and processes feed the continuous conflict between stability and changes occurring with time.

ELS 2014 aims to gather the thoughts and the findings of scientists coming from all the different disciplines related to the soil systems: soil science, geomorphology, biogeochemistry, hydrological sciences, environmental microbiology, ecology, climatology, and natural hazards, only to mention the main ones.

Scientists and researchers with a temporary or consolidated interest for these fields of science have been warmly invited to participate to this Conference, to bring their knowledge or their doubts, thus contributing to create a permanent forum of stimulating scientific debates. We strongly believe in scientific and human “contamination” and we wish to offer you the chance of sharing your results, meeting interesting people and finding enthusiasm and passion for scientific work in a nice city of southern Italy.

The scientific program has been structured according to proposed sessions, special events and technical meetings following a bottom-up approach. Consequently, the success of this Conference is the result of the work done by the conveners, as it was up to the community and/or to individual scientists to suggest, advertise and convene sessions. We wish all of you a very enjoyable and exciting Conference and a pleasant stay in Bari.

*Teodoro Miano, University of Bari, Italy*

*Artemi Cerdà, University of Valencia, Spain*

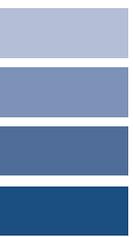
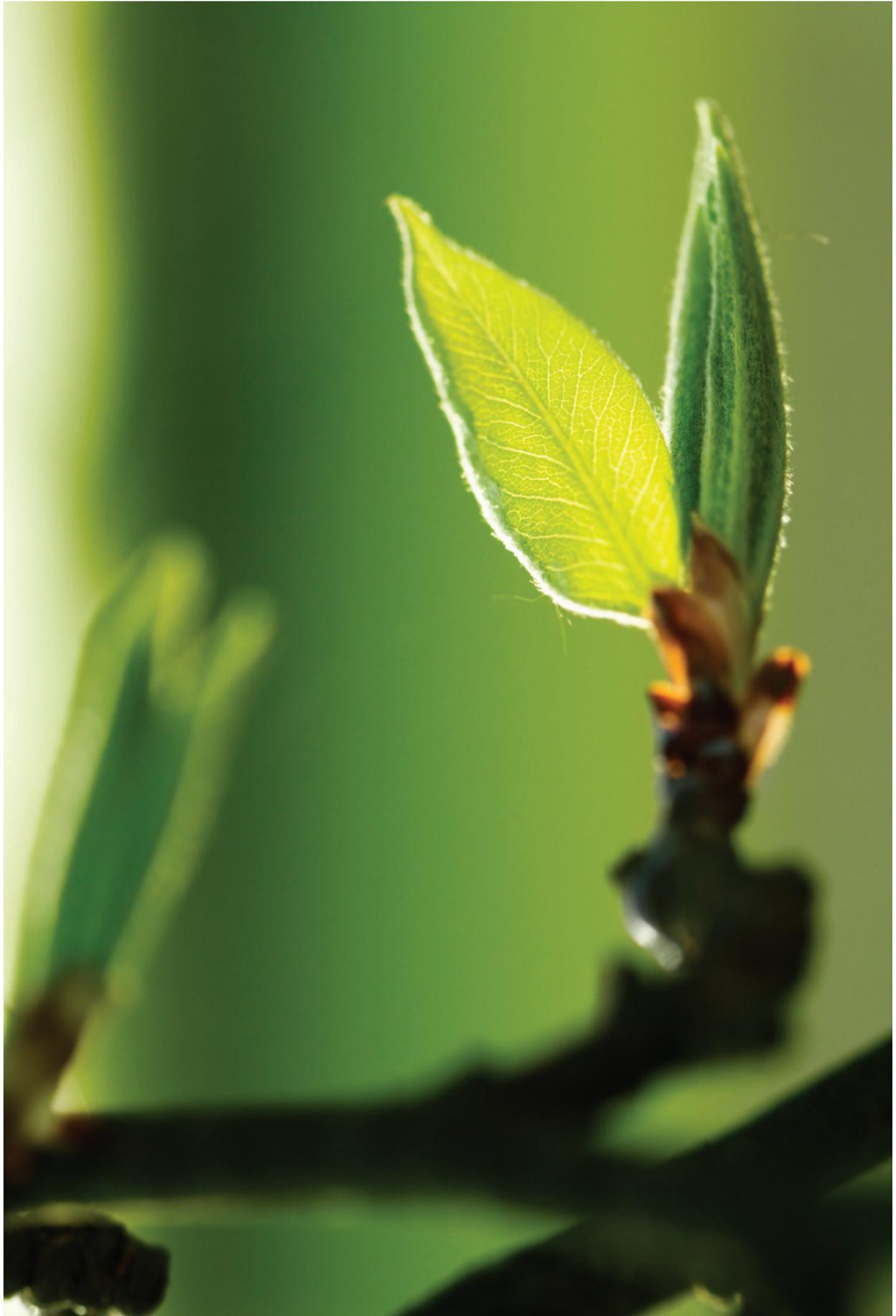
*Johan Six, ETH, Zurich, Switzerland*

*Claudio Zaccone, University of Alberta, Canada*



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## COMMITTEES

### Conference President

#### Teodoro Miano

Professor, Head

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### Organizing and Scientific Committee

- Teodoro Miano (University of Bari, Italy)
- Artemi Cerdà (University of Valencia, Spain)
- Johan Six (ETH, Zurich, Switzerland)
- Claudio Zaccone (University of Alberta, Canada)

## UNDER THE AUSPICES OF



University of Bari "Aldo Moro", Italy

### SSS-EGU

Soil System Sciences (SSS) Division  
of the European Geosciences Union (EGU)

### SSSA

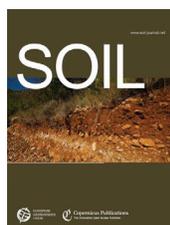
Soil Science Society of America

# ELS 2014

## SPONSORED BY



## MEDIA PARTNERS



GENERAL SCIENTIFIC PROGRAMME PLANNING

Days	Room	8.00 8.30	8.30 10.00	10.30 12.00	13.30 15.00	15.30 17.00	17.00 19.00	19.00 19.15
Mon 22	A				OB ELS01	Break	OB ELS01	
	Poster area				Poster set up 13.00 - 13.30		PB ELS01	Poster removal
Tue 23	A		OB ELS02	Break	OB ELS10	Break	OB ELS10	
	B		OB ELS07	Break	OB ELS06	Break		
	Poster area	Poster set up					PB ELS02 ELS06 ELS07 ELS10	Poster removal
	A		OB ELS03	Break	OB ELS03	Break	OB ELS04	
Wed 24	B		OB ELS08	Break	OB ELS05	Break		
	Poster area	Poster set up					PB ELS03 ELS04 ELS05 ELS08	Poster removal
Thu 25	A		OB ELS09	Break				
	Poster area	Poster set up			Poster removal 13.30 - 13.45			

OB = ORAL BLOCK • PB = POSTER BLOCK



## SESSIONS PROGRAMME

### ELS01

#### Modelling soil processes at large scales and connecting across disciplinary boundaries

*Convener:* Jessica Davies

*Co-conveners:* John Quinton, Kristof Van Oost, Saskia Keesstr , Artemi Cerdà, Ronald Pöppl, Anthony Parsons

**Orals:** Mon, 22 Sep, 13:30–17:00 / **Room A**

**Posters:** Attendance Mon, 22 Sep, 17:00–19:00 / Display Mon, 22 Sep, 13:30–19:00 / **Foyer**

### ELS02

#### Plant and soil interaction in a changing climate

*Convener:* Giustino Tonon

*Co-convener:* Claudio Zaccone

**Orals:** Tue, 23 Sep, 08:30–11:45 / **Room A**

**Posters:** Attendance Tue, 23 Sep, 17:00–19:00 / Display Tue, 23 Sep, 08:30–19:00 / **Foyer**

### ELS03

#### Sustainable orchard management to face climatic changes

*Convener:* Georgios Koubouris

*Co-conveners:* Giuseppe Montanaro, Cristos Xiloyannis, Jose A. Gómez

**Orals:** Wed, 24 Sep, 08:30–15:00 / **Room A**

**Posters:** Attendance Wed, 24 Sep, 17:00–19:00 / Display Wed, 24 Sep, 08:30–19:00 / **Foyer**

### ELS04

#### Ecology and biogeochemistry of organic-carbon-rich soils in a changing world

*Convener:* Claudio Zaccone

*Co-convener:* Luca Bragazza

**Orals:** Wed, 24 Sep, 15:30–17:00 / **Room A**

**Posters:** Attendance Wed, 24 Sep, 17:00–19:00 / Display Wed, 24 Sep, 08:30–19:00 / **Foyer**

### ELS05

#### Bioindicators of soil quality

*Convener:* Teresa Dias

**Orals:** Wed, 24 Sep, 13:30–14:30 / **Room B**

**Posters:** Attendance Wed, 24 Sep, 17:00–19:00 / Display Wed, 24 Sep, 08:30–19:00 / **Foyer**

### ELS06

#### Strategies to mitigate and to adapt to climate change in agriculture

*Conveners:* Andreas Gattinger, Jean Charles Munch

*Co-convener:* Eduardo Aguilera

**Orals:** Tue, 23 Sep, 13:30–15:00 / **Room B**

**Posters:** Attendance Tue, 23 Sep, 17:00–19:00 / Display Tue, 23 Sep, 08:30–19:00 / **Foyer**

## ELS07

### **The Biochar Effect along the soil-rhizosphere-plant-atmosphere continuum**

*Convener:* Ellen Graber

*Co-conveners:* Claudia Kammann, Pellegrino Conte

**Orals:** Tue, 23 Sep, 08:30–12:00 / **Room B**

**Posters:** Attendance Tue, 23 Sep, 17:00–19:00 / Display Tue, 23 Sep, 08:30–19:00 / **Foyer**

## ELS08

### **Permafrost-affected soils of high latitudes and high altitudes in a changing world**

*Convener:* Sebastian Zubrzycki

*Co-conveners:* Dmitry Kaverin, Marc Oliva

**Orals:** Wed, 24 Sep, 08:30–12:00 / **Room B**

**Posters:** Attendance Wed, 24 Sep, 17:00–19:00 / Display Wed, 24 Sep, 08:30–19:00 / **Foyer**

## ELS09

### **Integrated modelling of contaminants in the vadose zone; Source, Fate, and Impact**

*Conveners:* Ashok Kumar Ghosh, Adrian Unc, Nicola Senesi

*Co-conveners:* Nupur Bose, Sandra Borges Freitas, Sushant Singh, Baoshan Xing, Mohammad R. Mosaddeghi

**Orals:** Thu, 25 Sep, 08:30–12:00 / **Room A**

**Posters:** Attendance Thu, 25 Sep, 12:00–13:30 / Display Thu, 25 Sep, 08:30–13:30 / **Foyer**

## ELS10

### **Soil organic carbon dynamics in both agricultural and natural ecosystems** (co-organized with the **Soil Science Society of America**)

*Conveners:* Johan Six, Jan Hopmans, Andrew Gregory

*Co-convener:* Goetz Richter

**Orals:** Tue, 23 Sep, 13:30–17:00 / **Room A**

**Posters:** Attendance Tue, 23 Sep, 17:00–19:00 / Display Tue, 23 Sep, 08:30–19:00 / **Foyer**

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MONDAY  
SEPTEMBER

daily programme



Monday, 22 September 2014

## ELS01 – h. 13:30–17:00 – Room A - Orals

### Modelling soil processes at large scales and connecting across disciplinary boundaries

*Convener:* Jessica Davies

*Co-conveners:* John Quinton, Kristof Van Oost, Saskia Keesstr , Artemi Cerdà, Ronald Pöpl, Anthony Parsons

13:30–13:45 **ELS2014-91**

**Anthropogenic perturbation in the land to ocean aquatic continuum: implications for the global carbon budget**

**Pierre Regnier**, Pierre Friedlingstein, Philippe Ciais, Fred Mackenzie, Nicolas Gruber, Ronny Lauerwald, Goulven Laruelle

13:45–14:00 **ELS2014-50**

**Modelling the response of soil carbon to climate and land cover change in an Earth System Model**

**Daniel Goll**, Victor Brovkin, Jari Liski

14:00–14:15

**ELS2014-22**

**Upscaling the effect of priming on carbon turnover in the earth system**

**Bente Foereid**, Daniel Ward, Nathalie Mahowald, Eric Paterson, Johannes Lehmann

14:15–14:30

**ELS2014-33**

**Estimating Soil Respiration and Belowground Biomass on the Qinghai-Tibet Plateau**

**Anna Bosch**, Karsten Schmidt, Corina Doerfer, Jin-Sheng He, Thomas Scholten

14:30–14:45

**ELS2014-115**

**Controlling factors explaining soil carbon in relation to soil depth for French soils**

**Vera Leatitia Mulder**, Manuel Martin, Marine Lacoste, Nicolas Saby, Anne Richer de Forges, Dominique Arrouays

**Break**

- 15:30–15:45 **ELS2014-146**  
**The global Holocene soil and carbon erosion on agricultural land and its implications for future C release**  
Sebastian Doetterl and Kristof Van Oost
- 15:45–16:00 **ELS2014-13**  
**From Local to Global Scale Soil Erosion Modelling**  
Victoria Naipal, Christian Reick, Julia Pongratz
- 16:00–16:15 **ELS2014-97**  
**Modelling erosion-driven soil carbon and nutrient movement over large scales and long time periods**  
John Quinton, Jessica Davies, Ed Tipping, Vicky Bell, Pam Naden
- 16:15–16:30 **ELS2014-37**  
**Integrating legacy soil information in a Digital Soil Mapping approach based on a modified conditioned Latin Hypercube Sample design**  
Felix Stumpf, Karsten Schmidt, Thorsten Behrens, Sarah Schoenbrodt-Stitt, Giovanni Buzzo, Christian Dumperth, Thomas Scholten
- 16:30–16:45 **ELS2014-143**  
**Incidence and distribution of heavy metals in waters and sediments of the Turia River basin**  
Vicente Andreu, Eugenia Gimeno-García, Juan Antonio Pascual-Aguilar
- 16:45–17:00 **ELS2014-62**  
**A web-based spatial decision supporting system (S-DSS) for landscape management: the SOILCONSWEB Project tool for soil ecosystem services**  
Piero Manna, Antonella Agrillo, Angelo Basile, Antonello Bonfante, Gilda Buscemi, Antonio Carbone, Marco Colandrea, Amedeo D'Antonio, Roberto De Mascellis, Michela Iamarino, Giuliano Langella, Antonio Florindo Mileti, Luciana Minieri, Paolo Pileri, Fabio Terribile

## ELS01 – Foyer – Posters

Display Time **h. 13:30–17:00** – Attendance Time **h. 17:00–19:00**

### **Modelling soil processes at large scales and connecting across disciplinary boundaries**

*Convener:* Jessica Davies

*Co-conveners:* John Quinton, Kristof Van Oost, Saskia Keesstr , Artemi Cerdà, Ronald Pöpl, Anthony Parsons

- P1**                    **ELS2014-151**  
**Screening variability and change of soil moisture under wide-ranging climate conditions: snow dynamics effects**  
Lucile Verrot, Georgia Destouni
- P2**                    **ELS2014-58**  
**Optimization of the INCA-SED catchment based erosion model for a catchment near Lake Balaton, Hungary - starting experience**  
Csilla Farkas, István Sisák, Ágota Horel, Györgyi Gelybó, Eszter Tóth, **Ilona Kása**, Zsófia Bakacsi
- P3**                    **ELS2014-150**  
**Modelling 200 years of soil carbon nitrogen and phosphorus change across the United Kingdom's semi-natural ecosystems**  
Jess Davies, Ed Tipping, John Quinton
- P5**                    **ELS2014-81**  
**Soil water retention of Savannah Oxisol in recovery**  
**Sebastião Nilce Souto Filho**, Marlene Cristina Alves, Adriano da Silva Lopes, Anna Caroline Pelais Queiroz
- P6**                    **ELS2014-10**  
**Long-Term Nanoparticle Transport and Deposition Behavior in Saturated Porous Media: Coupled Effects of Hydrodynamic and Solution Chemistry**  
**Salini Sasidharan**, Saeed Torkzaban, Scott A. Bradford, Peter J. Dillon, Peter G. Cook
- P7**                    **ELS2014-138**  
**Presence and spatial distribution of pharmaceuticals compounds in waters of protected wetlands (Marjal de Pego-Oliva, Spain)**  
**Juan Antonio Pascual-Aguilar**, Vicente Andreu, Yolanda Picó

23

TUESDAY  
**SEPTEMBER**

daily programme



Tuesday, 23 September 2014

## ELS02 – 08:30-11:45 – Room A – Orals

### Plant and soil interaction in a changing climate

*Convener:* Giustino Tonon

*Co-convener:* Claudio Zaccone

*Chairperson:* Claudio Zaccone

- 08:30–08:45    **ELS2014-2**  
**The constructed catchment ‘Chicken Creek’: feedback mechanisms between soils, surface structures, vegetation and hillslope hydrology during initial ecosystem development**  
Wolfgang Schaaf, Michael Elmer, Werner Gerwin, Christoph Hinz
- 08:45–09:00    **ELS2014-17**  
**Soil properties and nutrient cycling in the alpine treeline ecotone of Rolwaling Himal, Nepal**  
Michael Müller Thomas Scholten
- 09:00–09:15    **ELS2014-71**  
**Underground Information through Phenology Changes using Innovated Hyper-sensor Technology in High Carbon Reservoir Ecosystems affected by Climate Change**  
Mitsuru Osaki
- 09:15–09:30    **ELS2014-73**  
**Biochar mineralization and priming effect on SOM decomposition in two European short rotation coppices**  
Maurizio Ventura, Giorgio Alberti, Maud Viger, Joseph Jenkins, Cyril Girardin, Silvia Baronti, Alessandro Zaldei, Gail Taylor, Cornelia Rumpel, Franco Miglietta, Giustino Tonon
- 09:30–09:45    **ELS2014-89**  
**Restoration and management effects on litter decomposition and microbial functioning in the Chicago Wilderness**  
Lauren Umek, Louise Egerton-Warburton
- 09:45–10:00    **ELS2014-114**  
**Temperature change affects C mineralization and P availability in tropical soil of Madagascar**  
Andry Andriamananjara, Herintsitohaina Razakamanarivo, Njara Narindra Rasolo, Allan Luigi Razakamahefa, Tiphaine Chevallier, Tovo Rafolisy, Michel Rabenarivo, Marie-Paule Razafimanantsoa, Eustache Miasa, Jahiel Michel, Becquer Thierry, Lilia Rabeharisoa, Tantely Razafimbelo

**Break**

*Chairperson:* Giustino Tonon

- 10:30–10:45 **ELS2014-121**  
**Consequences of increasing temperatures during the winter period for functional soil-plant interactions in temperate arable farming systems**  
Stefan Lukas, **Martin Potthoff**, Petr Karlovsky, Andreas von Tiedemann, Rainer Georg Joergensen
- 10:45–11:00 **ELS2014-125**  
**Effect of community vertical structure and composition on soil carbon dynamics of young white spruce pure stands versus aspen-white spruce mixed-woods stands in western Alberta, Canada**  
Claudia Rivera Rios, Phil Comeau
- 11:00–11:15 **ELS2014-133**  
**Co-Evolution of Surface Properties and Vegetation under Changing Climatic Conditions at a Desert Fringe**  
Aaron Yair
- 11:15–11:30 **ELS2014-137**  
**Best Management Practices to Control Blowing Dust in the World's Driest Rainfed Wheat Region**  
William Schillinger, Brenton Sharratt, Markus Flury, Douglas Young
- 11:30–11:45 **ELS2014-139**  
**Is climate change responsible for a stagnation of the carbon input into agricultural soils of southeast Germany?**  
Martin Wiesmeier, Rico Hübner, Rene Dechow, Harald Maier, Peter Spörlein, Uwe Geuß, Edzard Hangen, Arthur Reischl, Bernd Schilling, Margit von Lützwow, Ingrid Kögel-Knabner

## ELS07 – 08:30-12:00 – Room B – Orals

### The Biochar Effect along the soil-rhizosphere-plant-atmosphere continuum

*Convener:* Ellen Graber

*Co-conveners:* Claudia Kammann, Pellegrino Conte

*Chairperson:* Ellen Graber, Claudia Kammann

08:30–08:45 **ELS2014-27**

**The effect of biochar on plant pathogens and rhizosphere microbiology**

**Jane Debode**, Wim Wesemael, Negin Ebrahimi, Caroline De Tender, Pieter Cremelie, Tommy D'Hose, Nicole Viaene, Bart Vandecasteele, Martine Maes

08:45–09:00 **ELS2014-44**

**Maximising yield effects while minimising trade-offs following biochar application to soil**

**Simon Jeffery**, Frank Verheijen, Marija Prodana, Ana Catarina Bastos, Jan Willem van Groenigen

09:00–09:15 **ELS2014-67**

**Biochar Decomposition in Agricultural Soils of Temperate Climate**

**Michael Scheifele**, Andreas Gattinger, Franz Buegger, Paul Mäder, Rainer Schulin

09:15–09:30 **ELS2014-68**

**Soybean Nutrient Uptake and Plant Symbionts are Influenced by Biochar**

**Michael Scheifele**, Andrea Hobi, Andreas Gattinger, Franz Buegger, Andreas Fliessbach, Paul Mäder, Rainer Schulin

09:30–09:45 **ELS2014-79**

**Biochar increased photosynthetic performance and biomass yield of maize by improving the plant eco-physiological water status**

**Ghulam Haider**, Claudia I Kammann, Diedrich Steffens, Farooqe Azam, Hans-Werner Koyro

09:45–10:00 **ELS2014-82**

**Effect of biochar on soil rhizosphere respiration in a wheat pot experiment**

**Pietro Panzacchi**, Eleanor Michie, Maurizio Ventura, Christian Davies, Giustino Tonon, Phil Ineson

**Break**

*Chairperson:* Ellen Graber, Pellegrino Conte

- 10:30–10:45 **ELS2014-98**  
**Impact of biochar substrates on the fate of selected organic contaminants in soil**  
Ines Vogel, Rene Schatten, Florian Worzyk, Konstantin Terytze
- 10:45–11:00 **ELS2014-123**  
**Use of biofertilizer and biochar for enhancing compost quality: A trial on sandy soils of UAE**  
Shagufta Gill, Abdullah Al Shankiti, Farooqe Azam
- 11:00–11:15 **ELS2014-128**  
**Adsorption of carbamazepine and lincomycin on biochars produced at different temperatures**  
Thaisa Pegoraro, Mark Bezdek, Hui Li, Stephen Boyd, Silvio Sampaio
- 11:15–11:30 **ELS2014-145**  
**Shifted-Rmax-Effect: Biochar dose tradeoffs between plant growth response and disease reduction**  
Amit Jaiswal, Omer Frenkel, Yigal Elad, and **Ellen Graber**
- 11:30–11:45 **ELS2014-152**  
**Nitrate retention by biochar: mechanistic insights by <sup>15</sup>N tracing**  
**Kammann Claudia**, Haider Ghulam, del Campo Bernardo, Mengel Jonathan, Schmidt Hans-Peter, Marhan Sven, Steffens Diedrich, Clough Tim, Müller Christoph
- 11:45–12:00 **ELS2014-5**  
**A complex study of different metal sorption mechanisms onto contrasting biochars**  
**Lukas Trakal**, Deniz Bingol, Michael Pohorely, Miroslav Hruska, Hana Sillerova, Michael Komarek

# ELS 2014

## ELS10 – 13:30-17:00 – Room A – Orals

### Soil organic carbon dynamics in both agricultural and natural ecosystems

(co-organized with the **Soil Science Society of America**)

*Conveners:* Johan Six, Jan Hopmans, Andrew Gregory

*Co-convener:* Goetz Richter

*Chairperson:* Jan Hopmans

- 13:30–13:45    **ELS2014-15**  
**Changes in soil carbon, (CO<sub>2</sub> respiration), and respective isotopic signatures after *Miscanthus* removal**  
Julia Drewer, Karine Dufossé, Ute Skiba, Benoît Gabrielle
- 13:45–14:00    **ELS2014-30**  
**Influence of perennial crops in arable systems on soil carbon stocks in Northern Europe**  
Thomas Kätterer, Martin A. Bolinder
- 14:00–14:15    **ELS2014-64**  
**Carbon emissions from perennial energy crops: Tall Grasses or Short Rotation Coppice, is that the question?**  
Francesco Agostini, Salvador Girbau, Goetz Richter
- 14:15–14:30    **ELS2014-55**  
**Preliminary results of the evolution of total and organo-mineral associated SOC after land abandonment in Mediterranean climate (South of Spain)**  
Miguel A Gabarron-Galeote, Sylvain Trigalet, Bas van Wesemael
- 14:30–14:45    **ELS2014-57**  
**Assessing Changes of Soil Organic Carbon (SOC) under *Miscanthus* from litter deposition and belowground biomass dynamics**  
Francesco Agostini, Salvador Girbau, Goetz Richter
- 14:45–15:00    **ELS2014-60**  
**Biochemical approaches to link inputs from perennial energy crops to soil organic carbon**  
Andrew Gregory, Jennifer Dungait, Adrian Joynes, Francesco Agostini, Goetz Richter, Philip Murray

**Break**

*Chairperson:* Andrew Gregory

- 15:30–15:45 **ELS2014-65**  
**Soil and plant community characteristics governing soil hydraulic properties in a grassland biodiversity experiment**  
**Christine Fischer**, Jana Tischler, Christiane Roscher, Nico Eisenhauer, Janneke Ravenek, Gerd Gleixner, Attinger Sabine, Britta Jensen, Hans de Kroon, Liesje Mommer, Stefan Scheu, Hildebrandt Anke
- 15:45–16:00 **ELS2014-119**  
**Diversity and abundance of nitrifying and denitrifying communities associated with crop residue removal in a biofuel cropping system**  
**Kari Dunfield**
- 16:00–16:15 **ELS2014-120**  
**Soil Carbon Stocks - using soil subgroup classification to derive pedotransfer functions for the calculation of soil bulk density**  
**Brian Reidy**, Iolanda Simo, Paul Massey, and Rachel Creamer
- 16:15–16:30 **ELS2014-136**  
**The European humus forms reference base 2014**  
**Augusto Zanella**, Jean-François Ponge, Bernard Jabiol, Giacomo Sartori, Michael Englisch, Bas Van Delft, Rein De Waal, Renée-Claire Le Bayon
- 16:30–16:45 **ELS2014-6**  
**Soil carbon, nitrogen, and silicon pools across a toposequence in central Ohio**  
**Mostafa Ibrahim**, Rattan Lal
- 16:45–17:00 **Discussion/Summary**

## ELS06 – 13:30-15:00 – Room B – Orals

### Strategies to mitigate and to adapt to climate change in agriculture

*Conveners:* Andreas Gattinger, Jean Charles Munch

*Co-convener:* Eduardo Aguilera

*Chairperson:* Andreas Gattinger, Jean Charles Munch

- 13:30–13:45    **ELS2014-66**  
**Greenhouse gas emissions induced by tillage and fertilisation in an organic grass-clover ley**  
Maike Krauss, Andreas Gattinger, Reiner Ruser, Paul Mäder
- 13:45–14:00    **ELS2014-63**  
**The short-term effect of soil disturbance on water content and soil carbon-dioxide emission examined on the example of a soil tillage treatment**  
Eszter Tóth, Csilla Farkas, Ágota Horel, Ilona Kása, Zoltán Barcza, Laura Dobor, Györgyi Gelybó
- 14:00–14:15    **ELS2014-80**  
**Family Digester in Palestine**  
Ola Adawi, Thameen Hijawi
- 14:15–14:30    **ELS2014-86**  
**Mitigating climate change and cutting fossil energy use in Spanish food production: Synergies between organic farming, renewable energies and dietary shifts**  
Eduardo Aguilera, Gloria Guzmán, Juan Infante-Amate, Manuel González de Molina
- 14:30–14:45    **ELS2014-74**  
**Impact of different tillage practises on greenhouse gas emissions in an organic farming system**  
Philipp Koal, Rolf Schilling, Georg Gerl, Karin Pritsch, Jean Charles Munch
- 14:45–15:00    **ELS2014-122**  
**GHG emissions and soil quality in differently tilled soils at an organic experimental field at ILVO (Merelbeke, Belgium)**  
Cornelia Bufe, Koen Willekens, Bert Van Gils, Philippe Delfosse

## ELS02 – Foyer – Posters

Display Time **h. 08:30–19:00** – Attendance Time **h. 17:00–19:00**

### Plant and soil interaction in a changing climate

*Convener:* Giustino Tonon

*Co-convener:* Claudio Zaccone

*Chairperson:* Pietro Panzacchi

- P1**            **ELS2014-12**  
**Profiling of metabolites secreted by roots of tetraploid wheats**  
**Mariagiovanna Fragasso**, Anna Iannucci, Romina Beleggia, Cristiano Platani,  
Vito Miullo, Franca Nigro, Roberto Papa
- P2**            **ELS2014-84**  
**An integrated study on humus and vegetation to highlight the different  
capacity to storage organic carbon**  
**Cristina Maria Pilar De Nicola**, Augusto Zanella, Annamaria Testi, Sandro  
Pignatti
- P3**            **ELS2014-116**  
**Sustainable use of agricultural water resources in coastal areas affected  
by soil salinity**  
**Maria Soprano**, Giuseppe Sorrentino, Davide Calandrelli, Silvana Pagliuca,  
Maurizio Tosca
- P4**            **ELS2014-117**  
**Changes in soil organic matter features upon replacement of crops by  
secondary pine stands: an example from Catalonia (NE Spain)**  
Aida Sala, Pere Rovira
- P5**            **ELS2014-134**  
**Evaluation of the CQESTR model for predicting soil organic matter  
dynamics with long-term datasets from the Breton plots**  
**Claudio Zaccone**, César Plaza, Hero T. Gollany
- P6**            **ELS2014-130**  
**Teaching soils to the General Public**  
**David L. Lindbo**, Clay Robinson, Susan Chapman, Jan Hopmans, April Ulery,  
Mary Beth Adams
- P7**            **ELS2014-153**  
**Occurrence of a natural carcinogenic compound in soils and bracken  
ferns from Southern Italy**  
**Claudio Zaccone**, Ivana Cavoski, Roberta Costi, Giorgia Sarais, Pierluigi  
Caboni, Teodoro Miano

## ELS07 – Foyer – Posters

Display Time **h. 08:30–19:00** – Attendance Time **h. 17:00–19:00**

### **The Biochar Effect along the soil-rhizosphere-plant-atmosphere continuum**

*Convener:* Ellen Graber

*Co-conveners:* Claudia Kammann, Pellegrino Conte

*Chairperson:* Pellegrino Conte, Claudia Kammann

- P10**                    **ELS2014-106**  
**Effect of Biochar substrates on tree growth and soil on Windthrow areas and Christmas tree cultures**  
Dmitri Drabkin, Karlheinz Weinfurter
- P11**                    **ELS2014-108**  
**Prospects for the use of biochar in Italian farms: the case study of Molise**  
Claudia Coccozza, Dalila Trupiano, Carla Amendola, Roberto Tognetti, Stefania Scippa
- P12**                    **ELS2014-109**  
**Pore water composition and basil growth in soilless substrate with biochar as a component**  
Floriana Bedussi, Patrizia Zaccheo, Laura Crippa
- P13**                    **ELS2014-94**  
**Establishment the influence of biochar in soil on wheat growth**  
Georgi Stoimenov, Vera Petrova, Yordanka Kirkova

## ELS10 – Foyer – Posters

Display Time **h. 08:30–19:00** – Attendance Time **h. 17:00–19:00**

### **Soil organic carbon dynamics in both agricultural and natural ecosystems**

(co-organized with the **Soil Science Society of America**)

*Conveners:* Johan Six, Jan Hopmans, Andrew Gregory

*Co-convener:* Goetz Richter

*Chairperson:* Johan Six

- P1**                    **ELS2014-59**  
**Soil organic matter content and composition as affected by exotic forest plantations in Southern Brazil**  
**Deborah Pinheiro Dick**, Graciele Sarante Santana, Heike Knicker, Francisco Javier Gonzalez-Vila, Jose Antonio Gonzalez-Perez
- P2**                    **ELS2014-99**  
**<sup>13</sup>C abundance shows effective soil C sequestration in *Miscanthus* and giant reed compared to arable crops under Mediterranean climate**  
**Francesca Cattaneo**, Lorenzo Barbanti, Paola Gioacchini, Claudio Ciavatta, Claudio Marzadori
- P3**                    **ELS2014-154**  
**Fluorescence properties of humic acids interaction products with S-Triazine and Bipyridilium herbicides and their Cu complexes: A multivariate approach**  
**Valeria D’Orazio**, Nicola Senesi

## **ELS06 – Foyer – Posters**

Display Time **h. 08:30–19:00** – Attendance Time **h. 17:00–19:00**

### **Strategies to mitigate and to adapt to climate change in agriculture**

*Conveners:* Andreas Gattinger, Jean Charles Munch

*Co-convener:* Eduardo Aguilera

*Chairperson:* Eduardo Aguilera

**P9**

**ELS2014-14**

#### **Chemical Characteristics of Earthworm Vermicompost and Its Application Effects on Soil Properties to Produce Organic Vegetables**

**Kim Se-Won**, Lim Soo-Jeong, Seo Young-Ho, Cho Byoung-Uk, Choi Seung-Chul, Hur Soo-Jeong, Kim Jae-Rock, Kim In-Jong, Seo Gi-Cheon

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WEDNESDAY  
**SEPTEMBER**

daily programme



Wednesday, 24 September 2014

## ELS03 – 08:30-15:00 – Room A – Orals

### Sustainable orchard management to face climatic changes

*Convener:* Georgios Koubouris

*Co-conveners:* Giuseppe Montanaro, Cristos Xiloyannis, Jose A. Gómez

*Chairperson:* Cristos Xiloyannis

- 08:30–08:45    **ELS2014-34**  
**Use of heterogeneous cover crops in olive orchards to soil erosion control and enhancement of biodiversity**  
**Jose Alfonso Gomez**, Mercedes Campos, Gema Guzman, Franco Castillo-Llanque, Juan V. Giráldez
- 08:45–09:00    **ELS2014-38**  
**A Unified Experimental Approach for Estimation of Irrigation Water and Nitrate leaching in Tree Crops**  
**Jan Hopmans**, Maziar Kandalous, Patrick Brown, Ahmad Moradi
- 09:00–09:15    **ELS2014-47**  
**Modeling to evaluate and manage climate change effects on water use in Mediterranean olive orchards with respect to cover crops**  
**Jose Alfonso Gomez**, Maria Teresa Rodríguez-Carretero, Margarita Ruiz-Ramos, Alejandro Dosio, Ignacio J. Lorite
- 09:15–09:30    **ELS2014-51**  
**Impact of and adaptability to climate change of irrigated fruit crops in the Emilia Romagna region (Italy)**  
**Silvia Maria Alfieri**, Francesca De Lorenzi, Eugenia Monaco, Angelo Basile, Massimo Menenti
- 09:30–09:45    **ELS2014-56**  
**Multiple-years monitoring of Carbon fluxes and allocation pattern in an apple orchard**  
**Damiano Zanutelli**, Leonardo Montagnani, Giovanni Manca, Francesca Scandellari, Fabrizio Mazzetto, Wellington Bastos de Melo, Paulo Cassol, Massimo Tagliavini
- 09:45–10:00    **ELS2014-61**  
**Sustainable orchards as an atmospheric CO<sub>2</sub> offset tool**  
Giuseppe Montanaro, Cristos Xiloyannis, Alba N. Mininni, **Bartolomeo Dichio**

**Break**

*Chairperson:* Jose Alfonso Gomez

- 10:30–10:45 **ELS2014-75**  
**Monitoring and managing carbon inputs and outputs in commercial olive orchards in Greece**  
**Georgios Psarras**, Emmanouil Markakis, Nektarios Kourgialas, Chrysa Sergendani, Nektarios Kavroulakis, Georgios Koubouris
- 10:45–11:00 **ELS2014-85**  
**Greenhouse gas emissions from orchard agroecosystems in Spain. A comparison between organic and conventional farming**  
**Eduardo Aguilera**, Gloria Guzmán, Antonio Alonso, Juan Infante-Amate, Manuel González de Molina
- 11:00–11:15 **ELS2014-88**  
**The role of cover crop and hedges in intensive olive orchards: Preventing soil erosion and promoting biodiversity**  
**Juan Castro**, José A. Gómez, Francisco S. Tortosa
- 11:15–11:30 **ELS2014-90**  
**Changes of soil organic matter and microbial activity in irrigated and non irrigated olive groves under Mediterranean soil climatic conditions in Crete**  
**Victor Kavvadias**, Maria Papadopoulou, Sideris Theocharopoulos, Maria Doula, Evagelia Vavoulidou, Chrisoula Manolaraki, Gogo Giakoumaki, Anestis Vasiliadis, Stella Malliaraki, Katerina Agelaki
- 11:30–11:45 **ELS2014-126**  
**Use of soil columns and field scale data to develop agricultural best management practices**  
**Kelly Morgan**, Davie Kadyampikeni
- 11:45–12:00 **ELS2014-129**  
**Carbon budget of a temperate-climate vineyard**  
**Andrea Pitacco**, Franco Meggio

### **Break**

*Chairperson:* Georgios Koubouris

- 13:30–13:45 **ELS2014-144**  
**Some problems of the determination of best management practices to maintain the quality of agricultural soils**  
**Gema Guzmán**, Marta Sáenz de Rodrigáñez, Ana Laguna, Tom Vanwalleghem, Karl Vanderlinden, Juan Vicente Giráldez, Hein ten Berge
- 13:45–14:00 **ELS2014-149**  
**Identification of factors affecting soil properties under olive trees in Lebanon**  
**Natali Boukhdoud**, Anne Marie Farnet Da Silva, Talal Darwish, Raphaël Gros
- 14:00–15:00 **Networking Projects**

## ELS08 – 08:30-12:00 – Room B – Orals

### Permafrost-affected soils of high latitudes and high altitudes in a changing world

*Convener:* Sebastian Zubrzycki

*Co-conveners:* Dmitry Kaverin, Marc Oliva

*Chairperson:* Sebastian Zubrzycki, Dmitry Kaverin

- 08:30–09:00     **ELS2014-9**  
**Soil organic carbon in continuous and discontinuous permafrost on the Tibetan Plateau: Effect of climate and topography** (invited)  
**Corina Dörfer**, Frank Baumann, Peter Kühn, Jin-Sheng He, Thomas Scholten
- 09:00–09:30     **ELS2014-72**  
**Permafrost peatlands in southern limit of the East European Cryolithozone** (invited)  
**Alexander Pastukhov**, Dmitry Kaverin, Christina Biasi, Maija Marushchak, Elena Lapteva, Svetlana Zagirova
- 09:30–09:45     **ELS2014-1**  
**Carbon and Nitrogen Pools of Soils Underlain by Yedoma Deposits in the Lena River Delta, Northeast Siberia, Russia**  
**Sebastian Zubrzycki**, Lars Kutzbach, Anne Morgenstern, Guido Grosse, Eva-Maria Pfeiffer
- 09:45–10:00     **ELS2014-43**  
**Permafrost-affected soils of Peat Circles (the NorthEast European Russia)**  
**Dmitry Kaverin**, Alexander Pastukhov, Svetlana Zagirova, Elena Lapteva, Christina Biasi

**Break**

*Chairperson:* Dmitry Kaverin, Sebastian Zubrzycki

- 10:30–10:45 **ELS2014-28**  
**Soil geochemistry of the Tiksi area, Northern Yakutia, Russia**  
Iuliia Antcibor, Annette Eschenbach, Sebastian Zubrzycki, Eva-Maria Pfeiffer
- 10:45–11:00 **ELS2014-46**  
**Nitrogen limitation of a soil-vegetation system in arctic polygonal tundra in East Siberia may turn into phosphorus limitation**  
Fabian Beermann, Lars Kutzbach, Annette Teltewskoi, Eva-Maria Pfeiffer
- 11:00–11:15 **ELS2014-36**  
**Processes influencing PAH (polycyclic aromatic hydrocarbons) distribution in freezing soils**  
Anne Zschocke, Annette Eschenbach
- 11:15–11:30 **ELS2014-77**  
**The added value of an archaeological study and monitoring of permafrost affected soils**  
Michel Vorenhout, Vibeke Vandrup Martens, Ove Bergersen
- 11:30–11:45 **ELS2014-29**  
**Storage and distribution of amorphous silica in permafrost soils of the Arctic**  
Hanna Alfredsson, Gustaf Hugelius, Johanna Stadmark, Wim Clymans, Peter Kuhry, Daniel J. Conley
- 11:45–12:00 **ELS2014-39**  
**Mineral, metal and microbial mapping of Antarctic soil habitats: Validating soft X-ray**  
James Dynes, Tom Regier, Ian Snape, Steven Siciliano, Derek Peak

## ELS05 – 13:30-14:30 – Room B – Orals

### Bioindicators of soil quality

*Convener:* Teresa Dias

*Chairperson:* Cristina Cruz

13:30–13:35    **Introduction**

13:35–13:50    **ELS2014-3**

**Optimised method for analysis of microbial lipids as soil quality biomarkers**

**Clarissa Potgieter**, Peet J Jansen van Rensburg, and Sarina Claassens

13:50–14:05    **ELS2014-8**

**Soil organic phosphorus saturation and balance as soil function and ecosystem service**

**Leon Etienne Parent**, Serge-Étienne Parent, and Antoine Karam

14:05–14:20    **ELS2014-124**

**The effect of good agricultural management practices on soil biological quality indicators in a European context**

**Tommy D'Hose**, Leendert Molendijk, Wim Van den Berg, Hans Hoek, Willemien Runia, Greet Ruysschaert, Laura Zavattaro, Chiara Costamagna, Luca Bechini, Carlo Grignani, Adelheid Spiegel, Taru Lehtinen, Gema Guzmán, Janine Krüger, Alicja Pecio, Frits van Evert, and Hein Ten Berge

14:20–14:30    **Discussion**

**ELS04 – 15:30-17:00 – Room A – Orals**

**Ecology and biogeochemistry of organic-carbon-rich soils in a changing world**

*Convener:* Claudio Zaccone

*Co-convener:* Luca Bragazza

*Chairperson:* Claudio Zaccone

- 15:30–15:45    **ELS2014-23**  
**The effect of photo-exposure on peat decomposition and carbon cycling**  
Bente Foereid, Eveng Zarov, Ilya Filippov, Elena Lapshina
- 15:45–16:00    **ELS2014-142**  
**Computational study of smouldering combustion and the depth of burn in vertical samples of peat soils**  
Xinyan Huang, **Guillermo Rein**
- 16:00–16:15    **ELS2014-118**  
**Geochemical ratios as a potential method for mapping peatlands**  
Rebekka McIlwaine, Rory Doherty, Siobhan Cox
- 16:15–16:30    **ELS2014-131**  
**Comparing humification indices along ombrotrophic peat profiles**  
**Claudio Zaccone**, Cesar Plaza, Claudio Ciavatta, Teodoro M. Miano, William Shotyk
- 16:30–16:45    **ELS2014-87**  
**Leaf litter decomposition dynamics in two beech forests stand on Italian Apennines: effects of litter quality, climatic and edaphic characteristics**  
**Michele Innangi**, Stefania Papa, Cristina Menta, Anna De Marco, Amalia Virzo De Santo, Manfred K. Schenk, Antonietta Fioretto
- 16:45–17:00    **ELS2014-21**  
**Soluble fraction of soil organic matter in Pine and Beech forests**  
Maria Giordano, Armando Zarrelli, Amalia Virzo De Santo, Antonietta Fioretto, **Anna De Marco**

## ELS03 – Foyer – Posters

Display Time h. 08:30–19:00 – Attendance Time h. 17:00–19:00

### Sustainable orchard management to face climatic changes

*Convener:* Georgios Koubouris

*Co-conveners:* Giuseppe Montanaro, Cristos Xiloyannis, Jose A. Gómez

*Chairperson:* Giuseppe Montanaro

- P1**                    **ELS2014-16**  
**Effect of solid olive mill waste on the CO<sub>2</sub> sequestration in prunings, fruit and soil in an olive (*Olea europaea*) grove**  
Luigi Nasini, Luana Ilarioni, Luca Regni, Alberto Agnelli, Soumaya Salah, Primo Proietti
- P2**                    **ELS2014-18**  
**Olive cultivars responses to water availability: evaluation of adaptability to climate evolution trough yield response functions and water content indicators**  
Maria Riccardi, Silvia Maria Alfieri, Eugenia Monaco, Massimo Menenti, Angelo Basile, Antonello Bonfante, Francesca De Lorenzi
- P3**                    **ELS2014-19**  
**C-CO<sub>2</sub> stocks and variations in Mediterranean fruit orchards: a chronosequence approach**  
Aissa Arous, Assunta Maria Palese, Vittoria Pastore, Egidio Lardo, Giuseppe Celano
- P4**                    **ELS2014-31**  
**Analysis of soil losses caused by concentrated flow for the improvement of management strategies in an olive orchard microcatchment in Spain**  
Juan Rebolledo, Encarnacion V. Taguas, Manuel Seeger, Tom Vanwalleghem, Gema Guzmán, **José A. Gómez**
- P5**                    **ELS2014-32**  
**Validation of RUSLE model in olive orchard land use by the virtual tool SECO**  
Victor Marín, Encarnacion V. Taguas, Maria D. Redel, **José A. Gómez**
- P6**                    **ELS2014-40**  
**Effects of conservation tillage on soil characteristics in vineyard: preliminary results**  
Paolo Mulè, Fabio Piras, Massimiliano Mamei, Rita Puddu, Roberto Zurru
- P7**                    **ELS2014-41**  
**Carbon sequestration and allocation in grapevine of an Italian vineyard**  
Egidio Lardo, Vitale Nuzzo, Cristos Xiloyannis
- P8**                    **ELS2014-42**  
**Impact of soil management on seasonal soil CO<sub>2</sub> emissions in an irrigated olive orchard**  
Nektarios Kourgialas, Emmanouil Markakis, Chrysa Sergendani, Louisa

- P9** Mikalef, Nektarios Kavroulakis, Georgios Psarras, **Georgios Koubouris**  
**ELS2014-45**  
**Presence and persistence of bio-control agents *Rhizophagus intraradices* and *Trichoderma harzianum* T22 in pot conditions**  
Giuseppe Tataranni, Bartolomeo Dichio, and Cristos Xiloyannis
- P10** **ELS2014-49**  
**Spatial patterns of herbaceous biodiversity within olive orchards under spontaneous cover crop soil management**  
Carmen Arroyo, Encarnacion V. Taguas, Angel Lora, Gema Guzman, Karl Vanderlinden, and **José A. Gómez**

## ELS08 – Foyer – Posters

Display Time **h. 08:30–19:00** – Attendance Time **h. 17:00–19:00**

### **Permafrost-affected soils of high latitudes and high altitudes in a changing world**

*Convener:* Sebastian Zubrzycki

*Co-conveners:* Dmitry Kaverin, Marc Oliva

*Chairperson:* Anne Zschocke

- P1**                    **ELS2014-7**  
**Permafrost-affected soils in the Lena River Delta and its hinterland - genesis and diversity**  
Sebastian Zubrzycki, Lars Kutzbach, Irina Yakshina, Eva-Maria Pfeiffer
- P2**                    **ELS2014-93**  
**Hillslope spatial variability in sub-surface characteristics on the southern edge of patchy permafrost over Tibetan Plateau by using ground-penetrating radar**  
Yingzhao Ma, Sebastian Zubrzycki
- P3**                    **ELS2014-24**  
**CarboPerm: An interdisciplinary Russian-German scientific and technological cooperation project on the formation, turnover and release of carbon in Siberian permafrost landscapes**  
Sebastian Zubrzycki and the CarboPerm Team
- P4**                    **ELS2014-96**  
**Ecology and evolution of gleysols in the Russian sector of the Arctic**  
Lyudmila Fominykh, Lyubov Gugalinskaya
- P5**                    **ELS2014-132**  
**Coring of the unfrozen subhydric soils in channels of the Lena River Delta**  
Mikhail Grigoriev, Gregory Maximov, Alexander Maslov, Sebastian Zubrzycki

**ELS05 – Foyer – Posters**

Display Time **h. 08:30–19:00** – Attendance Time **h. 17:00–19:00**

**Bioindicators of soil quality**

*Convener:* Teresa Dias

*Chairperson:* José Paulo Souza

- P1**                    **ELS2014-53**  
**Epigeal fauna of a brazilian Oxisol in reclaim**  
**Marlene Cristina Alves**, Romulo Guimarães Giácomo, Otton Garcia de Arruda,  
Marcos Gervasio Pereira
- P2**                    **ELS2014-100**  
**Chemical soil properties as indicators of soil quality**  
**Carolina dos Santos Batista Bonini**, Marlene Cristina Alves, Ligia Maria  
Videira, Poliana Aparecida Leonel Rosa, Tatiana Nishida Máximo da Cruz,  
Vinícius Leandro Leonel
- P3**                    **ELS2014-26**  
**Recovering of degraded soils through the combined application of plants  
and organic matter**  
**Serena Doni**, Cristina Macci, Eleonora Peruzzi, Carmelo Mennone, Grazia  
Masciandaro

## ELS04 – Foyer – Posters

Display Time **h. 08:30–19:00** – Attendance Time **h. 17:00–19:00**

### **Ecology and biogeochemistry of organic-carbon-rich soils in a changing world**

*Convener:* Claudio Zaccone

*Co-convener:* Luca Bragazza

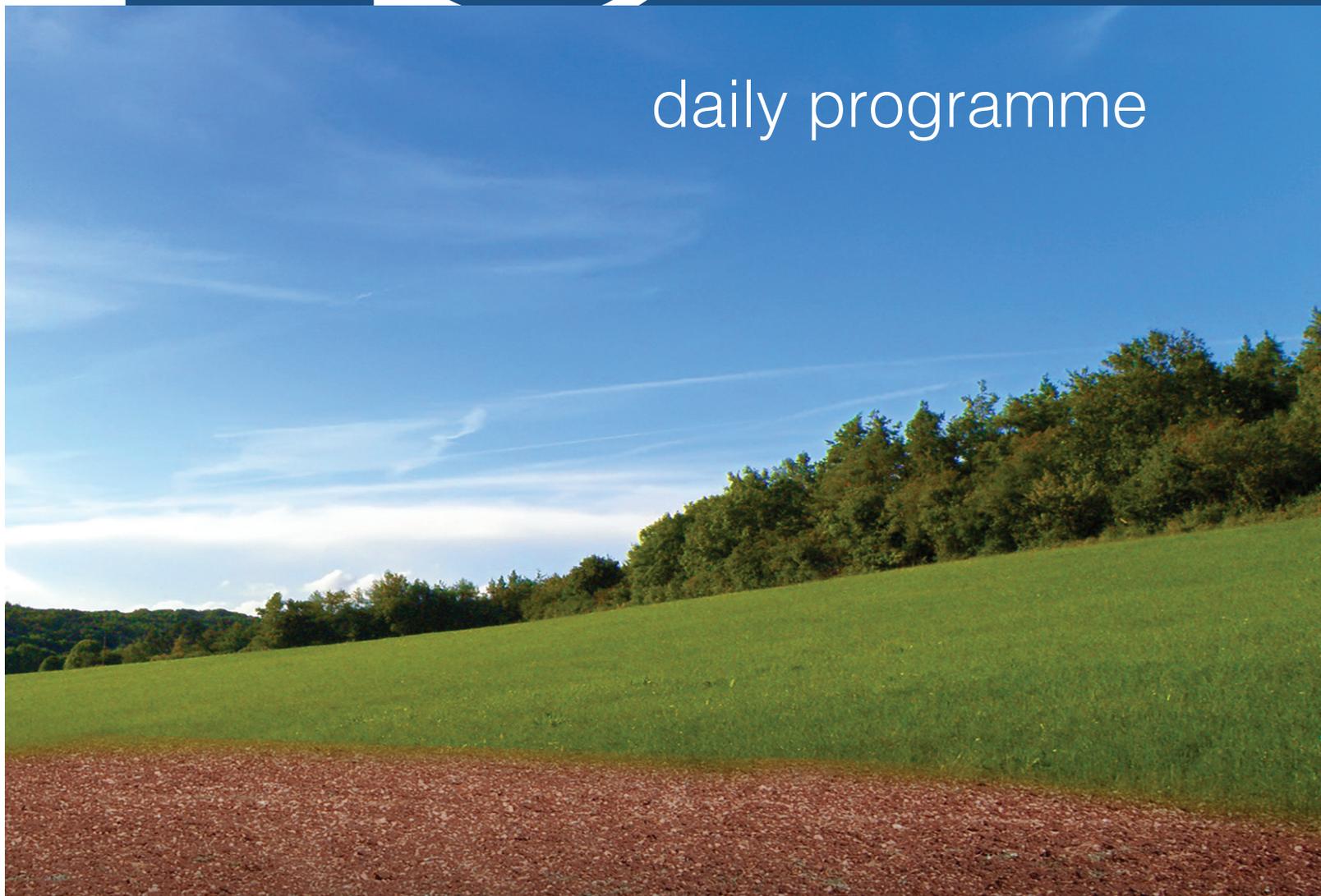
*Chairperson:* Luca Bragazza

- P1**                    **ELS2014-20**  
**Microbial activity and C accumulation in organic and mineral layers of five Italian forests**  
Maria Giordano, Amalia Virzo De Santo, Antonietta Fioretto, **Anna De Marco**
- P2**                    **ELS2014-54**  
**Soil organic matter storage in beech forests: a quantitative and qualitative monitoring in central-southern Italy**  
**Michele Innangi**, Francesco d’Alessandro, Agostino Bortone, Elena Curcio, Stefania Papa, Antonietta Fioretto
- P3**                    **ELS2014-52**  
**Soil carbon stocks in broad-leaved forests under different climatic conditions: relationships with biochemical and functional characteristics of soil biota**  
**Elena Curcio**, Michele Innangi, Marta Alvarez Romero, Arne Verstraeten, Nicholas Clarke, Antonietta Fioretto, Stefania Papa
- P4**                    **ELS2014-113**  
***Sphagnum* mosses from twenty-one ombrotrophic bogs in the Athabasca Bituminous Sands region fail to reveal significant atmospheric contamination of “heavy metals”: from contemporary mining and upgrading activities**  
William Shotyk, Rene Belland, John Duke, Heike Kempter, Michael Krachler, Tommy Noernberg, Melanie Vile, Kelman Wieder, Shuangquan Zang, **Claudio Zaccone**

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THURSDAY  
SEPTEMBER

daily programme



Thursday, 25 September 2014

## ELS09 – 08:30-12:00 – Room A – Orals

### Integrated modelling of contaminants in the vadose zone; Source, Fate, and Impact

*Conveners:* Ashok Kumar Ghosh, Adrian Unc, Nicola Senesi

*Co-conveners:* Nupur Bose, Sandra Borges Freitas, Sushant Singh, Baoshan Xing, Mohammad R. Mosaddeghi

*Chairperson:* Ashok Kumar Ghosh

- 08:30–08:45    **ELS2014-101**  
**Impact and implications of arsenic in the human environment: A case study of the Bhagalpur floodplains, Bihar, India**  
Nupur Bose, Ashok Kumar Ghosh, Rajeev Kumar, Anamika Singh
- 08:45–09:00    **ELS2014-105**  
**Subsurface Iron Removal and Hand-pump Adsorptive Arsenic Removal: the influence of iron catalyzed oxidation on arsenic adsorption and surface regeneration in household filters**  
Sandra Borges Freitas, Doris van Halem, Walter van der Meer
- 09:00–09:15    **ELS2014-107**  
**Arsenic treatment by AOCF: a remarkable approach to target arsenic-free drinking water**  
Arslan Ahmad, Jink Gude, Stephan van de Wetering, Martijn Groenendijk, Prosun Bhattacharya
- 09:15–09:30    **ELS2014-103**  
**Study of *Salvinia cucullata* Roxb. to tolerate and accumulate arsenic**  
Rajeev Kumar, Ashok Kumar Ghosh
- 09:30–09:45    **ELS2014-70**  
**Decision Support System for Vulnerability Assessment in Arsenic Contaminated Areas**  
Sushant Singh, Neeraj Vedwan, Anita P. Thampi
- 09:45–10:00    **ELS2014-11**  
**Biochemical, microbiological and sensing approaches to assess the environmental impact of engineered nanoparticles on soil ecosystems**  
Fabrizio De Cesare, Elena Di Mattia, Antonella Macagnano

**Break**

*Chairperson:* Adrian Unc

- 10:30–10:45 **ELS2014-95**  
**Microorganisms in pig slurry leach through agricultural soil to field drains**  
**Anita Forslund**, Jesper S. Krog, Anna Charlotte Schultz, Lars E. Larsen, Jeanne Kjaer, Preben Olsen, Anders Dalsgaard
- 10:45–11:00 **ELS2014-141**  
**Perception and understanding of microbial transport through soils and associated risks**  
**Adrian Unc**, Mohammad R. Mosaddeghi
- 11:00–11:15 **ELS2014-140**  
**How well do soils filter Escherichia coli applied in animal wastes**  
Jackie Aislabie, **Malcolm McLeod**, Alexandra McGill, Phillippa Rhodes, David Hunter, Danny Thornburrow
- 11:15–11:30 **ELS2014-148**  
**Phytostabilisation of industrial soils contaminated with Cu, As, Cr and Zn by *Salix purpurea***  
**Mikael Motelica-Heino**, Lydie Le Forestier, Domenico Morabito, Sylvain Bourgerie, Michel Mench
- 11:30–11:45 **ELS2014-76**  
**Comparison between the intrinsic and specific vulnerability using a Diffusion Setup**  
**Noor Al-Kharabsheh**, Rafiq Azzam, Christoph Neukum, Taiseer Aljazzar

## ELS09 – Foyer – Posters

Display Time **h. 08:30–13:30** – Attendance Time **h. 12:00–13:30**

### **Integrated modelling of contaminants in the vadose zone; Source, Fate, and Impact**

*Conveners:* Ashok Kumar Ghosh, Adrian Unc, Nicola Senesi

*Co-conveners:* Nupur Bose, Sandra Borges Freitas, Sushant Singh, Baoshan Xing, Mohammad R. Mosaddeghi

*Chairperson:* Nicola Senesi

- P1**                    **ELS2014-4**  
**Chemical stabilization of metals in contaminated soils using an amorphous Mn oxide**  
Michael Komárek, Zuzana Michálková, Loïc Della Puppa, Vojtěch Ettler
- P2**                    **ELS2014-35**  
**Removal of zinc by sesquioxides in eight clayey soils from Quebec, Canada**  
Antoine Karam, Serge-Étienne Parent, Leon Etienne Parent
- P3**                    **ELS2014-104**  
**Preparation and characterization of poly(caprolactone) PCL nanofiber for filtration application**  
Seema Sharma, Ashok Kumar Ghosh

## GUIDELINES

### SESSION CHAIRS

Please be in your session Room at least 10 min before the starting of the Session and check the presence of presenting Authors.

Please, duly consider that speakers must strictly observe given schedule.

### ORAL PRESENTATIONS

Oral presentations must be prepared using PowerPoint 2007 or further versions (a laptop and a projector will be provided).

Authors are kindly requested to upload their presentations in the slide centre at least 30 minutes before the time block of their session. For sessions starting at 8.30, the PowerPoint presentation must be uploaded in the afternoon of the previous day. A lecture room assistant will be available for any help.

### POSTER PRESENTATIONS

#### Poster assistance

Poster boards are positioned in the Main Hall of the Conference Venue.

Each poster will be identified by the session and consecutive numbers.

The size of the poster boards is cm 240 high and cm 95 wide.

#### Poster set up and removal

Posters should be affixed between h. 08:00 and h. 08:30 and removed by h. 20:00 of the day of presentation (see the General Programme), and only in the afternoon of the first day (22 September). Early next day, posters still on the boards will be removed and discarded. Adhesive material will be provided at the registration desk.

## REGISTRATION FEES

REGISTRATION FEE (in euro)	ON-SITE
Regular Attendants	€ 570,00
Certified Students*	€ 380,00

All fees are 21% VAT included.

\* Proof of student status must be provided by a relevant certificate signed by the tutor otherwise the student registration cannot be accepted.

The registration fee includes:

**Attendants/Students:** Access to the opening and closing ceremony, attendance at all scientific sessions and to the exhibition and poster areas, name badge, congress kit, scientific programme, proceedings of the conference on a USB flash drive and certificate of attendance;

The fee does not include anything not specifically mentioned above under the heading "The Conference Registration Fee includes".

## METHOD OF PAYMENT

Registration on site will be accepted only by paying the related fee in cash. No credit cards or personal cheques will be accepted.

## CANCELLATION AND REFUND POLICY

Cancellations must be sent in writing by e-mail or fax to Selecto Srl. Any refund will depend on the date of reception of the cancellation and on the following conditions:

- **by 30 June 2014:** no penalty for cancellation;
- **by 31 July 2014:** the refund will be 70% of the fee;
- **by 31 August 2014:** the refund will be 30% of the fee;
- **after 31 August 2014:** no refund of the fee.

Note: All refunds will be processed by Selecto Srl after the conference.

## CONFERENCE INFORMATION

### LOCATION

The ELS2014 – The Earth Living Skin, Soil, Life and Climate Changes, the first conference organized under the auspices of the Soil System Sciences (SSS) Division of the European Geosciences Union (EGU), is held in Bari, Italy, on 22 – 25 September 2014.

**The conference takes place in the Old Central Post Office Building** (Vecchio Ufficio Centrale delle Poste), Piazza Cesare Battisti (opposite the Central University building “Palazzo Ateneo”), **downtown Bari**.

The congress is open to scientists of all nations.

### REGISTRATION DESK

Opening hours:

Monday 22 September from 12:00 to 20:00

Tuesday 23 and Wednesday 24 september from 8:00 to 12:00 and from 13:30 to 20:00

Thursday 25 September from 8:00 to 14:00

### RULES OF CONDUCT

- Smoking is prohibited in the entire building except in the areas designated for smokers.
- It is prohibited to copy any presentation from the desktops in the lecture rooms.
- Please switch off any mobile phones in the lecture rooms.
- It is prohibited to take photos of any scientific material at the conference.

### OFFICIAL LANGUAGE

The official language of the conference is English. Simultaneous interpretation is not provided. It is therefore expected that authors are able to present their research more or less fluently in the English language.

### INSURANCES

The organizers cannot accept liability for personal accident, loss or damage to private property, which may be incurred as a result of the participation in the conference. Participants are, therefore, advised to arrange appropriate insurance cover. This should extend not only to travel but also to cancellation costs.

### ABSTRACT MANAGEMENT

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## USEFUL INFORMATION

### TIME

Italy is one hour ahead Greenwich Mean Time (GMT). Difference with world major cities are London: -1 hour; New York City: -6 hours; Sydney: + 10 hours; Tokyo: + 8 hours.

### CLIMATE

The weather in Bari in September is generally mild with possibility of rain. Average temperatures range from 20°C to 25°C (68 °F to 77 °F)

### TELEPHONE

In order to make phone calls in the city or to another city in Italy, the phone number must be preceded by the city area code number, 080. To call abroad, dial 00 + the country code + city (area) code + phone number.

### MOBILE PHONES

In Italy, mobile phones use the following frequency bands: GSM-900/1800 and 3G 2100.

### SHOPPING

Stores, shopping centres and most businesses are generally open from 09:00 to 13:00 and from 16.00 to 20.30 from Monday to Saturday.

### ELECTRICITY

Voltage in Italy is 220V, two round pin plug. For different appliances an adaptor and /or transformer should be used.

### SMOKING POLICY

Smoking is banned in all indoor public places and in all working places.

### TIPPING

Service is included in the bill in bars and restaurants. Tipping is not mandatory but is welcome.

### TAXES

Like most other European countries, Italy imposes a value added tax (VAT) on goods and services purchased in the country. This tax is known as IVA.

It is normally included in the price of most goods and services. Generally the rate stands at 22% of the sale price and 10% for catering services.

### CASH DISPENSERS (ATMs)

ATMs or Cash dispensers in Italy are known as “Bancomat”, and can be found in most places, like banks, most post offices, shopping centres, at the airport and near to the Conference Venue.

ATMs are opened 7 days a week, 24 hours a day and allow to withdraw money in € (EURO). All cash dispensers accept major international cards (Visa, Eurocard, Mastercard, Cartasì, Maestro, Diners Club and American Express). If you doubt about the compatibility or the banking systems, contact your Credit Card Company or local bank.

### **CREDIT CARDS**

Major credit cards, such as Visa, Eurocard, MasterCard, American Express and Diners Club, are commonly accepted in Italy.

### **BANKS, CURRENCY & FOREIGN EXCHANGE**

Italy's official currency is Euro. Foreign currency can be exchanged at all local banks. These are open weekdays from 8:30 to 13:30 and from 14:45 to 15:45 (afternoon opening may vary depending on the bank). Most hotels, restaurants and shops accept major credit cards.

### **TAXI SERVICES**

Radio Taxi: phone +39-080-5543333

Apulia Taxi: phone +39-080-5346666

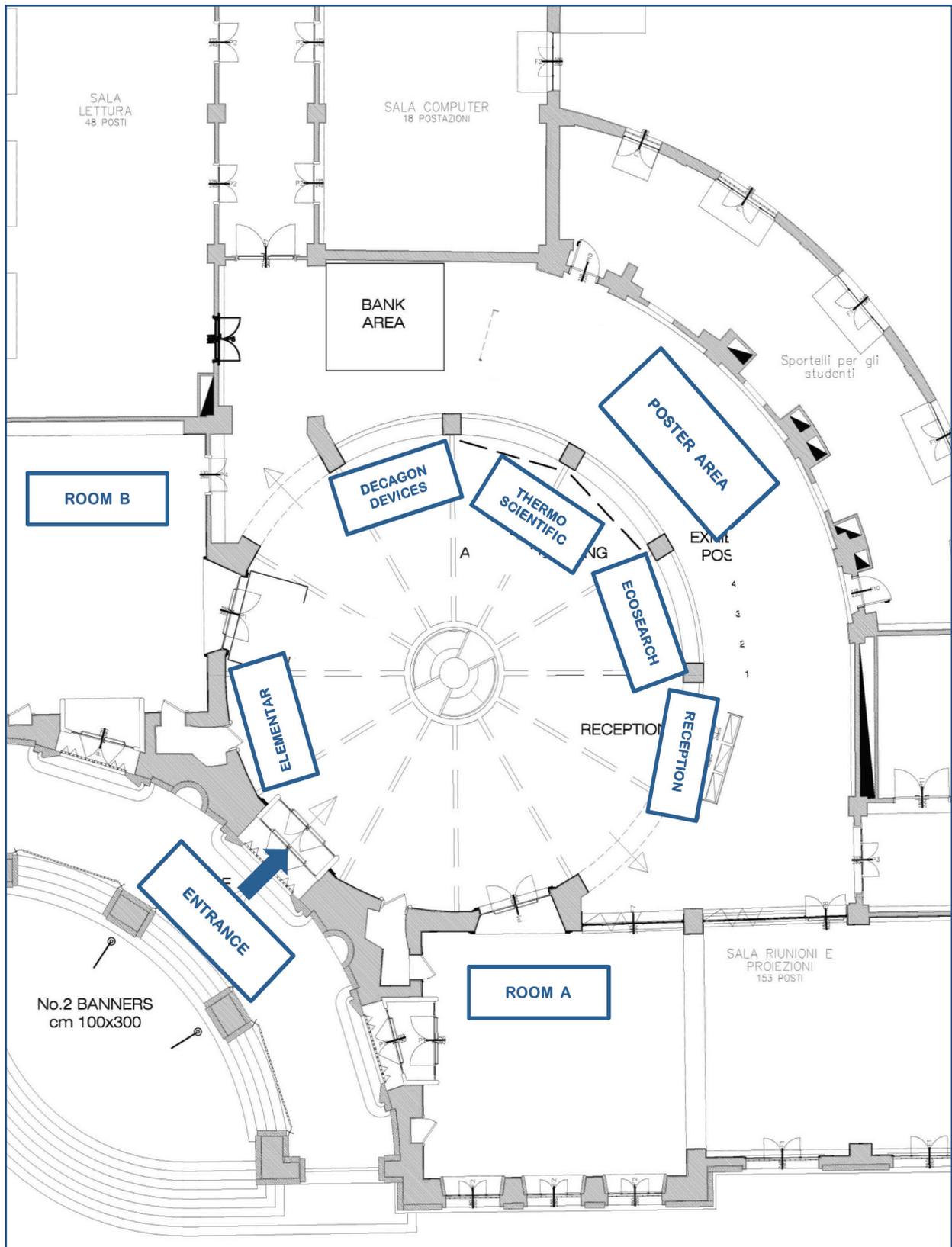
### **EMERGENCIES TELEPHONE NUMBERS**

Police 113

Carabinieri 112

Medical Emergency First Aid 118

## GENERAL MAP







**Wednesday, 24 September** Build Your Own Programme

TIME	SESSION	ROOM	NOTE











## CONTACTS

**Prof. Teodoro Miano**, Conference President

Professor, Head

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## ORGANIZING SECRETARIAT

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