



PROGRAM



LOCAL ORGANIZING COMMITTEE

Livia Vittori Antisari (President), Gianluca Bianchini, Giacomo Buganè, Stefania Cocco Giuseppe Corti, Edoardo Costantini, Stefano Cremonini, Carmelo Dazzi, Gloria Falsone, Chiara Ferronato, Camilla Forti, Claudio Natali, Giuseppe Lo Papa, Gilmo Vianello

SCIENTIFIC SECRETARIAT

(secretariat.SoWaSe@unibo.it)

Gloria Falsone (gloria.falsone@unibo.it)

Chiara Ferronato (chiara.ferronato@unibo.it)

Giuseppe Lo Papa (giuseppe.lopapa@unipa.it)

INTERNATIONAL SCIENTIFIC COMMITTEE

Anna Benedetti, Italy; Pascal Boivin, Switzerland; Wim Cornelis, Belgium; Giuseppe Corti, Italy; Edoardo Costantini, Italy; Carmelo Dazzi, Italy; Mihail Dumitru, Romania; Michael Fullen, GB; Donald Gabriels, Belgium; Raimonds Kasparinskis, Latvia; Ádám Kertész, Hungary; Lillian Oygarden, Norway; Saulius Marcinkonis, Lithuania; Mark Nearing, USA; Ildefonso Pla Sentis, Spain; Endla Reintam, Estonia; José Luis Rubio, Spain; Li Rui, P.R. China, Thomas Scholten, Germany; Peter Strauss, Austria; Ronald Vargas, Italy; Ivan Vasenev, Russia; Pandi Zdruli, Albania; Miograd Zlatić, Serbia.

ESSC EXECUTIVE COMMITTEE

Carmelo Dazzi, Italy (President); José Luis Rubio, Spain; Michael A. Fullen, GB; Ádám Kertész, Hungary; Peter Strauss, Austria; Edoardo Costantini, Italy; Wim Cornelis, Belgium; Donald Gabriels, Belgium; Thomas Scholten, Germany; Endla Reintam, Estonia; Mihail Dumitru, Romania; Ildefonso Pla Sentis, Spain; Saulius Marcinkonis, Lithuania; Lillian Oygarden, Norway; Antonio Rodriguez, Spain.

ACCOMODATION

Agenzia Viaggi Santerno

Rep. Gruppi Incoming - Via Saragat, 19 – 40026 Imola (BO)

Tel. +39 0542 32372 Fax +39 0542 643339

Internet: www.viaggisanterno.com - E-mail: patty@viaggisanterno.com

GENERAL ORGANIZATION

GEOLAB onlus, Imola (geolab@geolab-onlus.org)

CONFERENCE PROGRAM

Tuesday June 5, 2018 – Palazzo Sersanti

16.00 Registration

16,30-18,30 ESSC Executive and Council meeting

18,30-19,30 *Welcome Cocktail*

Wednesday June 6, 2018 – Palazzo Vespignani

8.00 - 9.00 Registration

9.00 - 9,30 Opening ceremony

9.00 - 9,30 **The European Society for Soil Conservation (ESSC): from 1988 to 2018**
Carmelo Dazzi (ESSC President)

9.30 - 12.00 **Session 1: SOIL DEGRADATION AND FOOD SECURITY: LEARNING FROM THE PAST TO FORESEE THE FUTURE**
Invited lecture: *Wim Cornelis (University of Ghent, Belgium)*
Oral communications and discussion

12.00 - 13.00 **Poster presentations**

13.00 - 14.30 *Lunch*

14.30 – 17.30 **Session 2: SOIL FUNCTIONS MONITORING AND SAFEGUARD**
Invited lecture: *Edoardo E.C. Costantini (CREA-AA, Italy)*
Oral Communications and discussion

17.30 – 18.30 **Poster presentations**

20,30 *Social dinner (Fortress of Riolo Terme)*

Thursday June 7, 2018 – Palazzo Vespignani

9.00 -12.00 **Session 3. SOIL AND WATER MANAGEMENT IN A CHANGING ENVIRONMENT**
Invited lecture: *Ildefons Pla Sentis (University of Lleida, Spain)*
Oral communications and discussion

12.00 -13.00 **Poster presentations**

13.00 -14.30 *Lunch*

14.30 -17.00 **Session 4. SMART AGRICULTURE: MODELLING AND PREDICTION FOR THE NEXT 30 YEARS**
Invited lecture: *Pandi Zdruli (CIHEAM, Italy)*
Oral communications and discussion

17.00 - 17.30 **Poster presentations**

17.30 - 17.45 **Preliminary presentation of the scientific and cultural excursion**

17.45 -19.00 **Conference summary: reporting from sessions; delivery of ESSC grants and awards for the best poster; conclusions.**
Closing remarks (President of ESSC)

Friday June, 8 2018 – Scientific and Cultural Excursion

8.30

Bus departure for scientific and cultural excursions

10.00-13.00
Scientific
excursion

PEDOLOGICAL EXCURSION IN A LAND RECLAMATION AREA (Valle del Mezzano)

The “Valle del Mezzano”, the largest wetland complex in Comacchio area (20,000 hectares approx.), has been reclaimed between 1957 and the late 1960s, by the “Po River Delta Authority” (now named “Agriculture Development Regional Authority”).

The land reclamation, carried out through dewatering pumps, was one of the latest in the region and in the whole of Italy.

Nowadays, the rural landscape is characterized by a well organized modular division of land, which favours a highly mechanized agriculture.

The morphology of landscape is characterized by broad depressions, with altitudes usually ranging between 2 and 3 meters below the sea level, corresponding to pre-existing brackish marshlands.

The soils of the area formed either on peat, overlaying mineral alluvial sediments, or on mineral sediments with peaty interlayers. Soils are very deep, with hydromorphic features in the deepest horizons. Following the lowering of the water table, due to the artificial drainage works, a partial desalination in the top horizons occurred, followed by a sulphatic acidification. They are mainly classified as Thionic Histosols and Thionic Fluvisols.

12.,00-14,30

Lunch

14.30

Bus departure to Comacchio

15.00-17.00
Cultural
excursion

VISIT THE ANCIENT DELTA MUSEUM IN COMACCHIO

The Museum is hosted in the imposing neoclassical Hospital of the Infirm made by Antonio Foschini and Gaetano Genta (1771/1784). This is one of the most important and monumental buildings of the historical city centre of Comacchio. Almost two-thousand archaeology findings coming from the territory, ranging in time from the proto-history period to the middle Ages, are exhibited. The museum narrates the history of the ancient Po delta through several dioramas and audio guides. This environment, with its numerous navigable canals, was an important trade junction over the centuries, connecting the civilizations of the Mediterranean with the continental Europe..

17.00

Bus departure to Imola

SCIENTIFIC CONTRIBUTIONS INDEX

Session 1. Wednesday June 6, 2018, 9.30-13		Code	Page
SOIL DEGRADATION AND FOOD SECURITY: LEARNING FROM THE PAST TO FORESEE THE FUTURE			
Oral communications (9.30-12.00)	Soil degradation and food security: learning from the past to foresee the future <i>Wim Cornelis</i>	1.O/1	11
	Urban soils and human health <i>Claudio Bini</i>	1.O/2	13
	Soil resistome and food security <i>Lyudmyla Yuriivna Symochko</i>	1.O/3	14
	Pedotechnique application and soil security in intensive viticulture: an (im)possible link! <i>Carmelo Dazzi, Giuseppe Lo Papa</i>	1.O/4	15
	Integrated assessment of soil pollution at field and laboratory scales <i>Antonio Giandonato Caporale, Simona Vingiani, Diana Agrelli, Giuliano Langella, Fabio Terribile, Paola Adamo</i>	1.O/5	16
	Geochemical features of distinct depositional facies in coastal / deltaic setting of the padanian plain (Northern Italy): insights on carbon dynamics and selective metal accumulation <i>Claudio Natali, Gianluca Bianchini, Livia Vittori Antisari, Nicholas Marzano, Gian Marco Salani, Umberto Tessari</i>	1.O/6	17
	Natural background values for heavy metals in the sediments of Karavasta lagoon - Albania <i>Romina Koto, Aida Bani</i>	1.O/7	18
	Soil security, desertification and the future of land resource <i>José Luis Rubio</i>	1.O/8	19
Poster presentations (12.00-13.00)	Risk assessment of secondary salinization in Hungary <i>Balázs Madarász, Katalin Juhos, Gergely Jakab, Adrienn Tóth, Ádám Kertész</i>	1.P/1	20
	The reconstitution: environmental restoration assessment by means of LCC and FCC <i>Paolo Manfredi, Chiara Cassinari, Marco Trevisan</i>	1.P/2	21
	Slash and burn effect on Mozambican soils <i>Dominique Serrani, Stefania Cocco, Valeria Cardelli, Marziyeh Hoseini, Rogério Borguete Alves Rafael, Giuseppe Corti</i>	1.P/3	22
	Detection of toxicity of heavy metal pollution in soils based on their respiratory activity in native soils and artificial substrates and enzymatic activity in native soils (A case-study of the protected area “Yamskaya steppe”, Russia) <i>Nikita Olegovich Bakunovich, Olga Sergeevna Khokhlova, Tatyana Nikolaevna Myakshina, Alexey Valentinovich Rusakov, Alexander Semenovich Shapovalov</i>	1.P/4	23
	The role of sage plant in heavy metals uptake from wastewater <i>Irena Duka, Seit Shallari</i>	1.P/5	24

Session 2. Wednesday June 6, 2018, 14.30-18.30		Code	Page
SOIL FUNCTIONS MONITORING AND SAFEGUARD			
Oral communications (14.30-17.30)	Soil functions monitoring and safeguard <i>Edoardo A.C. Costantini</i>	2.O/1	26
	Features of selected benchmark soils along an elevational transect of the northeastern part of the Moldavian Plateau (Romania) <i>Geanina Birescu, Carmelo Dazzi, Giuseppe Lo Papa</i>	2.O/2	28
	Modelling of the wind erodibility index for light soil under tillage operations <i>Dawid Wojcieszak, Ryszard Walkowiak, Michal Czajka, Stanisław Podsiadłowski, Jacek Przybył</i>	2.O/3	29
	Recovering soil functionality in vineyards through organic soil management: the interdisciplinary “ReSolVe” project <i>Simone Priori, Alessandro Elio Agnelli, Maurizio Castaldini, Lorenzo D’Avino, Alessandra Lagomarsino, Sergio Pellegrini, Giuseppe Valboa, Nadia Vignozzi, Elena Gagnarli, Silvia Landi, Sauro Simoni, Sergio Puccioni, Paolo Storchi, Alessandra Zombaro, Edoardo A.C. Costantini</i>	2.O/4	30
	Nutrients and carbon storage function in saltmarshes soil of the Venice lagoon, Italy <i>Chiara Ferronato, Alberto Barausse, Damiano Baldan, Laura Grechi, Gilmo Vianello, Luca Palmeri, Livia Vittori Antisari</i>	2.O/5	31
	Inter-row management effects on biotic and abiotic soil properties of european vineyards <i>P. Strauss, J. Gomez, G. Gúzman, A. Nicolai, D. Cluzeau, M. Guernion, J. Scimia, C.I. Bunea, D. Popescu, J. Buchholz, P. Querner, S. Winter, J.G. Zaller</i>	2.O/6	32
	Carbon speciation and isotopic characterization of agricultural terrains from distinct pedo-climatic settings of the Emilia-Romagna region (Northern Italy) <i>Gianluca Bianchini, Claudio Natali, Livia Vittori Antisari, Gloria Falsone, Francesco Malavasi, Enrico Mistri</i>	2.O/7	33
	Carbon differentiation according to Din 19539 and its impact on soil analysis and functions <i>Axel Ludwig, Fabian Alt, Almut Loos, Gabriele Aragona</i>	2.O/8	34
	Characterization of soil organic matter in tropical soil by the rock-eval pyrolysis <i>Moustapha Moussa</i>	2.P/1	35
	The influence of industrial emissions of zinc plant on the properties of chernozem soil <i>Sarkulova Zhadyrassyn, Carmelo Dazzi, Farida Kozybaeva</i>	2.P/2	36
Poster presentations (17.30-18.30)	Cropland characteristics and extent of soil loss by water erosion in the Kivu dorsal, d.r. Congo <i>Aimé Heri-Kazi Bisimwa, Charles L. Biolders</i>	2.P/3	37
	Resistance of Solonetzic soils to rocket and space activity impact in Central Kazakhstan <i>Zhubatov Zhailaubai, Stepanova Elena Yurevna, Carmelo Dazzi, Giuseppe Lo Papa, Murat Toktar</i>	2.P/4	38
	Phytomanagement of metal(loid)-contaminated sites improves soil biological activity <i>Carmen Trasar-Cepeda, Michel Mench, Ángeles Prieto-Fernández, Lilian Marchand, Nadège Oustrière, Carmela Monterroso, Petra Susan Kidd</i>	2.P/5	39
	Discriminating the effects of forest management on litter and soil in a mediterranean pine forest by VisNIR <i>Romina Lorenzetti, Cesar Guerrero, Erika Di Iorio, Alessandro Elio Agnelli, Claudio Colombo, Alessandra Lagomarsino</i>	2.P/6	40
	Soil as repository of information from the past <i>Valeria Cardelli, Stefania Cocco, Dominique Serrani, Marziyeh Hoseini, Luigi Gobbi, Giuseppe Corti</i>	2.P/7	41
	C cycling in humus profiles of a mediterranean degraded pine forest <i>Romina Lorenzetti, Edoardo A.C. Costantini, Alessandro Elio Agnelli, Maria Fantappiè, Alessandra Lagomarsino</i>	2.P/8	42

Session 3. Thursday June 7, 2018, 9.00-13.00		Code	Page
SOIL AND WATER MANAGEMENT IN A CHANGING ENVIRONMENT			
Oral communications (9.00-12.00)	Soil and water management in a changing environment <i>Ildefons Pla Sentís</i>	3.O/1	44
	A modelling study on the temporal dynamics of soil hydraulic properties influenced by agricultural management practices <i>Parvathy Chandrasekhar, Janis Kreiselmeier, Thomas Weninger, Karl-Heinz Feger, Stefan Julich, Andreas Schwen, Kai Schwärzel</i>	3.O/2	45
	Modelling SoilMAT-ters <i>Alison Margaret Brand, Jo Ursula Smith</i>	3.O/3	46
	Optimum plot size to study hillslope soil erosion <i>Hossein Asadi, Misagh Parhizkar, Mohammad Shoghinezhad</i>	3.O/4	47
	Environmental restoration impacts and challenges on soil and water security in dry-land <i>Lulu Zhang, Kai Schwärzel</i>	3.O/5	48
	Assessment of <i>Sesbania aculeata</i> as green manure a safer supplement to mineral fertilizers in Rice-Wheat cropping system for better environment <i>Muhammad Nadeem Iqbal, Shahzada Munawar Mehdi, Shahid Yaqoob Naz, Samina Hamid, Hafiz Riaz Ahmad</i>	3.O/6	49
	Surface runoff and soil loss determination under various land cover conditions using field rainfall simulator <i>Tomas Dostal, Jakub Stasek, Martin Neumann, Josef Krasa, David Zumr, Adela Roudnicka</i>	3.O/7	50
	Identification of water surfaces as triggering factors of soil degradation by remote sensing methods <i>Boglárka Balázs, Tibor Bíró, Gareth Dyke, Sudhir Kumar Singh, Ádám Kertész, Szilárd Szabó</i>	3.O/8	51
Predicting soil erosion and sediment yield assessment using the epm models: the case of Imini, Elmaleh and Ounilla river catchment <i>Zouhair Ourhif</i>	3.O/9	52	
Poster presentations (12.00-13.00)	Temporal variations in infiltration properties of biological crusts covered soils on the loess plateau of China <i>Hao Wang, Guanghui Zhang, Fa Liu, Ren Geng, Lunjiang Wang</i>	3.P/1	53
	The State Key program of National Natural Science of China (no. 41530858)-Effects of near soil surface characteristics driven by farmland abandonment on erosion processes and dynamic mechanism <i>Guanghui Zhang</i>	3.P/2	54
	Assessing the nitrogen balance in soils of a cross-border agricultural watershed area towards implementation of the EU Nitrates Directive <i>Marjan Šinkovec, Janez Bergant, Borut Vrščaj</i>	3.P/3	55
	What conservation agriculture can preserve for the future; long-term effects on soil and water in Central Europe. <i>Balázs Madarász, Gergely Jakab, Zoltán Szalai, Ádám Kertész</i>	3.P/4	56
	The changing of the carbonate status in the chronosequence of abandoned Chernozems in the natural landscape reserve «Steppes of the Sea of Azov region», Russia. <i>Anna Michailovna Bulysheva, Olga Sergejevna Khokhlova, Alexey Valentinovich Rusakov, Tatiana Nikolayevna Myakshina, Alexander Georgiyevich Ryumin</i>	3.P/5	57
	Emergency preparedness as a main objective for future flood risk reduction “lessons learned from floods in Serbia 2014”. <i>Nikola Rakonjac</i>	3.P/6	58
	Soil conservation in a forested mountain catchment <i>Eva Pažourková, Josef Křeček, Jana Nováková, Ladislav Palán</i>	3.P/7	59

Session 4. Thursday June 7, 2018, 14.30-17.30 SMART AGRICULTURE: MODELLING AND PREDICTION FOR THE NEXT 30 YEARS		Code	Page
Oral communications (14.30-17.00)	Can the soil still feed us (not only for the next 30 years) <i>Pandi Zdruli</i>	4.O/1	61
	Real-time optimization of irrigation scheduling for 'smart' agriculture in a sustainable crop production system. <i>Mohammad H. Golabi, Ferdinand P. Galsim, Sayed Bateni</i>	4.O/2	62
	Assessing carbon balances in cropping and soil management systems. <i>Lorenzo D'Avino, Giovanni L'Abate, Simone Priori, Edoardo Costantini</i>	4.O/3	63
	Elaborating and mapping italian soil typological units and their properties on a 500 m grid. <i>Maria Fantappiè, Edoardo A. C. Costantini</i>	4.O/4	64
	Global change challenges in rf smart agriculture opportunities and constrains <i>Ivan I. Vasenev</i>	4.O/5	65
	Life agrowetlands II: soil and water salinity monitoring in a coastal agricultural area between Reno and Lamone rivers (Ravenna, Italy) <i>Chiara Ferronato, Gloria Falsone, Maria Speranza, Gilmo Vianello, Livia Vittori Antisari</i>	4.O/6	66
	Comparison of soil carbon stocks in different agricultural handling, Villavicencio, Colombia <i>Dayra Yisel García Ramirez</i>	4.O/7	67
Poster presentations (17.00-17.30)	Feasibility of compost production with coffee husk <i>Marziyeh Hoseini, Cristiano Casucci, Valeria Cardelli, Stefania Cocco, Dominique Serrani, Giuseppe Corti.</i>	4.P/1	68
	Spectral data for rapid characterization of compost-on-farm quality <i>Romina Lorenzetti, Simone Priori, Giovanni L'Abate, Edoardo A.C. Costantini</i>	4.P/2	69
	How to improve the adoption of soil conservation practices? Suggestions from farmers' perception in Western Sicily <i>Romina Lorenzetti, Maria Fantappiè, Isabella De Meo, Edoardo A.C. Costantini</i>	4.P/3	70
	Management options for post-anaerobic digested animal excreta containing veterinary antibiotics <i>Biyensa Gurmessa, Ester Foppa Pedretti, Giuseppe Corti, Stefania Cocco</i>	4.P/4	71

EXHIBITORS



E. Schweizerbart
Science publishers

Schweizerbart Science publishers

Schweizerbart und Borntraeger are scholarly publishing houses and publishes books (print and electronic) and journals and series in the Earth and environmental sciences (geology, mineralogy, paleontology), biosciences (plant sciences, zoology, phycology), aquatic ecology and human biology.

Address: Johannesstr. 3A, 70176 Stuttgart, Germany

Phone: +49-(0)711 351456 0 - E.mail: mail@schweizerbart.de

Website: <http://www.schweizerbart.de>



Elementar Italia Srl

Elementar Italia Srl is the Italian branch of Elementar Group, a group formed by Elementar Analysensysteme GmbH and Isoprime Ltd.

Elementar Analysensysteme is the worldwide leading German manufacturer of analytical instruments for non-metallic elements like carbon, nitrogen, sulfur, hydrogen, oxygen or chlorine in all organic and the majority of inorganic substances. Arisen from the Analytical Instrumentation Department of the Heraeus technology group, we develop and manufacture for more than 110 years instruments for elemental analysis in the Rhine Main area near Frankfurt.

Address Sede legale: Largo Guido Donegani, 2 , 20121 Milano, Italy

Address Sede operativa Via Cavour, 2, 22074, Lomazzo (Co)

Phone: +39 02 36714520 E.mail: info@elementar.it

Website: <http://www.elementar.it>