



PROGRAM



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	
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>
	Urban soils and human health <i>Claudio Bini</i>
	Soil resistome and food security <i>Lyudmyla Yuriivna Symochko</i>
	Pedotechnique application and soil security in intensive viticulture: an (im)possible link! <i>Carmelo Dazzi, Giuseppe Lo Papa</i>
	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>
	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>
	Natural background values for heavy metals in the sediments of Karavasta lagoon - Albania <i>Romina Koto, Aida Bani</i>
Poster presentations (12.00-13.00)	Soil security, desertification and the future of land resource <i>José Luis Rubio</i>
	Risk assessment of secondary salinization in Hungary <i>Balázs Madarász, Katalin Juhos, Gergely Jakab, Adrienn Tóth, Ádám Kertész</i>
	The reconstitution: environmental restoration assessment by means of LCC and FCC <i>Paolo Manfredi, Chiara Cassinari, Marco Trevisan</i>
	Slash and burn effect on Mozambican soils <i>Dominique Serrani, Stefania Cocco, Valeria Cardelli, Marziyeh Hoseini, Rogério Borguete Alves Rafael, Giuseppe Corti</i>
	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>
The role of sage plant in heavy metals uptake from wastewater <i>Irena Duka, Seit Shallari</i>	

Session 2. Wednesday June 6, 2018, 14.30-18.30
SOIL FUNCTIONS MONITORING AND SAFEGUARD

Soil functions monitoring and safeguard

Edoardo A.C. Costantini

Features of selected benchmark soils along an elevational transect of the northeastern part of the Moldavian Plateau (Romania)

Geanina Birescu, Carmelo Dazzi, Giuseppe Lo Papa

Modelling of the wind erodibility index for light soil under tillage operations

David Wojcieszak, Ryszard Walkowiak, Michał Czajka, Stanisław Podsiadłowski, Jacek Przybył

Recovering soil functionality in vineyards through organic soil management: the interdisciplinary “ReSolVe” project

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 Zombardo, Edoardo A.C. Costantini

Nutrients and carbon storage function in saltmarshes soil of the Venice lagoon, Italy

Chiara Ferronato, Alberto Barausse, Damiano Baldan, Laura Grechi, Gilmo Vianello, Luca Palmeri, Livia Vittori Antisari

Inter-row management effects on biotic and abiotic soil properties of european vineyards

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

Carbon speciation and isotopic characterization of agricultural terrains from distinct pedo-climatic settings of the Emilia-Romagna region (Northern Italy)

Gianluca Bianchini, Claudio Natali, Livia Vittori Antisari, Gloria Falsone, Francesco Malavasi, Enrico Mistri

Carbon differentiation according to Din 19539 and its impact on soil analysis and functions

Axel Ludwig, Fabian Alt, Almut Loos, Gabriele Aragona

Characterization of soil organic matter in tropical soil by the rock-aval pyrolysis

Moustapha Moussa

The influence of industrial emissions of zinc plant on the properties of chernozem soil

Sarkulova Zhadyrassyn, Carmelo Dazzi, Farida Kozybaeva

Cropland characteristics and extent of soil loss by water erosion in the Kivu dorsal, d.r. Congo

Aimé Heri-Kazi Bisimwa, Charles L. Bielders

Resistance of Solonchetic soils to rocket and space activity impact in Central Kazakhstan

Zhubatov Zhailaubai, Stepanova Elena Yurevna, Carmelo Dazzi, Giuseppe Lo Papa, Murat Toktar

Phytomanagement of metal(loid)-contaminated sites improves soil biological activity

Carmen Trasar-Cepeda, Michel Mench, Ángeles Prieto-Fernández, Lilian Marchand, Nadège Oustrière, Carmela Monterroso, Petra Susan Kidd

Discriminating the effects of forest management on litter and soil in a mediterranean pine forest by VisNIR

Romina Lorenzetti, Cesar Guerrero, Erika Di Iorio, Alessandro Elio Agnelli, Claudio Colombo, Alessandra Lagomarsino

Soil as repository of information from the past

Valeria Cardelli, Stefania Cocco, Dominique Serrani, Marziyeh Hoseini, Luigi Gobbi, Giuseppe Corti

C cycling in humus profiles of a mediterranean degraded pine forest

Romina Lorenzetti, Edoardo A.C. Costantini, Alessandro Elio Agnelli, Maria Fantappiè, Alessandra Lagomarsino

Oral communications (14.30-17.30)

Poster presentations (17.30-18.30)

Session 3. Thursday June 7, 2018, 9.00-13.00
SOIL AND WATER MANAGEMENT IN A CHANGING ENVIRONMENT

Soil and water management in a changing environment

Ildefons Pla Sentís

A modelling study on the temporal dynamics of soil hydraulic properties influenced by agricultural management practices

Parvathy Chandrasekhar, Janis Kreiselmeier, Thomas Weninger, Karl-Heinz Feger, Stefan Julich, Andreas Schwen, Kai Schwärzel

Modelling SoilMAT-ters

Alison Margaret Brand, Jo Ursula Smith

Optimum plot size to study hillslope soil erosion

Hossein Asadi, Misagh Parhizkar¹, Mohammad Shoghinezhad

Environmental restoration impacts and challenges on soil and water security in dryland

Lulu Zhang, Kai Schwärzel

Assessment of *Sesbania aculeata* as green manure a safer supplement to mineral fertilizers in Rice-Wheat cropping system for better environment

Muhammad Nadeem Iqbal, Shahzada Munawar Mehdi, Shahid Yaqoob Naz, Samina Hamid, Hafiz Riaz Ahmad

Surface runoff and soil loss determination under various land cover conditions using field rainfall simulator

Tomas Dostal, Jakub Stasek, Martin Neumann, Josef Krasa, David Zumr, Adela Roudnicka

Identification of water surfaces as triggering factors of soil degradation by remote sensing methods

Boglárka Balázs, Tibor Bíró, Gareth Dyke, Sudhir Kumar Singh, Ádám Kertész, Szilárd Szabó

Predicting soil erosion and sediment yield assessment using the epm models: the case of Imini, Elmaleh and Ounilla river catchment

Zouhair Ourhif

Temporal variations in infiltration properties of biological crusts covered soils on the loess plateau of China

Hao Wang, Guanghui Zhang, Fa Liu, Ren Geng, Lunjiang Wang

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

Guanghui Zhang

Assessing the nitrogen balance in soils of a cross-border agricultural watershed area towards implementation of the EU Nitrates Directive

Marjan Šinkovec, Janez Bergant, Borut Vrščaj

What conservation agriculture can preserve for the future; long-term effects on soil and water in Central Europe.

Balázs Madarász, Gergely Jakab, Zoltán Szalai, Ádám Kertész

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.

Anna Michailovna Bulysheva, Olga Sergeyevna Khokhlova, Alexey Valentinovich Rusakov, Tatiana Nikolayevna Myakshina, Alexander Georgiyevich Ryumin

Emergency preparedness as a main objective for future flood risk reduction “lessons learned from floods in Serbia 2014”.

Nikola Rakonjac

Soil conservation in a forested mountain catchment

Eva Pažourková, Josef Křeček, Jana Nováková, Ladislav Palán

Oral communications (9.00-12.00)

Poster presentations (12.00-13.00)

Session 4. Thursday June 7, 2018, 14.30-17.30
SMART AGRICULTURE: MODELLING AND PREDICTION FOR THE NEXT 30 YEARS

Can the soil still feed us (not only for the next 30 years)

Pandi Zdruli

Real-time optimization of irrigation scheduling for 'smart' agriculture in a sustainable crop production system.

Mohammad H. Golabi, Ferdinand P. Galsim, Sayed Bateni

Assessing carbon balances in cropping and soil management systems.

Lorenzo D'Avino, Giovanni L'Abate, Simone Priori, Edoardo Costantini

Elaborating and mapping italian soil typological units and their properties on a 500 m grid.

Maria Fantappiè, Edoardo A. C. Costantini

Global change challenges in rf smart agriculture opportunities and constrains

Ivan I. Vasenev

Life agrowetlands II: soil and water salinity monitoring in a coastal agricultural area between Reno and Lamone rivers (Ravenna, Italy)

Chiara Ferronato, Gloria Falsone, Maria Speranza, Gilmo Vianello,

Livia Vittori Antisari

Comparison of soil carbon stocks in different agricultural handling, Villavicencio, Colombia

Dayra Yisel García Ramirez

Feasibility of compost production with coffee husk

Marziyeh Hoseini, Cristiano Casucci, Valeria Cardelli, Stefania Cocco,

Dominique Serrani, Giuseppe Corti.

Spectral data for rapid characterization of compost-on-farm quality

Romina Lorenzetti, Simone Priori, Giovanni L'Abate, Edoardo A.C.

Costantini

How to improve the adoption of soil conservation practices? Suggestions from farmers' perception in Western Sicily

Romina Lorenzetti, Maria Fantappiè, Isabella De Meo, Edoardo A.C. Costantini

Oral communications (14.30-17.00)

Poster presentations
(17.00-17.30)