



Seasonal School

THE SOIL – WATER AND PLANT CONTINUUM FOR URBAN AND RURAL WASTEWATER PHYTOTREATMENT AND CONTAMINATED SITE REMEDIATION (SWAP)

WORKSHOP/WEBINAR

Phytoremediation of contaminated land and phytotreatment of polluted water: successfull case studies

30th June 2021 — from 14.00 pm to 18.15 pm

Aula Magna Storica — Scuola Superiore Sant'Anna, Pisa (Italy)



Partecipazione gratuita, **numero di posti in presenza disponibili limitato a 14.**

La registrazione è obbligatoria .

Per registrarsi inviare una mail a Rudy Rossetto (rudy.rossetto@santannapisa.it), comunicando:

- Nome, Cognome, e-mail, Ente di appartenenza

Il workshop sarà svolto in lingua italiana

I posti disponibili in aula saranno assegnati in base all'ordine di arrivo delle richieste di partecipazione.

E' possibile seguire il workshop in modalità online registrandosi (per ricevere il link) e specificare che si intende seguire in modalità remota.

Per ulteriori informazioni contattare: Rudy Rossetto – rudy.rossetto@santannapisa.it

AGENDA

Start	End	Speaker	Presentation title	Affiliation
13:50	14:00	Registration		
14:00	14:05	Luca Sebastiani	<i>Welcome and introduction to the workshop</i>	Institute of Life Sciences Scuola Superiore Sant'Anna
Session 1 - From research to the real world <i>(chairman: Luca Sebastiani)</i>				
14:05	15:05	Massimo Fagnano	Phytotreatment in the Mediterranean area: case studies from the Campania region	Università degli Studi di Napoli
15:05	16:05	Grazia Masciandaro	Phytotreatment techniques for dredging sediments: the LIFE AGRISED and LIFE SUBSED experiences	CNR-IRET
Session 2 - Real world applications <i>(chairwoman: Laura Ercoli—Institute of Life Sciences, Scuola Superiore Sant'Anna)</i>				
16:20	16:40	Michele Remonti	Phyto-remediation / Phyto-immobilization of industrial ashes contaminated by heavy metals	ERM Italia
16:40	17:00	Cosimo Masini	Metagenomics and engineering of bioremediation processes	DND Biotech
17:00	17:20	Anacleto Rizzo	Hydrousa, a new paradigm for the circular management of wastewater by Nature-based Solutions	Iridra srl
17:20	17:40	Alessio Barbagli	Assessment of soil buffer capacity on nutrients and pharmaceuticals in nature-based solution application	Institute of Life Sciences Scuola Superiore Sant'Anna
17:40	18:00	Marco Martinelli	Phytotreatment of the soil medium: a case for using hemp (<i>Cannabis sativa</i> L.)	Institute of Life Sciences Scuola Superiore Sant'Anna
18:00	18:15	Questions and Answers and Closing remarks		

Luca Sebastiani, Scuola Superiore Sant'Anna - Institute of Life Sciences

Luca Sebastiani is the Director of the Institute of Life Sciences at Scuola Superiore Sant'Anna Pisa. He is a professor in Arboriculture and Forest Systems and has published over 130 journal articles, reports, book chapters, and a books. He is studying since 30 years the physiology of plant under abiotic stresses such as drought, salinity, inorganic and organic xenobiotics. He serves as Associate Editor in Agricultural Water Management, and is also active in the Editorial Board of Plant Growth Regulation and South African Journal of Botany.

Massimo Fagnano, Università degli Studi di Napoli

Massimo Fagnano is a professor of Agronomy and Agroecology at the Dept. of Agricultural Sciences of the Naples University Federico II (Italy). His scientific activities include soil fertility management, no food crops, relationship between environmental pollution and agriculture with particular reference to phytoremediation aimed at securing (i.e. phytostabilization, phytocapping) or remediating (phytoextraction, rizodegradation) of soils contaminated by mineral or organic pollutants. He worked/working as PI in several projects and laboratory (pots), pilot (mesocosms) and full scale (large fields) such as LIFE11 ENV/IT 275 ECOREMED (Implementation of eco-compatible protocols for agricultural soil remediation in Litorale Domizio-Agro Aversano NIPS); MIUR-PRIN17 BHH84R RIZBIOREM (Role of soil-plant-microbial interactions at rhizosphere level on the biogeochemical cycle and fate of contaminants in agricultural soils under phytoremediation with biomass crops).

Grazia Masciandaro, CNR—IRET

Grazia Masciandaro is a Research Director at National Research Council (CNR) – Research Institute on Terrestrial Ecosystems (IRET) located in Pisa. She is involved in research activities related to soil chemistry and biochemistry, soil fertility and pollution, soil reclamation and decontamination, nature-based solution for the management of sewage sludge and dredged sediments. She has got the Qualification to Professor by Italian Ministry of Education and Research for the sector 07/E1 - Soil Chemistry. Grazia Masciandaro coordinates different national and international projects, especially EU funded projects about the valorization of soil and other environmental matrices. She has published more than 200 peer reviewed journal articles.

Laura Ercoli, Scuola Superiore Sant'Anna - Institute of Life Sciences

Laura Ercoli is full professor of Agronomy and Field Crops and is Coordinator of the PhD Course in AgroBioSciences at the Scuola Superiore Sant'Anna, Pisa, Italy (<http://www.santannapisa.it/it/laura-ercoli>). During her career she carried out research focusing on the study of relationships between land use, cultural practices, climate, soil, and crop yield and quality, integrating knowledge from biology, chemistry, soil science, ecology and genetics. She has also studied the role of soil for the disposal of industrial, urban and agro-food industry wastes by focusing on heavy metals as well as, more recently, on emerging pollutants. In the latest years, she has broadened her interests on innovative practices of use of microorganisms in agriculture and on communication between plant and microorganisms. She has authored 175 national and international scientific papers, book chapters and editorships.

Michele Remonti, ERM Italia

Michele Remonti is a Senior Consultant of ERM, with 20 years' experience in the fields of water management, applied hydrogeology, groundwater modelling and contaminated sites management. Currently he is technical coordinator of projects for some of the most important contaminated sites in Italy. He led complex hydrogeological studies in Italy and abroad and has a profound knowledge of numerical groundwater modelling, applied, in particular, to manage and optimize large contaminated sites and to conduct groundwater Impact Assessment studies.

Cosimo Masini, DND Biotech

Cosimo Masini is the CEO of DND Biotech, an innovative company for the development and marketing of bio-based technologies for the remediation of industrial contaminated soil and for the recovery of fertility of agricultural soil. He has 20 years' experience in the fields of waste management, contaminated sites remediation and agriculture. Currently he is developing a new system for soil remediation, by merging biotechnologies and robotics. As a Project Manager he led complex projects in Italy and abroad, with particular focus on bioremediation. He is currently involved in a LIFE project for the use of winery waste in composting together with zeolites and in an Horizon project for the study of innovative in situ decontamination technologies for soil and groundwater.

Anacleto Rizzo, IRIDRA srl



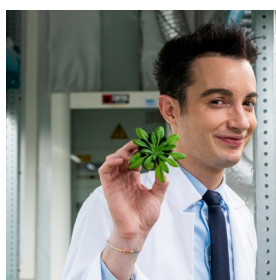
Anacleto Rizzo is MSc in Civil Engineering, PhD in Engineering for Natural and Built Environment in 2013. Expert in sustainable water management (saving, re-use, recycling); nature-based solutions for wastewater treatment (constructed wetland); water management and climate change adaptation policy; ecosystem services; green infrastructure; sustainable drainage systems (SuDS). Post-Doc in Numerical modelling of hydro-chemical processes in wetlands in 2014 (Politecnico di Torino). From April 2018 he became partner of Iridra Srl. He worked on more than 30 among feasibility studies and design projects on his specific topics. He worked since 2018 and is currently involved in 5 R&D EC Funded projects (H2020: HYDROUSA, PAVITR; MULTISOURCE, NICA; ENI CBC MED: NA-WAMED). He is author of 25 papers published on international peer review top-ranked journals and 12 book chapters as well as Editor of "Wetland Technology: Practical Information on Design and Application of Treatment Wetlands" (2019, IWA Publishing). He is also within the Editorial Board of Science of the Total Environment and Technology).

Alessio Barbagli, Scuola Superiore Sant'Anna - Institute of Life Sciences



Alessio Barbagli is graduated in geoscience (MSc at the University of Siena). In September 2017 he got a PhD at the Sant'Anna School for Advanced Studies with a thesis on "Analysis of groundwater interaction in drainage water phytotreatment and in aquifer recharge schemes". During the PhD he participated and contributed to international projects (H2020 FREEWAT, FP7 MARSOL, Italo-Israeli join project PHARM-SWAP MED, ...) focusing on hydrochemistry, emerging pollutants, managed aquifer recharge, groundwater numerical modeling and ecosystem services.

Marco Martinelli, Scuola Superiore Sant'Anna - Institute of Life Sciences



Marco graduated with honors at Sant'Anna School of Advanced Studies in Molecular and Industrial Biotechnology, where, after a PhD in Plant Biotechnology, is currently a researcher and science populizer. From 2016 he began his career in the world of scientific dissemination. He presented "Memex: La Scienza in Gioco", broadcast on Rai Scuola and Rai 2 and in the 2017/18 season he participated in the "Memex: Galileo" program, broadcasted on Rai Scuola and Rai 3. During his PhD, he started a university spin-off called Canapisti srls aiming at spreading the industrial and therapeutic use of cannabis. His main research topics focused on cannabis, synthetic cannabinoids and biofortification.
