

Ph.D. WINTER SCHOOL

of the Italian Society of Agricultural Chemistry

Current challenges in agricultural ecosystems: the need for a multidisciplinary approach

Piacenza, Italy, 13-16 February 2017

School aims

The incoming edition of the Ph.D. winter school of the Italian Society of Agricultural Chemistry is to promote scientific knowledge in a friendly environment, bringing together Ph.D. students and young scientists.



The School will be featured in base lectures regarding agricultural ecosystems, sustainable production systems and environmental changes in agricultural ecosystems. A further session will be devoted to new methods to study agricultural ecosystems, including -omic technologies.

Besides base lectures, the school will include practical sessions (metabolomic platform, root exudation, high CO₂ experiments).

Venue & costs

The school will be held at the Università Cattolica del Sacro Cuore, Campus of Piacenza (http://www.unicatt.it).

Registration is required; to register, applicants are request to send an abstract (250 words) related to the topic(s) of their research, to luigi.lucini@unicatt.it.

Registration fee is $70 \in$ and includes participation to scientific sessions (lectures and practical sessions), coffee breaks, social dinner and electronic book of abstracts. Registration is possible until the 9^{th} of February.

To complete the registration, applicants are request to connect to http://www.unicatt.it/iscrizioneonline-

<u>eventi/default.asp?idpagam=3541&pk1_evento=11032&per_studenti_UC=1;0;0;0</u> where they will find information on payment. Applicants are kindly request to complete the payment before the beginning of the school.

Accommodations are available at the school (Residenza Gasparini facilities http://educatt.unicatt.it/educatt-residenza-gasparini-il-collegio) or at the Hotel City (5 minutes walk - http://www.hotelcitypc.it/).

The cost are as follows:

- single room, Residenza Gasparini: 45 €
- one person in double room, Hotel City: 45 €
- single room, Hotel City: 68 €

For all accommodation options, applicants can contact directly the Residenza Gasparini (reception.piacenza@educatt.org - tel: +39 0523 621111).

Final programme

The school will include four sessions, across the multidisciplinary approach of studying agricultural ecosystems. Several different subjects will be faced, within the context of agricultural chemistry, in the framework of a sustainable agriculture.

Mon 13 Feb 2017	First session: Introduction to agricultural ecosystems	Chair: Vito A. Laudicina	University of Palermo
14,30-15,30	Opening and introduction of participants		
15,30-18,00	The soil environment	Michele Freppaz	Università degli Studi di Torino
	The living component of soil	Stefano Mocali	CREA - Council for Agricultural Research and Economics
	Soil-plant-microrganisms interaction	Youry Pii	Free Universit of Bolzano
18,30-21	get together dinner		
Tues 14 Feb 2017	Second session: sustainable agricultural production systems	Chair: Roberto Terzano	University A. Moro of Bari
9,00-12,30	Soil processesin subhumid and humid environments	Daniel Said Pullicino	University of Turin
	Persistence, degradation, bioavailability and plant uptake of soil organic pollutants	Ilaria Braschi	University of Bologna
	Effect of climate change on plant growth and soil microbial-plant interactions: what lies ahead?	Alessandra Fracasso & Andrea Ferrarini	UCSC, Piacenza
	Biostimulants in agriculture & abiotic stresses	Youssef Rouphael	University Federico II of Naples

14,30-18,00	Parallel practical sessions (alternating groups)		
	Visit to experimental facilities (experiments related to drought, high CO ₂ and root exudation)	Alessandra Fracasso	Università Cattolica del Sacro Cuore
	Tools to investigate rhizosphere processes	Andrea Ferrarini	Università Cattolica del Sacro Cuore
	GC/MS and UHPLC/QTOF facilities	Gabriele Rocchetti	Università Cattolica del Sacro Cuore
Wed 15 Feb 2017	Third session: Novel approaches to study agricultural ecosystems	Chair: Anita Zamboni	University of Verona
9,00-11,30	metabolomics	Fabrizio Araniti	Mediterranean university of Reggio Calabria
	Genomic approaches in agricultural sciences	Riccardo Velasco	Fondazione Edmund Mach
11,30-12,30	Transcriptomic profile: a snapshot of plant response to nutritional stress presentation of their current research by	Laura Zanin	University of Udine
	attendees		
14,30-16,30	Fourth session: Environmental challenges in agricultural ecosystems		
	Recovery of organic matter and renewable fertilizers from waste biomass	Fulvia Tambone	University of Milan
	Circular economy in agriculture: polyhydroxyalkanoates (PHAs) production from waste	Tommy P. Sciarria	University of Milan
16,30-18,00	presentation of their current research by attendees		
20,00-to on	winter school dinner		
Thur 16 Feb 2017	Fourth session:Contn'	Chair: Lucrezia Lamastra	Università Cattolica del Sacro Cuore
9,00-11,00	Precision agriculture and environmental sustainability	Matteo Gatti	Università Cattolica del Sacro Cuore
	How agroecosystems can benefit from the recovery of waste materials: opportunities and risks	Elga Monaci	Polytechnic university od Marche
	The sustainable use of wastes and the energy recovery: key technologies for bioeconomy	Daniela Pezzolla	University of Perugia
11,00-11,30	Poster prize		
11,30-12,00	Closing ceremony		

Despite the general structure includes the alternation of base lectures and practical sessions, the programme includes also the presentation of research activities / topics by the attendee, with the aim of facilitating interactions and promote the building of cooperative networks.

The scientific committee will select the best presentation, to be awarded with a prize of $200,00 \in$. Selection will be done according to scientific content, novelty and expected impact of the research.

Scientific committee

- Roberto Pinton, University of Udine
- Teodoro Massimo Miano, University A. Moro of Bari
- Claudio Ciavatta, University of Bologna
- Paola Adamo, University Federico II of Naples
- Luigi Badalucco, University of Palermo
- Luisella Celi, University of Turin
- Luca Espen, University of Milan
- Nicola Tomasi, University of Udine
- Vito Armando, Laudicina, University of Palermo
- Luigi Lucini, Università Cattolica del Sacro Cuore
- Tanja Mimmo, Free University of Bolzano
- Anita Zamboni, University of Verona
- Youry Pii, free university of Bolzano
- Said Pullicino, University of Turin
- Ilaria Braschi, University of Bologna
- Laura Zanin, University of Udine
- Fulvia Tambone, University of Milan
- Tommy Pepè Sciarria, University of Milan
- Elga Monaci, Polytechnic university of Marche
- Daniela Pezzolla, University of Perugia

Organizing committee

- Vito Armando, Laudicina, University of Palermo
- Luigi Lucini, Università Cattolica del Sacro Cuore
- Tanja Mimmo, Free University of Bolzano
- Nicola Tomasi, University of Udine
- Anita Zamboni, University of Verona

Travel information - How to reach the Campus of Piacenza

by car

Motorway A1 (Milan-Bologna) or Motorway A21 (Turin-Brescia): Exit "**Piacenza Sud**". Follow for Piacenza centre. Turn left at round-about, after the overpass go straight ahead for 500 meters, the University is on the right.

by train

http://www.ferroviedellostato.it/ The railway station Piacenza is easily reachable by the two train railway lines:

- Milan Bologna
- Turin Piacenza

Then, from the railway station (Piazza Marconi, opposite side of the street, from the exit):

- Bus No. 2 direction "S.Lazzaro Università", with stop in via Emilia Parmense
- Bus n. 3 or 7 direction "Capitolo", with stop in via E. Parmense

by airplane

- from Milan: Airports "Linate" or "Malpensa" (www.sea-aeroportimilano.it)
- from Bergamo: Airport "Orio al Serio" (www.sacbo.it) Shuttle bus connecting the airport to the train station in Milan are available at the terminals.

Further airports, for which less connections are available, are:

- from Parma: Airport "Giuseppe Verdi" (www.aeroportoparma.it)
- from Bologna: Airport "Guglielmo Marconi" (www.bologna-airport.it)
- from Brescia: Airport "Gabriele D'Annunzio" in Montichiari (www.aeroportobrescia.it)
- from Verona: Airport "Valerio Catullo" in Villafranca (www.aeroportoverona.it)

Further info

http://www.chimicagraria.it/didattica.php

http://apps.unicatt.it/formazione_permanente/piacenza.asp

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