HS8.3.4/SSS8.15:

Plant-Soil Interactions

Conveners:

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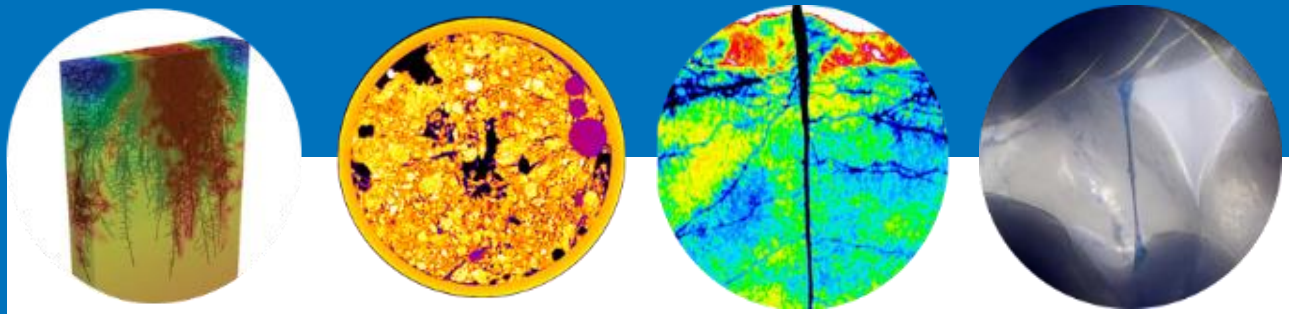
Tuesday 5 May 2020, Time 14:00 - 15:45

EGU General Assembly

Vienna, 3–8 May 2020

Session overview

EGU General Assembly
Vienna, 3–8 May 2020



This session targets researchers investigating plant-soil interactions **from the rhizosphere to the field scale** like

- Measuring and modeling water and solute fluxes across the soil-plant-atmosphere continuum
- Novel experimental and modeling techniques assessing below-ground plant processes
- Bridging the knowledge gap between biologically and physically oriented research in soil and plant sciences
- Identification of plant strategies to better access and use resources from soil under abiotic stress

How the session will work

The session takes place as a text-based online chat on Tuesday 05 May 2020 from 14:00 to 15:45.

During the chat, we will invite the authors successively as appeared in our program (the scheduled time may change as we are still expecting the authors to submit their presentations).

Based on the number of displays with submitted materials, **we estimate about 5 minutes per display.**

To facilitate the discussion of your display, we recommend you prepare **Four highlights of your research** in advance. Then paste it into your chat room when the convener invites you to present your abstract at a relevant point. These highlights should cover:

- What is the main scientific question that your abstract addresses?
- What is the main methodology used in your abstract?
- What are your key findings?
- What is your main conclusion?

To get the discussions started quickly, we recommend you l**imit each highlight to at most 20 words**.

Following your introduction, there will be an opportunity for those attending to ask questions and start a discussion about your work.

For the audience, we recommend having **two windows** of your internet browser open simultaneously: One for the chat and another for viewing the presentation uploaded by the presenters. The presenters may refer to some slides or figures included in the presentation during the text-based chat. We encourage you also to download and view the loaded presentations before the online chat.

Primarily program (Part 1)

D430 | EGU2020-20261
Root traits as key proxies to unravel plant and ecosystem functioning: entities, trait selection and[...]
Boris Rewald et al.
D431 | EGU2020-9791
Tree species interaction and soil depth affect the response of root exudates to drought
Melanie Brunn et al.
D433 | EGU2020-1196
Visualisation and quantification of wheat root system architecture and soil moisture distribution in[...]
Tinashe Mawodza et al.
D437 | EGU2020-20041
From the root's point of view: understanding the plant response to beneficial microbes, with p[...]
Borjana Arsova et al.
D438 | EGU2020-11660
Root hairs bridge the gap between roots and soil water
Patrick Duddek et al.
D440 | EGU2020-13397
Unravelling the complex interactions between root development and soil moisture profiles in the soil[...]
Debora Cynthia Maan et al.
D441 | EGU2020-14587
Quantifying and mapping citrate exudation in soil-grown root systems
Raphael Tiziani et al.
D442 | EGU2020-19056
Root development under fluctuating soil physical stress – plastic and elastic responses
Tino Colombi et al.
D443 | EGU2020-22007
Inferring plant physiologic parameters for root water uptake modelling from high frequency in-situ i[...]
Stefan Seeger et al.
D444 | EGU2020-693
Reconstructing root system architectures from non-invasive imaging techniques for the use in functio[...]
Magdalena Landl et al.

Primarily program (Part 2)

D445 | EGU2020-13701
How heterogenous distributions of hydrophobicity affects the capillary rise in soil
Jonas Bentz et al.
D448 | EGU2020-21832
Automatizing MiniRhizotron Image Acquisition
Boris Rewald et al.
D449 | EGU2020-13520
Root water uptake and its pathways across the root: quantification at the cellular scale
Mohsen Zarebanadkouki et al.
D452 | EGU2020-15591
Pore scale simulations of how mucilage alters connectivity of liquid and gas phase in the rhizosphere
Omid Esmaeelipoor Jahromi et al.
D453 | EGU2020-4844
Innovative physiological indicators for drought stress in banana
Mathilde Vantyghem et al.
D455 | EGU2020-6284
Impact of vegetation species on soil pore system and soil hydraulic properties in the high Andes
Sebastián Páez-Bimos et al.
D456 | EGU2020-9364
Quantifying how plants with different species-specific water-use strategies cope with the same droug[...]
Deepanshu Khare et al.
D458 | EGU2020-11573
The role of vegetation in the redistribution of infiltration in a semi-arid zone
Ana Berenice Garcia Perez et al.
D461 | EGU2020-16227
Soil penetration resistance affected by root exudates
Ravi Kumar Mysore Janakiram et al.
D464 | EGU2020-21559
Root dynamics and soil-enzyme activities in field bean/barley intercrops
Roberto Cardelli et al.