

Interdisciplinary ECOSENSE ring lectures 2023

Time: 14:00- 18:00 (afterwards joint pub visit planned)

Buildings are all located on the campus of the Technical Faculty along Georges-Köhler-Allee

PI	Lecture Title	Faculty	Date	Location
Werner	Impact of tree adaptations on ecosystem processes	UNR	26/01/2023	IMBIT- Nexus Lab (Build. 201)
Wallrabe	Microsystem technologies and their outdoor challenges	TF		
Lang/ Schack-Kirch	Atmosphere of soils: The mirror of belowground life	UNR	09/02/2023	IMBIT- Nexus Lab (Build. 201)
Schmitt	Photoacoustic gas sensors in climate research	TF		
Christen	Strategies to partition integrated ecosystem eddy-fluxes of CO ₂ into photosynthesis and respiration	UNR	02/03/2023	SR 01-009/13 (Build. 101)
Wöllenstein	Basics of laser spectroscopy and isotope determination	TF		
Jouda	Introduction to NMR hardware	KIT- Tech	23.03.2023 in KARLSRUHE	KIT-Campus North
Korvink	Introduction to NMR imaging and spectroscopy	KIT- Tech		
Haberstroh	Species interactions and drought in forests	UNR	20/04/2023	FIT (Build. 105)
Rühe	Sensors alone in the forest. How to protect their surfaces	TF		
Koch	Assessment of forest stands structures from different platforms	UNR	04/05/2023	FIT (Build. 105)
Reiterer	LiDAR for reconstruction in 3D	TF		
Weiler	Soil moisture and root water uptake: processes and measurement methods	UNR	25/05/2023	FIT (Build. 105)
Woias	Energy-optimized operation of embedded sensor systems	TF		
Grote	From physiological processes to forest development - Addressing the scaling issue with complex ecosystem models	KIT - Met	15/06/2023	in Freiburg -tba
Kiese	Environmental monitoring – linking measurements and modelling for bridging scales	KIT - Met		
Dormann	What is correct, our measurements or our models or neither? Embedding process knowledge in deep learning	UNR	29/06/2023	02-016 (Build. 101)
Comella	Optical sensing elements and their application for tree monitoring	TF		
Kreuzwieser	Ecological significance of volatile organic compounds (VOC) from plants	UNR	13/07/2023	SR 02-016/18, (Build. 101)
Prucker	Surface attached hydrogel layers as anti-biofouling coatings	TF		
Göritz	Hyperspectral remote sensing of forests - prospects and challenges	UNR	27/07/2023	FIT (Build. 105)
Rupitsch	Communication between embedded sensor systems	TF		

Organization

- 1st lecture à 45-60 minutes (presentation + discussion)
- coffee break
- 2nd lecture à 45-60 minutes (presentation + discussion)
- lab tour of appr. 1 hr
- possibility for a joint end of the day