

Purpose of the Meeting: The main purpose of the meeting is to strengthen our network on all aspects of microplastics, to exchange ideas, challenges and results, find partners for new collaborations, and give early stage researchers the opportunity to present their work.

Location: Empa-Akademie, Empa (Dübendorf)

Agenda:

10:00	Welcome and introduction	
	<i>Environmental Occurrence and Fate of Microplastics</i>	
10:15	Daniele la Cecilia (Eawag)	Microplastics attenuation along a drinking water production plant
10:25	Raffael Schreiber (FHNW)	Detecting microplastics in compost using hyperspectral imaging in the near infrared region and artificial neural networks
10:35	Guillaume Crosset-Perrotin (Eawag)	Validation of an analytical chain for microplastics quantification in activated sludge systems
10:45	Federica Rotta (SUSPI)	Lakes as hot-spots of microplastic accumulation along the plastic pathway: the case study of Lake Lugano
10:55	Flora Wille (ETH Zurich)	A two-year study of biodegradable mulch films in Swiss agricultural soils: Comparing laboratory, mesocosm and field incubations
11:05	Maria Elvira Murazzi (WSL)	Nanoplastics are transported from roots to foliar tissues in forest trees
11:15-11:45	Coffee Break	
11:45	Guillaume Suarez (Unisanté)	Towards standardized sampling and pre-analytical strategies to assess microplastics in air
11:55	Narain M. Ashta (Empa)	Quantifying the wet and dry atmospheric deposition of microplastics in Switzerland using analytical methods harmonized across environmental matrices
12:05	Alexandra Foetisch (University Bern)	All black: A colour-based identification of tire wear particles (TWP) from soil
	<i>Environmental Modelling</i>	
12:15	Merve Tunali (Empa)	Microplastics and tire-wear particles: Hazard assessment and derivation of effect factors for soil systems
	<i>Effects and Ecotoxicology</i>	
12:25	W. Dufey (Eawag)	Investigating the toxicity of tire and road wear particles and associated chemicals to fish in vitro
12:35	Alice Pradel (ETH Zurich)	Investigating the incorporation of micro- and nanoplastics into young artificial sea ice
12:45-14:00	Lunch	
14:00	Jian Zhao (Eawag and Beijing Normal University)	Synthetic periphyton as a model system to understand ongoing effects of microplastics on function, spatial structure, and microbial composition of periphyton

14:10	Ziwan Wang (ETH Zurich and Zheijiang University)	Exacerbating Soil Phosphorus Leaching: How Microplastics Impact Nutrient Dynamics in Soils
14:20	Tina Buerki-Thurnherr (Empa)	Micro- and Nanoplastics (MNPs) impact on maternal-fetal health
14:30	Marlene Schwarzfischer (University of Zurich, University Hospital Zurich)	Ingested nano- and microsized polystyrene particles surpass the intestinal barrier and accumulate in the body
14:40	Jane Muncke (FPF)	CUSP – the European research cluster to understand the health impacts of micro- and nanoplastics (MNPs)
14:50	Juan MG Góngora (EPF Lausanne and Unisanté Lausanne)	Microplastics exposure and human health - New insights
15:00	Jonathan Nunez (ETH Zurich)	Disentangling Microplastics Effects on Oxygen Diffusion, Microbial Activity and Greenhouse Gas Emissions
15:10	Dilani Rathnayake (Agroscope and Ihaka Institute)	Potential of pyrolysis to valorize biogenic secondary materials contaminated with plastics
	<i>Source of Microplastics</i>	
15:20	Lisa Zimmermann (FPF)	A systematic overview of food packaging as a source of micro- and nanoplastics in food
15:30-16:00	Coffee Break	
	<i>Experimental Studies and Analytics</i>	
16:00	Andreas Cramer (ETH Zurich)	Microplastic interaction with soil water distribution dynamics - visualization and quantification with dual neutron and x-ray tomography
16:10	Jessica Caldwell (AMI)	Detection of Spiked Nanoplastics in Environmental Water Samples with Raman Spectroscopy
16:20	Xinjie Wang (ETH Zurich and Beijing Normal University)	Differentiating microplastics from natural particles in aqueous suspensions using flow cytometry
16:30	Angélique Moraz (Agroscope)	Technical aspects for microplastics analysis using Py-GC/MS, exemplified with PVC fragments
16:40	Roman Schefer (ETH Zurich)	Eco-corona formation on plastics: Adsorption of dissolved organic matter to pristine and photochemically weathered polymer surfaces
16:50	Francesco Parrella (ETH Zurich)	Influence of Microplastics Composition and Algae Aggregates on Particle Settling Rates in Freshwater
17:00	Atuir Rahman (Eawag)	Synthesis of polyvinylchloride nano plastics at ambient conditions
17:10	Serge Mueller (ETH Zurich)	Elastic recoil detection analysis (ERDA) to assess the photooxidation of polymer sheets.
17:20	Steffen Kaiser (Eawag and KIT)	Probing surface properties of microplastics using magnetic seeded filtration
17:30-17:45	Wrap-Up	
17:45	Apéro	