HIGRADE Conference 2024

Poster presentations

Sustainable Ecotechnologies

1 Natalia Sánchez (AME): The future of phytoremediation
2 Aleksandra Pienkowska (AME): Climate change will increase Cd accumulation in spinach leaves
3 Juan Lopez Galvez (AME): Development of an Automated Online Flow Cytometry Method to Quantify Cell Density and Fingerprint Bacterial Communities
4 Tianyu Wang (AME): Climatic conditions impact As and Cd mobility differently in flooded paddy soils
5 Konstanze Hild (AME): Fungal VOC As Triggers For Prophage Induction
6 Ruyu Gao (AME): Verifying Feasibility of Looped Mass Transfer Design Based on Single Cell Analyses and Ecological Theory
7 Yiqing Zhang (AME): Spatial Heterogeneity of Soil Properties Shapes Residual Pesticide Concentrations on the Meter-Scale
8 Thanh Quynh Duong (AME): The fate of organic carbon and nitrogen in the subsurface: What happens along the many groundwater flow paths?
9 Simon Klaes (MEB): Microbial transformation of ambroxol and sitagliptin in urban hyporheic zone sediment under different redox conditions
10 Hannah Berreth (MIBITECH): Hydrogen production in Rhodopseudomonas palustris dominated biofilm consortia
11 Maliheh Abdollahi Mirabadi (MIBITECH): Locking out oxygen: Alternative anodic reaction for cathodic anaerobic electrobiosynthesis
12 Daniel Kähl (MIBITECH): Enhancing interspecies electron transfer in methanogenic communities growing on fatty acids
13 Aykut Kas (MIBITECH): Exploring Valuable Bioproduct Synthesis from CO2 through Integrated Electrochemical and Microbial Processes with Salt-loving Microbes
14 Yvonne Schößow (MIBITECH): Investigations of entropic barriers for electroactive bacteria
15 Shiyue Yang (MIBITECH): Thermodynamics of microbial turnover of organic compounds in soil – matter and energy flux under varying environmental conditions (water, nutrient availability, temperature)
16 Eliana Di Lodovico (MIBITECH): Substrate affects microbial driven distribution of energy and matter among organic carbon functional pools in soil
17 Selina Hanisch (MIBITECH): Towards the Development of Spatially Structured, Mixed-Species Phototrophic Biofilms
18 Zhenyu Wang (TECH): Effect of temperature on nitrate reduction by an aquifer microbial community

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Chemicals in the Environment

19 Kyriakos Soulios (COMPBC): A window in the black box: Conformal Prediction for Informed Decisions in Toxicology
20 Alina Seelig (EAC): Plant uptake of persistent and mobile chemicals
21 Rebecca Rodrigues Matos (EAC):Integrating advanced analytical approaches to study the isomeric composition of marine dissolved organic matter (DOM)
22 Konstantin Stumpf (EAC): Soil Organic Matter Formation and Stabilisation Governed through Metabolic Processes
23 Volkwin Kuntz (EAC): Quantification and occurrence of 39 tire-related chemicals in urban and rural aerosol
24 Stembridge Ayuk (IMMU): SARS-CoV-2 Infection in pregnancy using in-vitro models
25 Federica Romanelli (IMMU): Can Bisphenol A exposure threaten life at its very beginning? BPA impact on early pregnancy vascularization processes
26 Debjyoti Ghosh (MOLTOX): Cover crop monocultures and mixtures enhance bacterial abundance and functionality in the rhizosphere through root channel re-use
27 Cassandra Uthoff (MOLTOX): The effects of pesticides on the gut-brain axis and phenotypical behaviour of Western honey bee workers (Apis mellifera)
28 Alix Aldehoff (MOLTOX): Acetylation and Phosphorylation are Dynamically Involved in Adipocyte Differentiation and Provide Insight on their Response to the Emerging Plastic Additive DINCH
29 Cornelius Goerdeler (MOLTOX): MINCH causes metabolic rewiring towards lipid accumulation and adipogenesis
30 Georg Braun (ZELLTOX): Extracting complex chemical mixtures from human blood samples

Water Resources and Environment

31 Faluku Nakulopa (ASAM): Modelling effects of a reservoir on catchment nutrient dynamics under climate and land use change
32 Mufeng Chen (ASAM): Impact of forest dieback on catchment hydrology and nitrogen export
33 Anika Große (ASAM): Reactive macronutrient ratios and light as predictors for nutrient cycling in stream ecosystems
34 Safae Aala(ASAM): The Spatiotemporal Puzzle: Understanding How Dynamics of Precipitation Control the Shape and Timing Characteristics of Runoff Events
35 Julia Zill (CATHYD, FLOEK): Diffuse nutrient input to large rivers: Quantifying the dimension of groundwater discharge and its effects on riverine eutrophication in the Elbe

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Smart Models / Monitoring

36 Lily-belle Sweet (CER): Using interpretable machine learning to identify climate drivers of yield failure

37 Peter Miersch (CER): Sensitivity analysis of causal discovery on simulated river flood data using non-linear conditional independence testing

39 Feliks Kiszkurno (ENVINF): Hypothesis-testing and assisted-history-matching applied to evaluate uncertainty of model selection and parameter values: a case study of the impact of thermo-osmosis

40 Julia Kunkel (OESA): How a supra-regional hay market could increase the drought resistance of dairy farmer: a network model study

Environment and Society

41 David Manske (BEN): Monitoring Renewable Energy Landscapes

Ecosystems of the Future

43 Daniel Vedder (BIOP): Persefone.jl: landscape-scale biodiversity impacts of agricultural practice

44 Lea Kolb (BIOP): How much is the hegde? Testing policies to incentivise hedge planting

45 Guoting Shen (BOOEK): Contribution of seminal and lateral roots to the spatial distribution of organic nitrogen in the rhizosphere of maize

46 María Martín Roldán (BOOEK): Microbial growth and functional traits adaptation in a 5 years maize monoculture

47 Lena Philipp (BOOEK): Surprising Patterns of Soil Microbial characteristics in Agroecosystems under Global Change: Insights from Deeper Topsoil Investigations

48 Johannes Höfner (BZF): Genetic differentiation of common grassland species and implications for seed transfer in ecological restoration

49 Xiaoli Yang (BZF): Climate and land-use interactions shape the functional diversity of nematode communities

50 Can Zhang (CLE): Research on glacier ecosystem services and ecological compensation on the Tibetan Plateau

51 Diego Brizuela-Torres (NSF): Opportunities and bottlenecks for sustainable oil palm in Peru

52 Fabian Pröbstl (NSF): Restoration or conservation? Well, we don´t know.

53 Yva Herion (PHYDIV): How do climate change and grassland management affect plant nutrition?