

| Presenting           | Program Code | Title   | Session           |
|----------------------|--------------|---|-------------------|
| Lynette Abbott       | P1           | How influential is the common mycorrhizal network in nutrient transfer?   | 1 Mon 12:45-14:00 |
| Bartosz Adamczyk     | P2           | How interaction between fungi and plant- derived polyphenolics contributes to soil carbon stabilization?                                  | 2 Tue 12:45-14:05 |
| Bartosz Adamczyk     | P3           | Plant-associated microbes use a different pathway to decompose soil organic matter than free-living saprotrophic microorganisms.          | 3 Wed 13:10-14:30 |
| Sylwia Adamczyk      | P4           | The potential role of plant secondary metabolites in carbon and nitrogen cycling in boreal forest soils                                   | 1 Mon 12:45-14:00 |
| Alexey Afonin        | P5           | Bacterial genetic features determining the strain specificity of Pisum sativumline P61 interaction withRhizobium leguminosarum            | 2 Tue 12:45-14:05 |
| Oscar E. Aguinaga    | P6           | Peatland provides metal remediation by preserving microbial diversity and facilitating microbial Fe and S oxidation                       | 3 Wed 13:10-14:30 |
| Saija Ahonen         | P7           | Soil microbial communities in subarctic mountain birch forests in two reindeer grazing regimes recovering from a severe moth herbivory    | 1 Mon 12:45-14:00 |
| Jūratė Aleinikovienė | P8           | Determination of Changes in Soil Microbiota of Different Soil Genesis and of Long-Term Diverse Soil Use Intensity                         | 2 Tue 12:45-14:05 |
| Rana Shahbaz Ali     | P9           | Response of microbial growth to substrate complexity under different temperature regimes  | 3 Wed 13:10-14:30 |
| Dalia Ambrazaitienė  | P10          | Microbial activity in relation to changing soil chemical and physical properties  | 1 Mon 12:45-14:00 |
| Fuad Ameen           | P11          | Degradation of azo dyes by fungi inhabiting contaminated soil: Optimization of the degradation conditions with the view to bioremediation | 2 Tue 12:45-14:05 |
| Roey Angel           | P12          | New insights into the origin and role of biological rock crusts in rock weathering processes  | 3 Wed 13:10-14:30 |
| Wassila Riah-Anglet  | P13          | Introduce grassland in crop rotation, a way to restore microbialdiversity and soil function   | 1 Mon 12:45-14:00 |
| Agnès Ardanuy        | P14          | The physiology of plant soil feedbacks in temperate tree species  | 2 Tue 12:45-14:05 |

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| Floriana Augelletti         | P15 | Bioaugmentation with fluorene-degrading <i>Sphingobium</i> sp. strain LB126: role of biodiversity of resident communities on establishment and survival of the invader | 3 Wed 13:10-14:30 |
| Olubukola Oluranti Babalola | P16 | Some vast assemblage of archaea in termiteria  | 1 Mon 12:45-14:00 |
| Olubukola Oluranti Babalola | P17 | The varied assemblages of fungi on termite mounds  | 2 Tue 12:45-14:05 |
| Doreen Babin                | P18 | Impact of long-term farming practices on the rhizosphere microbiome and plant health   | 3 Wed 13:10-14:30 |
| Luciana Bachega             | P19 | Soil microbial community in an ecosystem succession chronosequence of tropical riparian forests  | 1 Mon 12:45-14:00 |
| Gyeryeong Bak               | P20 | The characteristics of soybean( <i>Glycine max</i> ) cultured soil with high microorganism activities on Saprolite soil  | 2 Tue 12:45-14:05 |
| Saka Adebayo Balogun        | P21 | Shiga Toxin Producing stx I and II genes in <i>Escherichia Coli</i> O157: H7 from Domesticated Cane Rat ( <i>Thryonomys swinderianus</i> ).                            | 3 Wed 13:10-14:30 |
| Lorena Carrasco-Barea       | P22 | Litter decomposition of three halophytic species in a Mediterranean salt marsh: influence of leaf chemical quality and edaphic heterogeneity                           | 1 Mon 12:45-14:00 |
| Milan Bartos                | P23 | MYCOBACTERIA IN THE MICROBIOMES OF HRANICE ABYSS AND ZBRASOV ARAGONITE CAVES (HRANICE KARST, CZECH REPUBLIC)   | 2 Tue 12:45-14:05 |
| Capucine Baubin             | P24 | The role of petrichor in desert soil microbial communities resuscitation during a rain event   | 3 Wed 13:10-14:30 |
| Arifa Beddiar               | P25 | Arbuscular mycorrhizal fungi enhance industrial tomato growth and production and compensate reduced fertilization levels in an Algerian field soil                     | 1 Mon 12:45-14:00 |
| Jennifer Bell               | P26 | Microbial Community Assembly Processes in a Grassland Undergoing Invasion  | 3 Wed 13:10-14:30 |
| Helene Berthold             | P27 | Consequences of climate change on PFLAs (Phospholipid Fatty Acids) in lysimeters of agricultural soils in the Pannonian area of Austria                                | 2 Tue 12:45-14:05 |
| Rebecca Bevans              | P28 | The Microbial Mediation Model: linking microbial communities, litter traits, and soil carbon cycling via community-level physiology.                                   | 1 Mon 12:45-14:00 |

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| Evgenia Blagodatskaya        | P29 | Single microbial population controls energy and carbon use efficiency during growth and starvation in soil                                     | 2 Tue 12:45-14:05 |
| Ewa Błońska                  | P30 | Soil biochemical properties and stabilization soil organic matter in relation to deadwood of different tree species                            | 3 Wed 13:10-14:30 |
| Ewa Błońska                  | P31 | The C:N:P stoichiometry of deadwood of different decomposition rate and tree species   | 1 Mon 12:45-14:00 |
| R.S. Boeddinghaus            | P32 | Short-term changes in grassland soil microbial function and composition are explained by concurrent shifts in plant functional traits          | 2 Tue 12:45-14:05 |
| R.S. Boeddinghaus            | P33 | Microbial colonization of organo-mineral complexes and microbial resource partitioning in grassland soils under different land-use intensities | 3 Wed 13:10-14:30 |
| Sophie Zechmeister-Boltenste | P34 | Nitrogen addition to temperate forests lead to changes in microbial community structure and function   | 1 Mon 12:45-14:00 |
| Hanka Brangsch               | P35 | Ecological functions of two putative Streptomyces phosphinothricin N- acetyltransferases   | 2 Tue 12:45-14:05 |
| Alfonso Méndez-Bravo         | P36 | Microbial interactions in the avocado rhizosphere: pathogenic fungi and plant growth-promoting bacteria with antifungal activity               | 3 Wed 13:10-14:30 |
| Andreas Breidenbach          | P37 | Impact of pasture degradation on the structure and function of microbial communities on the Tibetan Plateau                                    | 1 Mon 12:45-14:00 |
| Betânia Guedes Souza e Brito | P38 | Decomposition Parameters Using the TBI Method in Two Cerrado Environments in Southeast Brazil  | 2 Tue 12:45-14:05 |
| Juan Antonio Campos          | P39 | Microbiological activity and plant colonization patterns in a so long abandoned sulfide mine precinct  | 3 Wed 13:10-14:30 |
| Michael Carson               | P40 | Culturing techniques in the age of omics: Strategies for obtaining uncultured soil microorganisms and genomes from environmental samples       | 1 Mon 12:45-14:00 |
| Carmen Trasar-Cepeda         | P41 | Microbial biomass C and C mineralisation of a seaweed-gorse substrate  | 2 Tue 12:45-14:05 |
| Carmen Trasar-cepeda         | P42 | Impact of the ionic liquid [C1C1Im] [DMP] on soil microbial activity in a forest soil  | 3 Wed 13:10-14:30 |
| Dorkrak Chaisarn             | P43 | Effect of Plant Growth Promoting Endophytic Bacteria on Riceberry Rice   | 1 Mon 12:45-14:00 |

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| Timofey Chernov         | P44 | Comparison of buried and surface soils microbiomes by qPCR and NGS   | 2 Tue 12:45-14:05 |
| Vivek Kumar Choudhary   | P45 | Bacterial typing of rhizospheric communities of the <i>Thysanotlæna latifolia</i> (Roxb. ex Hornem.) Honda., fam. Poaceae., associated with iron ore mines | 3 Wed 13:10-14:30 |
| Alica Chroňáková        | P46 | Increasing bacterial contribution in the nitrification following turf disturbances of the translocated wet meadows   | 1 Mon 12:45-14:00 |
| Lucie Cihlářová         | P47 | The effect of plants with different mycorrhizal preferences on soil fungal community composition   | 2 Tue 12:45-14:05 |
| Anna Clocchiatti        | P48 | Stimulating saprotrophic fungi in agricultural soils   | 3 Wed 13:10-14:30 |
| Irene Cordero           | P49 | Strong legacy effects of intense and frequent droughts on soil microbial community structure and function  | 1 Mon 12:45-14:00 |
| Ohana Y. de Assis Costa | P50 | Optimization of growth and EPS production of two strains of Acidobacteria  | 2 Tue 12:45-14:05 |
| Valentine Cyriaque      | P51 | Following the impact of metals on river sediments in microcosms: metals as a community manager   | 3 Wed 13:10-14:30 |
| Evi Deltedesco          | P52 | Increases in temperature and atmospheric CO <sub>2</sub> can induce shifts in soil microbial communities   | 1 Mon 12:45-14:00 |
| Timo Domisch            | P53 | Effects of repeated water-logging periods during the growing season on soil conditions and Scots pine seedlings  | 2 Tue 12:45-14:05 |
| Anna Maria Fiore-Donno  | P54 | Small-scale spatial structure of a major group of soil protists (Cercozoa, Rhizaria) in a temperate grassland revealed by high- throughput sequencing      | 3 Wed 13:10-14:30 |
| Laila Dubova            | P55 | Soil microbiological activity in differently cultivated Faba bean ( <i>Vicia faba</i> L.) fields   | 1 Mon 12:45-14:00 |
| Pravinkumar Dudhagara   | P56 | Cross-biome Metagenomic Assessment of Saline Soil Microbial Communities of Kutch Desert, India   | 2 Tue 12:45-14:05 |
| Konrad Egenolf          | P57 | Heterotrophic nitrate immobilization – a neglected variable in crop BNI performance?   | 3 Wed 13:10-14:30 |
| Lill Eilertsen          | P58 | Defining sustainable and economic forestry practices with minimal impact on soil biodiversity and maximum benefits for tree growth                         | 1 Mon 12:45-14:00 |
| Dana Elhottová          | P59 | Interaction of manure, soil and bacteria in spreading of resistance to antibiotics   | 2 Tue 12:45-14:05 |

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| Marcia Astorga-Eló       | P60 | Rhizobacterial community composition and potential PGPR associated to the Flowering Desert phenomenon in the Atacama Desert, Chile.                          | 3 Wed 13:10-14:30 |
| Ángeles Prieto-Fernández | P61 | Assisted phytostabilization of Cu- contaminated mine-soil using combinations of soil amendments and bioinoculants  | 1 Mon 12:45-14:00 |
| Ángeles Prieto-Fernández | P62 | Rhizosphere bacterial communities of Ni-hyperaccumulating plants in ultramafic soils analysed using traditional isolation and culture independent techniques | 2 Tue 12:45-14:05 |
| Violeta Angulo Fernández | P63 | Designing microbial inoculants that improve the ability of compost amendments to restore degraded soils  | 3 Wed 13:10-14:30 |
| Hanna Friberg            | P64 | Fungal communities in winter wheat – effects of cropping practices   | 1 Mon 12:45-14:00 |
| Yu Fukasawa              | P66 | Foraging association between myxomycetes and fungal communities on coarse woody debris   | 3 Wed 13:10-14:30 |
| Talia Gabay              | P67 | Bacterial communities of rehabilitated biological soil crusts in desert phosphate mines  | 1 Mon 12:45-14:00 |
| Sara Gallego             | P68 | Ecotoxicological effects of wastewater borne contaminants on microbial communities from soils previously exposed to pesticides.                              | 2 Tue 12:45-14:05 |
| Sara Gallego             | P69 | Ecotoxicological impact of oxamyl on the abundance and diversity of bacterial communities in an agricultural soil adapted to enhanced degradation.           | 3 Wed 13:10-14:30 |
| Carlos Garbisu           | P70 | Rhizoremediation of mixed contaminated soil using Brassica napus and a bacterial consortium  | 1 Mon 12:45-14:00 |
| Carlos Garbisu           | P71 | Antibiotic resistant genes in agricultural soil amended with sewage sludge   | 2 Tue 12:45-14:05 |
| Richard Gere             | P72 | Functional diversity of soil microorganisms in natural and managed forest ecosystems: influence of forest stand age and tree species                         | 3 Wed 13:10-14:30 |
| Júlia Brandão Gontijo    | P74 | Linking archaeal diversity to potential functions in Amazonian wetlands' sediments   | 1 Mon 12:45-14:00 |
| Juan M. Gonzalez         | P75 | Influence of soil temperature and water content on microbial extracellular enzyme activities   | 2 Tue 12:45-14:05 |
| Nina Goodey              | P76 | Distribution of soil extracellular phosphatase activity across soil macro – and micro-environments   | 3 Wed 13:10-14:30 |

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| Adrian Gorecki                | P77 | Bacterial plasmids and their ecological role in Arctic permafrost environment   | 1 Mon 12:45-14:00 |
| Sue Grayston                  | P78 | Nutrient availability and vegetation cover as drivers of fungal diversity in reconstructed oil-sands soils and natural boreal forest soils. | 2 Tue 12:45-14:05 |
| Timothy Philpott, Sue Graysto | P79 | Fine-root decomposer fungi are largely decoupled from dominant vegetation and edaphic gradients through secondary succession                | 3 Wed 13:10-14:30 |
| Paola Grenni                  | P80 | Assessment of the natural microbial community in a cattle manure-amended soil in presence/absence of the antibiotic sulfamethoxazole        | 1 Mon 12:45-14:00 |
| Florian Gschwend              | P81 | Next-generation soil quality monitoring   | 2 Tue 12:45-14:05 |
| Heng Gui                      | P82 | Funneliformis mosseae alters soil fungal community dynamics and composition during litter decomposition                                     | 3 Wed 13:10-14:30 |
| Esther Guillot                | P83 | With or without tree: What impact of a Mediterranean agroforestry system on microbial biomass CNP in drought stress conditions?             | 1 Mon 12:45-14:00 |
| Esther Guillot                | P84 | Decomposers' activity along a spatial gradient in a Mediterranean agroforestry system   | 2 Tue 12:45-14:05 |
| Lenka Harantova               | P85 | Composition of soil and root-associated bacterial communities along plant diversity gradient  | 3 Wed 13:10-14:30 |
| Juho Hautsalo                 | P86 | Inclusion of mycorrhizal symbiosis could reform the phosphorus fertilization of strawberry  | 1 Mon 12:45-14:00 |
| Petra Havlíčková              | P87 | Effects of vegetation and chemistry on diversity and composition of bacterial community across temperate montane forests                    | 2 Tue 12:45-14:05 |
| Bobbi Helgason                | P88 | Diverse crop rotations impact the root microbiome and soil microbial processes  | 3 Wed 13:10-14:30 |
| Pirjo Yli-Hemminki            | P89 | Enrichment of plant growth promoting bacteria and fungi by means of crop rotation and organic matter amendments in field soil               | 1 Mon 12:45-14:00 |
| Nirmalee Bhagya Wijayalath H  | P90 | Impact of top canopy Scots pine harvesting on soil fungal communities and litter decomposition in a primary successional site.              | 2 Tue 12:45-14:05 |
| Bridget Hilbig                | P91 | Exploring soil biological complexity across different urban agroecosystems on the Wasatch Front   | 3 Wed 13:10-14:30 |

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| Martin Brtnicky, Jiri Holatko, J | P92  | Effect of differently changed biochar on cornerstones of Soil Food Web  | 1 Mon 12:45-14:00 |
| Adrian Ho                        | P93  | Effect of salt stress on aerobic methane oxidation and associated methanotrophs; a microcosm study.                                 | 2 Tue 12:45-14:05 |
| Martin Brtnicky, Jan Hladky, Ji  | P94  | Effect of different soil types of organic matter application on biological parameters of soil                                       | 3 Wed 13:10-14:30 |
| Chien-Jui Huang                  | P95  | Bacillus subtilis F29-3 produces a novel polyketide compound to promote plant growth and its interplay with fengycin and surfactin  | 1 Mon 12:45-14:00 |
| Anna-Sofia Hug                   | P96  | Implementing metabarcoding of soil microbial communities into a long-term soil monitoring network                                   | 2 Tue 12:45-14:05 |
| Nan Hui                          | P97  | Urban green space, human microbiome and immune-mediated diseases – comparisons between urban and rural elderly in the Lahti region  | 3 Wed 13:10-14:30 |
| Jenni Hultman                    | P98  | epicPCR to study host range of antibiotic resistance genes  | 1 Mon 12:45-14:00 |
| Zander Rainier Human             | P99  | Seasonal changes of bacterial and fungal communities in Picea abies forests   | 2 Tue 12:45-14:05 |
| Karoliina Huusko                 | P100 | Carbon to agricultural fields: Impacts of organic soil amendments on soil microbes and transformation of soil organic matter        | 3 Wed 13:10-14:30 |
| Hussein I. Ibrahim               | P101 | Impact of Polycyclic Aromatic Hydrocarbons (PAHs) on Active Naphthalene-Degrading Bacteria in Urban Soils                           | 1 Mon 12:45-14:00 |
| Heribert Insam                   | P102 | Reclamation of acid soils with biomass ashes from pyrolytic wood liquefaction   | 2 Tue 12:45-14:05 |
| Heribert Insam                   | P103 | Old foes and novel suspects lead to an extended model of apple replant disease  | 3 Wed 13:10-14:30 |
| Jan Jansa                        | P104 | Arbuscular mycorrhiza facilitated phosphorus acquisition by Medicago truncatula even under severe drought                           | 1 Mon 12:45-14:00 |
| Mayuko Jomura                    | P105 | Response to environmental stresses of decomposition respiration and microbial biomass of dead wood inoculated with Lentinula edodes | 2 Tue 12:45-14:05 |
| Jaanis Juhanson                  | P106 | Microbial communities are not linked to vegetation changes induced by long-term warming across the Arctic                           | 3 Wed 13:10-14:30 |
| Jaanis Juhanson                  | P107 | Plant species and elevation shape composition and phylogenetic diversity of root-associated bacterial communities                   | 1 Mon 12:45-14:00 |

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| Robert Kahle         | P108 | Elevated Temperature Changes the Ratio between Auto- and Heterotrophic Soil Respiration in an Agroecosystem                         | 2 Tue 12:45-14:05 |
| Ida Karlsson         | P109 | Unravelling the role of protists in microbial networks in agricultural soil   | 3 Wed 13:10-14:30 |
| Marta Domżał-Kędzia  | P110 | Production of levan by newly isolated Bacillus strains from Eisenia fetida microflora.  | 1 Mon 12:45-14:00 |
| Katharina Keiblinger | P111 | Cu application disrupts the bacterial community structure and the soil N cycle  | 2 Tue 12:45-14:05 |
| Lee Kerkhof          | P112 | Bacterial rRNA operon profiling of Arctic tundra soils by Oxford Nanopore MinION sequencing   | 3 Wed 13:10-14:30 |
| Muawwar Ali Khan     | P113 | Microbial community structure of biochar enhanced sandy soil in response to altered physicochemical properties                      | 1 Mon 12:45-14:00 |
| Munawwar Ali Khan    | P114 | Bacterial community structure of sandy soil treated with green compost, composted sludge and compost with bio- fertilizer           | 2 Tue 12:45-14:05 |
| Heikki Kiheri        | P115 | Effects of 15 Years of Nutrient Addition on Ericoid Mycorrhizal Colonization at Whim Bog  | 3 Wed 13:10-14:30 |
| Oili Kiikkilä        | P116 | In situ phytoremediation of soil polluted with both oil and heavy metals; the function of the rhizosphere microbes of Populus sp.   | 1 Mon 12:45-14:00 |
| O. Janne Kjønaas     | P117 | How does tree species change affect forest soil C stocks, C mineralization rates, organic matter stability and microbial diversity? | 2 Tue 12:45-14:05 |
| Jenna Knuutinen      | P118 | Interaction of nickel with bacteria isolated from a nutrient-poor boreal bog  | 3 Wed 13:10-14:30 |
| Mikuláš Kočiš        | P119 | The microbial community of cambisol at plots with different land use  | 1 Mon 12:45-14:00 |
| Petr Kohout          | P120 | Role of exotic woody plant species in introductions of non-native symbiotic fungi   | 2 Tue 12:45-14:05 |
| Jan Kopecky          | P121 | Decomposition of beech litter: early fungi colonization and late bacterial communities structure                                    | 3 Wed 13:10-14:30 |
| Elmarie Kotzé        | P122 | Effect of rangeland management on soil microbial communities in a sandy savanna and clayey grassland ecosystem, South Africa        | 1 Mon 12:45-14:00 |
| Martina Kracmarova   | P123 | Influence of different types of fertilization, crop rotation and geochemical composition on soil microbial structures               | 2 Tue 12:45-14:05 |

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| Ekaterina N. Tikhonova, Irina | P124 | Methylotrophy as metabolic adaptation and survival strategy of <i>Azospirillum</i> in wetlands  | 3 Wed 13:10-14:30 |
| Irina Kravchenko              | P125 | Natural reforestation impact on the microbial communities in gray forest soils  | 1 Mon 12:45-14:00 |
| Katharina Kujala              | P126 | Ecophysiology of arsenic- and antimony-metabolizing microorganisms in peatlands treating mining-affected waters   | 2 Tue 12:45-14:05 |
| Niina Lallukka                | P127 | Remediation of oil-polluted soils in situ through stimulation of the indigenous microbes with physical and chemical treatments                                    | 3 Wed 13:10-14:30 |
| Tuula Larmola                 | P128 | Do foliar <sup>15</sup> N patterns indicate shifts in mycorrhizal abundance and function under nutrient load?   | 1 Mon 12:45-14:00 |
| Gwenaëlle Lashermes           | P129 | Responses of microbial degradation patterns of soil organic matter to a gradient of anthropogenic pressure on agrosystems   | 2 Tue 12:45-14:05 |
| Tarja Lehto                   | P130 | Temperature affected the formation of arbuscular mycorrhizas and ectomycorrhizas in <i>Populus angustifolia</i> more than a mild drought                          | 3 Wed 13:10-14:30 |
| Julieta Orlando               | P131 | Selectivity of <i>Peltigera frigida</i> for bacterial groups of their microbiome  | 1 Mon 12:45-14:00 |
| Leandro Lemos                 | P132 | A novel unculturable <i>Parcubacteria</i> presents a versatile metabolism adapted to long-term effects of anoxic conditions in deforested Amazon soil             | 2 Tue 12:45-14:05 |
| Tereza Leonhardt              | P133 | Zinc and arsenic over-accumulation trait in <i>Russula</i> spp.   | 3 Wed 13:10-14:30 |
| Dejun Li                      | P134 | Responses of biological N <sub>2</sub> fixation to multiple environmental changes   | 1 Mon 12:45-14:00 |
| Honghong Li                   | P135 | Soil bacterial response to different fertilizer-crop managements in a boreal climate  | 2 Tue 12:45-14:05 |
| Young Woon Lim                | P136 | Guild patterns of basidiomycetes community associated with <i>Quercus mongolica</i>   | 3 Wed 13:10-14:30 |
| Qiang Lin                     | P137 | Microbial phylogenetic structure and interactions along primary succession  | 1 Mon 12:45-14:00 |
| Jennifer Stoiber-Lipp         | P138 | Microbial communities at two coal tar waste contaminated sites  | 2 Tue 12:45-14:05 |
| Merja Lusa                    | P139 | Uptake and reduction mechanisms of selenium(IV) in two heterotrophic aerobic <i>Pseudomonads</i> strains – effects on plant uptake by <i>Arabidopsis thaliana</i> | 3 Wed 13:10-14:30 |

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| Shiyu Ma                           | P140 | Soil chemistry and environmental conditions but not land-use history affect soil microbial community composition in temperate forests in Europe | 1 Mon 12:45-14:00 |
| Irena Maček                        | P141 | Biodiversity and community composition of arbuscular mycorrhizal fungi in selected biodiversity hot spots of the Balkan Peninsula               | 2 Tue 12:45-14:05 |
| Anélia Marais                      | P142 | Influence of oats cover crop vs no cover crop preceding dryland lucerne establishment on some aspects of soil microbial ecology                 | 3 Wed 13:10-14:30 |
| Marketa Sagova-Mareckova           | P143 | The structure of microbial communities is related to seed predation by carabid beetles.   | 1 Mon 12:45-14:00 |
| Marco Antonio Lopez Marin          | P144 | Exploring the potential of <i>Micrococcus luteus</i> culture supernatant for enhancing the culturability of soil bacteria                       | 2 Tue 12:45-14:05 |
| Karita Saravesi, Annamari Markkola | P145 | Elevated blue light alters ectomycorrhizal fungal communities in roots of Scots pine seedlings and soil enzyme activities                       | 3 Wed 13:10-14:30 |
| Tijana Martinović                  | P146 | Microbial utilization of carbon in the soil of a temperate forest   | 1 Mon 12:45-14:00 |
| Laure Schneider-Maunoury           | P147 | The black truffle <i>Tuber melanosporum</i> , ectomycorrhizal with trees and endophyte with herbs   | 2 Tue 12:45-14:05 |
| Johanna Mayerhofer                 | P148 | Monitoring of soil bacterial communities across the diverse landscape of Switzerland  | 3 Wed 13:10-14:30 |
| Annelein Meisner                   | P149 | Legacy of drying-rewetting affects soil microbial response to freeze-thawing  | 1 Mon 12:45-14:00 |
| Lucas William Mendes               | P150 | Breeding for resistance to soil-borne pathogen impacts rhizosphere microbiome in common bean  | 2 Tue 12:45-14:05 |
| Carolina Merino                    | P151 | Iron reducing bacteria in humid temperate rain forest soils maintain lignocellulose decomposition under anoxic conditions                       | 3 Wed 13:10-14:30 |
| Éva Mészáros                       | P152 | Microbial community changes in a short-term fertilization experiment on temperate forest soils  | 1 Mon 12:45-14:00 |
| Mitiku Mihiret                     | P153 | Impact of treated wastewater irrigation on proliferation of antibiotic resistant genes and Class 1 integrons in soil and crops                  | 2 Tue 12:45-14:05 |

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| Taru Sandén                | P154 | Bacterial communities affected by organic amendments down to one meter in a long-term field experiment   | 3 Wed 13:10-14:30 |
| Daniel Miller              | P155 | Simulated winter incubation of soil and swine manure differentially affects multiple antimicrobial resistance elements                                     | 1 Mon 12:45-14:00 |
| Maki Miura                 | P156 | Effects of freeze-thaw and dry-wet events in an arable soil  | 2 Tue 12:45-14:05 |
| Nada Salloom Mohammed      | P157 | Effect of agronomic practices on arbuscular mycorrhizal root colonisation and inoculum density in two cultivars of spelt wheat ( <i>Triticum spelta</i> ). | 3 Wed 13:10-14:30 |
| Sucharitha Kannappan Mohan | P158 | Cloning of <i>Saccharomyces cerevisiae</i> halo-tolerance Hal1 gene into <i>Escherichia coli</i> XL10  | 1 Mon 12:45-14:00 |
| Sucharitha Kannappan Mohan | P159 | Bioactive potential of <i>Halomonas pacifica</i> MML1909 isolated from Saltpan   | 2 Tue 12:45-14:05 |
| Shinsuke Mori              | P160 | Bacterial profiles in the submerged soil around direct-seeded rice and involvement of several organic acids in poor seedling emergence                     | 3 Wed 13:10-14:30 |
| Shinsuke Mori              | P161 | Bacterial profiles in the submerged soil around direct-seeded rice with different seed-coating materials   | 1 Mon 12:45-14:00 |
| Shinsuke Mori              | P162 | Submerged soil collection method for studies on soil microbial changes around directly seeded rice seeds   | 2 Tue 12:45-14:05 |
| Shinsuke Mori              | P163 | Bacterial profiles in the soil around direct-seeded rice coated with calcium peroxide under submerged soil conditions                                      | 3 Wed 13:10-14:30 |
| Håvard Kauserud            | P164 | Soil depth matters: Bacteria, fungi and micro-eukaryotes are all strongly structured by soil depth   | 1 Mon 12:45-14:00 |
| David Myrold               | P165 | Intra-annual Variation of Soil Microbial Communities   | 2 Tue 12:45-14:05 |
| Riina Muilu-Mäkelä         | P166 | Living Sphagnum layer hosts essential microbes with potential for biotechnological applications  | 3 Wed 13:10-14:30 |
| Fernanda Nakamura          | P167 | Eastern Amazonian soils' methane emission varies due to changes in moisture and temperature  | 1 Mon 12:45-14:00 |
| Diana Nebeská              | P168 | Development of PLFA profile of soil microbial communities during pot growth of <i>Miscanthus x giganteus</i> in contaminated soils                         | 2 Tue 12:45-14:05 |

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| Taylor Nelson              | P169 | Biodegradation of synthetic aliphatic polyesters: using stable carbon isotope labeling to track polyester fate in soils                                    | 3 Wed 13:10-14:30 |
| Tiina Nieminen             | P170 | An increasing trend in soil solution nitrate concentrations during a twenty-year- monitoring period in a Norway spruce forest                              | 1 Mon 12:45-14:00 |
| Olabiya Obayomi            | P171 | Impact of treated wastewater irrigation on soil and crop microbial communities   | 2 Tue 12:45-14:05 |
| Adriana L. Romero-Olivares | P172 | Presence and abundance of nitrogen metabolism genes explain fungal community shifts and ecosystem-carbon dynamics in nitrogen enrichment field experiments | 3 Wed 13:10-14:30 |
| Jewel De Padua             | P173 | Biosorption of Nickel by the Fungus Trichoderma Isolated from Soil, Leaf Litter and Marine Substrata   | 1 Mon 12:45-14:00 |
| Ansa Palojärvi             | P174 | Soil microbial and structural properties as sensitive soil quality indicators affected by long-term crop sequence and manure use                           | 2 Tue 12:45-14:05 |
| Woojun Park                | P175 | Exopolysaccharide production and biofilm formation in soil- dwelling Acinetobacter oleivorans DR1 under oxidative stress                                   | 3 Wed 13:10-14:30 |
| Krista Peltoniemi          | P176 | Fungal biomass and species composition in boreal peatland forests estimated by in- growth mesh bag method  | 1 Mon 12:45-14:00 |
| Mari Pent                  | P177 | Bacterial communities in mushrooms: what determines their structure and function?  | 2 Tue 12:45-14:05 |
| Igor Pessi                 | P178 | Metagenomic analysis of microbial communities in soils along a natural climate gradient in the Scandinavian sub- Arctic                                    | 3 Wed 13:10-14:30 |
| Lauralie Mangeot-Peter     | P179 | Jasmonic acid signalling pathway alters the structuring of the root microbiome in Grey Poplar  | 1 Mon 12:45-14:00 |
| Martin Pingel              | P180 | Response of soil microbial communities and soil functions to long-term soil perturbation and nitrogen fertilization in a perennial cropping system         | 2 Tue 12:45-14:05 |
| Christian Poll             | P181 | The enzymatic landscape of undisturbed soils – Evaluation and improvement of enzyme zymography   | 3 Wed 13:10-14:30 |
| Paulina Pradel             | P182 | Impact of long-term in situ warming on bacterial rhizobiome from Antarctic vascular plants.  | 1 Mon 12:45-14:00 |

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| Nadine Praeg                    | P183 | Highly sensitive quantification of methanogenic and methanotrophic microorganisms via droplet digital PCR (ddPCR)                      | 2 Tue 12:45-14:05 |
| Cindy Prescott                  | P184 | Dispersed variable-retention harvesting mitigates N losses on harvested sites despite changes in soil microbial community structure    | 3 Wed 13:10-14:30 |
| Karin Pritsch                   | P185 | Reactions of ectomycorrhizal communities of spruce and beech to repeated extreme droughts  | 1 Mon 12:45-14:00 |
| Marja Roslund, Riikka Puhakka   | P186 | Greening of daycare yards modifies skin and gut microbiota and enhances well-being of urban children in Finland                        | 2 Tue 12:45-14:05 |
| Anuliina Putkinen               | P187 | Links between soil CH <sub>4</sub> cycling and tree-derived CH <sub>4</sub> emissions on a forestry-drained peatland                   | 3 Wed 13:10-14:30 |
| Miguel A. Ramos                 | P188 | Selection of high performance strains of edible mycorrhizal fungi for improved abiotic stress resistance                               | 1 Mon 12:45-14:00 |
| Irina Bergström, Katri Rankinen | P189 | Integrated Biodiversity Conservation and Carbon Sequestration in the Changing Environment (IBC-CARBON)                                 | 2 Tue 12:45-14:05 |
| Katri Rankinen                  | P190 | Consequences of brownification for ecological indicators in Lake Pääjärvi-past and future  | 3 Wed 13:10-14:30 |
| Bahar S. Razavi                 | P191 | Hot experience for cold-adapted microorganisms: temperature sensitivity of soil microbial enzymes                                      | 1 Mon 12:45-14:00 |
| Thomas Reitz                    | P192 | Combined effects of land use intensification and climate change on microbial decomposition processes in soils.                         | 2 Tue 12:45-14:05 |
| Frédérique Reverchon            | P193 | Shifts in the structure of rhizosphere microbial communities of avocado ( <i>Persea americana</i> Mill.) after <i>Fusarium</i> dieback | 3 Wed 13:10-14:30 |
| Barbara Kieliszewska-Rokicka    | P194 | Mycorrhizas of white poplar ( <i>populus alba</i> L.) in riparian forests with diverse hydrological conditions                         | 1 Mon 12:45-14:00 |
| Niina Lallukka                  | P195 | TANIA: Treating contamination through nanoremediation  | 2 Tue 12:45-14:05 |
| Maria Rudawska                  | P196 | Do forest management and environmental variables drive diversity patterns of ectomycorrhizal fungi in mixed coniferous forests?        | 3 Wed 13:10-14:30 |

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| Fabiana Russo        | P197 | Soil fungi isolated from DDT-polluted soils: assessment of tolerance, interspecific metabolic diversity and efficacy of rhizo- bioremediation         | 1 Mon 12:45-14:00 |
| Jan Sácký            | P198 | Functional analysis of Zn transporters of the ectomycorrhizal Zn-accumulating fungus <i>Russula atropurpurea</i>                                      | 2 Tue 12:45-14:05 |
| Aurelien Sghaï       | P199 | How do changes in either plant or soil microbial diversity affect agro-ecosystem functioning?   | 3 Wed 13:10-14:30 |
| Hans Sandén          | P200 | Exclosures and eucalyptus plantations on degraded land improve soil properties and shift the soil fungal community composition in Ethiopian highlands | 1 Mon 12:45-14:00 |
| Minna Santalahti     | P201 | The long term effect of reindeer grazing on soil fungal communities and enzyme activities in boreal coniferous forests in Finland                     | 2 Tue 12:45-14:05 |
| Margarida Santana    | P202 | Changing soil environments and the role of microorganisms at high temperatures  | 3 Wed 13:10-14:30 |
| Elena Gomez-Sanz     | P203 | Metagenomic analysis of long-term land- use effects on soil microbial communities in 600-year Alpine pasture system                                   | 1 Mon 12:45-14:00 |
| Elena Gomez-Sanz     | P204 | Microbial composition and antimicrobial resistance determinants in one of the oldest experimental agricultural field soils in Europe                  | 2 Tue 12:45-14:05 |
| Melanie Sapp         | P205 | The plant microbiome is shaped by an interplay between top-down and bottom- up processes  | 3 Wed 13:10-14:30 |
| Achim Schmalenberger | P206 | Grassland microbial communities respond to soil drainage and phosphorus availability  | 1 Mon 12:45-14:00 |
| Achim Schmalenberger | P207 | The effect of sulfate fertilization of grassland columns on soil microbiota and nematodes   | 2 Tue 12:45-14:05 |
| Sanja Schwalb        | P208 | Soil ionoMICS – Linking elemental composition of microorganisms to soil fertility and their C and N storage capacity                                  | 3 Wed 13:10-14:30 |
| Mikhail Semenov      | P209 | Towards to physiological status of soil microorganisms determined by RNA:DNA ratio  | 1 Mon 12:45-14:00 |
| Jasmin Seven         | P210 | Food for microbes - C:N:P stoichiometry of microbial biomass and incorporation of nutrients into cellular pools respond to altered nutrient levels    | 2 Tue 12:45-14:05 |

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| Regina Shalygina     | P211 | MICROFUNGI, ALGAE AND CYANOBACTERIA IN SOILS POLLUTED WITH FLUORIDE (KOLA PENINSULA, RUSSIA)   | 3 Wed 13:10-14:30 |
| Richa Sharma         | P212 | Have bioinoculants won the race against chemical fertilizers: Case study with pigeonpea!   | 1 Mon 12:45-14:00 |
| Lingling Shi         | P213 | Forest disturbance causes loss of functionally dominant fungi in a tropical rain forest in SW China  | 2 Tue 12:45-14:05 |
| Yuta Shimizu         | P214 | Re-evaluation for indirect-inhibition effect of <i>Fusicolla acetilerea</i> on establishment of seedlings from iron-coated seeds of rice, comparing with <i>F. merismoides</i> | 3 Wed 13:10-14:30 |
| Fedor Shirshikov     | P215 | On the new genomospecies " <i>Candidatus Pectobacterium maceratum</i> ", a necrotrophic bacterium with own insect vector   | 1 Mon 12:45-14:00 |
| Outi-Maaria Sietiö   | P216 | The impact of plant-derived carbon flow on root litter decomposition   | 2 Tue 12:45-14:05 |
| Aino Smolander       | P217 | Soil nitrogen cycling in relation to terpenes and tannins: Examples from forest bioenergy harvest  | 3 Wed 13:10-14:30 |
| Adriano Sofo         | P218 | Genetic and functional diversity of soil bacterial communities in an olive grove managed with sustainable or conventional approaches   | 1 Mon 12:45-14:00 |
| Hong-Gyu Song        | P219 | Screening of soil bacteria with antimicrobial activity against several microbial residents on human skin   | 2 Tue 12:45-14:05 |
| Hong-Gyu Song        | P220 | Degradation of aflatoxin B1 and inhibition of aflatoxigenic fungi by some soil bacteria  | 3 Wed 13:10-14:30 |
| Leandro de Souza     | P221 | Soil pH modulation impacts microbial activity and 16S rDNA operon copies number in Amazon soils  | 1 Mon 12:45-14:00 |
| Heide Spiegel        | P222 | How does long-term different tillage management affect soil microbiota?  | 2 Tue 12:45-14:05 |
| Michal Strejcek      | P223 | Comparison of whole-cell MALDI-TOF MS and 16S rRNA gene analysis for dereplication of soil bacterial isolates  | 3 Wed 13:10-14:30 |
| Martina Štursová     | P224 | Long-term litter decomposition in the montane forest of Central Europe.  | 1 Mon 12:45-14:00 |
| Salisa Suchitwarasan | P225 | Potential for growth enhancement by arbuscular mycorrhizal fungi in potato.  | 2 Tue 12:45-14:05 |

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| Afnan Khalil Ahmad Suleiman | P226 | Responses of bacterial and protist communities to organic and conventional fertilization in distinct soil types                                     | 3 Wed 13:10-14:30 |
| Afnan Khalil Ahmad Suleiman | P227 | Impact of microalgae-fertilizer on soil microbiome, greenhouse gases emissions and plant growth   | 1 Mon 12:45-14:00 |
| Jachym Suman                | P228 | <i>Pseudomonas alcaliphila</i> JAB1 – a versatile degrader of aromatics of both natural and anthropogenic origin                                    | 2 Tue 12:45-14:05 |
| Ida Szmigiel                | P229 | Xylulolitic and cellulolitic activity of <i>Bacillus subtilis</i> strains isolated from microflora of the soil worm <i>Eisenia foetida</i>          | 3 Wed 13:10-14:30 |
| Zelalem Taye                | P231 | Canola Rhizosphere Microbiome: Potential Source of Genetic Variability for Future Canola Breeding   | 1 Mon 12:45-14:00 |
| Zelalem Taye                | P232 | Fine Root Dynamics and Its Possible Implications in Structuring the Rhizosphere Microbial Community in Sixteen <i>Brassica napus</i> (Canola) Lines | 2 Tue 12:45-14:05 |
| Catarina Teixeira           | P233 | Distribution and diversity of anammox bacteria in NW Portuguese coastal environments  | 3 Wed 13:10-14:30 |
| Eeva Terhonen               | P234 | Biocontrol Potential of Forest Tree Endophytes  | 1 Mon 12:45-14:00 |
| Sakshi Tewari               | P235 | Multifaceted bioformulations enhancing nodulation and growth attributes of pigeon pea under multi-stress conditions                                 | 2 Tue 12:45-14:05 |
| Ella Thoen                  | P236 | The ubiquitous mycenans – purely saprotrophs or potential plant root symbionts?   | 3 Wed 13:10-14:30 |
| Sherlyn Tipayno             | P237 | Metagenomic assessment of dominant bacterial communities in metal contaminated rice paddy soils   | 1 Mon 12:45-14:00 |
| Keisuke Tomioka             | P238 | Pink seeds of barley attributed to infection with <i>Erwinia rhapontici</i>   | 2 Tue 12:45-14:05 |
| Keisuke Tomioka             | P239 | Generation of nitrate non-utilizing mutants of <i>Phomopsis longicolla</i> Hobbs isolated from soybean  | 3 Wed 13:10-14:30 |
| Lea-Rebekka Tonjer          | P240 | Changes in the soil fungal community across the mountain birch tree line ecotone  | 1 Mon 12:45-14:00 |
| Marika Truu                 | P241 | Relationship of soil microbial community with plant roots and greenhouse gas emission in full-drained peatland forests                              | 2 Tue 12:45-14:05 |

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| Siu Mui Tsai             | P242 | Sugarcane harvest managements alter the structure, composition and potential functions of the soil microbial community  | 3 Wed 13:10-14:30 |
| Tero Tuomivirta          | P243 | The H2020 Diverfarming project: assessing the impact of crop diversification on soil biodiversity across Europe   | 1 Mon 12:45-14:00 |
| Jana Täumer              | P244 | Effects of grassland and forest land use intensity on the abundance and activity of methane-oxidizing[] Microorganisms  | 2 Tue 12:45-14:05 |
| Tina Unuk                | P245 | Relation between silver fir ( <i>Abies alba</i> Mill.) phenology and belowground fungal composition in Slovenia   | 3 Wed 13:10-14:30 |
| Louise Egerton-Warburton | P246 | Seasonality drives arbuscular mycorrhizal community composition and diversity in tropical dry forests   | 1 Mon 12:45-14:00 |
| Milankumar Varsadiya     | P247 | Functional potential of microbial communities in cryoturbated organic matter from Herschel Island   | 2 Tue 12:45-14:05 |
| Ekaterina Vasileva       | P248 | Cultivated endophytic bacteria from garden pea ( <i>Pisum Sativum</i> L.)   | 3 Wed 13:10-14:30 |
| Safaa Wasof              | P249 | Investigation on the interaction between enhanced nutrient availability and soil biota on plant community in grasslands – a mesocosm experiment                   | 1 Mon 12:45-14:00 |
| James Weedon             | P250 | Community adaptation to temperature explains abrupt soil bacterial community shift along a geothermal gradient  | 2 Tue 12:45-14:05 |
| Sannakajsa Velmala       | P252 | Optimizing crop rotation cycles that support natural mycorrhization   | 3 Wed 13:10-14:30 |
| Tomáš Větrovský          | P253 | Global distribution of dominant fungi in the environment  | 1 Mon 12:45-14:00 |
| Meike Widdig             | P254 | Effects of element inputs on P-solubilizing bacteria and on phosphatase activity in two grassland soils in South Africa   | 2 Tue 12:45-14:05 |
| Unni Vik                 | P255 | The plant root microbiome diversity and resilience in a changing climate.   | 3 Wed 13:10-14:30 |
| Monika Vilkienė          | P256 | Bacterial community alternation under tillage intensity and their contribution to soil functions  | 1 Mon 12:45-14:00 |
| Shanay Williams          | P257 | Linking soil nitrogen cycling to microbial community composition and function to differentiate nitrogen uptake among diverse <i>Brassica napus</i> (canola) lines | 2 Tue 12:45-14:05 |
| Anne Winding             | P258 | Soil microflora and -fauna response to biochar amendment  | 3 Wed 13:10-14:30 |

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| Yucheng Wu              | P259 | Lignin-enhanced polycyclic aromatic hydrocarbons remediation and involved soil microbes   | 1 Mon 12:45-14:00 |
| Mohamed Al-Yahya'ei     | P260 | Organic farming practices in a desert habitat increased the abundance, richness and diversity of arbuscular mycorrhizal fungi                 | 2 Tue 12:45-14:05 |
| Mikhail Semenov         | P261 | Microbial diversity and activity in top and deep soil horizons of podzolic soil under spruce trees  | 3 Wed 13:10-14:30 |
| Rui Yin                 | P262 | Soil faunal contribution to litter mass loss as affected by global climate and land use changes   | 1 Mon 12:45-14:00 |
| Kim Yrjälä              | P263 | Tropical peat decomposition under land- use change: adaption to resources and conditions (TROPDEC)  | 2 Tue 12:45-14:05 |
| Yuxing Feng, Kim Yrjälä | P264 | Torreya grandis root disease is strongly linked to change in microbial catabolic activity rather than community diversity in root-zone soils  | 3 Wed 13:10-14:30 |
| Jun Zeng                | P265 | Fate of polycyclic aromatic hydrocarbon in soil affected by laccase amendment and the resulting soil bacterial responses                      | 1 Mon 12:45-14:00 |
| Yi Zhao                 | P266 | AsChip: a high-throughput qPCR chip for comprehensively profiling of microbial arsenic biogeochemical cycling genes in the environments       | 2 Tue 12:45-14:05 |
| Alena Zhelezova         | P267 | Changes in microbiome in chronosequence of soil formation in tundra zone  | 3 Wed 13:10-14:30 |
| Xuan Zhou               | P268 | Wildfire impact on permafrost bacterial communities and functional genes in Canada boreal forests   | 1 Mon 12:45-14:00 |
| Jure Zrim               | P269 | Effects of softwood biochars on soil biota in medium-term field experiments in Finland  | 2 Tue 12:45-14:05 |
| Michaela Dippold        | P270 | Microbes respond to unfavorable environmental conditions by extra- and intracellular metabolic adaptations                                    | 3 Wed 13:10-14:30 |
| Julieta Orlando         | P271 | Settlements of sea animals increase nitrous oxide emissions in Antarctic  | 2 Tue 12:45-14:05 |
| Bunjirtluk Jintaridh    | P272 | Efficiency of phosphate solubilizing microorganisms and Vesicular -Arbuscular Mycorrhiza for increasing baby corn yield on acid sulfate soils | 1 Mon 12:45-14:05 |