

Session 1: Fundamental aspect of ISMOM: challenges & opportunities

Presenter's name		Affiliation	Title
Marie-Liesse	Aubertin	IFP Energies Nouvelles	Effects of microbial functional traits on soil organic matter composition and persistence
Maria	Båtnes	Norwegian University of Life Sciences (NMBU)	Soil C dynamics in (re)constructed soil profiles with added mineral material - a way of promoting C stabilization after moving soil?
Daniel	Blackburn	Sultan Qaboos University	Soil stabilization of biochar amendments using natural and synthetic colloidal clay-stabilized mineral additives.
Tobias	Bölscher	INRAE	Beyond growth? The significance of non-growth anabolism for microbial carbon-use efficiency in the light of mineral-associated carbon stabilization
Anna	Cates	University of Minnesota	Soil aggregate and water response to rain in different agricultural management systems
Su-Yi	Chen	Tainan District Agricultural Research and Extension Station, Ministry of Agriculture, Tainan, Taiwan	Sustainability in agricultural practices: a comparative analysis of soil quality and yield in organic versus conventional pomelo orchards in Tainan, Taiwan
XIAODONG	CHEN	Kyushu University	Kaolinite and Montmorillonite Inhibit the Decomposition of Plant Residues but its Effect Diminishes at Higher Temperature and Humidity
Junning	Fan	East China Normal University	Weakening of Fe-Bound Organic Carbon Preservation Due to Hypoxia Induced by Coastal Algal Blooms
Ryosuke	Fukuchi	Hokkaido Univ.	Biomarker analysis of distinctive deposits formed in the inland mountain areas in Japan during glacial periods
Caitlin	Hicks Pries	Dartmouth College	Age dating soil organomineral complexation from both sides: a comparison of $\Delta 14C$ and fallout radionuclide (FRN) chronometers
Srimathie	Indraratne	The University of Winnipeg	Chemical stabilization of vanadium by forming biochar-vanadium-nano oxide complexes
Eisuke	Ito	Thermo Fisher Scientific	Study of Deep Learning-Based Image Segmentation of Soil X-Ray CT Images and 3D Structure Analysis
Jerzy	Jonczak	Warsaw University of Life Sciences - SGGW	Effect of European beech (<i>Fagus sylvatica</i> L.) and small-leaved lime (<i>Tilia cordata</i> Mill.) admixtures in European larch (<i>Larix decidua</i> Mill.) stands on the decomposition of larch needles
Aki	Kawasaki	IBARAKI Univ.	Changes in organic and inorganic components of soil during vegetation recovery process after the eruption on Miyake-jima island in 2000
Fadwa	Khalfallah	Interactions Arbres Microorganismes - INRAE (IAM)	Tree species traits and their microbiome interact with soil properties to shape soil organic matter composition
YuYu	Kung	National Chung Hsing University	Effects of long-term organic farming on soil organic carbon sequestration in Taiwan: A comparison between observations and the RothC and DNDC simulations
Irina	Mikajlo	Institute of Ecology & Environmental Sci of Paris, France	How far can clay minerals stabilize organic matter? A laboratory study
Cheng-Hsien	Lin	National Chung Hsing University	Carbon Distribution of the Brittleness Rice Straw Incorporation under the Alternate Wetting and Drying Practice

Marcel	Lorenz	Trier University, Department of Soil Science	Contribution of minerals and organic material to the energetic signatures of soil – Insights from an artificial soil experiment and calorimetric analyses
Han	Lyu	Tokyo University of Agriculture and Technology	Organo-Mineral Interactions in Soils Across Tropical Volcanic Regions: Insights from EGA-MS Analysis
Carsten W.	Mueller	Technische Universitaet Berlin, Institute of Ecology, Chair of Soil Science	Regulation of soil organic carbon, from plant input to microbial transformation and mineral interactions
Sophia	Nicholakos	Virginia Tech, School of Plant and Environmental Sciences	Building mineral-associated soil carbon with conservation agricultural management
Rei	Oya	Tokyo University of Agriculture and Technology	Soil organic carbon stabilization potential in mineral-associated organic matter is higher in red sandy soil than in black cotton soil in India
Chia Chen	Pan	Tainan District Agricultural Research and Extension Station, Ministry of Agriculture, Taiwan	The effect of soil management on the soil organic carbon fractions in tea orchards.
Angela	Possinger	Virginia Tech, School of Plant and Environmental Sciences	Changes in subsoil nitrogen pools and composition under management-driven deep soil warming
Gal	Tzvik	Dep. of Soil and Water Sciences, The Hebrew University of Jerusalem	Morphological and topological alterations of the pore space induced by mucilage amendment
Anne	Wagner	Technische Universität Berlin	Mechanistic control over chemical composition patterns of distinct soil organic matter fractions across various pedoclimatic conditions
Sam	Walrond	UK Centre of Ecology and Hydrology, Lancaster Environment Centre,	Sticky Soil Carbon –the stability of soil organominerals is controlled by OC carboxyl richness
Tetsuhiro	Watanabe	Kyoto University	Controlling factors for soil organic matter content in surface and subsurface horizons of non-volcanic soils
Po-Hui	Wu	National Taiwan University	Modeling the measurement of organic carbon by using Vis-NIR for tropical soils
Hideaki	Yasuno	Tokyo University of Agriculture and Technology	Effect of soil depths on plant residue decomposition using ¹³ C-labeled residues in Andosols, Japan.
Sohee	Yoon	Sunchon National University, South Korea	Critical Evaluation of Low Carbon-Emitting Organic Resources on Net Ecosystem Carbon Balance and Soil Physicochemical Properties in Red Pepper Cropping System: 2-Year Field Study
Yingchao	Yu	Institute of Geographic Sciences & Natural Resources Research, Chinese Academy of Sciences	Responses of soil organic carbon to precipitation change in grassland ecosystems
Yunpeng	Zhao	Institute of Botany, Chinese Academy of Sciences	Characteristics of metal-organic associations in Sphagnum wetlands
Raul	Zornoza	Universidad Politecnica de Cartagena	Soil bacterial community cannot explain changes in soil aggregation after long-term adoption of reduced tillage and green manure in a Mediterranean rainfed almond orchard

Session 2: Soil structure as physical constraints of the interfacial reactions among minerals, organic matter, and microbes

Bright	Amenkhienan	The University of Sydney	Association of organic carbon with different forms of iron and aluminium in Australian soils
David	Cajas	University of Amsterdam	Soil multifunctionality and soil microbial networks in response to agronomic interventions
Sabina	Devkota	Nepal Agricultural Research Council	Effect of decomposer enriched City Waste Compost application on growth and Yield of broccoli.
Ryota	Hayashi	NAGOYA Univ.	More processed organic matter is accumulated in soils with higher acidity in stands of <i>Cryptomeria japonica</i> and <i>Chamaecyparis obtusa</i>
Satoshi	Kaneda	Western Region Agricultural Research Center, NARO	Earthworm legacy effect: initial stimulation of soil carbon mineralization and subsequent carbon stabilization by forming aggregates
Koya	Kobayashi	University of Tsukuba	Organic matter characteristics in density fractions of organic horizons: A case study of high altitude in snowy mountain, northern Japan
Elmarie	Kotze	University of the Free State	Evaluating Fire Exclusion and Grassland Degradation Effects on Soil Aggregates and Carbon in Afriomontane Grasslands: Lessons from Cathedral Peak, South Africa
Yeomyeong	Lee	Sunchon National University	Unveiling Substantial Impact of Rice Transplanting Date on Net Annual Global Warming Potential and Productivity during Cropping and Fallow Seasons in a Mono Rice Paddy Field
Emi	Matsumura	National Agriculture & Food Research Organization	Optimal dispersion methods for single cell genomics analysis of single soil aggregate
Wang	Mei-Chin	Tainan District Agricultural Research and Extension Station, MOA	Effects of continuous cropping soil on growth and tissue analysis of <i>Eustoma</i>
Atsushi	Nakao	Kyoto Prefectural University	Inhibition of radiocesium adsorption on 2:1 minerals by soil organic matter and interlayer Al polymer in the arid western United States
Yuki	Nakaya	Hokkaido Univ.	Development of solid-phase fluorescence (SPF) excitation-emission matrix (EEM) spectroscopy for non-destructive and non-extractive analysis of soil organic matter
Mel Adelle	Ocba	National Chung Hsing University	Influence of land cover and soil type to Iron and Aluminum-bound organic carbon: A key for storage potential and persistence mechanism of organic carbon
Valerie	Pot	INRAE, France	Pore-scale modelling of soil microbial respiration under drying/rewetting cycles of variable drought lengths
Midori	Sakoda	Ibaraki University	Prediction of soil bacterial community driving nitrogen-cycling in no-till and tilled upland fields with <i>Azoarcus</i> -inoculated rice
Anil	Somenahally	Texas A&M University	Important indicators for assessing organic carbon sequestration in soil aggregates for building high quality carbon stocks
Mika	Tei	National Agriculture and Food Research Organization	High-resolution monitoring of plant root and soil interactions enabled by a distributed fiber optic sensor
Goutham	Thotakuri	Michigan State University	Drought impacts on soil pore structure and biochemical properties of a shortgrass steppe ecosystem
Gayoung	Yoo	Kyung Hee University	The Vulnerability of Soil Organic Carbon in Urban Soils and Its Relation to Microbial Functions

Session 3. New concepts and approaches: Methodological and conceptual advances

Tobias	Bölscher	INRAE, France	Dynamics and vulnerability of mineral-organic associations in the rhizosphere: mechanisms, controls, and response to change
Clementine	Chirol	INRAE, France	Effect of agricultural management practices on soil structural stability and organic matter deprotection during drying-rewetting cycles
Muhammad	Feeney	Advanced Agriecological Research Sdn Bhd (AARSB)	Validating Phosphate Solubilising Bacteria Ability to Solubilise Inorganic Phosphates in Soil Slurry Medium
Patricia	Garnier	INRAE, UMR Ecosys, France	Modelling of carbon mineralization in earthworm casts using a descriptor of 3D structure changes
Amlan Kumar	Ghosh	Banaras Hindu University, Varanasi, India	Tracing the bonding mechanisms of organo-mineral complexes behind formation of non-labile carbon pools in soil: implications for management
Youmi	Han	Organic Agricultural Division, National Institute of Agricultural Sciences, Wanju, Rep. of Korea	Microbial community variations according to using organic soil amendments for diseased organic turnip germplasm cultivation
Jan	Horak	Institute of Landscape Engineering, Faculty of Horticulture and Landscape Engineering, Slovak University of Agriculture, 949 76 Nitra, Slovakia	Effect of biochar combined with N-fertilizer on soil chemical and physical properties and N ₂ O emissions in Maize Crop
Dusan	Igaz	Institute of Landscape Engineering, Slovak University of Agriculture, Slovakia	Assessing the Impact of Biochar Application on Soil Properties and Water Retention in Central European Agriculture: A Field Experiment
Jaruwan	Jindawong	Department of soil science, Kasetsart university, Thailand	Evaluating the potential utilization of Morgan extraction reagent for available sulfur in soils with various types of clay minerals
Sophie	Joimel	AgroParisTech INRAE, France	Evolution of microbial communities and soil functions on newly installed Rooftop Gardens
Klaus	Kaiser	Martin Luther University Halle-Wittenberg	Microbial processing and mineral filtering define the composition and fate of mineral-associated organic matter in soil
Tomoya	Kawakami	Institute for Agro-Environmental Sciences, NARO, Japan	Characterization of pore networks at an aggregate scale in Andosol and Acrisol using synchrotron-based X-ray micro-computed tomography
Morimaru	Kida	Kobe University	Factors controlling carbon concentrations in global Andisols: a meta-analysis
Emoke Dalma	Kovacs	Research Institute for Analytical Instrumentation, INOE, Cluj-Napoca, Romania	Seasonal pattern of soil microorganisms abundance and activities in a landslides affected zone under restoration
Melinda Hayde	Kovacs	Research Institute for Analytical Instrumentation, INOE, Romania	Land use impact on soil metabolite profile in calcareous chernozems soil, Limanu, Pontic area
Masanori	Kushi	The University of Shiga Prefecture	Dynamics of dissolved organic matter in buried black layers of volcanic ash soil
Nikita	Mergelov	Institute of Geography RAS	Cryoconite as a model of soil aggregation in extreme environments: interactions between minerals, organic matter and microorganisms on ice

Fernando	Montano Lopez	Dartmouth College	Mineral-organic matter interactions in permafrost and their sensitivity to priming
Tomohiro	Nishigaki	Japan International Research Center for Agricultural Sciences	Deciphering the relative importance of active Al and active Fe as controlling factors of soil organic C in tropical paddy soils
Naoise	Nunan	CNRS, France	Distribution of microbial metabolic power in the soil pore network
Jeffrey Paulo	Perez	GFZ German Research Centre for Geosciences	Export of soil organic carbon from iron-rich polar peatlands to aquatic ecosystems: Insights from molecular spectroscopy and chromatography
Alain	Plante	University of Pennsylvania	Mineral-associated organic matter in carbon-rich African Dark Earth soils: Implications for Carbon Saturation Theory
Nobuo	Sakagami	IBARAKI Univ.	Relationship between contents of sclerotia of <i>Cenococcum</i> species and soil organic matter fractions in low pH forest soils
Malgorzata	Suska-Malawska	University of Warsaw	Impact of Iron Forms on Phosphate and Organic Carbon in permafrost thawing Alpine Wetlands of Eastern Pamir, Tajikistan
Akio	Ueno	Horonobe Research Institute for the Subsurface Environment (H-RISE)	Addition of pulverized lignite accelerates bioconversion of chemically solubilized lignite to methane by a methanogenic consortium
Gabriela	Villalba	Technische Universität München - Chair of Soil Sciences	Parent Material Influences SOM-Mineral Association Patterns in O layers of Forest Soils. A close look into the role of Calcium
Zixiao	Wang	Kyoto University	Disentangling sources and contributions of particulate and mineral associated organic carbon to SOC in topsoil and subsoil in temperate acidic forests of Japan
Yiping	Zhang	Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences	Environmental and management controls of soil carbon storage in grasslands of southwestern China
Biao	Zhu	Peking University	Whole-soil warming effects on soil carbon cycling in an alpine grassland

Session 4. ISMOM and biogeochemical cycling across scales

Masakazu	Aoyama	Hirosaki University, Japan	Changes in particulate and mineral-associated organic matter and microbial biomass in apple orchard soils under elevated temperature and CO ₂ concentration conditions over four years
Marie-Liesse	Aubertin	IFP Energies Nouvelles, France	Mechanisms affecting the fate of biochar and compost mixtures in agricultural soil from temperate climate.
Aleksandra	Chojnacka	Department of Biochemistry and Microbiology, Warsaw University of Life Sciences, Warsaw, Poland	Fertilizer application of the digestate after a two-stage, hydrogen, and methane-yielding AD process - influence on activity of nitrogen-fixing bacteria
Sirinapa	Chungopast	Kasetsart University, Kamphaeng Saen campus, Thailand	Bacterial microbiome in the soil from areas cultivating two cassava cultivars demonstrated functions that promote plant growth and contribute to the carbon cycle
Kazumichi	Fujii	Forestry and Forest Products Research Institute, Japan	No-tillage practice reduces organic matter decomposition and its dependence on temperature in soil

Jumpei	Fukumasu	NARO/NIAES, Japan	Effects of decadal soil managements on the nature of OC in mineral associated organic matter in temperate arable soils: the role of reactive minerals
Christopher	Graham	South Dakota State University, USA	Impact of Long-Term Cattle Stocking Rates on Grassland Carbon Sequestration, Carbon Fractions and Soil Microbiome
Julien	Guigue	Chair of Soil Science, Technical University of Munich, Germany	VNIR hyperspectral imaging for soil organic matter research: mapping the subsoil C spatial heterogeneity in contrasting biogeochemical domains
Satoru	Hobara	Rakuno Gakuen University, Japan	Long-term convergence of amino acid compositions commonly observed in terrestrial and marine organic matter degradation
Yuka	Homma	IBARAKI University, Japan	Nitrate-reducing bacterial community analysis of a Miscanthus condensatus rhizosphere on the acidic volcanic ash deposits of Miyake-jima, Japan
Zeng-Yei	Hseu	National Taiwan University, Taiwan	Fractionation of soil organic carbon affected by different croppings in northern Taiwan
Yahan	Hu	Chair of Soil Science, Technical University of Munich, Germany	Quantifying the Organo-Mineral Soil Architecture via image metaanalysis of NanoSIMS measurements
Iwona	Jasser	University of Warsaw, Poland	Relationship between organic carbon and mineral nutrients and diversity and structure of microbial communities in biological soil crusts in contrasting deserts: cold desert of Pamir, Tajikistan and hot deserts of California, USA.
Juan	Jia	Institute of Botany, Chinese Academy of Sciences, China	Fast decomposition of nitrogen-rich mineral associated organic matter in soils
Chuan Fu	Kao	National Taiwan University, Taiwan	Effects of rice-straw incorporation and tillage on soil carbon stability and greenhouse gas emissions in alternate wetting and drying management of paddy soils
Lutz	Lange	Elementar Analysensysteme, Germany	Soil Organic Matter and Carbon Sequestration: Insights from Combustion Elemental Analysis and Temperature Gradient Method applied for biochar analysis
Olga	Odrzygodz	Norwegian University of Life Sciences, Norway	Reconstructed soil profiles utilizing excess mineral material – a strategy of improving soil fertility after moving soil?
Mondaca	Pedro	Universidad Técnica Federico Santa María, Chile	Influence of Soil and Landscape Properties on Orchard Soil Microbiomes and Heterotrophic Respiration in Central Chile
Lauren	Porter	Technical University of Munich, Germany	The cross-sections of soil services in substrates constructed for urban stormwater management: infiltration, fertility, carbon accumulation, and water-stable structural development
Alex	Seguel Fuentes	UNIVERSIDAD DE LA FRONTERA, Chile	Enhancing Soil Fertility and Wheat Productivity in Acidic Soils Using Biochar-Based Sustained-Release Fertilizer
YO-JIN	SHIAU	National Taiwan University, Taiwan	Methanogenic and methanotrophic activities along with the related microbial compositions in constructed wetlands in different ages
Takeshi	Shoda	IBARAKI University, Japan	Effects of oxygen-deficient water on microbial community dynamics in the lake-bottom sediment of Lake Kitaura, Japan

Sylwia	Siebielec	Institute of Soil Science and Plant Cultivation - State Research Institute, Pulawy, Poland	Development of technologies for producing biofertilizers based on organic waste and bacteria that promote crop resistance to drought stress
Chien-Hui	Syu	Taiwan Agricultural Research Institute, Taiwan	Modelling the spatiotemporal dynamics of organic carbon sequestration potential in cultivated soil by integrating digital soil mapping and process based models
Kanako	Toda	The University of Tokyo, Japan	Multi-scale evaluation of the interaction between magnesium silicate hydrate and Aldrich humic acid
Junta	Yanai	Kyoto Prefectural University, Japan	The amount, turnover rate and controlling factors of fractionated organic carbon in paddy soils in Nepal
Alla	Yurova	Northwest Institute of Eco-Environment and Resources, CAS, Lanzhou, China	Knowledge transfer between continuous and discrete SOM models in order to understand the stabilization of organic matter on mineral surface in contracting moisture.
Xinyuan	Zhang	Institute of Geographical Sciences and Natural Resource Research, Chinese Academy of Sciences	Nitrogen and phosphorus additions alleviate microbial phosphorus limitation in grassland ecosystems

Session 5. ISMOM as a basis for soil carbon management

Jorge	Alvaro-Fuentes	CSIC, Spain	Cropping intensification and diversification affect temporal soil aggregation and microbial activity in semiarid rainfed conditions
Jeehwan	Bae	KyungHee University, South Korea	Soil spectroscopy: an alternative to wet chemistry for soil microbiological parameters
Yu Yang	Chang	Sime Darby Plantation Research, Malaysia	Spatial Variability of Soil Greenhouse Gas Emissions in Oil Palm Plantation under Different Management Zones
Tzu cheng	Chien	Hualien District Agricultural Research & Extension Station, Ministry of Agriculture, Taiwan	Enhancing soil carbon sequestration in pomelo orchards through different cover crop adoption
Abinash	Das	ICAR Indian Institute of Soil Science Bhopal (India)	Influence of mineralogy, sesquioxides, and crop residue addition on soil organic carbon stability and associated microbial activity in diverse Indian soils
Mark	Farrell	CSIRO, Australia	Australian soil organic matter: NMR analysis of fine and coarse fractions
Katy	Faulkner	University of Cambridge, UK	Microbial controls on soil carbon stabilisation and greenhouse gas emissions in agricultural peatlands
Yunlong	Hu	Peking university, China	The patterns of forest soil particulate and mineral associated organic matter with latitude and soil depth
Shih-Hao	Jlen	Dept of Soil & Environmental Sciences, National Chung Hsing University, Taiwan	Enhancing soil C sequestration and phosphorus retention in subtropical slopelands using iron-modified biochar
Karin	Kauer	Estonian University of Life Sciences, Estonia	Exploring the potential of seaweed industry residues as organic soil amendments for carbon sequestration: insights from a plant-free pot experiment
Thomas	Lerch	UPEC, France	Making mineral and organic urban wastes interact to construct soils in cities.

Nagamitsu	Maie	Kitasato University, Japan	Fluorescent Properties of Soil Organic Matter Help Assess Sustainability of Agricultural Soils
Charitha	Manthilaka Ar	University of Manitoba, Winnipeg, MB, Canada	Sulfamethoxazole sorption mechanisms on organo-mineral associations and free organic matter fractions
Li feng	Ni	Hualien District Agricultural Research and Extension Station, Ministry of Agriculture, Taiwan	Chemical fertilizers and pesticides influence bacterial communities in chayote (<i>Sechium edule</i>) rhizosphere: A comparison of organic and conventional farming.
Ye Lim	Park	Kyung Hee University, South Korea	A Comprehensive Understanding of Enhanced Rock Weathering Impacts: From Soil Organic Carbon Dynamics to Microbial Activity
Inhye	Seo	Kyung Hee University, South Korea	Biochar input in subsoil can improve overall soil water profile and aggregate stabilization by biochar-plant rootage interaction under transplant condition
Ayumi	Shiode	Nagoya University, Japan	Forms of sulfur deposited on soil by transboundary air pollution
Abhisek	Shrestha	Agriculture and Forestry University, Nepal	Yield and soil status disparity under rice-wheat cropping system: A 40 years Journey
Grzegorz	Siebielec	Institute of Soil Science & Plant Cultivation, State Research Institute, Poland	NBSOIL Academy for soil advisors – activating the potential associated with Nature Based Solutions
Frank	Verheijen	Universidade de Aveiro, Portugal	Organo-mineral interactions in a hard-setting Portuguese pasture soil
Khin Thawda	Win	Central Region Agricultural Research Center, NARO, Japan.	Changes in functional traits of cover crop oat and hairy vetch grown in Andosols with P fertilization on soil organic carbon and associated biophysical properties and nutrient cycling
Connie	Wong	University of California, Davis, USA	Linking soil C stability and microbial diversity at different soil depths in Northern California vineyards
Yueming	Wu	East China Normal University, Chia	Blue Carbon Preservation Enhanced by Iron in Coastal Wetland Sediments: A Case Study in Yancheng, China
Pedro	Mondaca	Universidad Técnica Federico Santa María, Chile	Comparative effects of Compost, Bokashi, and Trichoderma on soil and tomato quality in a Mediterranean area