

Program of ICOS Nordic conference 21-22 November 2023

Time	Tuesday 21st Nov. 2023	Presenting author
9:00-09:30	Registration + coffee + set-up posters	
09:30-09:45	Welcome words	Kikki Kleiven, Tor Eldevik, Siv Kari Lauvset
09:45-10:00	ICOS: the status of the research infrastructure	Sindu Parampil
	Session #1: Peatland carbon exchange - vulnerability and impacts	Annalea Lohila (chair)
10:00	Vegetation shifts drive ecosystem carbon exchange following climate warming and permafrost thaw in palsa peatland	Inge Althuizen
10:15	A decade-long phenocam record reveals phenology controls on CO ₂ exchange in a northern peatland	Gillian Simpson
10:30	Evaluating the GHG balances of drained and restored peatland forests in boreal Sweden	Marcus Cheuk Hei Tong
10:45-11:15	Coffee break	
	Session #1: Human impacts on GHG fluxes in highly disturbed land areas	Holger Lange (chair)
11:15	Agriculture in the Arctic: investigating greenhouse gas emissions from a cultivated peatland	Junbin Zhao
11:30	Implications from GHG exchange measurements for the sustainability of dairy and beef industries in Finland	Narasinha Shurpali
11:45	Using eddy covariance measurements to parameterize surface conductance of different vegetation types for urban biogenic CO ₂ flux simulations	Hei Shing Lee
12:00-13:00	Lunch	
	Session #3: ICOS in support of policy - the use of data for the benefit of society	Sindu Parampil (chair)
13:00	Enhancing Carbon Emission Reduction Strategies Using OCO-2 and ICOS Data	Alexandros Sopasakis
13:15	The ICOS Ocean Thematic Centre (OTC): What it is, what it does and how it can help you to supply the data needed to quantify ocean carbon uptake	Ute Schuster
13:30	Quantifying CH ₄ leaks from the Nordstream pipelines using ICOS data: updated estimates using the FLEXPART Lagrangian particle dispersion model	Ignacio Pisso
14:00-14:15	Group picture	
14:15-14:45	Coffee break / smoothie	

14:45-16:00	Panel debate on societal relevance of carbon data	Are Olsen (chair)
	Head of Communication at the Bjerknes Centre for Climate Research	Gudrun Sylte (moderator)
	Director of the Climate agency in the City of Bergen	Stina Oseland
	Head of Section for Green Business Infrastructure at Vestland County	Sølve Sondbø
	CEO of Terravera Foundation	Elisabet Kjerstad Bøe
	Science Integration Officer in ICOS	Sindu Parampil
	ICOS Norway contact person for the ecosystem and Research Professor at NIBIO	Holger Lange
16:00-17:00	Poster session with cake / fruit	
17:00-19:00	free time	
19:00	Conference dinner	

Time	Wednesday 22nd Nov. 2023	Presenting author
08:30-09:00	Morning coffee	
	Session #1: Marine and coastal carbon cycle	Siv Kari Lauvset (chair)
09:00	Assessing CO ₂ fluxes in the Atlantic Ocean between 1985 and 2018 in RECCAP2	Meike Becker
09:15	Intensified Convection Drives Large Mid-Depth Increases in Anthropogenic Carbon in the Greenland Sea	Are Olsen
09:30	Eddy covariance measurements of carbon dioxide fluxes over the coastal Baltic Sea	Aki Vähä
09:45	Decadal trends in Ocean Acidification from the Ocean Weather Station M in the Norwegian Sea	Ingunn Skjelvan
10:00	Spatiotemporal variations of surface fCO ₂ and pH in the southwestern Norwegian coast	Abdirahman M. Omar
10:15-10:30	Entertainment by Bergenhus Enthusiasts Choir	
10:30-11:00	Coffee break	
	Session #1: Methane observations and modeling efforts	Christine Groot-Zwaafink (chair)
11:00	Improved CH ₄ estimate in Northern Italy by inverse modeling	Lilja Dahl
11:15	Trends in methane concentration in the Arctic atmosphere	Lise Lotte Sørensen
11:30	A Bayesian inversion framework for estimating methane emissions using high-resolution ground- and satellite observations: A case study over Siberia	Nalini Krishnankutty
11:45	Developments and trends in greenhouse gas atmospheric mixing ratios in Norway and Svalbard	Stephen Platt
12:00-13:00	Lunch	

	Session #2: The future of ICOS - emerging techniques and novel methods	Timo Vesala (chair)
13:00	GEORGE - next generation multiplatform ocean observing technologies for research infrastructures	Janne-Markus Rintala
13:15	Spatial Variability of Albedo and Net Radiation at Local Scale Using UAV Equipped with Radiation Sensors	Anders Lindroth
13:30	Towards reliable uncertainty estimates for carbon balances	Henriikka Vekuri
13:45	Explainable machine learning for modelling of net ecosystem exchange in boreal forest	Topi Laanti
14:00	Climate DevOps - building machine learning toolchains on forest-atmosphere interaction and environmental data	Steffen M. Noe
14:15-14:45	Coffee break	
	Session #1: Forests in focus	Ingun Skjelvan (chair)
14:45	Carbon, water and energy fluxes at NO-Hur, a forest ICOS station in Norway	Holger Lange
15:00	A pine forest exhibits higher water use efficiency compared to a mixed forest in boreal Sweden	Alisa Krasnova
15:15	Boreal wildfires: carbon dynamics of Nordic forest recovery	Natascha Kljun
15:30	Peatland forest CO ₂ fluxes and their controls: Does continuous cover forestry help to reduce soil emissions?	Helena Rautakoski
15:45	Influence of structural complexity of a continuous cover forest on evapotranspiration	Madeleine Durdek
16:00	Finishing remarks	Siv Kari Lauvset

Posters

#	Poster title	Presenting author
P-01	Greenhouse gas fluxes over the large northern boreal lake Pallasjärvi	Joonatan Ala-Könni
P-02	Capturing Carbon in Perennial Cropping Systems	Jonas Ardö
P-03	The future of the ocean carbon sink: a release of anthropogenic carbon to the atmosphere?	Damien Couespel
P-04	Long term carbon and water use efficiency of temperate Scots pine ecosystem exposed to drought events.	Paulina Dukat
P-05	The four seasons of the North Atlantic carbon cycle	Friederike Fröb
P-06	Four years of eddy covariance measurements of N ₂ O and CO ₂ fluxes on a drained agricultural peatland growing silage grass	Stephanie Gerin
P-07	The carbon balance of a continuous cover forest in relation to clear-cutting forestry	Achim Grelle
P-08	Global fields of the methane isotopic ratio constrained with observations	Christine Groot Zwaaftink
P-09	The role of vascular plants and Sphagnum mosses in regulating the net CO ₂ exchange in a boreal peatland	Antonia Hartmann

P-10	ICOS Sweden - the Swedish contribution to ICOS	Jutta Holst
P-11	Assessing biospheric CO ₂ balance within Finnish terrestrial ecosystems through a comparison of top-down and bottom-up estimates	Kielo Isomäki
P-12	Insights and challenges operating four ICOS ecosystem stations across Greenland characterizing low- to high-Arctic tundra regions	Rasmus Jensen
P-13	Exploring Arctic carbon fluxes: The influence of climate data variability in DGVM simulations	Margot Knapen
P-14	Methane production in podzolic soil requires high soil moisture and fresh carbon input	Mika Korkiakoski
P-15	Enhancing BVOCs Study: UAVs, Micrometeorology, and Spatial Analysis	Dmitrii Krasnov
P-16	ICOS Norway – a tool to verify Norwegian emission reduction	Siv K Lauvset
P-17	ICOS Finland vol2: expanded network and future plans	Annalea Lohila
P-18	Greenhouse gas flux measurements harnessed to understand the climate impacts of peatland use and restoration by rewetting	Annalea Lohila
P-19	The impact of functional groups of forage species on the grassland GHG exchange	Petra Manninen
P-20	Advancing Methane Emission Estimations Using the Community Inversion Framework and High-Resolution Modeling	Anteneh Getachew Mengistu
P-21	Impact of rewetting on the carbon balance of a drained nutrient-poor peatland forest in Northern Sweden	Alexander Pinkwart
P-22	GHG flux network of Natural Resources Institute Finland (Luke): Human impact on ecosystem-atmosphere GHG exchange	Olli Peltola
P-23	The Norwegian Coastal Steamer: installation of a new ICOS station.	Nicholas Roden
P-24	Summertime GHG fluxes from a peatland in Svalbard: A Field Study	Shubham Singh
P-25	Using Atmospheric Inverse Modelling of Methane Budgets With Remote Sensing Data to Detect Land Use Related Emissions	Maria Tenkanen