

ICOS Science Conference 2024: Talks and posters with ICOS-CH contributions

Tuesday, 10th September

Poster sessions 1-4 (Le Nôtre gallery & Lulli), 13:00-14:00

35 (Theme 11)	Empa	Stuart Grange, Pascal Rubli, Andrea Fischer, Christoph Hueglin, Nikolai Ponomarev, Dominik Brunner, Lukas Emmenegger	Design, operation, and insights from Zürich city's mid- and low-cost ICOS Cities CO2 sensor network
86 (Theme 11)	Uni Basel	Konstantinos Politakos, Emmanouil Panagiotakis, Dimitris Tsirantonakis, Stavros Stagakis , Nektarios Spyridakis, Christian Feigenwinter , Matthias Roth, Nektarios Chrysoulakis	Analysis of urban CO2 and heat fluxes and evaluation of the SUEWS model using eddy covariance observations from two towers in Heraklion
87 (Theme 9)	Empa	Camille Yver-Kwok, Isabelle Pison, Antoine Berchet, Grégoire Broquet, Grant Forster, Audrey Fortems-Cheiney, Arnoud Frumau, Dagmar Kubistin, Matthias Lindauer, Morgan Lopez, Jennifer Müller-Williams, Michel Ramonet, H. A. Scheeren, Aurélien Sicsik-Paré, Martin Steinbacher	European methane flux estimates for 2022 based on the Radon Tracer Method, regional atmospheric inversions and inventories
99 (Theme 11)	Empa/Uni Basel	Anni Karvonen, Stuart K. Grange, Minttu Havu, Dominik Brunner, Lukas Emmenegger , Natascha Kljun, Stavros Stagakis , Leena Järvi	Spatial modelling of biogenic CO2 and heat fluxes in the city of Zürich

152 (Theme 11)	Uni Basel	Ann-Kristin Kunz, Lars Borchardt, Dominik Brunner, Jia Chen, Andreas Christen, Lionel Constantin, Markus Eritt, Rainer Hilland, Natascha Kljun, Richard Kneißl, Virgile Legendre, Junwei Li, Betty Molinier, Stavros Stagakis , Samuel Hammer	14CO ₂ -based Fossil Fuel CO ₂ Flux Estimation in Zurich Using Relaxed Eddy Accumulation
195 (Theme 11)	Uni Basel	Laura Bignotti, Jérémie Depuydt, Pedro Henrique Herig Coimbra, Alain Fortineau, Anaïs Feron, Carmen Kalalian, Pauline Buysse, Michel Ramonet, Guillaume Nief, Rainer Hilland, Stavros Stagakis , Andreas Christen, Benjamin Loubet	Eddy Covariance measurements of CO ₂ fluxes at short and tall towers in the Paris area
292 (Theme 11)	Uni Basel / ETH Zurich	Stavros Stagakis , Sophie Emberger, Laura Bignotti, Junwei Li, Benjamin Loubet, Jia Chen, Matthias Mauder, Nina Buchmann , Markus Kalberer	Quantifying biogenic CO ₂ fluxes in urban areas using field observations
382 (Theme 11)	Uni Basel	Christian Feigenwinter , Stavros Stagakis , Roland Vogt , Markus Kalberer	CO ₂ source identification of two nearby flux towers in the city centre of Basel, Switzerland
Oral session 2: Quantification of urban GHG, 14:00-15:30			
57	Empa / Uni Basel	Rainer Hilland, Stavros Stagakis , Pascal Rubli, Lukas Emmenegger , Laura Bignotti, Benjamin Loubet, Samuel Hammer, Andreas Christen	Flux ratios of CO ₂ , CO, and NO _x : an inter-city comparison between Paris and Zurich using urban tall-tower eddy covariance
Oral session 6: Quantification of urban GHG, 16:00 – 17:30			
284	Uni Basel	Betty Molinier, Natascha Kljun, Patrick Aigner, Dominik Brunner, Jia Chen, Andreas Christen, Lionel Constantin, Hugo Denier van der Gon, Rainer Hilland, Daniel Kühbacher, Stavros Stagakis , Ingrid Super	Evaluation of Source and Sink Contributions to Urban Flux Tower Measurements Using Flux Footprint Modelling

100	Uni Basel	Jesse Soininen, Kukka-Maaria Kohonen, Pekka Rantala, Liisa Kulmala, Hermann Aaltonen, Stavros Stagakis , Leena Järvi	Eddy covariance measurements of Carbonyl sulfide (COS) to partition the urban carbon flux
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Poster sessions 5-8 (Le Nôtre gallery & Lulli), **17:30-19:00**

335 (Theme 9)	Empa	Maksym Gachivskyi, Fabian Maier, Julian Della Coletta, Susanne Preunkert, Xochilt Gutierrez, Armin Jordan, Tobias Biermann, Sebastien Conil, Arnoud Frumau, Tobias Kneuer, Dagmar Kubistin, Irene Lehner, Matthias Lindauer, Morgan Lopez, Jennifer Mueller-Williams, Martin Steinbacher , Samuel Hammer	Continuous ΔCO -based ΔffCO_2 record of the ICOS network: signal strength and uncertainties
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441 (Theme 9)	ETH Zurich	Rémy Fieuzal, Manuel Acosta, Ahmad Al Bitar, Ludovic Arnaud, Frédéric Baup, Nina Buchmann , Christian Brümmer, Aurore Brut, Benjamin Dumont, Ainhoa Ihasusta, Sébastien Lafont, Benjamin Loubet, Vincenzo Magliulo, Matthias Mauder, Dario Papale, Marius Schmidt, Tiphaine Tallec, Eric Ceschia	Estimation of daily CO ₂ fluxes using a statistical approach based on multi-satellite optical images and meteorological data
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Wednesday, 11th September

Oral session 10: Quantification of urban GHG, 10:45-12:30

214	Empa	Leonie Bernet , Lionel Constantin, Lukas Emmenegger , Stuart K. Grange, Christoph Hüglin, Nikolai Ponomarev, Pascal Rubli, Dominik Brunner	Building-resolved CO2 simulations to estimate emissions of the city of Zurich
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Poster sessions 9–12 (Le Nôtre gallery & Lulli), 13:30-14:30

56 (Theme 4)	ETH Zurich	Yi Wang, Iris Feigenwinter , Lukas Hörtnagl , Nina Buchmann	Long-term CO2 flux measurements from an intensively managed temperate grassland
313 (Theme 13)	ETH Zurich	Rona Thompson, Andreas Stohl, Philippe Peylin, Philippe Ciais, Hartmut Boesch, Tuula Aalto, Antoine Berchet, Maria Kanakidou, Wilfried Winiwarter, Glen Peters, Dmitry Shchepashchenko, Jean-Pierre Change, Roland Fuss, Ignacio Pisso, Richard Engelen, Almut Arneth, Nina Buchmann , Stefan Reimann, Stephen Platt, Nalini Krishnankutty	EYE-CLIMA: A Horizon Europe project to support national inventories for emissions of climate forcers

Oral session 14: Quantification of urban GHG, 14:30 – 16:00

145	Empa	Nikolai Ponomarev, Michael Steiner, Erik Koene, Lionel Constantin, Pascal Rubli, Stuart Grange, Lukas Emmenegger , Dominik Brunner	Inversion of anthropogenic and biospheric CO2 fluxes in the city of Zurich from a network of mid-cost CO2 sensors
271	Empa	Daniel Kühbacher, Jia Chen, Julian Baertschi, Ali Ahmad Khan, Adrian Wenzel, Patrick Aigner, Stuart Grange, Pascal Rubli, Lukas Emmenegger	SCOUT: Street-Level Carbon Observatory for Urban Terrain

318	Empa	Patrick Aigner, Daniel Kühbacher, Adrian Wenzel, Adrian Schmitt, Felix Böhm, Moritz Makowski, Klaus Kürzinger, Olivier Laurent, Pascal Rubli, Stuart Grange, Lukas Emmenegger , Jia Chen	Advancing Urban Greenhouse Gas Monitoring: Development and Evaluation of a High-Density CO ₂ Sensor Network in Munich
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Oral session 17: Combining data and models in inversion modelling, 16:30 – 18:00

457	Empa	Daniela Brito Melo, Alice Ramsden, Helene De Longueville, Alison Redington, Alexandre Danjou, Peter Andrews, Brendan Murphy, Joseph Pitt, Eric Saboya, Matthew Rigby, Lukas Emmenegger , Alistair Manning, Stephan Henne, Anita Ganesan	Inverse modeling of emissions of CH ₄ , N ₂ O and F-gases in Europe: an intercomparison study of three inverse methods
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Thursday, 12th September

Oral session 21: Isotopes for studying CH₄ sources and sinks, 10:45 – 12:30

223	Uni Bern	Thomas Laemmel, Dylan Geissbühler, Stephan Henne, Dominik Brunner, Negar Haghipour, Markus Leuenberger , Sönke Szidat	Capabilities of CH ₄ source apportionment using atmospheric 14CH ₄ measurements: Switzerland as a case study
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Poster sessions 13–16 (Le Nôtre gallery & Lulli), 13:30-14:30

235 (Theme 4)	Uni Bern	Markus Leuenberger , Peter Nyfeler, Rüdiger Schanda, Vasileios Mandrakis , Stephan Räss, Michael Schibig	Combined CO ₂ and O ₂ measurements for process-specific partitioning and carbon budgeting
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311 (Theme 16)	Empa	Martin Steinbacher , Sergio Moreno, Sara Basart, Christoph Zellweger, Lukas Emmenegger	Strengthening training and capacity building to improve global observations of atmospheric composition
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475 (Theme 9)	ETH Zurich	Tiphaine Tallec, Eric Ceschia, Ahmad Al Bitar, Ludovic Arnaud, Rémy Fieuzal, Ainhoa Ihasusta, Sébastien Lafont, Benjamin Dumont, Ariane Faurès, Bernard Heinesch, Tanguy Manise, Nina Buchmann , Lukas Hoertnagl , ..., Dario Papale	The CROP2021 dataset: a unique and consistent dataset to estimate and monitor carbon budget of European croplands
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Oral session 28: Terrestrial CH₄ & N₂O processes, 14:30 – 16:00

241	ETH Zurich	Iris Feigenwinter , Lukas Hörtnagl , Elizabeth Verhoeven, Charlotte Lore Marie Decock, Paul Magyar, Roland A. Werner, Moritz F. Lehmann, Nina Buchmann	Do N ₂ O fluxes and N ₂ O production processes differ under different grassland management (overseeding legumes vs. organic fertilization)?
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Oral session 26: Impact of climate extremes on GHG fluxes, 14:30 – 16:00

134	ETH Zurich	Kukka-Maaria Kohonen, Yi Wang, Lukas Hörtnagl , Nina Buchmann	Snow as an insurance: winter snowpack protects alpine grassland from early summer drought
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