

Radiocarbon and carbon cycle –novel techniques and applications

CL5.3 Friday 08 May 16:15 – 18:00 CET

16:15 – 16:20	Sign in, welcome and brief guidance to the session
16:20 – 16:26	Julia Gottschalk On new developments in accelerator mass spectrometry and how they promote our understanding of global carbon cycle dynamics during the last deglaciation
16:26 – 16:32	Nuria Casacuberta Rapid and high precision C-14 analysis in small DIC seawater samples and its future application as an ocean tracer
16:32 – 16:38	Nicolaas Glock Deglacial 14C reservoir ages of surface waters at the northern boundary of Peruvian coastal upwelling
16:38– 16:44	Martin Butzin Marine radiocarbon simulations carried out with a global multi-resolution ocean model
16:44 – 16:50	Maxi Castrillejo Sea shells record large biases from the marine bomb-14C curve in NW European seawater between the late 1960s and 2019
16:50 – 16:56	Blanca Ausin Pervasive influence of fine silt sediments on the radiocarbon age of bulk sedimentary OC, alkenones and GDGTs via hydrodynamic mineral sorting processes in continental margins.
16:56 – 17:02	Hannah Gies Radiocarbon analysis of isoprenoid and branched Glycerol Dialkyl Glycerol Tetraethers in soils and fluvial sediments
17:02 – 17:08	Maria Rivera-Araya The reliability of radiocarbon dates of different carbon fractions in the Australian tropical savannas: A case study from Sanamere Lagoon, northeast Australia
17:08 – 17:14	Christian Heusser Purification of Organic Compounds Using Microsublimation for 14C Analysis
17:14 – 17:20	Melina Wertnik Rapid, continuous radiocarbon analysis of carbonate archives using laser ablation
17:20– 17:26	Caroline Welte Laser Ablation radiocarbon analysis of a high alpine stalagmite - a hint to an old organic carbon pool?
17:26 – 17:32	Jeffery Beem-Miller Radiocarbon incubations of archived soils: insights into drying/rewetting effects and constraining soil C models
17:32 – 17:38	Holger Metzler Mathematical Reconstruction of Land Carbon Models From Their Numerical Output: Computing Soil Radiocarbon From 12C Dynamics

17:38 – 17:44	Lukas Wacker Radiocarbon in tree-rings reveals the solar 11-yr cycle over the last millennium
17:44 – 17:51	Nicolas Brehm Detection of solar proton events by using radiocarbon in tree-rings
17:51 – 18:00	Concluding remarks & open discussions