5 years of ICOS compliant in situ GHG measurements at OPE: set up, quality control and calibration system

Sébastien. Conil¹, Laurent. Langrene¹, Maxime Simon¹, Olivier Laurent², Marc Delmotte², Michel Ramonet²

Andra and LSCE are jointly operating an ICOS observation station at OPE in eastern France. The station is located on top of the surrounding hills at around 400m asl altitude in a rural background area. It has been equipped with a robust and autonomous sampling system that can be remotely controlled. Recent IR spectrometers are used to perform continuous in-situ measurements of CO2, CH4, CO, N2O and H2O at three sampling heights (10m, 50m and 120m) on a tall tower.

After a description of the station set up and the quality control and calibration systems used, the poster will present the results of the station quality control (target gas and weekly flasks sampling comparison) and calibration strategy in the framework of the ICOS specifications.

¹ Direction Recherche & Développement, Andra, CMHM, RD960, 55290 Bure France, sebastien.conil@andra.fr

² Laboratoire des Sciences du Climat et de l'Environnement (LSCE), CEA - Orme des Merisiers 91191 Gif sur Yvette, France