

ESA Ozone Climate Change Initiative: combined use of satellite ozone profile measurements

V.F. Sofieva (1), J. Tamminen (1), E. Kyrölä (1), M. Weber (2), N. Rahpoe (2), G. Stiller (3), A. Laeng (3), T. von Clarmann (3), D. Degenstein (4), K.A. Walker (5), D. Murtagh (6), M. Van Roozendael (7), and C. Zehner (8)

(1) Finnish Meteorological Institute, Earth Observation, Helsinki, Finland (viktoria.sofieva@fmi.fi), (2) Institute of Environmental Physics, University of Bremen, Germany, (3) Karlsruhe Institute of Technology, Germany, (4) University of Saskatchewan, Canada, (5) Department of Physics, University of Toronto, Canada, (6) Chalmers University, Sweden, (7) BIRA-IASB, Belgium, (8) ESA/ESRIN, Italy

The creation of homogenized ozone datasets based on limb and occultation measurements from ENVISAT sensors (GOMOS, MIPAS, SCIAMACHY) as well as from ESA Third Party Missions (OSIRIS, SMR and ACE-FTS) is one of the objectives of the on-going ESA ozone-CCI project.

In the framework of the ozone-CCI project, different datasets are created. They include the HARMOZ (HARMonized dataset of Ozone profiles), monthly zonal mean datasets, semi-monthly mean dataset with the resolved longitudinal structure, spatio-temporal distributions in the UTLS. In this presentation, we introduce these datasets and show data analyses based on them. The special focus of our presentation is the merged long-term dataset for analyses of trends in the vertical distribution of ozone.