QOS2016-72-1, 2016
Quadrennial Ozone Symposium of the International Ozone Commission

Tropospheric Ozone from GOME_2 in combination with other stratospheric ozone measurements

K.-P. Heue, P. Valks, and D. Loyola
DLR, IMF, Oberpfaffenhofen, Germany (klaus-peter.heue@dlr.de)

Tropospheric ozone columns are retrieved using the convective cloud differential (CCD) method from GOME_2/MetOp-A as operational products within the O_3M-SAF project. This algorithm is also adapted to other sensors like GOME/ERS-2 or SCIAMACHY/Envisat. The data from these three European satellites are combined with data from OMI/AURA to a 21 years time series. Based on this time series trends in tropical tropospheric ozone can be determined.
However, the CCD method is limited to the tropics, therefore a different approach is developed to extend the tropospheric ozone data to mid latitudes. Comparable to the OMI-MLS approach a GOME_2-MLS approach was tested, and showed promising results.
Besides the CCD results a description of the GOME_2-MLS algorithm as well as a comparison with the well established CCD method and the OMI-MLS product will be presented. Ozone sondes are the standard tool for validating tropospheric ozone columns, here only a short comparison might be given.