



Global Surface Ozone Variability and Trends - The TOAR database and metrics products

Martin Schultz and the TOAR data contributors Team

Forschungszentrum Jülich, IEK-8, Jülich, Germany (m.schultz@fz-juelich.de)

In the context of the first Tropospheric Ozone Assessment Report (TOAR) the world's largest collection of surface ozone data has been assembled in a database at Forschungszentrum Juelich, Germany. Data span the period from 1970 to 2014. Station metadata have been harmonized and extended with information from several global high-resolution datasets. This allows for a first, globally uniform station characterisation as "urban" or "rural". Extensive quality control of the metadata and data was performed and feedback provided to original data providers. This harmonized database was then used to generate hundreds of aggregated aggregate statistics and ozone metrics for use in the analysis of trends in human health, vegetation, and climate impact assessments. These data products form the core data of the TOAR publications which shall become available as a special journal issue in October 2017. The presentation will provide an overview about the TOAR database and the TOAR data files, and demonstrate how they can be accessed and used. The potential for future developments will be discussed.