1.244 NICT priorities for observing the anthropocene from space.

Presenting Author:
Yasko KASAI, Terahertz Technology Research Center, Big Data Integration Research Center National Institute of Information and Communications Technology (NICT), Tokyo, Japan, ykasai@nict.go.jp

Co-Authors:
Takeshi KURODA, Big Data Integration Research Center National Institute of Information and Communications Technology (NICT), Tokyo, Japan
Tomohiro SATO, Big Data Integration Research Center National Institute of Information and Communications Technology (NICT), Tokyo, Japan
Koji ZETTSU, Big Data Integration Research Center National Institute of Information and Communications Technology (NICT), Tokyo, Japan

Abstract:

Air quality in the atmosphere is strongly related with human health. The aim of NICT project is to provide a robust prediction system of air quality over Japan with km-class spatial resolution using satellite-based spectroscopic observation for atmospheric compositions, such as short-lived climate pollutant (SLCP), and NO2. The system is assumed to use for health care, such as health tourism, by company and policy makers. Currently, we are developing 1. a forecasting modeling system including PM2.5, oxidants (tropospheric ozone), NOx, SOx and so on with multi-modal area systems to realize both high spatial resolution over Japan and wide coverage of Asian/global scales, since significant pollutions are coming from cross-border transport from the continent. 2. Health impact estimation using hospital data and air-quality data. 3. Feasibility study for satellite sensor to observe these air quality species with 1 or 2 km order spatial resolution. I will introduce overview, target, current status in detail in the presentation.