

## **Satellite Remote Sensing Atmospheric Compositions, Products Validation and Data Application in China**

Zhang, Peng

*National Satellite Meteorological Center, Chinese Meteorological Administration, CHINA*

This paper summarizes the achievements related to atmospheric compositions remote sensing from the bilateral cooperation under the framework of MOST-ESA Dragon Programme. The algorithms to retrieve Aerosol, ozone amount and profile, NO<sub>2</sub>, SO<sub>2</sub>, CH<sub>4</sub>, CO<sub>2</sub>, etc. have been developed since 2004. Such algorithms are used to process FY-3 series (Chinese second generation polar orbit satellites) observation and ground based FTIR observation. The results are validated with in-situ measurements. Aerosol, total ozone amount shows the very good consistent with the ground measurements. Some satellite derived products, such as NO<sub>2</sub>, SO<sub>2</sub> etc., have been utilized to analyse the environmental and climate change in China. These works demonstrate the satellite's capacity on environment monitoring and climate change research.