



## **Sulfur dioxide retrievals from OMI and GOME-2 in preparation of TROPOMI**

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The TROPospheric Monitoring Instrument (TROPOMI) will be launched in 2016 onboard the ESA Sentinel-5 Precursor (S5P) platform and will provide global observations of atmospheric trace gases, with unprecedented spatial resolution. Sulfur dioxide (SO<sub>2</sub>) measurements from S5P will significantly improve the current capabilities for anthropogenic and volcanic emissions monitoring, and will extend the long-term datasets from past and existing UV sensors (TOMS, GOME, SCIAMACHY, OMI, GOME-2, OMPS).

This work presents the SO<sub>2</sub> retrieval schemes performed at BIRA-IASB as part of level-2 algorithm prototyping activities for S5P and tested on OMI and GOME-2. With a focus on anthropogenic sources, we show comparisons between OMI and GOME-2 as well as ground-based measurements, and discuss the possible reasons for the differences.