



Comparison of methodologies for SO₂ and Ash identification using observations from IASI

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The multichannel Infrared Atmospheric Sounder Interferometer (IASI) on board the Metop satellites is used to investigate and compare various techniques of SO₂ and Ash detection from volcanic eruptions. Many of the differences in the various approaches stem from using different instruments and channel selections, based on availability. Other differences stem from assumptions made in the processing of the data and the different nature of the eruption (tropical, high latitude, explosive high altitude or continuous lower level ones, amount of material released). Often, both of the above (channel selection and assumptions) are intertwined. The high spectral resolution of IASI (8461 channels from 645 cm⁻¹ to 2760 cm⁻¹ every 0.25 cm⁻¹), allows us to better understand differences due to the various approaches, as well as to evaluate the effects of clouds in a consistent way from the same instrument.