



Retrieval of atmospheric CO₂ from satellite near-infrared nadir spectra in the frame of ESA's climate change initiative

Maximilian Reuter, Michael Buchwitz, Oliver Schneising, Jens Heymann, Heinrich Bovensmann, and John P. Burrows

University of Bremen, Germany (reuterm@loz.de)

ESA's climate change initiative (CCI) aims at global satellite measurements of essential climate variables (ECV). One of these variables is XCO₂ (the column-average dry-air mole fraction of atmospheric CO₂) which is retrieved from the satellite instruments SCIAMACHY aboard ENVISAT and TANSO aboard GOSAT. Results of the SCIAMACHY retrieval algorithms WFM-DOAS and BESD will be the focus of the presentation. This includes a comparison against ground based FTS measurements, GOSAT retrievals, and model results.