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TCCON partners, https://tccon-wiki.caltech.edu/
Poster
The Greenhouse gases Observing SATellite (GOSAT) has been operating for more than 15 years, and the column-averaged dry air mole fractions of carbon dioxide, methane, and water vapor (XCO2, XCH4, and XH2O; hereinafter called Xgas) have been retrieved globally from the Short-Wavelength InfraRed (SWIR) spectral data (0.76, 1.6, and 2.0 ?m bands) observed with Thermal And Near-infrared Sensor for carbon Observation Fourier Transform Spectrometer (TANSO-FTS) onboard GOSAT. Xgas are simultaneously retrieved using a so-called full-physics retrieval method. The retrieval results are released as the FTS SWIR L2 products and available via GOSAT Data Archive Service (GDAS; https://data2.gosat.nies.go.jp/). The latest version of the SWIR L2 products are V03.00 (Bias-Uncorrected) and V03.05 (Bias-Corrected).
As a successor to the GOSAT, GOSAT-2 has been operating for more than 5 years. GOSAT-2 is also equipped with two instruments: TANSO-FTS-2 and TANSO-CAI-2. TANSO-FTS-2 has three SWIR bands (0.75–0.77, 1.56–1.69, and 1.92–2.33 ?m) and two TIR bands (5.5–8.4 and 8.4–14.3 ?m) with a spectral sampling interval of about 0.2 cm-1. Since the spectral range of TANSO-FTS-2 is expanded to cover the carbon monoxide (CO) absorption band at 2.3 ?m, XCO is also retrieved simultaneously with the other gases in the full-physics retrieval method. In addition to the full-physics-based Xgas products, we also provide proxy-based XCH4 and XCO products as well as solar induced chlorophyll fluorescence (SIF) product. The latest version of the full-physics product and the proxy-based product are SWFP V02.00 and SWPR V02.00, respectively, and available via GOSAT-2 Product Archive (https://prdct.gosat-2.nies.go.jp/).
Some topics about the Xgas validation, bias correction, inter-satellite comparison, and algorithm updates will be shown in the session.
Meeting homepage
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