

Seminar “Physics and Chemistry of the Atmosphere”,
Institute of Environmental Physics (IUP), Univ. Bremen
Date: 11-April-2025, 14:15
Place: Building NW1, Room S1360

First results from the OMS satellite instrument

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Atmospheric trace gases (O_3 , SO_2 and NO_2) have a significant impact on the urban environment and global climate. Remote sensing technology provides an unprecedented tool for the continuous and real-time monitoring of atmospheric trace gases. The Ozone Monitoring Suite (OMS) onboard the FENGYUN-3F (FY-3F) satellite launched in August 2023 is a new hyperspectral UV-VIS instrument in the FY-3 family of satellites, aiming to obtain information about atmospheric trace gases. First results from FY3F/OMS instrument will be shown and compared with TROPOMI and WOUDC measurements. The results indicate that the OMS first retrievals exhibit good agreement with TROPOMI. Overall, with its high spectral and spatial resolution, morning overpass time, daily global coverage, and reliable retrieval results, OMS will provide more effective data support for monitoring the global trace gases, helping to fill the spatial and temporal gaps in the existing global satellite network.