



## **Investigation of precipitation with a vertical pointing X-band radar at Hornisgrinde during COPS**

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A vertically pointing X-band (wavelength of 3.2 cm) Doppler radar is a remote sensing tool to investigate the microphysical properties of precipitation, e.g., the melting layer and its variability. The mobile X-band radar operated by University of Hohenheim (UHOH) during COPS (Convective and Orographically-Induced Precipitation Study, see contribution of V. Wulfmeyer et al. to this conference) was developed by Eidgenössische Technische Hochschule Zürich. It has high resolution in time (1 s), range (up to 50 m) and velocity ( $0.125 \text{ m s}^{-1}$ ) which makes also small scale structures visible and allows to investigate a broad range of hydrometeors from slowly falling snow over rain up to hail. This mobile radar is also equipped with a Joss-Waldvogel disdrometer to measure the drop size distribution at the ground.

Reflectivity, velocity, and Doppler spectra widths are real-time data products of the system. The capability of unattended operation makes it versatile to measure different precipitation events around-the-clock.

The UHOH X-band radar is deployed from June to August 2007 in the field campaign COPS on top of Hornisgrinde, the highest peak (elevation of 1161 m above sea level) in the Northern Black Forest. The results of COPS will be presented at DACH.