

Recent progress in remote sensing of tropospheric water vapour isotopologues

Frank Hase

Karlsruher Institut für Technologie, IMK-ASF, Karlsruhe, Germany
frank.hase@kit.edu

The atmospheric water cycle is a key determinant for atmospheric general circulation and Earth's radiation budget. Recent progress achieved in the area of remote sensing of water vapour isotopologues opens up a novel promising resource for atmospheric water cycle research. This talk will provide an overview of available ground-based and satellite-based observations, will introduce the ERC grant project MUSICA (MUlti-platform remote Sensing of Isotopologues for investigating the Cycle of Atmospheric water), will discuss special aspects of isotopologue retrieval from atmospheric spectra and will investigate to which extent models can reproduce the observations.