Seminar über Microwave Physics and Atmospheric Physics

Referent/in: Adrianos Filinis, IAP, University of Bern

Titel: CRYOWARA: “Development of a cryogenic radiometer for middle atmospheric water vapor”

Water vapor is one of the most important atmospheric constituents on Earth. In the upper troposphere-lower stratosphere water vapor measurements play a crucial role for the greenhouse effect and the depletion of ozone chemistry. In addition, monitoring of water vapor is key for the total atmospheric energy budget. To achieve that a new 22GHz radiometer for observing middle atmosphere water vapour (CRYOWARA) is in development. The new radiometer will be part of the Swiss H2O Hub which consists of four instruments from four different institutes (University of Bern, EMPA, ETH, Meteo Swiss) and will allow the retrieval of water vapor profiles from ground up to the middle atmosphere. CRYOWARA will replace the existing radiometer (MIAWARA operated by the University of Bern) in Zimmerwald. To increase the altitude coverage and to reduce the size of the instrument, CRYOWARA will be operated with the front end at cryogenic temperatures, using a cryocooler and a cryostat, combined with a corrugated profiled feed and a parabolic reflector. In this seminar, the developments of last year for CRYOWARA will be presented, alongside a detailed schedule plan for the future of the instrument and some early results of the Swiss H2O hub.

Zeit: Friday 24.05.2024, 10:15 Uhr

Ort: Room A97
https://unibe.ch.zoom.us/j/97081325603?pwd=d0ozME5xOS9pQVNxallILem81VHQyZz09
Meeting ID: 970 8132 5603
Passcode: iapmw