

Seminar über Microwave Physics and Atmospheric Physics

Referent/in: Dr. Derek Houtz and Reza Naderpour, Eidg. Forschungsanstalt für Wald, Schnee und Landschaft WSL, Birmensdorf

Titel: Microwave remote sensing of snow; from towers in the Swiss Alps to Greenland and the North Pole

For the past few years the microwave remote sensing group at WSL in Birmensdorf has been focused on retrieving physical properties of snow from passive microwave remote sensing data. Using a tower-based radiometer suite in L-band and X-band, we have demonstrated retrievals of snow density, water content, and underlying soil permittivity. The snow wetness retrieval technique was recently extended to snow-covered ice in Greenland, and was demonstrated using SMOS L-band data. We are also working on validating the SMOS-based retrievals with in-situ ground-based radiometry and permittivity measurements conducted in Greenland in May 2019. We will also discuss upcoming projects including Reza's trip to the North Pole on the Polarstern ice breaker and the ongoing development of a lightweight L-band radiometer intended for drone-based mapping of snow and soil properties.

Zeit: Freitag, 01.11.2019, 10:15 Uhr

Ort: **Hörsaal A97**, Gebäude Exakte Wissenschaften, Sidlerstrasse 5, Bern, Schweiz