

## Seminar über Microwavephysics and Atmospheric Physics

**Referent:** Dr. Martine Collaud Coen, MeteoSwiss Payerne

**Titel:** Planetary boundary layer detection by Remote Sensing instruments

Continuous determination of planetary boundary layer (PBL) height is of prime importance for air quality analysis and prediction, and for model validation. The PBL top is characterized by a decrease of the aerosol and humidity concentrations and by increased turbulences. These physical properties can be measured either by Lidar, Windprofiler, microwave radiometer or radio-sounding. All these methods are synergistically used to obtain the most comprehensive picture of the various PBL layers. Comparisons with the PBL heights determined by the numerical weather prediction (NWP) model COSMO-2 as well as a two year climatology at Payerne and Schaffausen were also done. Finally a ceilometer at the Kleine Scheidegg associated with a new algorithm, PathFinderTurb, was developed to automatically derived the local convective boundary layer and the top of the continuous aerosol layer above the research station of the Jungfraujoch. The impact of the regional and of the meso-scale pollution on a high altitude site can then be assessed.

**Zeit:** Freitag, 20.04.2018, 10:15 Uhr

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