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## Seminar über Microwave Physics and Atmospheric Physics

**Referent/in:** Robin Bonny, EPFL

**Titel:** The CHESSE CubeSat Mission: Exospheric Science and Enabling RF Architectures

The CHESSE (Constellation of High-Performance Exospheric Science Satellites) mission is under development by the EPFL Spacecraft Team (EST) in collaboration with its academic partners, namely the University of Bern and ETHZ. These CubeSats are designed around a time-of-flight mass spectrometer to create an inventory of chemical species present in the exosphere, measure the density, and record their variability over both space and time. To downlink the collected scientific data, the satellites will utilise a custom-developed X-band transceiver operating in the amateur frequency range. The proposed transceiver architecture employs software-defined radio (SDR) technology, providing adaptability for diverse mission needs. An overview of the mission concept along with key points related to its RF systems are presented.

**Zeit:** Freitag, 17. November 2023, 10:15 Uhr

**Ort:** Room A97, ExWi, Sidlerstrasse 5, 3012 Bern  
<https://unibe-ch.zoom.us/j/97081325603?pwd=d0ozME5xOS9pQVNxallLem81VHQyZz09>  
Meeting ID: 970 8132 5603  
Passcode: iapmw