

Microwave Physics and Atmospheric Physics

Referent/in: Dr. Miroslav Pantaleev, Beyond Gravity Schweiz AG

Titel: Building Instruments for Radio Astronomy: from receivers for single dish at Onsala Observatory to development and testing of SKA Band 1 receiver

Designing and delivering instruments for radio astronomy requires balancing stringent scientific requirements with practical engineering constraints. In this talk, I will share insights from my experience in developing front-end components for single dish telescopes and large-scale arrays instruments as SKA, focusing on requirements definition, component selection, and system integration. The presentation will cover the challenges of achieving low-noise performance, thermal stability, and mechanical robustness under observatory conditions.

A key highlight will be the delivery and testing of a prototype receiver for SKA Band 1, including lessons learned during telescope integration and verification. These experiences illustrate the complexity of translating theoretical specifications into operational hardware and provide a roadmap for future developments in high-sensitivity radio astronomy instrumentation.

Zeit: Friday, 21.11.2025, 10:15

Ort: Room A97
<https://unibe-ch.zoom.us/j/97081325603?pwd=d0ozME5xOS9pQVNxallLem81VHQyZz09>
Meeting ID: 970 8132 5603
Passcode: iapmw