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UNIVERSITÄT BERN

Microwave Physics and Atmospheric Physics

Referent/in: Hervé Lamy, BRAMS (Belgian RAdio Meteor Stations)

Titel: Reconstruction of meteoroid trajectory and speed using radio CW forward scatter observations with the BRAMS network

BRAMS (Belgian RAdio Meteor Stations) is a radio forward scatter network aimed at detecting and characterizing meteoroids in the Earth's atmosphere. It is made of a dedicated beacon transmitting a pure CW signal at 49.97 MHz and with a power of 340 Watts. The network comprises >50 receiving stations including 2 radio interferometers.
The use of CW makes the reconstruction of a meteoroid trajectory and speed very challenging without interferometry. During this talk, we will show how to achieve that goal using time delays measured between different receiving stations combined with pre-t0 phase measurements.
The accuracy of the reconstructed parameters is assessed both by comparing with optical observations from the CAMS-BeNeLux network as well as using a Bayesian approach to compute confidence intervals.

Zeit: Tuesday, 04.11.2025, 10:15

Ort: Room B116
https://unibe-ch.zoom.us/j/97081325603?pwd=d0ozME5xOS9pQVNxallLem81VHQyZz09
Meeting ID: 970 8132 5603
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