

Dienstag, 23.01.2024, 14.00 Uhr
Leipziger Meteorologisches Kolloquium

Dr. Julia Burkart
(GeoSphere Austria / Universität Wien)

“Bioaerosol measurements with the SwisensPoleno Jupiter in the laboratory and at Sonnblick Observatory”

The SwisensPoleno Jupiter is a novel measurement method based on light/laser-induced fluorescence in combination with holographic images promising improvement for the online detection of bioaerosols. Bioaerosols, such as pollen, spores, pathogens or fragments of biomass are omnipresent in our atmosphere and affect human and agricultural health, as well as clouds and climate. In this talk, I will discuss results from laboratory measurements with pure fluorescent substances (amino acids, coenzymes, biopolymers) and specific biological particles. The performance of the instrument is illustrated with respect to the fluorescence signal. The potential of the particle classification with a machine learning model will be demonstrated. Further, I will present a first look at data from the SwisensPoleno Jupiter operated at the Sonnblick Observatory (3106 m a.s.l.), the high alpine research station of GeoSphere Austria.

Link: <https://eu02web.zoom-x.de/j/69708640246?pwd=NjhSSng1ZXBIRjQrUWdibUpUUDI4UT09>

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