Leipziger Meteorologisches Kolloquium
Donnerstag, 02.06.2022, 14.00 Uhr
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„Optical Remote Sensing in Geo- and Ecosystem Research”

The biosphere is subject to various changes due to human or climatic impacts. These changes may lead to ecosystem degradation and a loss of biodiversity. A detailed mapping, monitoring and modeling of spatio-temporal patterns in species distributions and ecosystem properties is desirable for conservation planning and management actions. Remote sensing approaches offer the potential to assist in this task. This talk will give an introduction to the principles of optical remote sensing and show examples how Earth observation data can be linked to in-situ observations for an assessment of ecosystem properties. The presented case studies cover a broad range of ecosystems and put an emphasis on the synergistic analysis of image data, vegetation data sampled in the field and machine learning techniques. The applications include techniques for fuzzy vegetation mapping, assessments of functional trait as well as the characterization of urban areas.