

**Seminar on Physics and Chemistry  
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# **Remote Sensing of Aerosol Vertical Distribution Using Spectrally Resolved Measurements of Oxygen Absorption**

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## **Abstract**

Atmospheric aerosols play a central role in the Earth's radiative budget. Together with various greenhouse gases, aerosols represent the most significant anthropogenic forcing responsible for climate change. However, uncertainties about the origin and composition of aerosol particles, their size distribution, concentration, spatial and temporal variability, make climate change prediction challenging. In order to quantify the influence of aerosols on the Earth's climate and to better validate climate models, information about their global abundance, properties and height distribution are needed. In this talk, I will discuss how spectrally resolved measurements of oxygen absorption can be used to infer aerosol parameters such as optical thickness and layer height.