

**Donnerstag, 16.06.2022, 14.00 Uhr**  
**Leipziger Meteorologisches Kolloquium**

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**The middle and upper atmosphere: coupling between  
atmospheric layers and space**

The atmosphere is an integrative system extending from ground up to few hundred kilometers in altitude. Here, the mesosphere and lower thermosphere (MLT) ranging between 50 and 200 km plays a particular role. In recent years, the MLT has been recognised as the missing piece in understanding the connection of weather and climate to processes occurring in the upper atmosphere and space. Scientific questions in this region concern the coexistence of hydro-, thermo-, and electrodynamic processes and requires the combination of different physical disciplines. However, it is particularly challenging to obtain observations of the MLT. The region is too low for current satellite missions and too high for balloon-borne in situ measurements. Thus, remote sensing by ground-based lidars and radars as well as scientific rocket campaigns remain unrivalled tools to access the MLT. The Leibniz Institute of Atmospheric Physics at the University of Rostock (IAP) investigates the MLT using sophisticated lidar, radar, and rocket experiments and advanced data analyses and modelling. This presentation will give an introduction to the characteristics and significance of the MLT and gives examples of recent research activities.

Link:

<https://us02web.zoom.us/j/86302498349?pwd=Y3ZHdUhCUGhrbnc5Y0tyd25qVzk0QT09>

Meeting-ID: 863 0249 8349

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**Ort: TROPOS, Seminarraum 23.1 und online**