# Leipziger Meteorologisches Kolloquium

# Donnerstag, 05.05.2022, 14.00 Uhr

# Dr. Simone Tilmes

## (NCAR, Atmospheric Chemistry Observations & Modeling Lab, Boulder)

## *„ Stratospheric Aerosol Intervention effects on stratospheric composition and future ozone”*

Stratospheric aerosol intervention (SAI) has been proposed to counter anthropogenic greenhouse gas induced warming, while increasing stratospheric aerosols to reflect incoming shortwave radiation. One of the side effects of SAI is the impact on stratospheric composition and ozone. Combined changes in chemistry, stratospheric dynamics and transport can result in both increasing and decreasing total column ozone (TCO) values, depending on region and season. Simulated changes in ozone concentrations in the future depend on the SAI injection strategy, the assumed future baseline scenario, and are model dependent. The seminar will present the current understanding of the effects of SAI and outline the complexity and uncertainty based on current studies, requiring more focus research in this area. I am comparing the results of different injection strategies and future scenarios based on simulations performed by one Earth System Model (ESM) and results from multi-model comparison studies within the Geoengineering Model Intercomparison Project (GeoMIP).

**Ort: online**