

EINLADUNG

zum Vortrag
von

Prof. Dr. Joachim Curtius

Institut für Atmosphäre und Umwelt, Fachbereich Geowissenschaften/Geographie
Goethe-Universität Frankfurt/Main

Aerosol and Cloud Formation in a Changing Climate: Results from the CLOUD experiment at CERN

am

Dienstag, 30. Mai 2017, um 17:30 Uhr

Ort: Lise-Meitner-Hörsaal, Fakultät für Physik, Universität Wien,
1090 Wien, Strudlhofgasse 4 / Boltzmannngasse 5, 1. Stock

Barrierefreier Zugang: Boltzmannngasse 5, Lift, 1. Stock rechts über den Gang zum Hintereingang des Hörsaals

Abstract:

Atmospheric aerosols and clouds reflect and absorb sunlight as well as terrestrial radiation and have a major influence on Earth's energy budget and the water cycle.

How cloud properties are changing due to anthropogenic emissions and due to climate change is a topic of intense current research.

The talk introduces to the role of aerosols and clouds in climate change. Recent results from the CLOUD experiment at CERN are presented. The results highlight the importance of understanding the pre-industrial concentrations of cloud condensation nuclei in the atmosphere. The detailed CLOUD experiments allow for the first time to simulate the processes of aerosol and cloud formation for pre-industrial as well as present day conditions under precisely controlled laboratory conditions. The processes of aerosol formation are studied at the molecular level and the participating vapours are identified. The results are included in global aerosol and cloud models to study the impacts on climate.

CHEMISCH-PHYSIKALISCHE GESELLSCHAFT

c/o Universität Wien, Fakultät für Physik, 1090 Wien, Strudlhofgasse 4/Boltzmannngasse 5, Austria

Generalsekretär: Christl Langstadlinger

Tel.: +43-(0)1-4277/51108 - Mobil: 0664-60277 51108 - E-Mail: Christl.Langstadlinger@univie.ac.at

ZVR-Zahl: 513907440 - <http://www.cpg.univie.ac.at>

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