

Physikalisches Kolloquium



Thursday, 02.11.2023, 16:15, HS 100

Reception with coffee & cookies 16:00

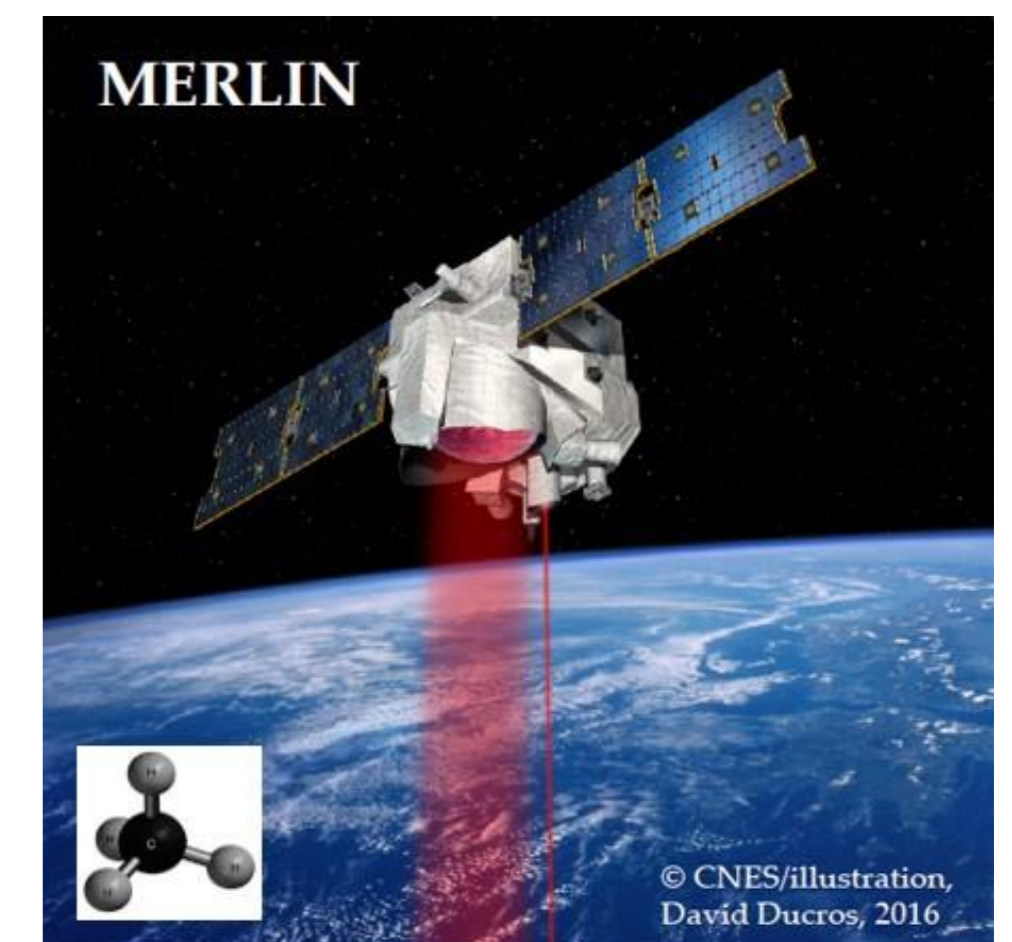
(For university staff: please bring your own cup for sustainability reasons)

Dr. Gerhard Ehret, Institut für Physik der Atmosphäre, Lidar,
DLR, Oberpfaffenhofen:

The Franco-German LIDAR Mission MERLIN

Abstract

France and Germany will develop and implement in a joint cooperation a small satellite mission called „MEthane Remote sensing Lidar mission (MERLIN) for measurements of the greenhouse gas methane (CH_4) around the globe. Germany develops the instrument, an Integrated-Path Differential-Absorption (IPDA) LIDAR which is the most challenging part. The platform (satellite bus) is provided by France. After a brief introduction about DLR's LIDAR experience with focus on space-borne applications, I will give an overview on MERLIN spanning the scientific goals and measurement principle up to the payload realisation. The airborne demonstrator "CHARM-F" is a key mission element with respect to validation and data generation activities. For this, some results from recent airborne campaigns in Europe and Canada are presented and discussed in view of possible implications for the measurements of its space-borne counterpart. Finally, an outlook on future LIDAR in space experiments are given.



Atmospheric Methane Lidar Mission

All of you interested in physics are cordially invited!