

**FAKULTÄT für PHYSIK
LUDWIG-MAXIMILIANS-UNIVERSITÄT
MÜNCHEN/GARCHING**

**PHYSIK-DEPARTMENT
TECHNISCHE UNIVERSITÄT MÜNCHEN
MÜNCHEN/GARCHING**

MLL-KOLLOQUIUM

Donnerstag, 16.01.2020, 16¹⁵ Uhr

Hörsaal der LMU in Garching, Am Coulombwall 1
Treffen zum gemeinsamen Kaffee 16 Uhr

Martin Losekamm

(Physik Department E18, TU München)

The ORIGINS Laboratory for Rapid Space Missions

Small satellites have become a versatile and widely used platform for scientific and commercial technology-demonstration missions. In such short-term missions, costs can be substantially reduced through the use of commercial-off-the-shelf components and ride-share launches. For the same reasons, development times are significantly shorter than for larger satellites. Despite strict limitations in size, mass, and available power, the CubeSat standard - the foundation of the most widely used class of small satellites - has enabled numerous scientists around the world to test or operate their instruments in space. To make use of the opportunities that small satellites offer to the scientific community, the Laboratory for Rapid Space Missions (LRSM) of the DFG Cluster of Excellence ORIGINS has developed a versatile CubeSat bus for missions in low Earth orbits. In this talk, I will present the rationale for establishing the LRSM in Munich and the technologies currently under development. I will also present two upcoming scientific missions: the ComPol mission to measure the polarization of the Cygnus X-1 X-ray source and the AFIS mission to determine the antiproton content of Earth's Van Allen radiation belts.

gez. Peter Thirolf
Tel. 289-14064

gez. Norbert Kaiser
Tel. 289-12367