



Das Institut für Physik

Institutsbereich Geophysik, Astrophysik und Meteorologie

lädt zu folgendem Vortrag

im Rahmen des **Astrophysikalischen Kolloquiums** ein:

**"BRIGHT Target Explorer: a constellation  
of 6 nano satellites and 3 countries."**

**Dr. Rainer Kuschnig**

Institut für Satellitenkommunikation, TU Graz

BRITE-Constellation (BRIGHT Target Explorer) consists of six nano-satellites aiming to study of variability of the brightest stars in the sky. Austria, Poland, and Canada contribute two spacecraft each all launched into low earth orbits. The satellites have the same structure: they are 20 cm cubes, 7kg mass, with a CCD photometer fed by 3 cm aperture telescopes. The main difference between pairs of satellites is the instrument passband which set to blue (400-450nm) or red (550-700nm). The core scientific objective is to obtain high precision two color photometry, with a time base of up to 180 days, of stars brighter than 4.5 mag in order to study stellar pulsations, spots, and granulation, eclipsing binaries, search for planets and more.

Since the launch of the first two BRITE satellites in February 2013 close to 7 years of experiences in space have been gathered to run the mission and a summary of lessons learned will be presented. By now more than 30 peer-reviewed scientific articles have been published based on data collected by BRITE-Constellation satellites in space and most results presented therein benefitted greatly from supplementary spectroscopy by meter size telescopes obtained on ground. In addition, the synergy potential with the 2018 launched NASA TESS mission and ground-based high resolution spectroscopy such as the SONG project will be outlined.

Zeit: **Mittwoch, 29. Jänner 2020 um 16:45 Uhr s.t.**

Ort: **Seminarraum 05.13** (1. Stock), Universitätsplatz 5, 8010 Graz

Dr. Paul G. Beck  
☒ Universitätsplatz 5/II, 8010 Graz, Austria

Tel.: +43 (0) 316 / 380-5263  
E-Mail: paul.beck@uni-graz.at  
physik.uni-graz.at/de/igam