

Das Institut für Physik  
Fachbereich Astrophysik und Geophysik  
lädt zu folgendem Vortrag  
im Rahmen des **Astrophysikalischen Kolloquiums** ein:

## **The Sun as a star seen through planet hunting instruments**

**Prof. Dr. Andrew Cameron**

University of St. Andrews, Scotland (UK)

Despite spectacular advances in the stability and precision of radial-velocity spectrometers over the last 3 decades, the detection threshold for the reflex orbital motion of planet-host stars has been stalled at around 1 m/s for the last 15 years. This is an order of magnitude greater than is needed for determining the masses of Earth analogues around solar-type stars. The culprit is stellar activity, whose forms range from p-modes and photospheric granulation to Doppler-shifted flux perturbations by dark spots and bright faculae, to localised magnetic suppression of convective flows at different depths in the photosphere. A small, purpose-built solar telescope has been feeding integrated sunlight into the HARPS-N radial-velocity spectrometer every clear day since July 2015. I will review a selection of the ongoing investigations that are using these Sun-as-a-star data to develop both data-driven and physics-based methods for separating the effects of stellar photospheric physics from true dynamical Doppler shifts.

Zeit: **Monday, 24. February 2025 um 14:00 Uhr s.t.**

Ort: **SR 05.13** (1. Stock)

Universitätsplatz 5, 8010 Graz

Univ.-Prof Dr. Alexander Shapiro  
Leitung Stellare Astrophysik  
Projektleiter REVEAL  
Institute of Physics, University of Graz, Universitätsplatz 5/II, 8010 Graz, Austria  
Tel: +43 (0) 316 380 5262  
E-Mail: alexander.shapiro@uni-graz.at