

# Colloquium

**SFB 956**

Conditions and Impact of Star Formation

**28.11.2016**

Monday 3:00 pm

**Physikalische Institute Köln**

Lecture Hall III

Zülpicher Straße 77 | 50937 Köln

**Agata Karska**

Torun Centre for Astronomy, Nicolaus Copernicus University, Torun, Poland

## **Sunbathing around Protostars - New Insights from the Far-Infrared Observations of Shock**

Stars form in dense molecular clouds, where gas and dust are well-shielded from the interstellar UV radiation. Nonetheless, UV photons can be produced in situ in the surroundings of young protostars: either by the accretion of material onto the disk or its partial ejection in the powerful jets. Recent observations with the Herschel Space Telescope reveal that even relatively small UV fields dramatically alter the chemical composition of the gaseous envelopes. In my talk, I will show the main results from Herschel related to feedback from low-mass protostars. In particular, I will demonstrate that standard models of shocks do not agree with observations unless their irradiation by UV photons is included.

