

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

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

MLL-KOLLOQUIUM

Donnerstag, 01.12.2016, 16¹⁵ Uhr

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

Dr. Julien Fuchs

(LULI, Ecole Polytechnique / Palaiseau, France)

Intense laser pulses and strong magnetization as tools for investigating astrophysical phenomena

Coupling high-power lasers and high-strength B-fields helps gaining unique insight and understanding of a variety of phenomena of crucial importance for astrophysics. We have shown that such platform could be used to mimic the expansion of a young star isotropic disk wind threaded by a co-axial poloidal magnetic field, as well as emissivity shielding issues in accretion dynamics in the same forming young stars. The same system can also be used to study the issue of particle energization in astrophysical plasmas, or of collision-less instabilities that central to the dynamics of plasmas and particles in the solar wind. Some recent examples will be reviewed and discussed.

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