

FAKULTÄT für PHYSIK  
LUDWIG-MAXIMILIANS-UNIVERSITÄT  
MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT  
TECHNISCHE UNIVERSITÄT MÜNCHEN  
MÜNCHEN/GARCHING

## MLL-KOLLOQUIUM

Donnerstag, 22.01.2015, 16<sup>15</sup> Uhr

Seminarraum 127, TUM, Physik II, Erdgeschoss/Nord  
Treffen zum gemeinsamen Kaffee 16 Uhr

Priv. Doz. Dr. Georg Raffelt  
(Max-Planck-Institut f. Physik, München)

### Axion Dark Matter

The physical nature of the cosmic dark matter remains perhaps the most vexing mystery of contemporary cosmology. One well-motivated particle-physics solution is provided by the hypothesis of axions, very weakly interacting and very low-mass particles, that would simultaneously explain why quantum-chromodynamics perfectly respects the symmetry between matter and anti-matter ('strong CP problem'). The theoretical motivation for axions, their cosmological role, experimental searches, and astrophysical limits will be explained and reviewed.

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