

FAKULTÄT für PHYSIK  
LUDWIG-MAXIMILIANS-UNIVERSITÄT  
MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT  
TECHNISCHE UNIVERSITÄT MÜNCHEN  
MÜNCHEN/GARCHING

## MLL-KOLLOQUIUM

Donnerstag, 17.04.2014, 16<sup>15</sup> Uhr

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

Dr. Jordy de Vries

(Forschungszentrum Jülich, Institut für Kernphysik)

### Hadronic parity violation in chiral effective field theory

Although parity violation in the Standard Model is well understood, the manifestation of parity violation in hadronic and nuclear systems is still rather murky. This problem is mainly caused by the nonperturbative nature of QCD at low energies and the difficulty of the experiments. Historically, parity violation in nuclear systems has been described in terms of one-meson exchange models, but these models have trouble in describing the (sparse) existing experimental data. I will give an overview of the field and present recent work on treating hadronic parity violation in chiral effective field theory. In particular, I will focus on parity-violating effects in low-energy proton-proton scattering.

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