

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

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

MLL-KOLLOQUIUM

Donnerstag, 17.12.2015, 16¹⁵ Uhr

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

Dr. Bhupal Dev

(Physik Department T30d/TUM und MPI für Kernphysik, Heidelberg)

A Testable Mechanism for Baryogenesis

The observed baryon-asymmetry in our Universe is one of the major evidences for new physics beyond the Standard Model. I will review some popular baryogenesis mechanisms for dynamically generating this asymmetry, with a particular emphasis on their testability in future experiments. Then I will discuss a simple model for baryon and lepton number violation, where the stability of the proton is connected to the smallness of the neutrino masses. Matter-antimatter asymmetry in this model can be generated at either above or below the electroweak scale, independent of the sphaleron processes. Possible collider signatures and other low-energy probes will also be discussed.

gez. Peter Thirolf
Tel. 289-14064

gez. Norbert Kaiser
Tel. 289-12367