

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

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

MLL-KOLLOQUIUM

Donnerstag, 20.11.2014, 16¹⁵ Uhr

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

**Prof. Gudrun Hiller
(TU Dortmund)**

Present and Future Flavor Physics Searches

Generational replication (the existence of flavor) and observed features (masses and mixing) is a fascinating feature observed in particle physics. While there has been tremendous progress in the quantitative description of flavor-violation, the origin of flavor continues to be a puzzle within the Standard model, which may be understood if New Physics is discovered. On the other hand, another reason to explore the TeV-scale further is that rare processes in flavor physics are very sensitive to corrections from physics beyond the standard model, and New Physics may be discovered in flavor physics.

In this talk we give an introduction to flavor physics, and discuss a prominent example process sensitive to New Physics. We further discuss current anomalies in the data from the LHC and e^+e^- factories, and their interpretation.

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