



PHYSIKALISCHES KOLLOQUIUM

des Fachbereichs Physik
der Johann Wolfgang Goethe-Universität Frankfurt

Mittwoch, den 15.06.2016, 16 Uhr c.t.
Großer Hörsaal, Raum _0.111,
Max-von-Laue-Str. 1



Prof. Dr. Marcel Merk

Nikhef (National Institute for Subatomic Physics)
Amsterdam, NL

*"Flavour Physics with Beauty Particles
in the LHCb Experiment"*

Why does nature include three generations of fundamental particles and antiparticles? Is it related to the absence of antimatter in the universe? Although the standard model of particle physics contains an asymmetry between matter and antimatter, the existence of particles or forces beyond the standard model is required to explain the cosmic absence of antimatter.

LHCb is a precision experiment searching for new physics in decays of unstable particles containing beauty quarks. These so-called flavour changing decays are a sensitive probe for possible quantum effects of new, heavy particles. After a general introduction of flavour physics and the LHCb experiment, I will present recent findings of LHCb on the topic of Charge Parity violation as well as on rare processes.

Die Dozenten der Physik

local host: Prof. Horst Stöcker, stoecker@uni-frankfurt.de