

FAKULTÄT für PHYSIK
LUDWIG-MAXIMILIANS-UNIVERSITÄT
MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT
TECHNISCHE UNIVERSITÄT MÜNCHEN
MÜNCHEN/GARCHING

MLL-KOLLOQUIUM

Donnerstag, 21.12.2017, 16¹⁵ Uhr

Hörsaal der LMU in Garching, Am Coulombwall 1
Treffen zum gemeinsamen Kaffee 16 Uhr

Dr. Wai Kin Lai

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Determination of the Higgs-Charm Coupling

Since the discovery of the Higgs-boson at the LHC in 2012, huge progress has been made on the measurement of the properties of the Higgs-boson, most notably its couplings to other Standard Model particles. The measurement of the Higgs-fermion couplings is of fundamental importance, since it tests validity of the Yukawa coupling scheme and possibly probes flavor physics beyond the Standard model. There has been robust evidence for the Higgs-top and Higgs-bottom couplings. Measurement of the Higgs-charm coupling, on the other hand, is still eagerly awaited. In this talk, I will summarize the status of Higgs-fermion couplings. I will describe ways to measure the Higgs-charm coupling at the LHC, focus on the exclusive decay channel: Higgs to J/psi plus a photon, and describe the implications, difficulties and the progress in precision calculations of this decay channel.

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