

FAKULTÄT für PHYSIK
LUDWIG-MAXIMILIANS-UNIVERSITÄT
MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT
TECHNISCHE UNIVERSITÄT MÜNCHEN
MÜNCHEN/GARCHING

MLL-KOLLOQUIUM

Donnerstag, 28.05.2015, 16¹⁵ Uhr

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

Dr. Andreas Maier

(Physik-Department T31, TUM)

Precision determination of the bottom quark mass

The mass of the bottom quark is one of the few fundamental parameters of the Standard Model. Among other applications, its precise knowledge is essential in testing the properties of the newly discovered Higgs boson. The most accurate determinations to date employ sum rules, relating moments of the experimentally measured bottom production cross section to their theory counterparts. I will discuss recent analyses based on relativistic and non-relativistic sum rules at next-to-next-to-next-to-leading order, where the value of the bottom quark mass has been obtained within a sub-percent uncertainty.

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