

FAKULTÄT für PHYSIK
LUDWIG-MAXIMILIANS-UNIVERSITÄT
MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT
TECHNISCHE UNIVERSITÄT MÜNCHEN
MÜNCHEN/GARCHING

MLL-KOLLOQUIUM

Donnerstag, 15.12.2016, 16¹⁵ Uhr

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

Dr. Ennio Salvioni

(Physik Department T75, TU München)

Going beyond the Standard Model Higgs at the Large Hadron Collider

Up to date and within the available accuracy, the results of the CERN LHC experiment agree with the predictions of the Standard Model. This leaves unanswered the crucial question of what physics lies behind the breaking of the electroweak symmetry at the Fermi scale. I will discuss theoretical approaches to this problem, focussing in particular on the idea that the observed Higgs particle may be approximately described as a Goldstone boson coming from a new physics sector. This includes long-standing models partly inspired by QCD, as well as more recently-proposed 'Twin Higgs' theories, where the particles of the new sector do not interact directly with the Standard Model, thus potentially explaining the absence of any signals at the LHC. I will emphasize the strategies to probe these possibilities at colliders.

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