Phenomenology 2012 Symposium



Contribution ID: 180 Type: parallel talk

A 125 GeV Higgs Boson in the MSSM from Strongly Coupled Spectators

Monday 7 May 2012 14:15 (15 minutes)

Abstract:

We propose a new mechanism for producing a Higgs boson mass near 125 GeV within MSSM. By coupling the MSSM Higgs boson to a set of strongly coupled fields, large corrections to the Higgs quartic coupling are induced. Although the Higgs doublets do not participate in the strong dynamics, they feel the effects of the strongly coupled sector via (semi-)perturbative interactions. These same strong dynamics are also capable of generating the μ -term.

Additionally, this strong sector is in the conformal window which drives the couplings to an IR fixed point and naturally generates model parameters of the appropriate size.

Author: EVANS, Jason (IPMU, The University of Tokyo)

Co-author: Dr IBE, Masahiro (Stanford Linear Accelerator center)

Presenter: EVANS, Jason (IPMU, The University of Tokyo)

Session Classification: Higgs I