Contribution ID: **221** Type: **Talk**

Towards a phenomenological MSSM fit with Fittino

Thursday 7 July 2016 17:50 (20 minutes)

The phenomenological Minimal Supersymmetric Standard Model (pMSSM) is investigated in the light of constraining experimental and observational data from precision measurements, astrophysics, direct supersymmetry searches at the LHC and measurements of the properties of the Higgs boson by means of a global fit using the program Fittino. Emphasis is set on a precise description of the limits from the full set of LHC SUSY searches and on the measures needed to finally proceed towards calculating a p-value for pMSSM models.

In addition, Fittino is used in combination with SModelS, a tool for interpreting simplified model results, and CheckMATE, a tool for the inclusive re-interpretation of LHC searches, to find important signatures for non-excluded regions in the simplified models published by the LHC collaborations.

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Session Classification: Experimental and Collider Aspects of SUSY

Track Classification: Precision Calculations and Simulations