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Confronting SUSY models with LHC data via electroweakino production

Tuesday, 20 June 2017 14:45 (15 minutes)

We investigate multi-lepton signals produced by ElectroWeakino (EWino) decays in the MSSM and the TMSSM scenarios with sfermions, gluinos and non Standard Model Higgses at the TeV scale, being the Bino electroweak-scale dark matter. We recast the present LHC constraints on EWinos for these models and we find that wide MSSM and TMSSM parameter regions prove to be allowed. We forecast the number of events expected in the signal regions of the experimental multi-lepton analyses in the next LHC runs. The correlations among these numbers will help to determine whether future deviations in multi-lepton data are ascribable to the EWinos, as well as the supersymmetric model they originate from.

Presentation type

Parallel talk

Primary author: MARTIN-LOZANO, Victor (BCTP / Uni Bonn)

Co-authors: Dr ARINA, Chiara; Dr CHALA, Mikael; Dr NARDINI, Germano

Presenter: MARTIN-LOZANO, Victor (BCTP / Uni Bonn)

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