

The 2015+ Phenomenology of Deflected Mirage Mediation

Thursday, 27 August 2015 14:30 (20 minutes)

We consider the phenomenology of deflected mirage mediation, a “mixed” supersymmetry breaking scenario motivated by string compactifications in light of results from LHC8, PLANCK, and LUX. In this scenario, there are additional gauge mediation contributions along with the standard gravity and anomaly mediation contributions of the KKLT-motivated mirage mediation scenarios, which drastically alter the low energy spectrum. We place bounds on the parameter space and discuss the discovery prospects for novel spectra at LHC13, future dark matter direct detection experiments, and a future 100 TeV collider.

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Session Classification: SUSY/String Models

Track Classification: SUSY/String Models