

Di-photon excess in perturbative SUSY with Dirac gauginos

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Summary

Supersymmetric models with Dirac masses for the gauginos have both a solid top-down theoretical motivation and a rich phenomenology. In this talk, we show that the scalar singlet presents in such models is a sound candidate for the 750 GeV diphoton excess as we can have simultaneously: perturbativity up to the GUT scale, vacuum stability and compatibility with other LHC searches. This is furthermore achieved with the "minimal" field content for such scenarios.

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