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Constraining supersymmetry using the relic density and the Higgs boson

Wednesday 30 April 2014 08:30 (20 minutes)

I will present the impact of the recent measurements of Planck, LHC experiments and Xenon100 in terms of constraints on supersymmetric parameters. I will consider two models: mSUGRA for an illustration, and a more general Minimal Supersymmetric Standard Model with 13 free parameters. The analysis is done with the SFitter tool allowing a comparison of Bayesian and profile likelihoods results. I will pin point how the allowed structures in the parameter spaces are driven by the combination of the dark matter annihilation mechanisms and the light Higgs mass predictions.

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