COSMO-15, the 19th annual International Conference on Particle Physics and Cosmology



Contribution ID: 54

Type: not specified

Explaining the Galactic Center Excess with the MSSM

Tuesday 8 September 2015 14:40 (20 minutes)

The Fermi/LAT experiment measures a spherically symmetric excess in gamma-ray flux from the Galactic Center. The gamma-ray excess could be explained by annihilating dark matter. We aim to explain the Galactic Center Excess (GCE) via a neutralino in resonance with the higgs pseudoscalar. The MSSM parameter spaced is scanned in order to find the best fit to the gamma-ray flux signal measured at Fermi/LAT, while also maintaining the right relic abundance, higgs mass, higgs -> W W decay rate, and current direct detection constraints. In the mA - tan \beta plane, we do a \chi^2 analysis and show the best fit regions. Next LHC run will be able to probe part of the most promising parameter space.

Presenter: LOPEZ, Alejandro (University of Michigan, United States)

Session Classification: Dark Matter