

DISCRETE '08: Symposium on Prospects in the Physics of Discrete Symmetries



Contribution ID: 111

Type: **not specified**

Dark matter in CP-violating Supersymmetry

Monday 15 December 2008 09:45 (45 minutes)

Supersymmetry provides ideal candidates for CDM. The LSP neutralino is perhaps the best motivated candidate and the most popular SUSY models can be in agreement with accelerator and WMAP data. Supersymmetric CP-violating phases, although phenomenologically and theoretically interesting, especially for Baryogenesis scenarios, are tightly constrained by the Electric Dipole Moments (EDMs) data. Two-loop RGE running from the Unification to the Electroweak scale renormalizes the gaugino mass phases with important consequences for EDMs. In minimal CP-violating extensions of mSUGRA, with non-universal boundary conditions at the unification scale, EDMs and WMAP data can be simultaneously satisfied for large values of the phases in regions where neutralinos annihilate through a rapid Higgs resonance. These regions of the parameter space are accessible to LHC.

Author: Prof. LAHANAS, Athanasios (University of Athens)

Presenter: Prof. LAHANAS, Athanasios (University of Athens)

Session Classification: PLENARY-VII

Track Classification: Supersymmetry