



Contribution ID: 454

Type: **not specified**

The WIMPy Leptogenesis Miracle

Wednesday, 31 August 2011 14:00 (25 minutes)

We present a new mechanism, “WIMPy Leptogenesis”, which explains the near-coincidence of the present-day dark matter and baryon energy densities in a model of symmetric dark matter. In this scenario, WIMP annihilation is the source of the lepton asymmetry, which is generated by CP- and lepton-number-violating annihilations of the dark matter. The WIMP miracle is preserved, and the overall baryon and dark matter densities are determined by the dark matter annihilation cross section, as well as CP-violating phases and the strength of interactions washing out the asymmetry. We discuss one concrete model of WIMPy leptogenesis and its implications, as well as generalizations to broader classes of models.

Presenter: Mr SHUVE, Brian (Harvard University)

Session Classification: Parallel Session 7