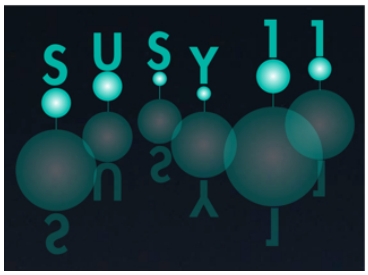

Contribution ID: **318** Type: **not specified**

Direct Detection Constraints on a Magnetic Fluffy WIMP

Sunday, August 28, 2011 11:55 AM (20 minutes)

We explore a scenario in which Magnetic inelastic Dark Matter can scatter to a tower of heavier states.The splitting between successive states is assumed to be a constant $\delta \sim \mathcal{O}$(keV). Such a spectrum with small mass splittings can arise naturally in an extradimensional model with a large compactification radius. We find that a region of parameter space corresponding to $m_\chi \sim 14$ GeV and $\delta < 20$ keV is allowed by the constraints from XENON100, KIMS, CDMS, CRESST II and ZEPLIN III.

Presenter: Mr KUMAR, Kunal (Northwestern University)

Session Classification: Parallel Session 1