Contribution ID: **57** Type: **not specified**

Giant Monopoles as a Dark Matter Candidate

Friday, 20 May 2016 10:50 (20 minutes)

I will review recent challenges to WIMP dark matter models and describe how some of them are addressed by giant ‘t Hooft-Polyakov monopole models. These models exist in theories with a dark sector including a dark SU(2) gauge symmetry coupled to an adjoint Higgs and two fundamental fermions. Several consistency checks of such models will be described, including consistency with MACHO bounds and the CMB power spectrum. The main prediction of such models, which can soon be tested using GAIA astrometry data, is that dwarf galaxies are embedded in halos which extend for tens of kpc, often beyond their tidal radii, which would be impossible for gravitationally bound particulate dark matter.

Primary author: Prof. EVSLIN, Jarah (Institute of Modern Physics, CAS)

Presenter: Prof. EVSLIN, Jarah (Institute of Modern Physics, CAS)

Session Classification: Parallel 20 am