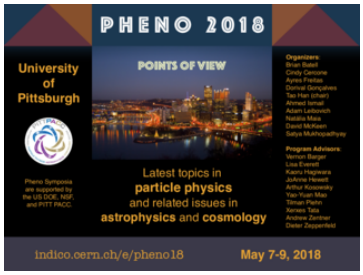

Contribution ID: **571** Type: **parallel talk**

Improving limits on a simplified model of dark matter

Tuesday 8 May 2018 14:30 (15 minutes)

We consider a simplified model of dark matter, taken to be a Majorana fermion, coupling to quarks via colored scalar mediators. The spin independent dark matter-nucleon cross-section vanishes at tree level. In order to calculate direct detection constraints, we calculate, the 1-loop leading order contributions to the spin independent cross-section, also performing RG evolution of the wilson coefficients. Further, we calculate LHC cross-sections at NLO precision and recast LHC searches to determine collider constraints on this model.

Summary

Author: MOHAN, Kirtimaan (Michigan State University)

Co-authors: Prof. YUAN, C P (Michigan State University); Dr SENGUPTA, dipan (Michigan State University); TAIT, Tim M.P. (University of California, Irvine); Dr YAN, Bin (Michigan State University)

Presenter: MOHAN, Kirtimaan (Michigan State University)

Session Classification: BSM III