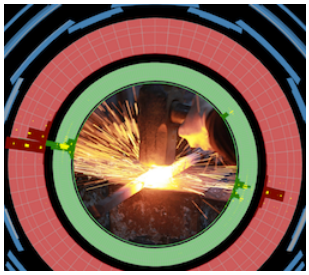

Contribution ID: **12** Type: **parallel talk**

Mixed Dark Matter in Left-Right Symmetric models

Monday 9 May 2016 15:15 (15 minutes)

Motivated by the recently reported diboson and dijet excesses in Run 1 data at ATLAS and CMS, we explore models of mixed dark matter in left-right symmetric theories. Contrary to similar studies that implement pure multiplets, WIMP-nucleon scattering proceeds at tree-level, and hence the projected reach of future direct detection experiments like LUX-ZEPLIN will cover large regions of parameter space for TeV-scale thermal dark matter. Decays of the heavy charged W' boson to particles in the dark sector can potentially shift the right-handed gauge coupling to larger values when fixing to the observed Run 1 excesses, thus favoring the theoretically attractive scenario $g_R = g_L$. This region of parameter space may be probed by future collider searches for new Higgs bosons or electroweakinos.

Summary

Author: Mr GOPOLANG, Mohlabeng (Fermilab/ University of Kansas)

Co-authors: BERLIN, Asher (University of Chicago); FOX, Patrick; HOOPER, dan

Presenter: Mr GOPOLANG, Mohlabeng (Fermilab/ University of Kansas)

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