

Vector Dark Matter via Higgs Portal

Friday 28 August 2015 16:30 (20 minutes)

We discuss options and challenges associated with building viable models of Vector Dark Matter which interact with the Standard Model via the Higgs boson. Higgs portals are often treated with an effective operator, here we instead discuss possible UV complete models to replace the effective operator. The primary focus will be a model where the portal is generated radiatively. We further examine how such a model can complement similar tree-level portals. Finally, experimental constraints and future sensitivities on these models will also be considered.

Author: DIFRANZO, Anthony (UC Irvine / Fermilab)

Co-authors: FOX, Patrick; TAIT, Tim M.P. (University of California, Irvine)

Presenter: DIFRANZO, Anthony (UC Irvine / Fermilab)

Session Classification: Particle Cosmology

Track Classification: Particle Cosmology Theory and Experiment