

Dark matter in models with Higgs aligned gauge groups

Thursday, 27 July 2017 14:00 (15 minutes)

The Higgs can couple to $SU(2) \times U(1) \times SU'(2) \times U'(1)$ models in such a way that the diagonal vector-like $SU(2) \times U(1)$ corresponds to the electroweak gauge symmetry. This leads to a new class of Higgs portal dark matter models within reach of direct search experiments. I will introduce the corresponding dark matter models and their implications for direct search experiments. If time permits, I will also discuss renormalizable extensions of the dark sector in these models.

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Session Classification: Dark Matter

Track Classification: Dark Matter