Portoroz 2013: Probing the Standard Model and New Physics at Low and High Energies

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Closing in on mass-degenerate dark matter scenarios

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We consider a minimal framework which features a Majorana fermion as the dark matter particle and a scalar that mediates the coupling to light fermions. In this scenario the annihilation rate into two fermions and one gauge boson as well as the interaction rate with nuclei can be significantly enhanced while avoiding the strong limits on new physics from collider experiments. We discuss in this talk the limits on the parameters of the model from indirect, direct and collider dark matter searches as well as the prospects to probe this scenario in future experiments.

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