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Lattice results for SU(2) dark matter

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We present lattice investigations of the SU(2) gauge theory with two fermions in the fundamental representation. This model provides a minimal template which is ideal for a wide class of Standard Model extensions featuring novel strong dynamics that range from composite (Goldstone) Higgs theories to several intriguing types of dark matter candidates. In the light of these results, we discuss models of SIMP-, symmetricand asymmetric dark matter. We estimate the interaction of the dark matter candidate with Standard Model particles through it's electric polarisability and discuss experimental constraints on these models.

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