Phenomenology 2023 Symposium



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EFT for Heavy Dark Matter of Arbitrary Spin

Monday 8 May 2023 18:30 (15 minutes)

We construct an effective field theory for non-relativistic heavy dark matter of arbitrary spin based on the Little group formalism. We present the most general HDMEFT basis up to dimension seven involving scalar (spin 0), vector (integer spin) and fermionic (half-integer spin) dark matter fields. We also discuss the matching onto the non-relativistic EFT.

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