

Composite Dark Matter Through the Neutrino Portal

Thursday, May 18, 2023 11:40 AM (25 minutes)

I will discuss a model where dark matter is a composite state in a hidden sector, interacting with the Standard Model via the neutrino portal. The composite states in the hidden sector interpolated by the portal act as singlet neutrinos, which can naturally explain the existence of small but nonzero neutrino masses via the inverse seesaw mechanism. I will describe the existing constraints on this model, and estimate the reach of future experiments, not just for the singlet neutrinos which are the first particles in the hidden sector to be directly produced, but for the dark matter particle as well.

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Session Classification: Dark matter