

## **Elko and mass dimension one fermionic dark matter**

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Abstract: The fermionic fields constructed from Elko (a complete set of Majorana spinors) have several unexpected properties. They satisfy the Klein-Gordon but not the Dirac equation and are of mass dimension one instead of three-half. In this talk, we discuss why they are considered to be dark matter candidates. Recent results obtained by studying their interactions with the Higgs boson will be presented. Taking the mass of the Higgs boson to be 125 GeV, we show that the mass of the fermion must be at least 62.5GeV.