

Role of Dark Higgs Boson in (Astro)Particle Physics and Cosmology

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I will describe the landscape of a dark sector with (excited) dark matter and various force mediators controlled by dark gauge symmetry. Then I will discuss the following topics one by one: (i) Why do we have to consider the dark Higgs boson? (ii) Galactic center gamma-ray excess with dark Higgs (iii) WIMP scenario resurrected with dark Higgs boson (iv) 511 keV gamma ray excess (v) Higgs inflation assisted with dark Higgs field (vi) Other examples where dark Higgs plays crucial roles

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