



Contribution ID: 177

Type: Oral presentation (plenary)

## Role of dark Higgs Boson in DM physics and Higgs Inflation

*Friday 22 July 2022 09:00 (30 minutes)*

I show that the dark Higgs Boson, which is often ignored in DM phenomenology, can play a crucial and important role by restoring unitarity and opening new channels for DM pair annihilation. These are demonstrated in a number of different examples: (i) the invisible Higgs decay width in vector DM with Higgs portal, (ii) scalar or fermion inelastic DM and the exothermic DM scattering for the Xenon1T excess, (iii) collider searches for the s-channel scalar mediators, and (iv) Higgs-portal assisted Higgs inflation.

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**Session Classification:** Plenary 5