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Dark Matter search in MonoH channel with the ATLAS detector
ANINDYA GHOSH, The University of Iowa, ATLAS COLLABORATION — This presentation describes a search for dark matter candidates produced in association with a Standard Model Higgs boson, with a focus on the $H \to b\bar{b}$ decay channel. The search utilises a dataset of pp collisions at $\sqrt{s} = 13$ TeV corresponding to an integrated luminosity of 139 fb^{-1}, recorded by the ATLAS detector. The results are interpreted in the context of the 2-Higgs doublet model with an extra vector or pseudoscalar mediator. The 2-Higgs doublet model is an example of the so-called Higgs portal models, in which dark matter particles interact with the SM particles only through their couplings with the Higgs sector of the theory.

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