

Looking for dark matter in exotic Higgs decays at the LHC

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The particle nature of dark matter is one of the most intriguing questions in particle physics. The discovery of a fundamental scalar particle compatible with the Higgs boson predicted by the SM paves the way for probing this question with new methods. An overview of the LHC Run-I legacy results in looking for both exotic Higgs decays with dedicated searches and invisible Higgs decays is presented in this contribution. Interpretations in terms of dark matter searches are discussed and prospects for Run-II searches are overviewed.

Author: COCCARO, Andrea (University of Washington (US))

Presenter: COCCARO, Andrea (University of Washington (US))

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