

Abstract Submitted
for the APR20 Meeting of
The American Physical Society

Rare Higgs Decays into J/ψ Mesons¹ HIMAL ACHARYA, University of Tennessee, Knoxville, CMS COLLABORATION — Rare decays of the Higgs boson to J/ψ mesons are a promising laboratory to study couplings to charm quarks and physics beyond the standard model. A search for decays of the Higgs boson to J/ψ meson pairs and Z boson plus J/ψ meson, with the subsequent resonance decays to muon pairs is performed with the Compact Muon Solenoid detector at the Large Hadron Collider. A data sample of proton-proton collisions collected at a center-of-mass energy of 13 TeV during the years 2016, 2017 and 2018 is used. I will present results of the searches and implications for future searches of beyond standard model signatures at high luminosity.

¹DOE contract DOE-SC0020267

Himal Acharya
University of Tennessee, Knoxville

Date submitted: 06 Jan 2020

Electronic form version 1.4