

My research interests center around the theoretical particle physics, especially the phenomenological aspects of new physics beyond the Standard Model. My past and current works focus mainly on LHC phenomenology, dark matter and neutrino physics.

Techniques used in study

Particle Physics, Quantum Field Theory, Group Theory, Numerical Package (e.g. Madgraph, CalcHEP, MadDM, MicrOMEGAs)

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Background:

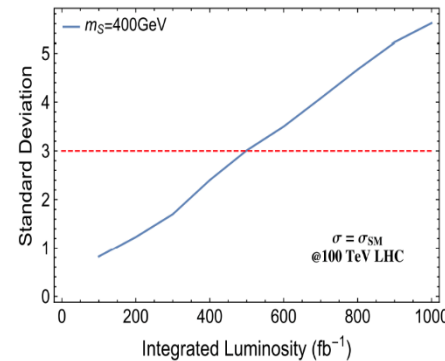
Ph. D. in Physics, Michigan State University, USA

Funding:

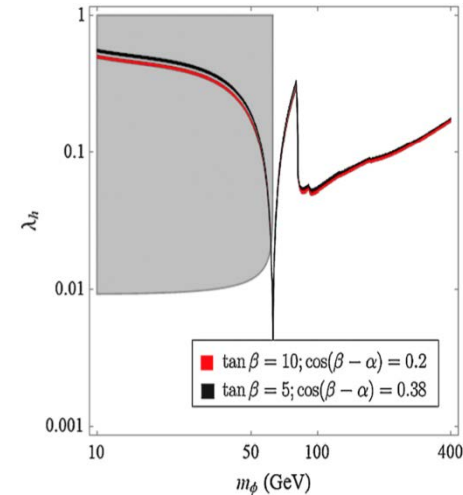
Ministry of Science and Technology



Discovery potential of new scalar in gauged 2HDM at the LHC



Parameter space fits the current dark matter relic density



Publications

- **C.-R. Chen**, C.-W. Chiang, K.-Y. Lin, “A Variant Two-Higgs Doublet Model With A New Abelian Gauge Symmetry”, Phys. Lett. B795 (2019), 22-28.
- **C.-R. Chen**, Y.-X. Lin, V.Q. Tran, T.-C. Yuan, “Pair Production of Higgs Bosons at The LHC in Gauged 2HDM”, Phys. Rev. D99 (2019) no.7, 075027
- **C.-R. Chen**, J. Hajer, T. Liu, I. Low, H. Zhang “Testing Naturalness”, JHEP 1709, 129 (2017)

