

Study of CP violation in the process of associated Higgs boson production with a decay into muon pair

Monday, 22 October 2018 15:40 (150)

Associated Higgs boson production in pp collisions can be a powerful tool for searches for CP violation in the Higgs sector. In this study we analyze CP sensitive observables constructed for a four lepton final state. It is shown that azimuthal angle distributions of leptons in this process demonstrate a strong sensitivity to CP violation at the current limits on Higgs boson coupling parameters and can reveal a genuine mechanism of CP violation.

Primary author(s) : Mr. BELYAEV, Nikita; Prof. KONOPLICH, Rostislav; Mr. PROKOFIEV, Kirill; Mr. REESE, Tyler (Manhattan College)

Presenter(s) : Mr. BELYAEV, Nikita; Mr. REESE, Tyler (Manhattan College)

Session Classification : Poster session and coffee-buffet

Track Classification : Particle physics: hep theory