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Lalu Zamakhsyari "Probing chirality structure in lepton-flavor-violating Higgs decay $h \to \tau\mu$ at the LHC"

Tuesday, 7 November 2023 16:35 (25 minutes)

A phenomenological study for determining the chirality structure in lepton-flavor-violating Higgs (hLFV) decays $h \to \tau\mu$ at the LHC is presented. We estimate the effects of the τ polarization in the analysis. We find that the sensitivity would be generically affected up to $\pm 4 - 6\%$ in terms of the BR($h \to \tau\mu$) upper bound. We further study the benchmark scenarios, and demonstrate the sensitivity study for the chirality structure. We find that the two fully polarized cases, the τ_R and τ_L scenarios consistent with the recently reported excess, are distinguishable at 2σ level for 1000 fb^{-1}.

Session Classification: Short talks