

Searching for Neutral BSM Higgs Bosons in the Tau Tau Final State at ATLAS

Friday 31 July 2020 13:42 (3 minutes)

A search for heavy neutral Higgs bosons is performed using the LHC Run 2 data, corresponding to an integrated luminosity of 139 fb^{-1} of proton–proton collisions at $\sqrt{s} = 13 \text{ TeV}$ recorded with the ATLAS detector. The heavy resonance is searched for in the $\tau\tau$ decay mode with at least one τ lepton decaying into final states with hadrons and a neutrino. The search covers the mass range of 0.2–2.5 TeV. The data are in good agreement with the background predicted by the Standard Model. In the context of the Mh-125 scenario of the Minimal Supersymmetric Standard Model, the data exclude $\tan\beta > 21$ for $m_A = 1.5 \text{ TeV}$ at the 95% confidence level.

I read the instructions

Secondary track (number)

Author: KRZYSIK, Janina Anna

Presenter: KRZYSIK, Janina Anna

Session Classification: Higgs Physics - Posters

Track Classification: 01. Higgs Physics