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Search for $h \to aa$ decays in the NMSSM in the $\mu\mu\tau\tau$ channel using 20.3 /fb of pp collisions at $\sqrt{s}$ = 8 TeV using the ATLAS detector BENJAMIN KAPLAN, ANDREW HAAS, New York Univ NYU, ATLAS COLLABORATION — We present a search for the exotic decay of the SM-like Higgs boson (h), or the production of a second CP-even Higgs boson (H) decaying to a pair of neutral pseudoscalar Higgs bosons (a), in the next-to-minimal supersymmetric standard model (NMSSM), in events with two muons from the decay of one a boson, with the ATLAS detector in 20.3 /fb of $\sqrt{s}$ = 8 TeV pp collisions. Events are further required to have an additional muon or an electron, with nearby tracks, consistent with decay of the second a boson to two taus. An upper limit on the production rate of $h \to aa$, relative to the SM production, is set as a function m_a in the range 3.7 to 50 GeV. An upper limit is also placed on the production rate of $H \to aa$ for $m_a = 5$ GeV and $m_H$ranging from 100 to 500 GeV.

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