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Search for charged Higgs bosons in the τ+jets final state using 14.7 fb^{-1} of pp collision data recorded at $\sqrt{s}$=13 TeV with the ATLAS experiment BLAKE BURGHGRAVE, Northern Illinois Univ, ATLAS COLLABORATION — The experimental observation of charged Higgs bosons, $H^{\pm}$, which are predicted by several models with an extended Higgs sector, would indicate physics beyond the Standard Model. This note presents the results of a search for charged Higgs bosons in 14.7 fb^{-1} of pp collision data at $\sqrt{s}$ = 13 TeV recorded by the ATLAS detector at the LHC. The search targets the τ+jets channel in top-quark-associated $H^{\pm}$ production with a hadronically decaying W boson and τ lepton in the final state. No evidence of a charged Higgs boson is found. For the mass range of $m_{H^{\pm}}$ = 200 - 2000 GeV, upper limits are set on the production cross section of the charged Higgs boson with the subsequent decay $H^{\pm} \to \tau\nu$ in a range of 2.0 - 0.008 pb.

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