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Type: Oral Presentation

Evidence for Higgs Boson Decays to Tau Lepton Pairs from the ATLAS Experiment at the CERN Large Hadron Collider

Thursday, 10 July 2014 14:00 (20 minutes)

Abstract content **(Max 300 words)** [Formatting & Special chars](http://events.saip.org.za/getFile.py/?target='_blank')

The results from a search for the Higgs boson with a mass of about 125 GeV decaying into a pair of tau leptons is reported. The analysis, exploiting all tau lepton decay combinations (hadronic and leptonic), is based on a proton-proton collision data sample collected by the ATLAS experiment at the CERN Large Hadron Collider and corresponds to an integrated luminosity of 20.3 fb⁻¹ recorded at a center-of-mass energy of 8 TeV. Evidence for the existence of Higgs boson decays to pairs of tau leptons, consistent with Standard Model expectations, is shown.

Apply to be considered for a student award (Yes / No)?

No

Level for award (Hons, MSc, PhD)?

NA

Main supervisor (name and email) and his / her institution

Trevor Vickey

Would you like to submit a short paper for the Conference Proceedings (Yes / No)?

No

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