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The ATLAS Hadronic Tau Trigger: Status, Performance and Plans

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Hadronic tau decays play a crucial role in the search for physics beyond the Standard Model as well as in Standard Model measurements. However, hadronic tau decays are difficult to identify and trigger on due to their resemblance to QCD jets. Given the large production cross section of QCD processes, designing and operating a trigger system with the capability to efficiently select hadronic tau decays, while maintaining the rate within the bandwidth limits is a difficult challenge.

This contribution will summarize the status and performance of the ATLAS tau trigger system during the 2011 data taking period, and the upgrades put in place for the current 2012 run. Special emphasis will be placed on the key role of identification and rejection capabilities of the different sub-detectors of ATLAS and the algorithms used. Finally, first results and prospects on the performance in 2012 will be presented.

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