The STAR Trigger System

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Abstract

The trigger system for the STAR experiment at RHIC was designed in three parts: (1) three fast trigger detectors: a barrel of scintillator slats surrounding the TPC, two zero-degree calorimeters, one on either side of STAR, and the TPC endcaps instrumented as multi-wire proportional chambers; (2) a set of custom, pipelined, digital PC boards to simultaneously store and analyze the trigger data, and then trigger the main tracking detectors; and (3) two layers of CPUs to perform more detailed analyses and potentially abort the event. This STAR trigger system will be discussed and its performance during the 2000 AuAu run will be presented.

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