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Improved Testing and Detection of Correlated Shifts in Trigger Rate Monitoring Tool in ATLAS Control Room CONNOR MENZEL, University of Pittsburgh — The ATLAS detector at the LHC uses a custom trigger system to determine which events are of high enough importance to be saved offline. To monitor the behavior of these triggers we use a tool called Xmon, which has now been in use in the control room at ATLAS for a decade. Xmon records the trigger rates and compares them to the corresponding expected rates in order to detect possible problems with subdetectors. We discuss two recently added functionalities to Xmon: (1) a testbench to allow for the full incorporation of Xmon in testing during the Technical Runs and (2) the ability to detect small correlated shifts over many triggers.

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