Abstract Submitted for the HAW05 Meeting of The American Physical Society

Level 2 Filtering for the PHENIX Experiment at RHIC AUSTIN BASYE, Abilene Christian University, PHENIX COLLABORATION — During the recently completed Run 5 of the PHENIX detector, located on the RHIC ring at BNL, the collaboration began recording data from the 200GeV polarized protonproton beam. Throughout the run, multiple triggers were used to sort through the data to tag various rare probe events, such as a heavy di-muon event signifying the probable decay of a J/Ψ . The level 2 filters were primarily used to isolate these events from the raw data. This filtering system allowed the collaboration a unique opportunity to view the data emerging from the best polarized proton collisions to date in near-real-time. This is a definite advantage in that problems can be identified quickly and results can be produced within 48 hours of data-taking. Significant work was done with respect to the monitoring, maintenance, and improvement of this crucial subsystem which resulted in more efficient uses of resources.

> Austin Basye Abilene Christian University

Date submitted: 30 Jun 2005

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