7. Andrei Kazarov and Aleksandra Poreba: The Trigger performance monitoring and rate predictions preparation for Run 3 at ATLAS experiment

Bespoke Cost Monitoring software collates data on the performance of all aspects of the ATLAS experiment's High Level Trigger software. These data are exported for subsequent analysis offline, and are used to understand the resource usage of the individual trigger selections in terms of the amount of CPU time and the amount of raw detector data which was required to perform the selection.

For the LHC Run 3, the ATLAS High Level Trigger is re-implemented in a multi-threaded framework with both intra-event and inter-event algorithm parallelism. We will describe some of the complications and considerations which arise from monitoring event metrics in a highly parallel environment.