ATLAS level-1 calorimeter trigger: Monitoring and data repro-
cessing DAVID DIMOND, TAE HONG, BENJAMIN CARLSON, Univ of Pitts-
burgh, ATLAS COLLABORATION — We present the monitoring and data repro-
cessing for the calorimeter-based hardware level-1 trigger system (L1Calo) for the
ATLAS experiment. This trigger system was upgraded after the Run-1 data taking
period (2009-2012) to prepare for Run-2 (2015-current), which allowed better control
the event rates for algorithms based on jets and/or missing energy. Monitoring tools
for the upgraded system is described. We also present a new offline tool to reprocess
previous data samples with altered L1Calo settings, such as calibration constants
and noise cuts. The samples are used to study the dependence of the event rates
and signal efficiencies on the settings. The studies can help plan the appropriate
L1Calo settings for upcoming data taking periods as well as for future runs.