## Abstract Submitted for the APR17 Meeting of The American Physical Society

ATLAS level-1 calorimeter trigger: Run-2 performance and Phase-1 upgrades BEN CARLSON, TAE MIN HONG, University of Pittsburgh, ATLAS COLLABORATION — The Run-2 performance and Phase-1 upgrade are presented for the hardware-based level-1 calorimeter trigger (L1Calo) for the ATLAS Experiment. This trigger has a latency of about 2.2 microseconds to make a decision to help ATLAS select about 100 kHz of the most interesting collisions from the nominal LHC rate of 40 MHz. We summarize the upgrade after Run-1 (2009-2012) and discuss its performance in Run-2 (2015-current). We also outline the on-going Phase-1 upgrade for the next run (2021-2024) and its expected performance.

Ben Carlson University of Pittsburgh

Date submitted: 29 Sep 2016 Electronic form version 1.4