

Development of the ATLAS Liquid Argon Calorimeter Readout Electronics for the HL-LHC

Friday 19 July 2024 20:40 (20 minutes)

The ATLAS Liquid Argon Calorimeter readout electronics will be upgraded for the HL-LHC. This includes the development of custom preamplifiers and shapers with low noise and excellent linearity, a new ADC chip with two gains and new calibration boards with excellent non-linearity and non-uniformity between all calorimeter channels. New ATCA compliant signal processing boards equipped with FPGAs and high-speed links receiving the detector data and performing energy and time reconstruction as well as a new timing and control system are also designed. Test results of the latest versions of the aforementioned components and the latest firmware development will be presented.

Alternate track

I read the instructions above

Yes

Primary authors: ZHU, Junjie (University of Michigan (US)); BARILLARI, Teresa (Max Planck Society (DE))

Presenter: BARILLARI, Teresa (Max Planck Society (DE))

Session Classification: Poster Session 2

Track Classification: 12. Operation, Performance and Upgrade (incl. HL-LHC) of Present Detectors