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ATLAS LAr Calorimeter Commissioning and Performance in LHC Run-2

The ATLAS detector was designed and built to study proton-proton collisions produced at the LHC at centre-of-mass energies up to 14 TeV and instantaneous luminosities up to $10^{34}\ \mathrm{cm}^{-2}\mathrm{s}^{-1}$. Liquid argon (LAr) sampling calorimeters are employed for all electromagnetic calorimetry in the pseudorapidity region $|\eta| < 3.2$, and for hadronic calorimetry in the region from $|\eta| = 1.5$ to $|\eta| = 4.9$. In the first LHC run a total luminosity of $27\ \mathrm{fb}^{-1}$ has been collected at center-of-mass energies of 7-8 TeV with very high operational efficiency of the LAr Calorimeters and excellent performance. The well calibrated and highly granular detector achieved its design values both in energy measurement as well as in direction resolution, which was a main ingredient for the successul discovery of a Higgs boson in the di-photon decay channel.

This contribution will give an overview of the commissioning and performance of the ATLAS LAr Calorimeters during the 13-14 TeV run of the LHC, the so-called Run-2. Synchronisation of the signal timing in the different detector areas was verified from beam-splash events, even before the proton collisions started. First Run-2 results on data quality and LAr Calorimeter performance for electrons, photons and jets at 13-14 TeV centre-of-mass energy will be presented.

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