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Overview of ATLAS ALFA detectors performance and physics analysis possibilities

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The purpose of the ALFA detector is to measure protons scattered at very small angles. ALFA aims to study elastic and diffractive events, exclusive production and photon-induced interactions. In LHC Run 2, ALFA participated in the ATLAS high-luminosity data taking, as well as, special runs with reduced luminosity and dedicated optics.

This report presents the status of the ALFA detector during the LHC Run 2, including the tracker and the trigger performance, as well as, some details concerning the electronics and the readout system.

Additionally, key physics results from the ALFA analyses are showcased and possible future interests are discussed.

Submitted on behalf of a Collaboration?

Yes

Participate in poster competition?

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