Contribution ID: **35** Type: **Poster**

The track-based alignment of the ALFA Roman Pot detectors of the ATLAS experiment.

ALFA detector is part of the ATLAS Roman Pot detector dedicated to measure protons scattered at very small angles. ALFA aims to study elastic and diffractive events in special runs with reduced luminosity and optimized beam optics. Precision of the measurement depends on the correct positioning of the ALFA detector with respect to the actual beam position. For this purpose track-based procedure is used which utilises tracks of beam halo and elastic protons collected during physics data taking. This poster presents results of fast and robust alignment of ALFA detectors during LHC Run 2. The alignment constants are used in analysis of diffractive events and also serve as preliminary values in elastic analysis. Precise measurements of the elastic cross sections required dedicated more precise measurement.

Primary author: ATLAS COLLABORATION

Presenter: ATLAS COLLABORATION

Session Classification: Poster session

Track Classification: Perform. / Tools