

## The Lorentz Angle in the ATLAS Pixel Detector: Effects of Operating Parameters and Radiation Damage

*Monday 25 February 2019 11:10 (20 minutes)*

The ATLAS pixel sensors use a non-zero Lorentz angle to increase the spread of the charge and thus improve the achievable spatial resolution. The value of the Lorentz angle in the four pixel layers is constantly monitored during data taking. The presentation summarises the results of the study of its magnitude as a function of the operational parameters (temperature and depletion voltage) and of the bulk radiation damage experienced by the sensors. Results from cosmic ray and collision data are compared to detailed simulation predictions including radiation damage effects.

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**Session Classification:** Session 1: Tracking detectors for HEP experiments