Contribution ID: **123** Type: **Oral Presentation**

Alignment of the Muon Spectrometer in ATLAS

Friday 10 June 2011 14:20 (20 minutes)

The ATLAS Muon Spectrometer is designed to measure the momentum of a 1 TeV/c muon to an accuracy of 10%. A muon of this momentum will bend less than 500 microns in the toroidal field of ATLAS; therefore, the position of the muon chambers must be known to an accuracy of less than 50 microns. ATLAS uses a combination of two methods in order to achieve such a precise alignment: an optical system and alignment with tracks. There are several analyses ongoing to monitor and validate the alignment which have been quite successful in the first year of LHC operation. This talk will provide a brief overview of the motivation, the building and commissioning of the optical system, the performance, and the validation of the alignment of the Muon Spectrometer.

Author: AEFSKY, Scott Alan (Department of Physics-Brandeis University-Unknown)

Presenter: AEFSKY, Scott Alan (Department of Physics-Brandeis University-Unknown)

Session Classification: Experimental Detector Systems

Track Classification: Experimental Detector Systems