



Contribution ID: 71

Type: **Talk**

【346】 3D real-time monitoring of the LHCb SciFi tracker using BCAMs

Wednesday, June 29, 2022 6:15 PM (15 minutes)

A new tracking detector (SciFi) has been installed in the LHCb experiment during the second Long Shutdown of the LHC. The SciFi tracker consists of three stations, each composed of four layers with dimensions of six by five meters. A system using opto-electronic BCAM (Brandeis CCD Angle Monitor) sensors was installed to provide long-term real-time 3D monitoring of the stations, which could suffer from movements or geometry deformations. The 3D positions of a dozen points spread over three SciFi layers are obtained by triangulation and monitored using eight cameras per layer. The intrinsic resolution of this system (~ 100 microns) can be improved by averaging measurements taken during short periods of time.

Primary author: VIEITES DIAZ, Maria (EPFL - Ecole Polytechnique Federale Lausanne (CH))

Presenter: VIEITES DIAZ, Maria (EPFL - Ecole Polytechnique Federale Lausanne (CH))

Session Classification: Nuclear, Particle- & Astrophysics

Track Classification: Nuclear, Particle- and Astrophysics (TASK)