

Belle II iTOP optics: design, construction, and performance

Wednesday, 24 May 2017 17:06 (18 minutes)

The imaging-Time-of-Propogation (iTOP) counter is a new type of ring-imaging Cherenkov counter developed for particle identification at the Belle II experiment. It consists of 16 modules arranged azimuthally around the beam line. Each module consists of one mirror, one prism and two quartz bar radiators. Here we describe the design, acceptance test, alignment, gluing and assembly of the optical components. All iTOP modules have been successfully assembled and installed in the Belle II detector by the middle of 2016. After installation, laser and cosmic ray data have been taken to test the performance of the modules. First results from these tests will be presented.

Primary author: Dr WANG, Boqun (University of Cincinnati)

Co-authors: Prof. SCHWARTZ, Alan (University of Cincinnati); Dr PAL, Bilas (University of Cincinnati); Dr SANDILYA, Saurabh (University of Cincinnati)

Presenter: Dr WANG, Boqun (University of Cincinnati)

Session Classification: R2-Experimental detector systems(4)

Track Classification: Experimental detector systems