Contribution ID: 141

Developing Charged Particle Time-of-Flight at the Fermilab Test Beam Facility Using Commercially Produced LAPPD modules

Sunday, 9 December 2018 15:00 (30 minutes)

The rst commercially-produced LAPPDTM photodetectors[1] are now available from Incom, Inc[2]. An informal collaboration of Fermilab, Incom, and the University of Chicago (UofC) has been developing plans to optimize the timing resolution and to characterize the performance and life-time of several of the newly available Incom modules at the Fermilab Testbeam Facility . These modules will contain the entire beam prole. If successful this could lead to an upgrade of the Fermilab Testbeam Facility Time of Flightsystem to four stations of LAPPDs for particle ID. The goals are thus two-fold: 1) a substantial upgrade to particle identication at the Fermilab Test Beam Facility; and 2) a validation of a new commercially-available technology for future detectors at the Energy and Luminosity Frontiers. System designs for one, two, and four LAPPD modules and expected TOF performance will be discussed.

Primary author: Prof. FRISCH, Henry (University of Chicago)Presenter: Prof. FRISCH, Henry (University of Chicago)Session Classification: Parallel Session: Photodetectors

Track Classification: Photodetectors