

ID contributo: 73

Tipo: Plenary Contribution

Design and Construction of a Cylindrical GEM Detector as Inner Tracker Device at KLOE-2

mercoledì 12 ottobre 2011 12:15 (25 minuti)

We report on the design and construction of a triple-GEM detector as a new Inner Tracker (IT) for the KLOE-2 experiment at the Frascati Phi-factory. The IT is composed of four tracking layers, each providing an independent 2-dimensional space point. Each layer is a fully cylindrical triple-GEM detector.

The front-end electronics is based on the GASTONE ASIC, specifically developed for this detector, a charge amplifier with digital output integrating 64 channels in one single chip.

After three years of R&D the construction of the first layer has started, with the aim of completing the detector by middle of 2012.

We report on the R&D achievements, including the construction process, the results of two beam-tests with prototype detectors, and the present realization status of the final detector and electronics.

Autore principale: Dr. BENCIVENNI, Gianni (INFN lnf)

Relatore: MORELLO, Gianfranco (LNF)

Classifica Sessioni: Accelerator physics and detectors II

Classificazione della track: Accelerator Physics