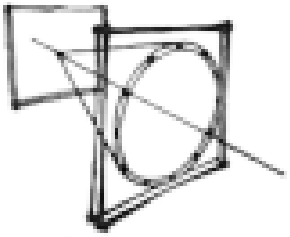

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Event reconstruction for the CBM-RICH prototype beamtest data in 2014

Monday 5 September 2016 15:15 (15 minutes)

The Compressed Baryonic Matter (CBM) experiment at the future FAIR facility will investigate the QCD phase diagram at high net baryon densities and moderate temperatures in A+A collisions from 2-11 AGeV (SIS100). Electron identification in CBM will be performed by a Ring Imaging Cherenkov (RICH) detector and Transition Radiation Detectors (TRD).
A real size prototype of the RICH detector was tested together with other CBM prototypes (TRD, Time of Flight) at the CERN PS/T9 beam line in 2014. For the first time the data format used the FLESnet protocol from CBM delivering free streaming data. The analysis was fully performed within the CBMROOT framework. In this contribution the event reconstruction methods which were used for obtained data are discussed. Rings were reconstructed using an algorithm based on the Hough Transform method and their parameters were derived with high accuracy by circle and ellipse fitting procedures. Results of the application of the presented algorithms will be also presented.

Registered

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