MPGD 2013 & 11th RD51 collaboration meeting



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Triple-GEM multi-module measurements in large TPC prototype

Wednesday, 3 July 2013 16:45 (1h 10m)

A Time Projection Chamber (TPC) using micro-pattern gas detectors is planned as the tracking device for the next linear collider. A novel support structure for GEMs, which minimizes the material and improves the flatness of the foils, has been developed and tested with multiple GEM modules in a large TPC prototype at DESY. Reducing dead material at the GEM module boundaries improves the field homogeneity. In addition, a field shaping ring at the border of the module was installed to improve charge collection in regions with nonhomogeneous fields. A successful test beam campaign with 3 modules has been carried out. First results regarding resolution and field distortions will be presented.

Presenter: MUENNICH, Astrid (DESY)

Session Classification: Wednesday (poster session)