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Development of tracking detectors for STAR with industrially produced GEM foils FRANK SIMON, BERND SURROW, Massachusetts Institute of Technology — The planned tracking upgrade of the STAR experiment at RHIC includes a large-area GEM tracker used to determine the charge sign of electrons and positrons produced from W+(-) decays. For such a large-scale project commercial availability of GEM foils is necessary. We report first results obtained with a triple GEM detector using GEM foils produced by TechEtch Inc of Plymoth, MA, USA. Measurements of gain uniformity, long-term stability as well as measurements of the energy resolution for X-Rays are compared to results obtained with an identical detector using GEM foils produced at CERN. A quality assurance procedure based on optical tests using an automated high-resolution scanner has been established. Comparative measurements for CERN and TechEtch produced GEM foils will be presented.

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