

Abstract Submitted
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A GEANT Model of the GEM-based Tracking Monitor for the STAR Experiment¹ KATHLEEN ENGLE, United States Naval Academy, STAR COLLABORATION — In 2012, the STAR experiment at Brookhaven National Laboratory's Relativistic Heavy Ion Collider (RHIC) plans to install a gaseous electron multiplier (GEM) based set of detector modules to provide high-precision tracking points for charged particles outside the volume of its primary detector, the time projection chamber (TPC). These modules will help in diagnosing and correcting for a number of tracking distortions in the TPC that arise in the high luminosity environment at RHIC. High statistics simulations of the performance of these modules are crucial to understanding their capabilities in diagnosing TPC calibration issues and require a detailed model of the detector modules integrated with the existing GEANT model of all STAR subsystems. We present current progress and results related to development and use of this model.

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