

Abstract Submitted
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Construction of a Set of Gas Electron Multiplier Detectors with Novel Design¹ JESMIN NAZEER, ISHARA FERNANDO, TANVI PATEL, MICHAEL KOHL, Hampton University — A set of Gas Electron Multiplier (GEM) detectors optimized for low material budget has been constructed for use in low-energy tracking applications. A novel GEM construction technique is used where all layers are stretched and assembled mechanically within a double frame. The read-out is based on Analog Pipeline Voltage (APV) frontend cards and Multi-Purpose Digitizers (MPD). The key features of these detectors allow them to be used very flexibly in high-rate environments for high-resolution charged particle tracking. The present status of the construction and performance of the GEM detectors will be discussed.

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Michael Kohl
Hampton University

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