

Abstract Submitted
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Performance of GEM detectors for SBS in commissioning with cosmic ray data¹ DHANUSHKA RATHNAYAKE, THIR GAUTAM, MICHAEL KOHL, Hampton Univ — The Super Bigbite Spectrometer (SBS) at Thomas Jefferson National Accelerator Facility (TJNAF) was proposed to perform a series of high precision nucleon form factor experiments at large momentum transfer. The SBS will be capable of operating at very high luminosity and provide a large solid angle acceptance. A set of large Gas Electron Multiplier (GEM) detectors, each with an active area of $60 \times 200 \text{ cm}^2$, is being commissioned for a novel neutron polarimeter based on elastic and charge-exchange recoil proton detection. These GEM chambers are expected to provide a position resolution of $\sim 70 \mu\text{m}$, while operating in at high rate conditions up to 1 MHz/cm^2 . This talk will report on the commissioning activity and performance of the GEM detectors with cosmic ray data.

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