Abstract Submitted
for the DNP19 Meeting of
The American Physical Society

Use of gemdetectors for the proton polarimeter trackers of the super bigbite spectrometer in JLAB.[1] ANURUDDHA RATHNAYAKE, University of Virginia, SBS COLLABORATION COLLABORATION — The jefferson lab's 12 gev beam upgrade and the newly designed super bigbite spectrometer make possible a new generation of experiments to measure nucleon form factors, which is essential for our understanding of The structure of the nucleon,with high precision at high qvalues over 10 gev. The concept of the super bigbite spectrometer, which provides large solid angle and the capability to operate at high luminosity, is based on new gas electron multiplier (gem) detector based particle trackers. The sbs gem chambers are expected to provide a good position resolution of 70 μm, while operating in high rate conditions up to 0.5 mhz/mm. A set of 44 gem detector modules, each with an active area of 60x50 cm, has been built in the gem detector lab at uva for the proton polarimeter trackers of sbs. This talk will report on the assembly and commissioning of the 60x200 cmgem tracker layers for the sbs polarimeter using the gem modules.

[1]Department of Energy

Anuruddha Rathnayake
University of Virginia

Date submitted: 11 Jul 2019 Electronic form version 1.4