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**Large Gas Electron Multiplier Trackers for Super Bigbite Spectrometer at Jefferson lab Hall A** K. SAENBOONRUANG, K. GNANVO, N. LIYANAGE, V. NELYUBIN, S. SACHER, University of Virginia, E. CISBANI, P. MUSICO, Istituto Nazionale di Fisica Nucleare, B. WOJTSEKHOWSKI, Jeffeson Lab — The 12 GeV upgrade at Jefferson Lab (JLAB) makes many exciting nuclear experiments possible. These experiments also require new high performance instrumentation. The Super Bigbite Spectrometer (SBS) 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 a very high luminosity and provide a large solid angle acceptance of 76 msr. SBS will be equipped with a double focal plane polarimeter. Thus, SBS will have three large trackers made of Gas Electron Multiplier (GEM) chambers. The first, second, and third trackers will consist of six, four, and four tracking layers respectively. When completed in 2017, the SBS GEM trackers will form one of the largest sets of GEM chambers in the world. The GEM trackers allow the SBS to operate under high background rates over 500 kHz/cm$^2$, while providing an excellent spatial resolution of 70 $\mu$m. The first tracker will be constructed at the Istituto Nazionale di Fisica Nucleare in Italy, while the second and third trackers will be built at the University of Virginia. In 2012, the first UVa SBS GEM chamber prototype was successfully constructed and tested. The GEM chamber construction details and test results will be presented in this talk.

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