**UVa SBS pre R&D monthly report: January 2013**

**GEM R&D:**

In January we turned on SBS prototype #2 for testing. This chamber has 4 sectors out of its 20 sectors disabled due to damage sustained during construction[[1]](#footnote--1). All other sectors of this chamber work well; the chamber holds high voltage up to 4300 V with no difficulty and the leakage currents for each GEM foils is less than 5 nA. The signals from the chamber appear as expected. After initial testing, this chamber was transported to Jefferson lab for further characterization. We also continued the characterization of SBS prototype #1 with its position resolution measurements.

The new clean room at UVa was installed. The equipment needed to construct the newly designed SBS prototypes (50 cm x 50 cm as opposed to the 40 cm x 50 cm earlier ones) are being fabricated now.

**Readout Electronics R&D:**

All INFN built APV readout hardware is now located at Jefferson lab; the readout system setup at Jefferson lab, noise studies and CODA integration work continue at Jefferson lab.

1. The causes of these damages and the design changes to prevent these in the future are outlined in the SBS prototype report #1 submitted to Jefferson lab. [↑](#footnote-ref--1)