

# 2020-08-22: Activities in EEL CL124: UVa GEMs

- **Assembly of GEM layer #4 ongoing:**
  - 4 UVa GEM modules selected, preliminary assembly work and gas tubing installed  $\Rightarrow$  N2 flowing for about a week now
  - Preliminary HV tests of GEM modules are done **Ok**
  - Start the final cabling (HV cables, APV25 backplanes + HDMI etc ...)  $\Rightarrow$  Plan is to complete the job this week
- **Status of the cosmic stand with 3 GEM layers** (see Anu and Malinga reports)
  - A lot of progress in LV power supply system installation and tests
  - Working with Chuck to add one more gas panel to the cosmic setup  $\Rightarrow$  to allow 2 flowmeters for one layer instead of just one
- **Production of the support pieces for APV25 12-slots backplanes of all 11 layers**
  - 3D printed pieces for module #0 and #2 in the layer in production (Brian Kross)  $\Rightarrow$  expect the job to be completed in a week or two
  - Job request to the machine shop for the FRP support pieces for module #1 and #3: **Cost too high  $\Rightarrow$  We are exploring cheaper options**
- **MPD DAQ / readout / software setup:** (see Thir report)
  - Bryan has been helping us since last Friday morning  $\Rightarrow$  Lots of progress (Thir)
  - We got 3 standard VME crates for the clean room from Alexandre with all items needed to run the DAQ
- **Trigger counters**
  - Bogdan fixes 2 long trigger counters for us and is also working to fix 4 more counters for us (test / repair light guide and PMT)
  - Need Help from Anu next Monday to finalize the fixing and tests
  - With this we will have an top and bottom coincidence system for our cosmic stand in a week or so from now
  - We could get started with the first two that we have in hand now
- **Optimistic and yet realistic plan**
  - Have the DAQ / readout ready for cosmic by the end the week
  - Start flowing N2 on the 3 layers on the cosmic stand by Friday to perform HV test of these layers early next week
  - Switch to Ar-CO2 sometime during the course of next week and start taking cosmic data at the end of the week