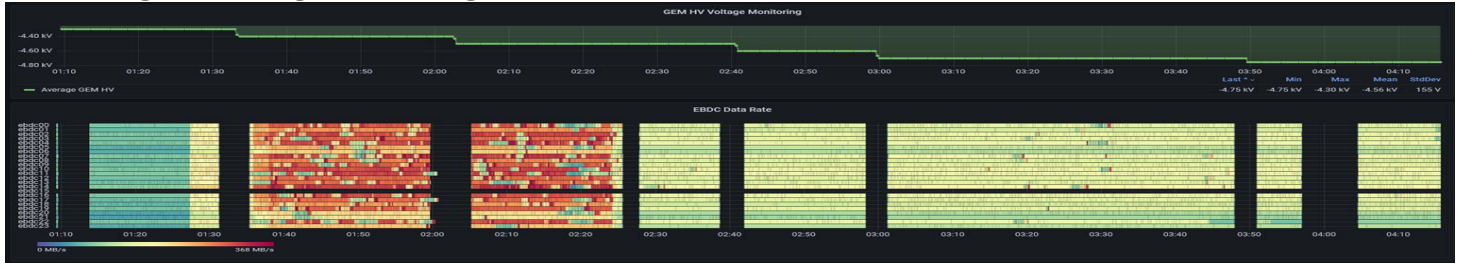
sPHENIX Commissioning Continues

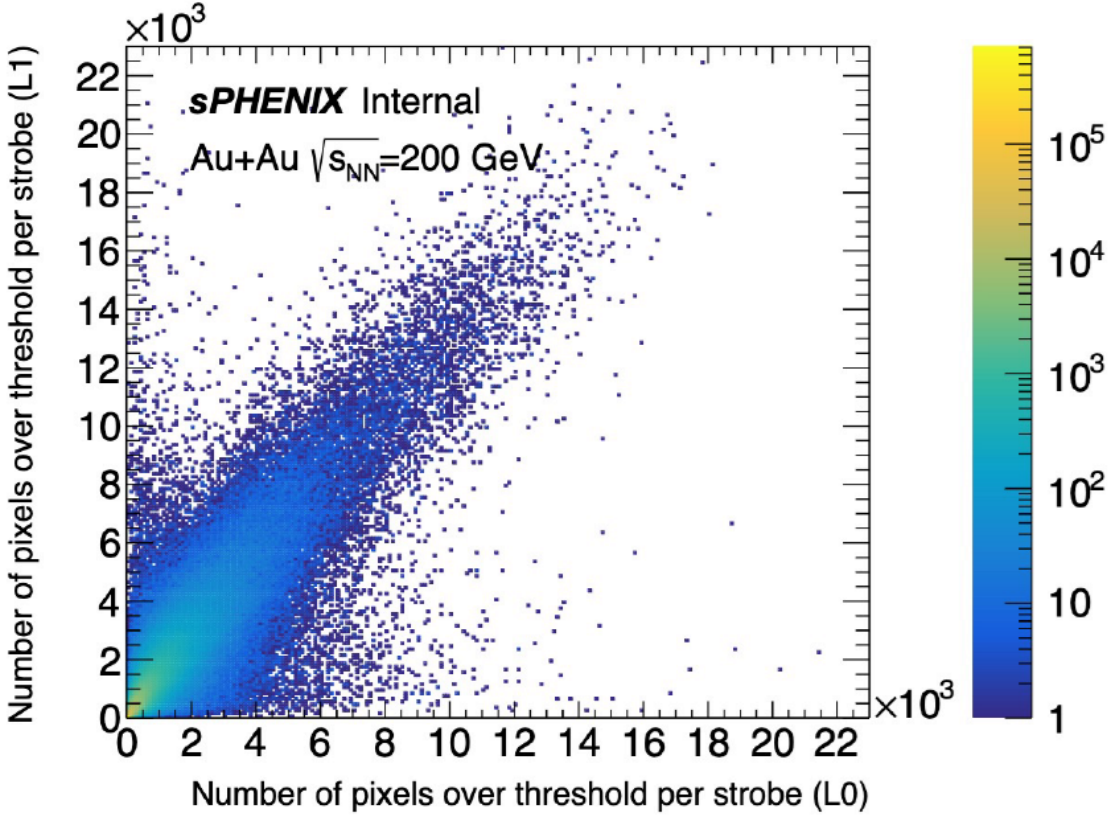
- We're ready for the opportunity to do the MVTX/collimation study/manoeuvre during collisions. (We need to coincide the necessary beam/collimation conditions with MVTX expert(s) around to do the “auto-recovery” process.)
  - We’re also working with MCR to try $\beta^* = 5$ m (instead of 0.7 m) to reduce beam scraping at the triplets (in an effort to reduce the background for MVTX).

- TPC group has been taking data with the slightly lower High-Voltage with and without beam collisions, while waiting for the spark protection boards to arrive.
  - We developed a set of studies regarding stable full High-Voltage TPC operation and we're stepping through it such as the ongoing effort of eliminating the temperature gradient before raising the High-Voltage.



MVTX analysis even with the background issue

- Note location
- Date taken: 27th of June
- Beam info: 111x111 bunches w/ 2mrad x-ing angle. Beam background exists here.
- 100 Hz ZDC rate (TPC test period)
- MVTX settings: Streaming mode, 89 μs readout period
- Right: Inner (2 staves) and middle layer (3 staves) comparison.



sPHENIX Commissioning Continues

- The sEPD prototype readout box (installed on July 19) has proved to work well and we will install one full readout box on the south side of sPHENIX tomorrow (Maintenance Day), and install the other box on the north side on Aug. 16 (to replace the prototype box).

- We will also finish terminating the remaining ½ of the cables for the Shower Max Detector in the tunnel tomorrow (Maintenance Day).

- Other sub-detectors (such as HCAL) are taking data in big-partition in the highest data rate possible, with firmware/software improvements.