# SBU GEM Update

Chandan Ghosh 16th Nov., 2018

#### Updates

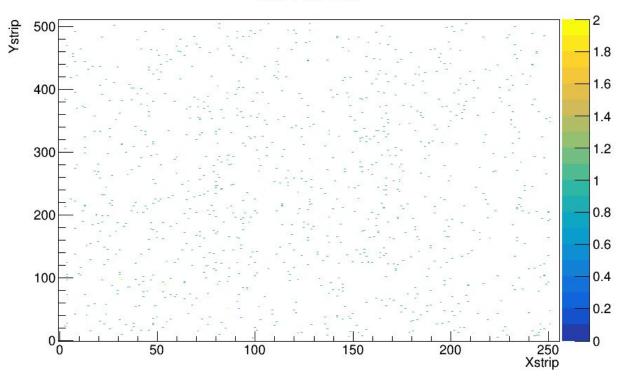
- The MPDs are modified and firmware is upgraded (with help of Bryan)
- The MPD library and the Read-Out-List is modified (Easy to debug)
- The digital Patch-Panel is tried and it is working.
- The plastic scintillators are replaced with larger scintillators to cover the whole active area of GEM detectors - it will help to calculate the efficiency of GEM detector.
- New high voltage module (CAEN N1470) is used to apply HV to GEM detector. This can be a backup for all the GEMs in one arm
- I have tried to use the Hemmick GEM as third GEM there is problem with backplane alignment.
- Standalone V965 decoder is written and added (with new apparatus and detector class) to 'analyzer'. Try to add to the 'SBS-offline'.

## New plastic scintillators



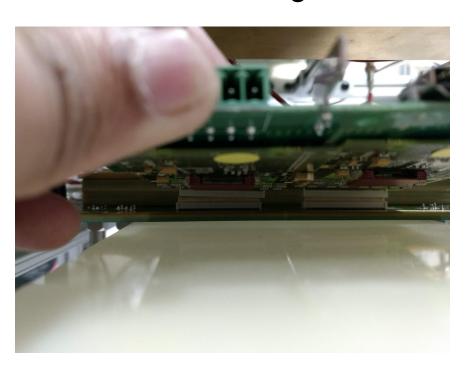
### Hit distribution

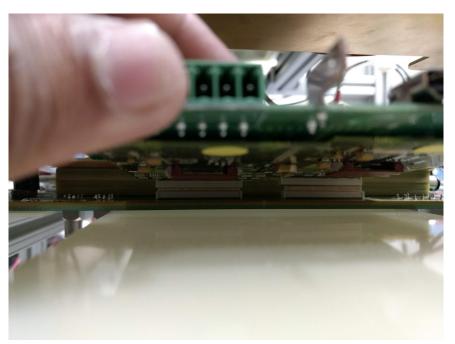
Det 1 XY hits



Looks uniform - need more statistics

### Misalignment of backplane connectors





### Digital Patch-panel

- Each backplane needs one digital signals.
- One GEM detectors has two backplanes.
- For three GEMs six digital signals



