

# Progress towards the thesis (GMn)

Anuruddha Rathnayake, SBS Meeting 08/01/2022

- Have been working on GEM commissioning work for SBS since May 2019 - starting with UVA large XY GEM layer commissioning work in EEL/124 cleanroom
- Took part in the installation, commissioning, and running of BigBite GEMs in the GMn experiment
- Started to work in the GMn analysis after the completion of the the first SBS run group
  - Special focus has been on GEM data analysis, to develop methods to improve GEM tracking under high background conditions
  - “Time Sample Deconvolution” is my major topic
  - If proves to be successful, we hope this technique will help us to extract good “hits”, buried in the large background signals, which will be discarded by the current algorithms
  - Links to the presentations given in the GMn analysis meetings [05/13](#), [6/10](#), and [7/22](#).
- Currently I am also working on SBS GEM installation for the upcoming GEN run group
- Once the SBS GEMs are fully commissioned, I am hoping to put down almost 100% of my time on GMn analysis
- Expecting to graduate towards the end of 2023