Status for the CEPC CDR

-TPC tracker

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On behalf of the tracker detector subgroup

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List of names of people that contributed text (discussion and preparing)

- IHEP,CAS
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- IMP,CAS
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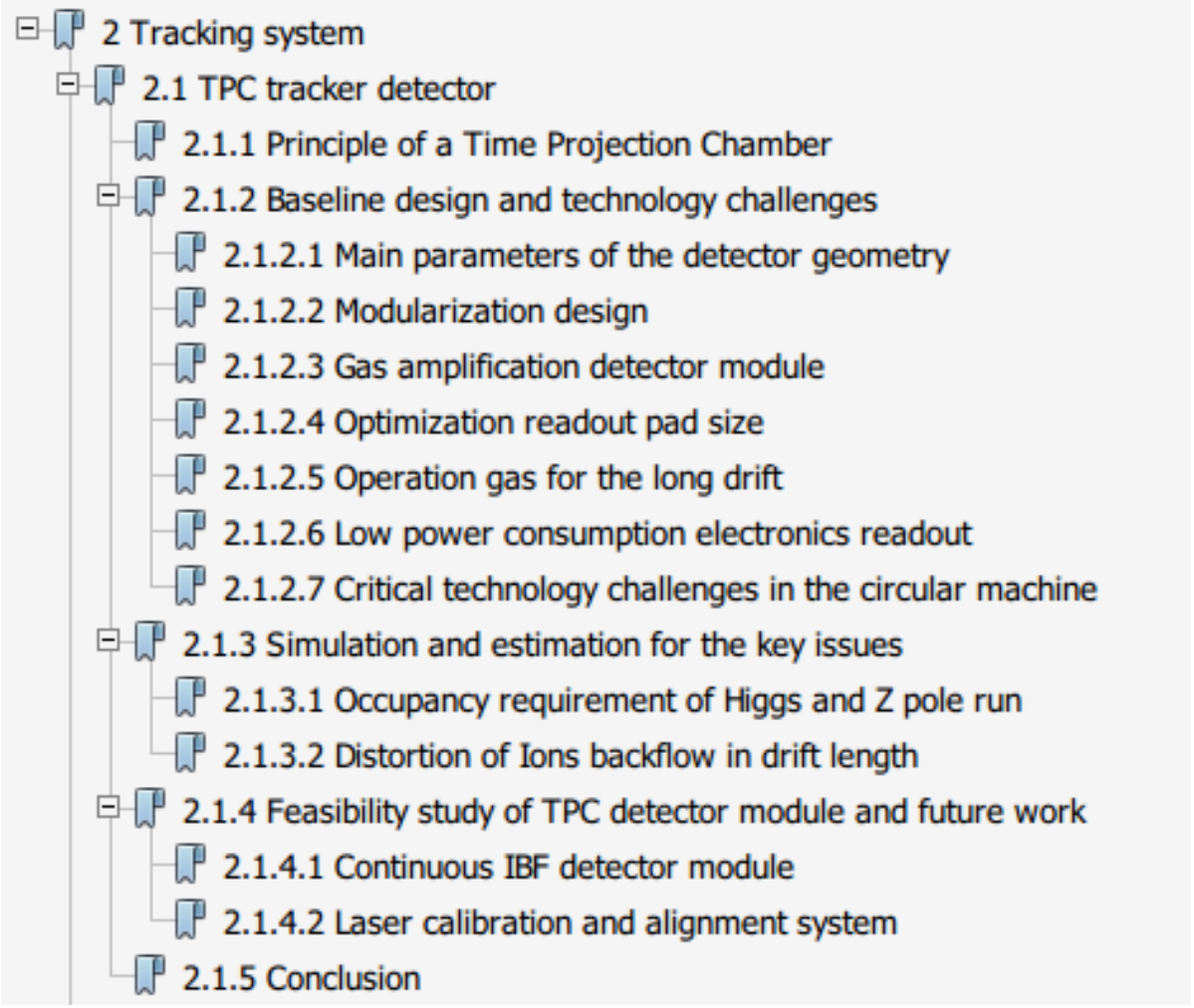
  - Fei Lu
- CIAE
  - Xiaomei Li, Shouyang Hu

Status of TPC chapter

- All chapter has been DONE and uploaded
- Reference bib file would be finalized



Some comments from LCTPC, Sacaly TPC, MOST international review meeting

To adapt to the specifications of CEPC, the project proposes to use hybrid MicroMegas and GEM techniques to decrease the gain of each single avalanche structure and suppress the sparks. These characteristics have been experimentally verified. Also this hybrid structure is good for suppressing the ion back flow,a very important issue for the TPC. Experiment shows the product of IBF and gain would be around 5, which is quite advanced. The chosen technology option is suitable for the detector design within this project. For this option, the pad design should be optimized to achieve 1) the spatial resolution needed and 2) the density of readout electronics.

X-ray tube test

Single GEM with very low Gain in our Exp.

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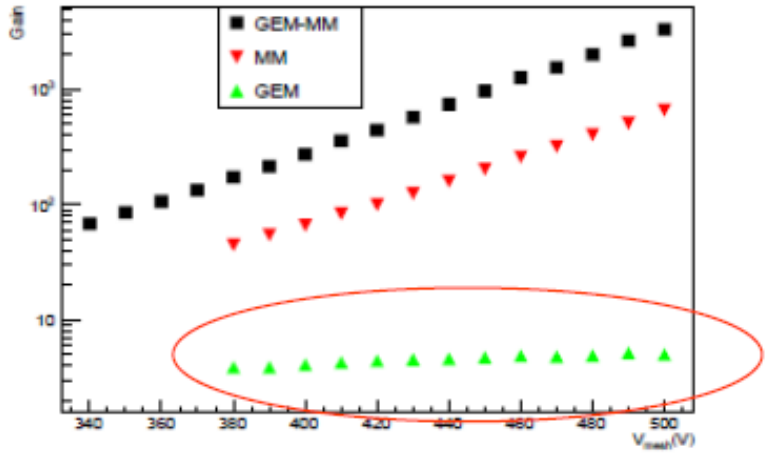
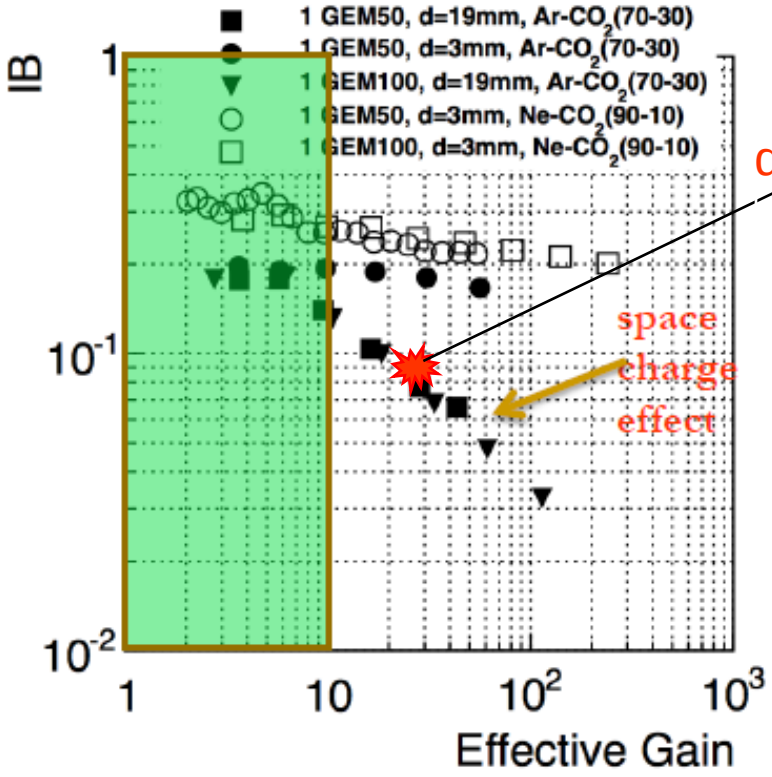
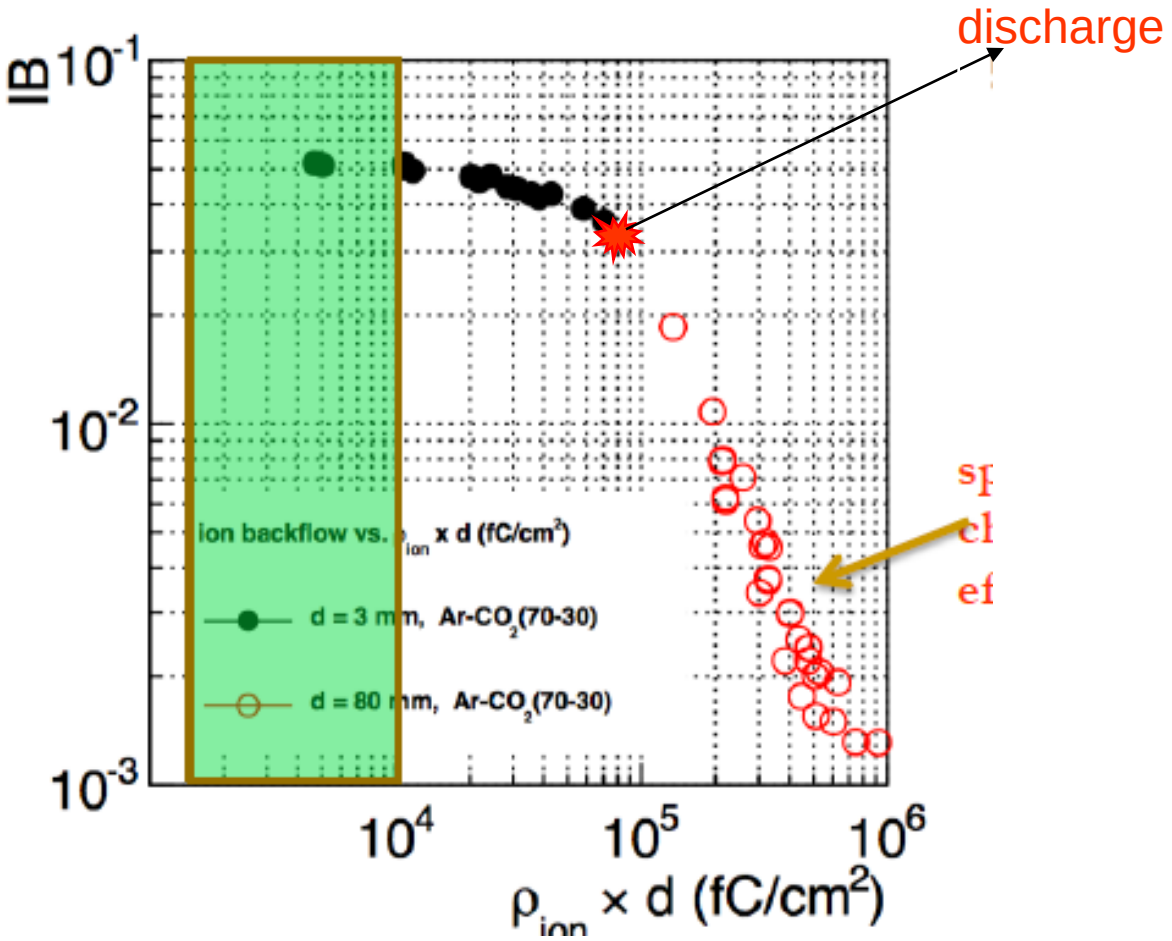


(b)



X-ray tube test



Next steps

- To add in next week