

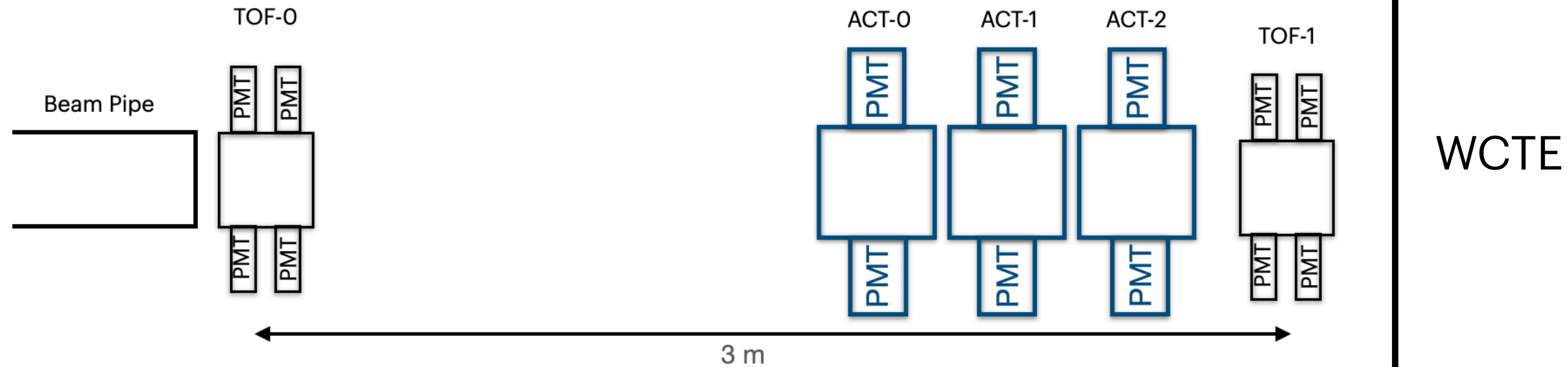
Beam DAQ Discussion

Mark Hartz

WCTE Collaboration Meeting, July 19, 2022

Secondary Beam

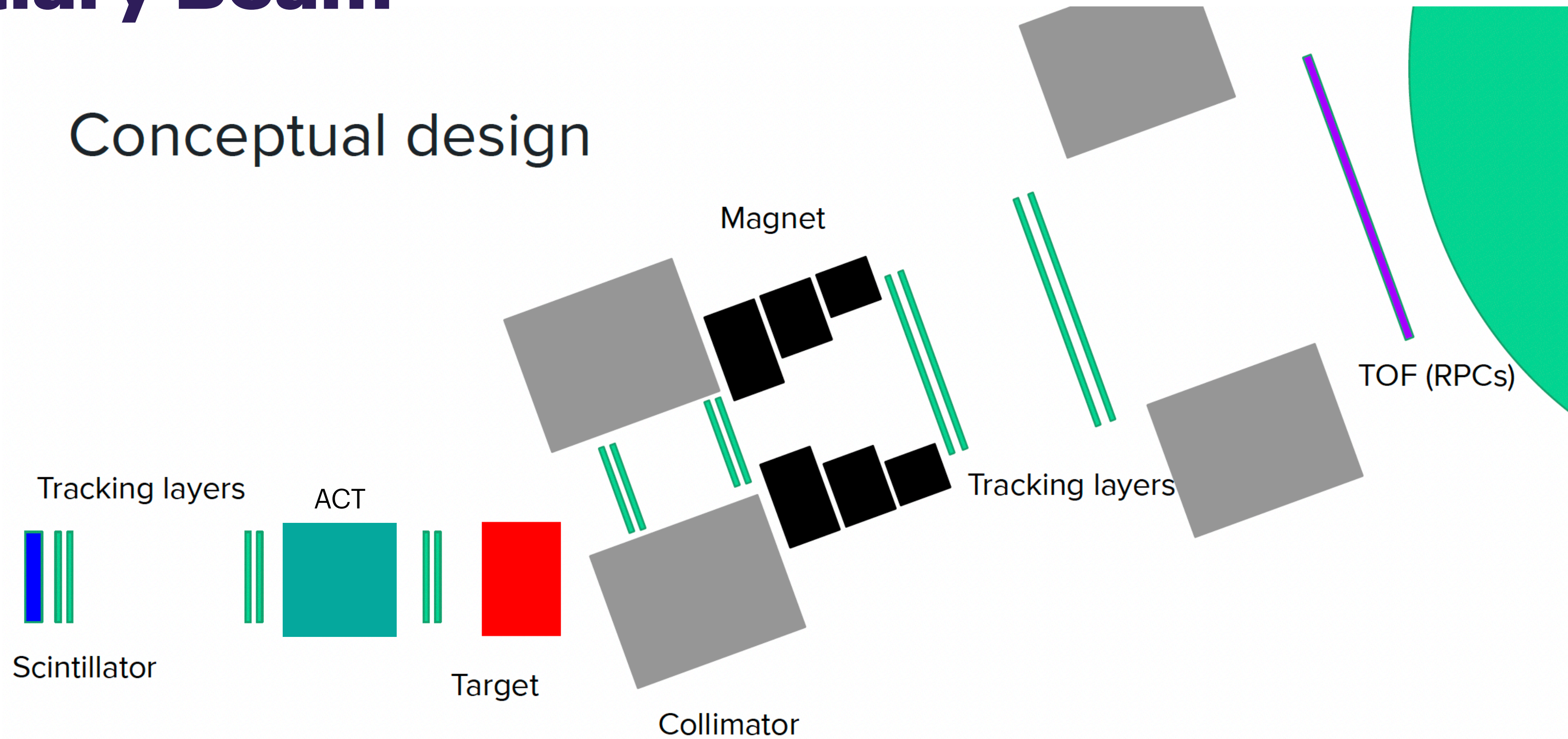
Layout Top View



- If only secondary beam, we will have a configuration of time-of-flight and aerogel Cherenkov threshold detectors
- SiPM or PMT readout
 - FADC/SCA or TDC+charge
- Total number of channels likely to be <30
- Coincidence of TOF scintillators would produce beam trigger

Tertiary Beam

Conceptual design



- Downstream TOF will be RPC. Check number of channels and digitization scheme
- Silicon strip detector for spectrometer. Check digitization scheme
- Upstream TOF (scintillator) and ACT for electron ID would
- Trigger generated from upstream scintillator and downstream RPC

Discussion

- Decision on whether the tertiary configuration is necessary should be made by the end of September
 - Will start discussion of beam measurements at this week's meeting
- We can check with colleagues at Kyoto and KEK about the RPC readout requirements
- No group has taken leadership on the silicon detectors yet, so the requirements are uncertain
- In either case, the beam monitors should produce a trigger that can be used online or offline