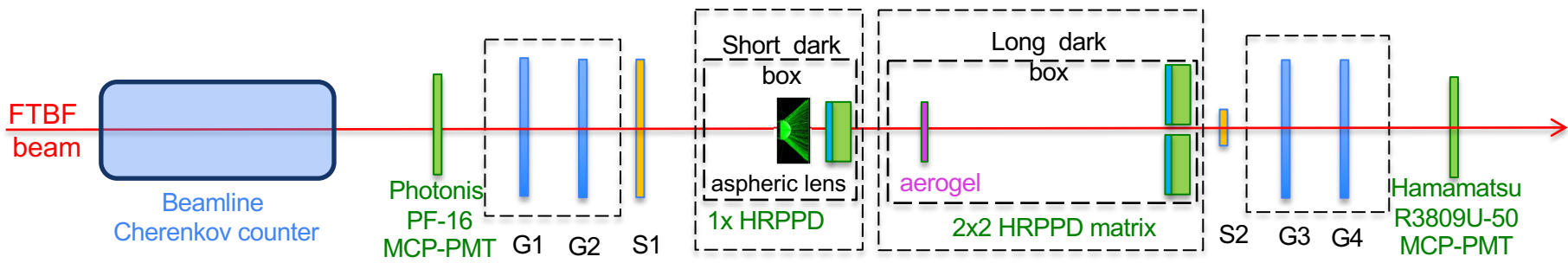
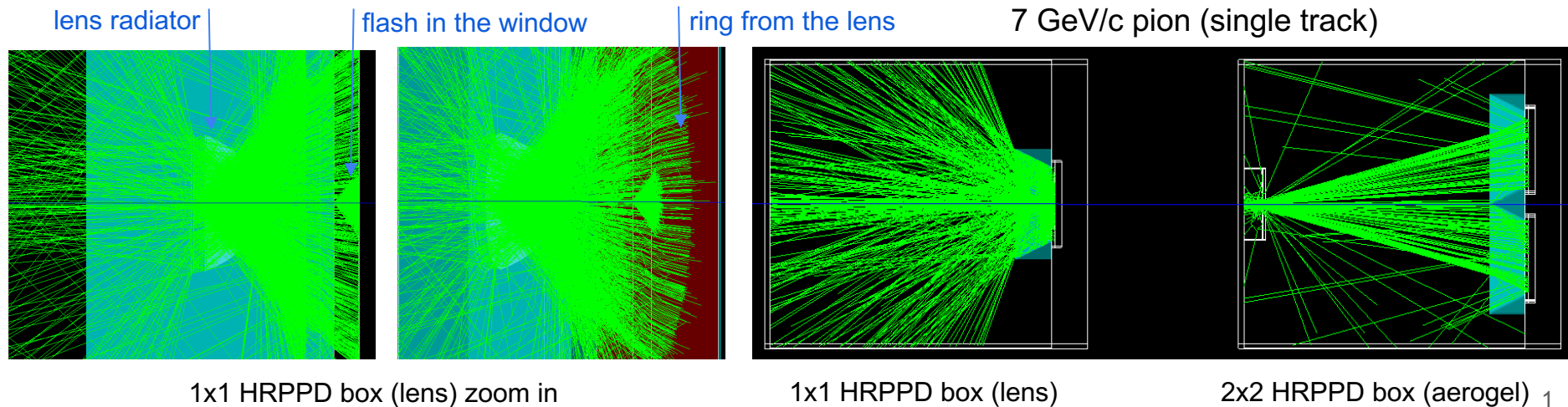


# pfRICH standalone code update

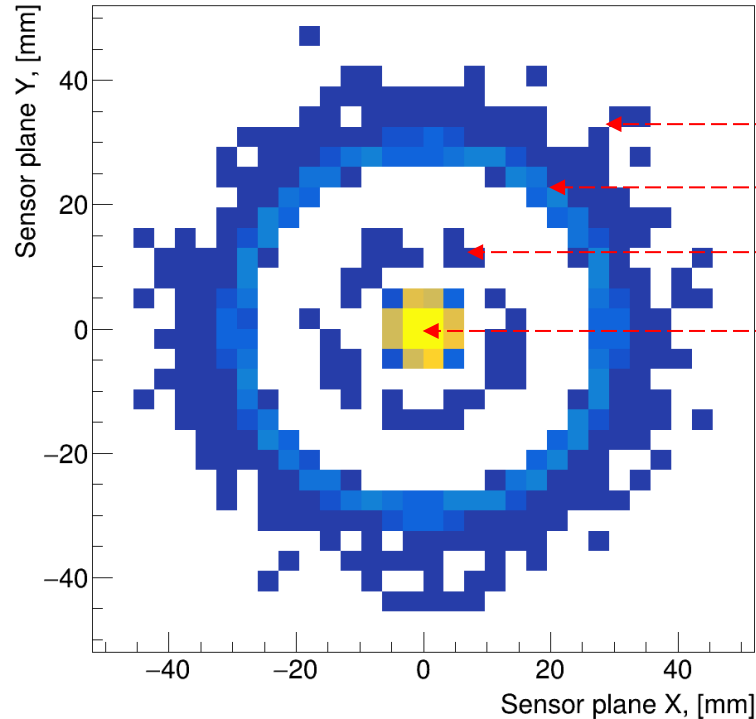


➤ Unify three setups (ePIC final, FTBF beam test “plan C”, QA station optical head) in one repo



# FTBF setup: hit map in a 1x1 HRPPD box

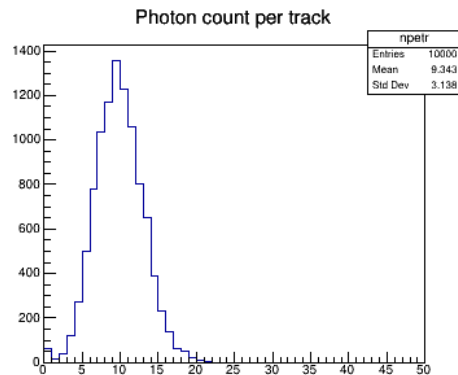
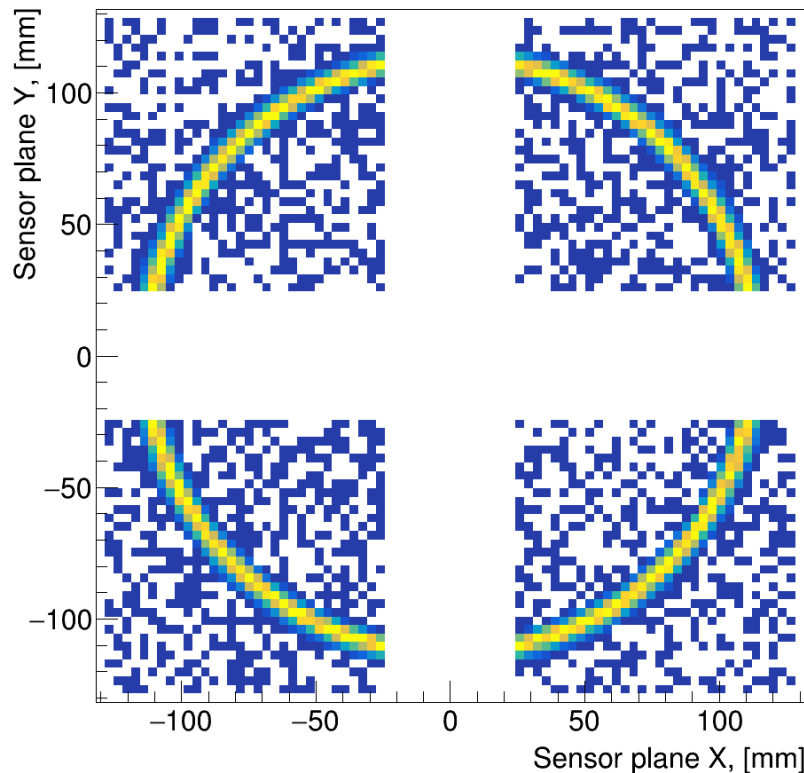
7 GeV/c pions (100 tracks)



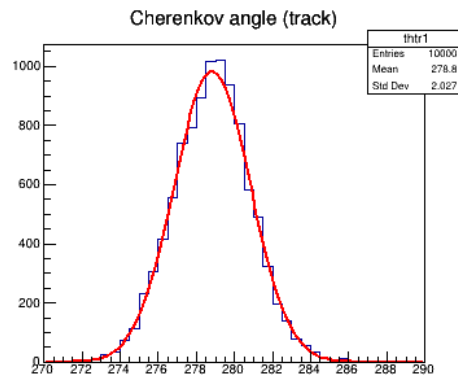
- photons produced & bounced in the aspheric lens
  - photons produced in the aspheric lens
  - photons produced & bounced in the HRPPD window
  - photons produced in the HRPPD window
- Photons from the lens are easy to identify
    - A narrow ring; **may require inversed geometry**
  - Their  $\langle N_{pe} \rangle$  must be defined rather well
  - They have very small spread in timing
    - **May also require inversed geometry**

# FTBF setup: hit map in a 2x2 HRPPD box

7 GeV/c pions (10000 tracks)



$\langle N_{pe} \rangle \sim 9.3$

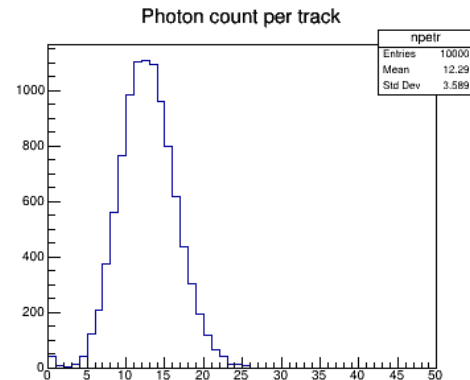
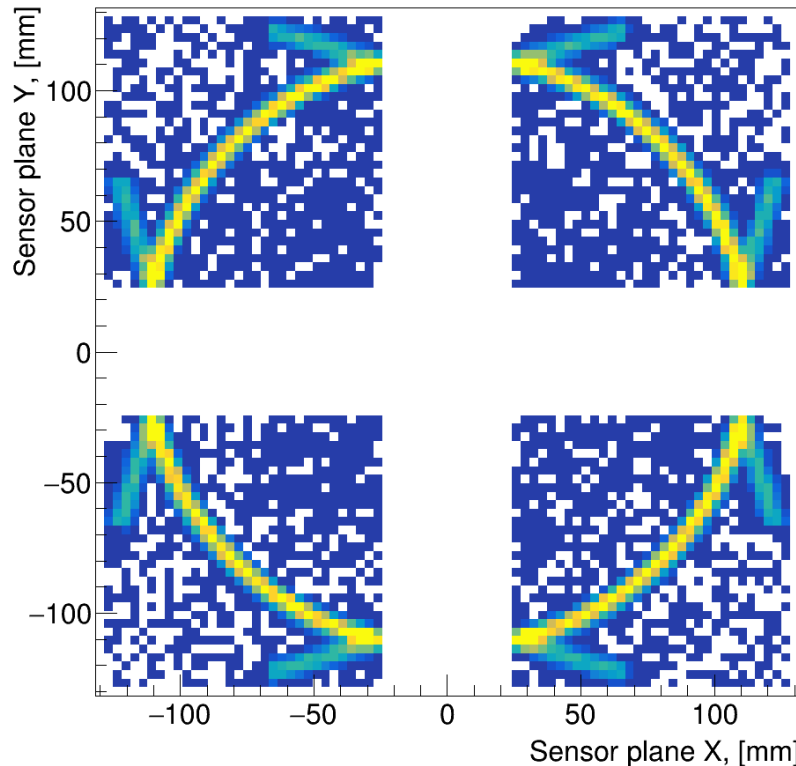


$\theta_{TR} \sim 2.0$  mrad

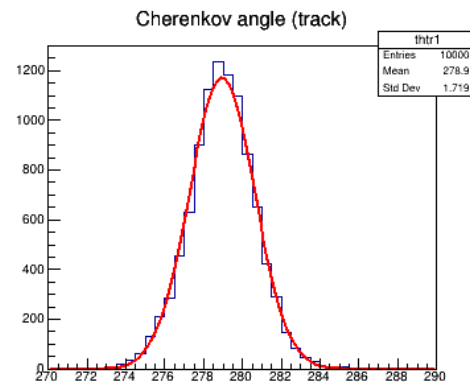
➤ Vessel length set to 450mm rather than 491mm (to better contain the light; see next slide)

# FTBF setup: hit map in a 2x2 HRPPD box

7 GeV/c pions (10000 tracks)



$$\langle N_{pe} \rangle \sim 12.3$$



$$\theta_{TR} \sim 1.7 \text{ mrad}$$

➤ Same setup, with pyramid mirrors installed

Is it compelling enough as a mirror demo? 4