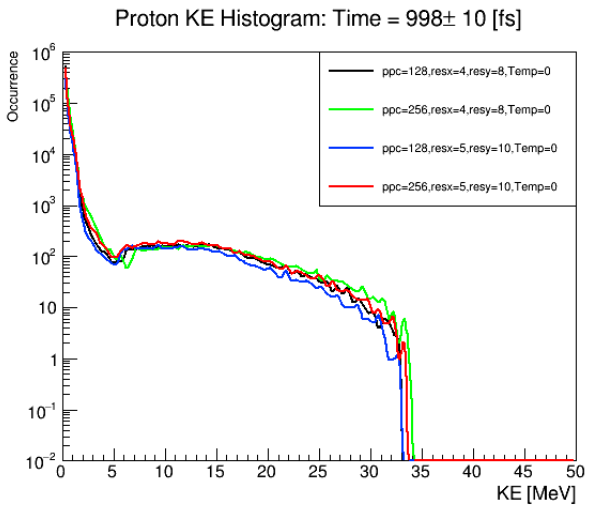
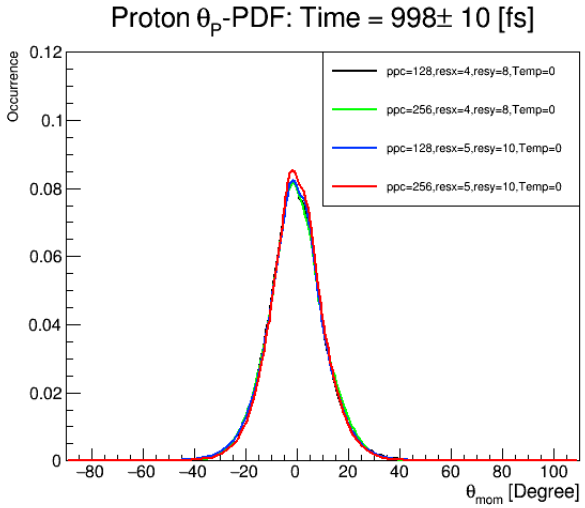
LhARA: Meeting

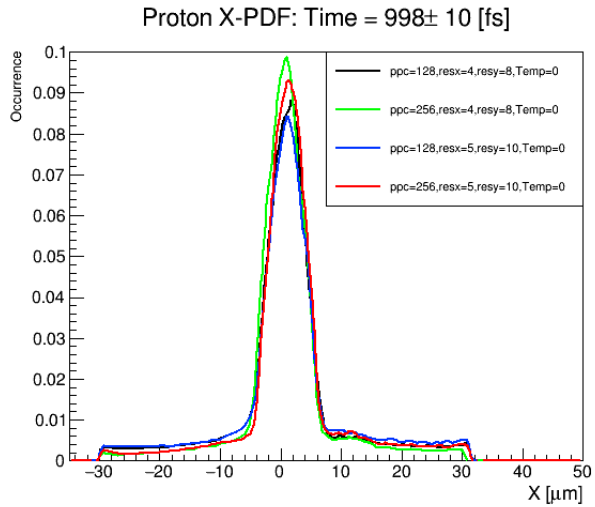
Hin Tung Lau

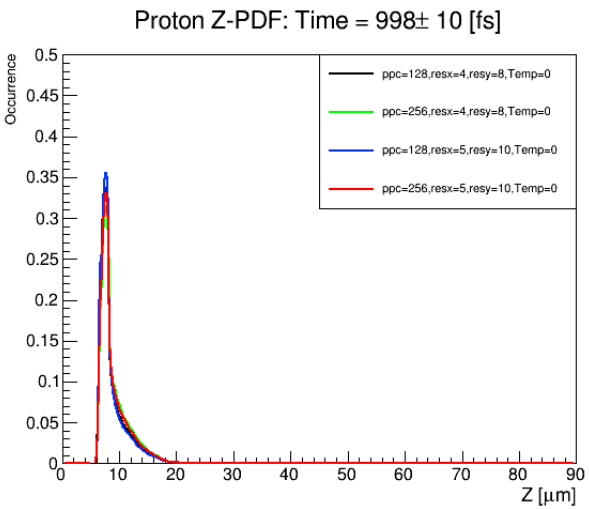
October 22, 2020

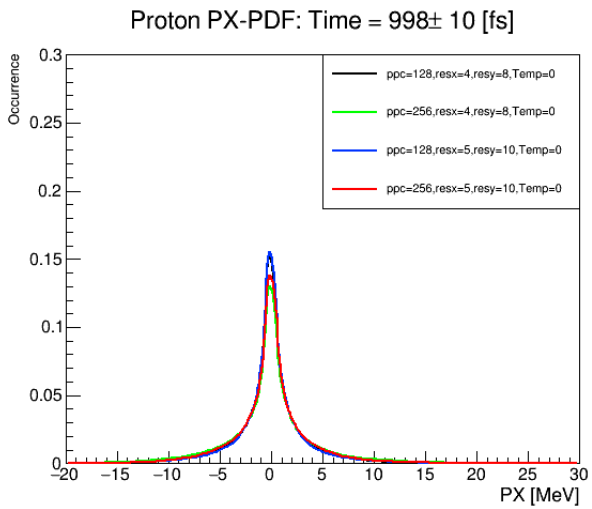
Convergence of ppc and cell size

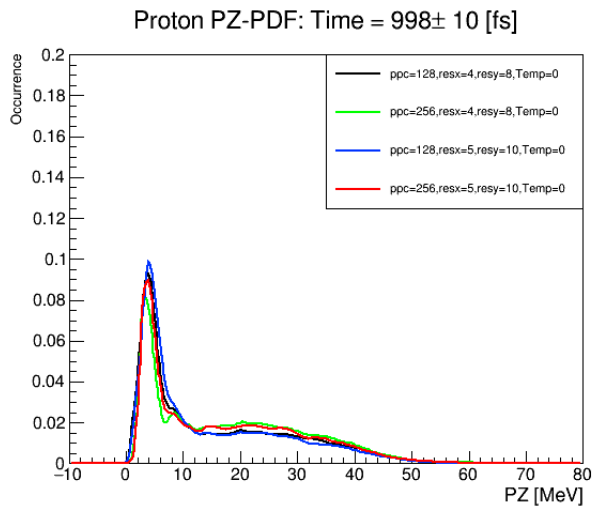






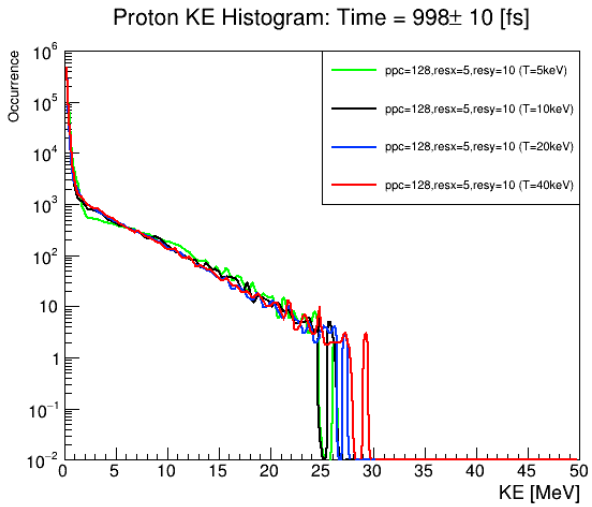


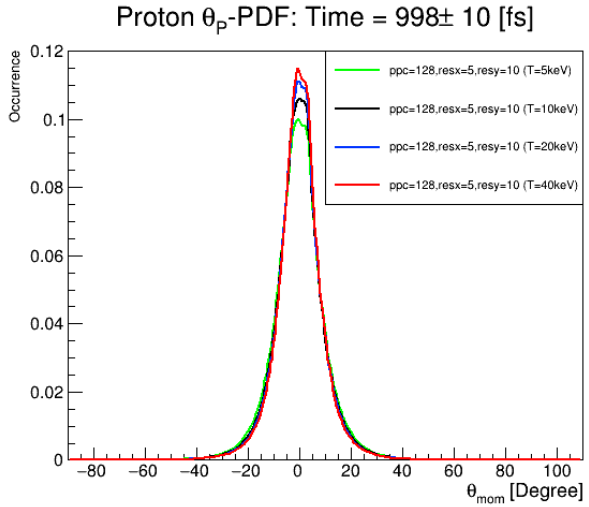


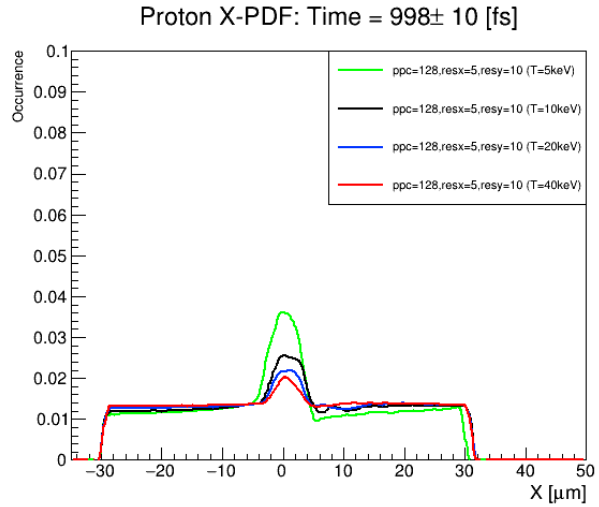


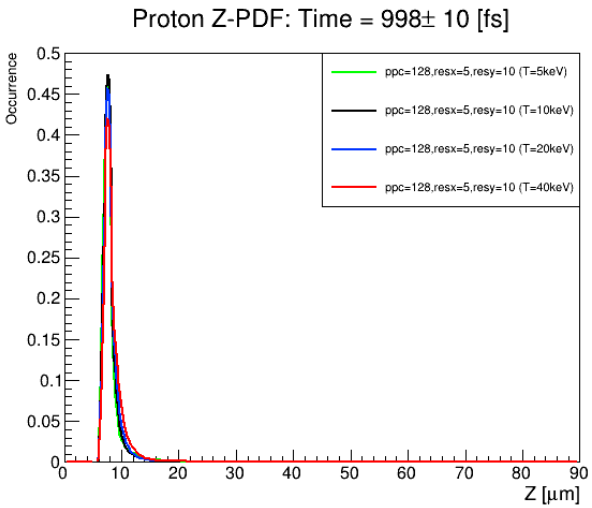
Comparing black and green curve (higher resolution) appears that convergence reached.

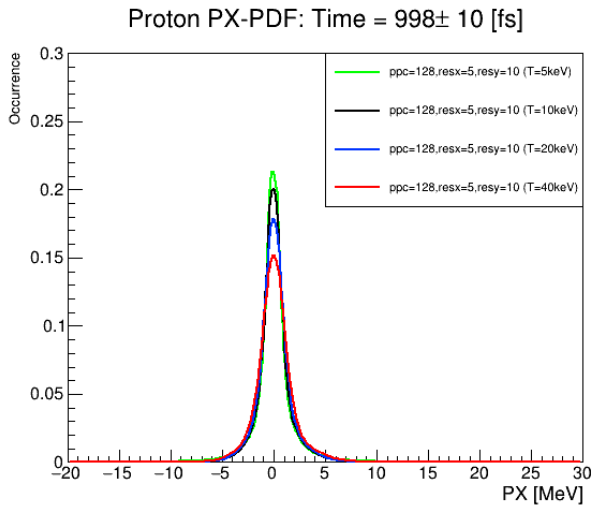
Initial temperature of foil

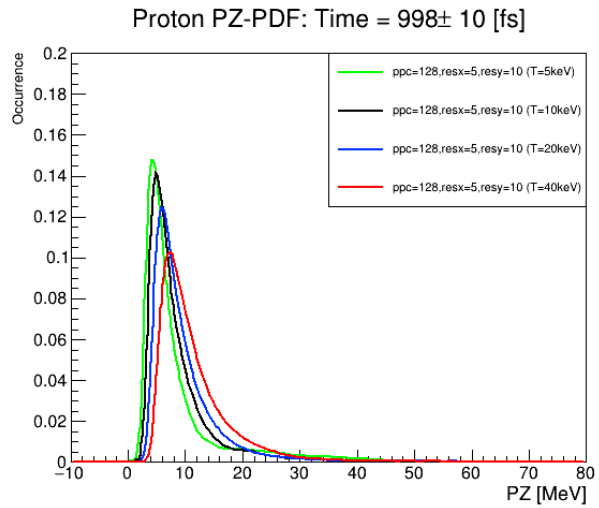






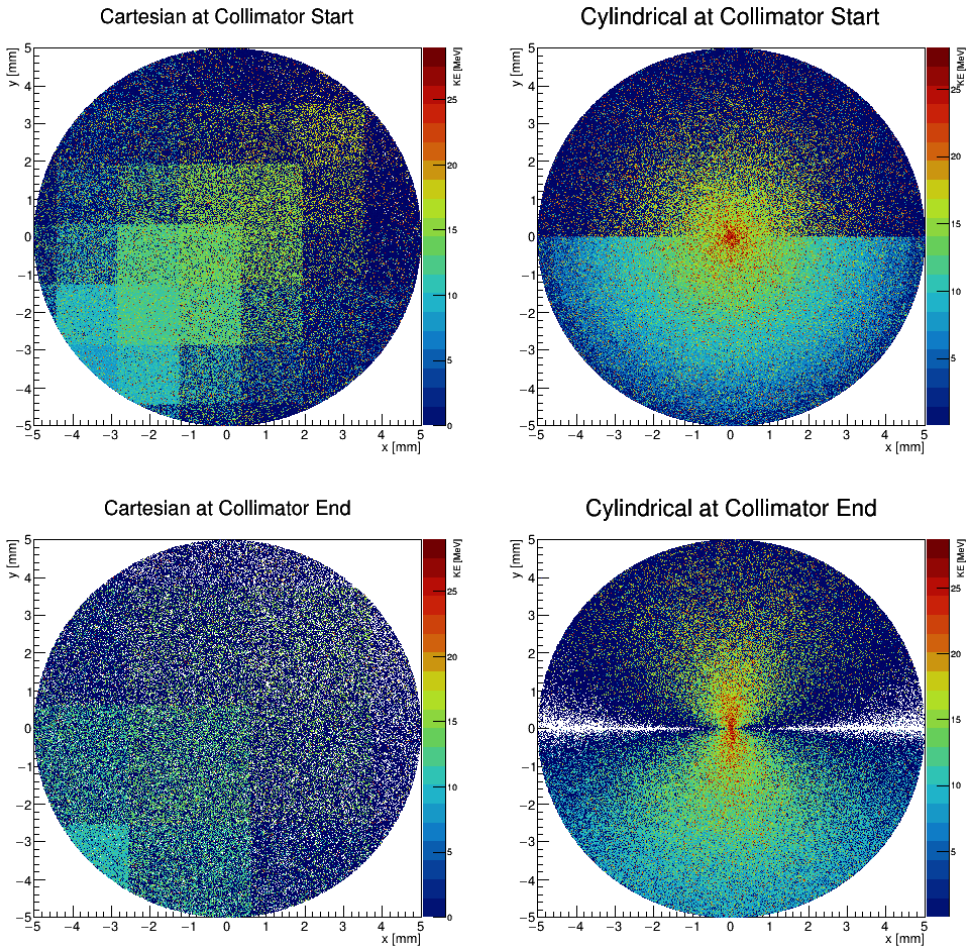


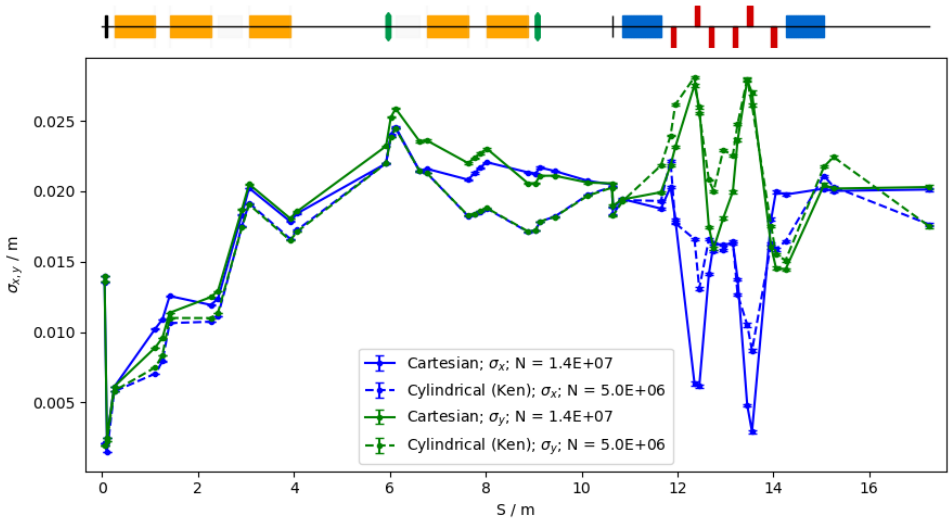




Comparison of 3D Smearing

No scaling of momentum.

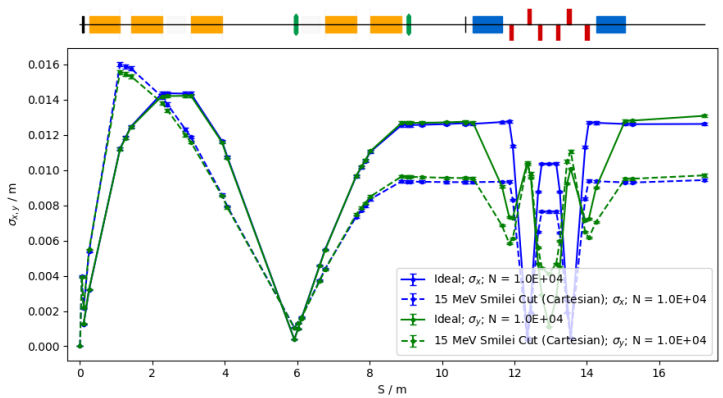




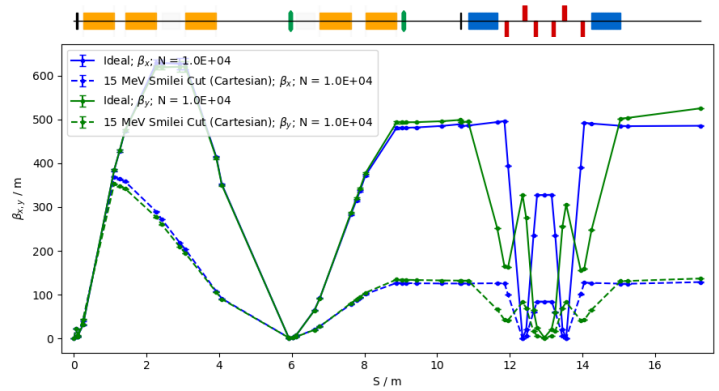
Tuning beamline (15 MeV adjusted cut of cartesian smear)

Tuning first three Gabor lenses can make beam size smaller at end station, and Twiss plots look more similar to ideal. (Not shown but there is a mismatch with MAD-X optics.)

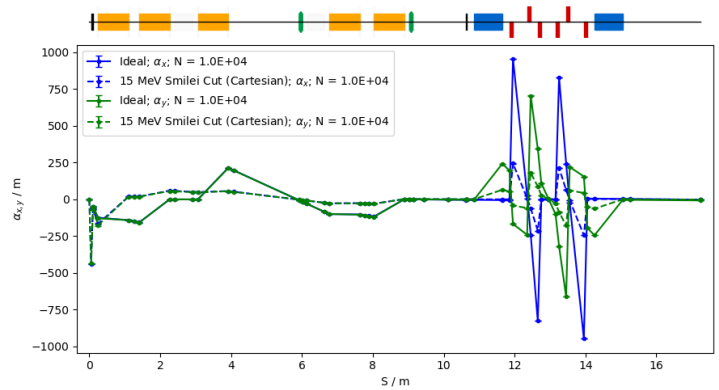
Sigma Plot



Beta Plot



Alpha Plot



Tuning Beamline (Dirty adjusted cartesian smear)

Needs more tuning for dirty beam.

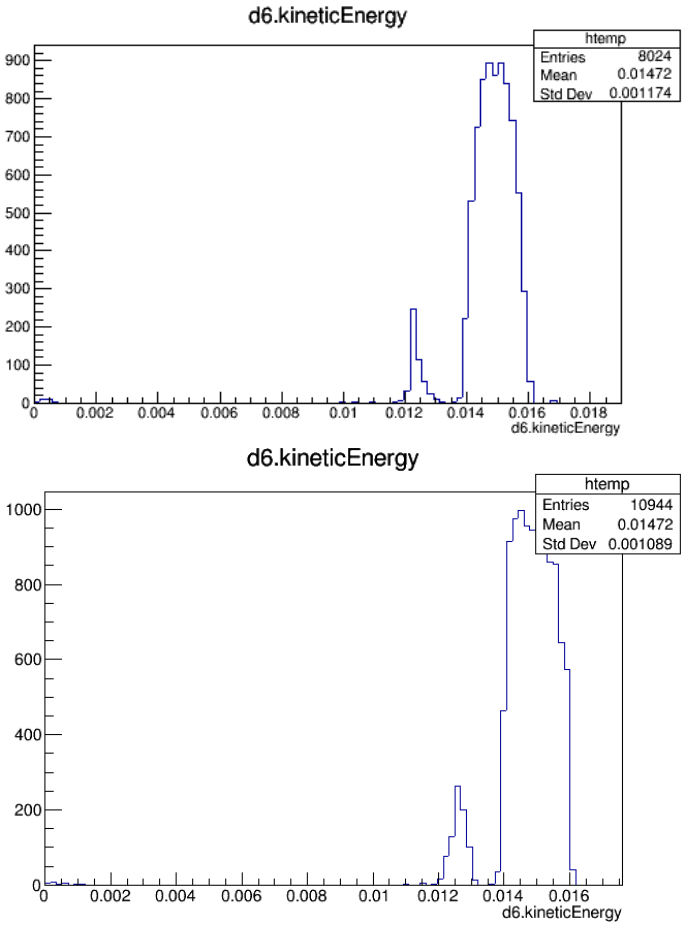


Figure: Untuned (top) and tuned (bottom).

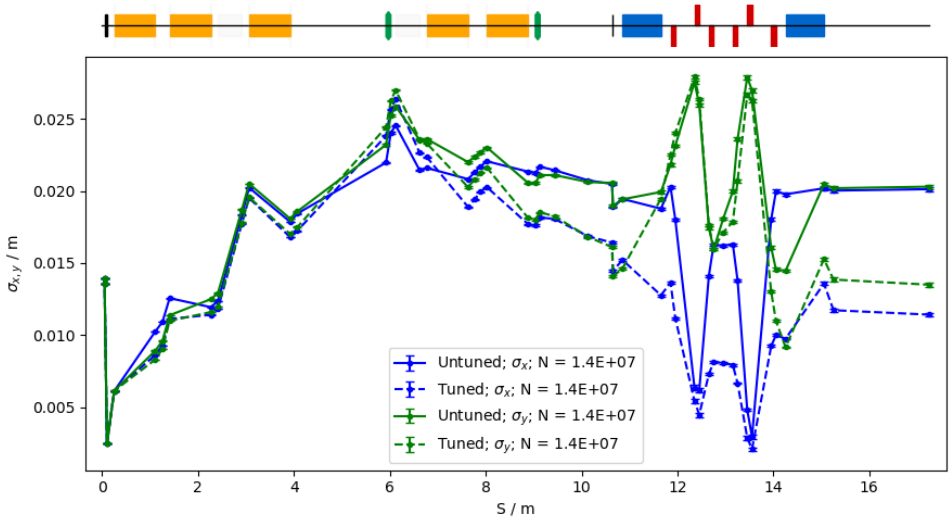
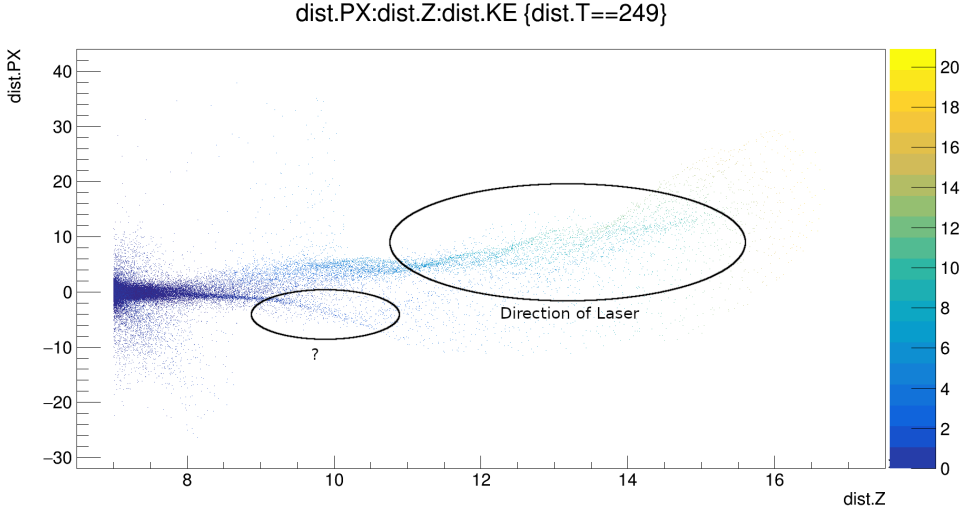


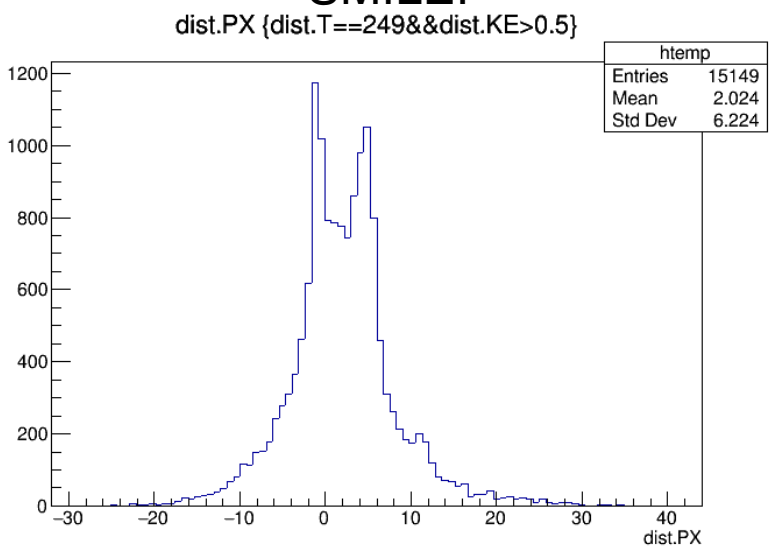
Figure: Untuned (solid) and tuned (dashed).

Reminder: Double peak feature in transverse momentum

Two peak structure of protons at 249 ns.



SMILEI



Old EPOCH (unknown timestep)