

LhARA Meeting

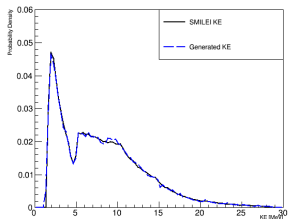
Hin Tung Lau

August 20, 2020

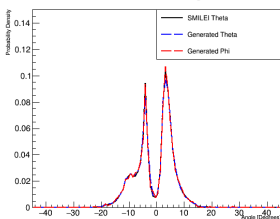
Sampling Contour Cut Distribution

Comparison to SMILEI with more statistics (5×10^4 generated entries):

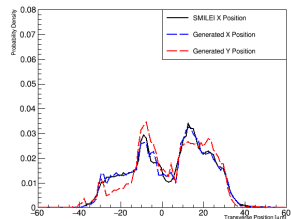
Proton Contour Cut: KE PDF



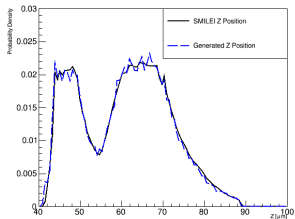
Proton Contour Cut: Angle PDF



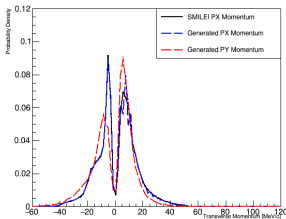
Proton Contour Cut: Transverse Position PDF



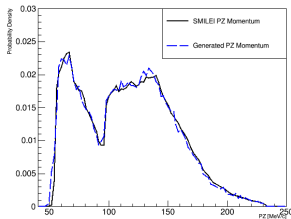
Proton Contour Cut: Longitudinal Position PDF



Proton Contour Cut: Transverse Momentum PDF



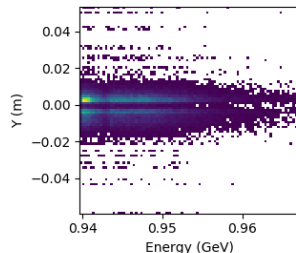
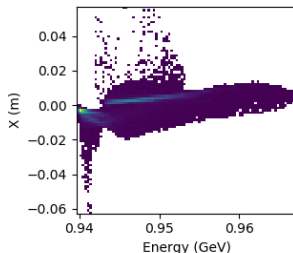
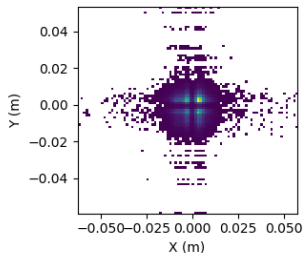
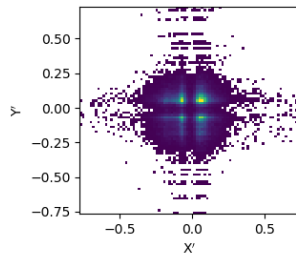
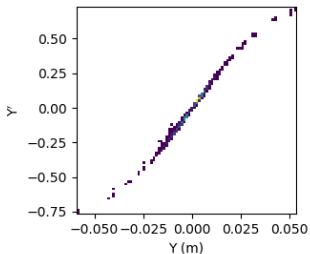
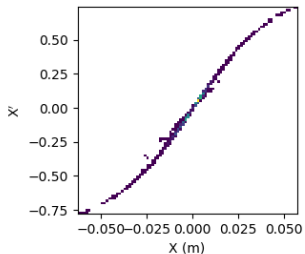
Proton Contour Cut: Longitudinal Momentum PDF



Sampling Contour Cut Distribution

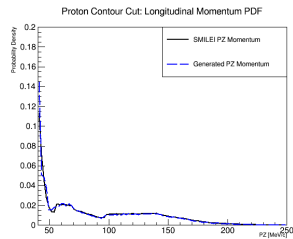
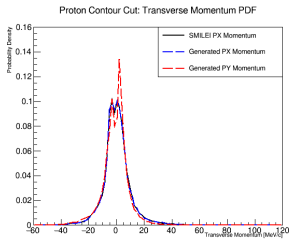
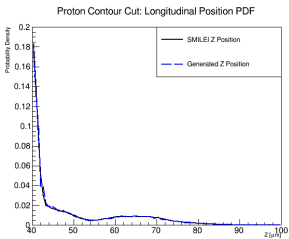
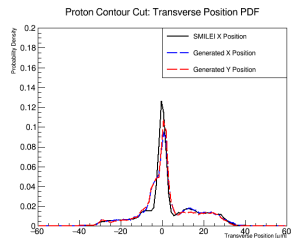
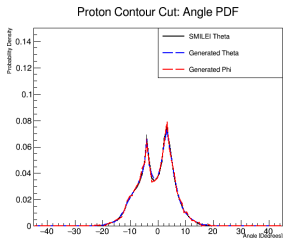
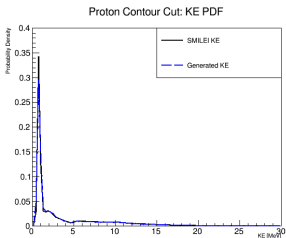
Simulating 5 cm of vacuum to pump port:

Correlations at o0.



Sampling Z-Cut Distribution

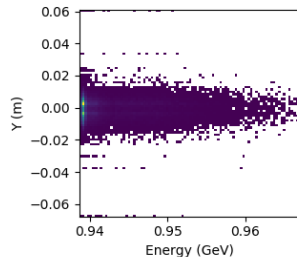
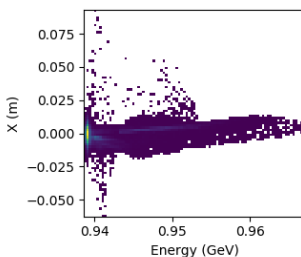
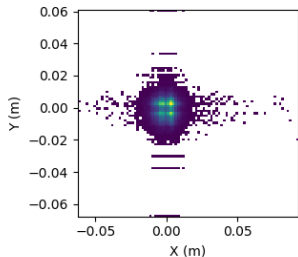
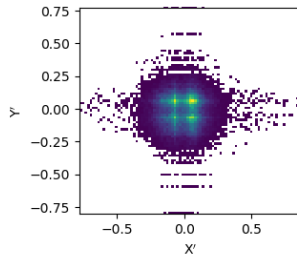
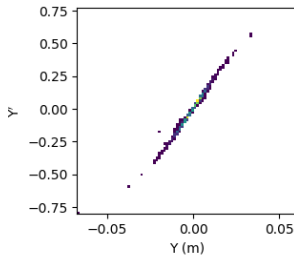
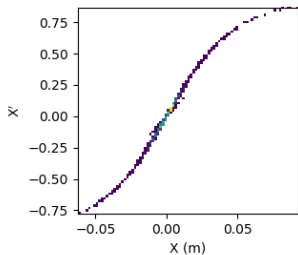
Comparison to SMILEI with more statistics (5×10^4 generated entries):



Sampling Z-Cut Distribution

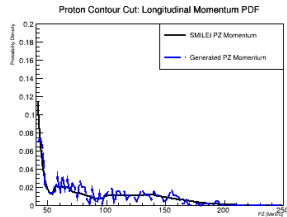
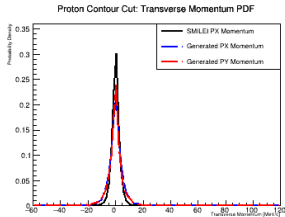
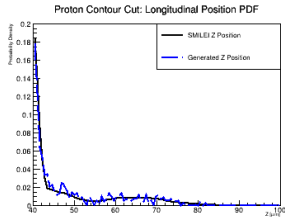
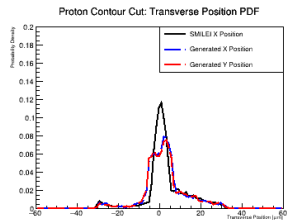
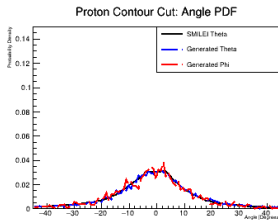
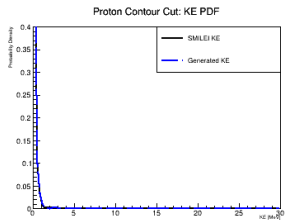
Simulating 5 cm of vacuum to pump port:

Correlations at o0.



Sampling No Cut Distribution

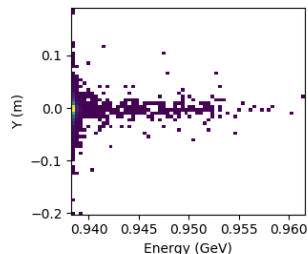
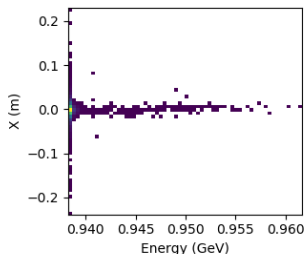
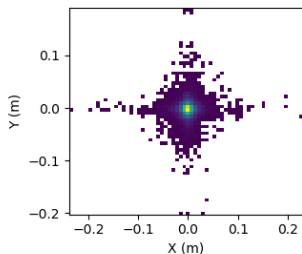
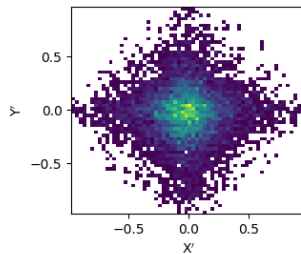
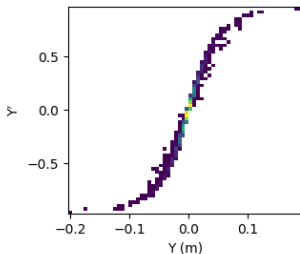
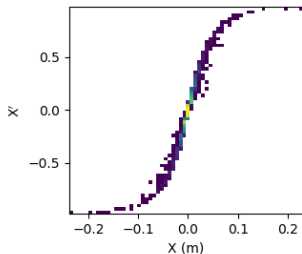
Comparison to SMILEI with more statistics (9×10^3 generated entries):



Sampling No Cut Distribution

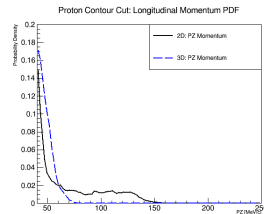
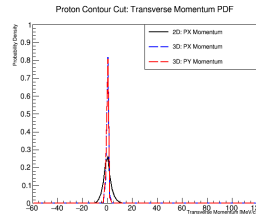
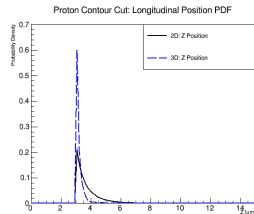
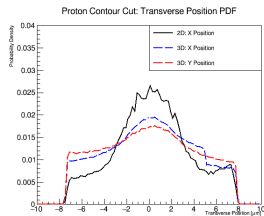
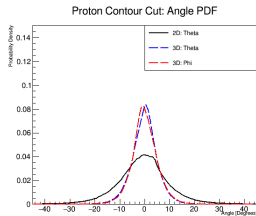
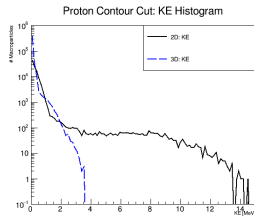
Simulating 5 cm of vacuum to pump port:

Correlations at o0.



SMILEI: 2D vs 3D

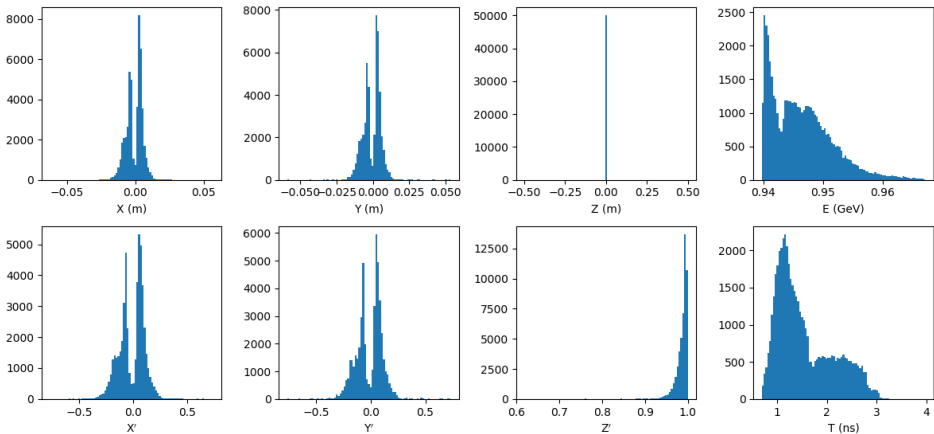
PPC=16, resx=10nm, resy=40nm, comparison at about 200 fs:



2D and 3D results seems quite discrepant...though the angles of Theta and Phi look similar.

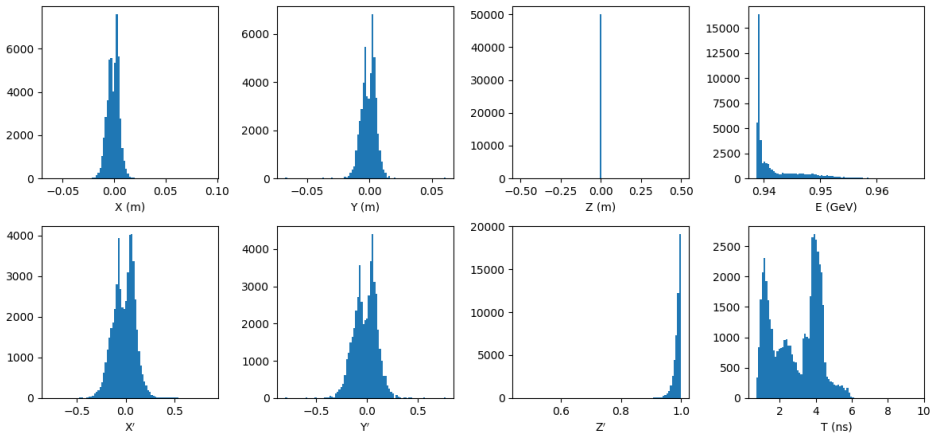
Backup: Contour Cut Coordinate Plot

Coordinates at o0.



Backup: Z-Cut Coordinate Plot

Coordinates at o0.



Backup: No Cut Coordinate Plot

Coordinates at o0.

