Acceptance Study Update

Chao Gu

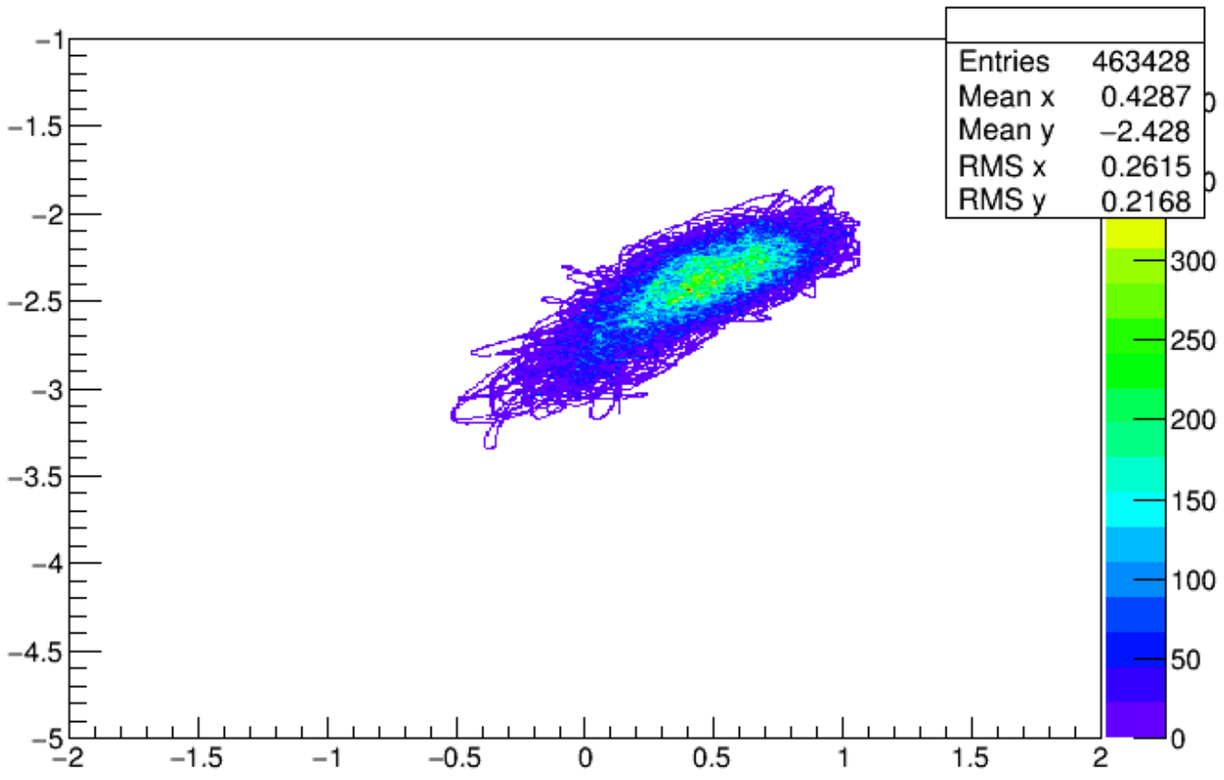
Status Update

- Compare the simulation with data:
  - The reconstructed kinematics variables has already been tuned during the optics study
  - Use the width of the elastic peak to tune the resolution of the simulation package
  - Beam profile has been tuned
  - VDC resolution: adjusting with no-sieve elastic data

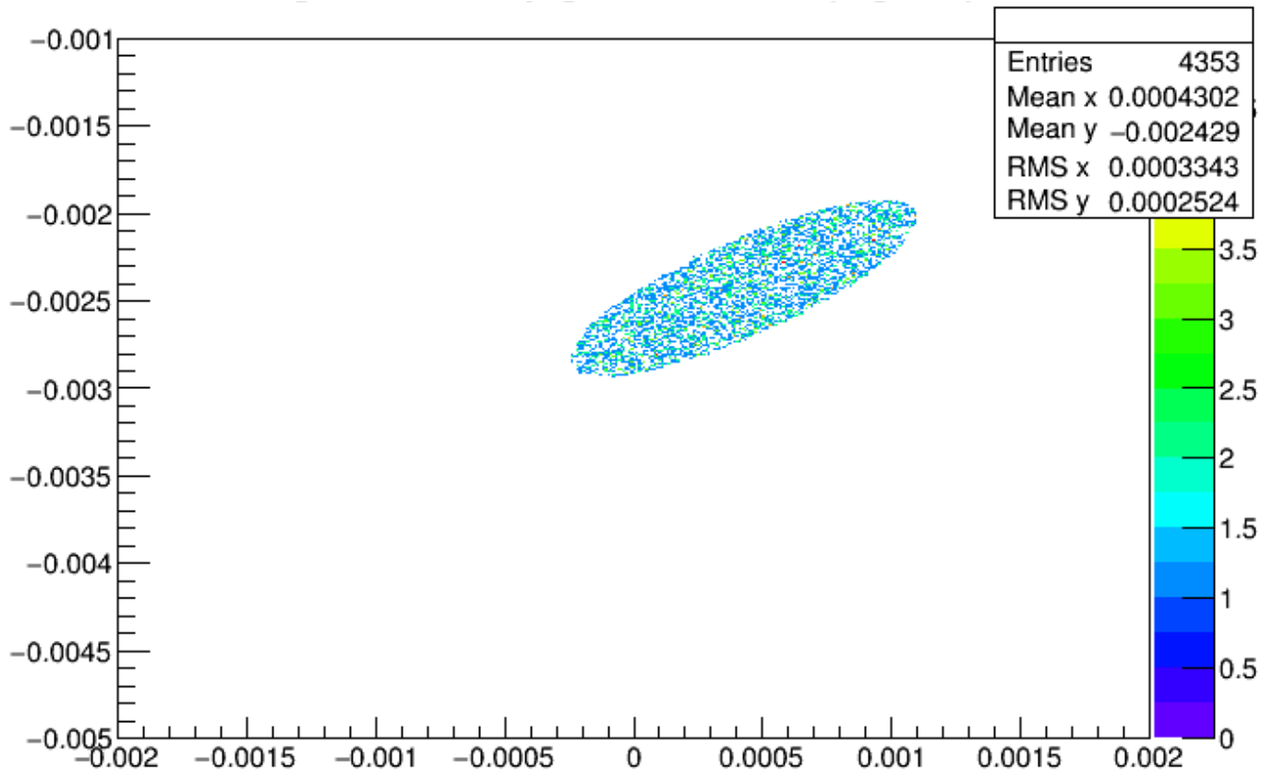
Status Update

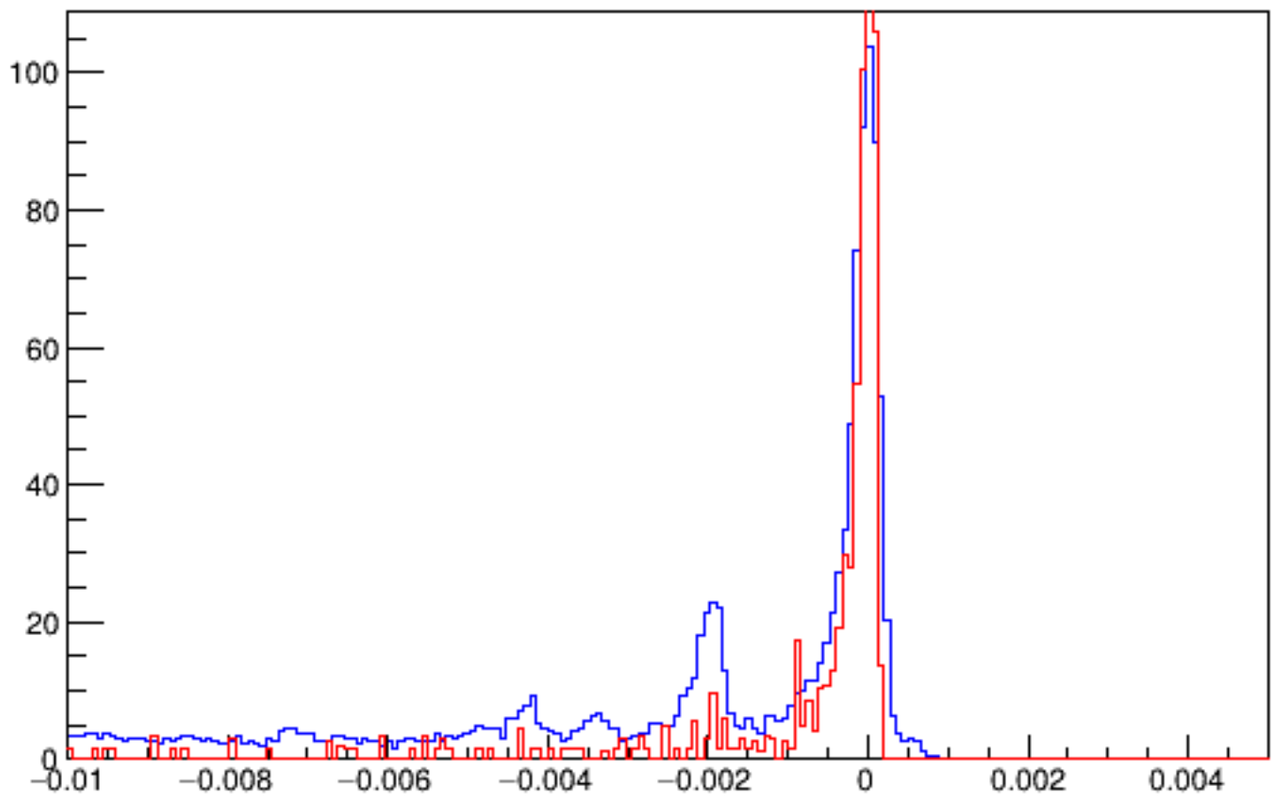
- Run 5612:
  - Longitudinal setting: simplest case to start
  - No sieve
  - 125 mil Carbon target
  - LHe drained, data is clean
  - Perfect for tuning the resolution
  - cut on theta and phi and compare dp

BPM readout from data



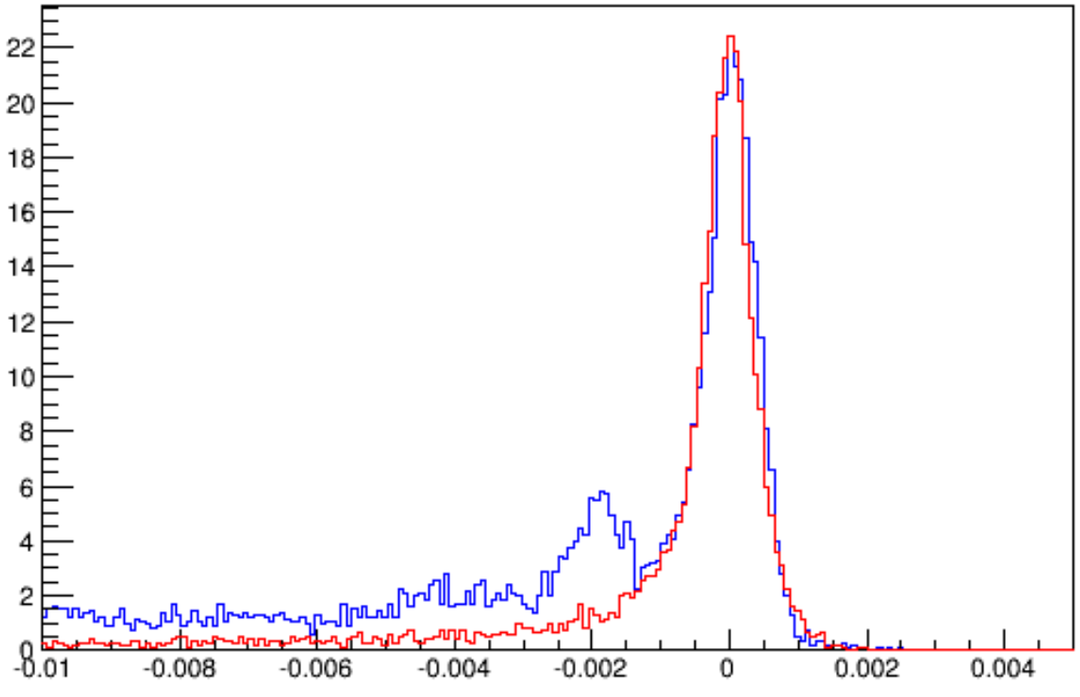
BPM readout from simulation



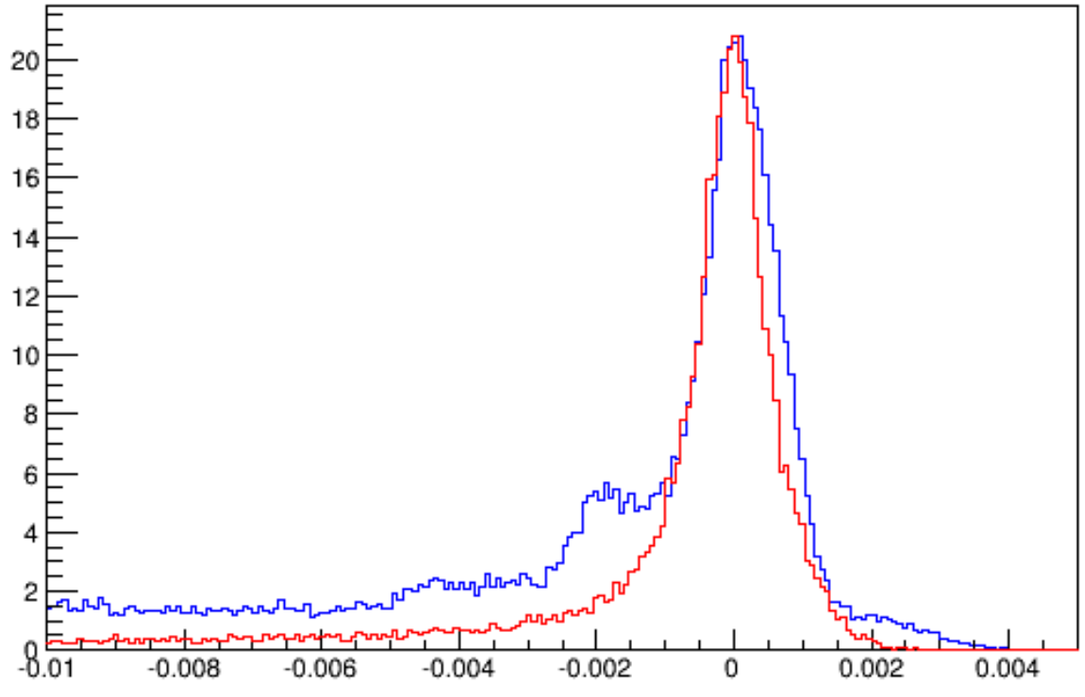


Run 5585
(Central hole)

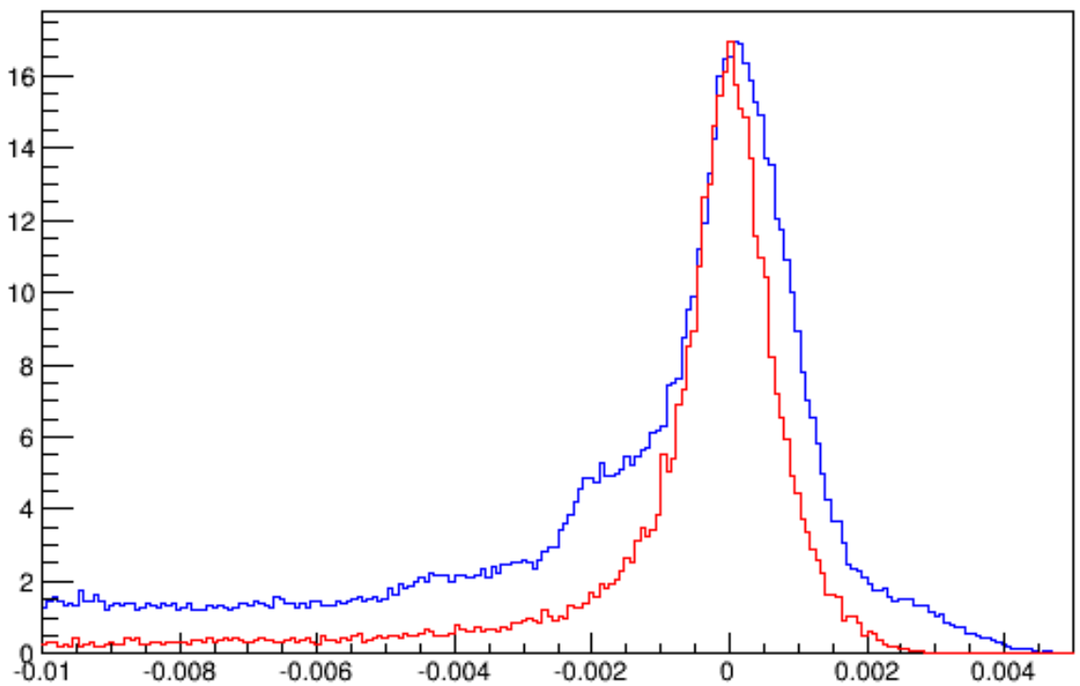
10mrad < th,ph < 10mrad



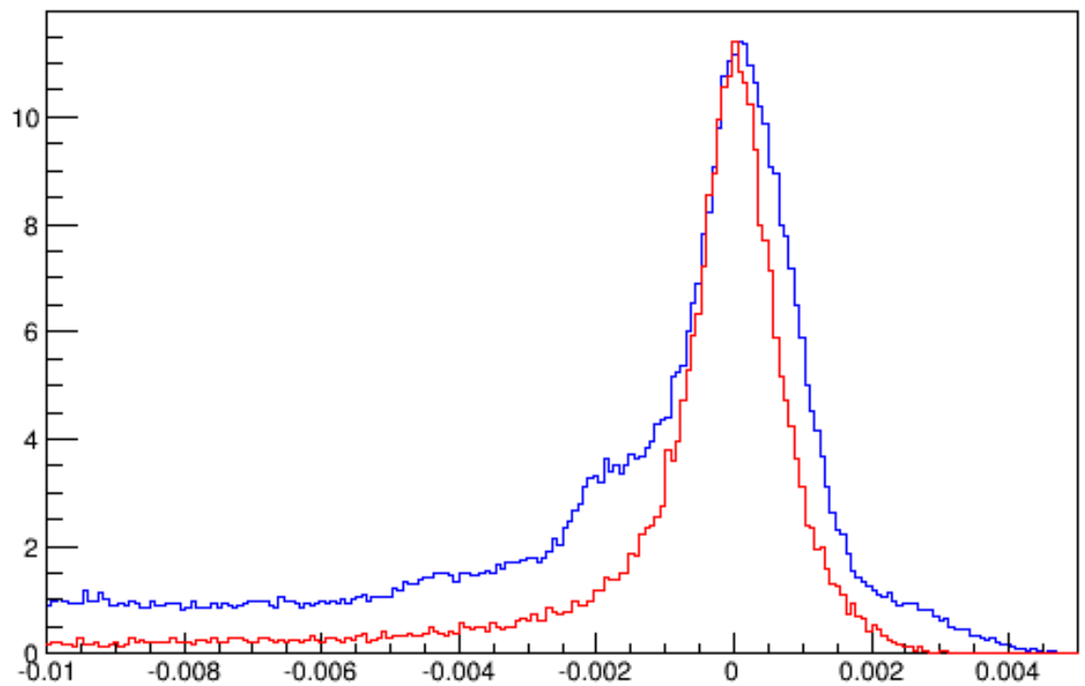
20mrad < th,ph < 20mrad



30mrad < th,ph < 30mrad



40mrad < th,ph < 40mrad



Status Update

- It looks like that the simulation does not agree with the data at the higher momentum part of the elastic peak
- Checking the code to see what is the problem