

Acceptance Study Status

Chao Gu

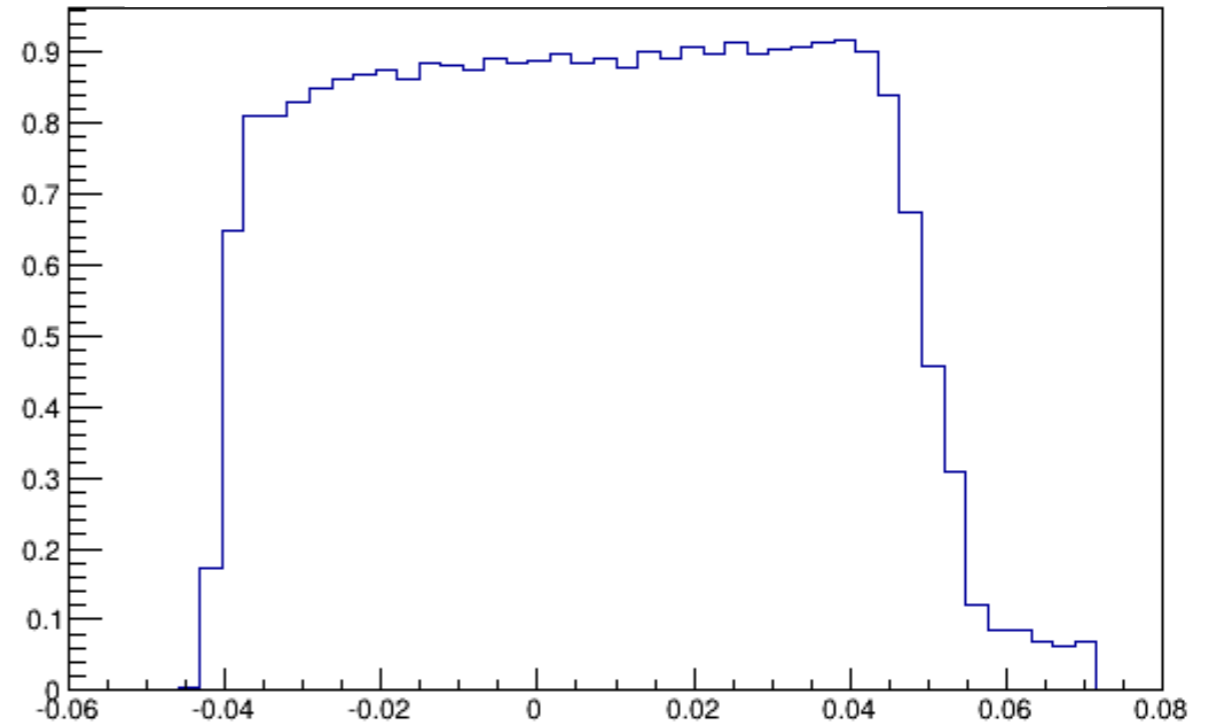
Acceptance Study

- Since the simulation result do not agree with the data, it is suggested to check the acceptance in the simulation first
 - The assumption is that at the center region the acceptance should be close to 1
- Test with the configuration from run 5879 (carbon target)
 - HRS momentum at 1.2 GeV to reduce the influence of the cross-section model
 - Calculate the acceptance for several different sets of cuts

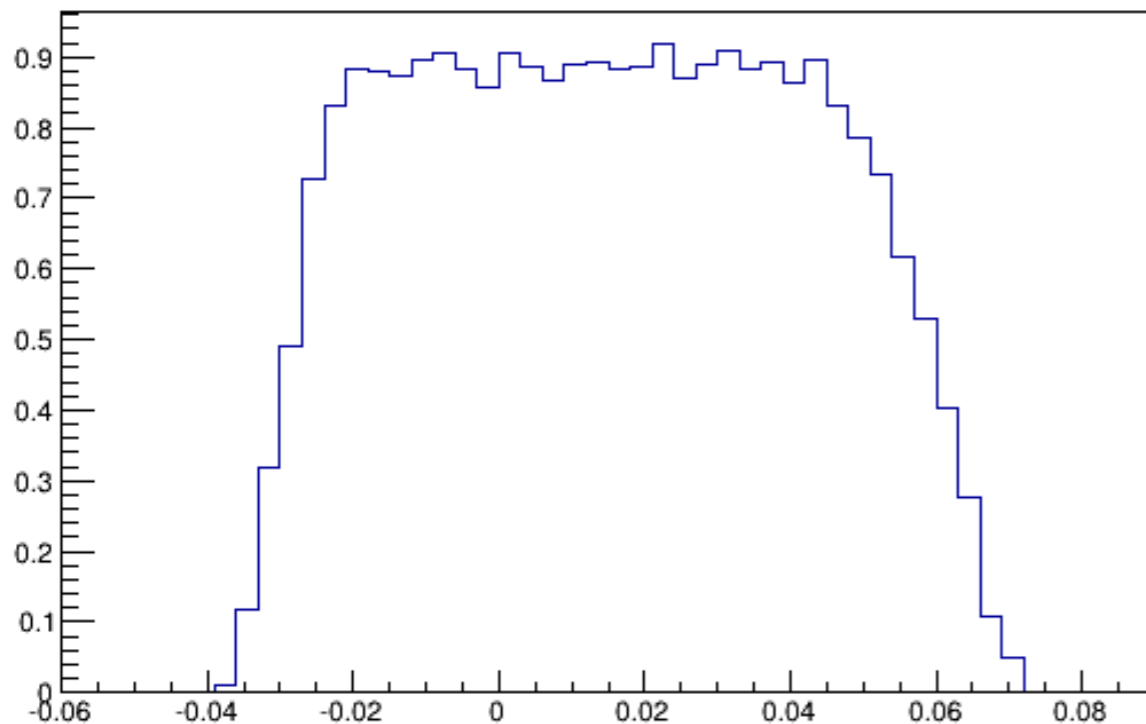
Acceptance Study

- Cut the center region:
 - $-0.01 < dp < 0.01$
 - $-0.01 < \theta < 0.03$
 - $-0.01 < \phi < 0.01$
- The acceptance of the center region is around 90%

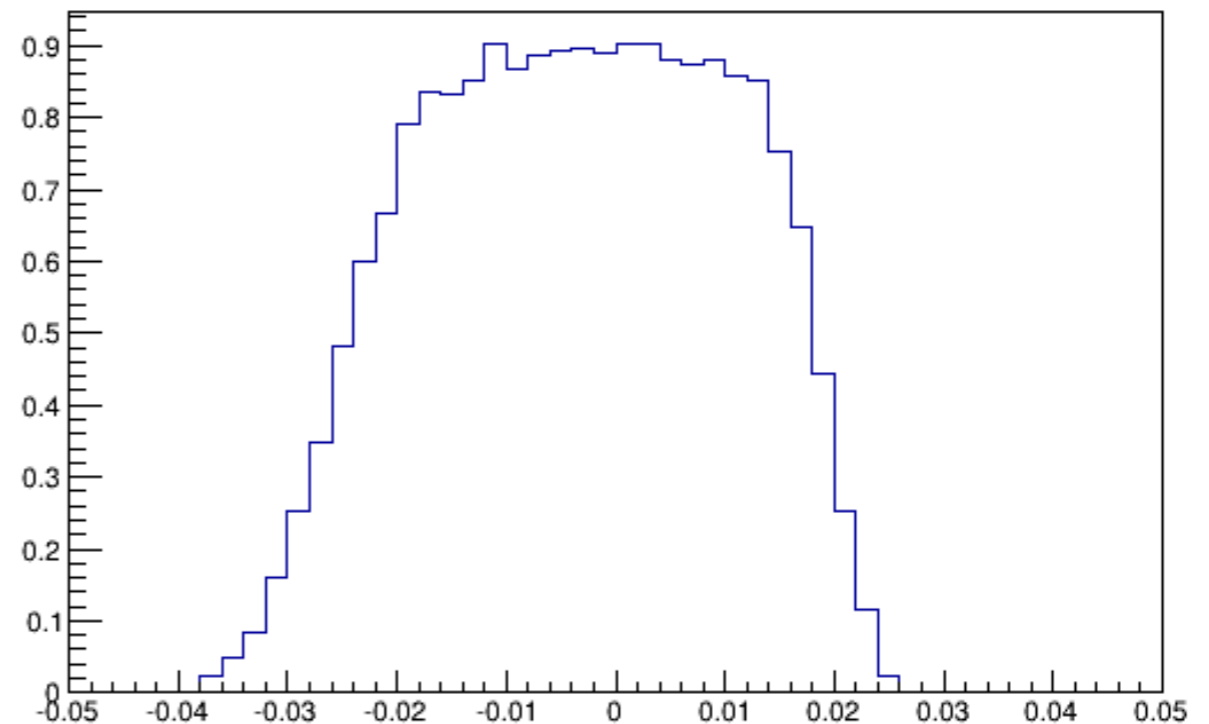
Delta (rad)



Theta (rad)

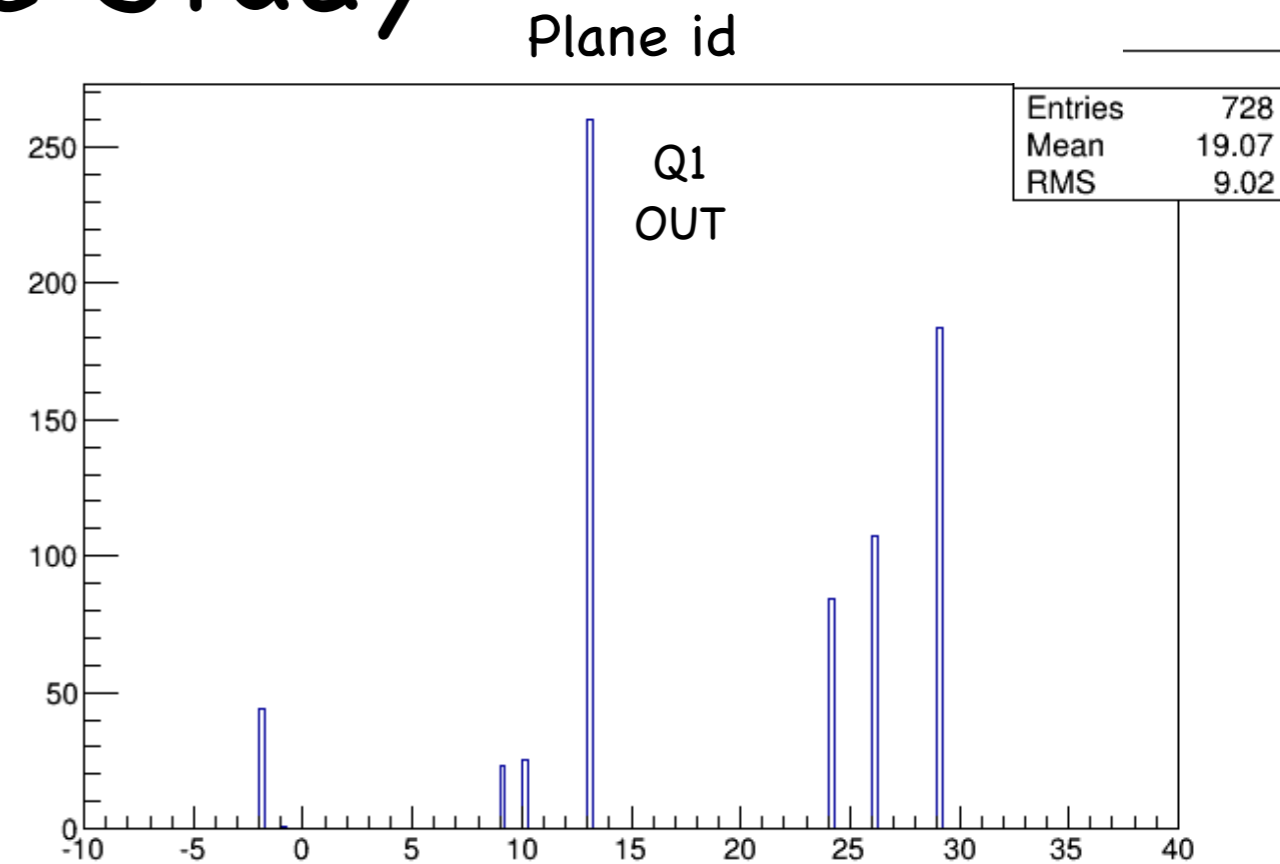


Phi (rad)



Acceptance Study

- Cut the center region:
 - $-0.01 < dp < 0.01$
 - $-0.01 < \theta < 0.03$
 - $-0.01 < \phi < 0.01$
- Mostly blocked by Q1 exit in the simulation
- The theta acceptance is not centered even in this longitudinal setting (center is at +0.01, see previous page)
- Data distribution is also shifted



Data distribution vs theta with same cut

