

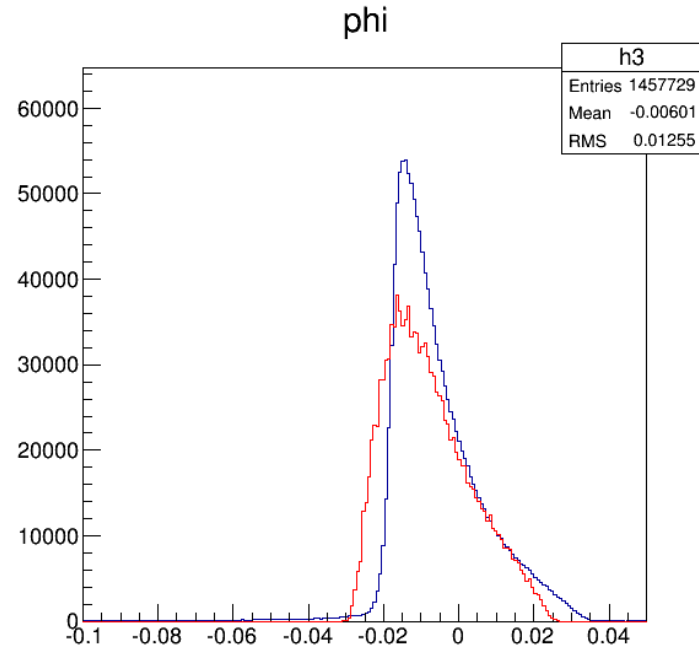
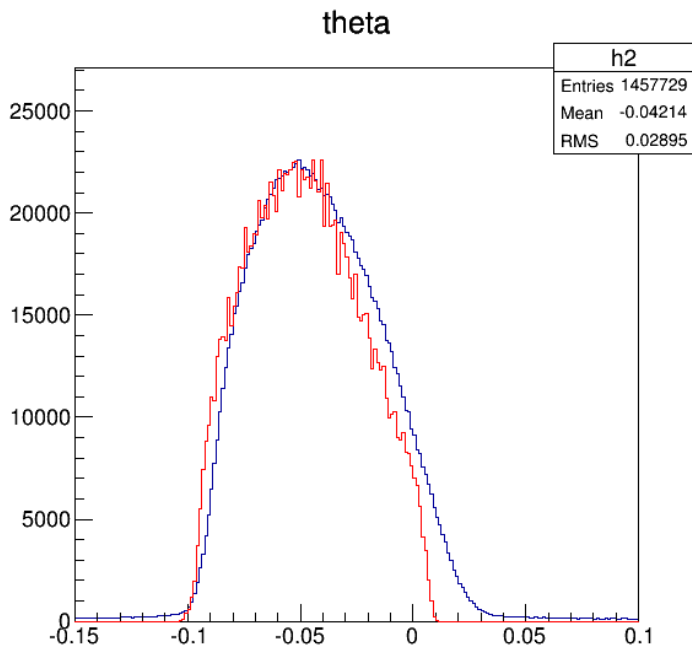
Acceptance Update

Min Huang

3/4/2015

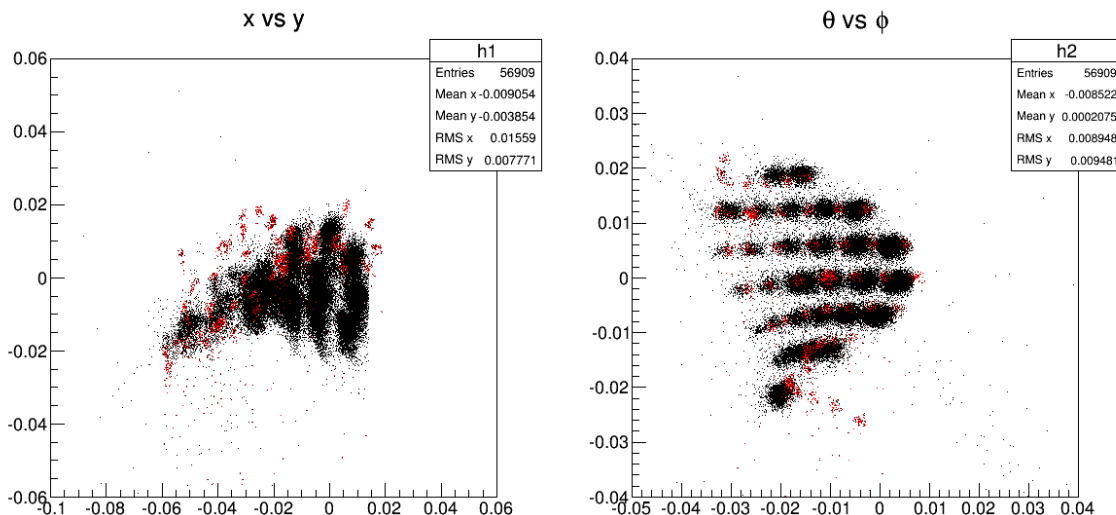
Production Run

- 3282-3294: 2.253GeV, 2.5T trans, good septum
484816, $p_0=2.228$ GeV
- Beam position $\sim (-5.0$ mm, 1.8 mm)
- Expand the acceptance range when generating events



To improve simulation

- Focal plane variables don't match well
- Production runs have rastered beam, while the optics calibration runs I used have point beam
- Need to correct for this effect
- Beam scan runs



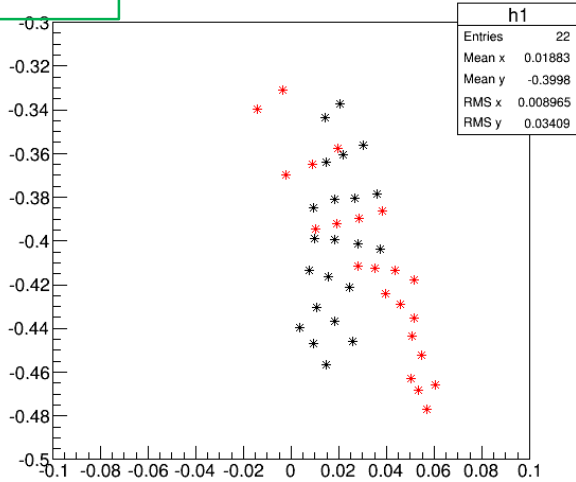
Beam scan run
doesn't have
good matching
(#3173)

Previous Forward Functions

- Events from window on focal plane

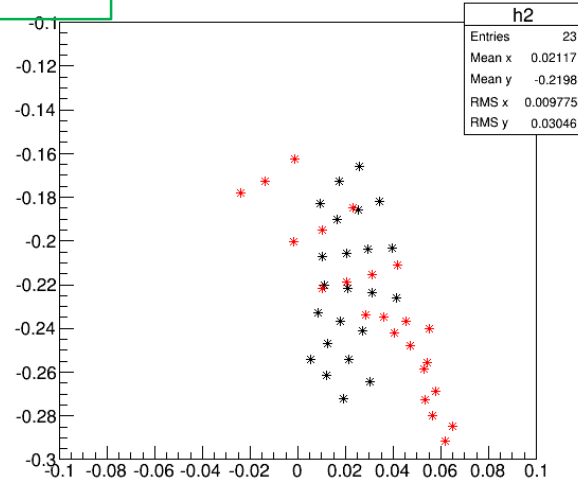
-3%

x vs y



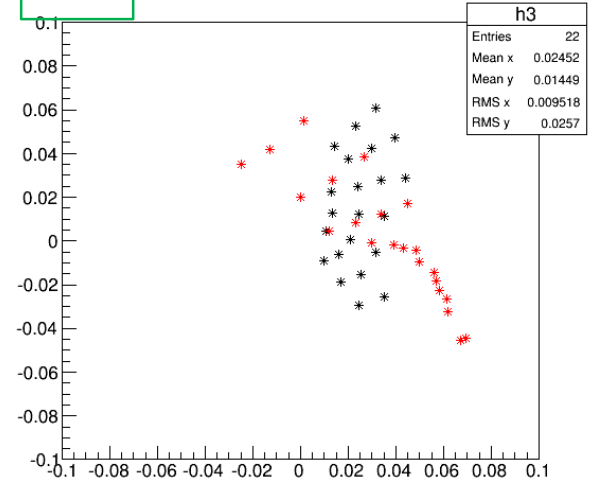
-2%

x vs y



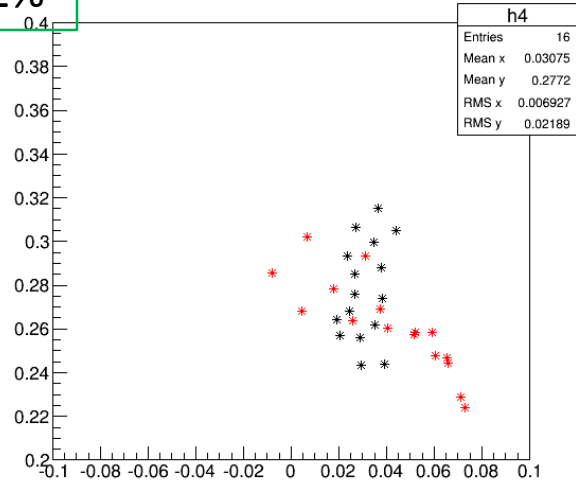
0%

x vs y



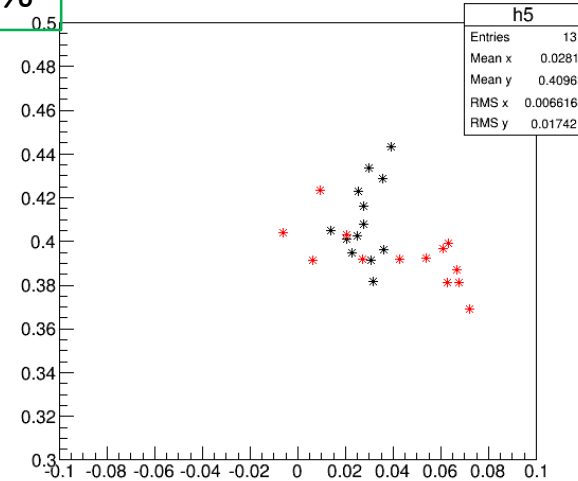
2%

x vs y



3%

x vs y

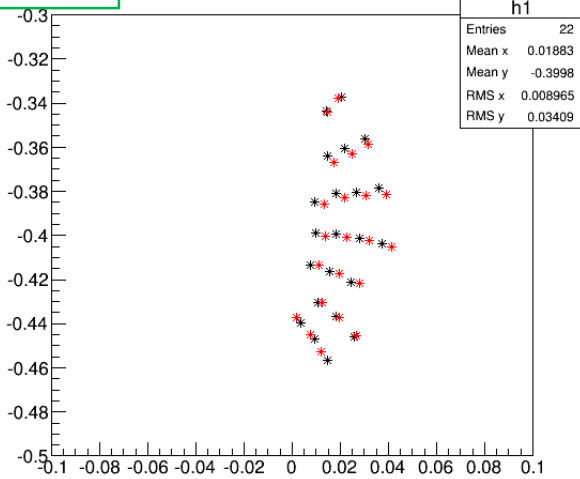


Improved the fitting @ virtual plane including events from window

- Events from window on focal plane

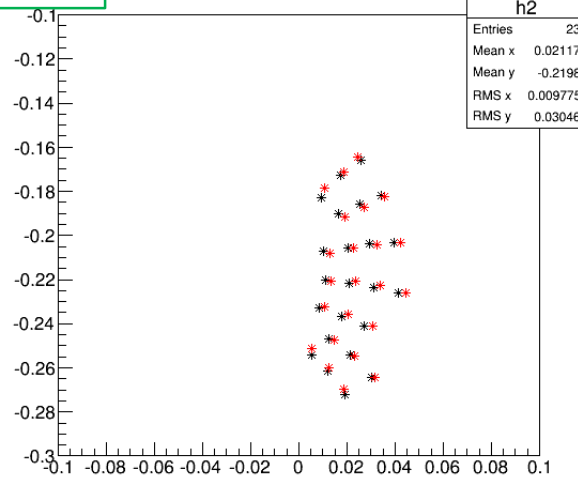
-3%

x vs y



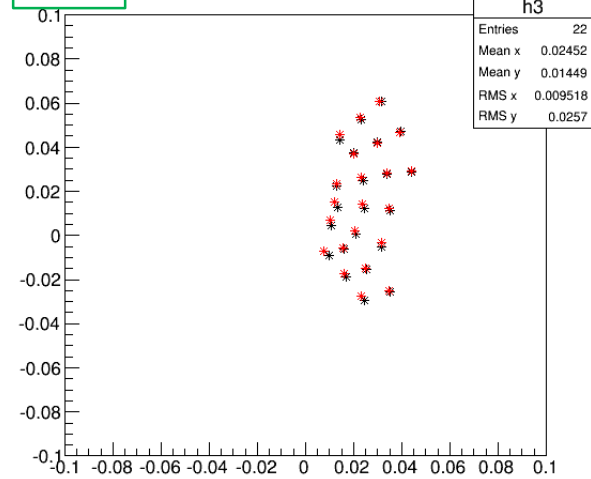
-2%

x vs y



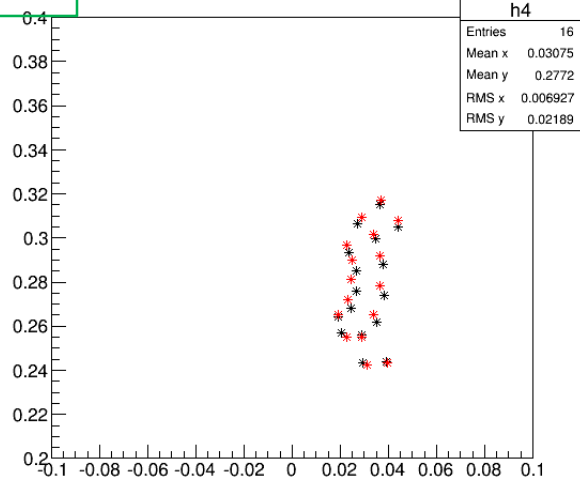
0%

x vs y



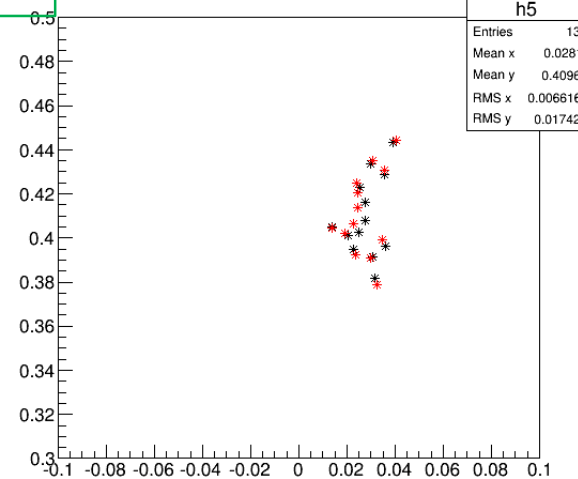
2%

x vs y



3%

x vs y

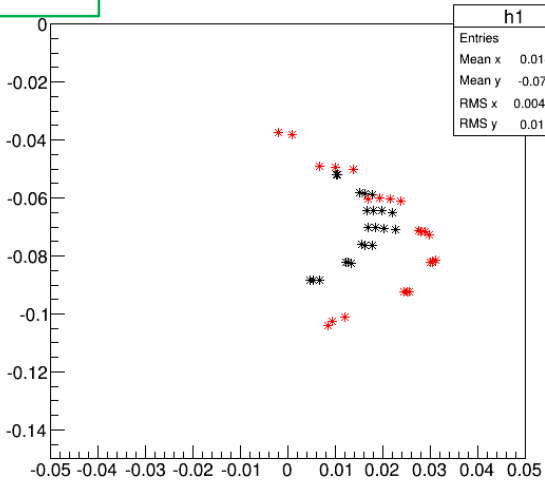


Previous Forward Functions

- Events from window on focal plane

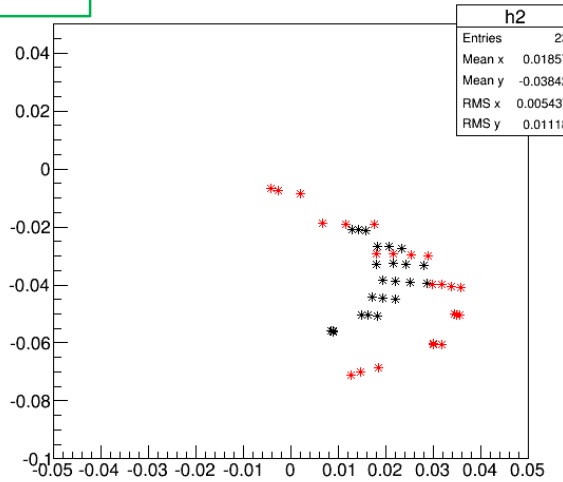
-3%

θ vs ϕ



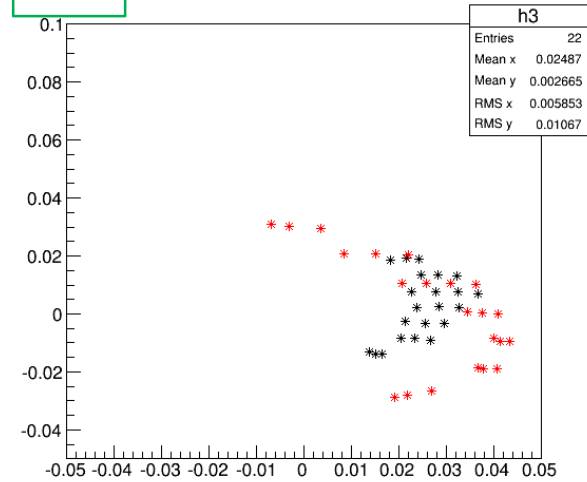
-2%

θ vs ϕ



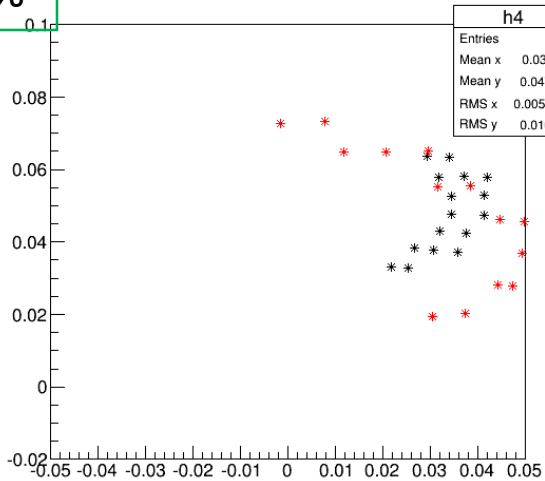
0%

θ vs ϕ



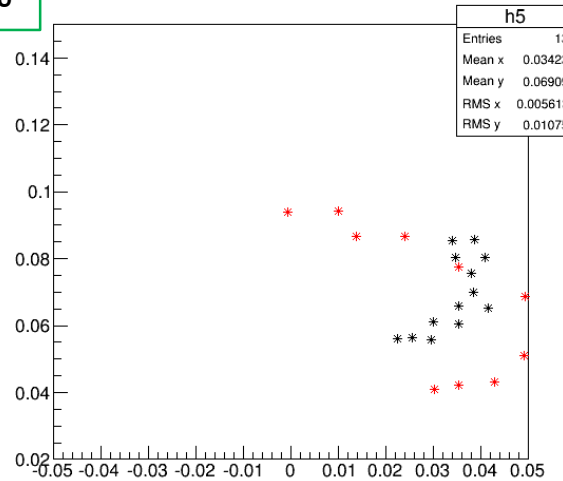
2%

θ vs ϕ



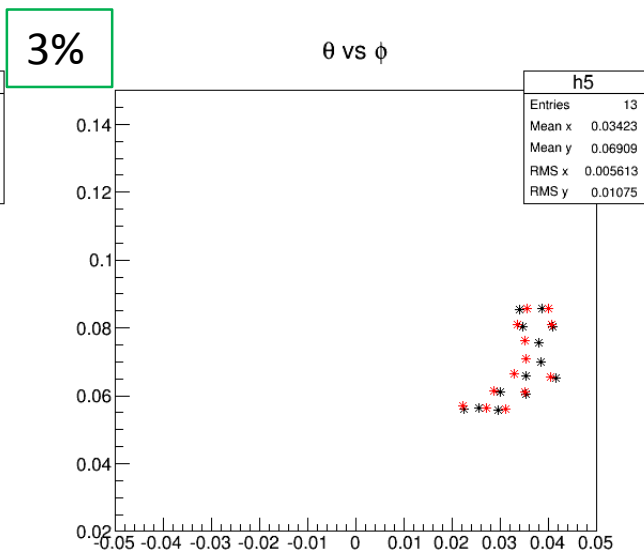
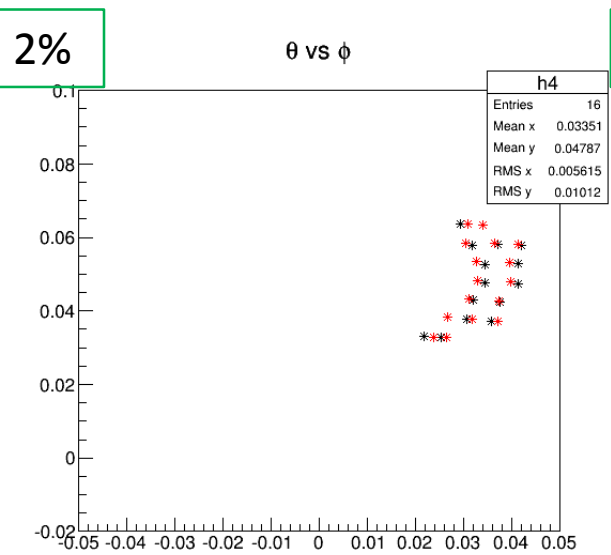
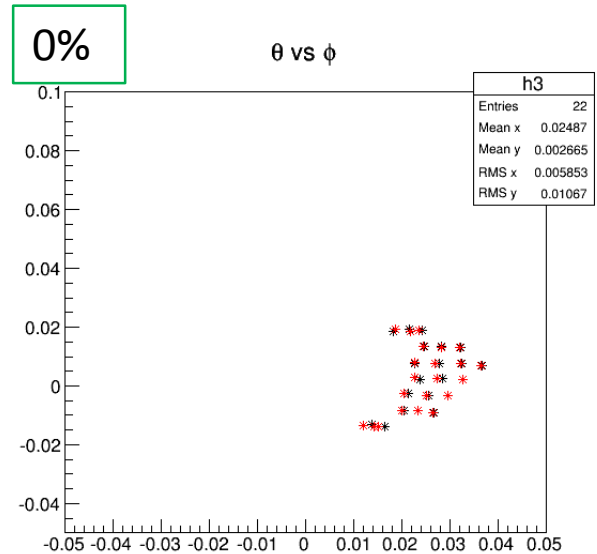
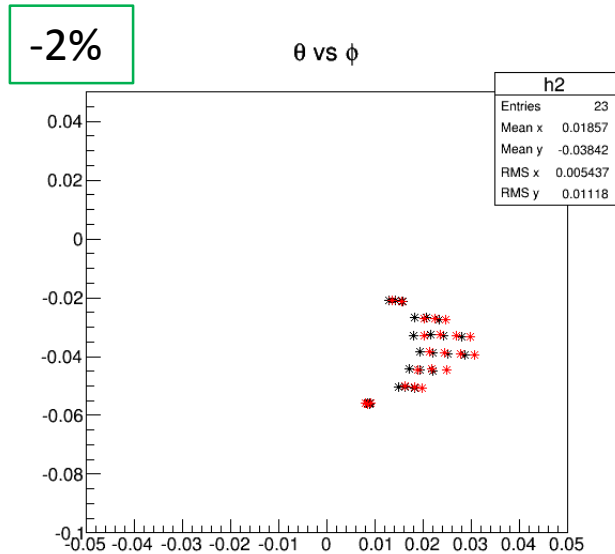
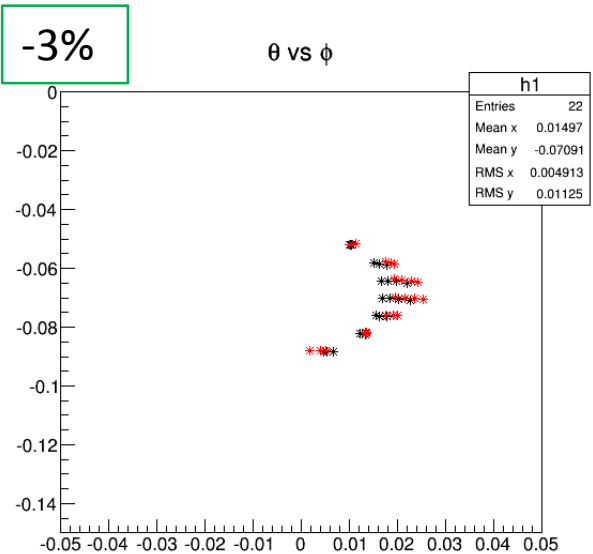
3%

θ vs ϕ



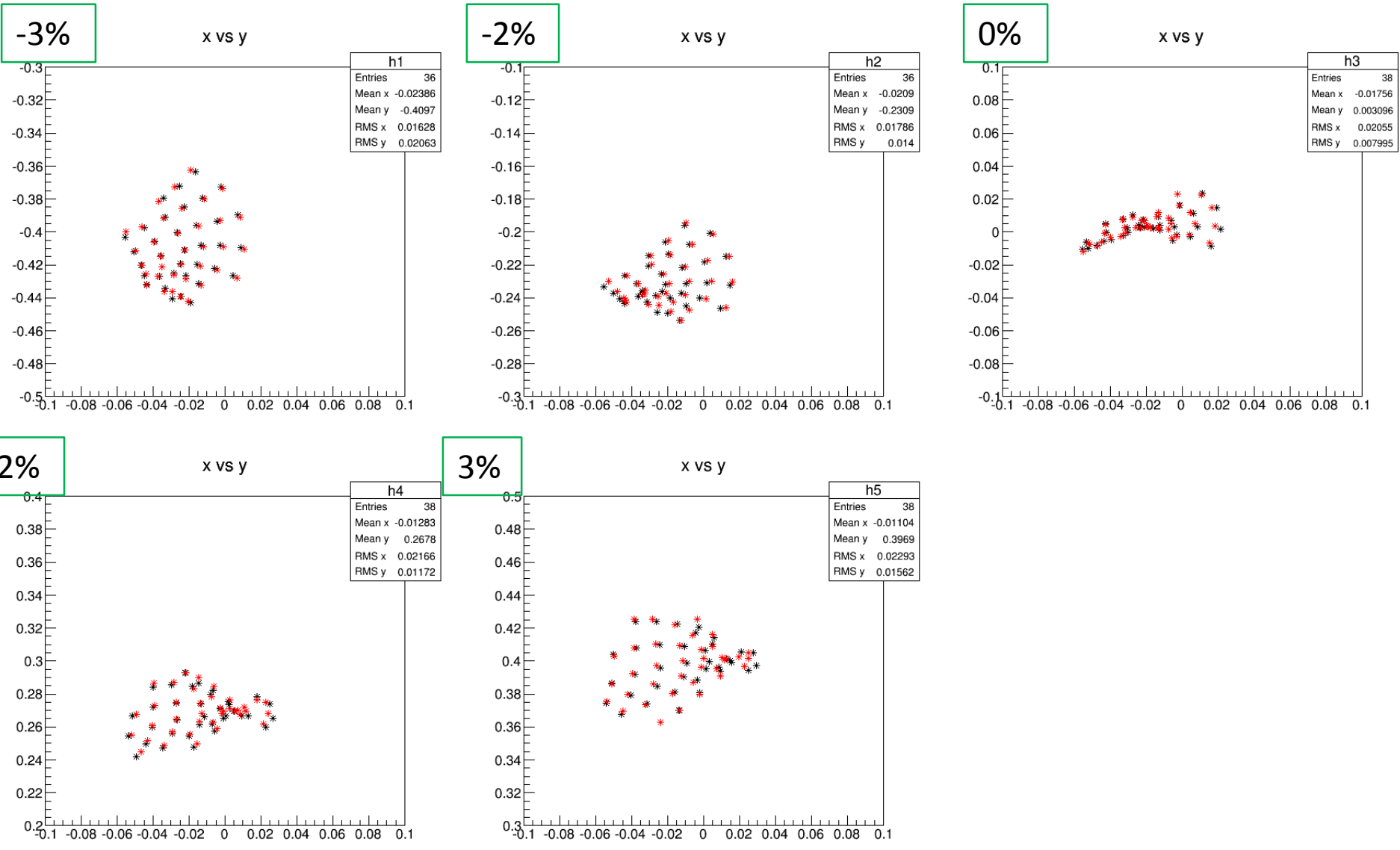
Improved the fitting @ virtual plane including events from window

- Events from window on focal plane



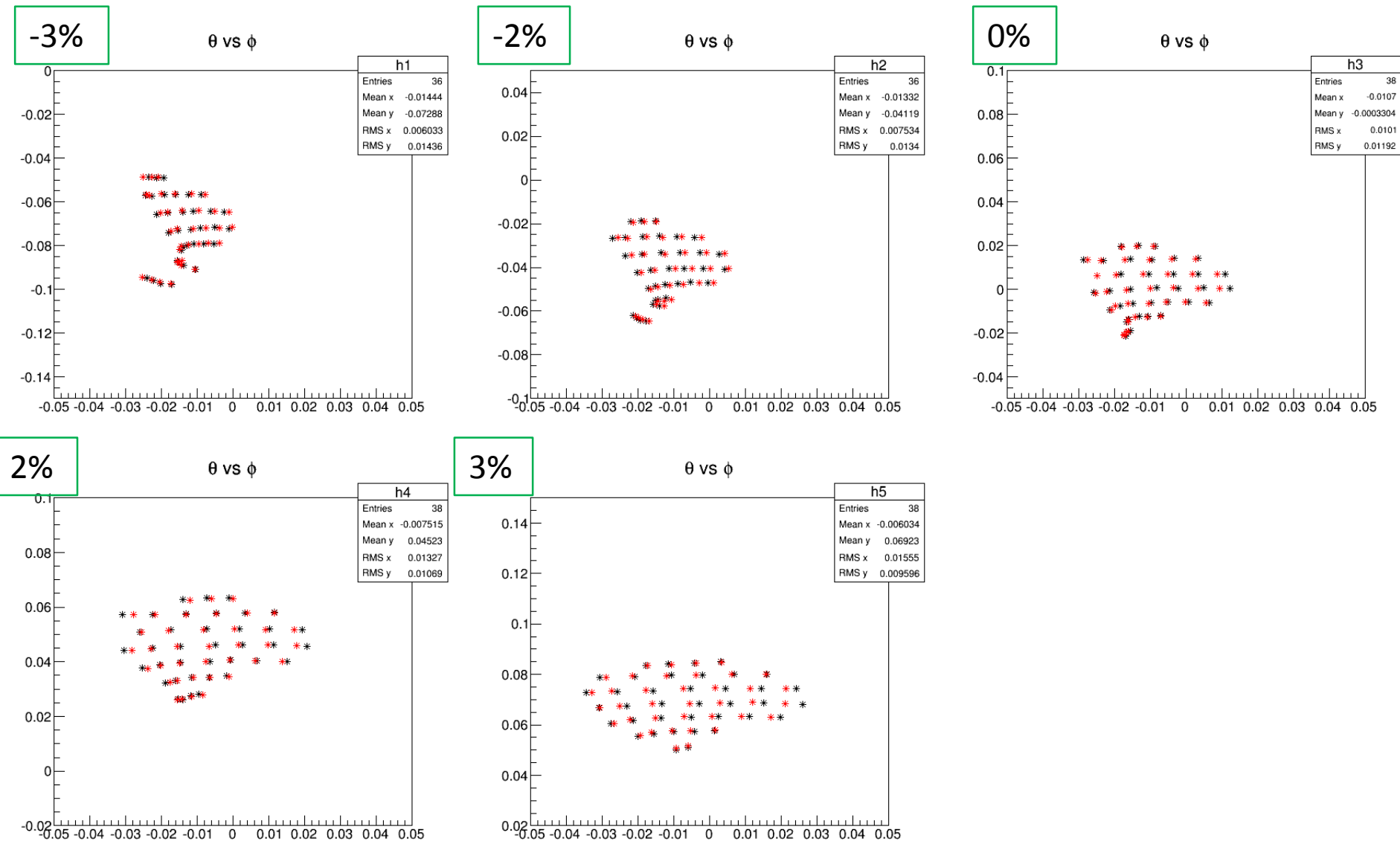
Improved the fitting @ virtual plane including events from window

- Events from target foil on focal plane



Improved the fitting @ virtual plane including events from window

- Events from target foil on focal plane



Next

- The fitting may be improved a bit
- Incorporated into g2psim
- Apply to beam scan runs, optics runs with target field, and then production runs

- Suggestions from this meeting
- Thanks to Chao's graphic cuts of optics calibration