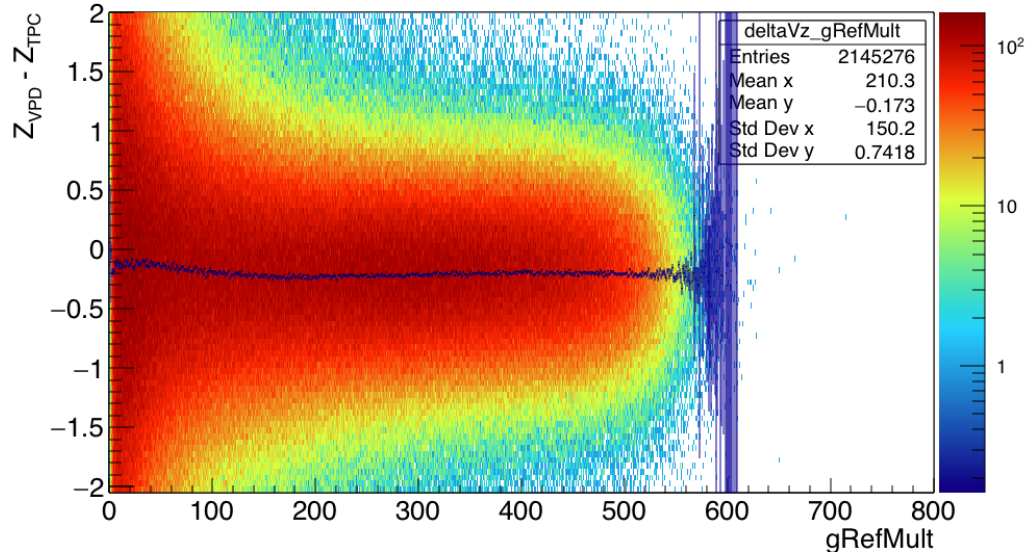
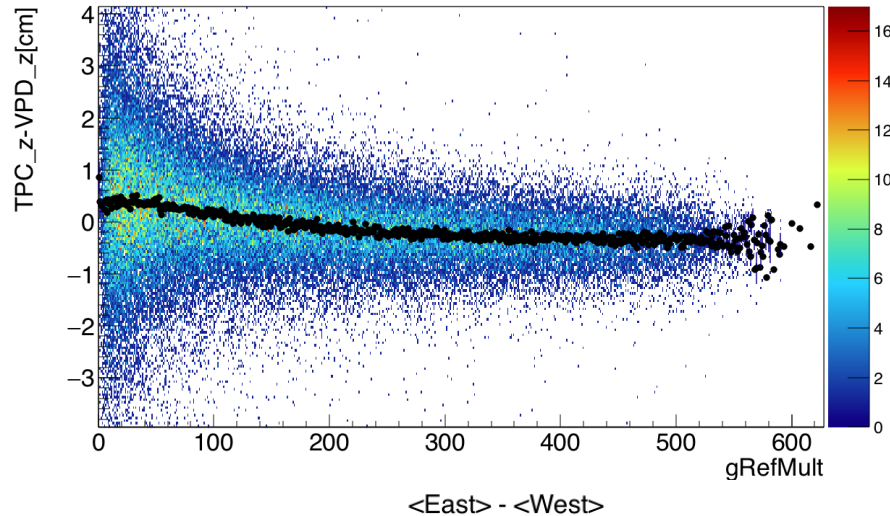


Run16 Au+Au 200 GeV TOF Calibration

Daniel Brandenburg

VPD Calibration



Original :

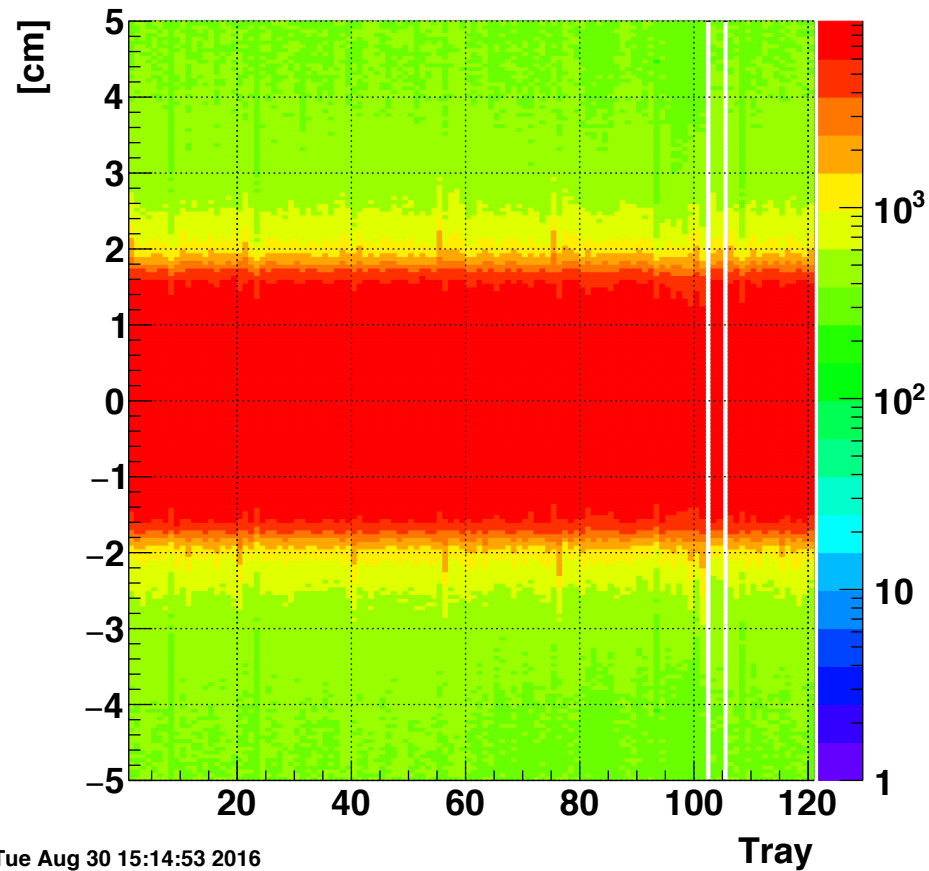
- ~ 1 cm bias peripheral to central

Final :

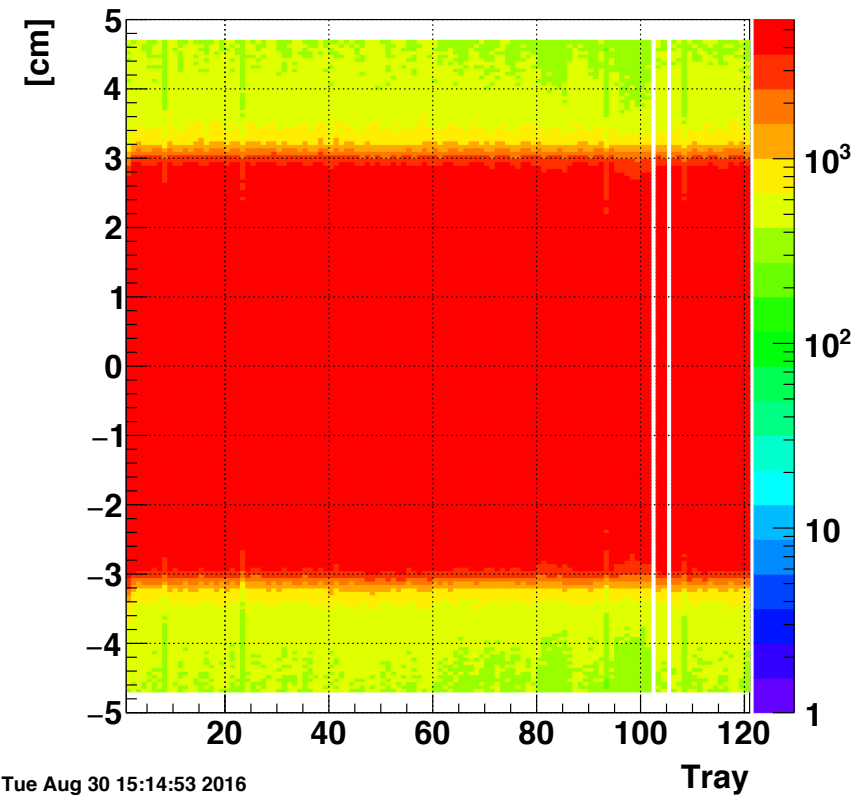
- Removed to ~ 1 mm level
- Final VPD Z vertex resolution ~ 0.7 cm (wrt default TPC vertex)

BTOF Calibration : Geometry

yLocal vs. Tray

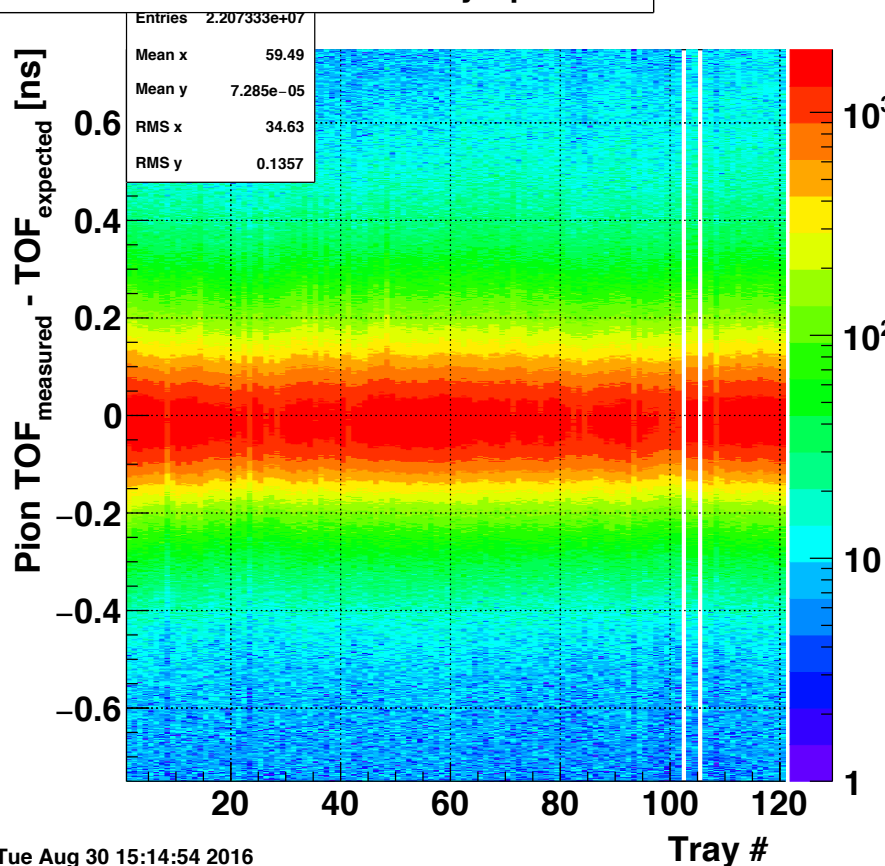


zLocal vs. Tray

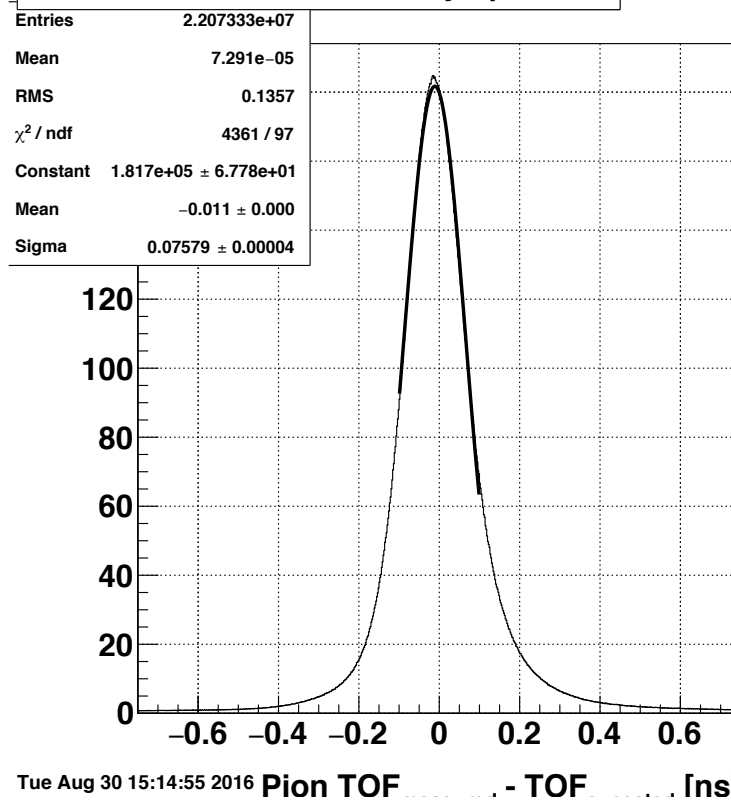


BTOF Calibration : Time Resolution

BTOF Time Resolution vs Tray Vpd Start



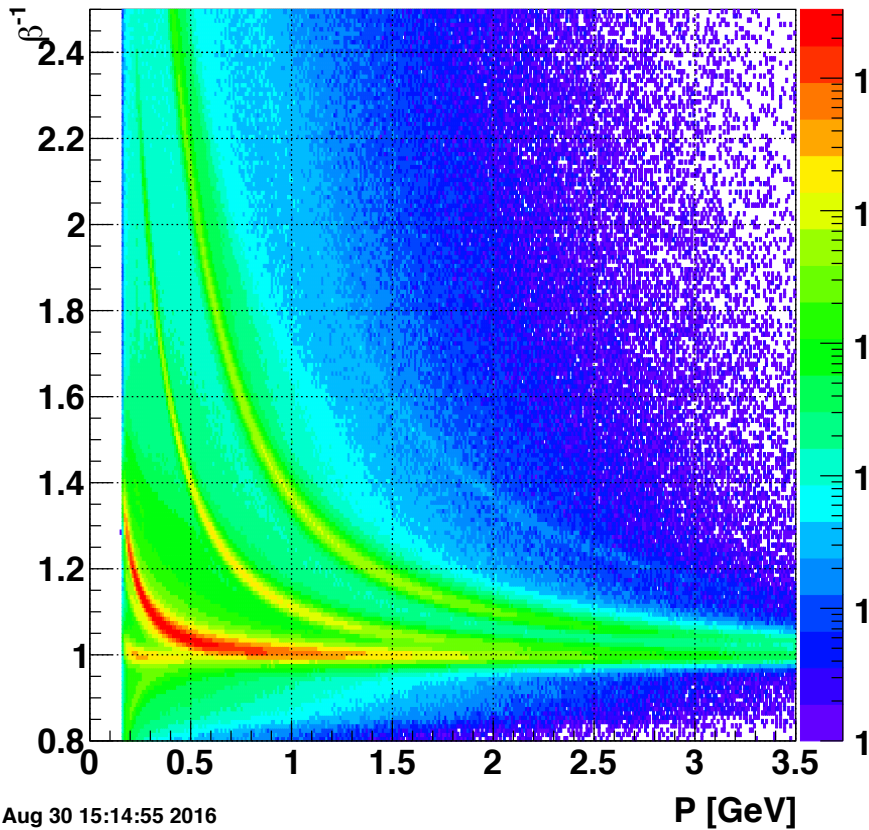
BTOF Time Resolution vs Tray Vpd Start



Run16 AuAu200 GeV : Average total TOF time resolution = 75ps

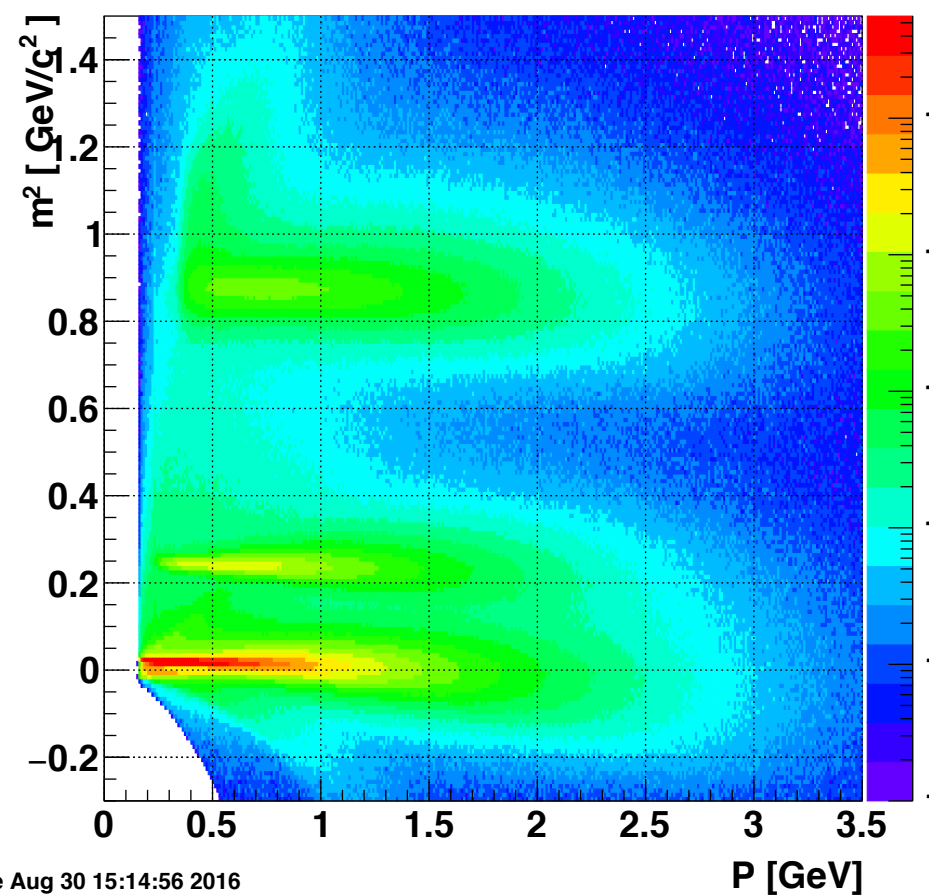
TOF PID

Tof β^{-1} Vpd Start



Tue Aug 30 15:14:55 2016

Tof m^2 Vpd Start



Tue Aug 30 15:14:56 2016

Summary

- Total Btof Time resolution : 75 ps
- VPD Calibration :
 - Central vs. peripheral bias removed to $\sim 1\text{mm}$ level
 - Vertex Resolution $\sim 0.7\text{cm}$
- Btof Calibration :
 - Geometry alignment is normal
 - Cell-by-cell ToT & zLocal corrections
 - Cell-by-cell timing offset corrections

✓ Uploaded to Database