

g12 Status



Paul Eugenio
on behalf of the g12 run group

g12 Run Summary

g12 run period April 1 – June 9, 2008

DAQ rate $\sim 8\text{kHz}$ $\sim 126\text{ TBytes}$ $\sim 700\text{ Runs}$ $\sim 63,100\text{ files}$

Production Data

$I = 60\text{-}65\text{ nA}$

$E_\gamma = 3.584 - 5.453\text{ GeV}$

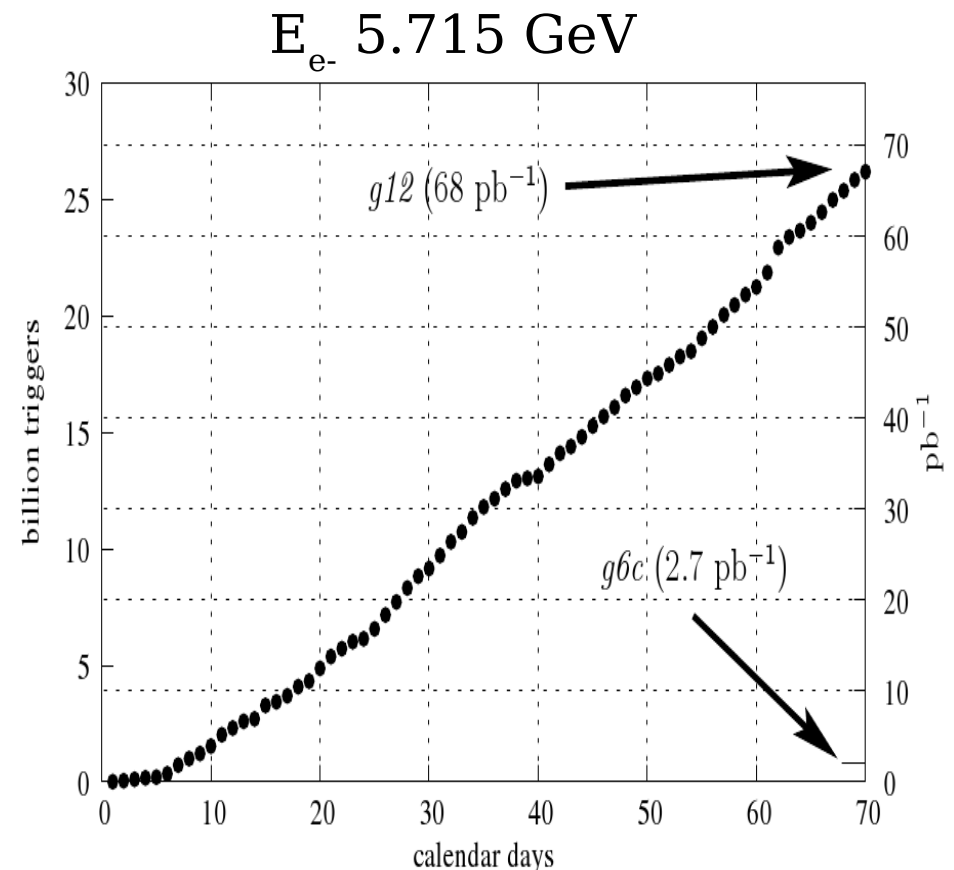
26.2 Billion events
mixed triggers

Low Intensity Data

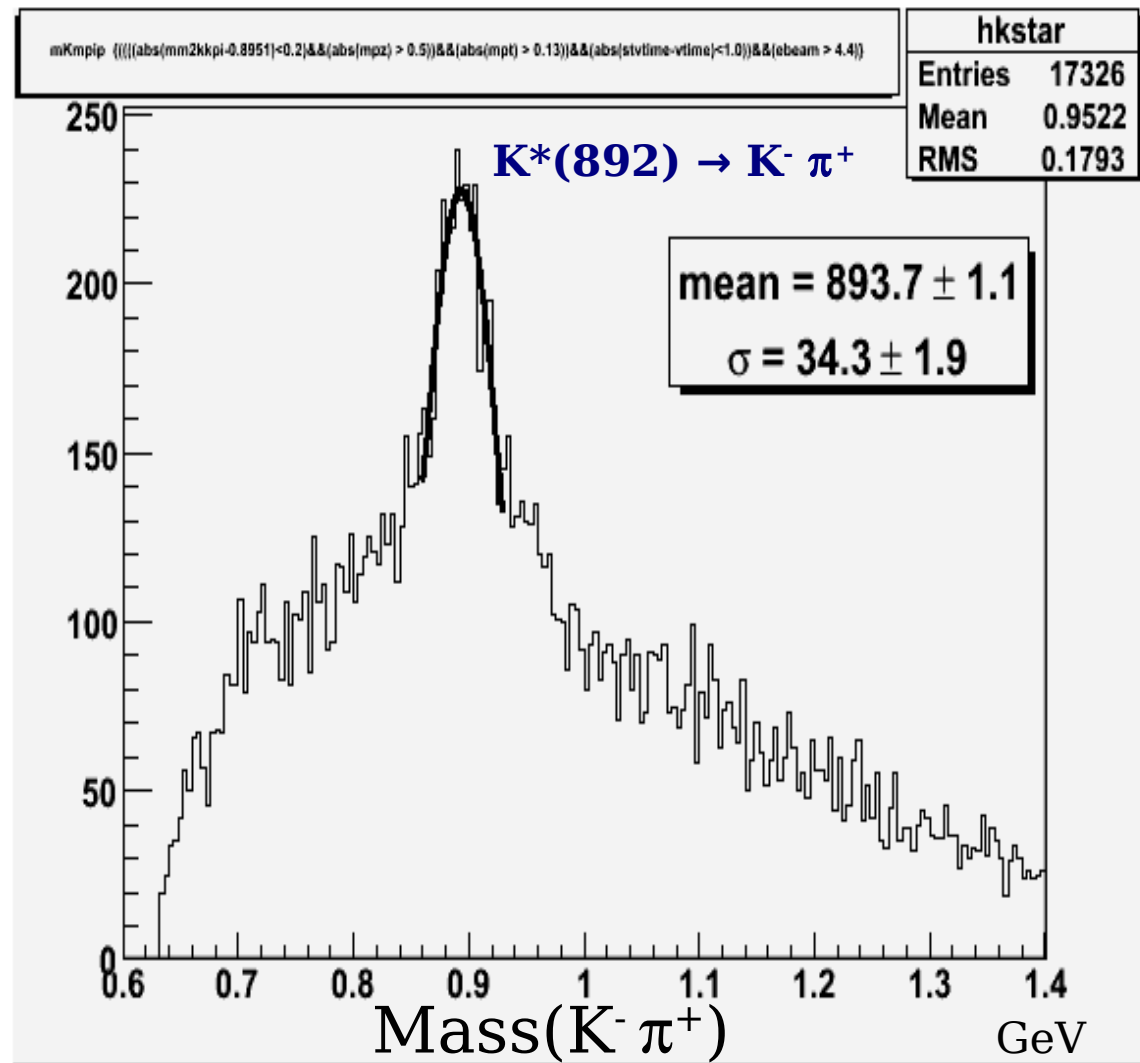
$I = 24\text{ nA}$

$E_\gamma = 2.857 - 5.453\text{ GeV}$

1.0 Billion events
trigger 1 or more tracks

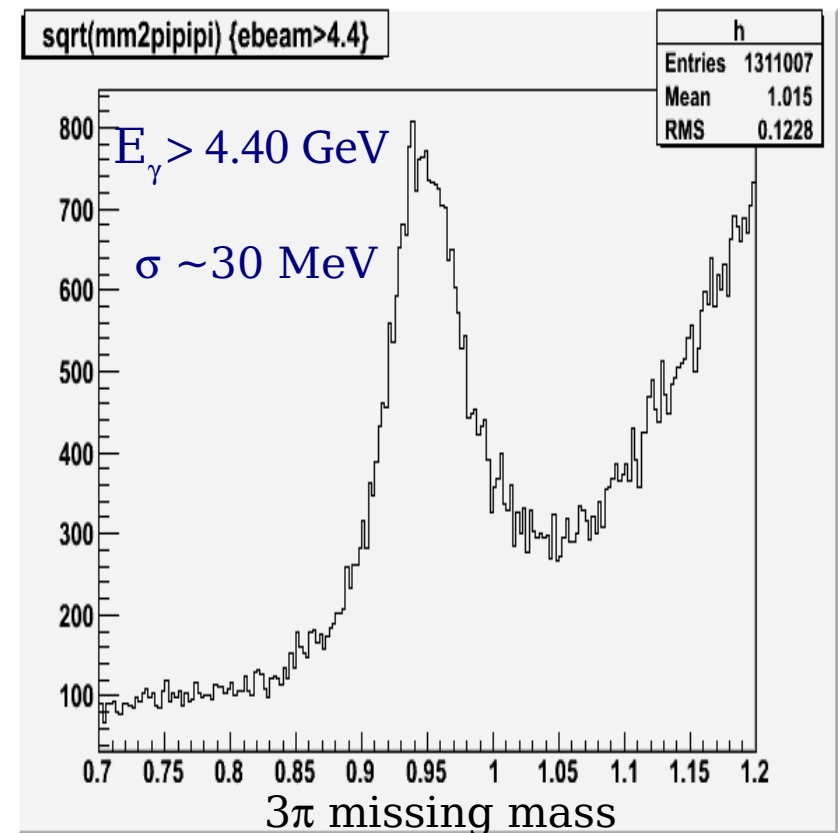
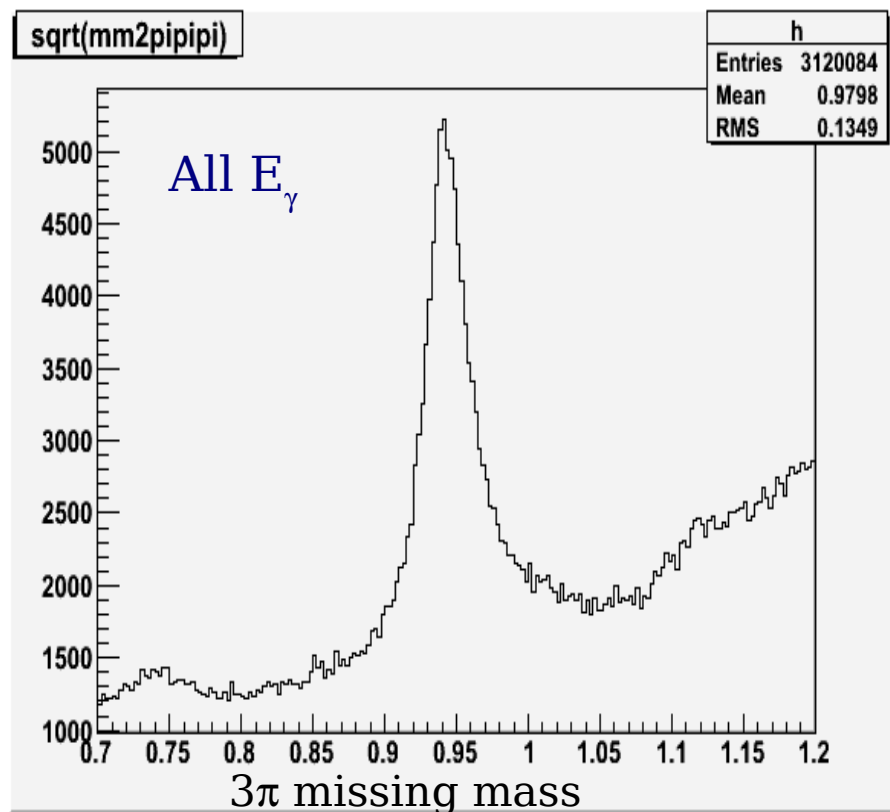


Kaons in the final state



Exclusive 3π events

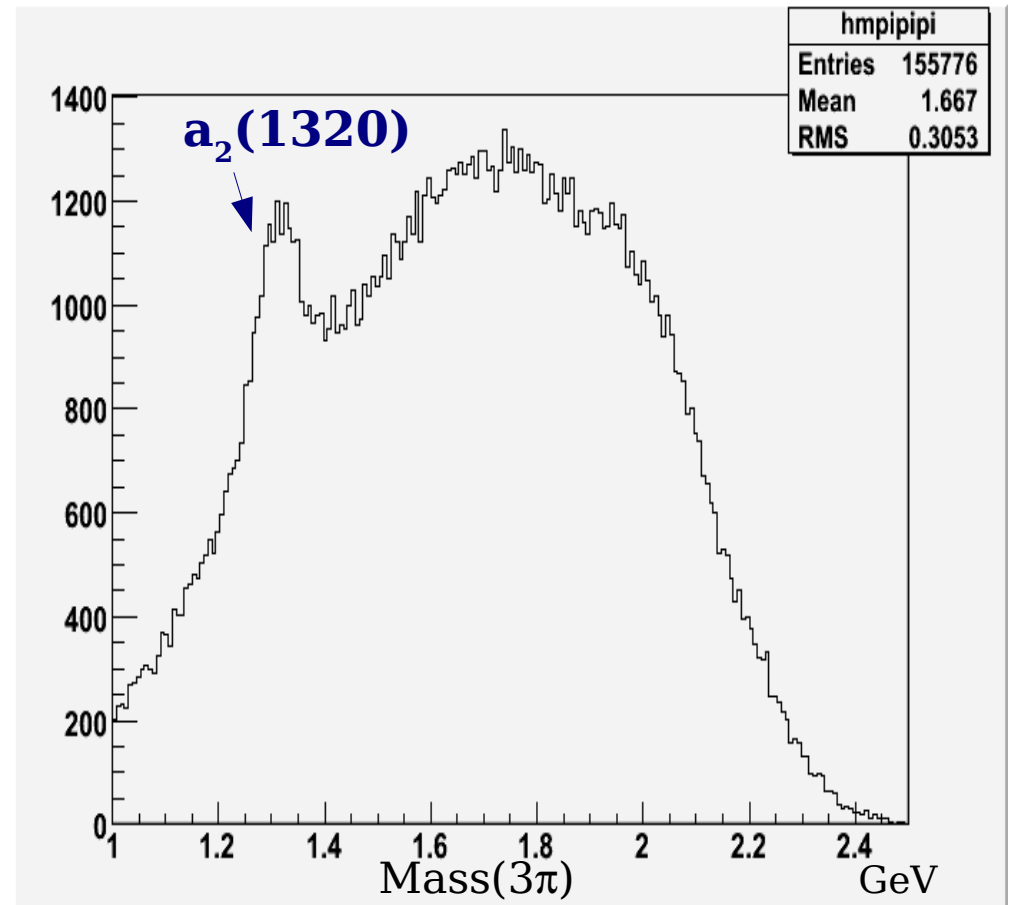
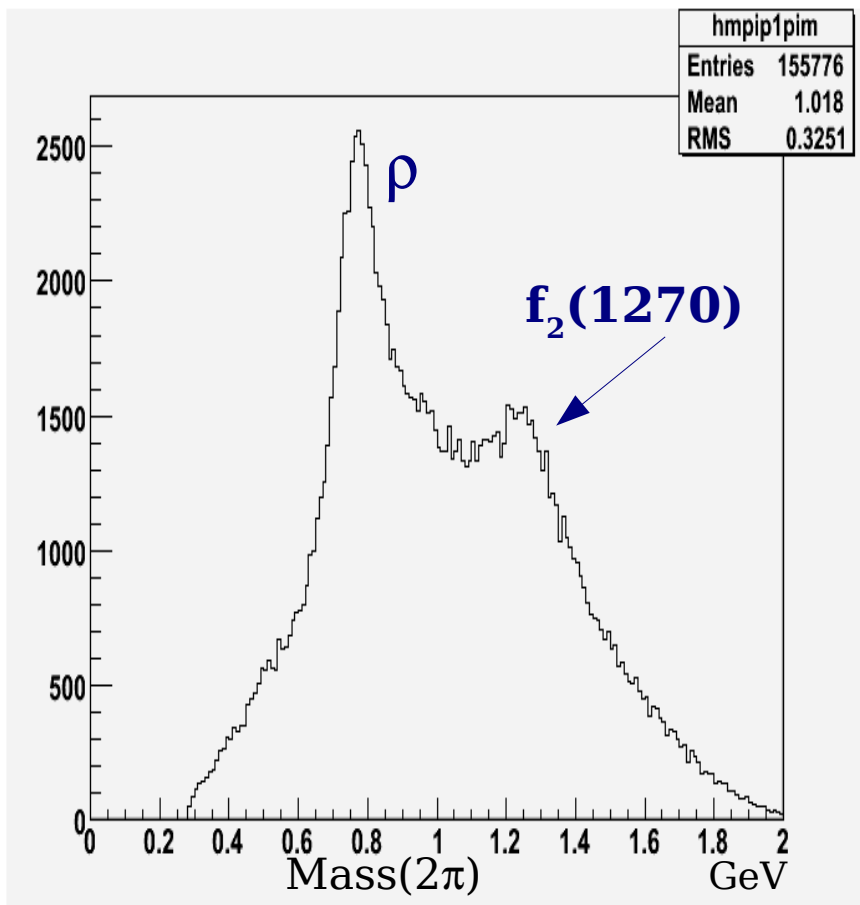
$$\gamma p \rightarrow (n) \pi^+ \pi^+ \pi^-$$



$\sigma_{g6c} \sim 20$ MeV

Exclusive 3π events

$$\gamma p \rightarrow (n)[\rho\pi, f_2\pi] \rightarrow (n)\pi^+\pi^+\pi^-$$



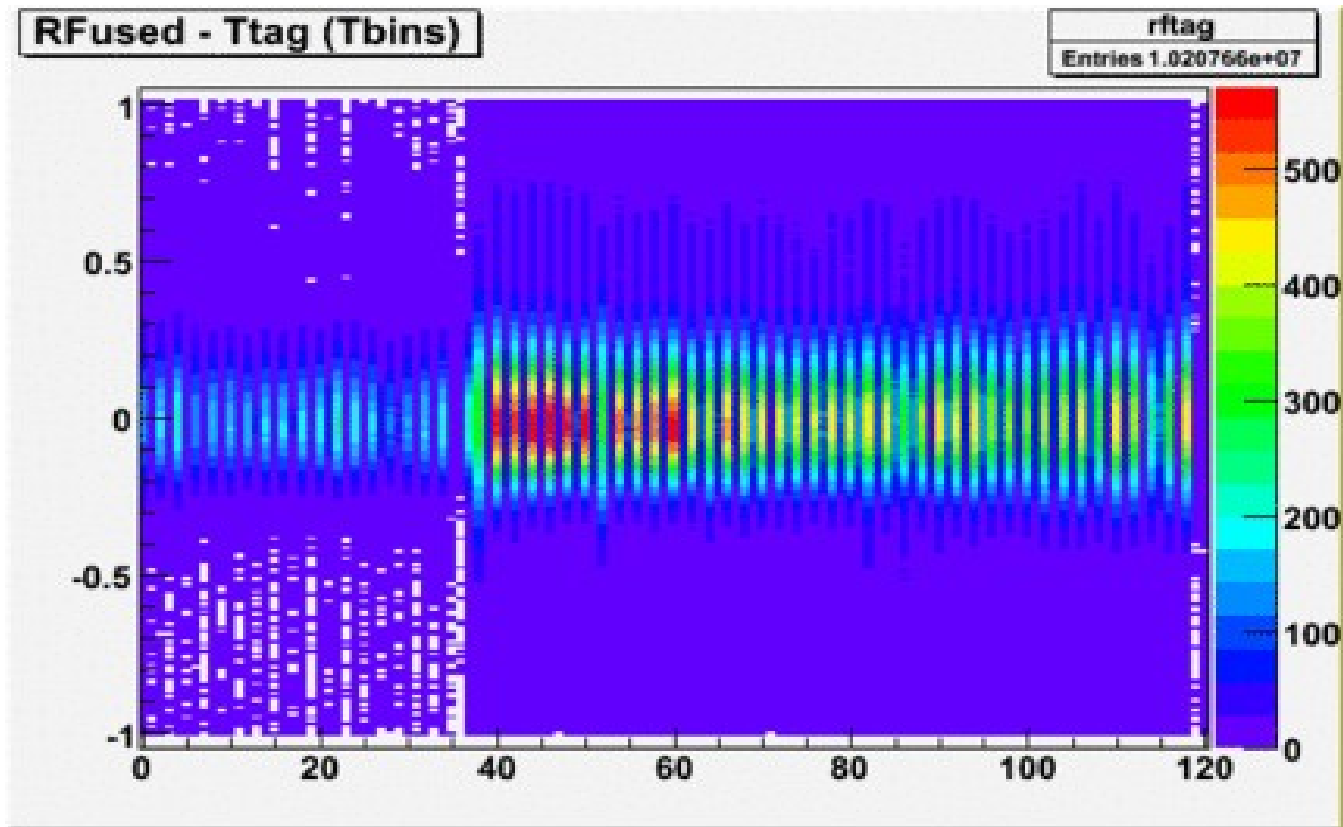
Calibrations and Cooking

Status: Pass 0 v0, v1, v2 completed

Item	Contact
Analysis Coordinator	Lei Guo (LANL)
Cooking	Johan Goetz (UCLA)
Start Calibration	Mukesh Saini (FSU)
Tagger Calibration	Mukesh Saini (FSU)
Drift Chamber Calibration	Burnham Stokes (GWU) & Daine Schott (FIU)
TOF Calibration	Craig Bookwalter (FSU)
EC Calibration	Michael Wood (USC)
Cherenkov Calibration	Rakhsha Nasseripour (GWU)
IC Hodoscope Calibration	Johan Goetz (UCLA)

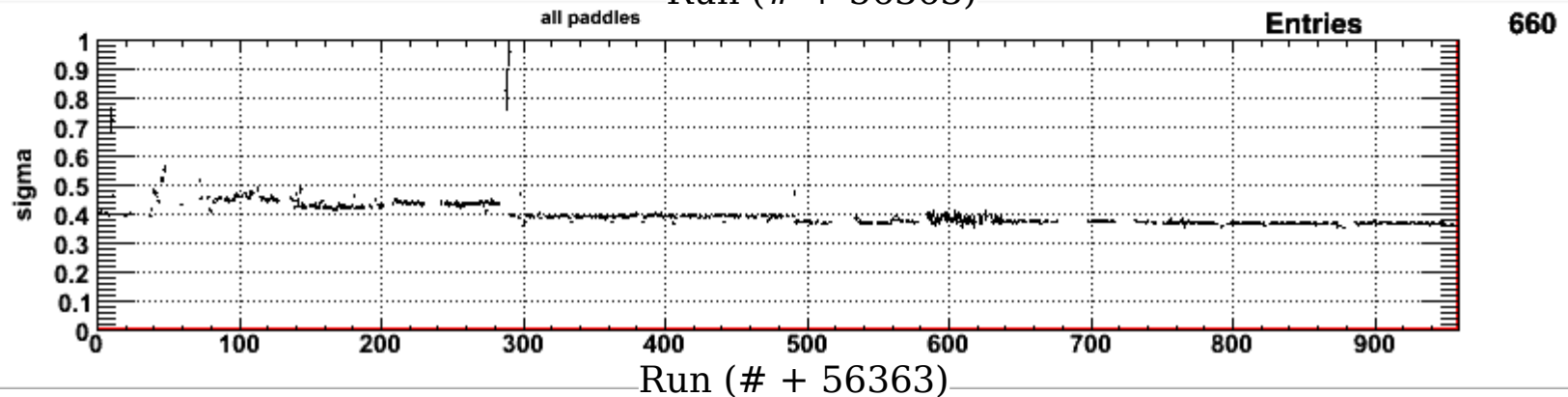
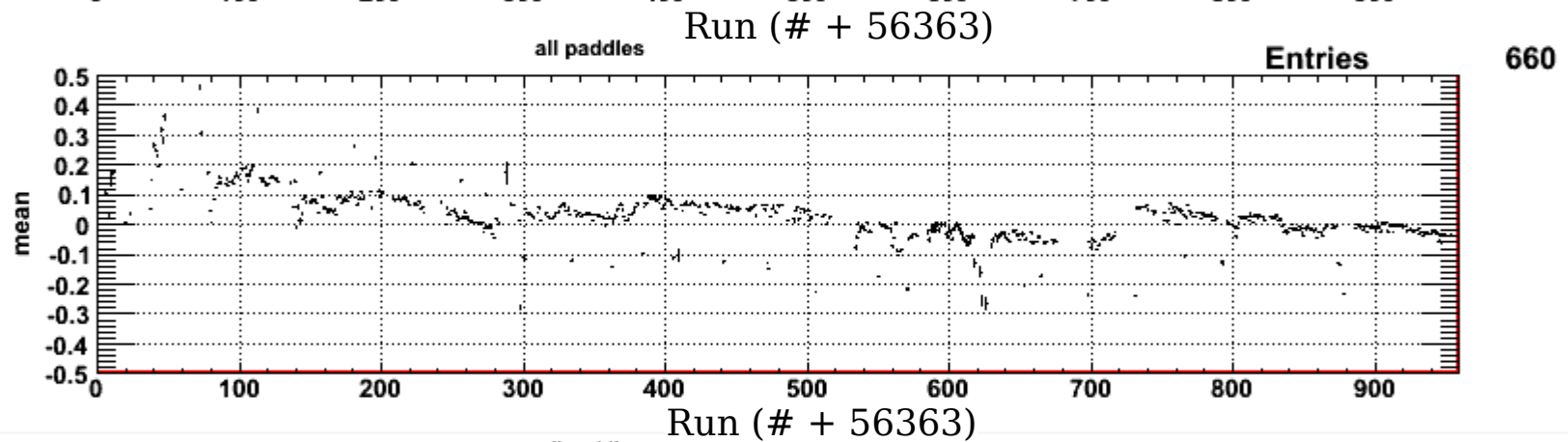
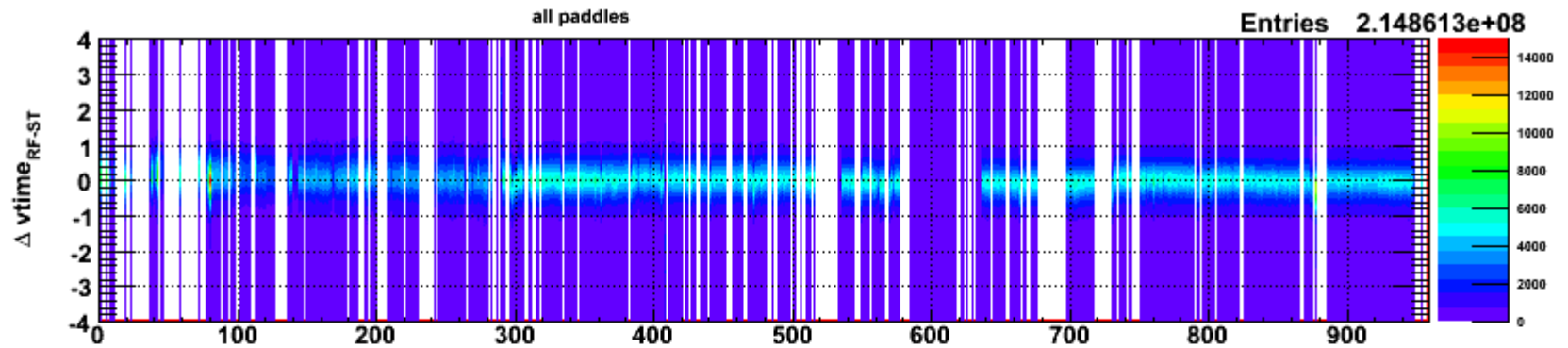
Tagger Calibrations

Mukesh Saini, FSU



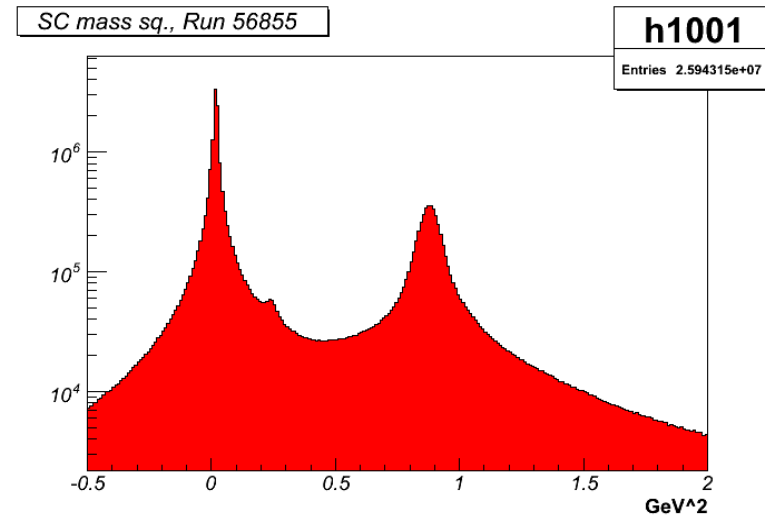
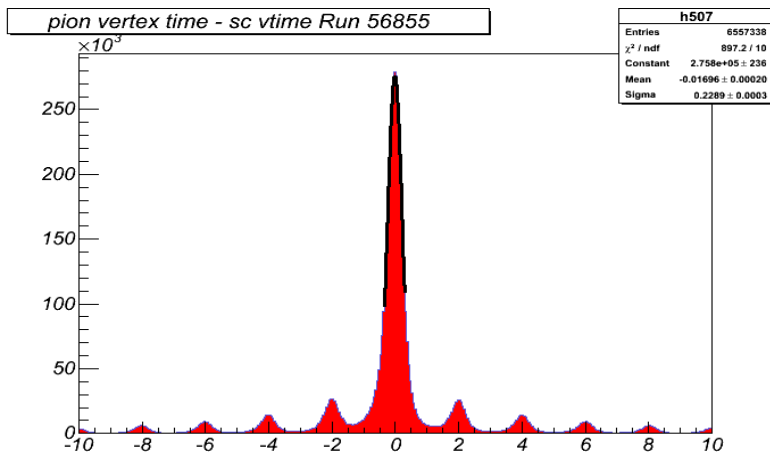
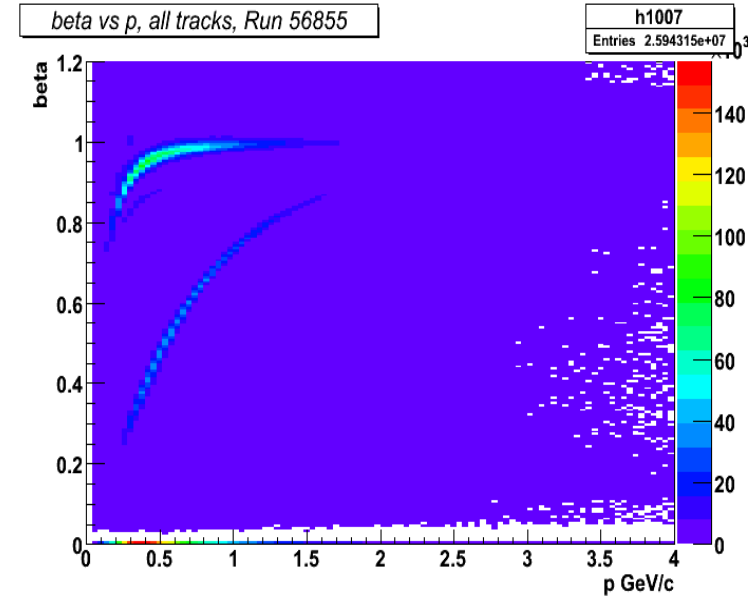
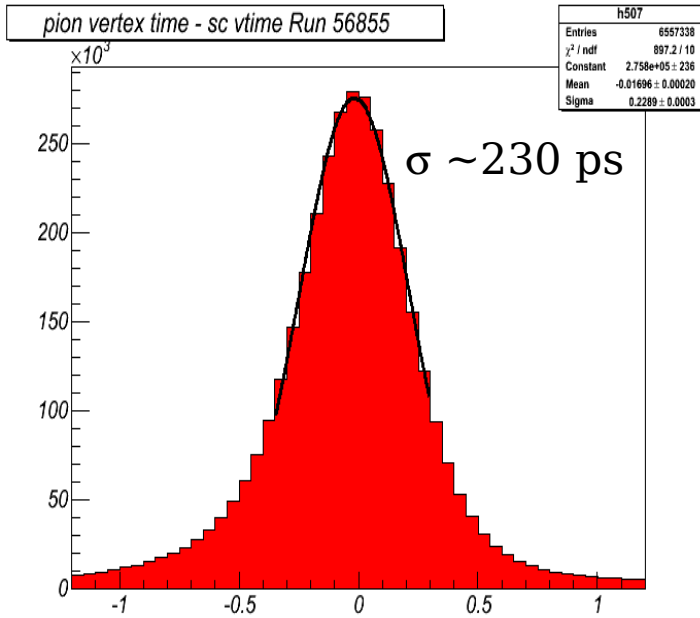
ST Calibrations

Mukesh Saini, FSU



TOF Calibrations

Craig Bookwalter, FSU



DC Calibrations

dc_cal: Diane Schott, FIU
 dc_align: Burnham Stokes, GWU

DC Time Residuals Averages

Run	pass0	pass1	pass2	pass6 (before july align. change)	pass6.1	pass7	pass8	pass8 (beta cut)	pass11
56448	309	312	310	307	306	307	303	276	274
56625	308	310	310	305	304	307	302	279	272
56705	312	315	313	308	308	308	307	281	276
56781	314	316	311	307	306	306	304	271	270
56905	307	301	298	295		294	290	271	270
57072	315	304	298	295	296	294	289	269	269
57275	327	322	318	315	314	315	310	282	277

g11 was able to get the narrow sigma down to 250 microns and g12's is around 275 microns.

Is it reasonable to have 250 microns as a calibration goal?

Open Issues

ST

- * We still don't understand the v_{eff} for the ST nose region

TOF

- * Fix bug in `sc_dedx.c` -> `tbid2dedx` function
- * Reconciling differing results between SEB-family banks and PART-family banks
- * Reconciling resolutions between experiments
 - $\sigma_{g12} \sim 230$ ps compared to $\sigma_{g11} \sim 190$ ps

DC

- * g11 was able to get the narrow sigma down to 250 microns and g12's is around 275 microns.
 - *Is it reasonable to have 250 microns as a calibration goal?*

General Issues

- * Calibration and Cooking is too fragmented. Run groups can benefit from more formal communications, i.e. The g10/g11 model.