

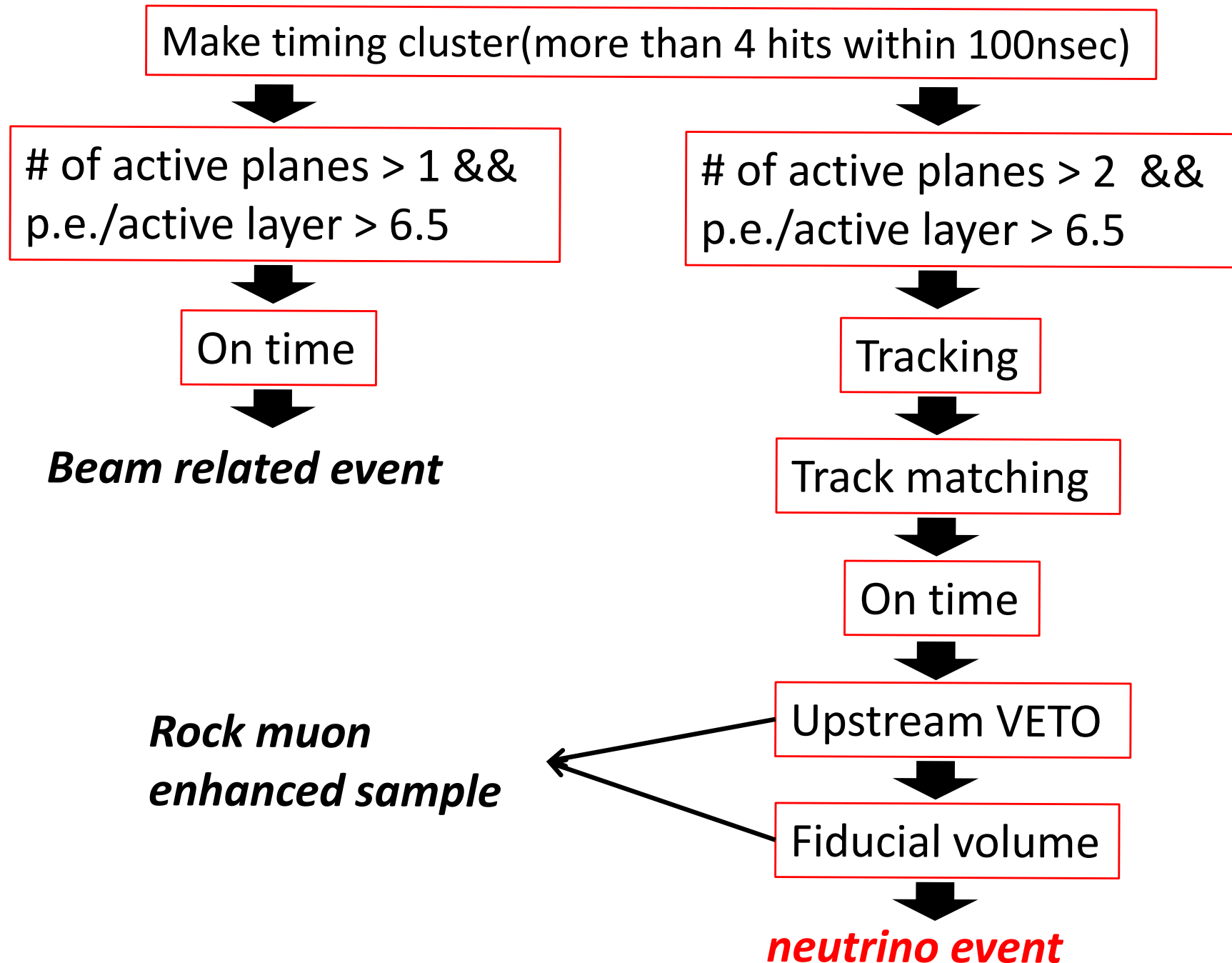
# Run34 quick beam analysis report

A.Murakami  
2010.6.10

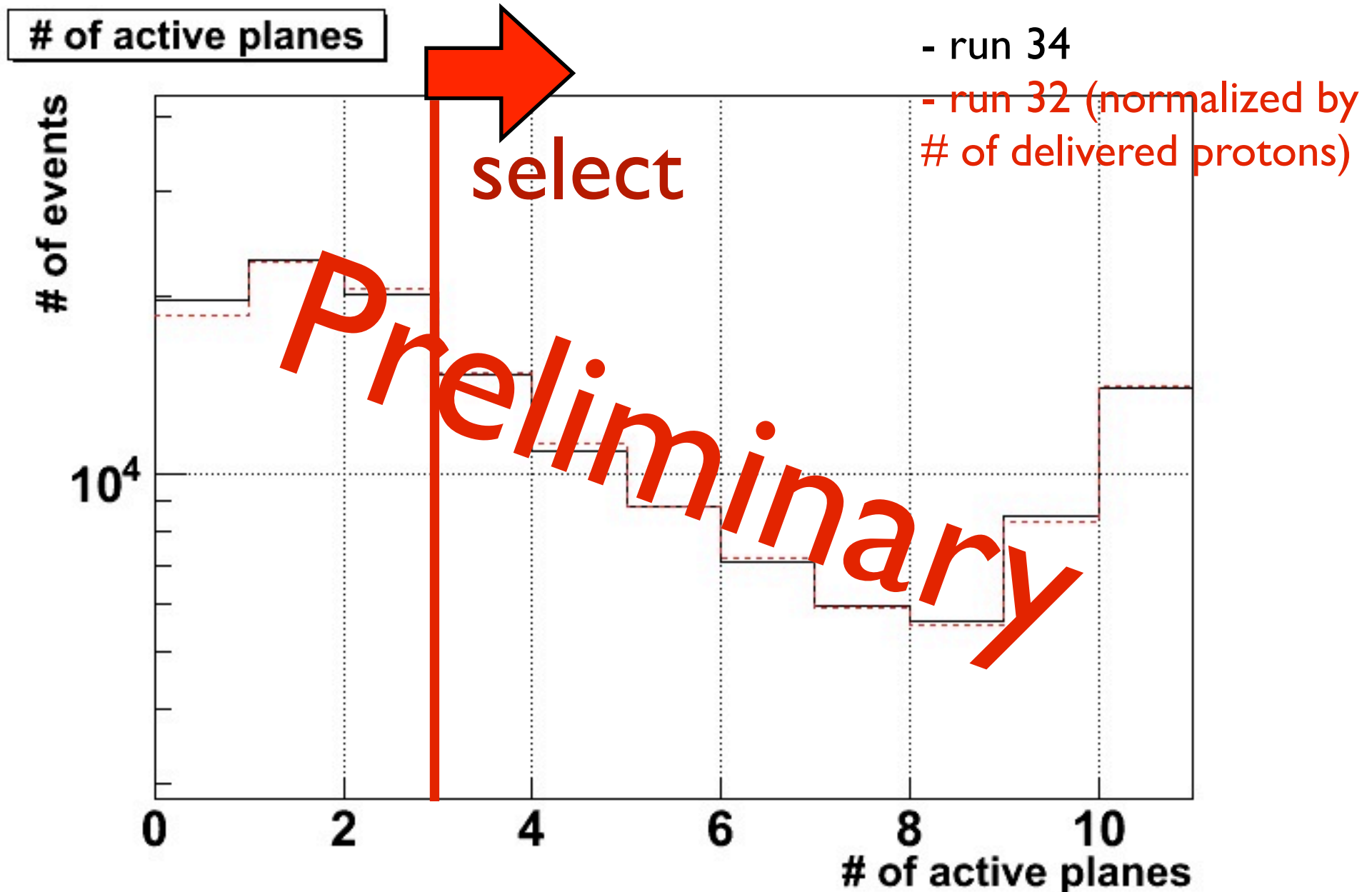
# Data set

- Run 34 start from June. 8th
- Analysis the data of June.8th night ~ June. 9th. data is analyzed with quick beam summary (ver p02)
- Total # of good spills  $\sim 3.3 \times 10^4$ , total delivered protons  $\sim 1.3 \times 10^{18}$

# Analysis flow chart

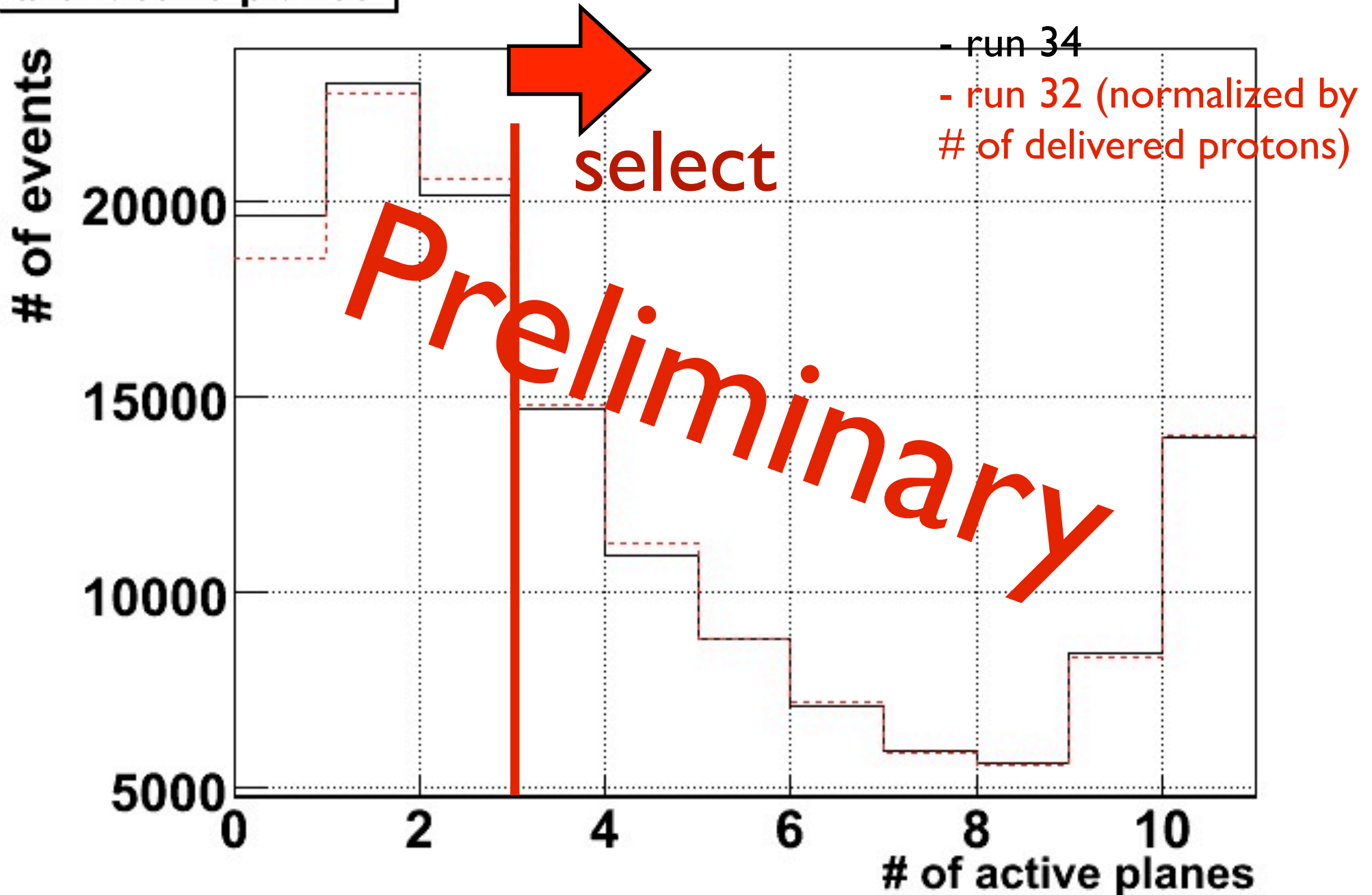


# # of active plane (log)



# # of active plane (linear)

# of active planes

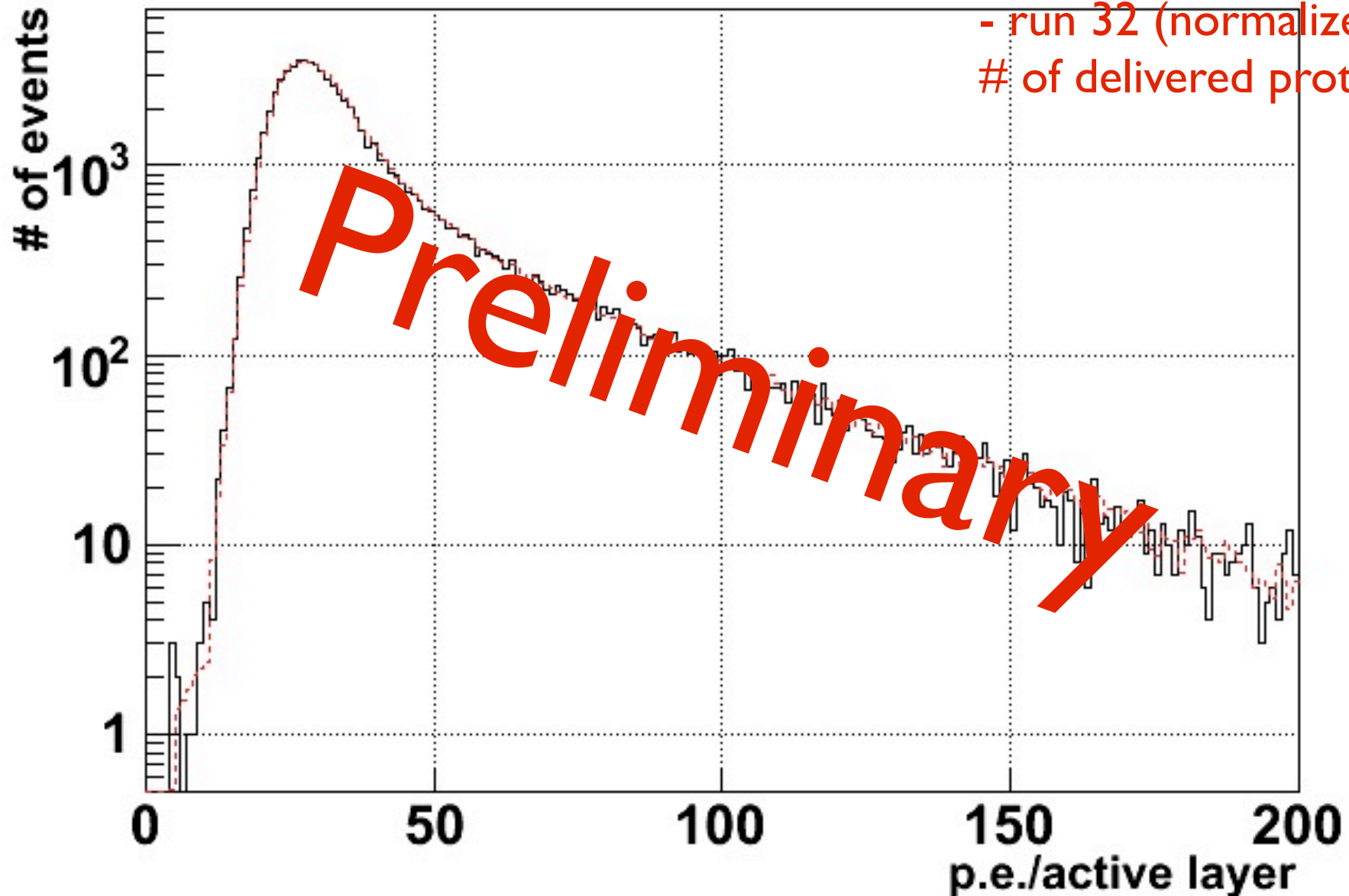


# p.e. / active layer(log)

p.e./active layer

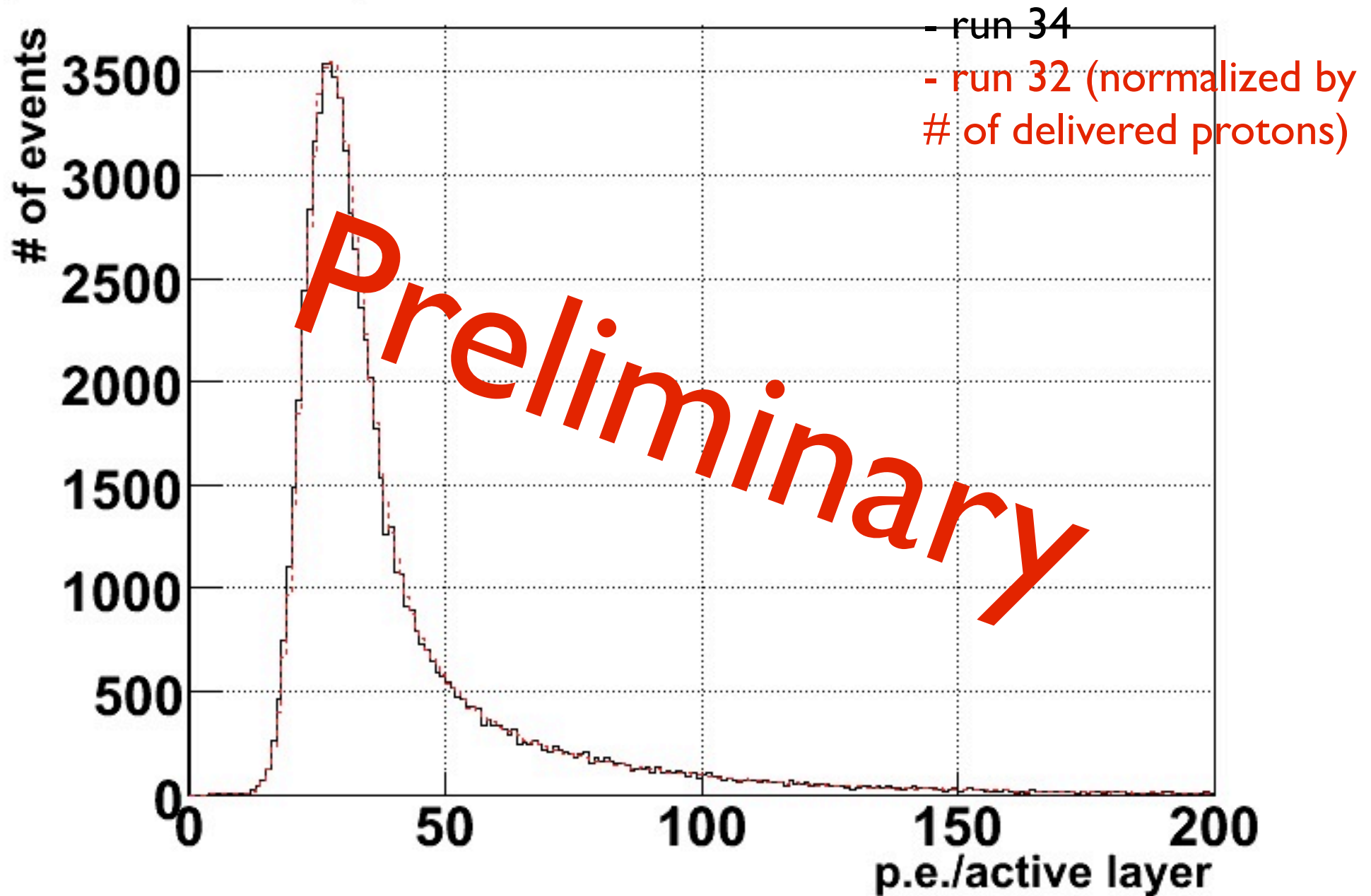
- run 34

- run 32 (normalized by  
# of delivered protons)

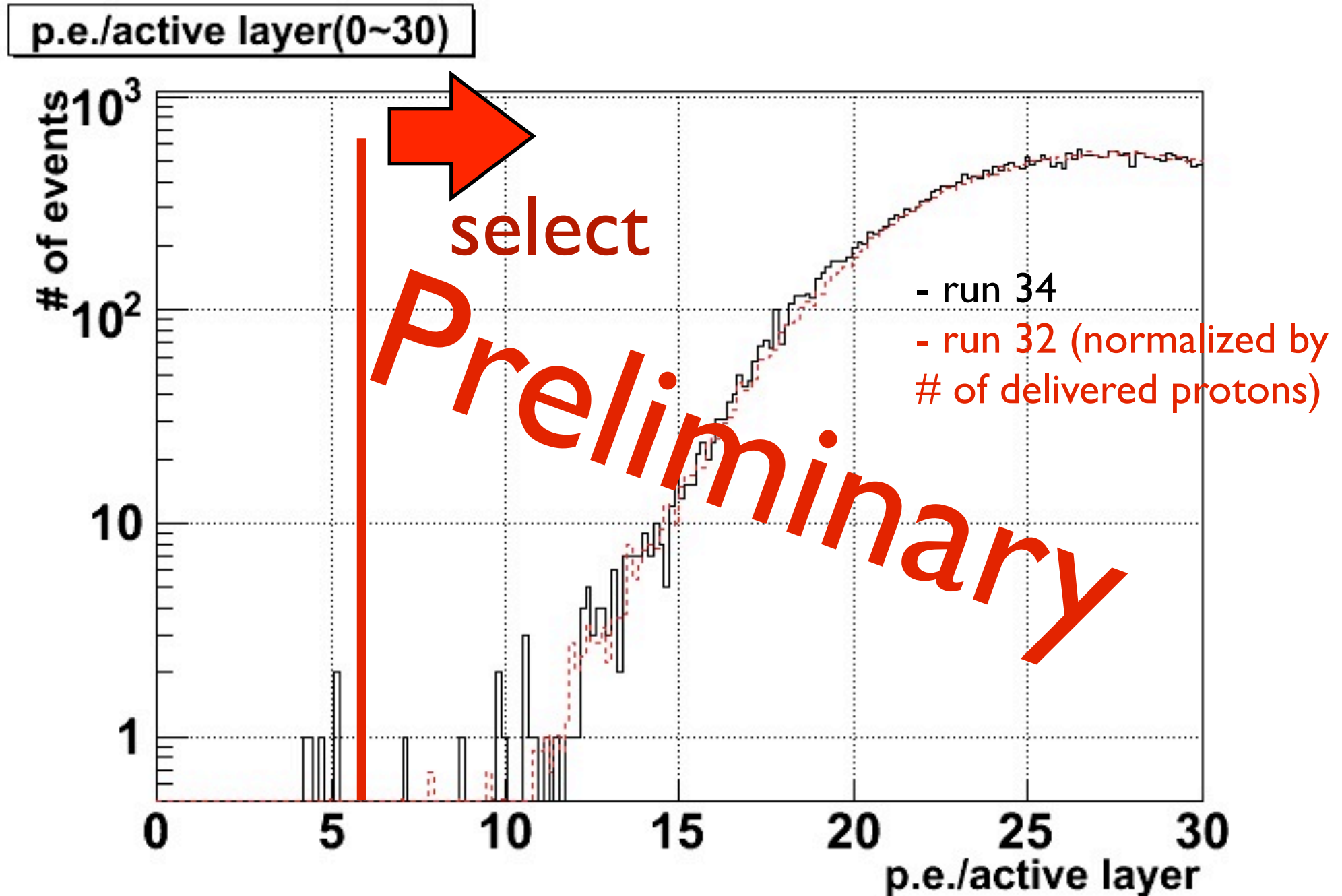


# p.e. / active layer(linear)

p.e./active layer



# p.e. / active layer (log, zoom)



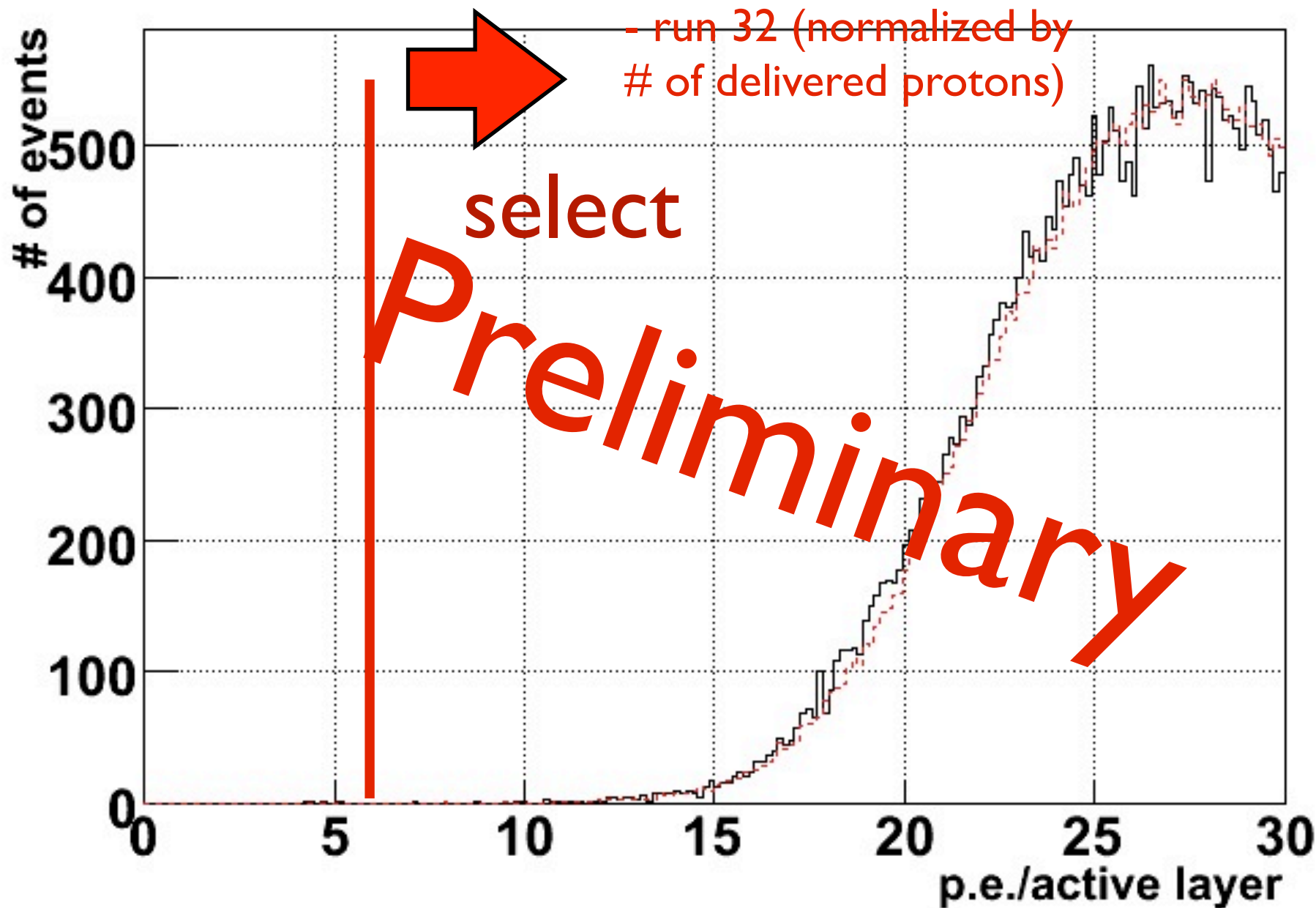


# p.e. / active layer (linear, zoom)

p.e./active layer(0~30)

- run 34

- run 32 (normalized by  
# of delivered protons)

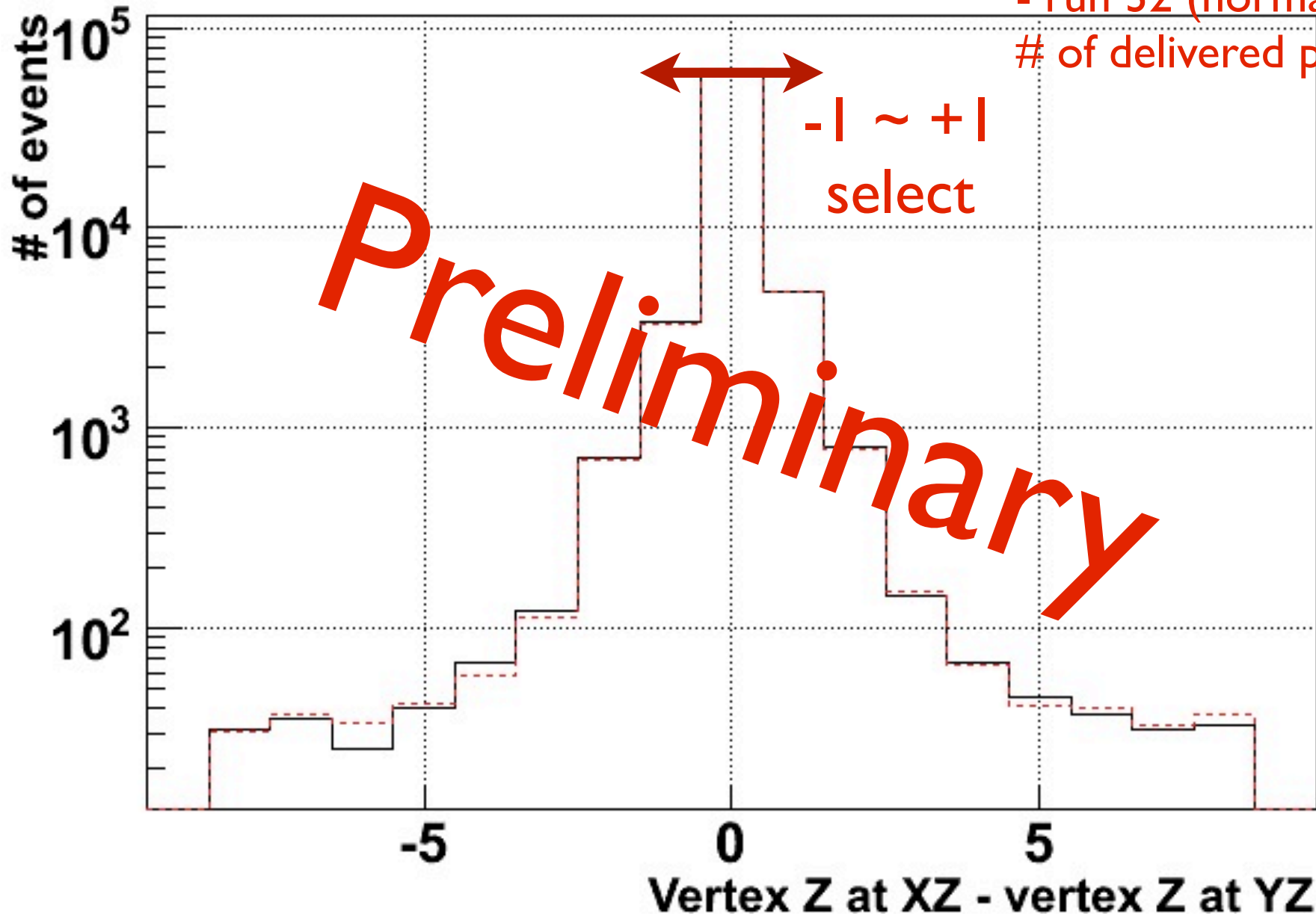


# XZ and YZ Track matching

diff. b/w vertex Z at XZ and YZ

- run 34

- run 32 (normalized by  
# of delivered protons)

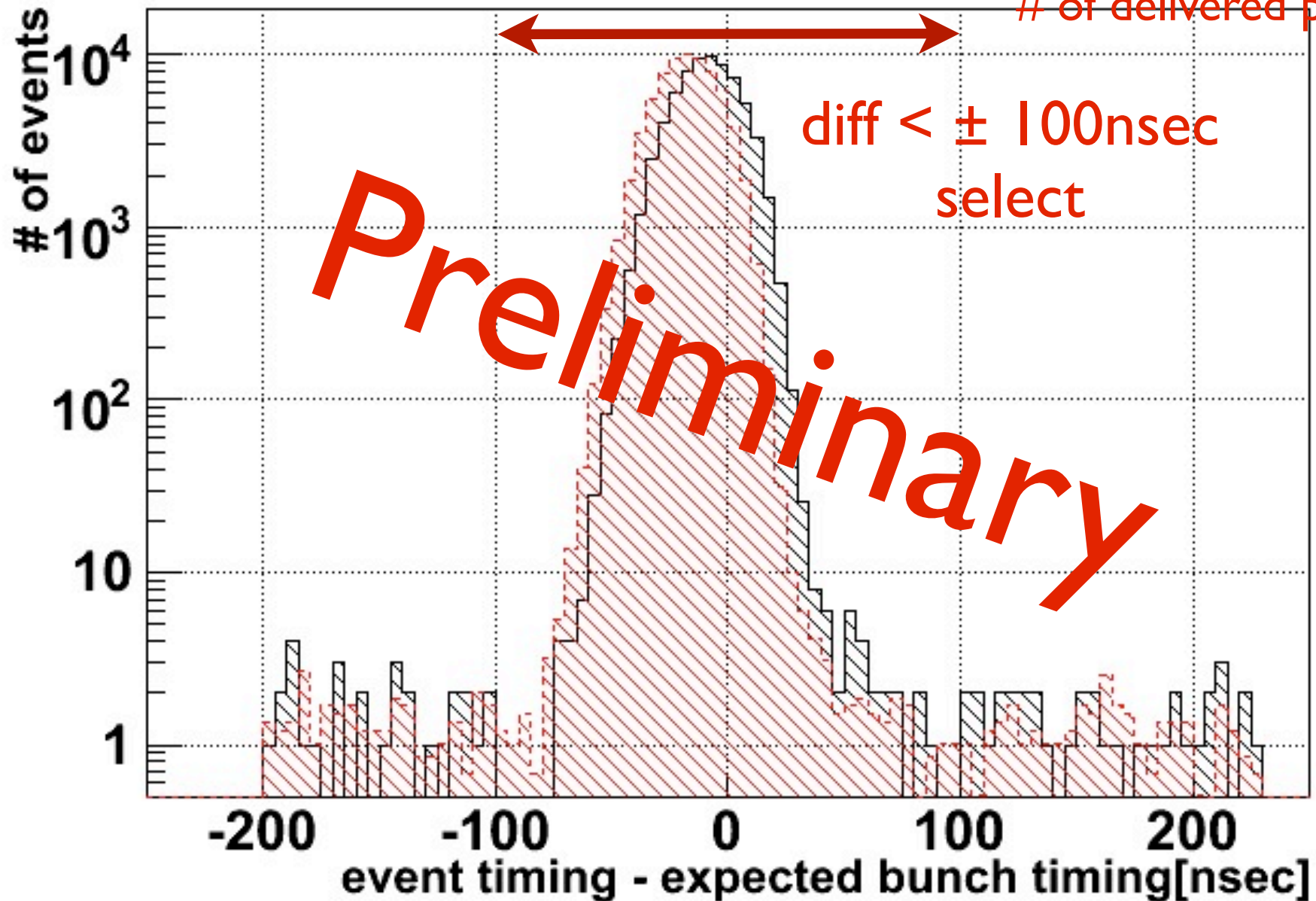


# On time

diff. from expected timing

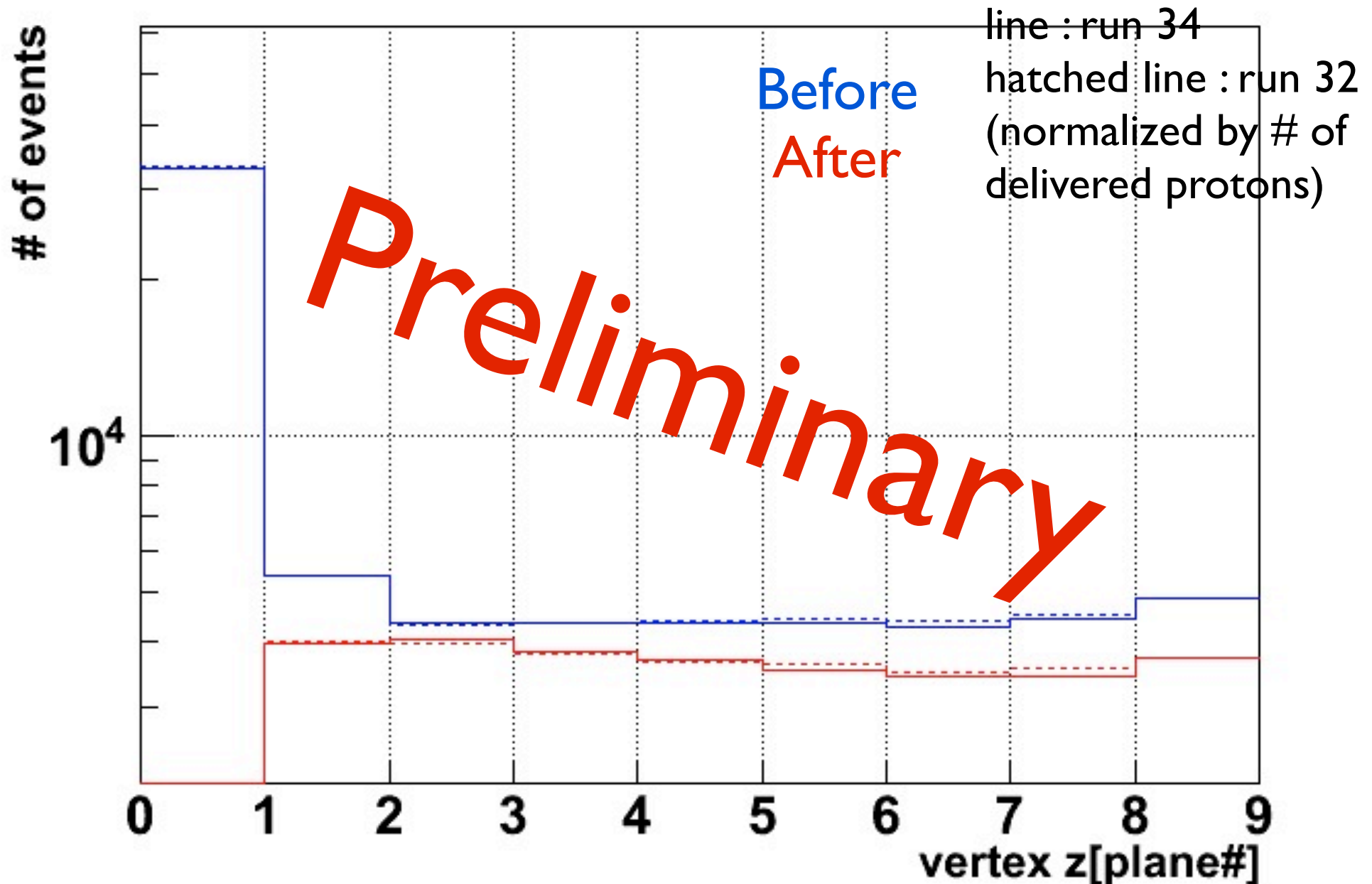
- run 34

- run 32 (normalized by  
# of delivered protons)

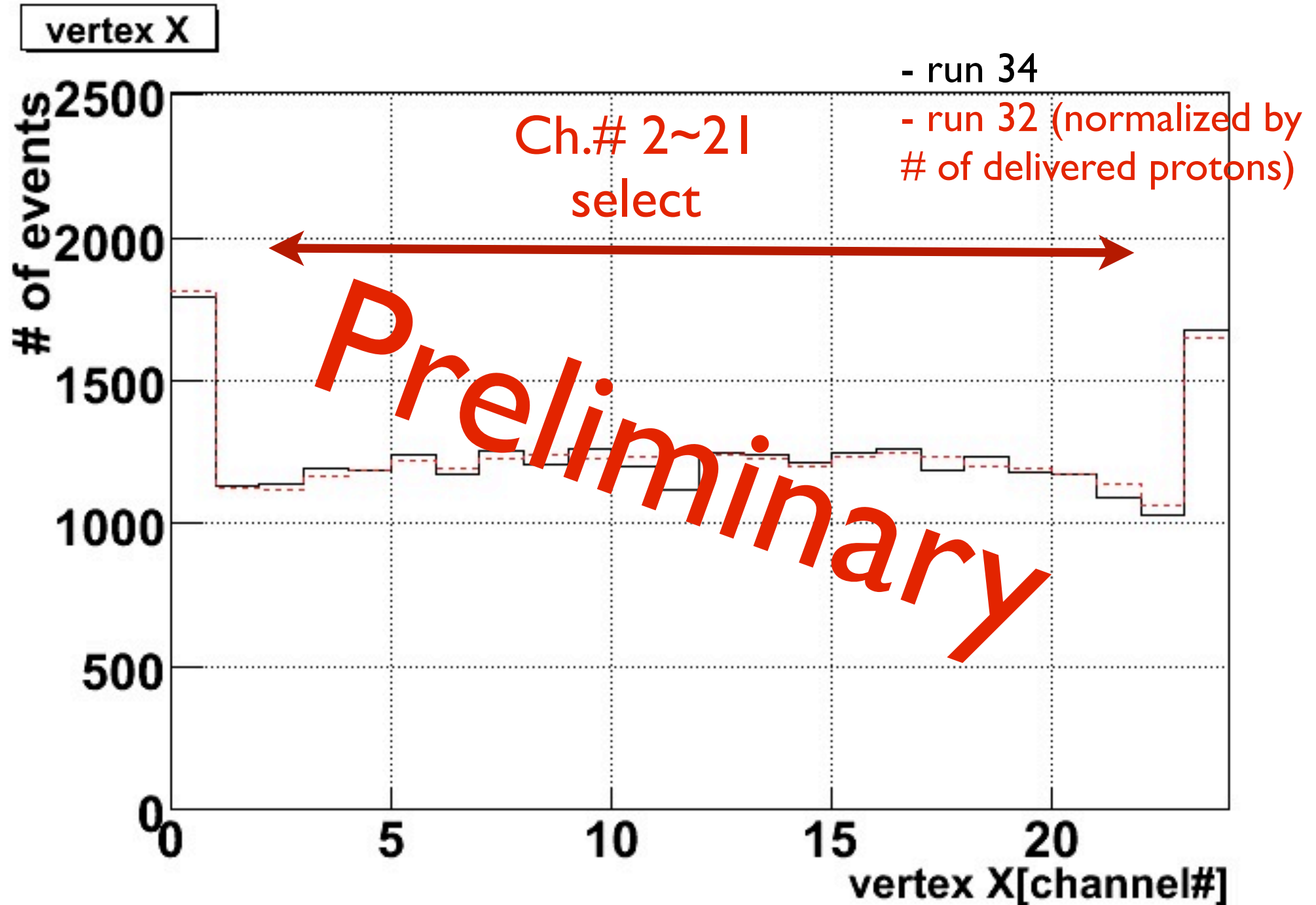


# Upstream VETO

vertex z before/after upstream VETO



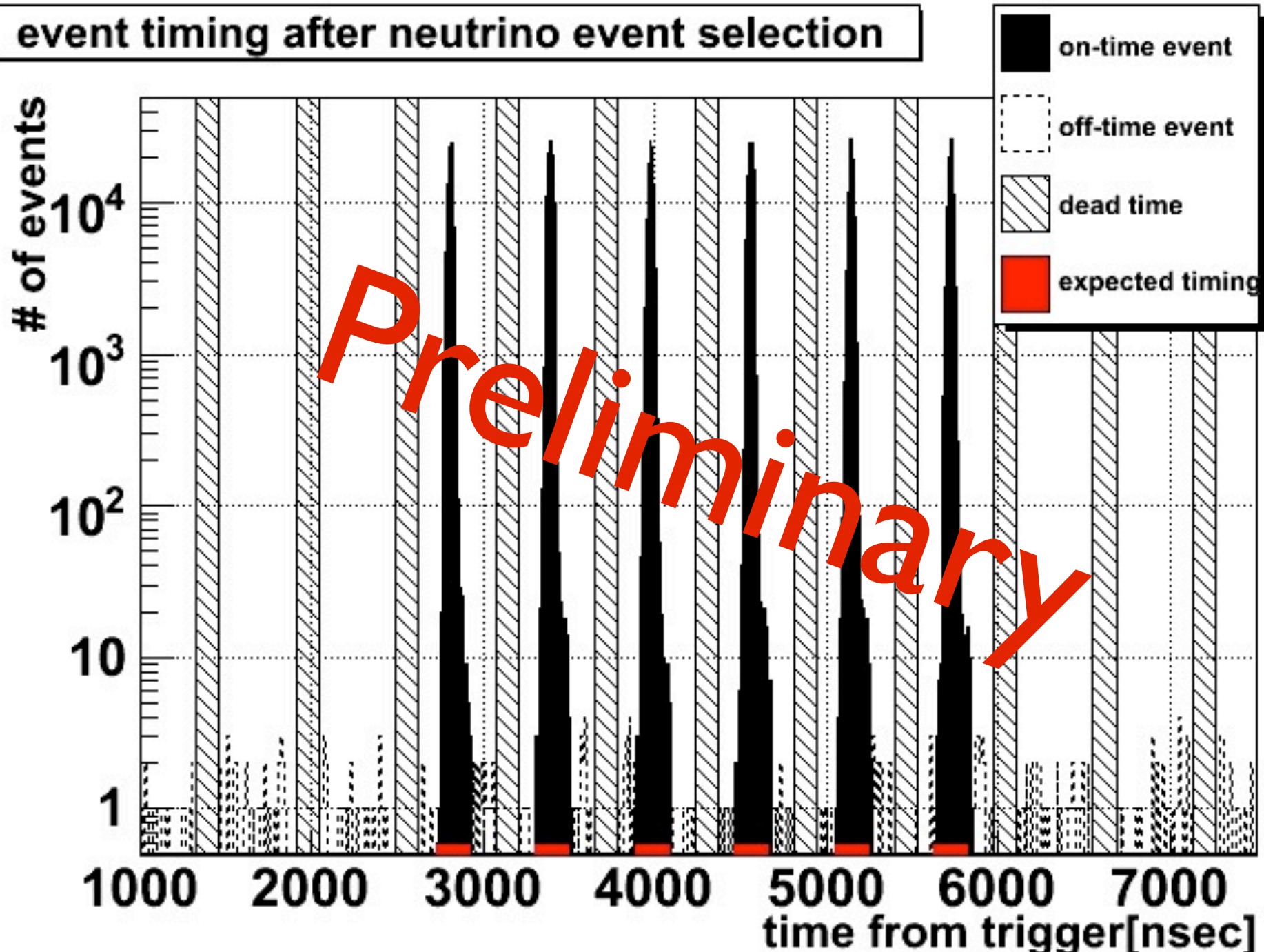
# Fiducial volume cut





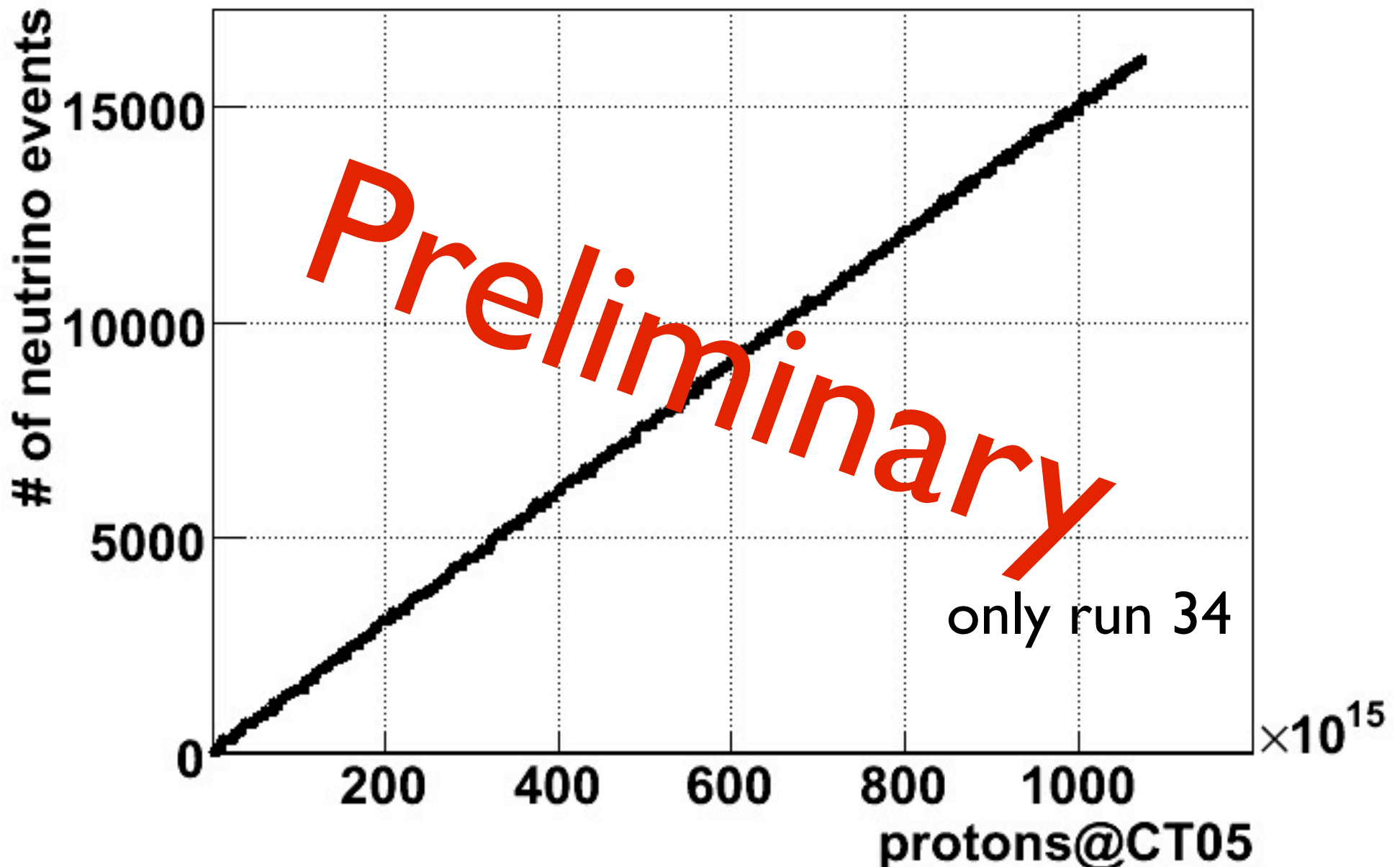
# Event timing

event timing after neutrino event selection

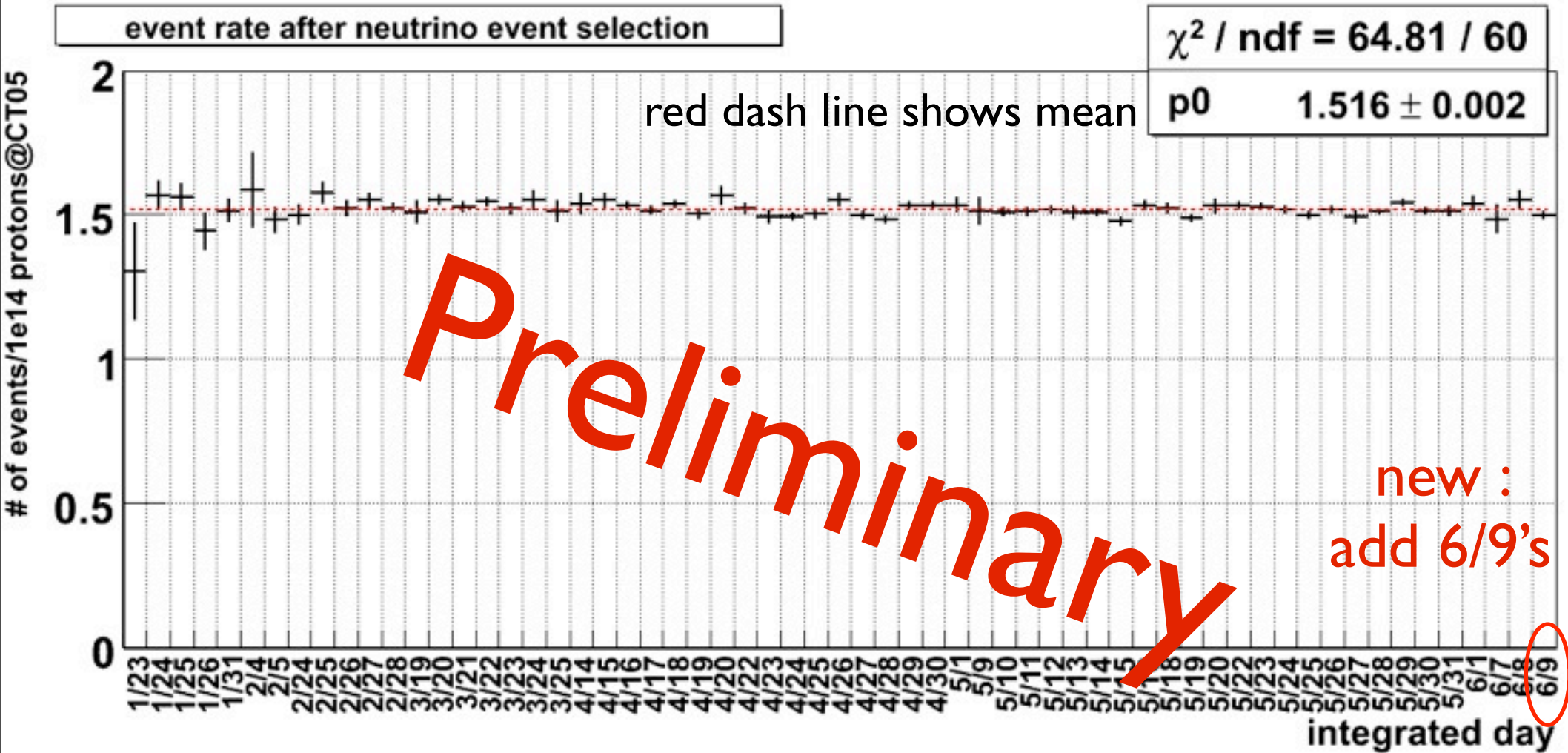


# protons@CT05 vs neutrino events

protons@CT05 vs. # of neutrino events



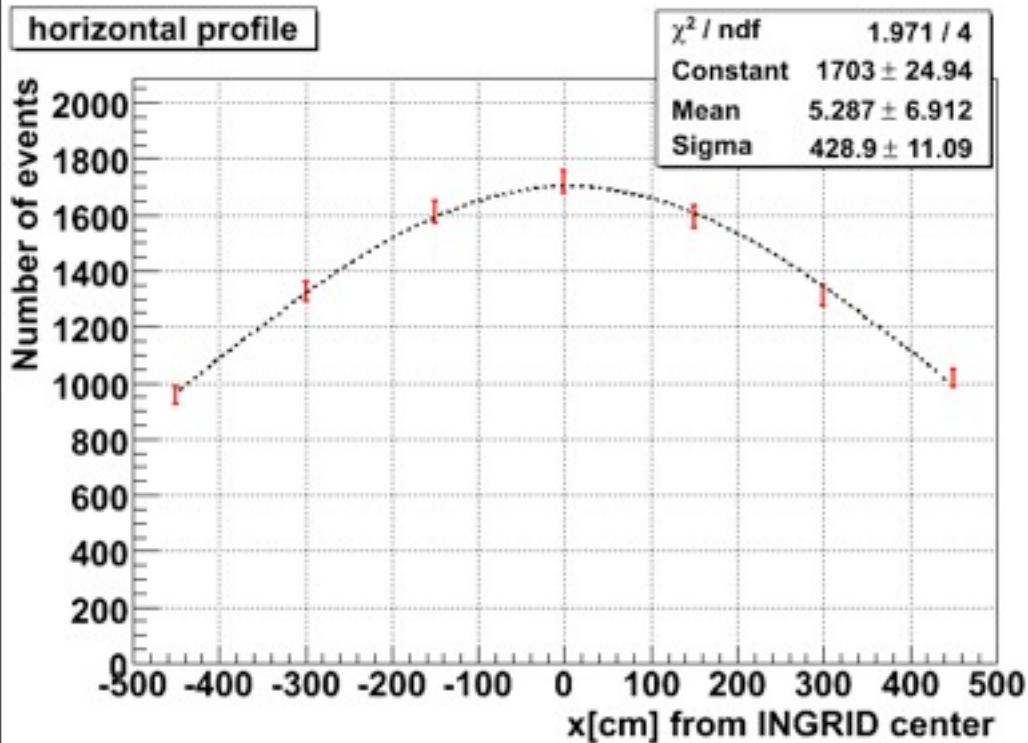
# Neutrino event rate



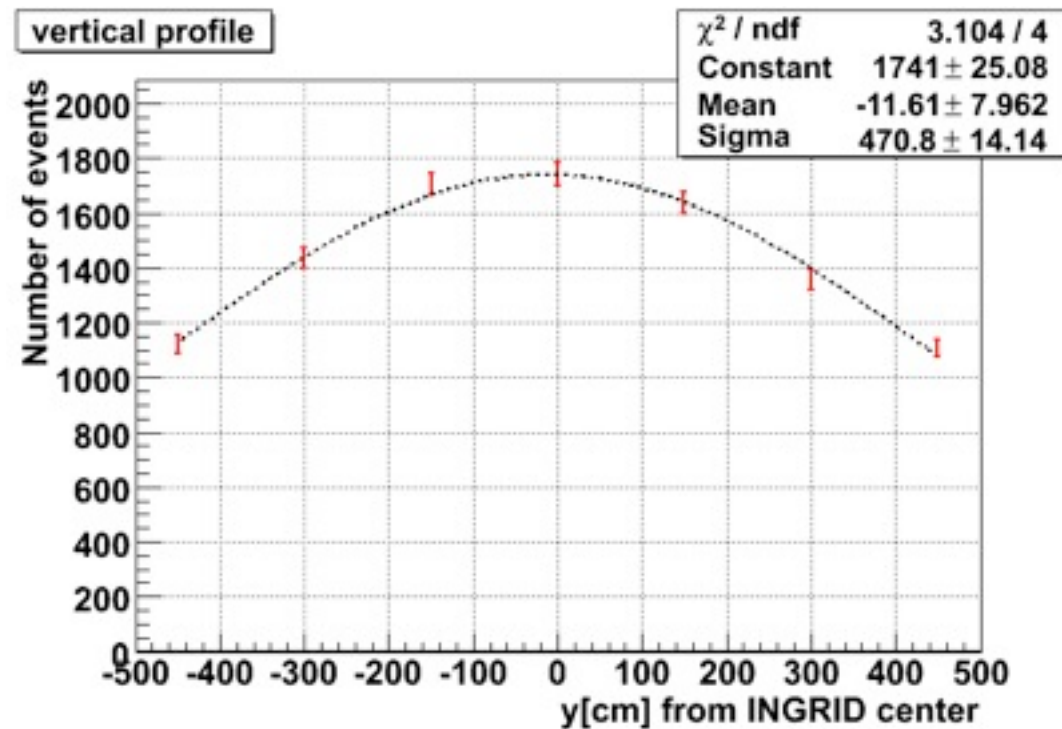
Event rate is as usual



# Profile (Omake)



center:  $5 \pm 7\text{cm}$   
(to south)  
Sigma:  $429 \pm 11 \text{ cm}$



center:  $-12 \pm 8\text{cm}$   
(on axis =  $-1.9\text{cm}$ )  
Sigma:  $467 \pm 34 \text{ cm}$

# Summary

- Run 34 started.
- INGRID is working well.
- Beam status is good at first look level.
  - Event rate w/ all modules is as usual.