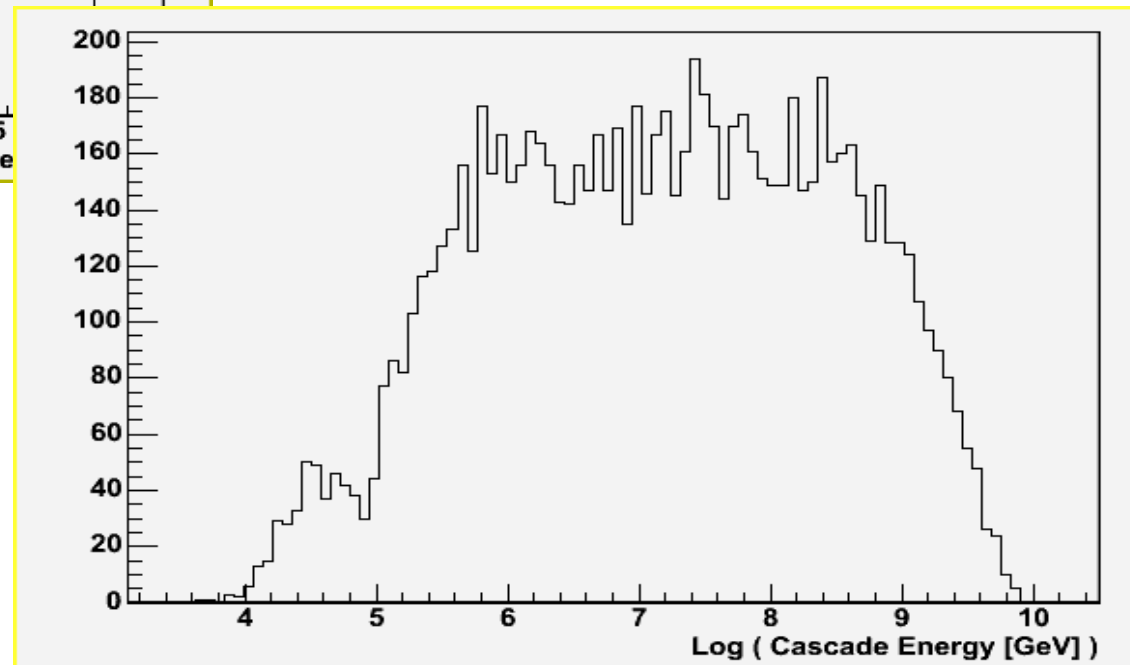
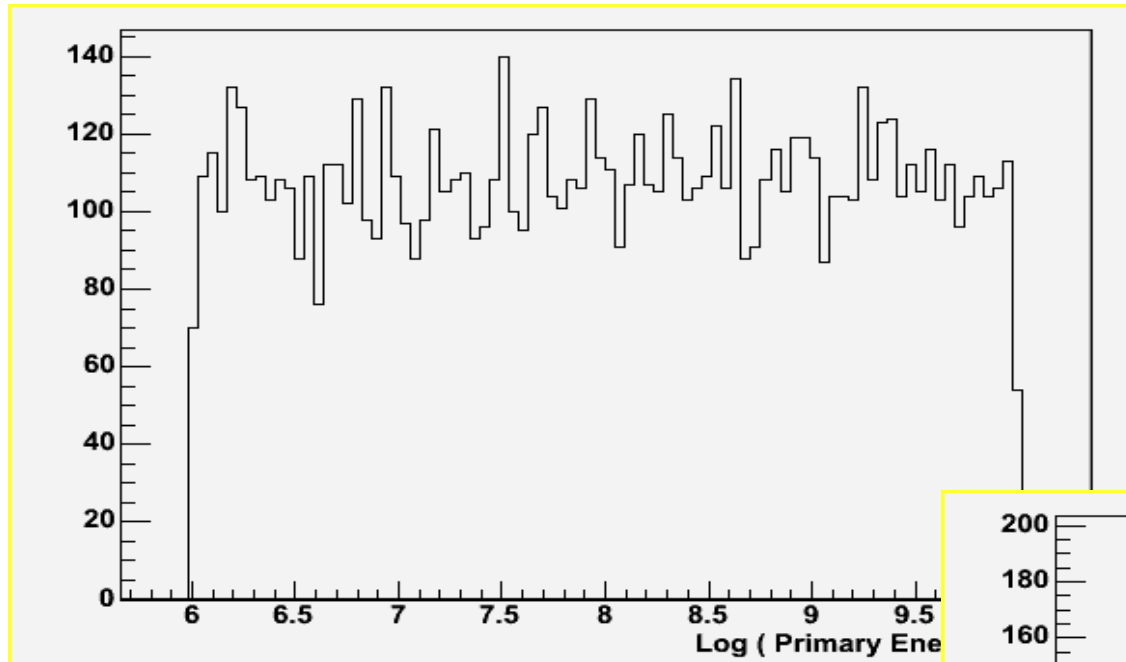


The first MC data production

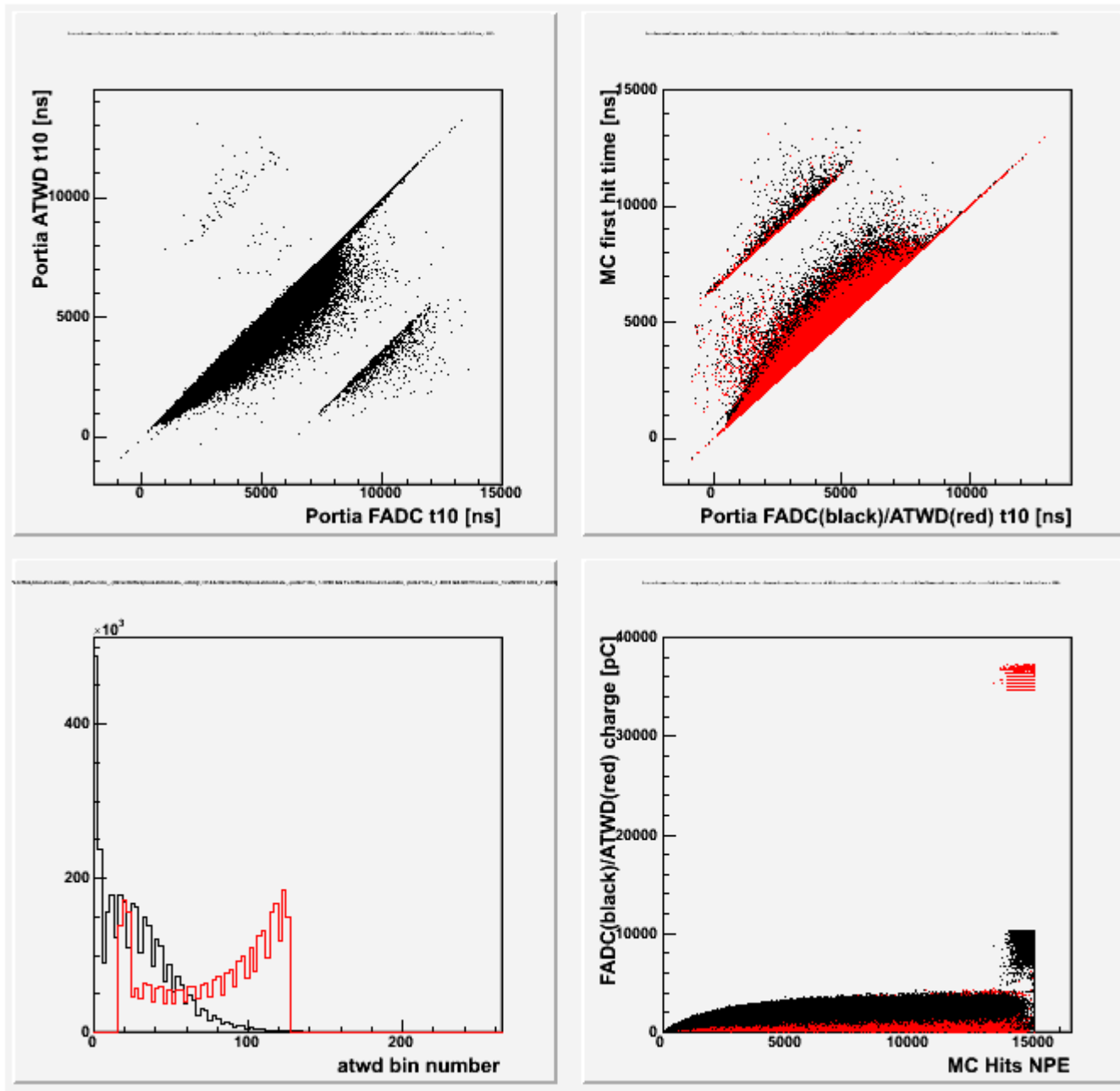
Aya - Dec 8th/9th, 2005

Juliet Events

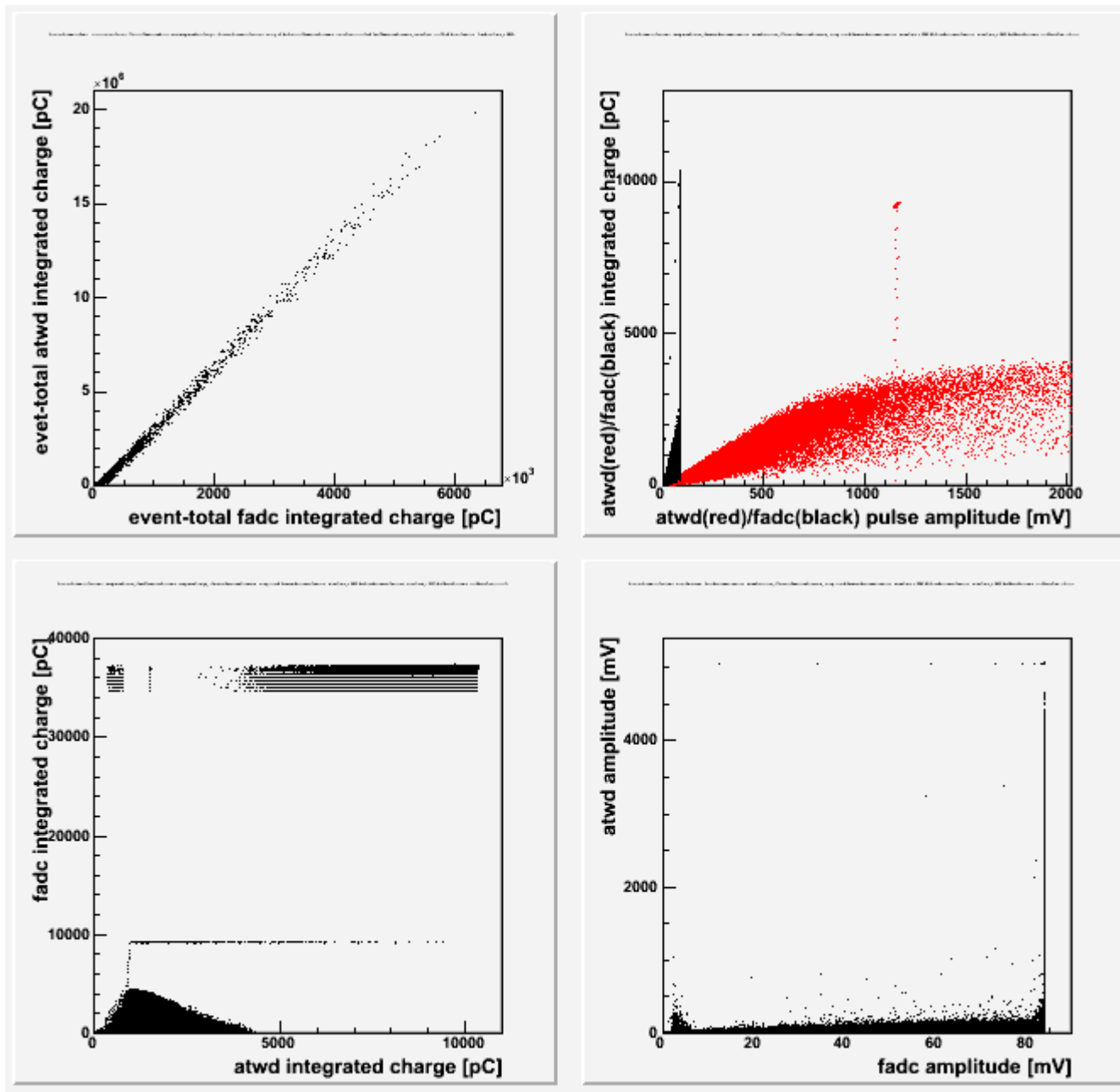
9258 events, $\log(E \text{ [GeV]})$ from 6 to 10 created by Keiichi
on npv cluster



Basic checks 1

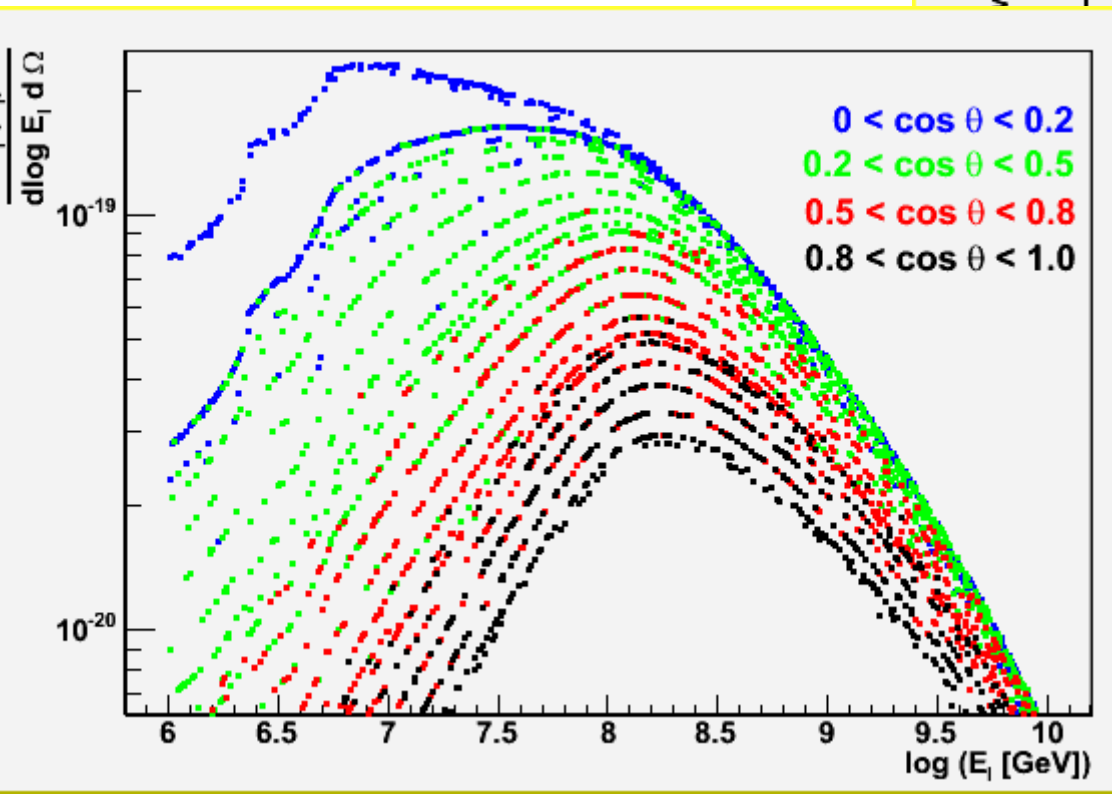
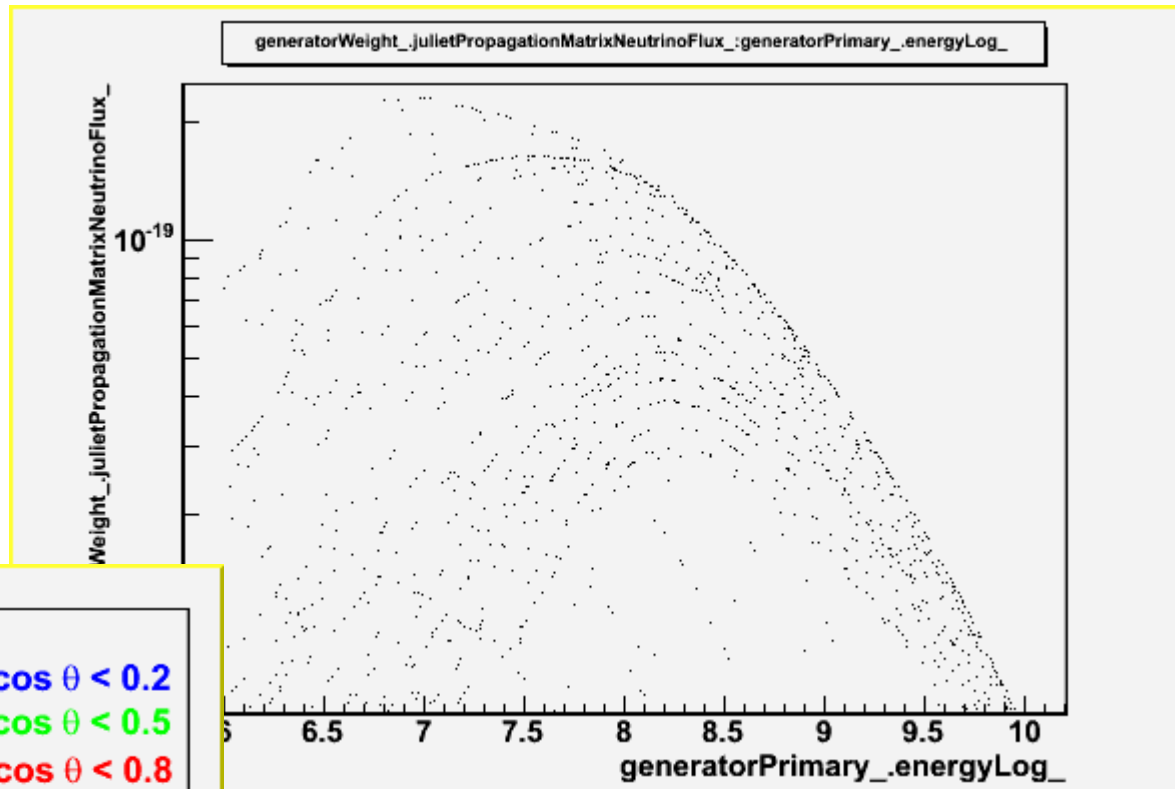


Basic checks 2



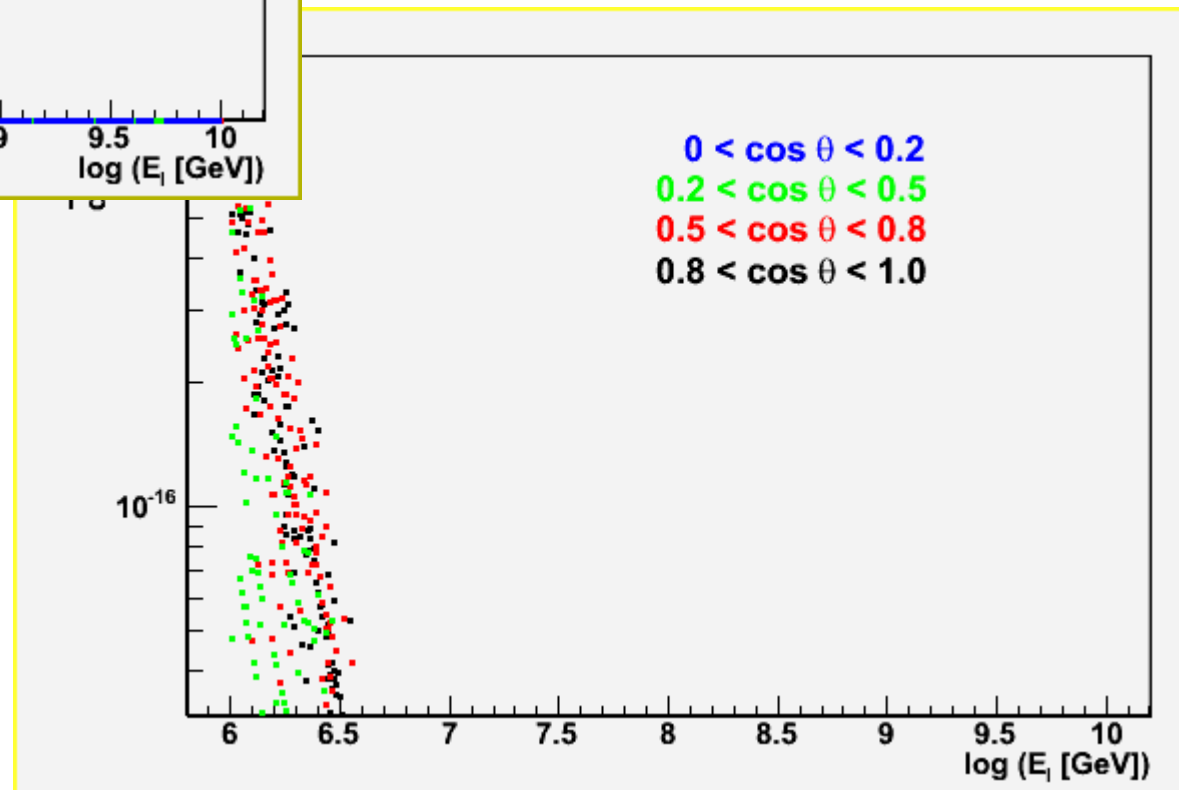
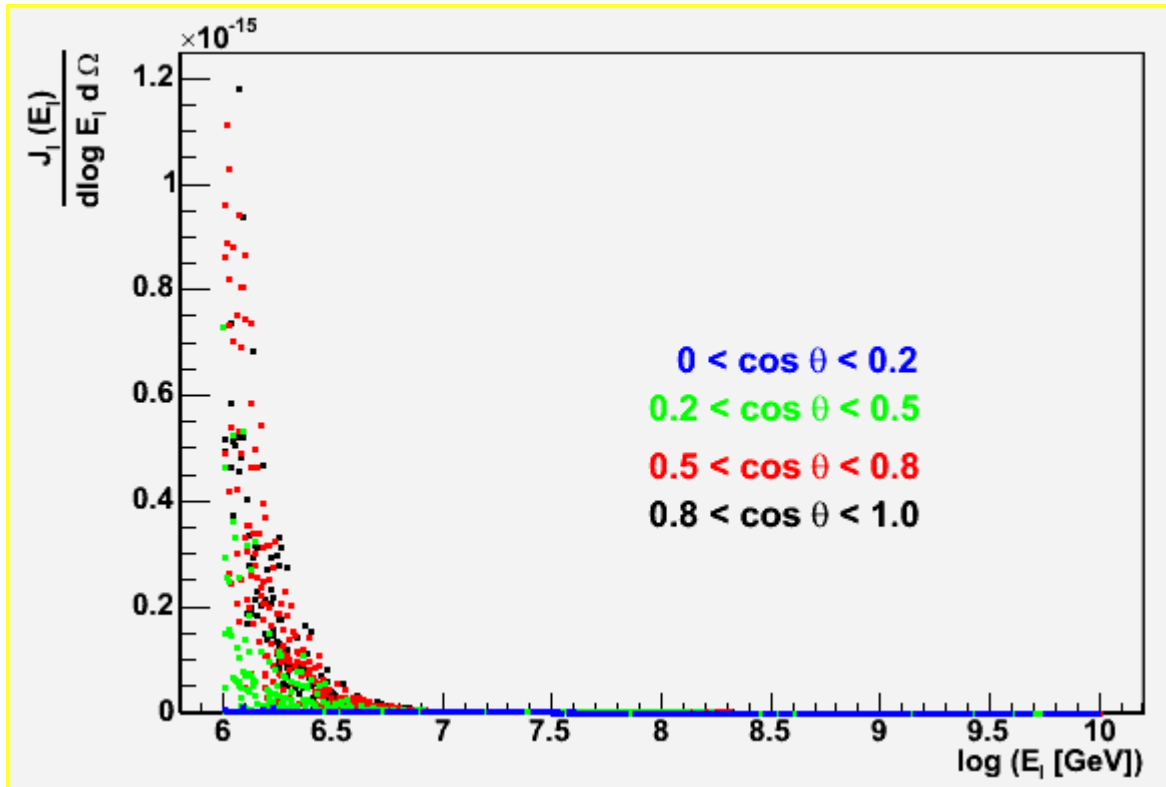
Propagation Matrix Weights

full

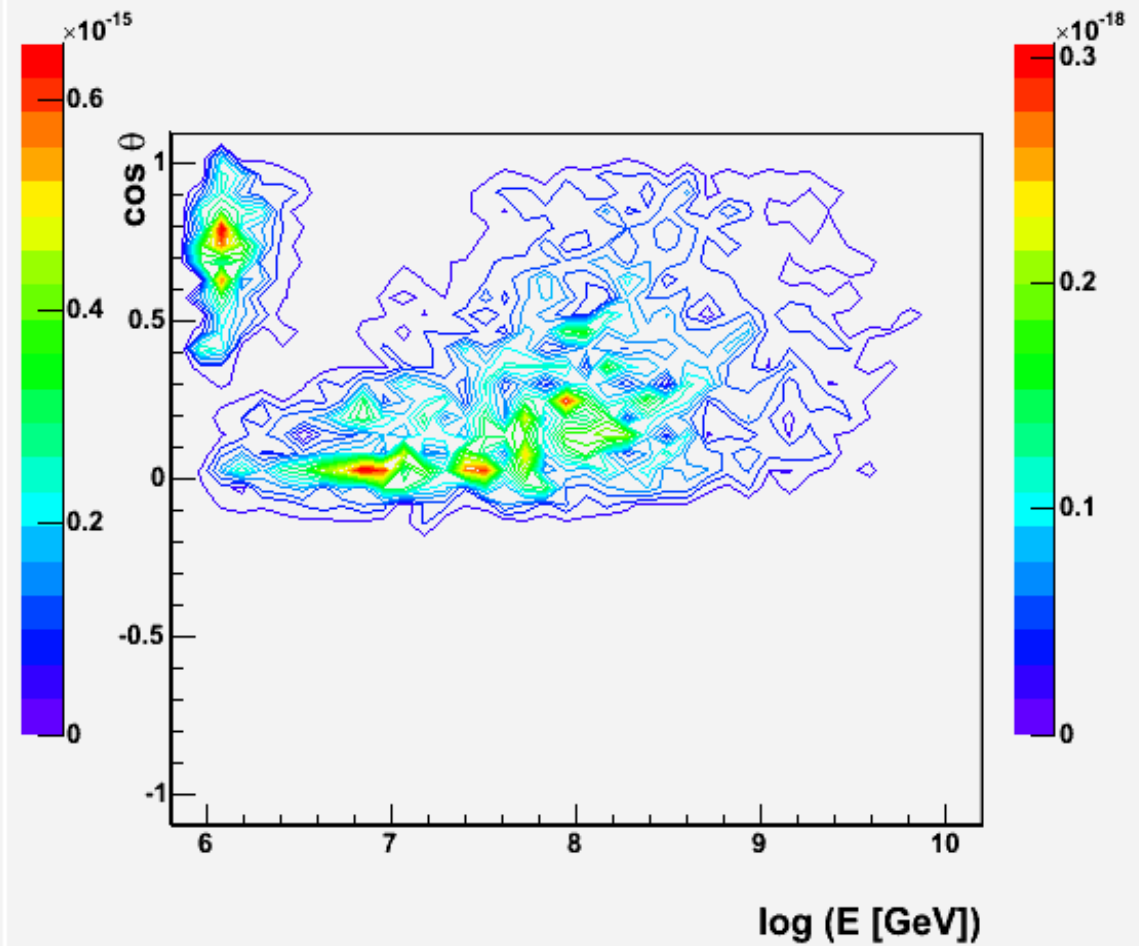
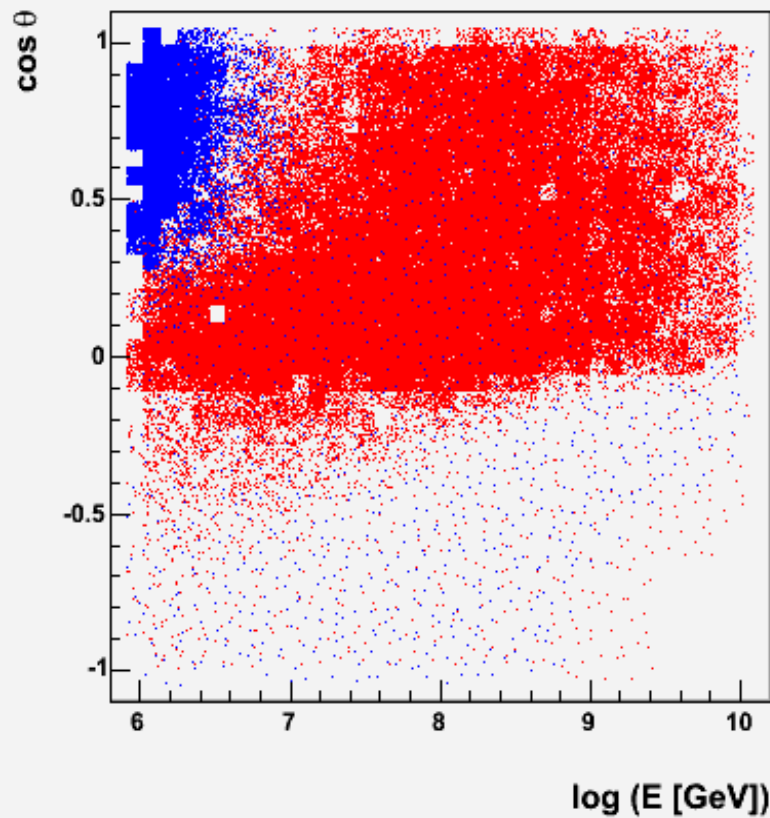


down-going

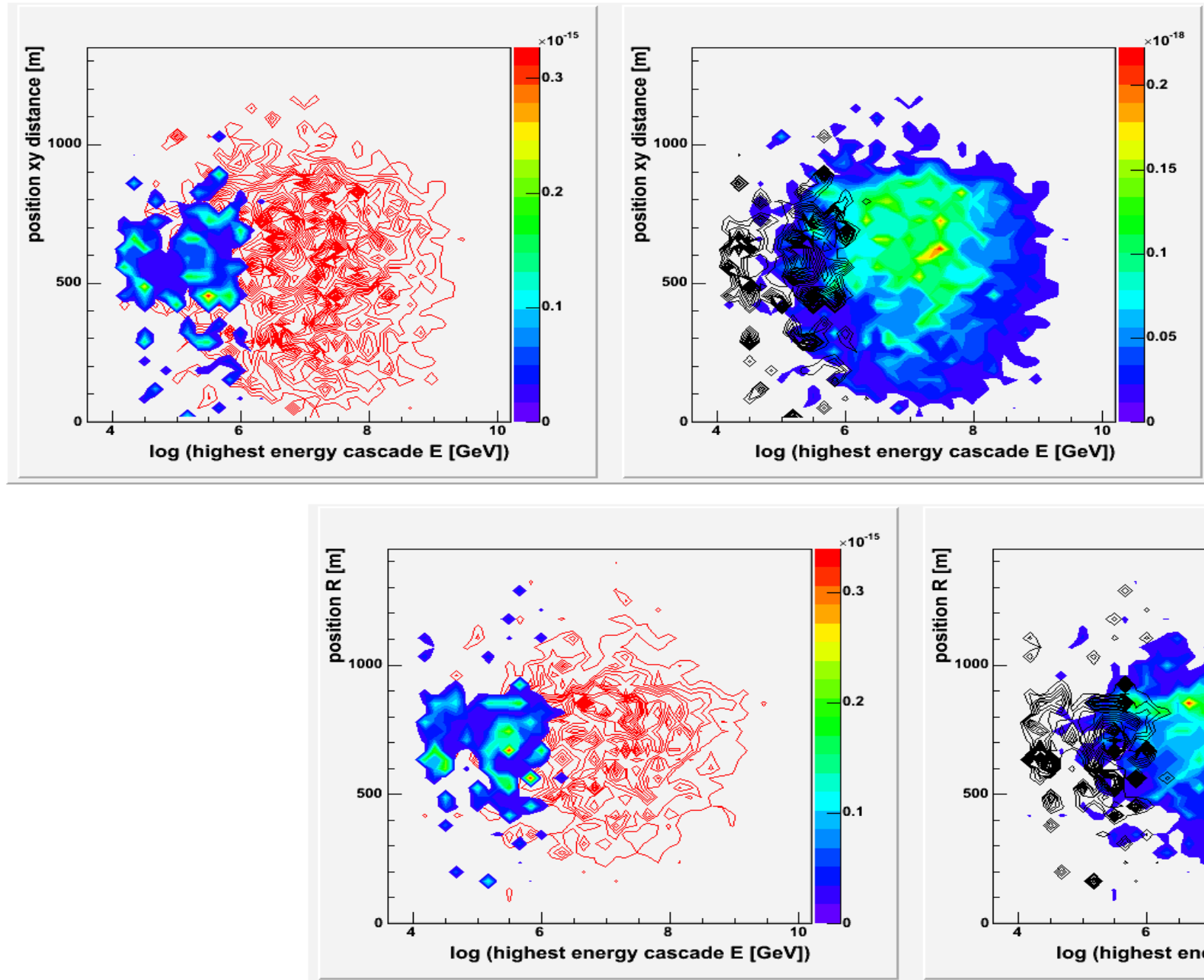
Atmospheric Muon Weight



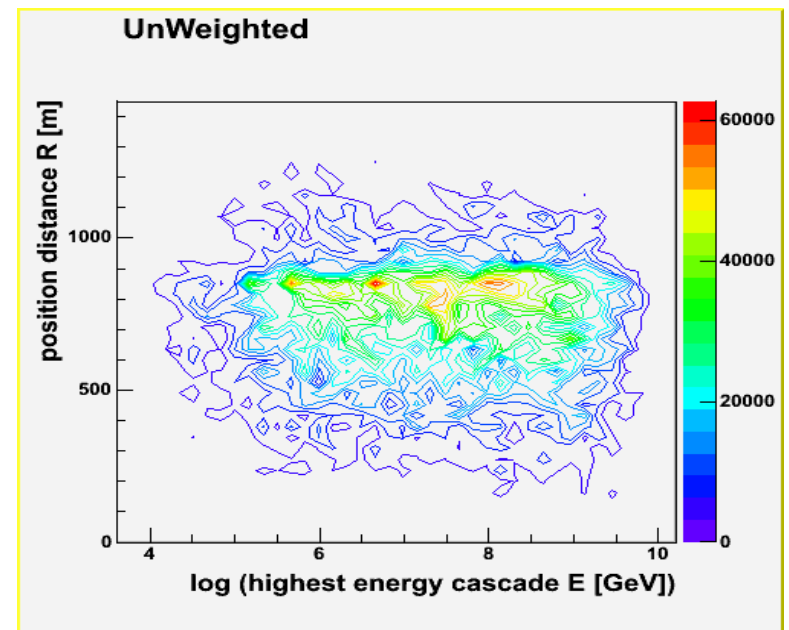
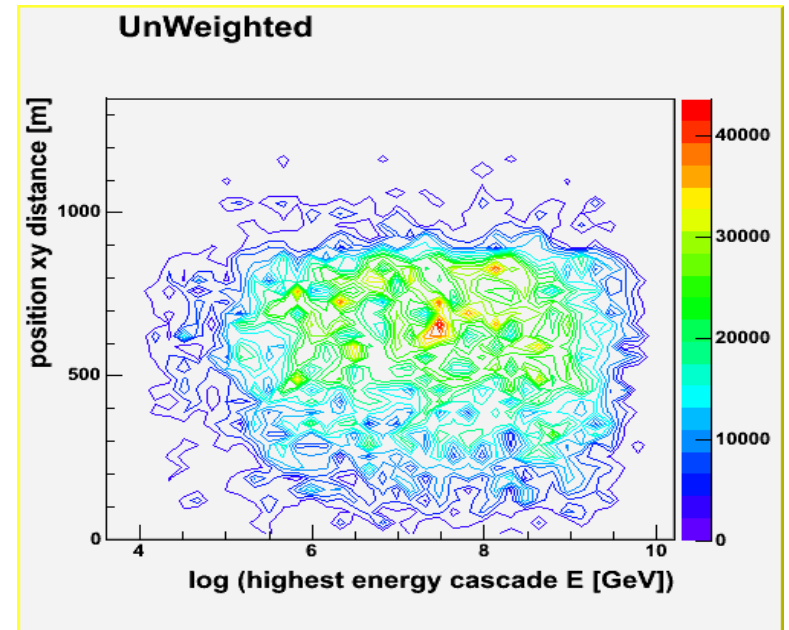
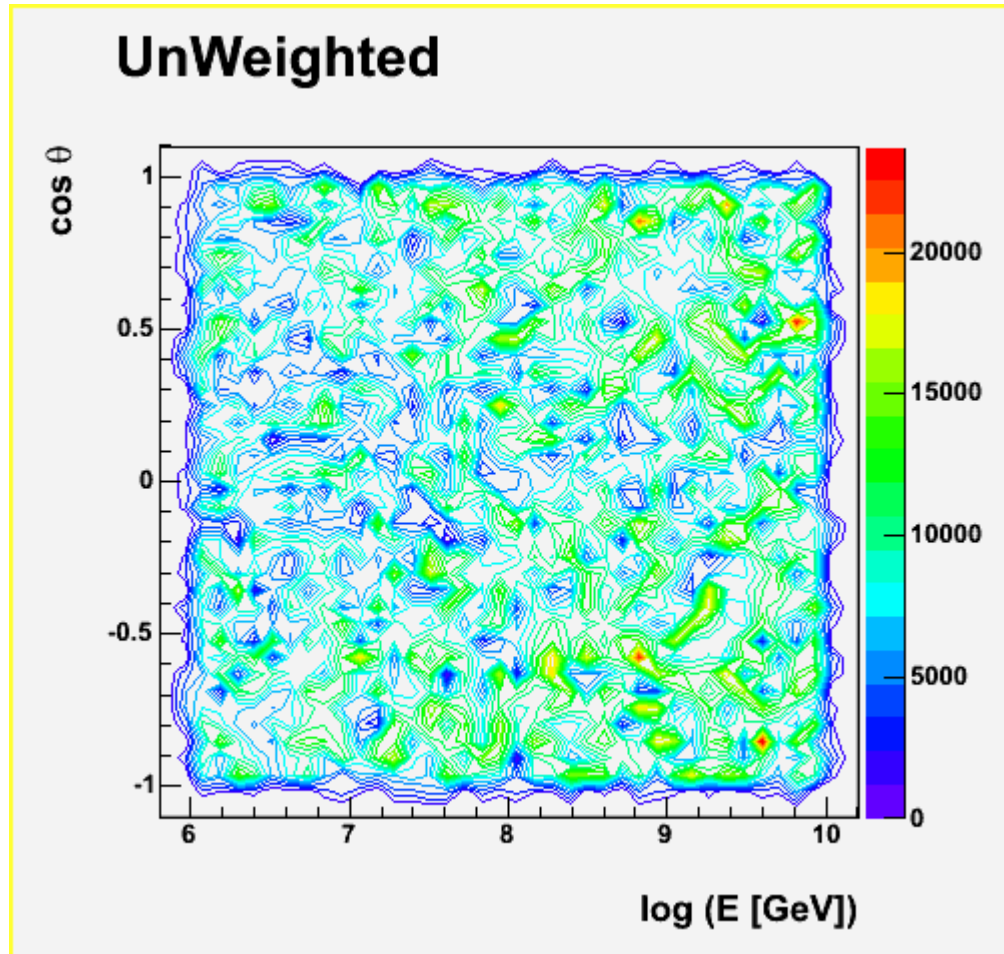
Weighted Distributions 1 (MC Truth)



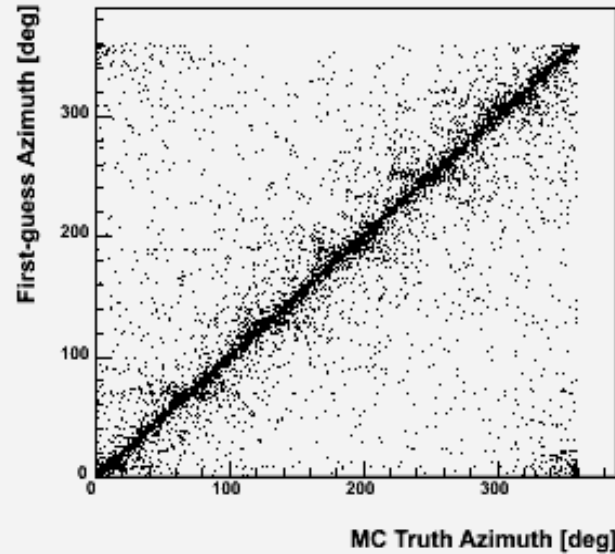
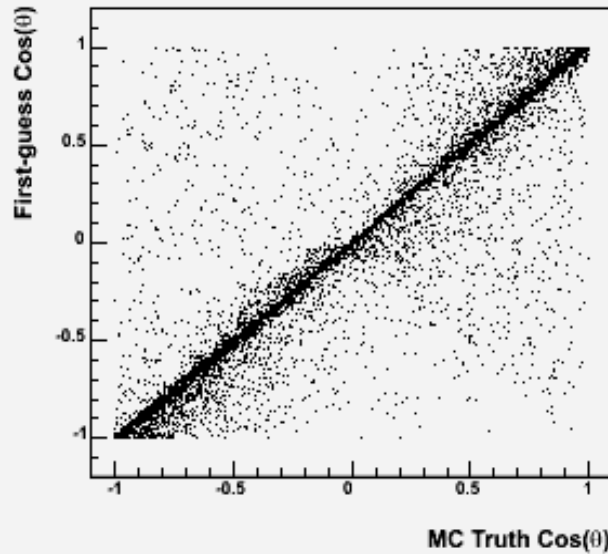
Weighted Distributions 2 (MC Truth)



Un-weighted (MC Truth)



Can we cut atmo. bg by fast reco. ?



MC Truth

VS.

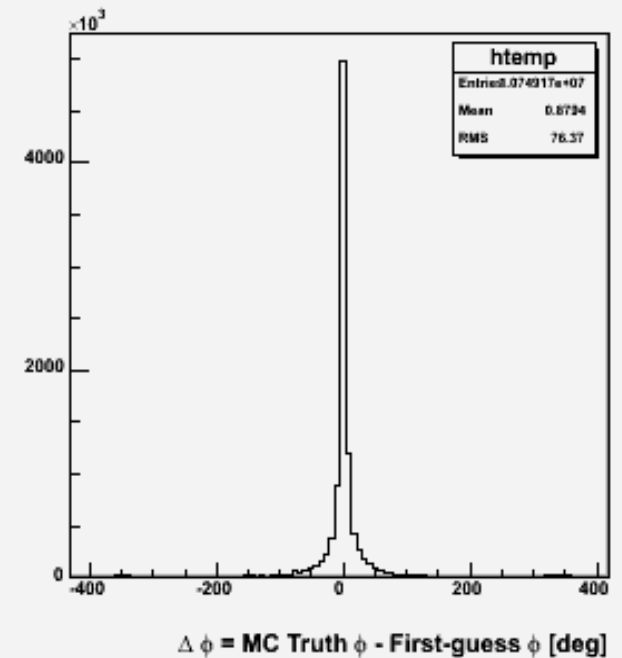
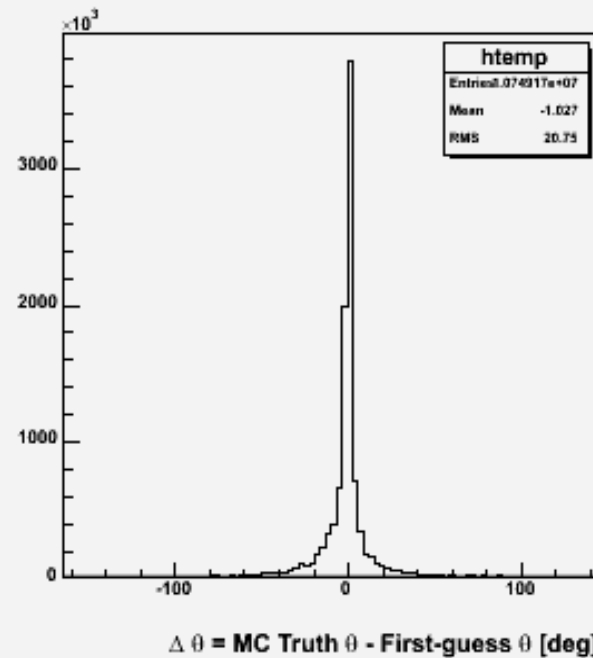
FG Reco.

cos theta (left)

phi (right)

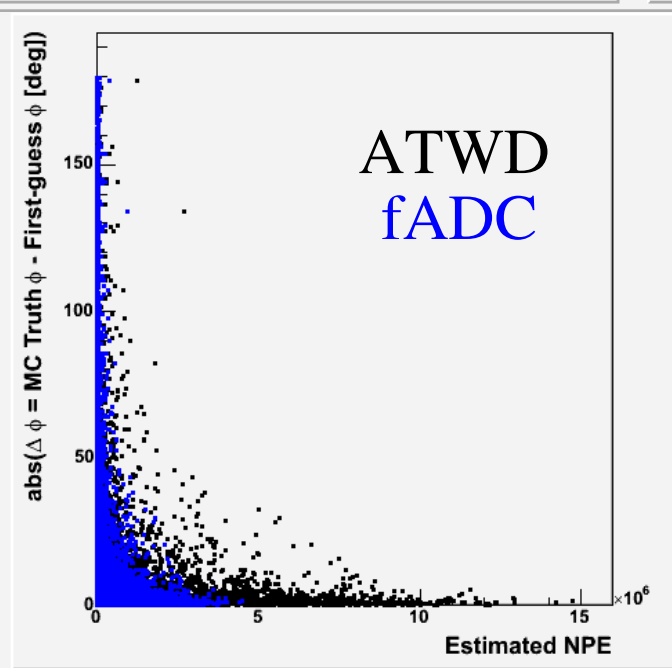
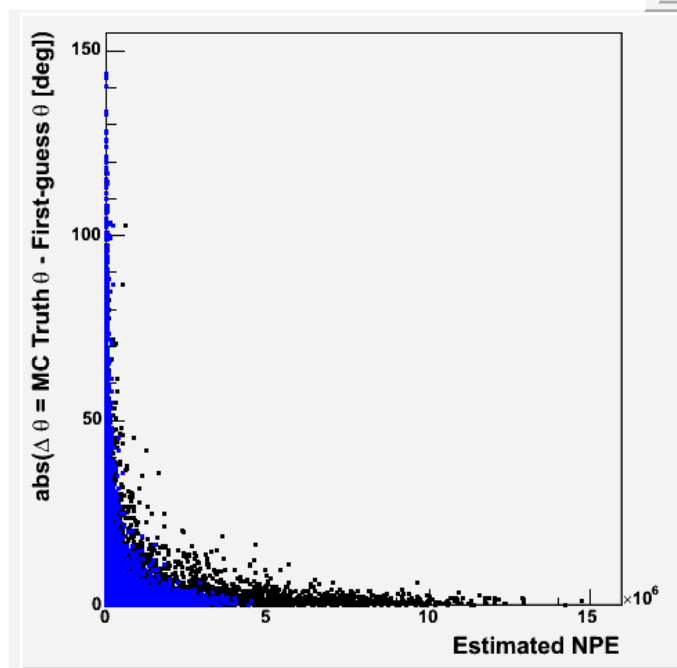
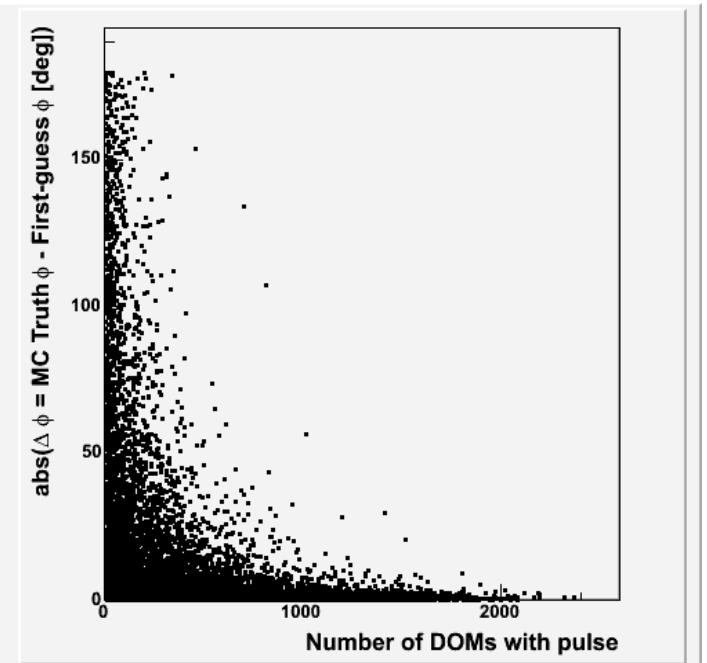
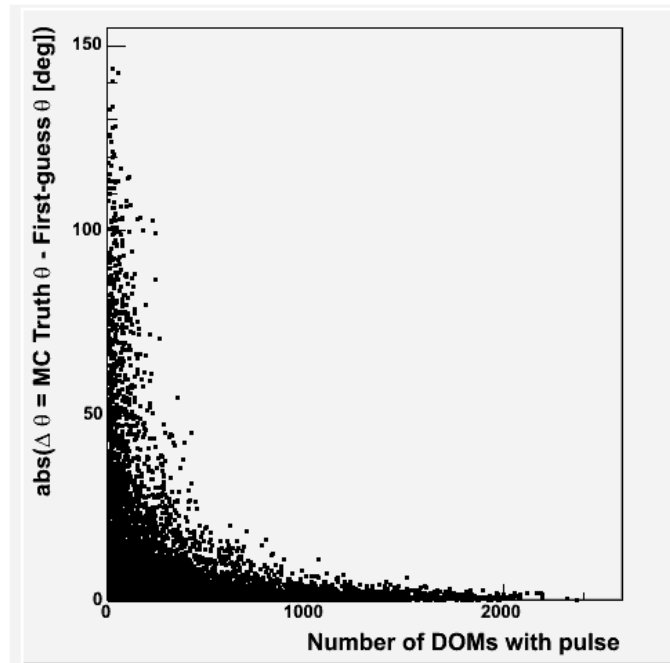
Delta theta (left)

Delta phi (right)



FG Quality Dependence

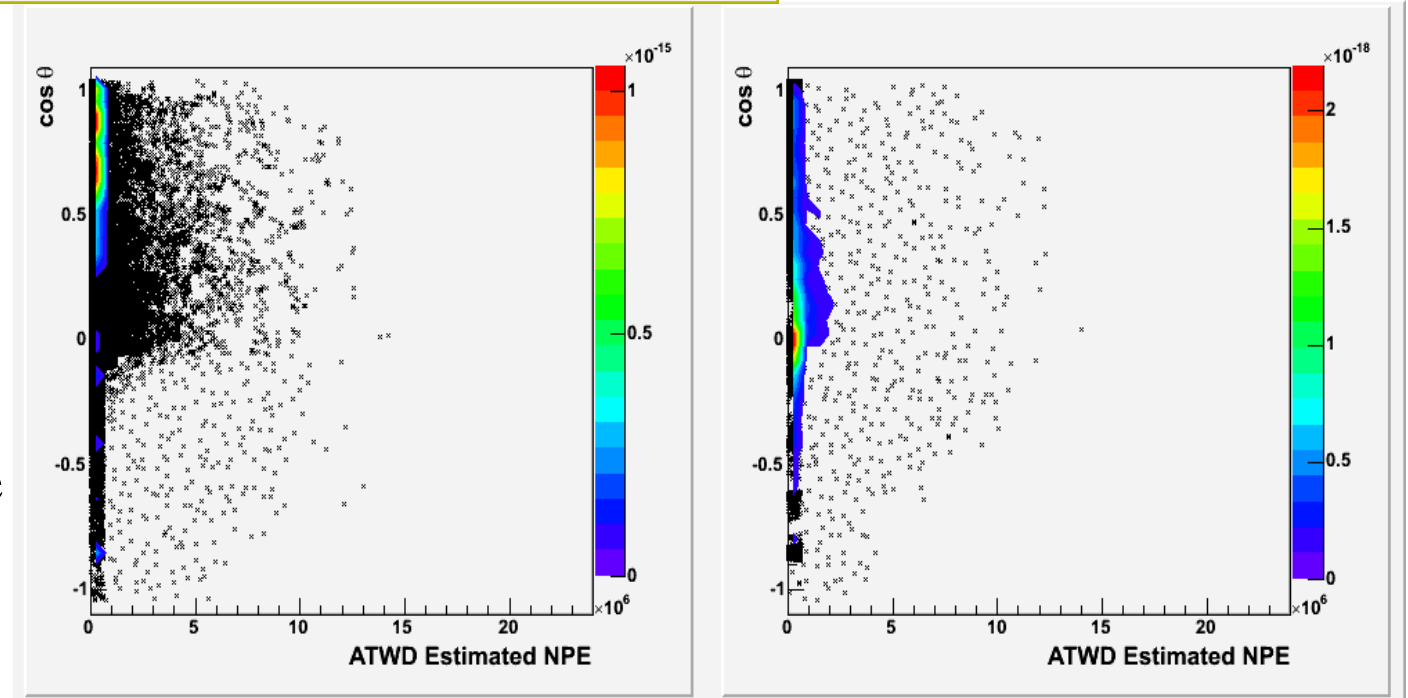
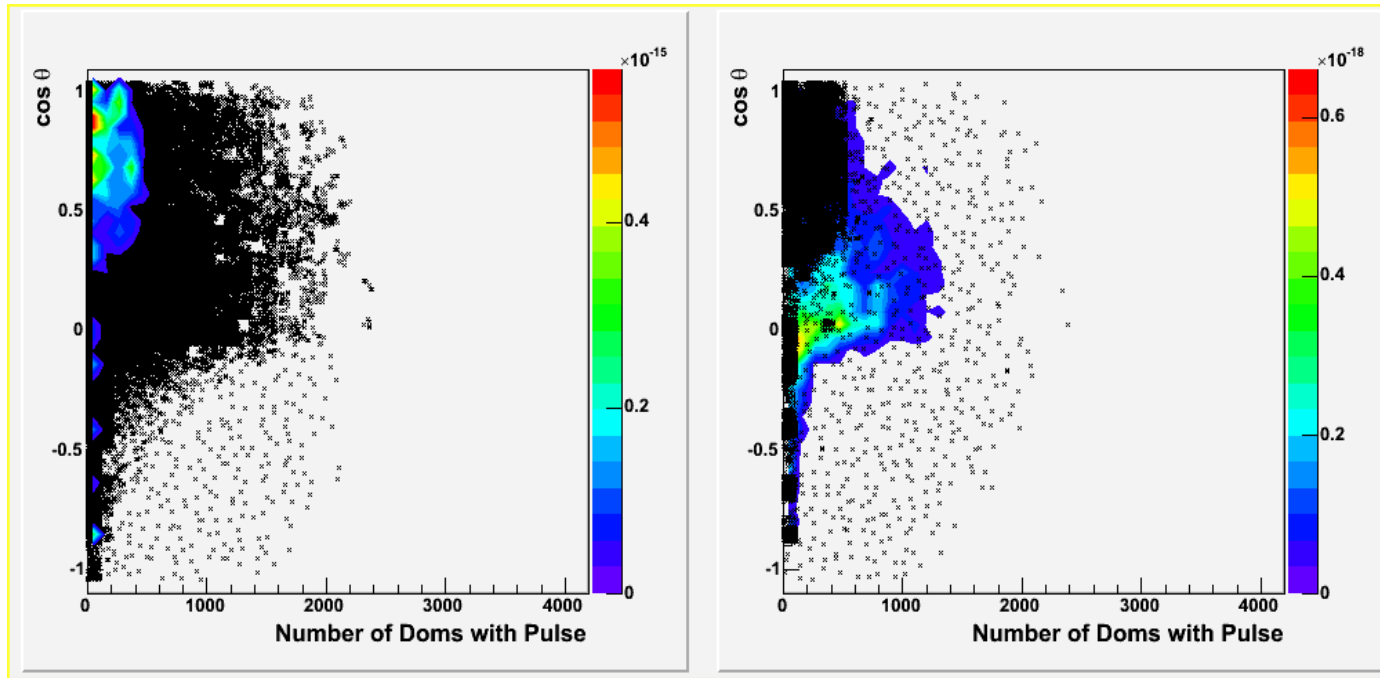
Number of DOMs
with Pulses
Zenith (left)
Azimuth (right)



ATWD
fADC

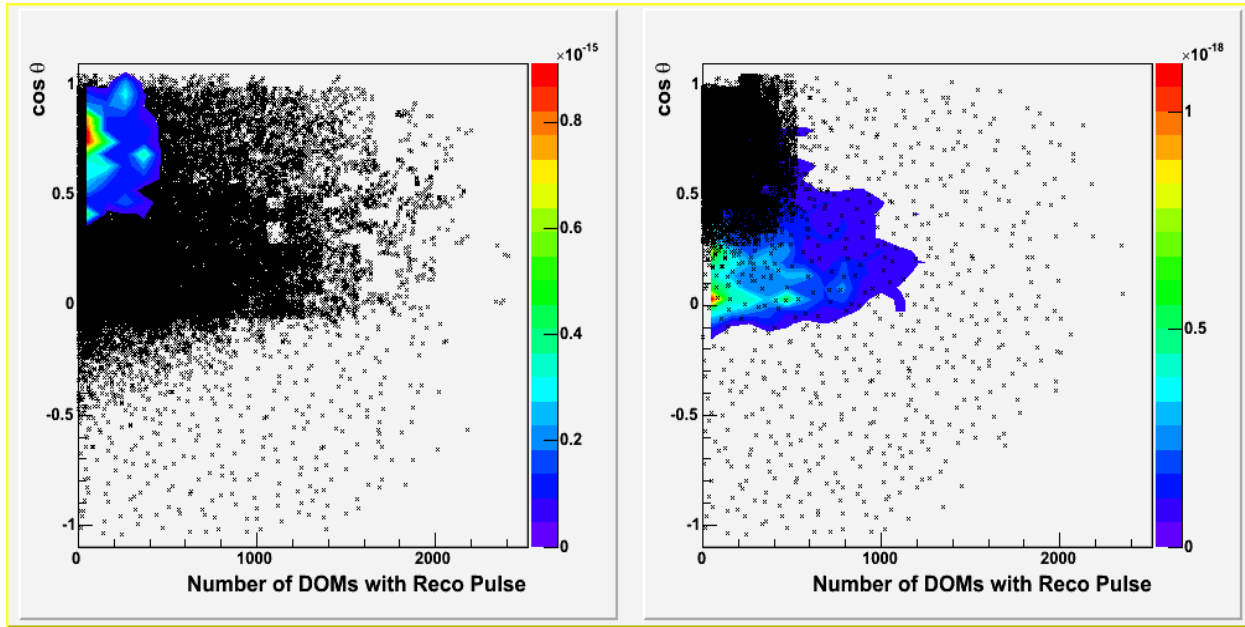
Estimated NPE
vs.
Zenith (left)
Azimuth (right)

The start position (Firstguess vs. NPE/NDOMs)



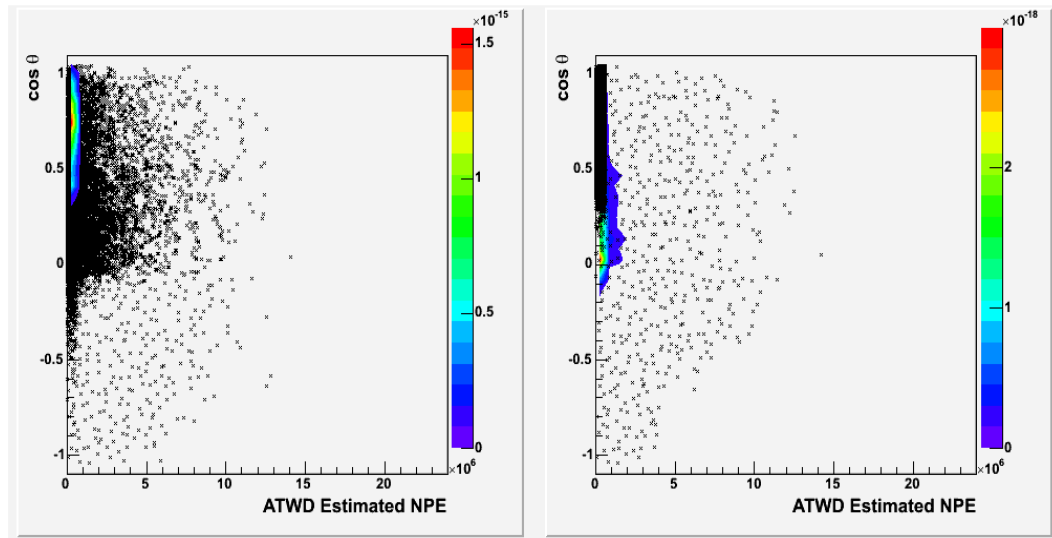
Looks like not so simple
to cut the bg out from
this figures....

With Only Energy Estimator vs MC Truth

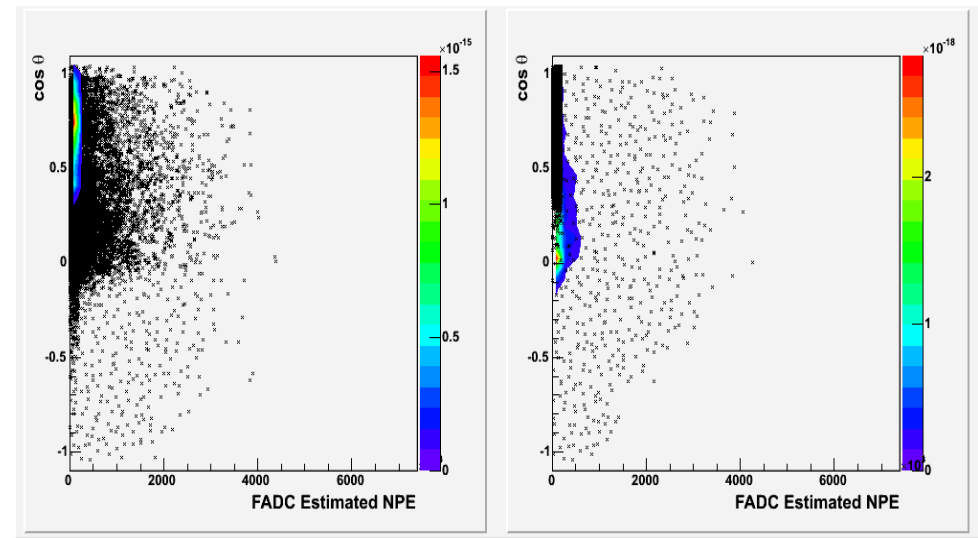


N DOMs vs. MC Truth

ATWD NPE vs. MC Truth

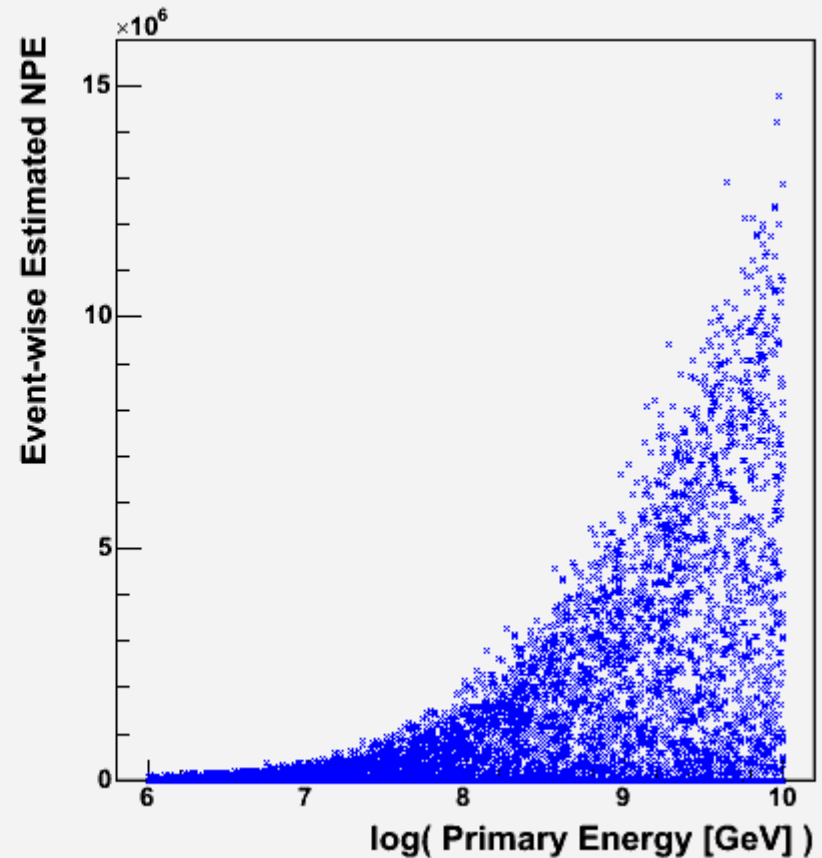
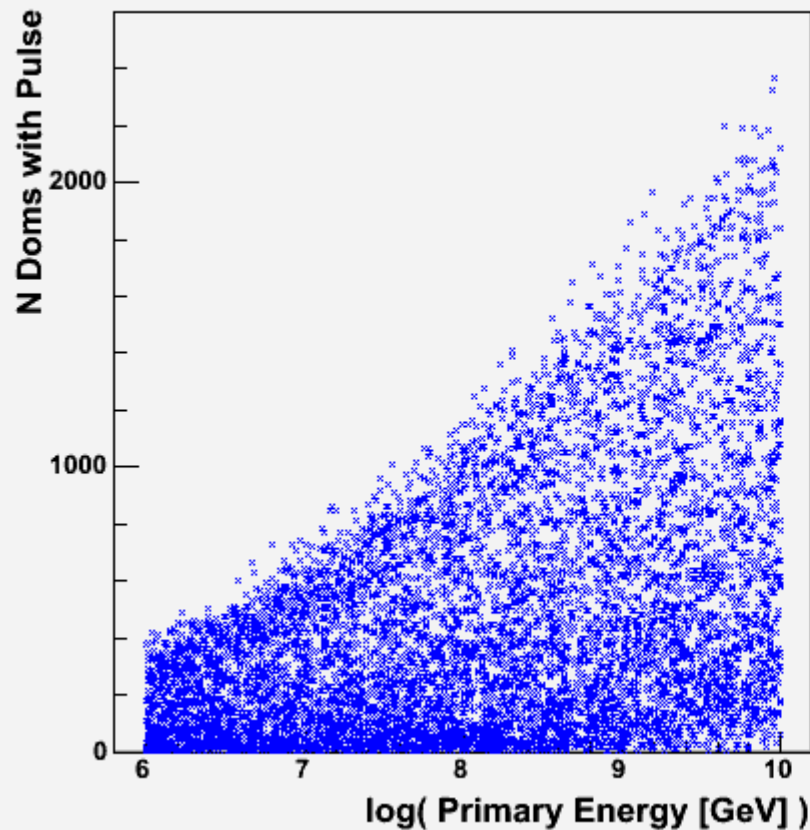


fADC NPE vs. MC Truth

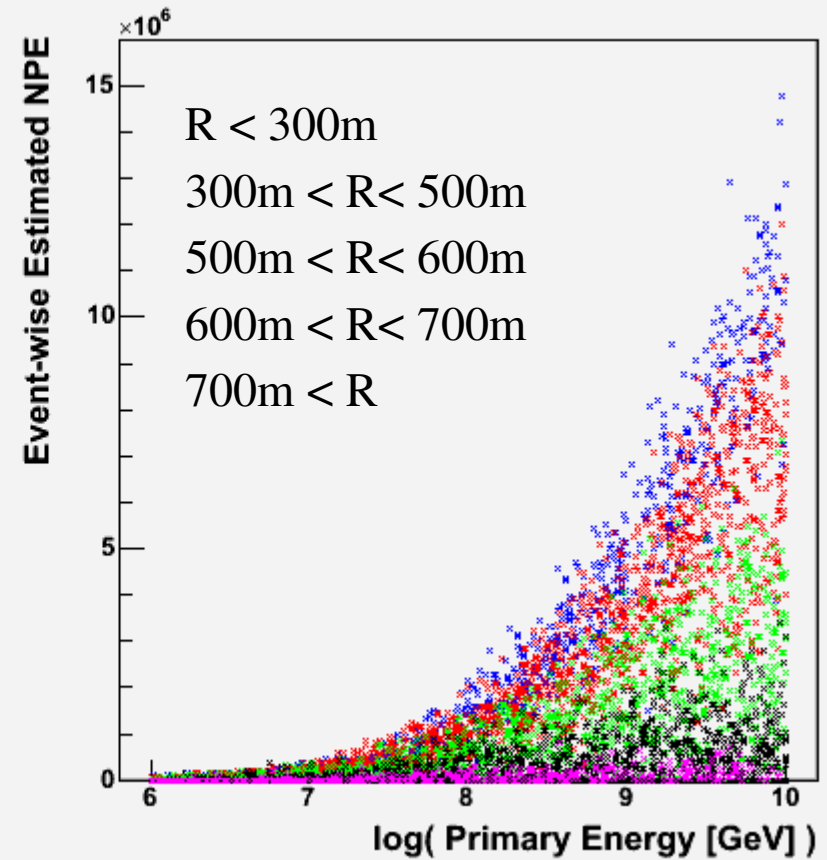
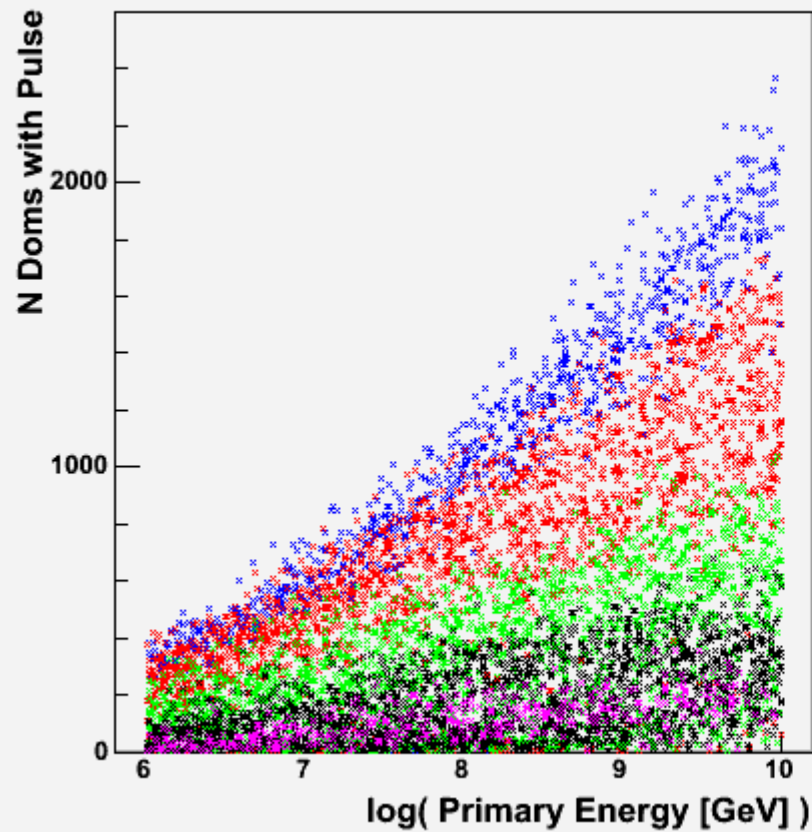


Problems in the energy estimator variables (Estimated NPE, N DOMs.)

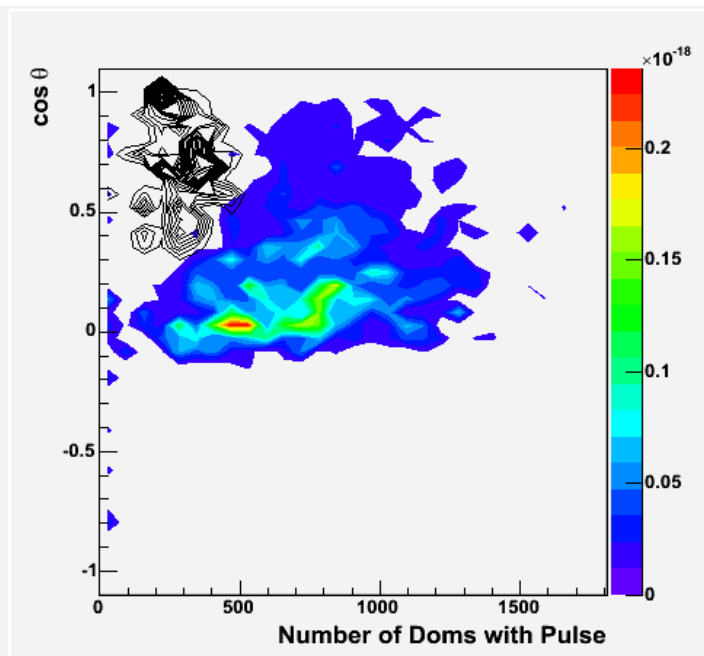
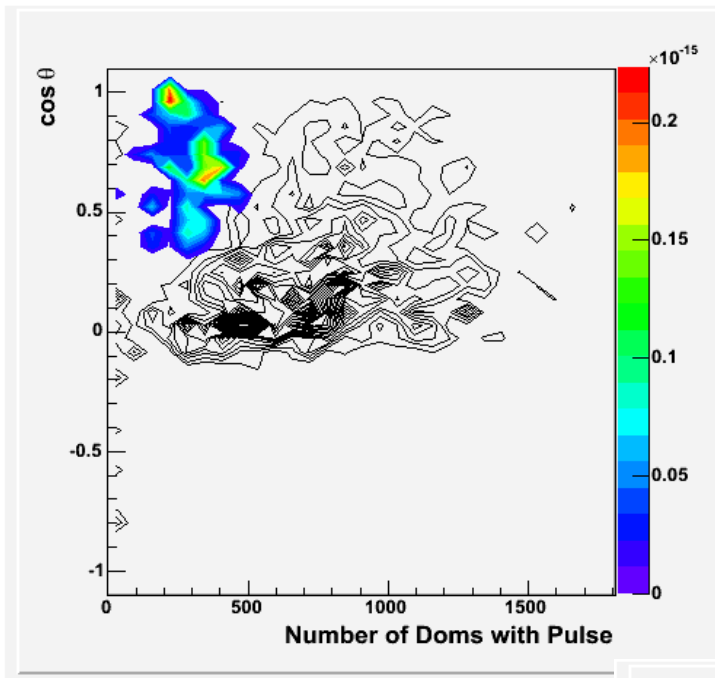
Not so sensitive to the energy...



Center of Brightness dependence

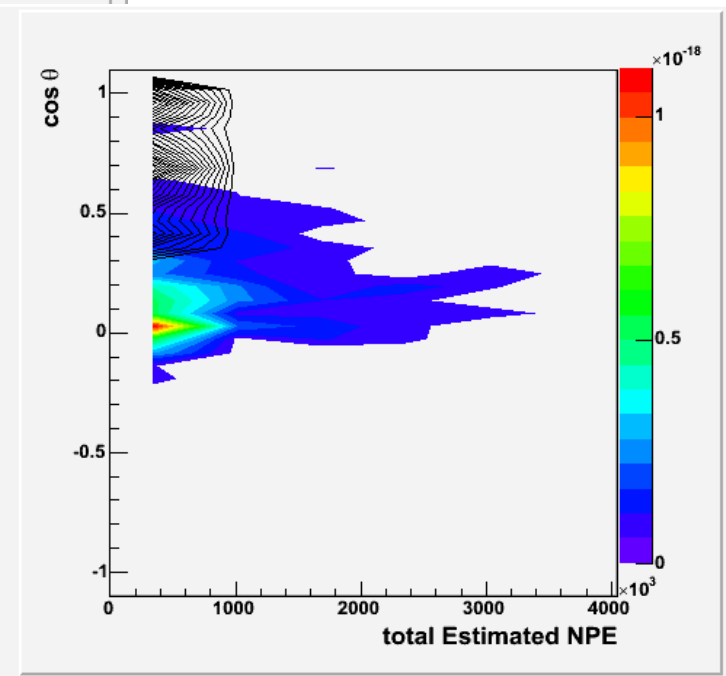
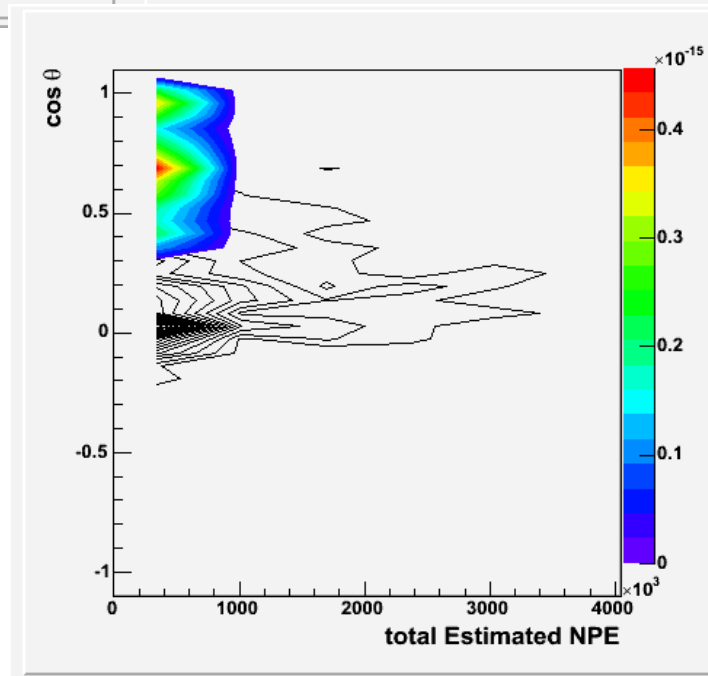


Weighted on Center of brightness $R < 500$ m



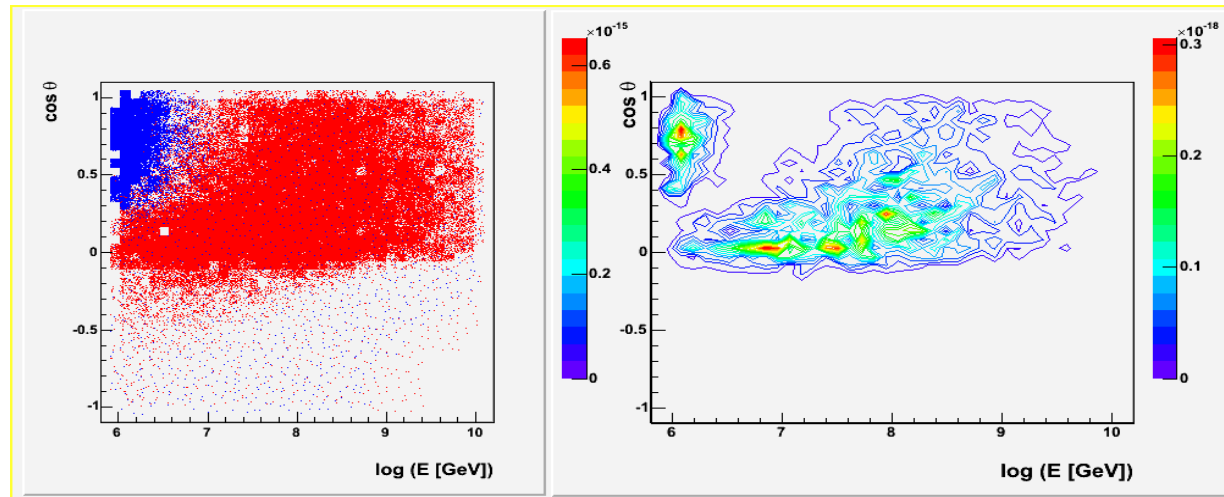
First-guess
vs.
Number of
DOMs
with Pulse

First-guess
vs.
Est. NPE

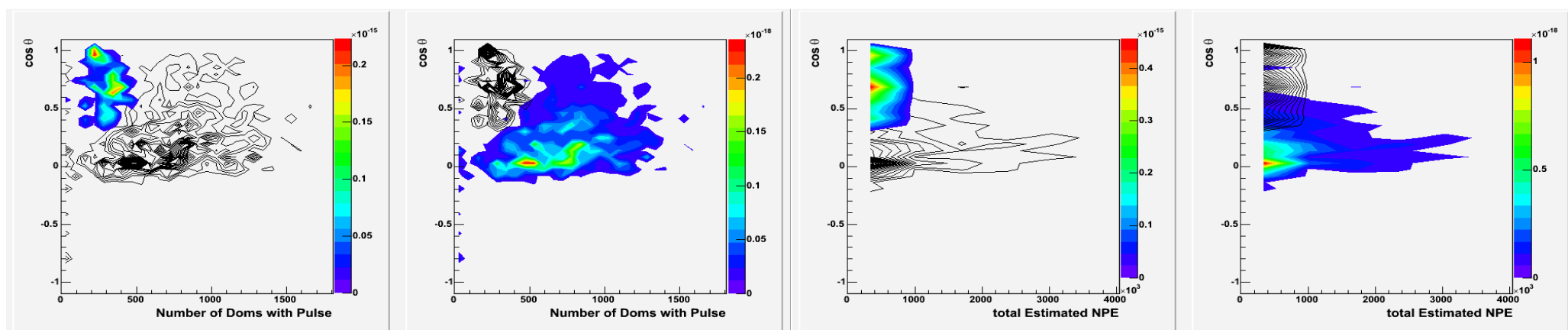


If you compare with MC Truth...

MC Truth



Fast Reco



Unweighted Events with center of brightness < 500 cm

