

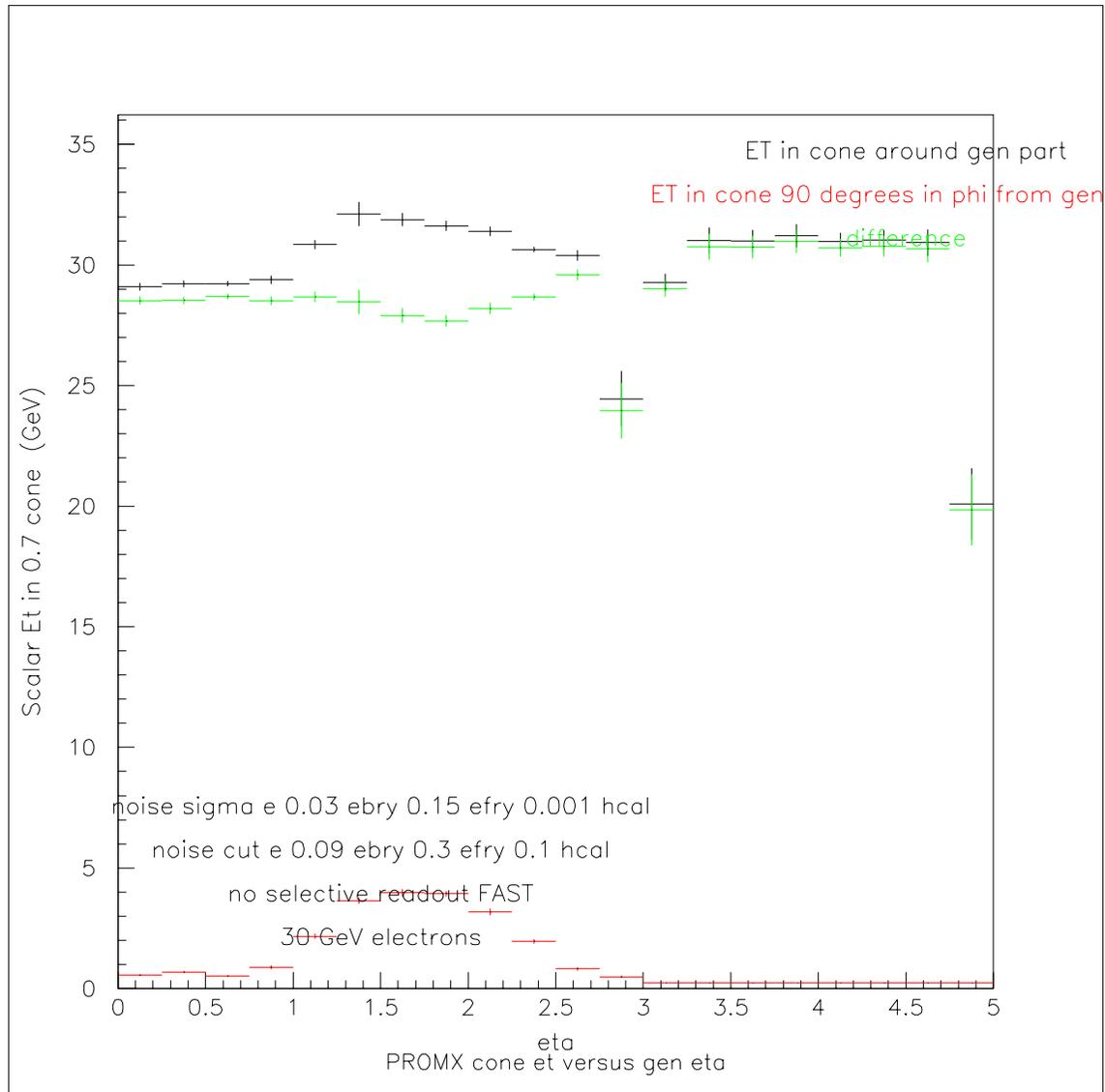
# E/P plots using Release20\_9\_99

Sarah Eno

# Basic Method

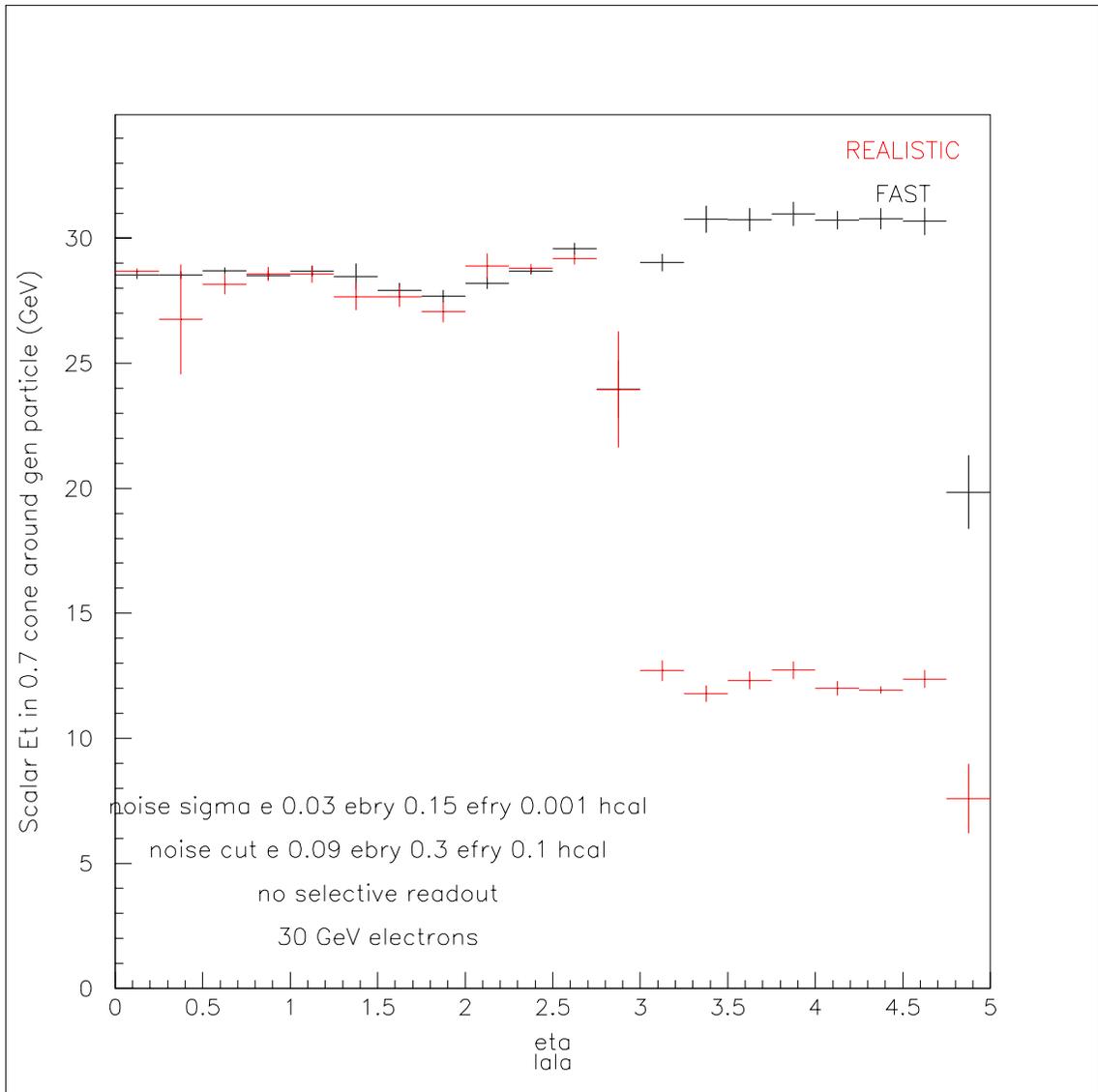
- get scalar  $E_t$  in cone of 0.7 around generator particle
- because I can not turn noise off, this is a big effect.
- so, also get scalar  $E_t$  in cone 180 degrees in  $\phi$  away from generator particle
- subtract to get true response.
- this is an over-subtraction, noise adds symmetrically (and thus cancels) to towers with real energy. only adds only positive energy to towers without any real energy.

# 30 GeV electrons



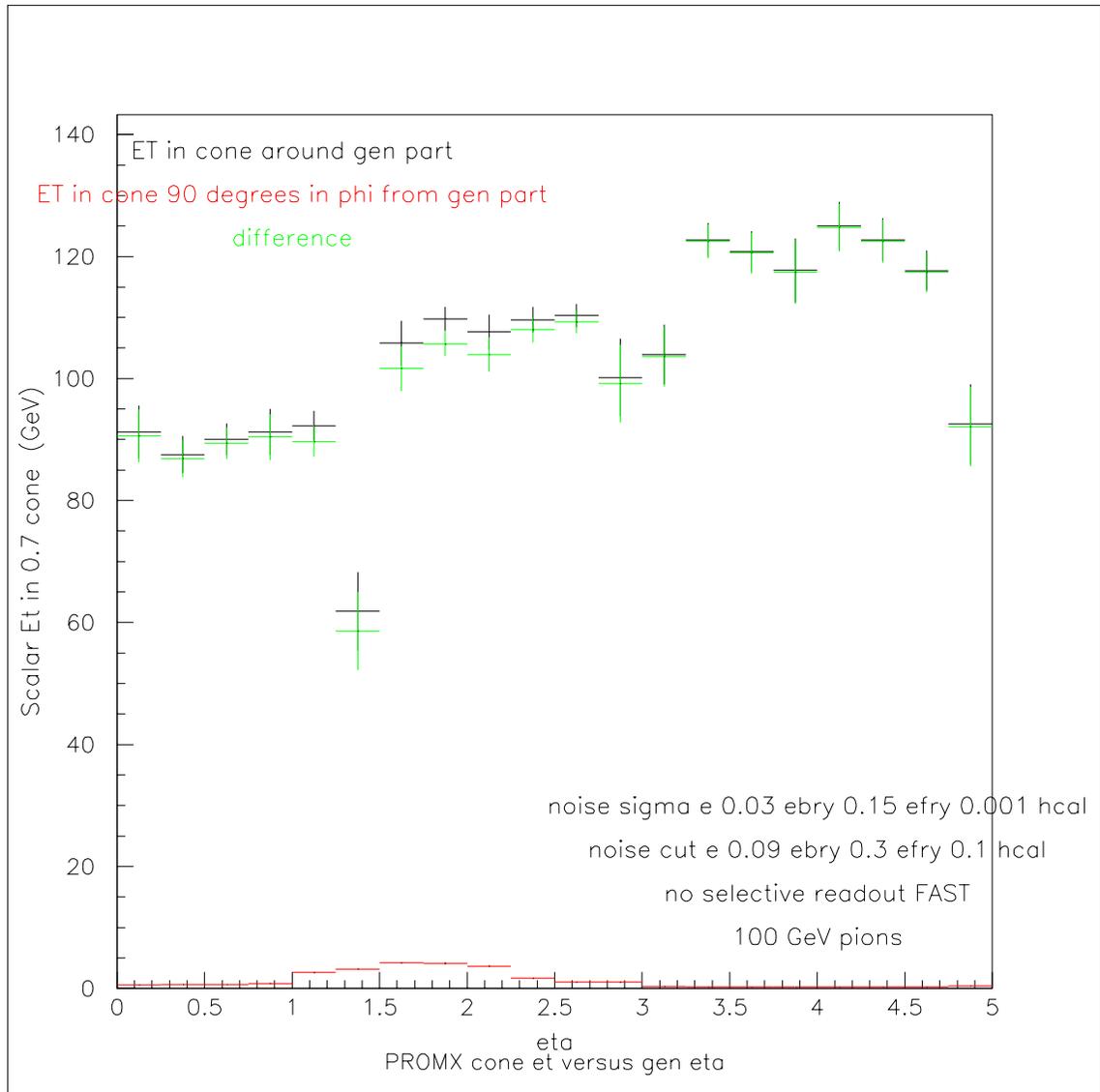
You can see the slight over subtraction in the very noise efry region.

# REALISTIC vs FAST



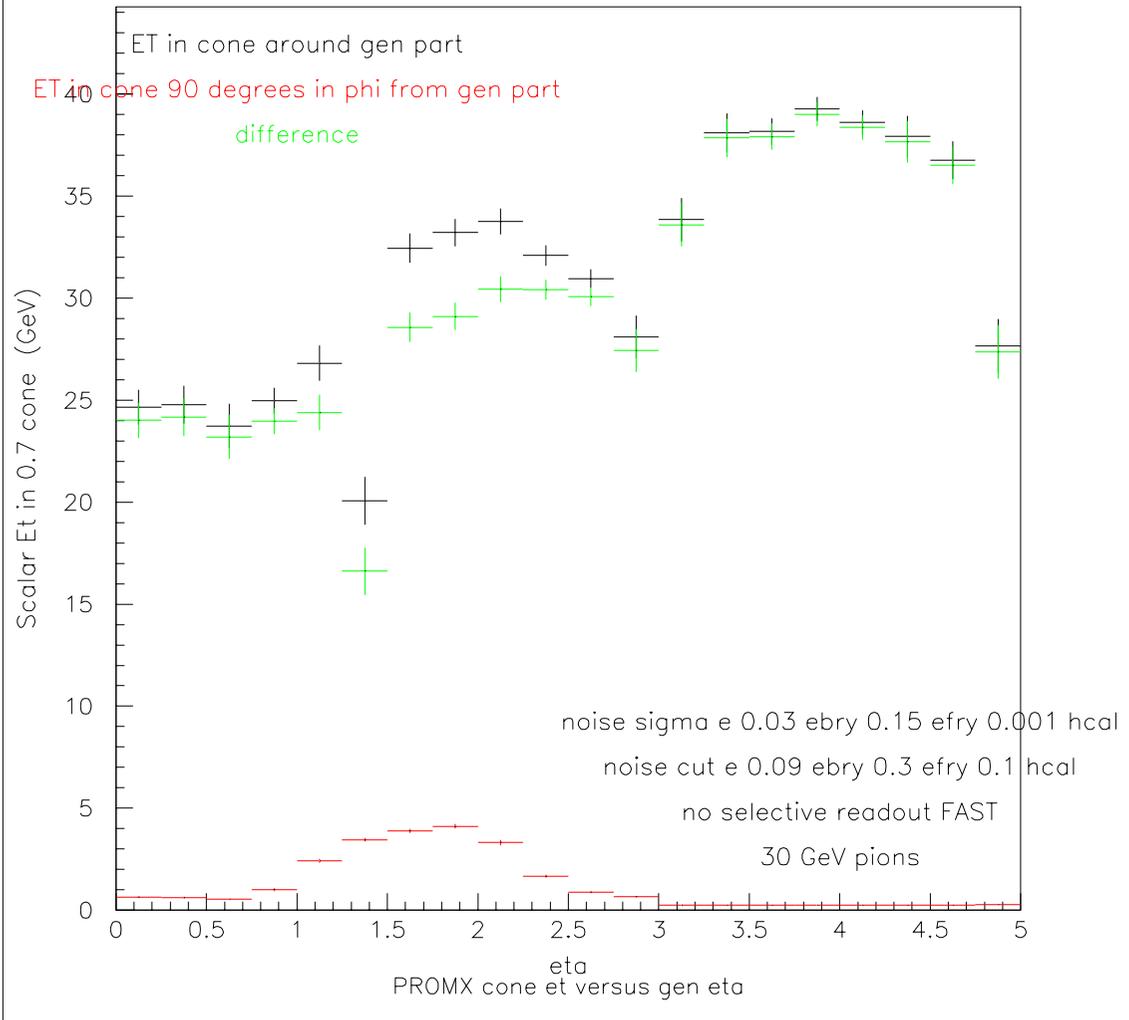
just to beat a dead horse, REALISTIC does not work in VF. will not use in production (in VF or HCAL)

# 100 GeV Pions



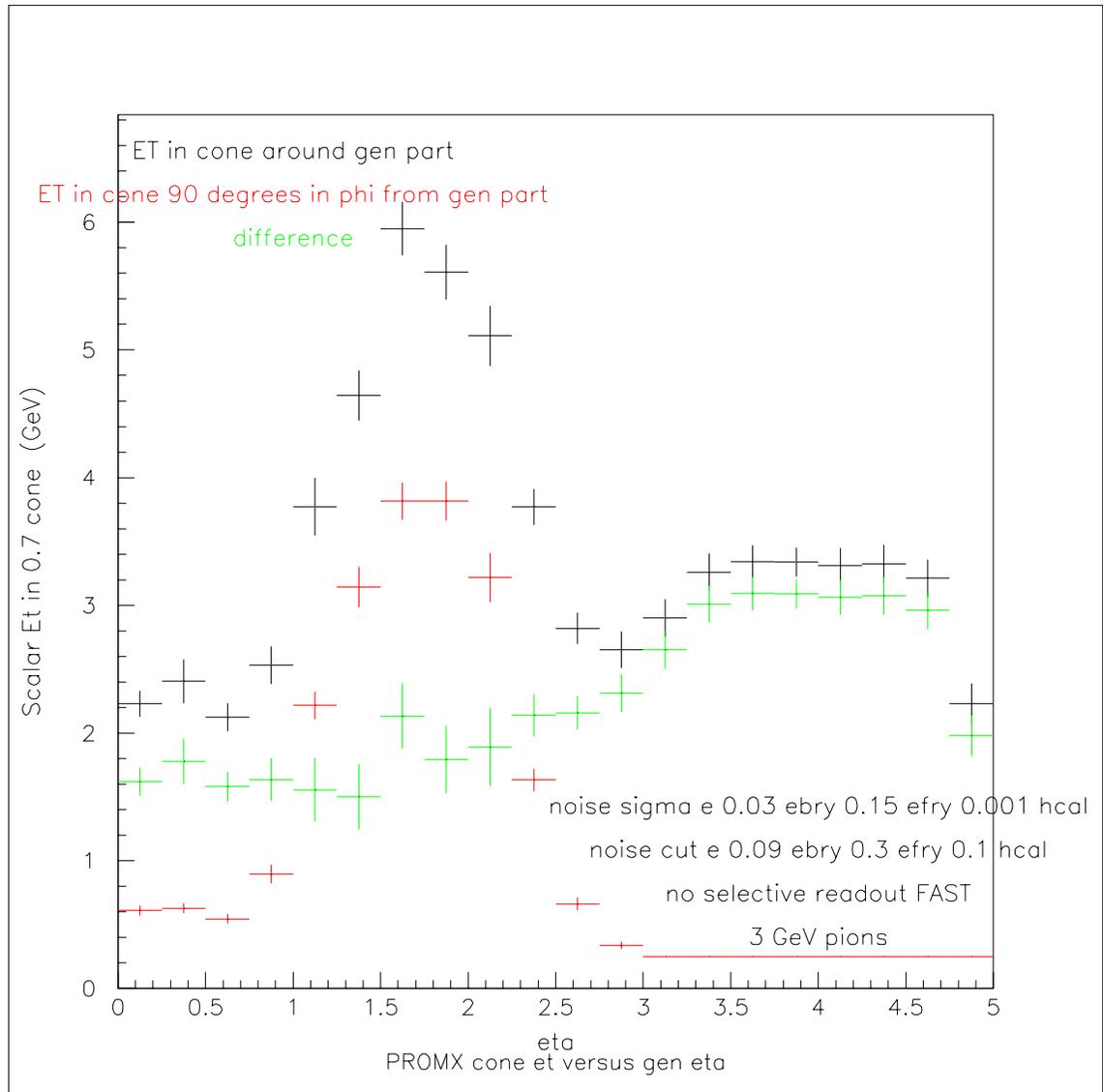
Not as flat as I would have hoped. does this look okay to you guys?

# 30 GeV pions



ditto...

# 3 GeV Pions



noise is a big effect down at 3 GeV. the green curve is the noise-subtracted one! (explains weimin's plots?)

# Question

I'm worried that the response is not flatter.  
What do you guys think? We need to certify  
this for the production?