Electron Reconstruction Study

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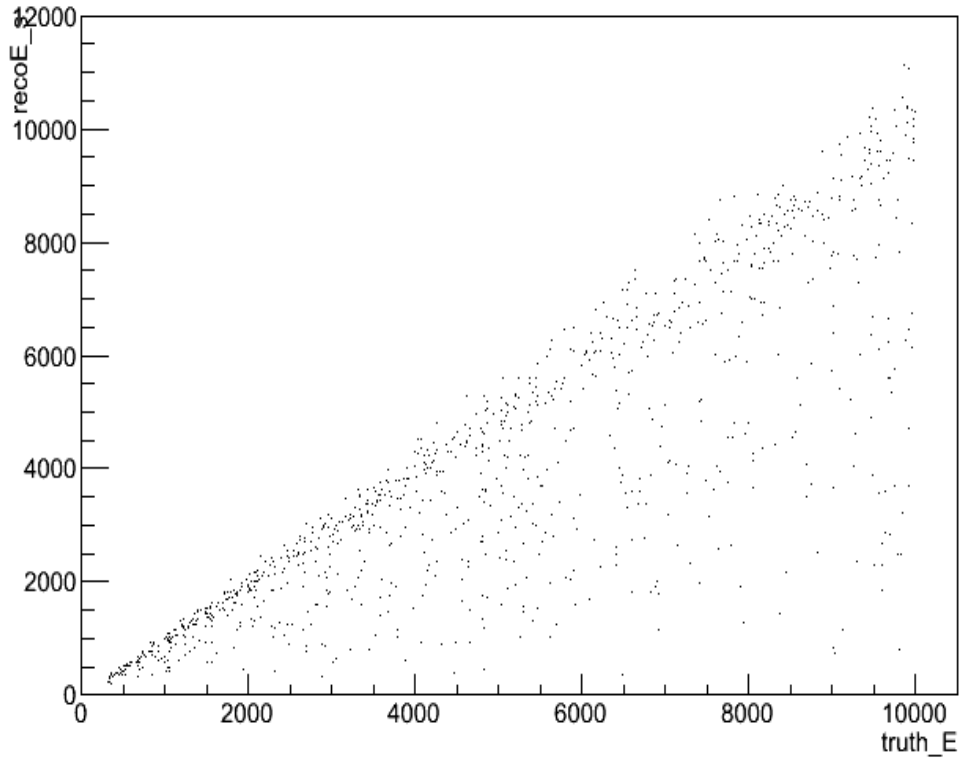
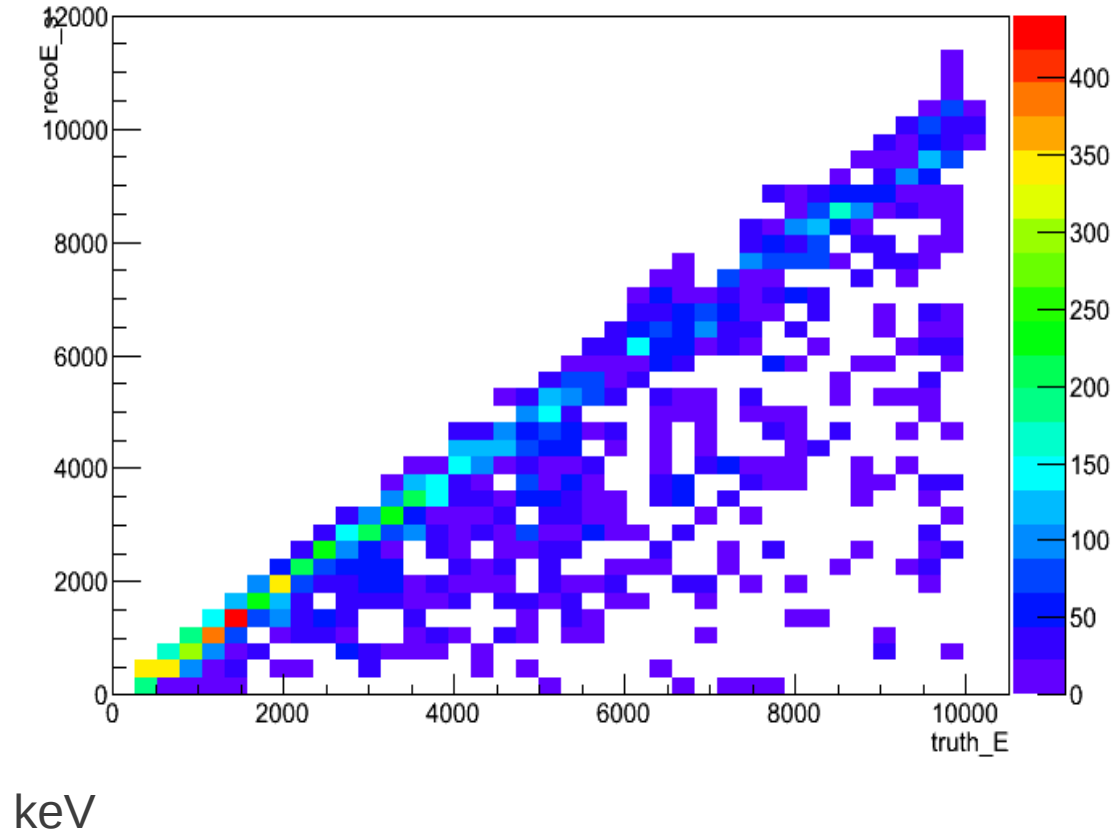# Electron Particle Gun Sample

Following Plots are from sample:

/minerva/data/users/jwpark/mc_production_v10r2p3/grid/central_value/minerva/ana/v10r2p3/00/00/01/00/SIM_minerva_00000100_*_Ana_Tuple_v3_v10r2p3_ConeDelta50_v14.root
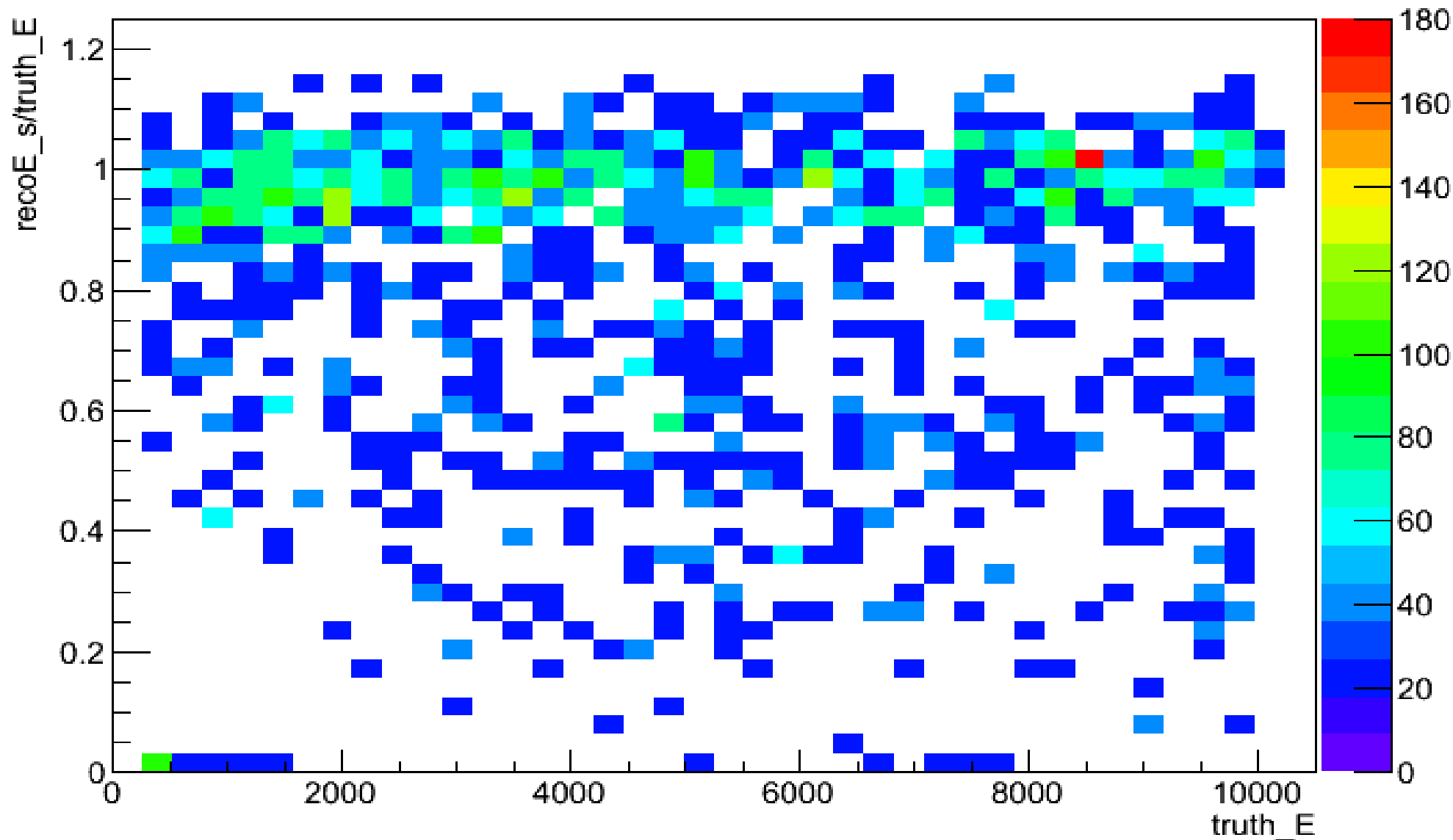
recoE vs truth_E

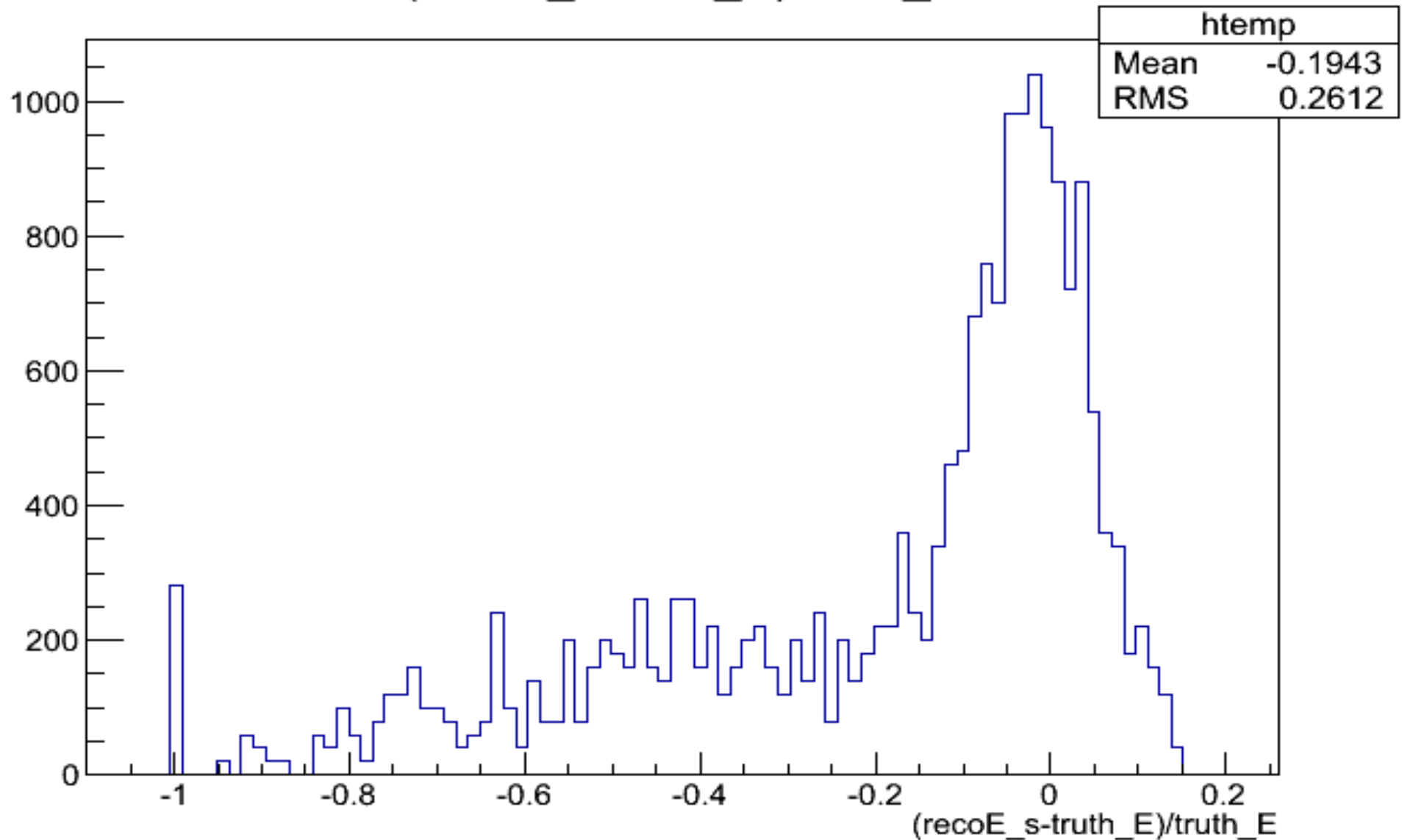recoE_s:truth_E

recoE_s:truth_E

keV

recoE/truth_E vs truth_E

recoE_s/truth_E:truth_E   keV

(recoE-truth_E)/truth_E

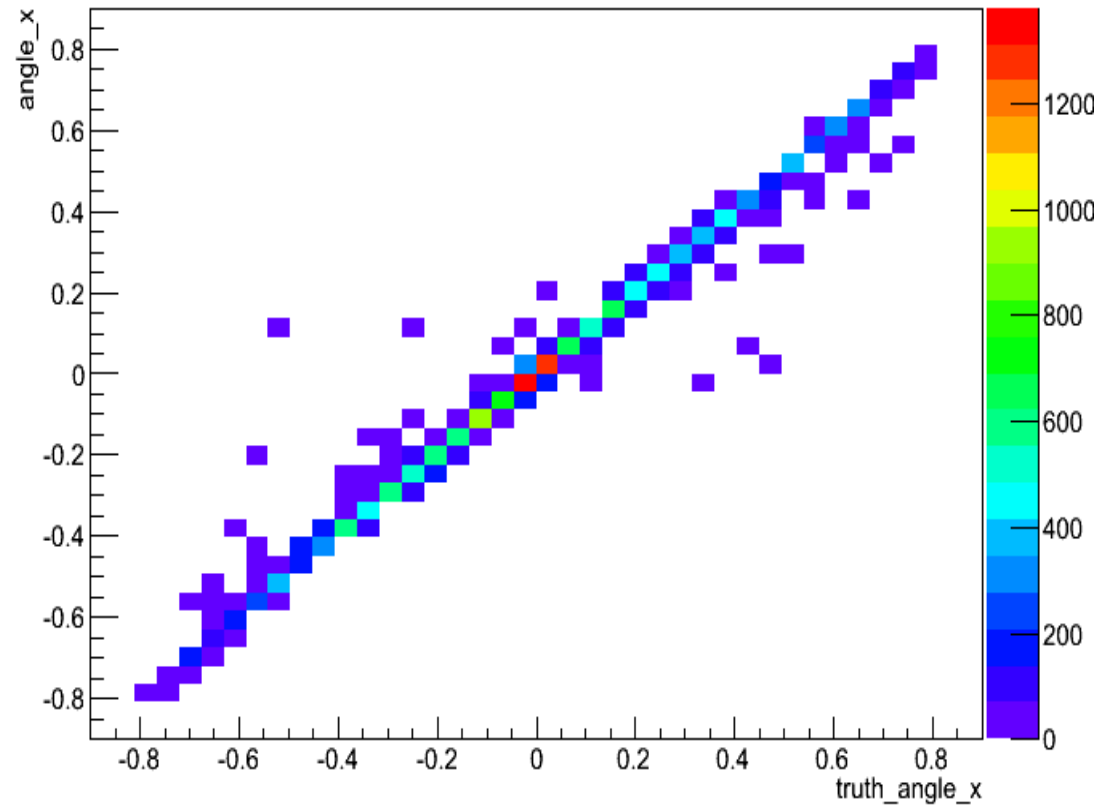
(recoE_s-truth_E)/truth_E

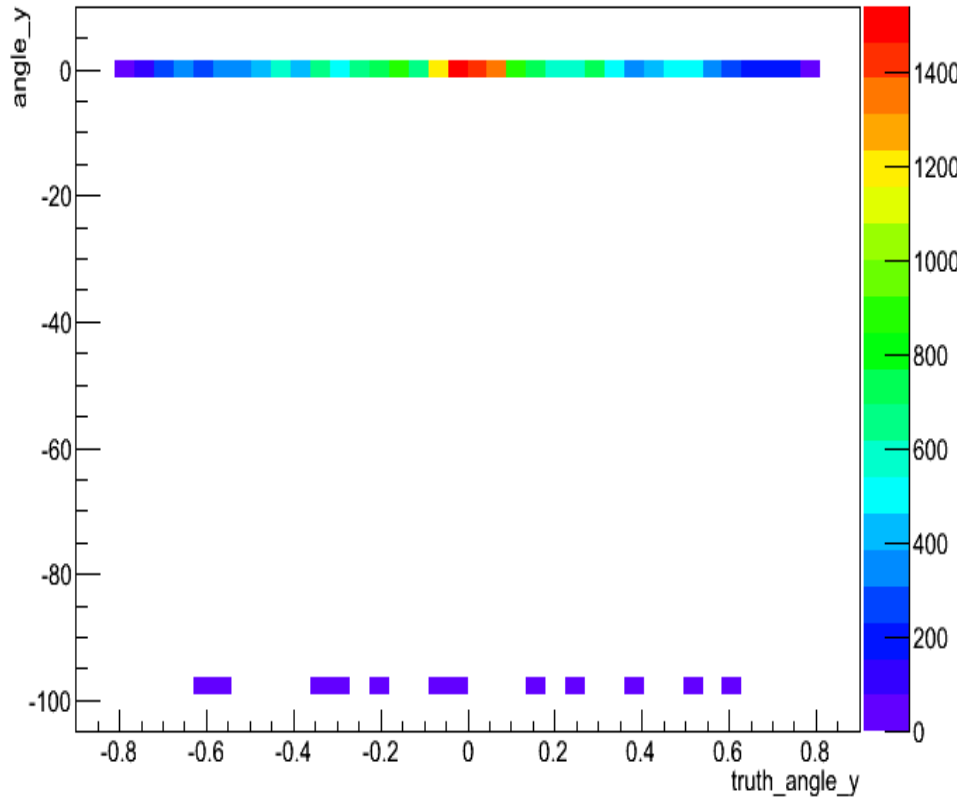| htemp	
Mean	-0.1943
RMS	0.2612

reco angle_x vs true angle_x

Original Plot
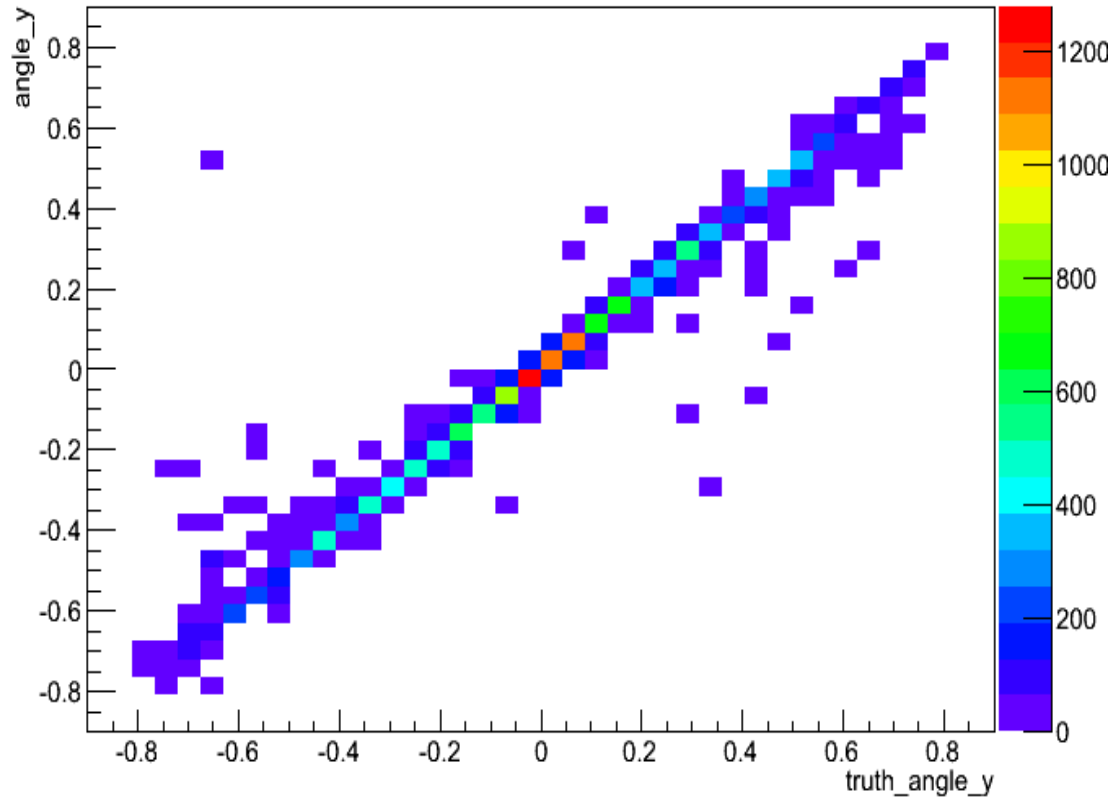Why reco angles have value
of -100 ?

"Zoomed in" at truth angle Plot

reco angle_y vs true angle_y
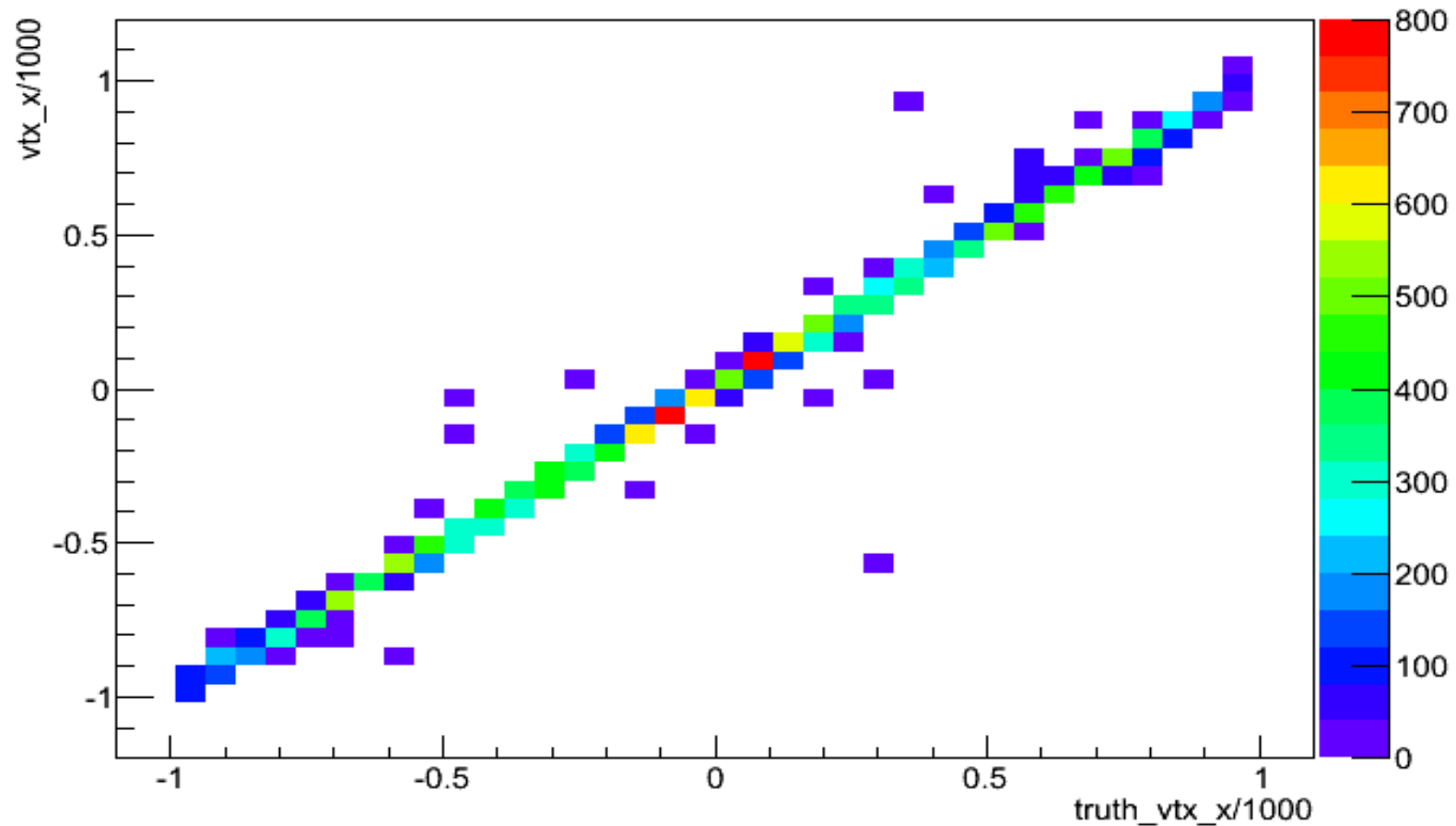

angle_y:truth_angle_y

angle_y:truth_angle_y {angle_y>-10}
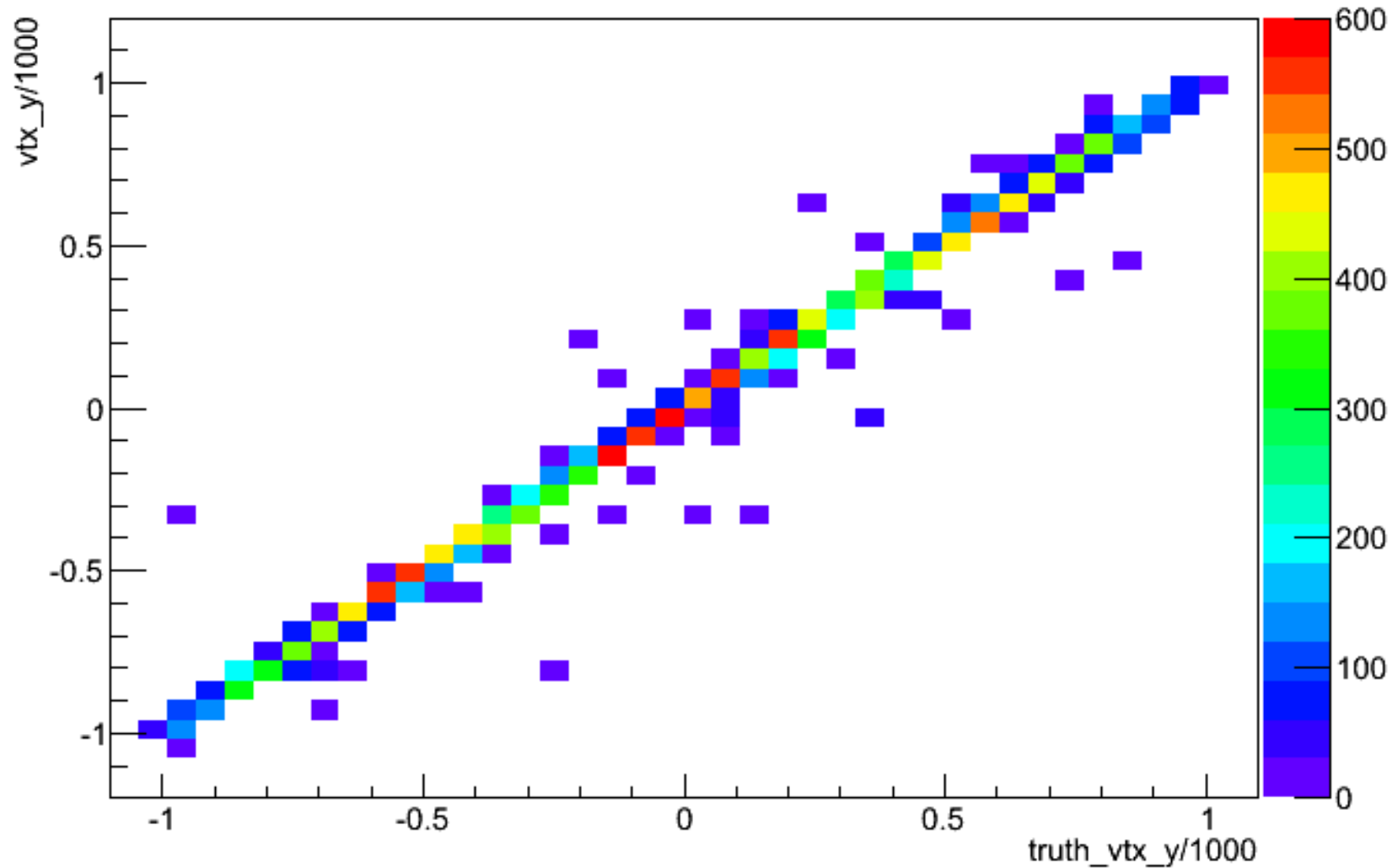
Same for angle_y

reco vertex x vs true vertex x

vtx_x/1000:truth_vtx_x/1000 {vtx_x/1000>-5}

There are some Reco vertex x = -10 m(?) --are removed
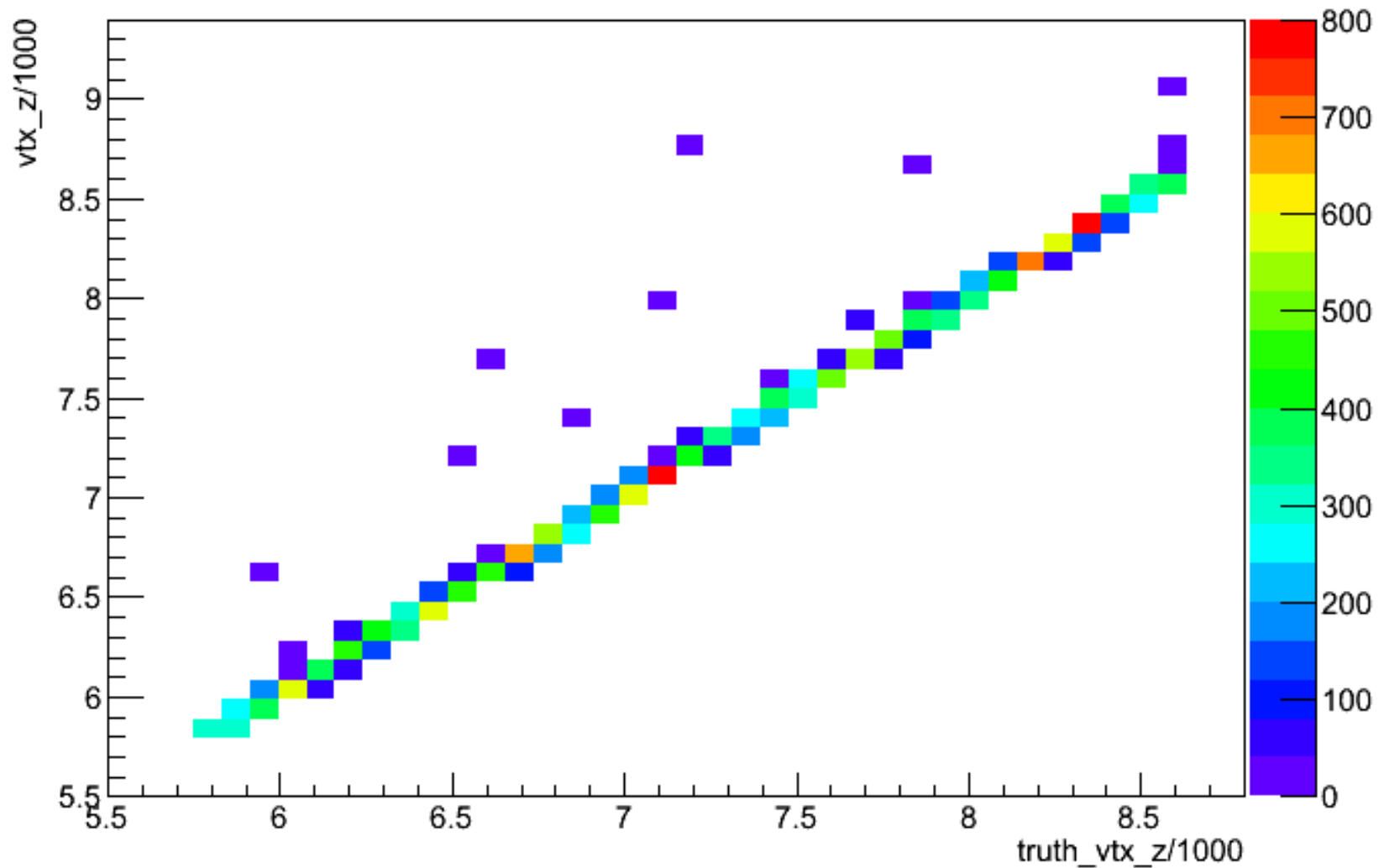
reco vertex y vs true vertex y

vtx_y/1000:truth_vtx_y/1000 {vtx_y/1000>-5}

Same for vertex y

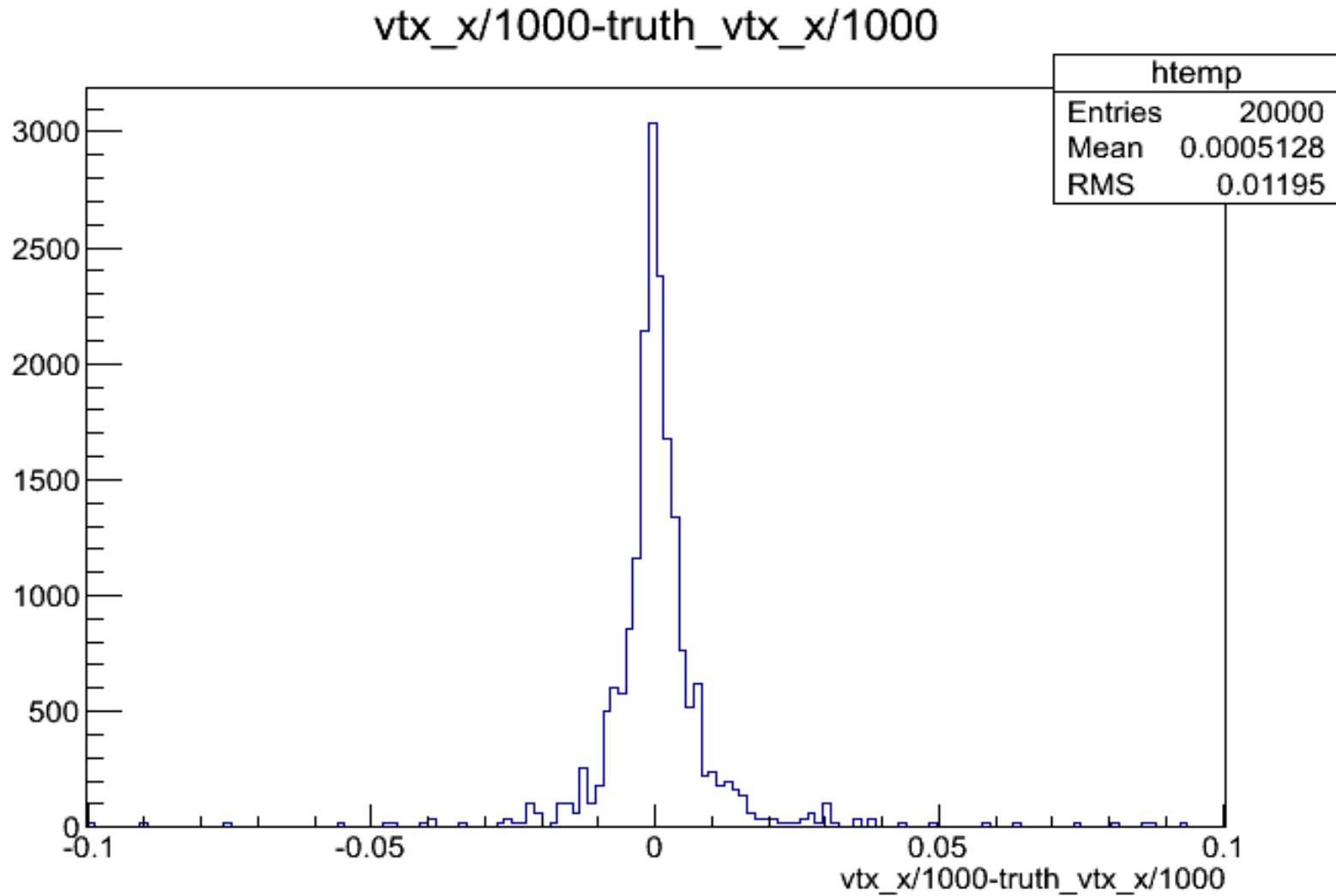# reco vertex z vs true vertex z

vtx_z/1000:truth_vtx_z/1000 {vtx_z/1000>-5}

Same for vertex z

reco vertex x - true vertex x

vtx_x/1000-truth_vtx_x/1000

htemp	
Entries	20000
Mean	0.0005128
RMS	0.01195

vtx_x/1000-truth_vtx_x/1000

reco vertex y - true vertex y

vtx_y/1000-truth_vtx_y/1000

htemp	
Entries	20000
Mean	0.0004362
RMS	0.01577

vtx_y/1000-truth_vtx_y/1000

meter

reco vertex z - true vertex z

vtx_z/1000-truth_vtx_z/1000

htemp	
Entries	20000
Mean	0.0109
RMS	0.012

vtx_z/1000-truth_vtx_z/1000

meter