Electron Reconstruction Study

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Electron Particle Gun Sample

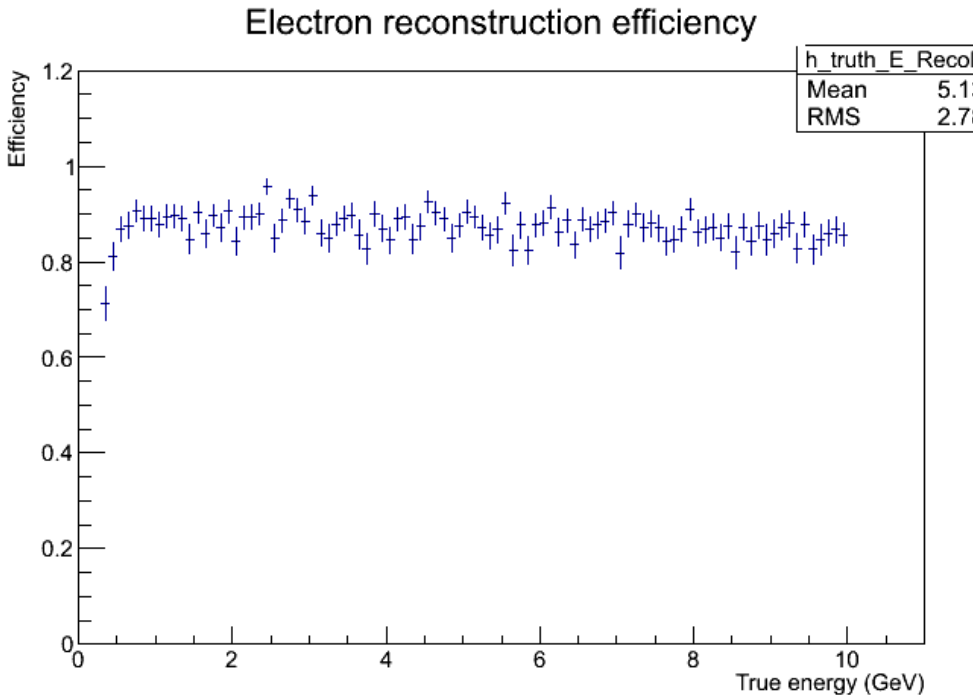
- Files:

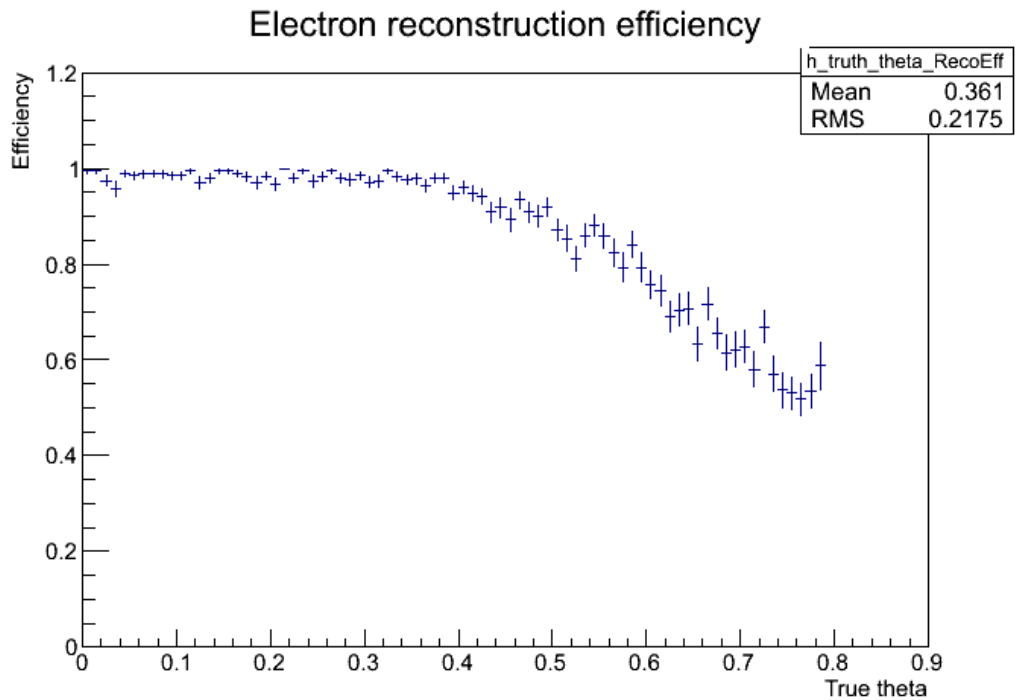
  minerva/data/users/jwpark/mc_production_v10r2p3/grid/central_value/minerva/ana/v10r2p3/00/00/01/00/SIM_minerva_00000100_%04i_Ana_Tuple_v3_v10r2p3_ConeDelta50_v17.root

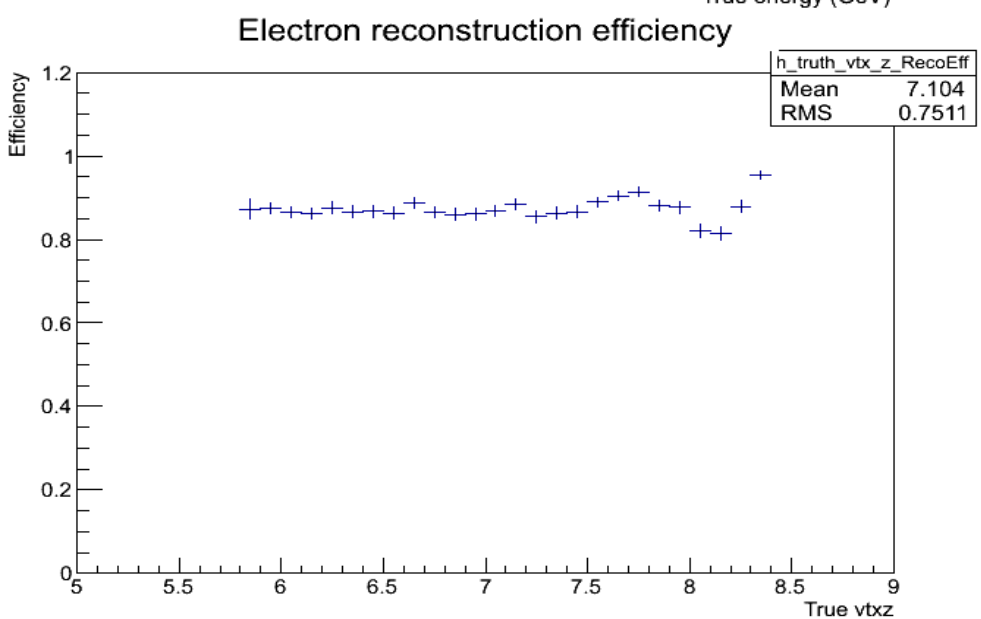
- Reconstruction Cuts

  truth_fiducial_evt==1 && XzUzDiff>=-2 && XzUzDiff<4 && XzVzDiff>=-2 && XzVzDiff<4 && chi2PerDoF>0 && (vtx_mod<=60 && neighborhoodEnergy/recoE_s<0.022 || vtx_mod>60 && neighborhoodEnergy/recoE_s<0.042)

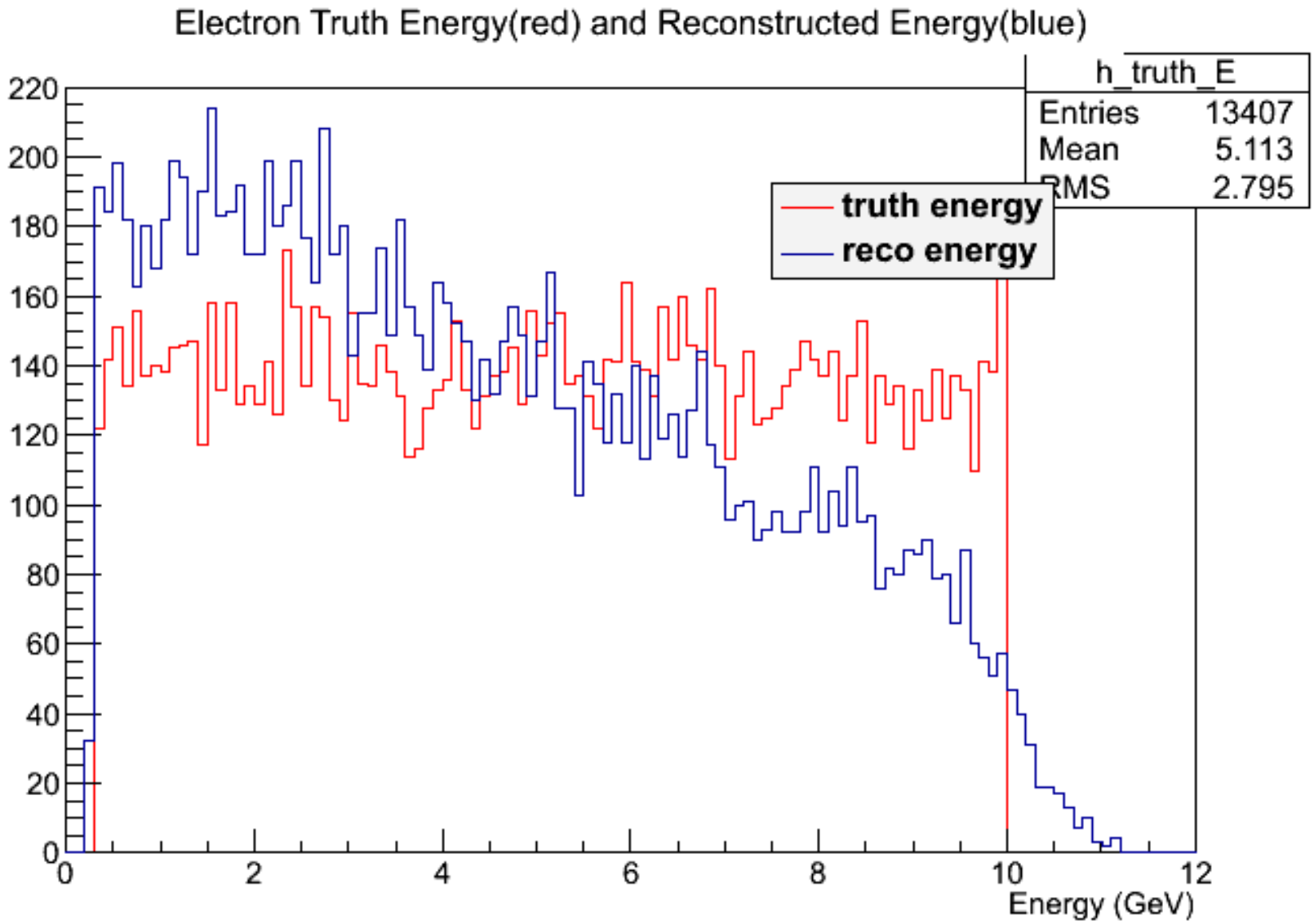
Efficiency vs True Energy/theta/vertex z



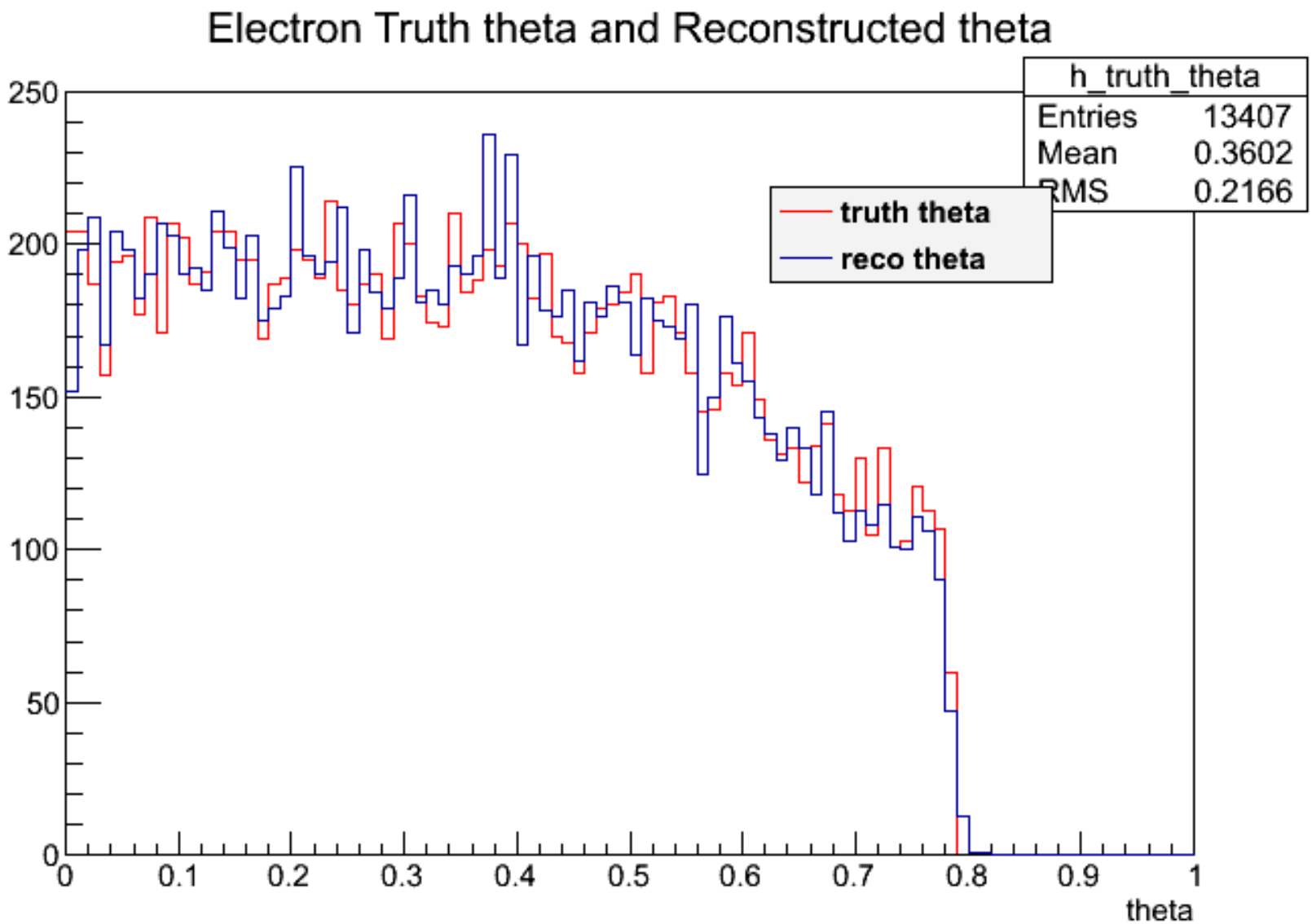




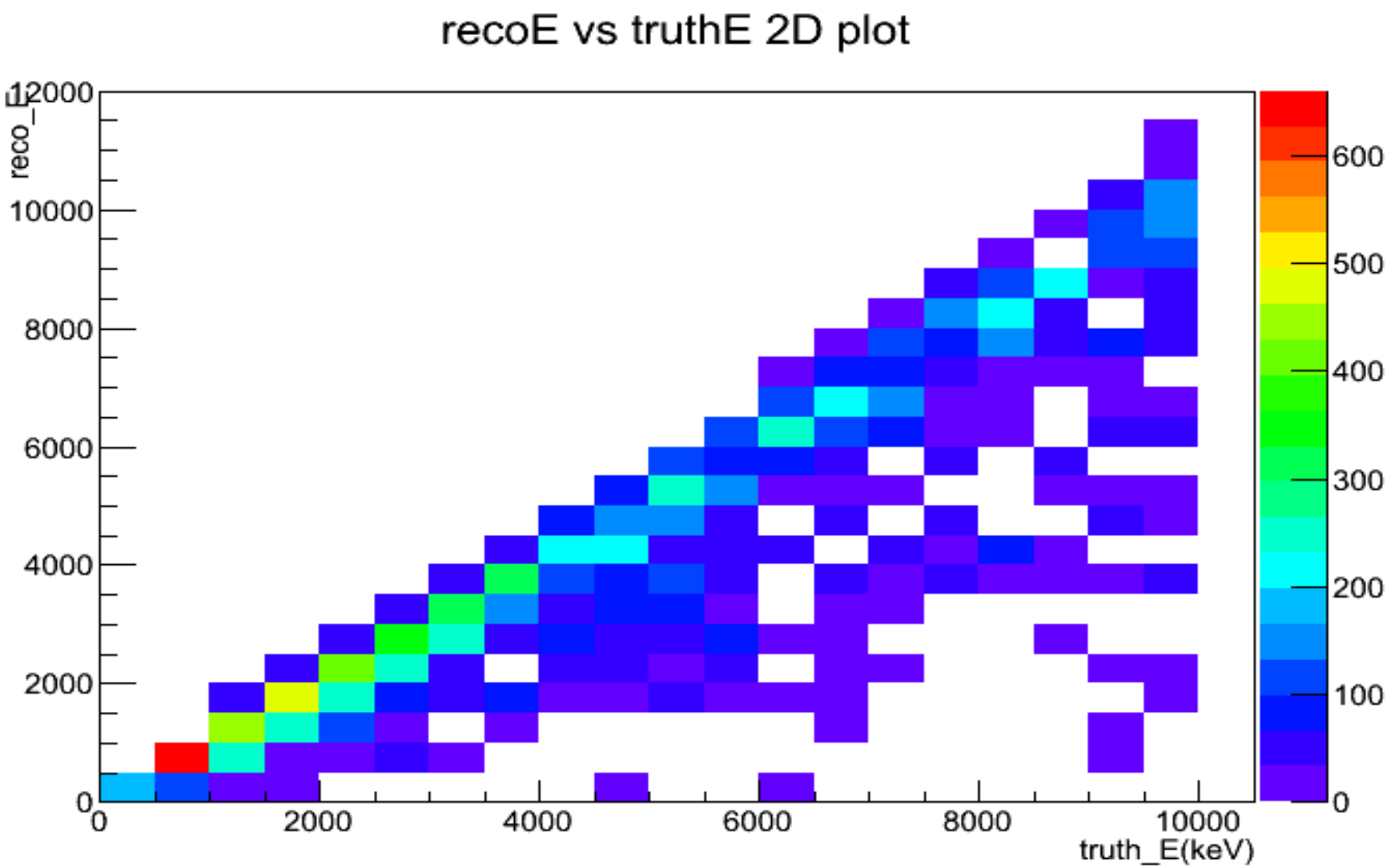
Truth Energy and Reco Energy Spectrum



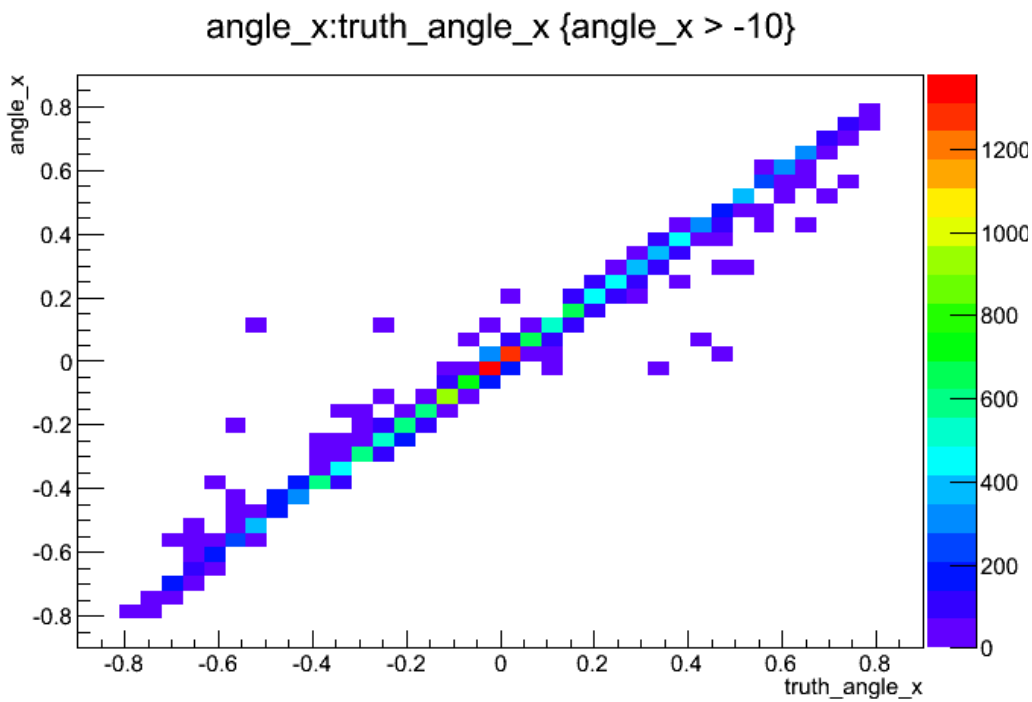
Truth Theta and Reco Theta



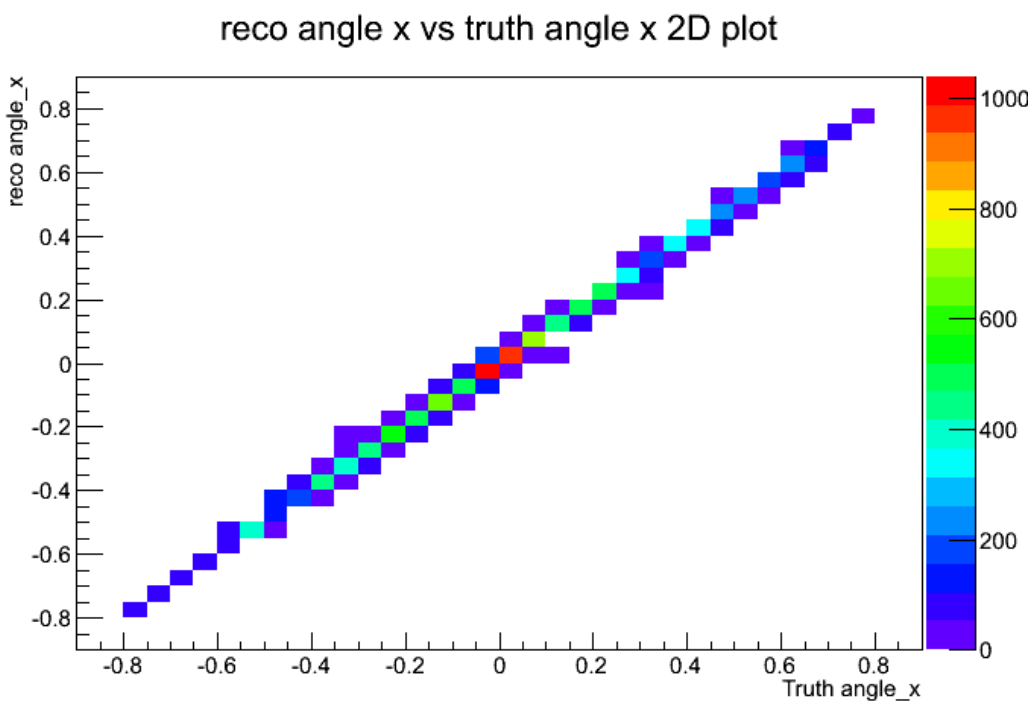
recoE_s vs truth_E



Reco angle_x vs truth_angle_x before and after reco cut

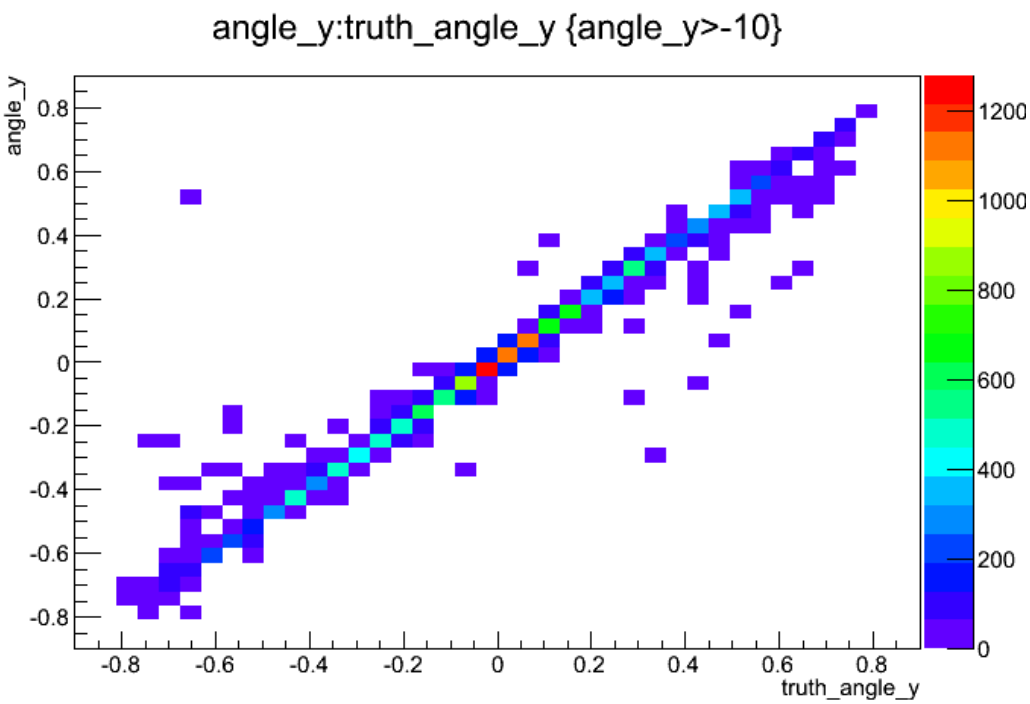


before

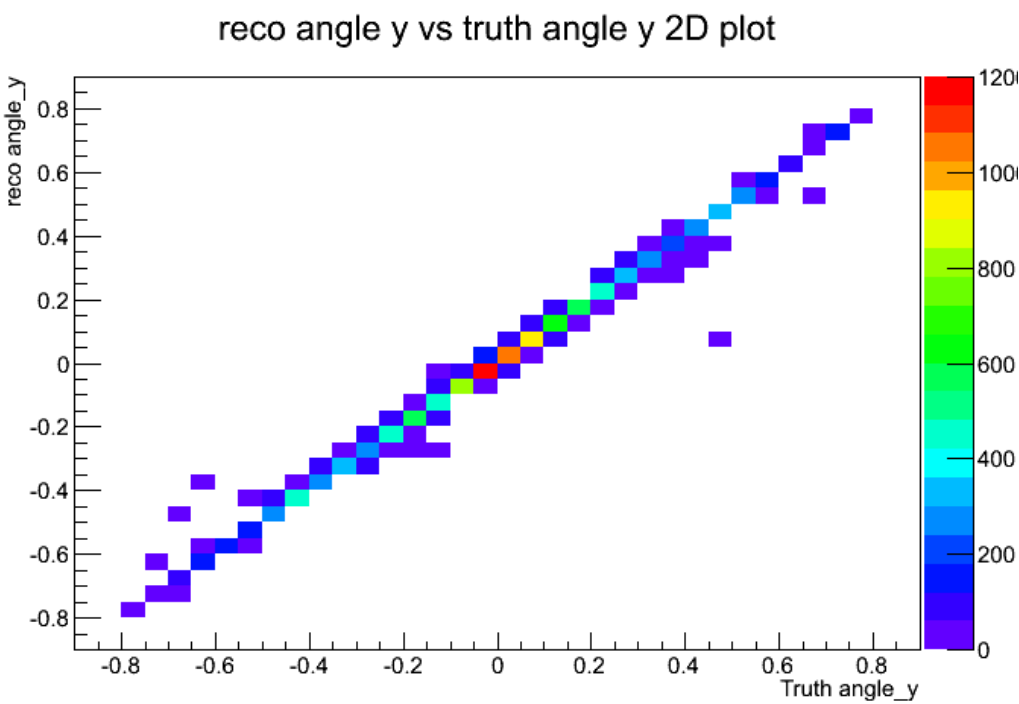


after

Reco angle_x vs truth_angle_x before and after reco cut

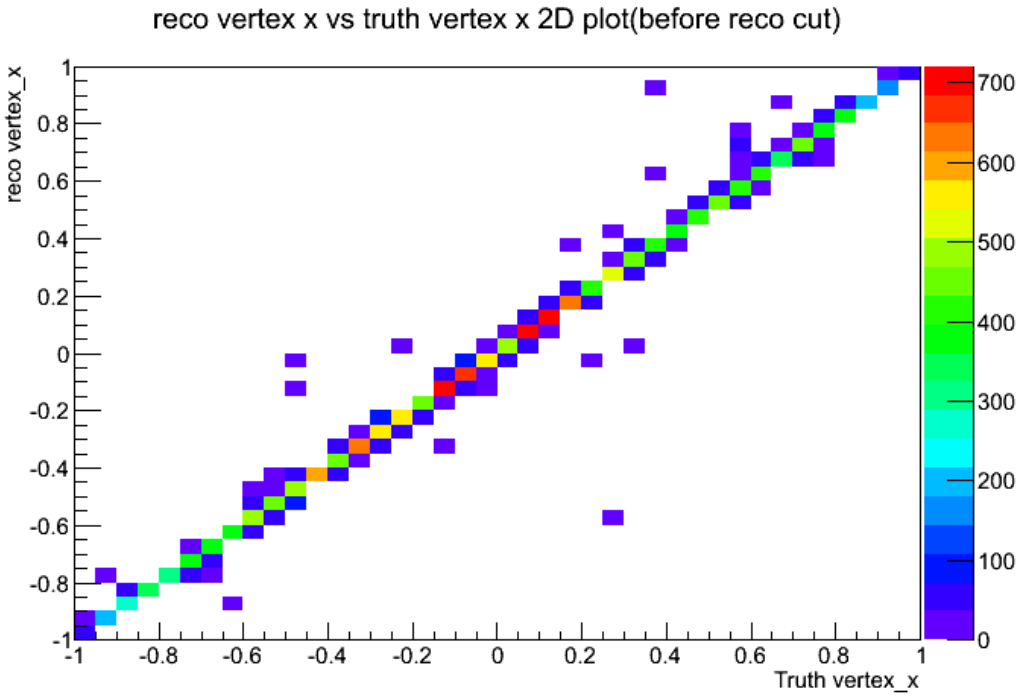


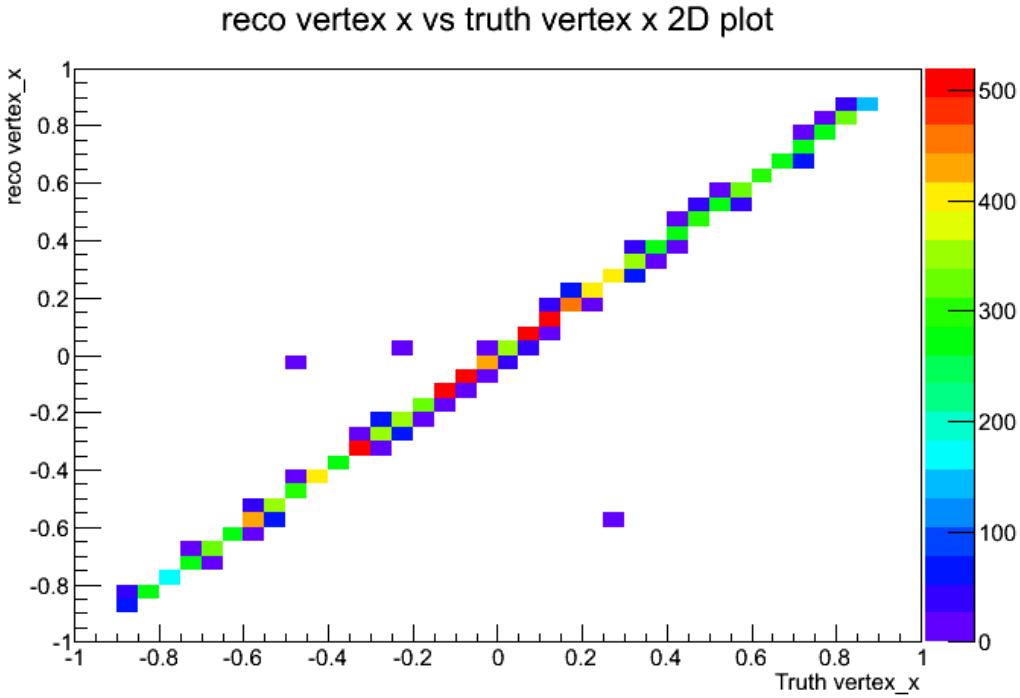
before

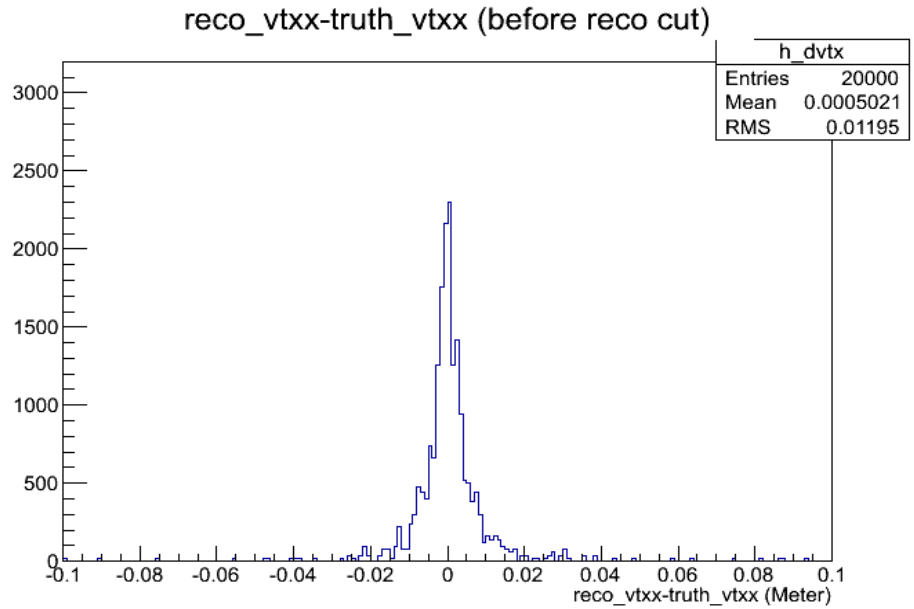


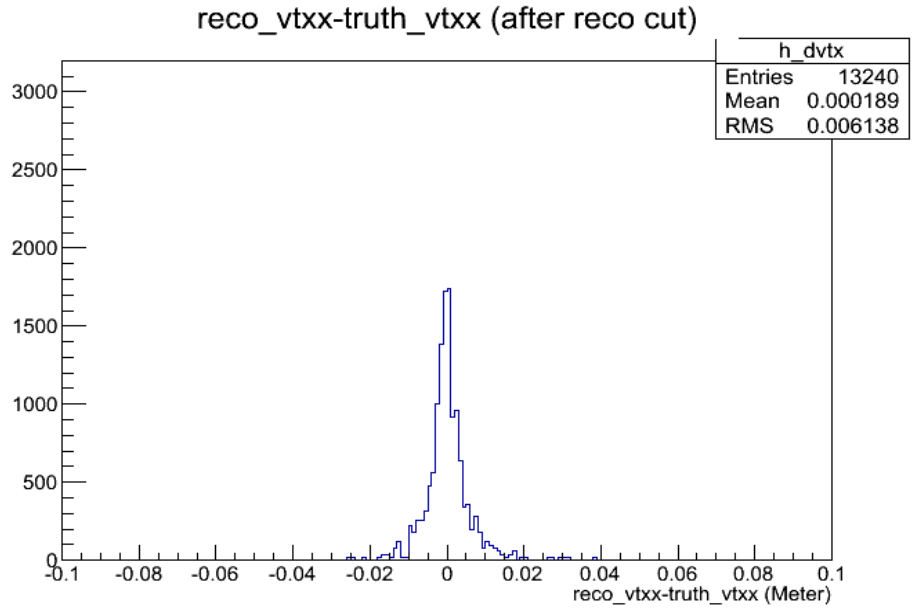
after

Reco vertex x vs truth vertex x before and after reco cut

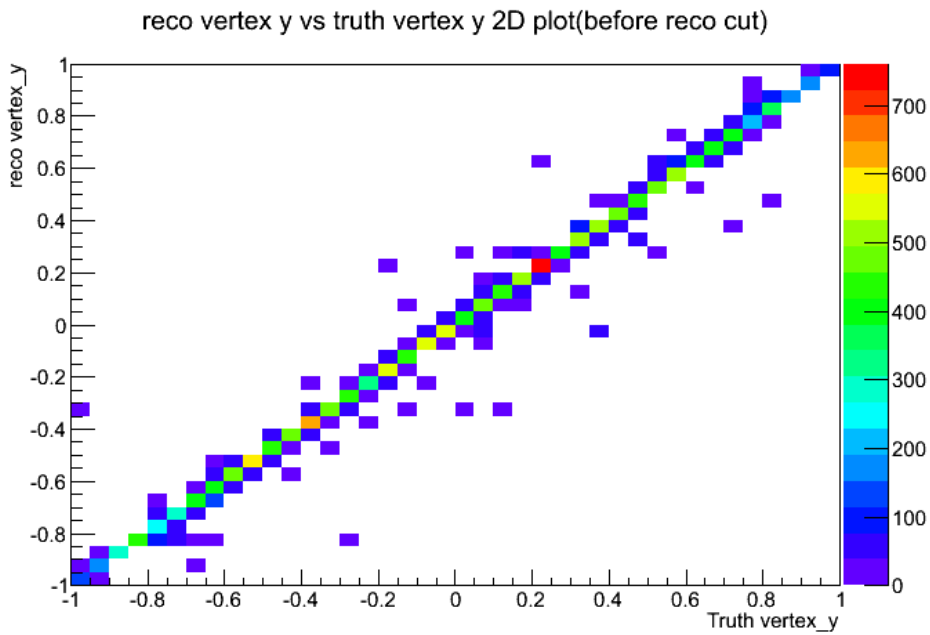


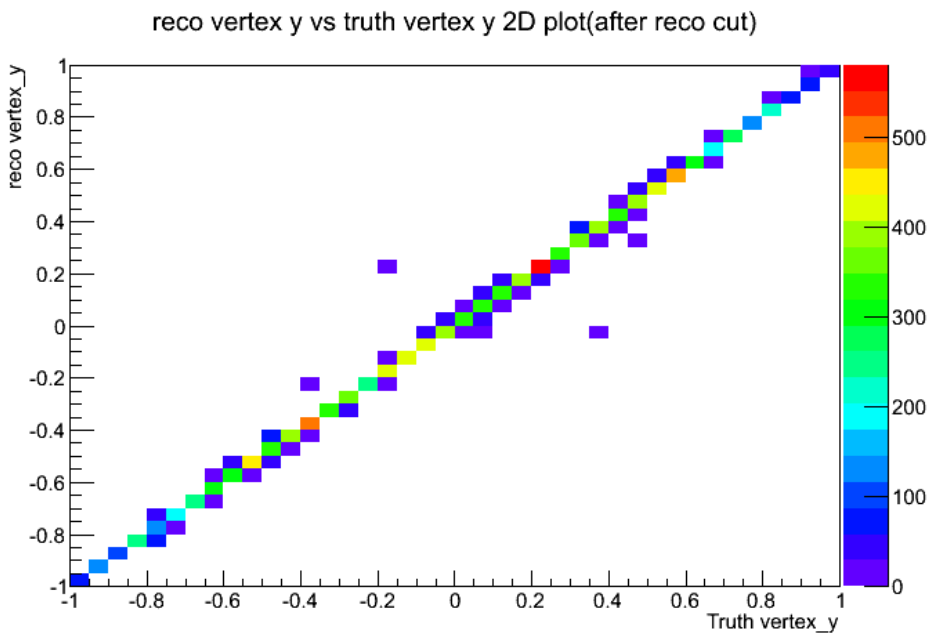


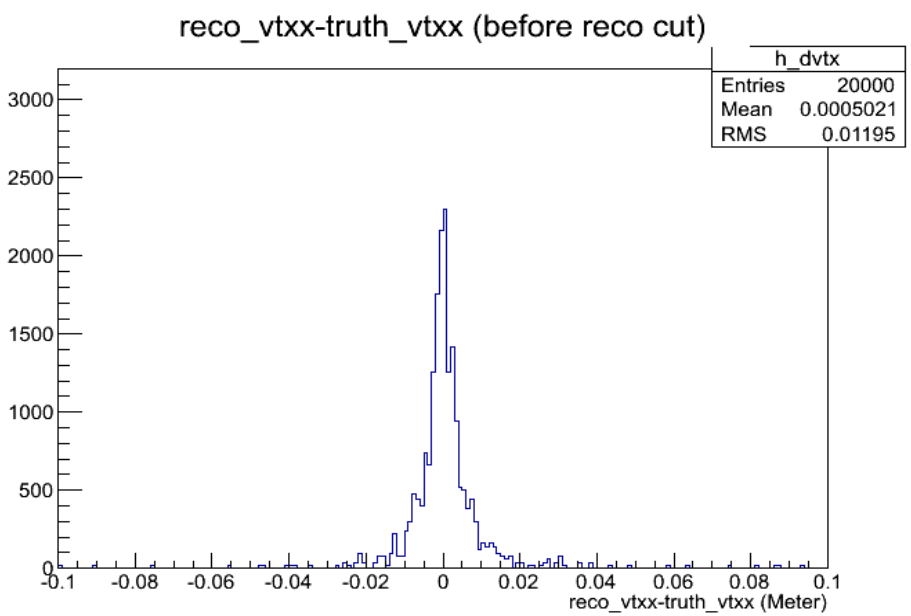


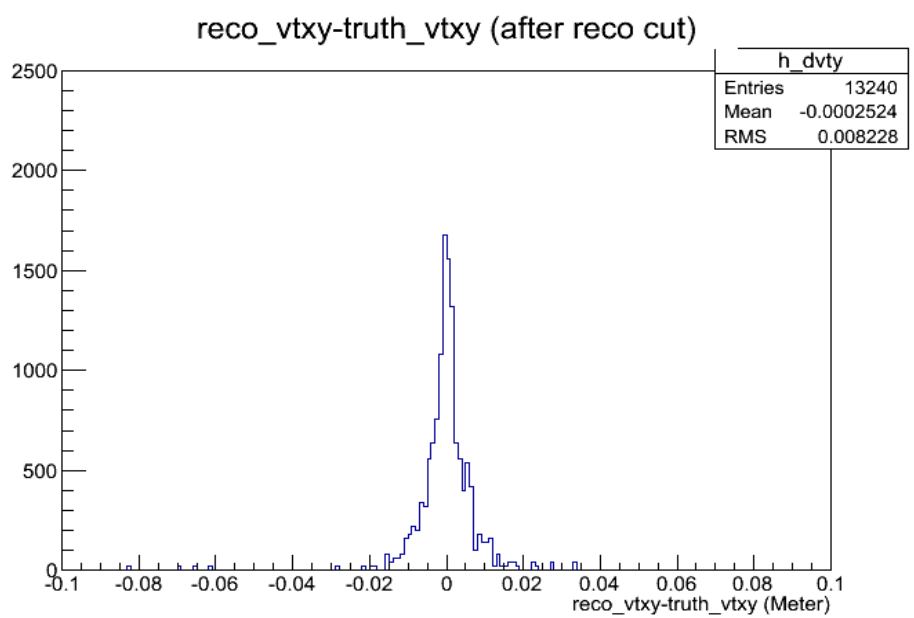


Reco vertex y vs truth vertex y before and after reco cut

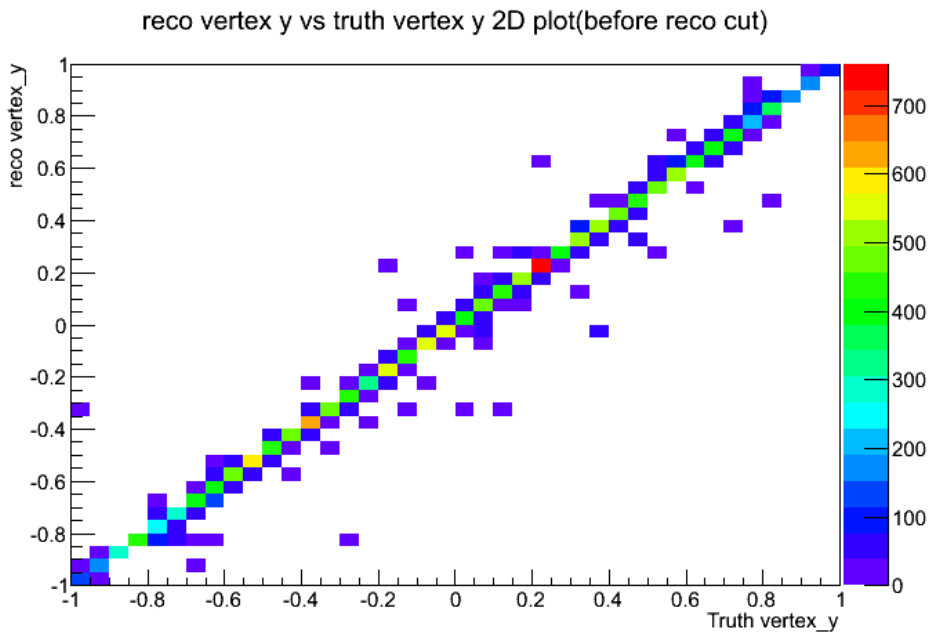


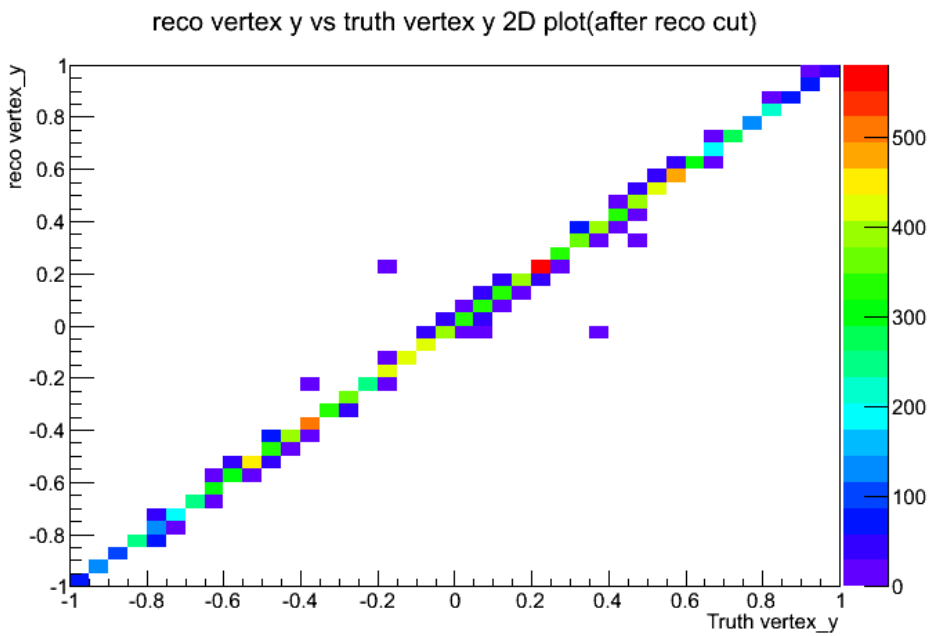


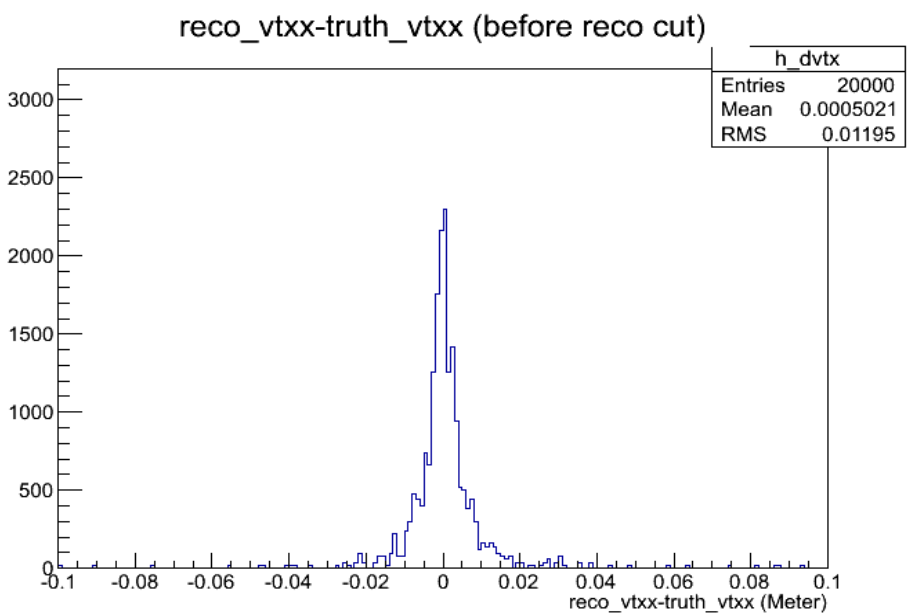


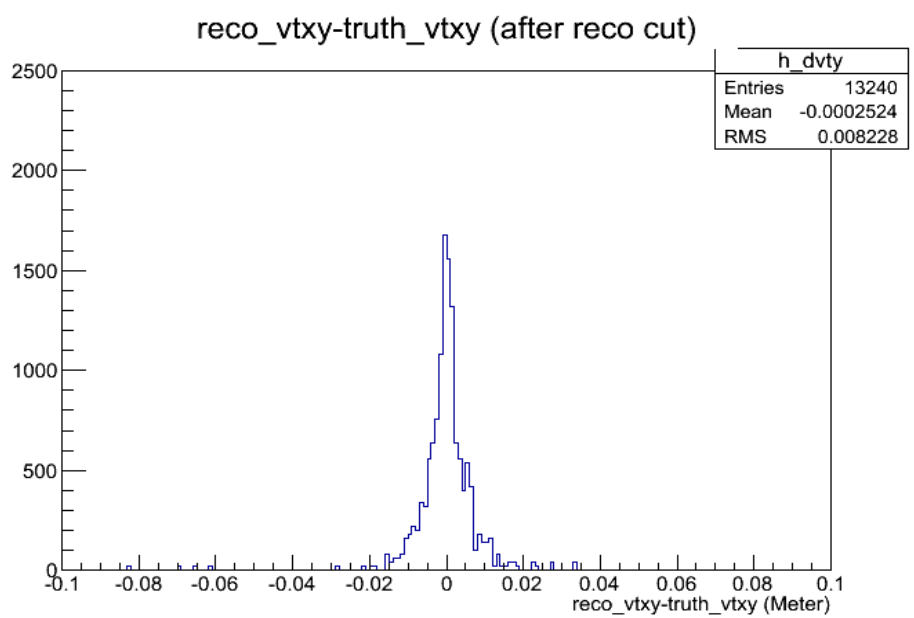


Reco vertex y vs truth vertex y before and after reco cut

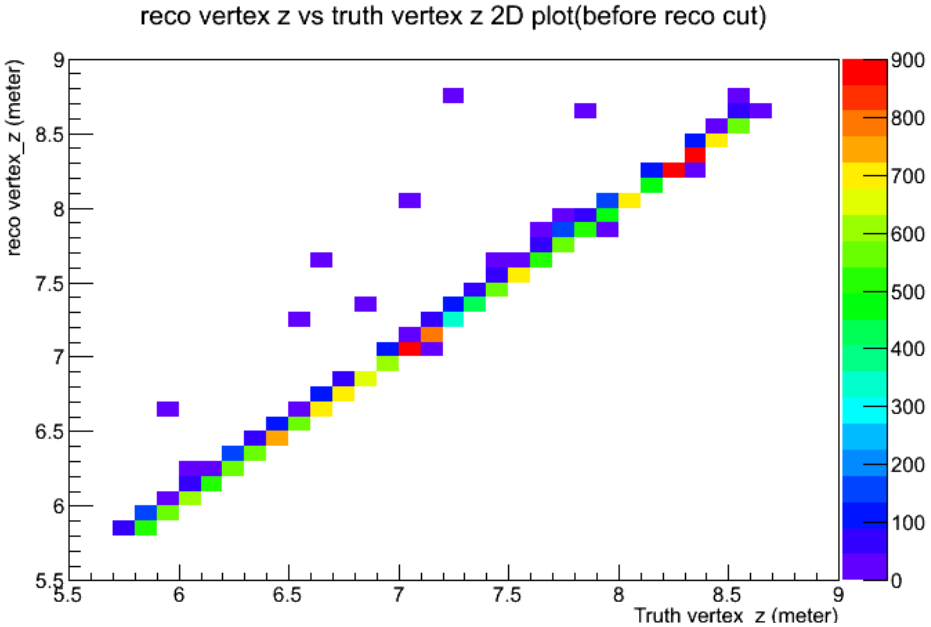


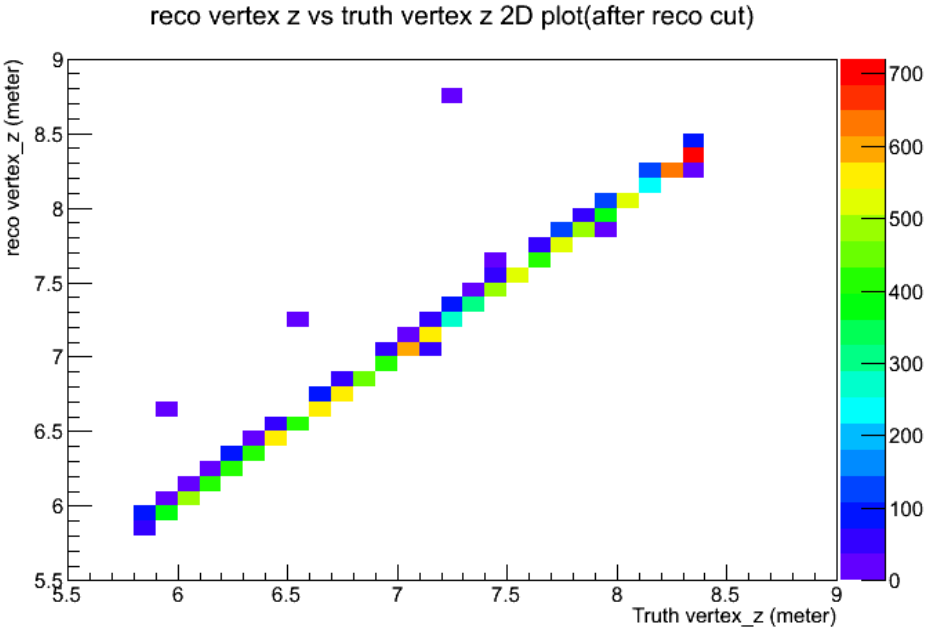


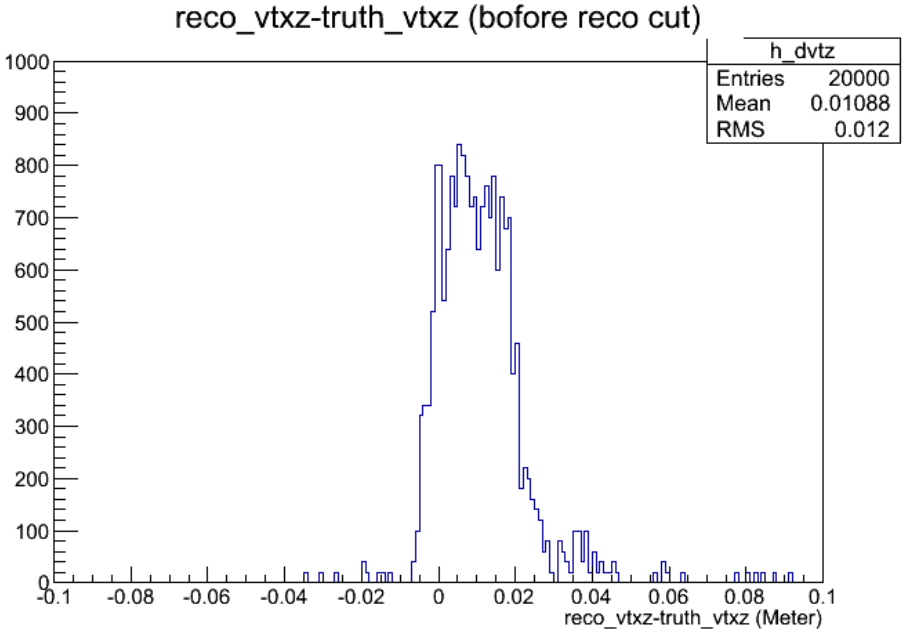


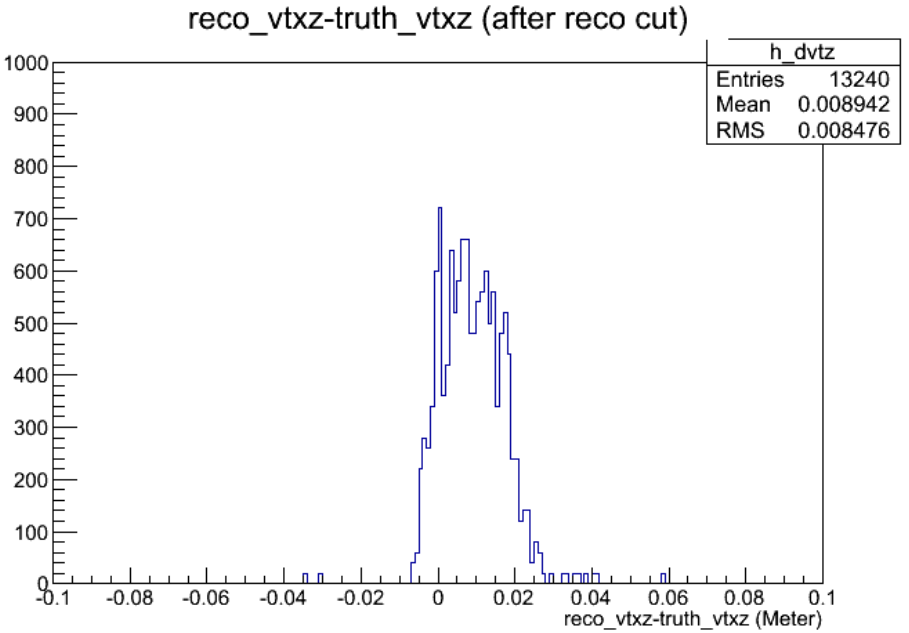
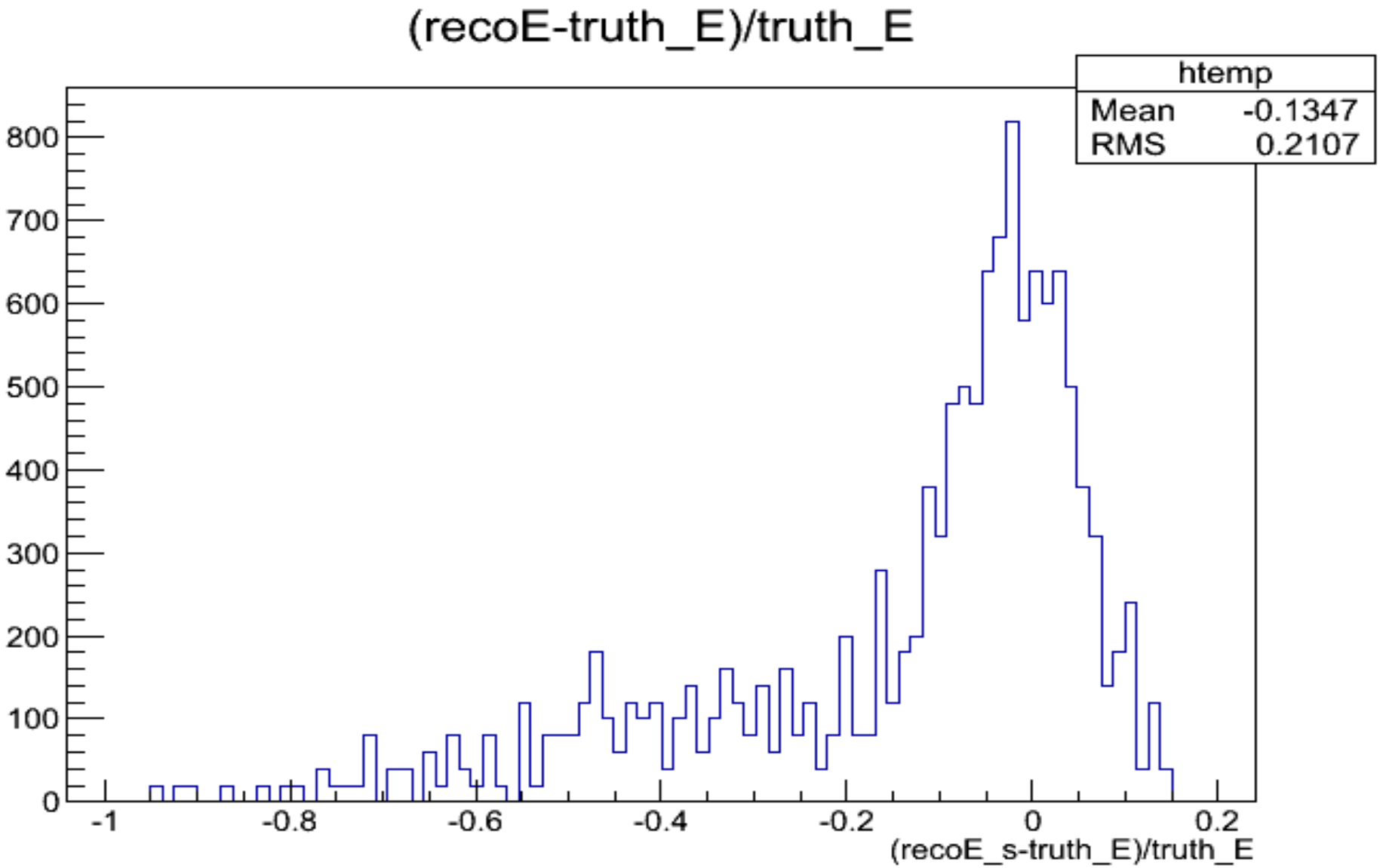


Reco vertex z vs truth vertex z before and after reco cut









(recoE_s-truth_E)/truth_E