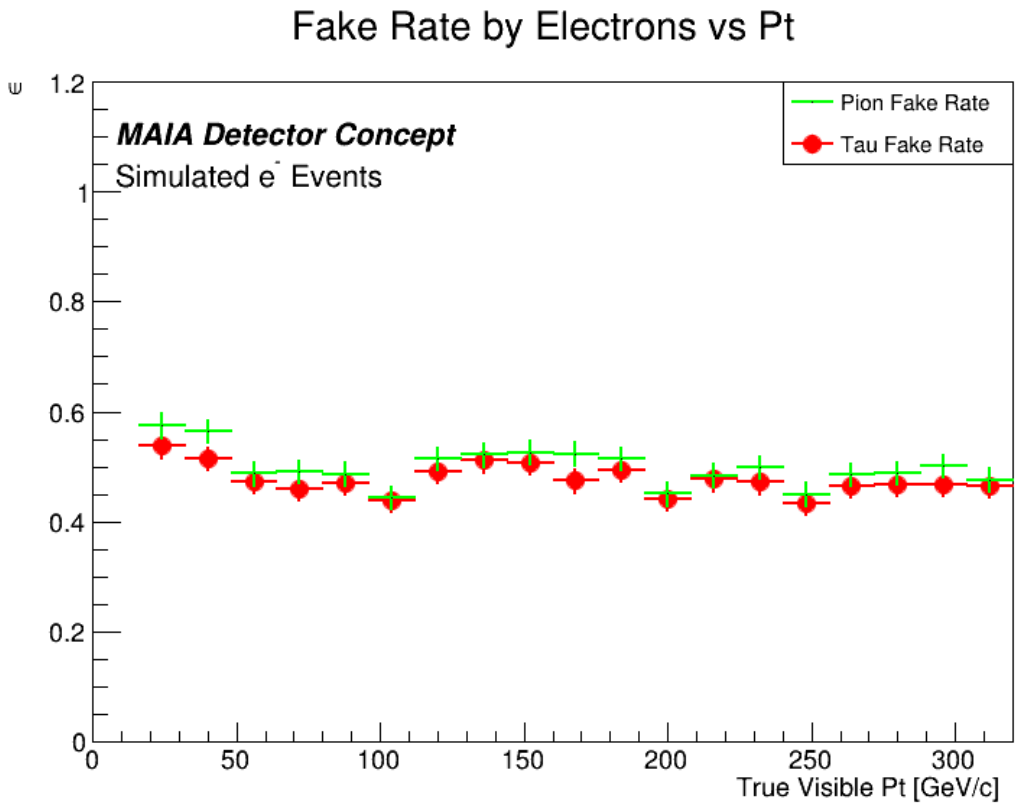
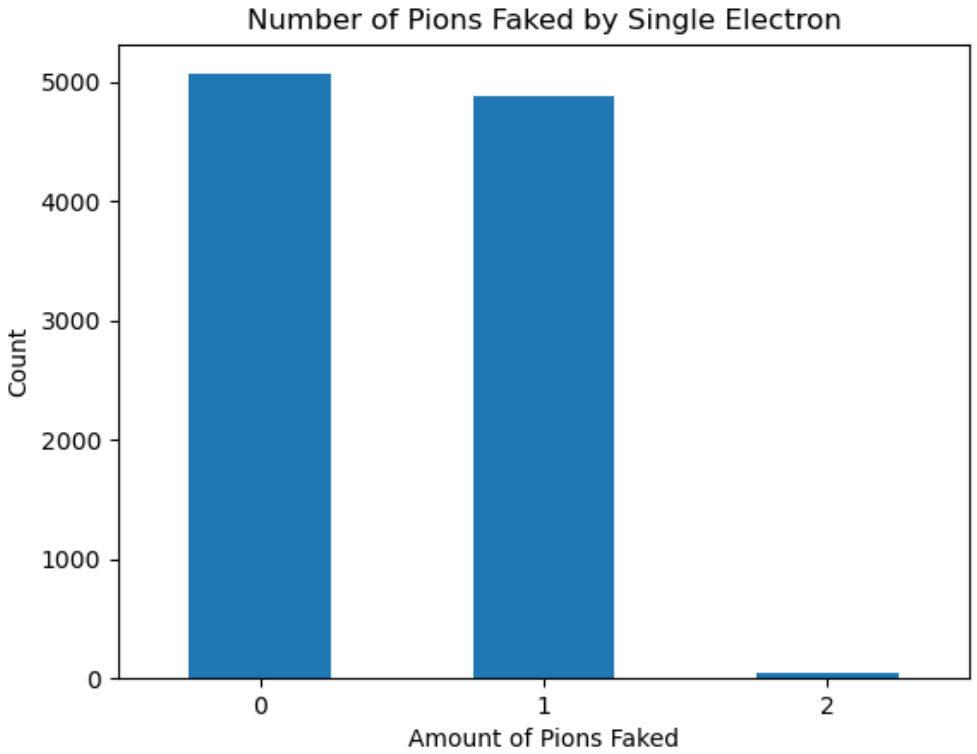
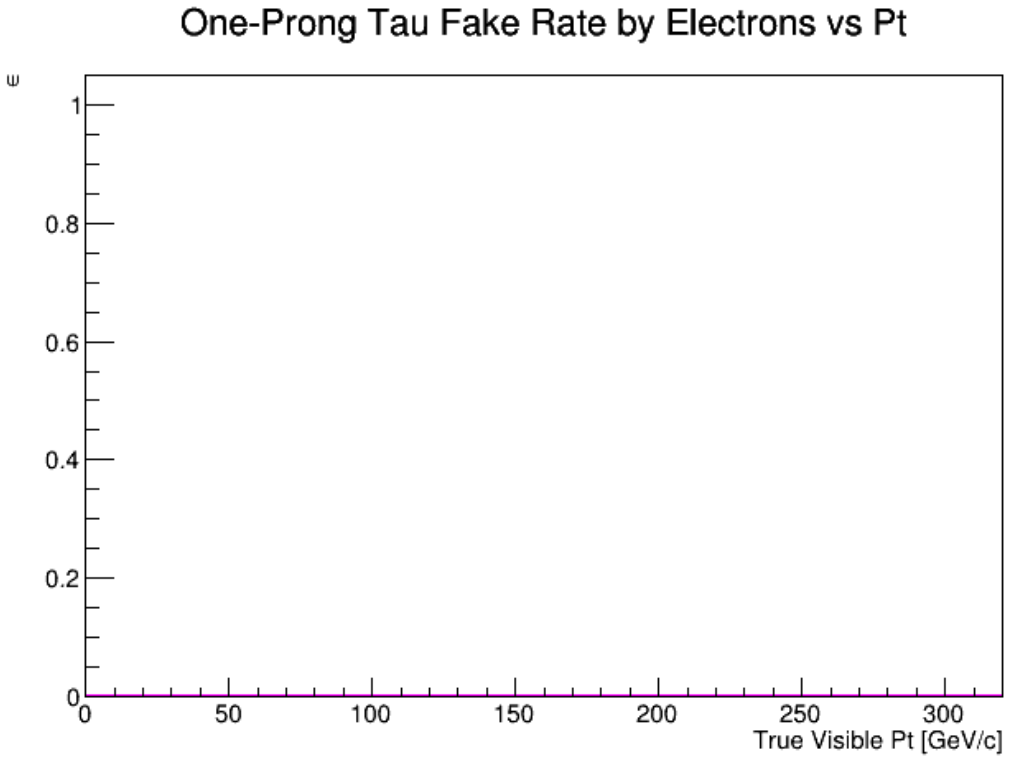
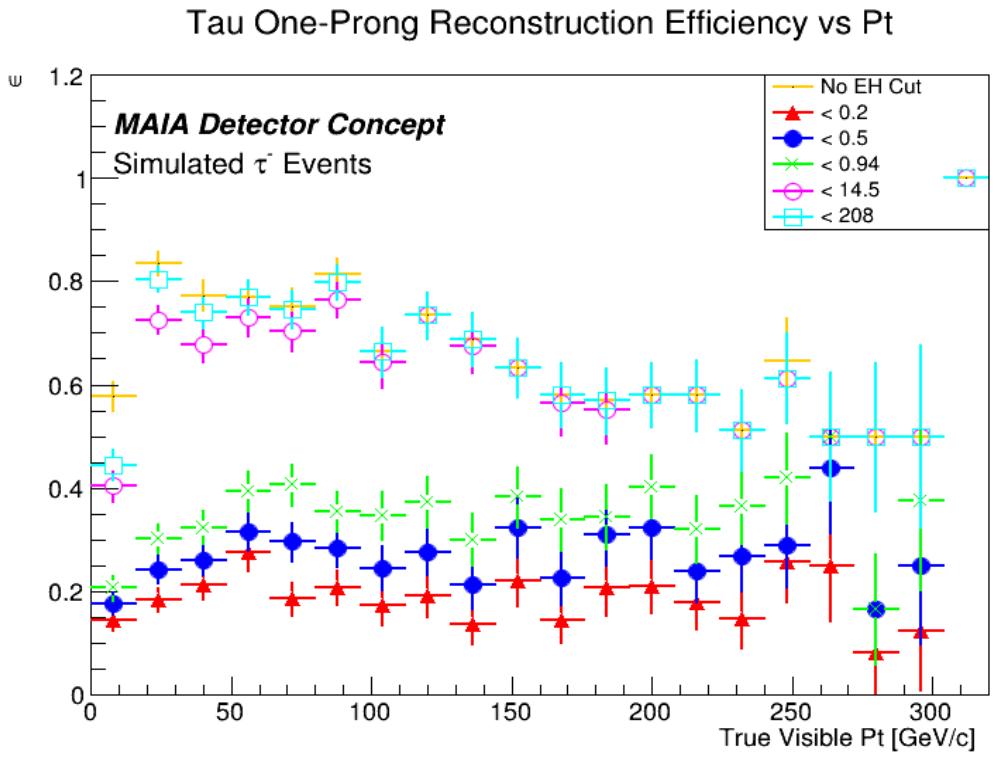
Understanding Faking Pions





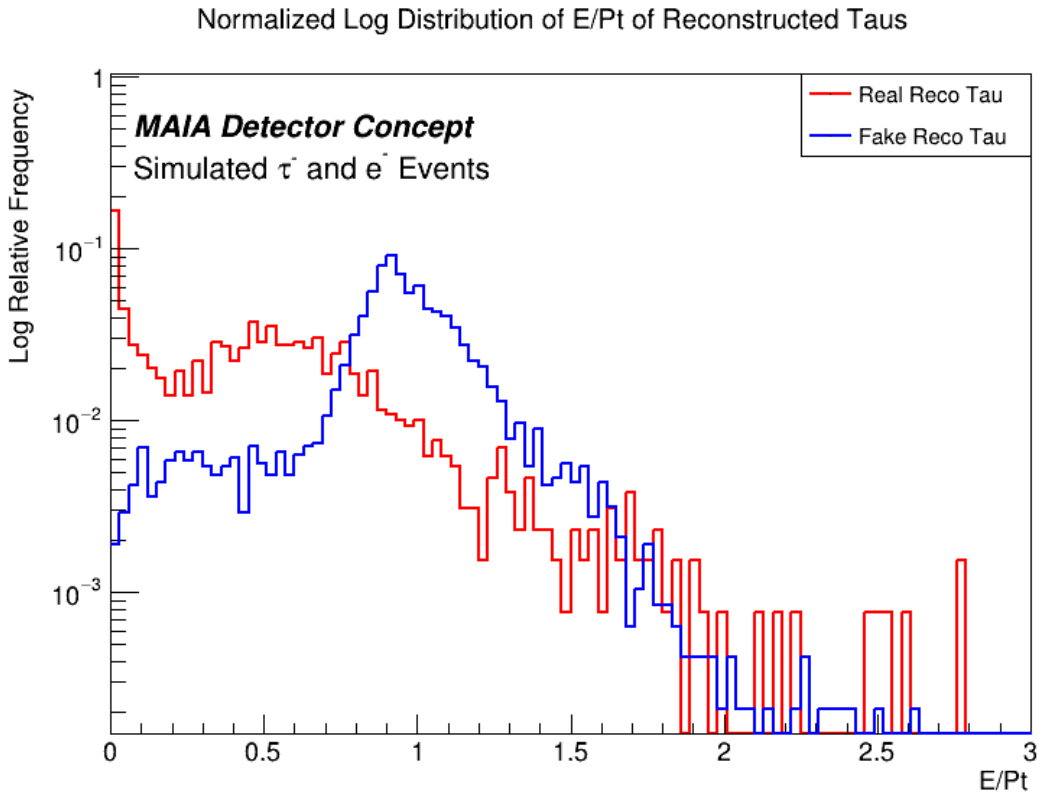
Applying the E/H Cut

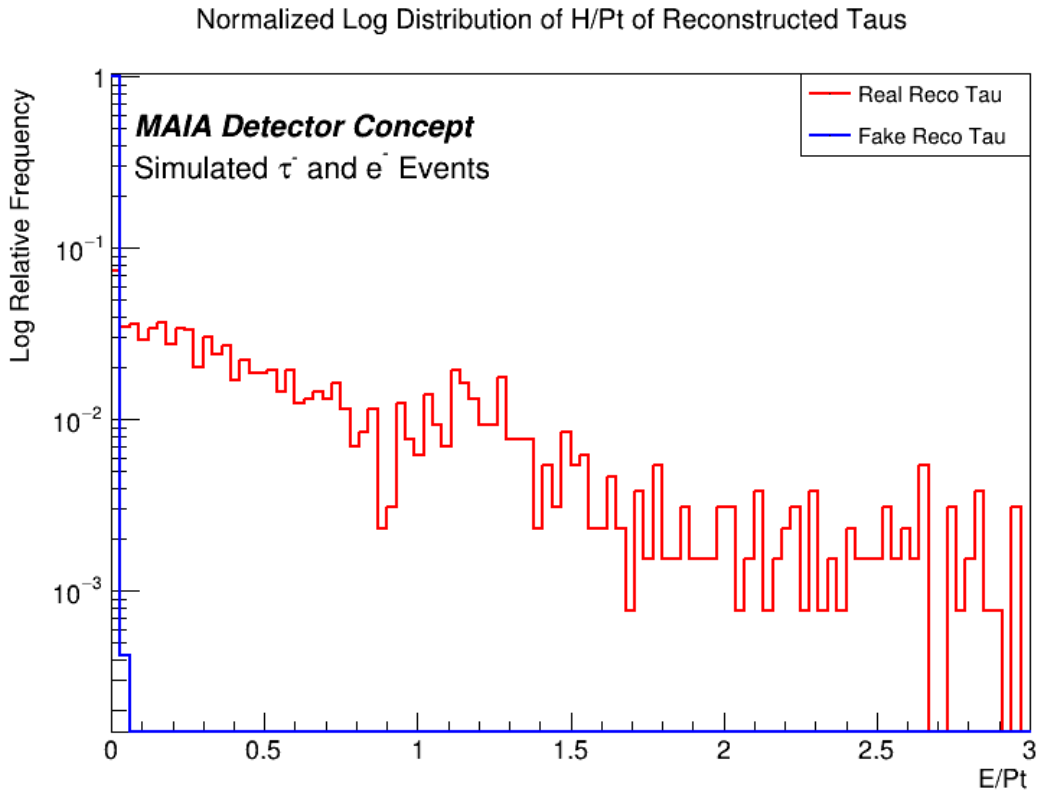




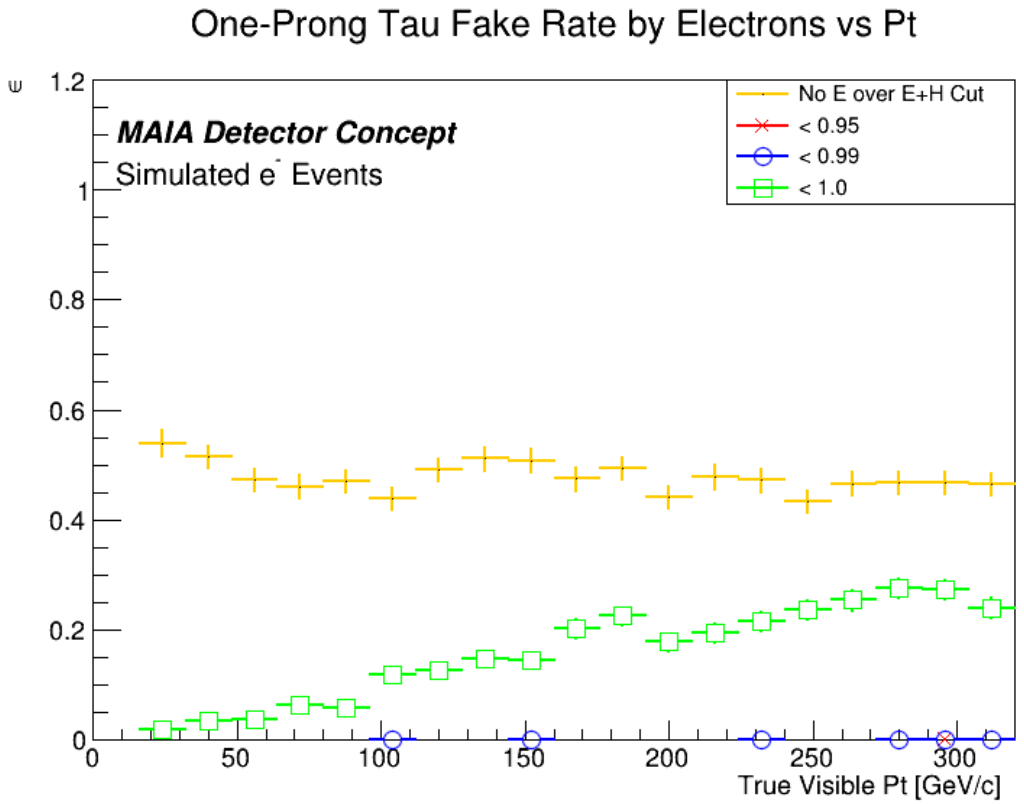
While highly effective at catching electrons, cuts hurt real tau reconstruction efficiency

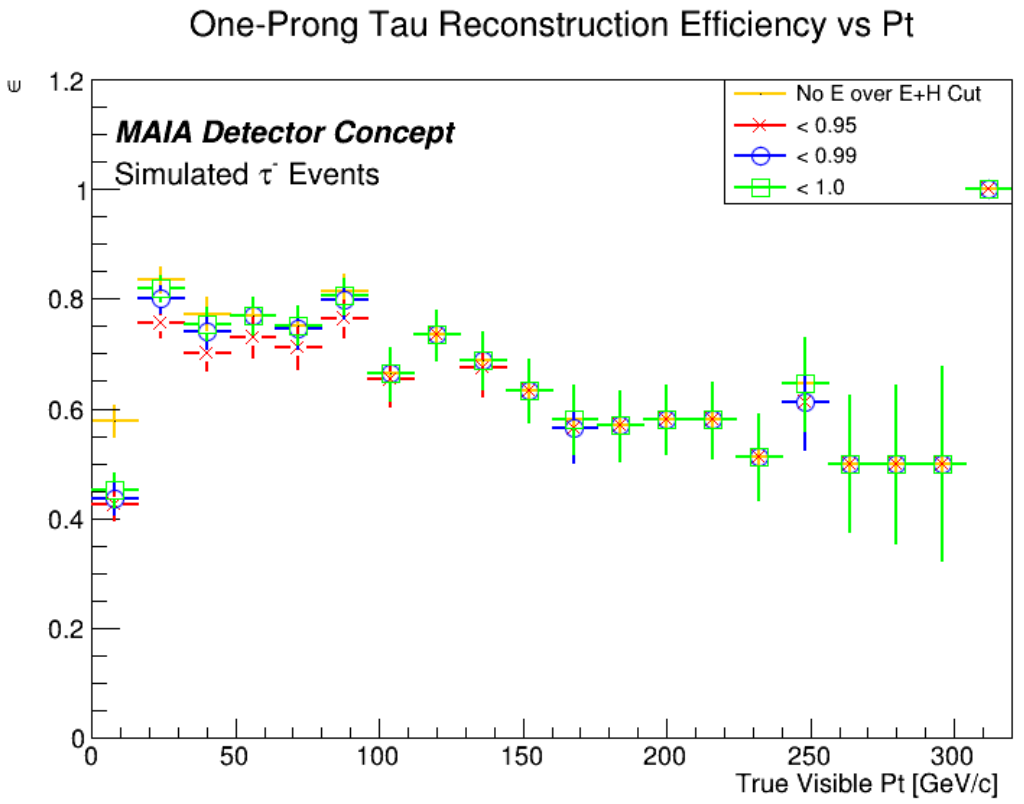
E/Pt and H/Pt


Normalized Log Distribution of E/Pt of Reconstructed Taus
MAIA Detector Concept
Simulated τ⁻ and e⁻ Events
Real Reco Tau
Fake Reco Tau
Log Relative Frequency
E/Pt


Normalized Log Distribution of H/Pt of Reconstructed Taus
MAIA Detector Concept
Simulated τ⁻ and e⁻ Events
Real Reco Tau
Fake Reco Tau
Log Relative Frequency
E/Pt

Switching to E/(E+H)





Muons in TauFinder! (WIP)

Should be very similar to process with electrons. A ratio using E and H likely won't be effective due to muons passing through those detectors. A ratio utilizing the energy in the muon detector will likely be the solution.