

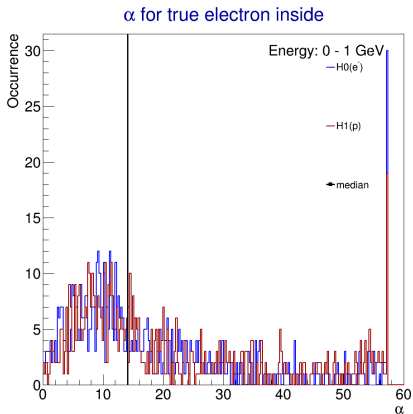
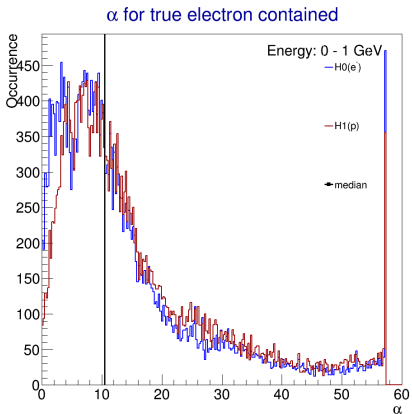
Progress June 14th

This presentation contains tests for pure electron and pure hadronic (not whole events)

- ▶ Direction reco
- ▶ E reco
- ▶ PID

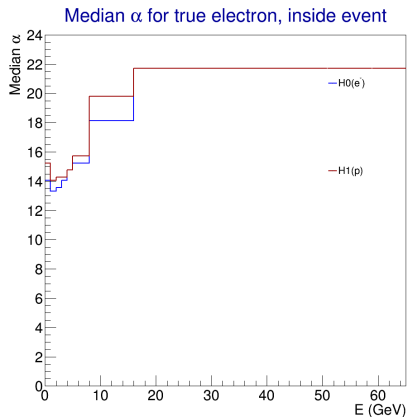
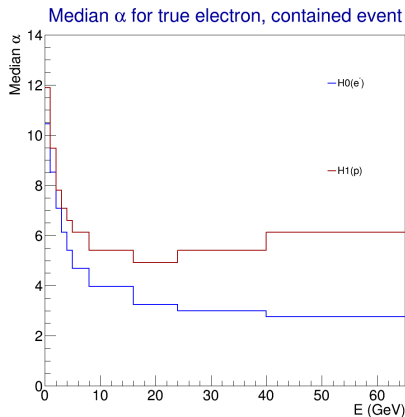
Results

Direction reco working quite well, even for low E. Reco without phase space limits in the works.



Results

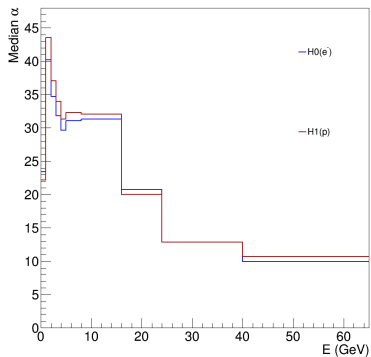
Direction reco becomes very good at higher E. Events close to can not so much.



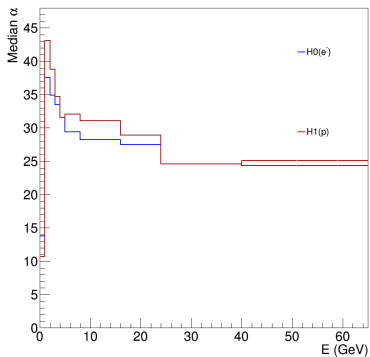
Results

Hadronic reco also possible, but not nearly as precise.

Median α for true hadronic, contained event

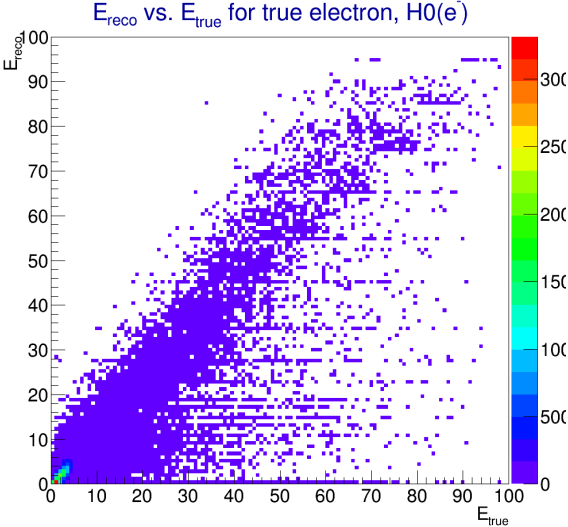


Median α for true hadronic, inside event



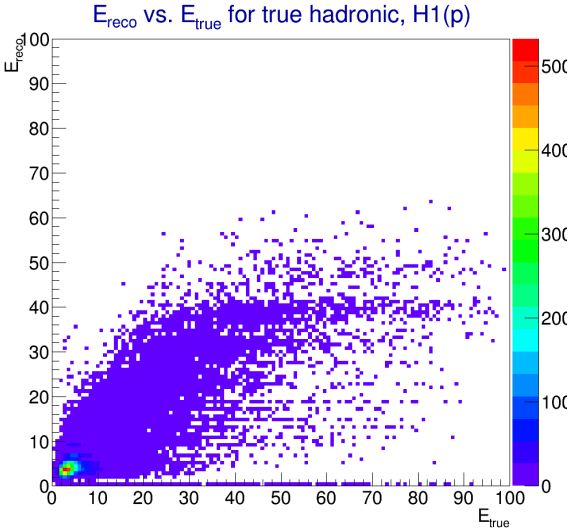
E_{reco} vs. E_{true}

E_{reco} working quite well for e.



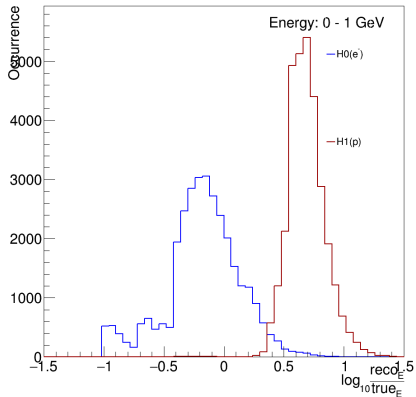
E_{reco} vs. E_{true}

Proton hypothesis has weird shape... Still not bad

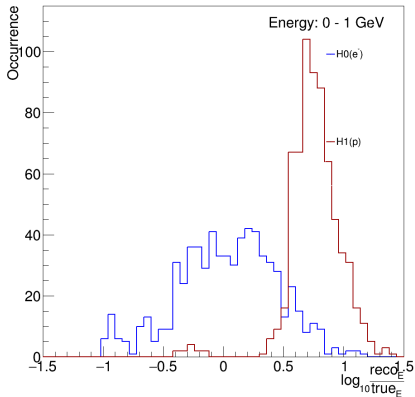


E reco with an error of $\simeq (+2E_{true}, -\frac{E_{true}}{2})$ at low energies!

True electron contained, [0, 1] GeV

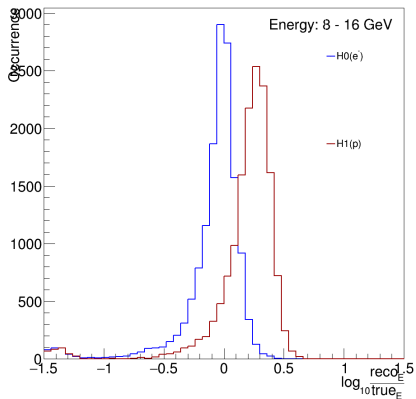


True electron inside, [0, 1] GeV

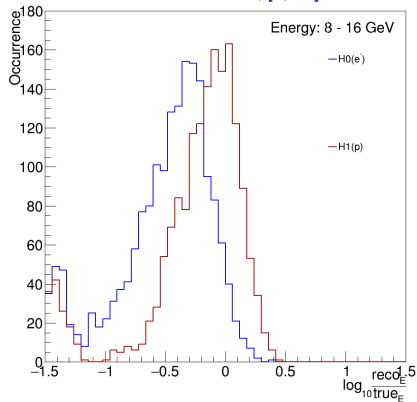


Gets better at high E. **ideas for quantifying this nicely?**

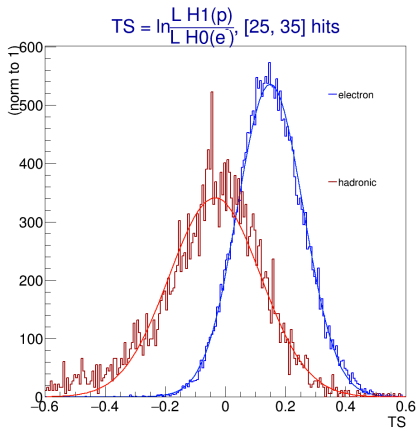
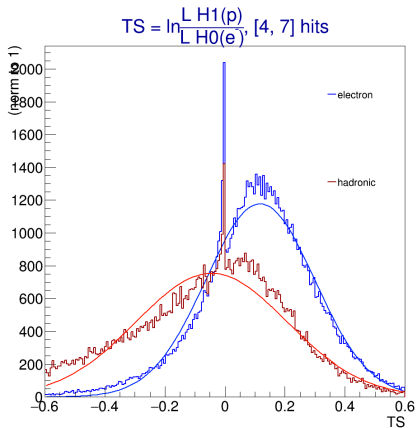
True electron contained, [8, 16] GeV



True hadronic inside, [8, 16] GeV



Distinguish between EM shower and hadronic shower^a ? We're getting there...



^aRemember: PURE showers, this is like ν_e -NC vs. EM shower