find the corresponding jet to given particle

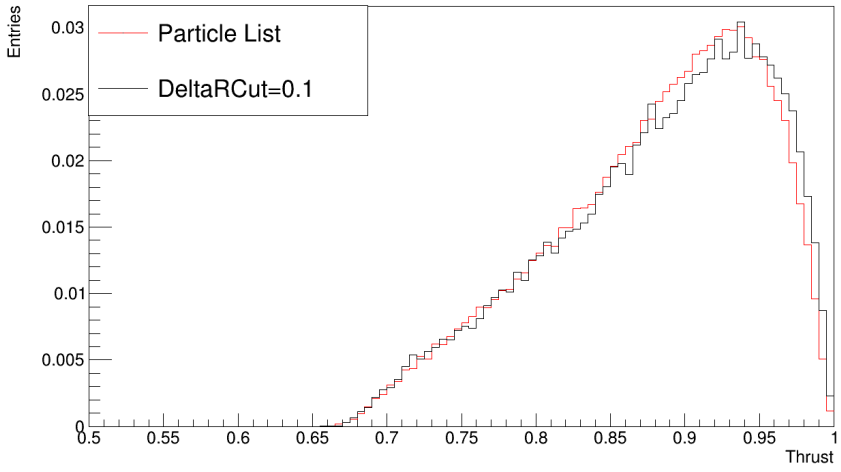
previously

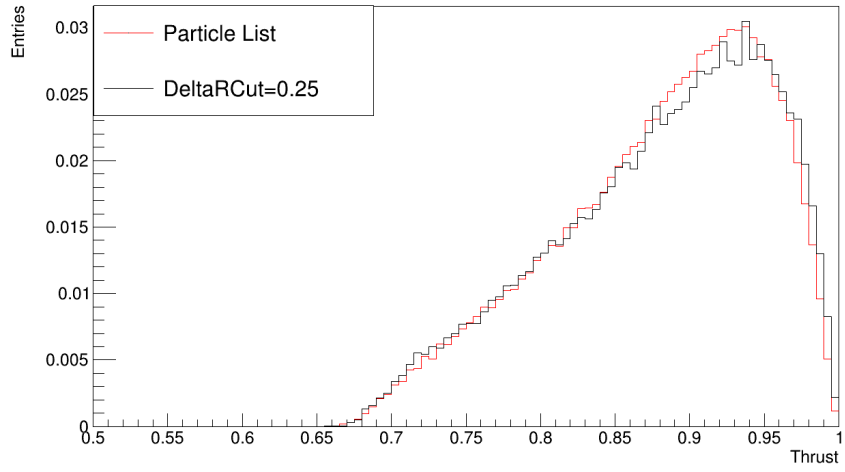
- find the jet combination with the minimal deltaR sum between jets and particles

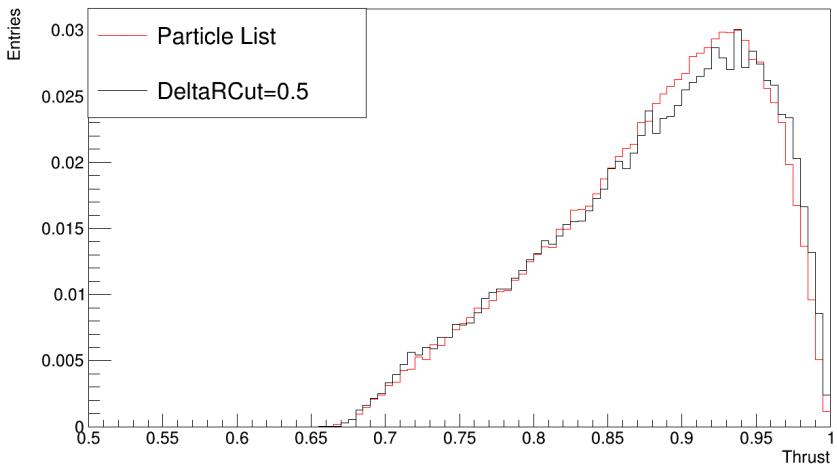
now

- find a jet within a DeltaR Cut

find a good DeltaR Cut







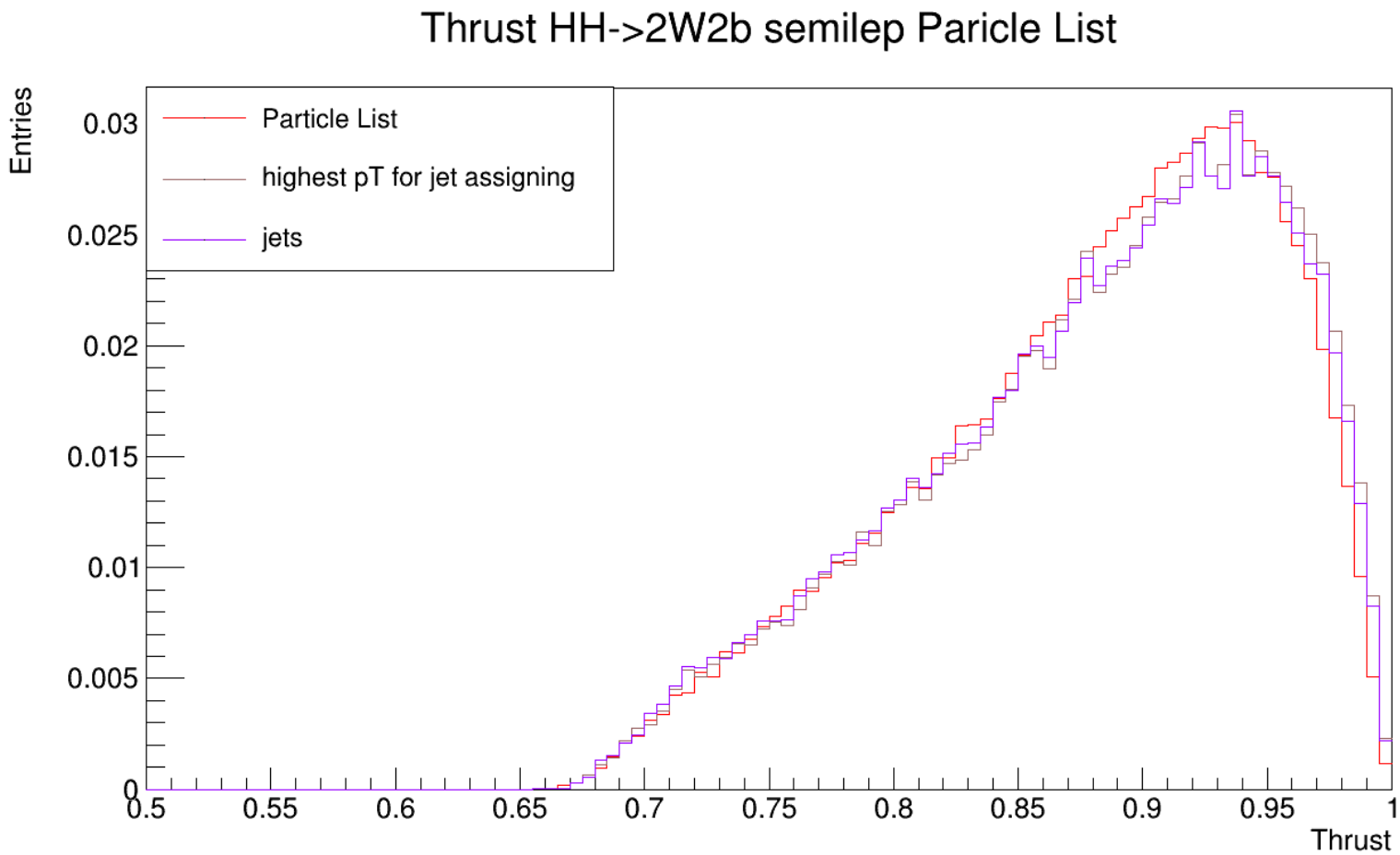
→ small differences between the curves, but more statisitcs with DeltaRCut=0.5

more changes

- previously we looked only at 4b cases, now at 2b2W semileptonic: first find jets to the Bs, then find jets that together with the leptons from the particle list yield the higgs mass
- low statistics $\rightarrow$ we now continue to track Higgs, Z^0 and $W^{\pm}$ in the particle list even when gluons or photons are emitted

tried to improve the jet assignment

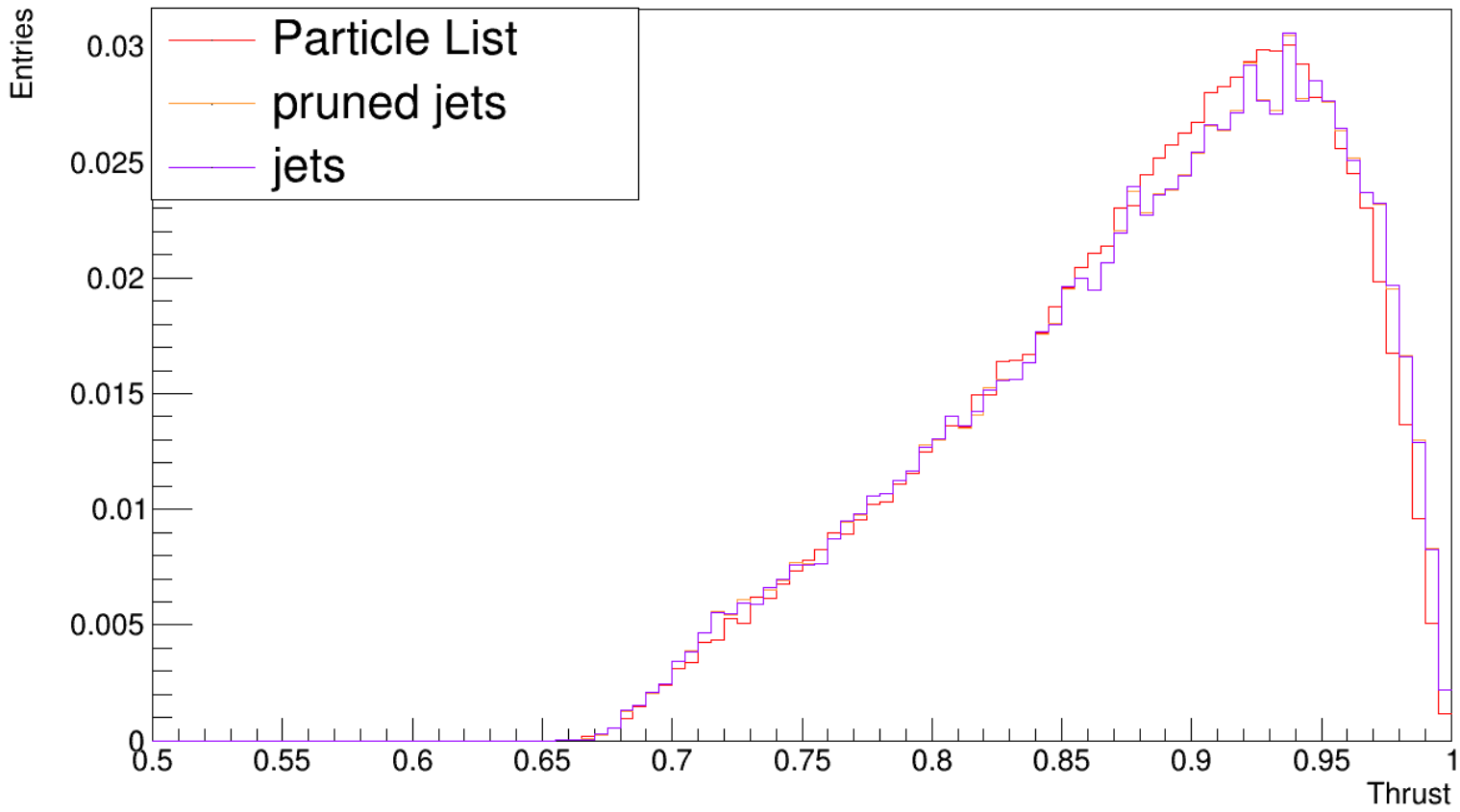
- tried to use the highest pT constituent within a jet for assignmnet



$\rightarrow$ no significant difference

tried to improve the jet assignment

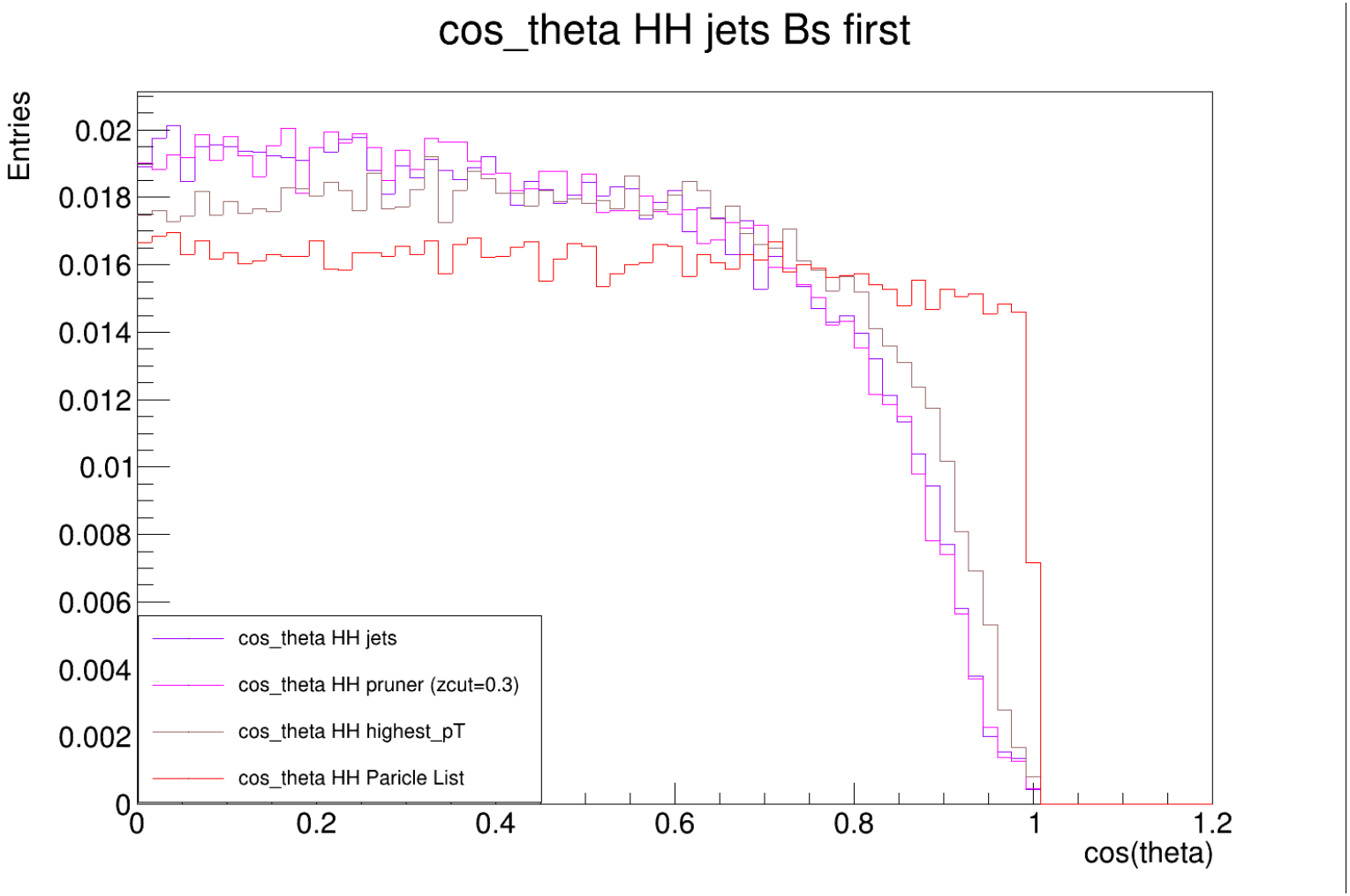
- looked into the substructure of a jet using ”pruner” with different settings



→ no significant difference

highest p_T and Pruner for Spin-correlation

- used highest p_T constituent and pruned jets to calculate $cos(\theta) \rightarrow$ pruned jets and jets are very similar, highest p_T is closer to particle List



introduced some neutrino smearing

- since the neutrino reconstruction has some uncertainty we introduced a smearing on the neutrino from the particle list
- to estimate the uncertainty we calculte the missing pT of each event → neutrino