

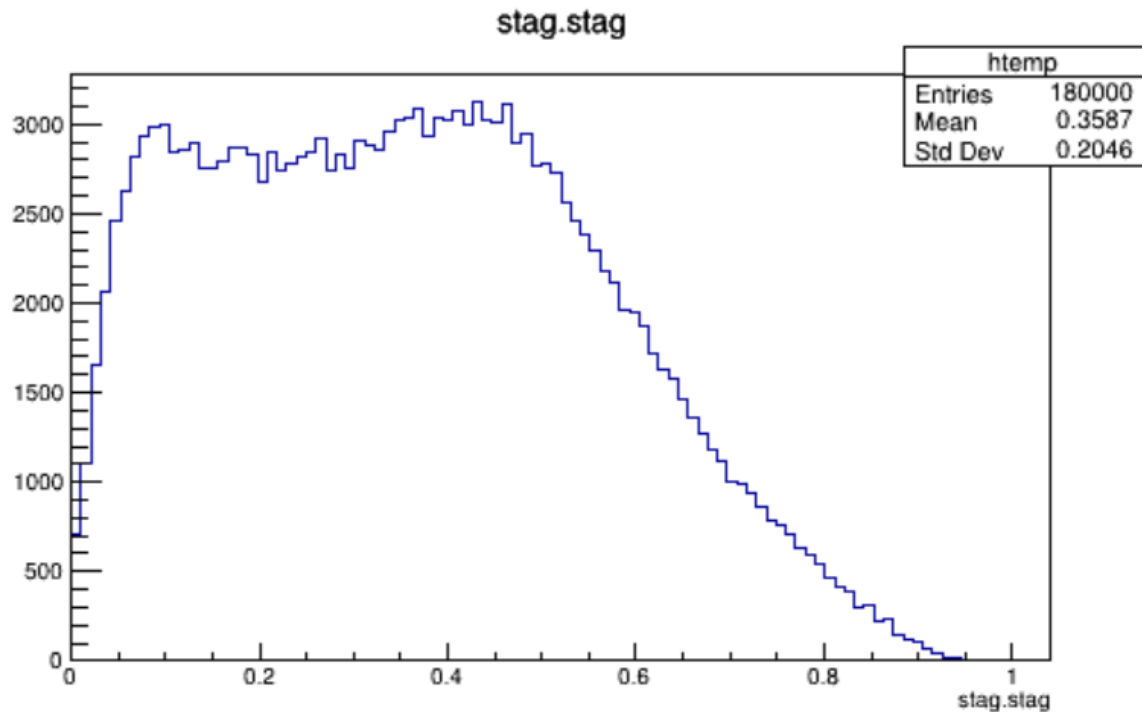
Higgs to ss study

First year graduate student at Iwate University
Ryuki Sugawara

Flavor tag performance (H→ss)

I used Tanabe-san's processor to analyze the flavor tags.

The graph below shows the efficiency of the tagging of the strange quark, using only events in which the Higgs boson decays to a strange quark.

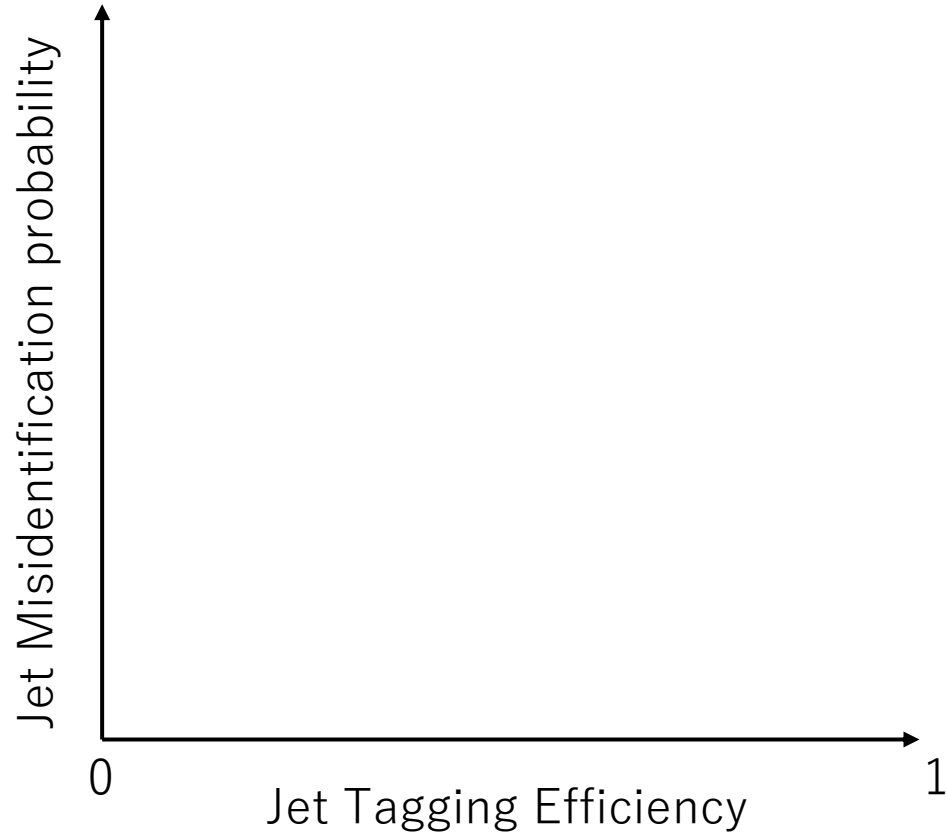


The efficiency is a bit poor, so it takes some ingenuity to select only events that decayed into strange quarks.



How similar it is to strange.

Graph type to be created



Currently I am trying to create such a graph.

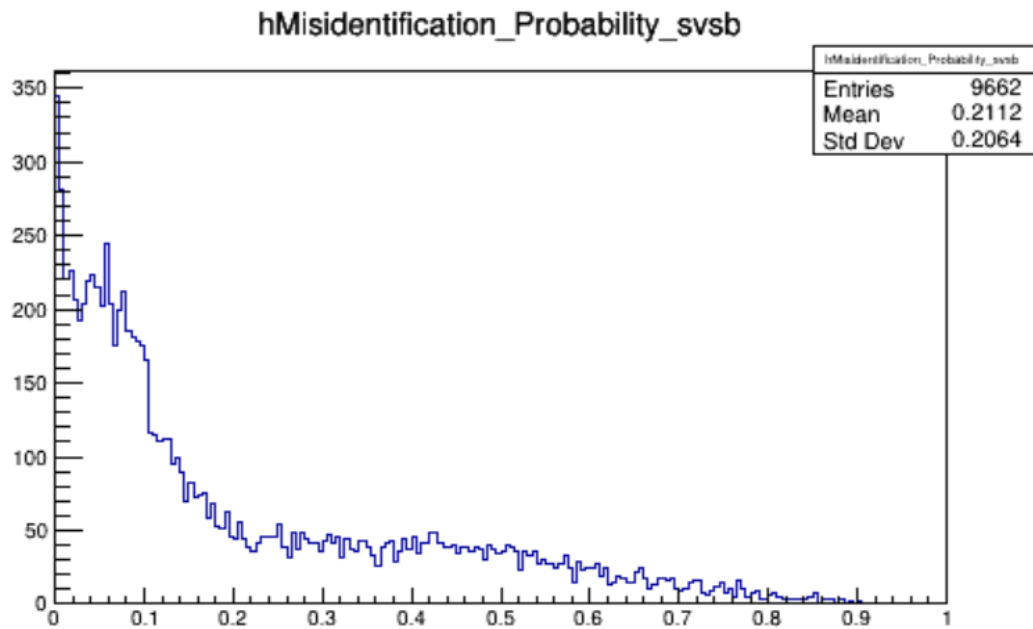
Jet Misidentification probability is the probability of selecting a flavor that is different from the actual flavor.

Specifically, the probability of an event with $\text{stag} < \text{other tags}$ is calculated for each Efficiency of the stag??

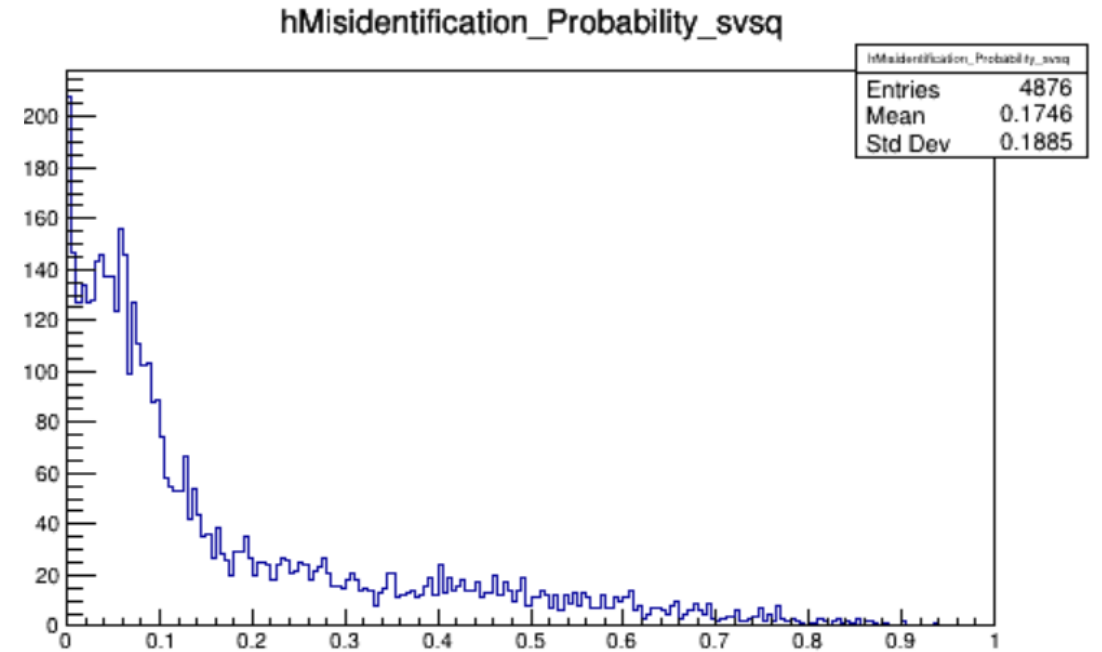
stag < btag , stag < qtag events

This graph collects events where the Efficiency of the Strange Tag is below the Efficiency of the other flavors.

I used an event in which the Higgs boson decays into a Strange quark.



Stag < Btag Events



Stag < other quark tag Events

next

- Create a graph of misidentification probability
- Optimization of cuts for lepton, hadron, and neutrino processes