Update: Photon Module!

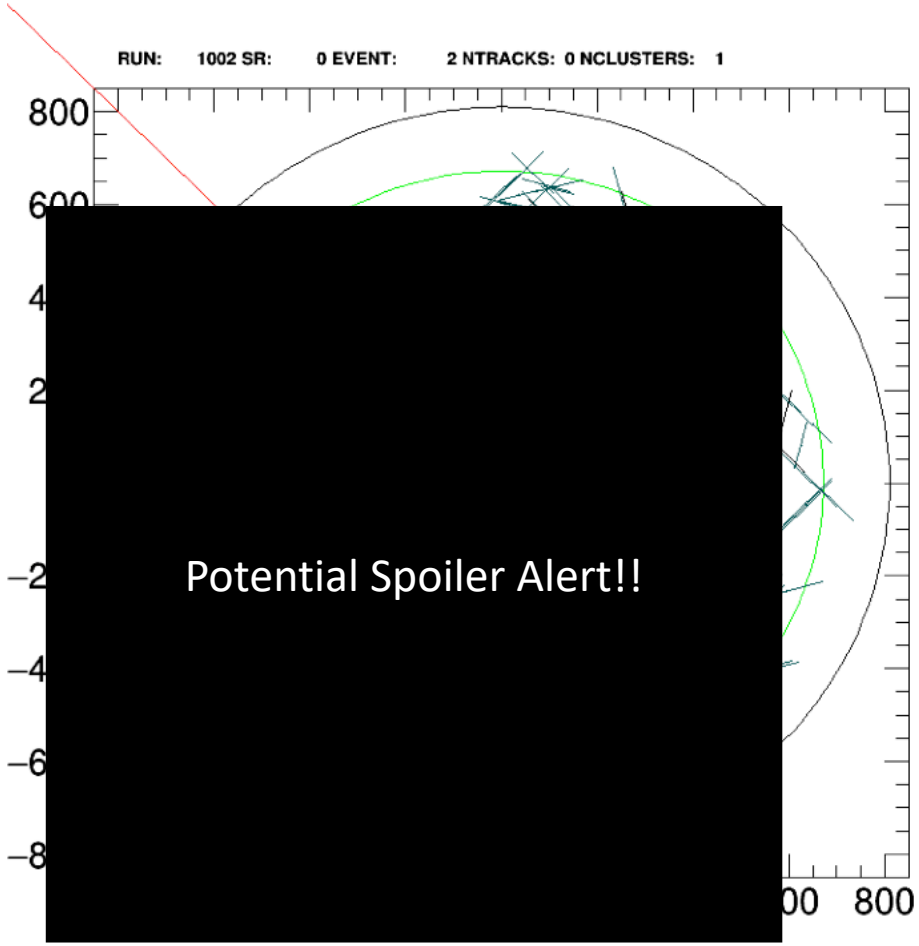
Dawson Thomas

07/23/2020

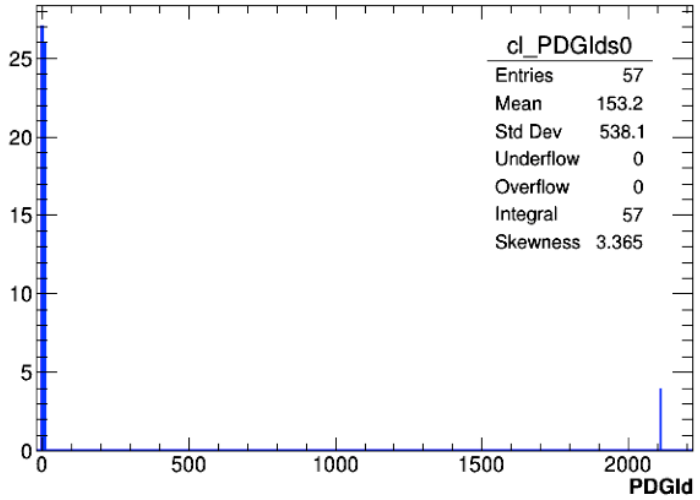
Update:

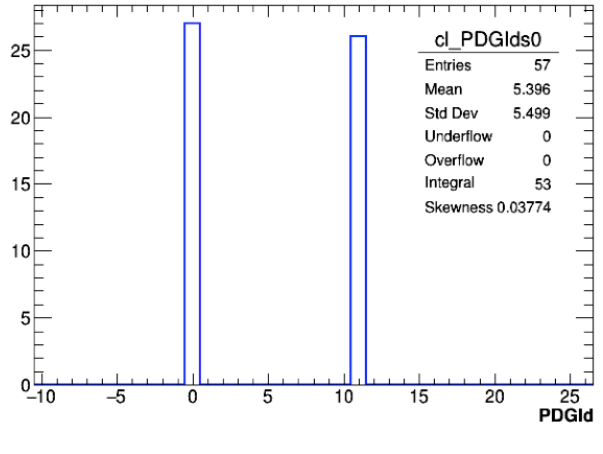
- Yesterday, Giani gave me the photon module developed by former Yalie Heather Harrington (the purely calorimeter-based one).
- I spent yesterday updating this module with the libraries, functions, etc. from the module I was using for characterizing s. This way, the module will be able to make plots for the trigger-level reconstructed helices (for both algorithms).
- There are so many new plots to look at!
- I still need to insert the code segment that will perform the helix veto and make plots for the remaining (and vetoed) clusters
- A cautionary tale: be careful of where you paste! (i.e. ~not~ inside another function haha), but I got to learn how to use the debugger!

Plot Examples

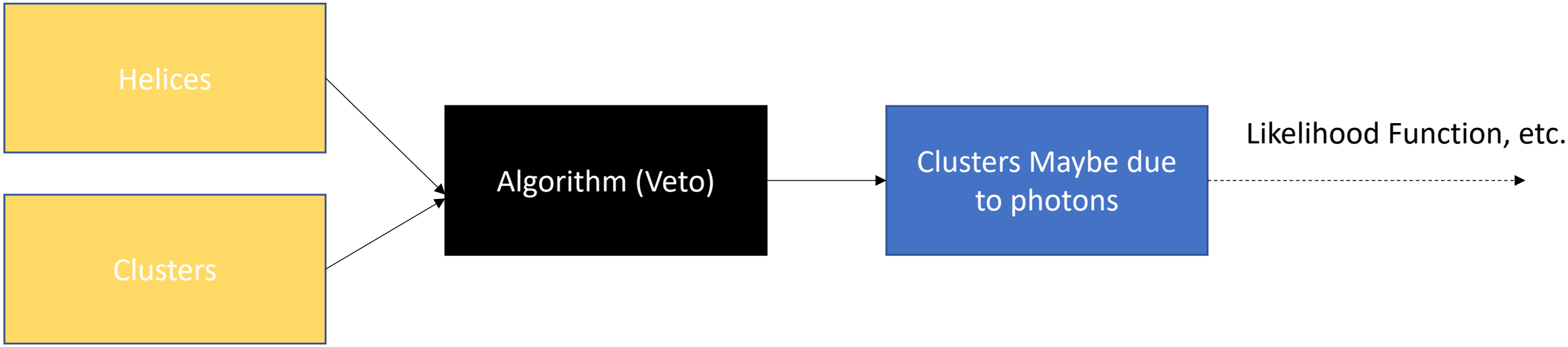


- Running on a sample of background (see event display to the left).
- Cool plot: PDGIds0 below. Shows the number of each particle in a given category





Next Steps: Characterizing Efficiencies



Two notions of efficiency:

Number of clusters returned / Actual number of clusters w.o. helices

Number of clusters vetoed/ number actually associated with helices (charged particles)