



Hawc Meeting: November 7th

Brendan Boyd

Finding cuts on newest mc

- ▶ Running analysis on John's newest mc using GP to bin energy
 - ▶ Discovered using GP is more complicated than I thought and had trouble implementing it into my code
- ▶ Some lower bin jobs are still running but much of the bins are finished



Cuts and data

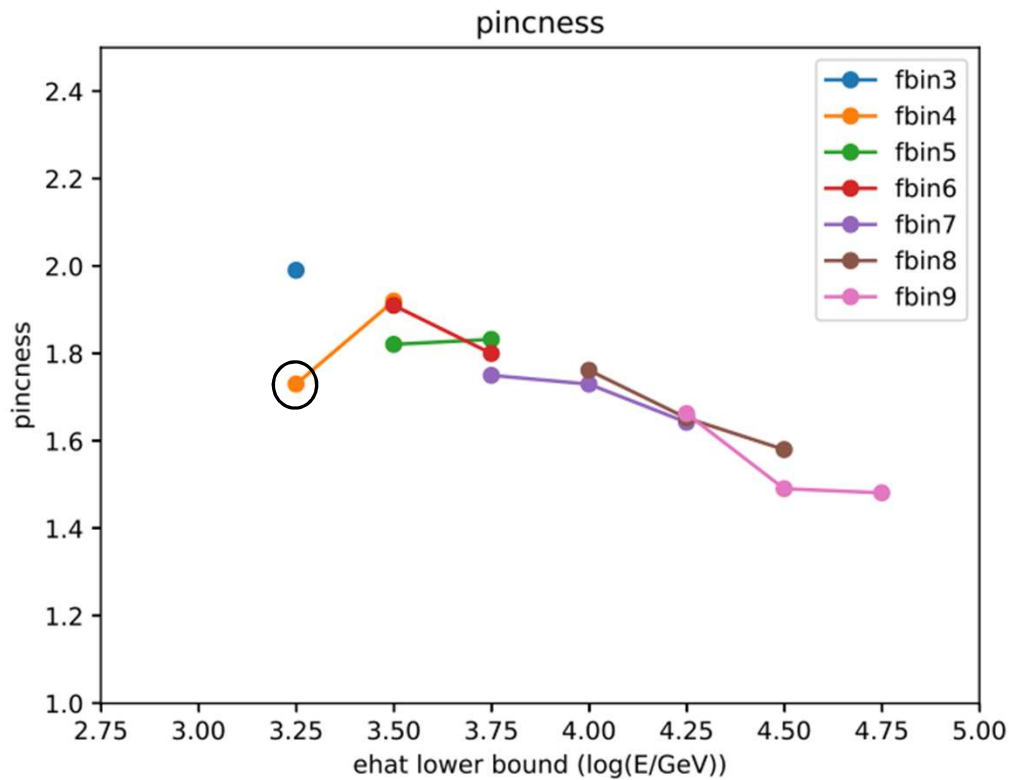
▶ Data

- ▶ Signal: /data/scratch/userspace/pretz/daqsim-reconstruction/output/daqsim-baseline/gamma.xcd
- ▶ Background: /data/scratch/userspace/pretz/scrappy-platypus-optimization/datafiles/energy.dec20.run005481.xcd

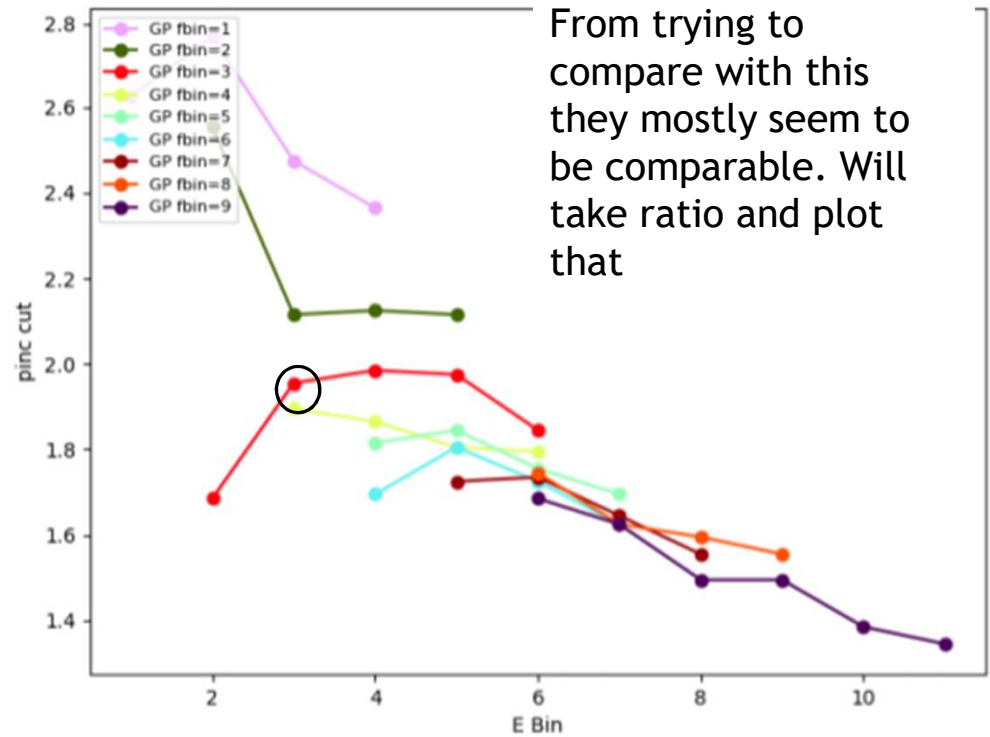
▶ Cuts

- ▶ coreFiduScale < 100
- ▶ nChAvail >= 800
- ▶ coreFitStatus = 0
- ▶ angleFitStatus = 0
- ▶ Zenith < 45 degrees
- ▶ Seff > 50%

Mine



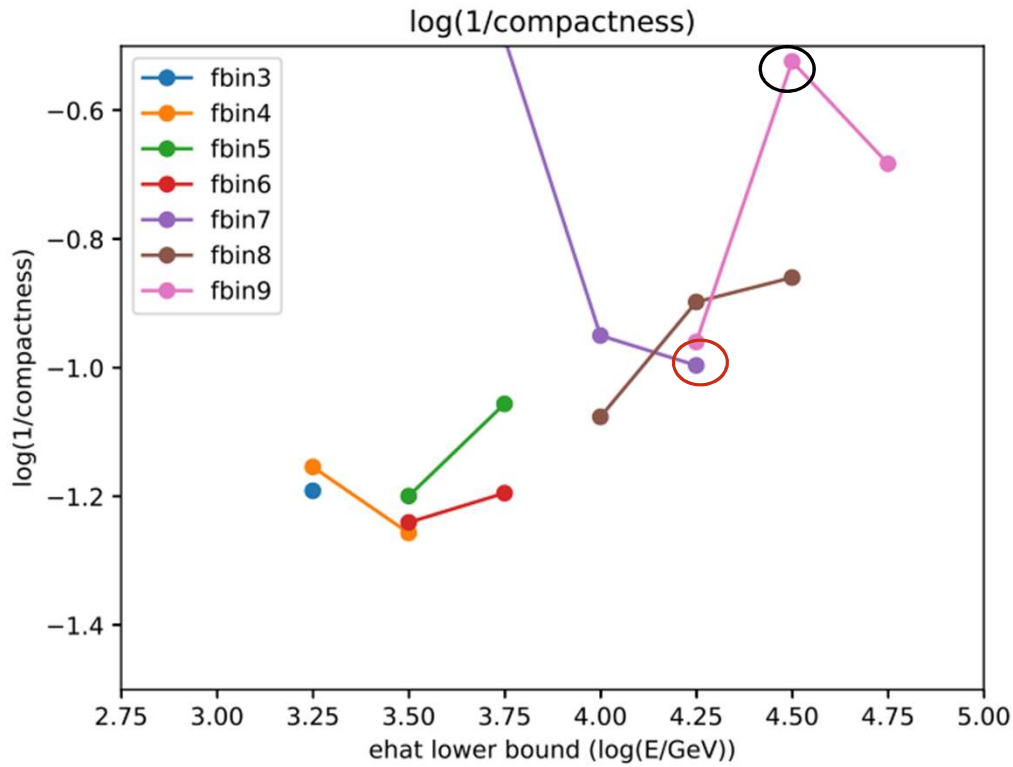
John's



Not very easy to compare, but looking at fbin 4, ebin 3 (3.25) Cuts clearly differ.

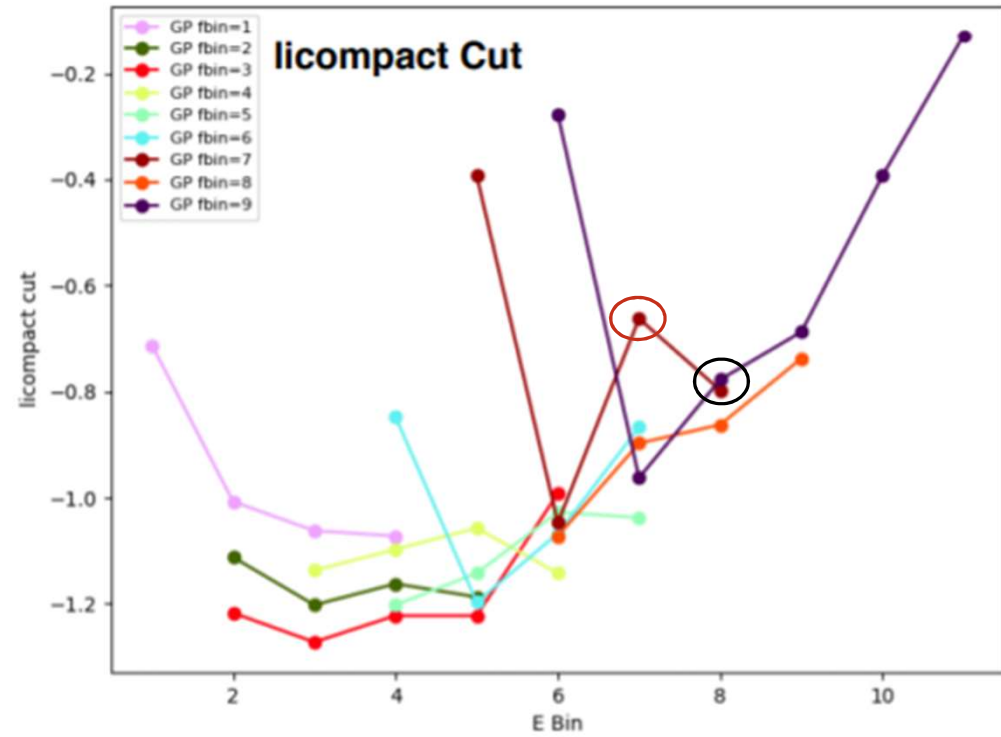
From trying to compare with this they mostly seem to be comparable. Will take ratio and plot that

Mine



John's

Some more obvious differences. Fbin 9 Ebin 8(4.50)
Fbin 7 ebin 7 (4.25)



Next Steps

- ▶ Will start making ratio plots to more clearly compare the two sets of cuts
- ▶ Make sure the same set of initial event cuts are being used
- ▶ Side projects
 - ▶ Continue running analysis on other curv0 mc and binning with NN energy
 - ▶ Continue doing a little reading of TMVA