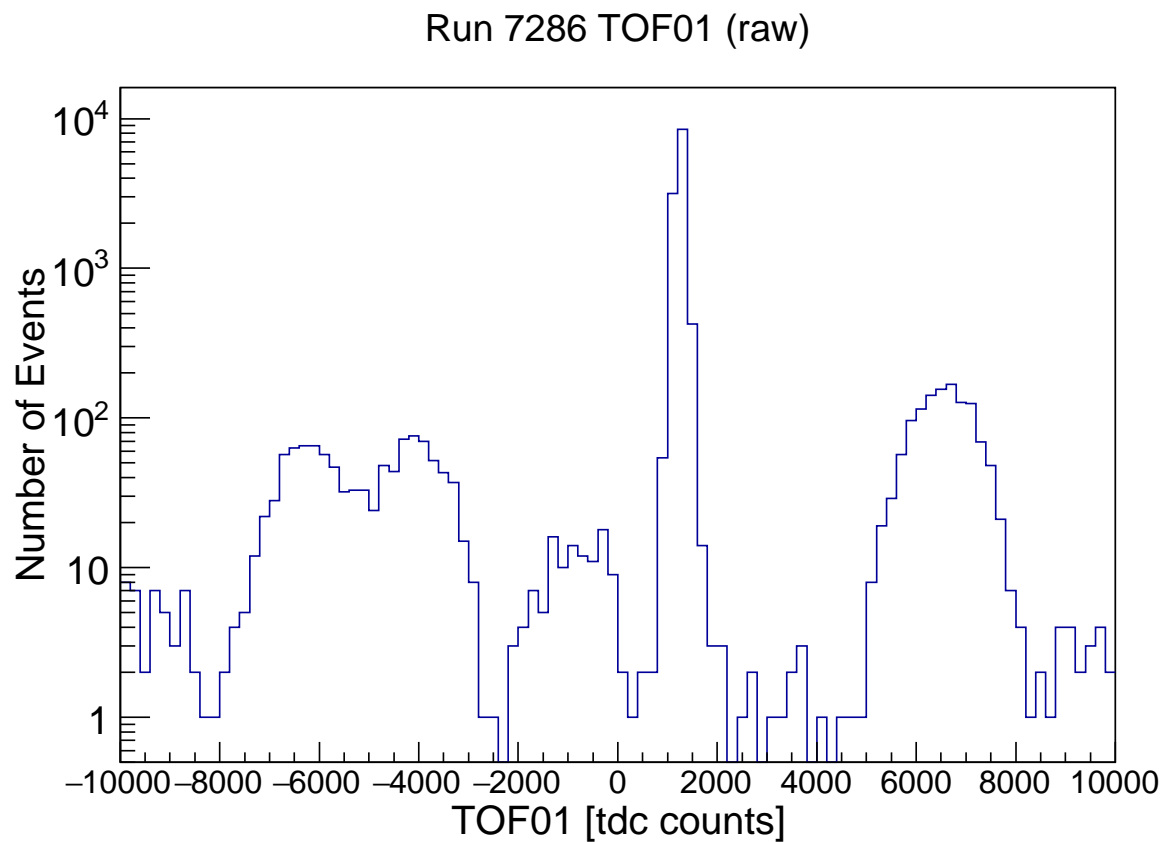
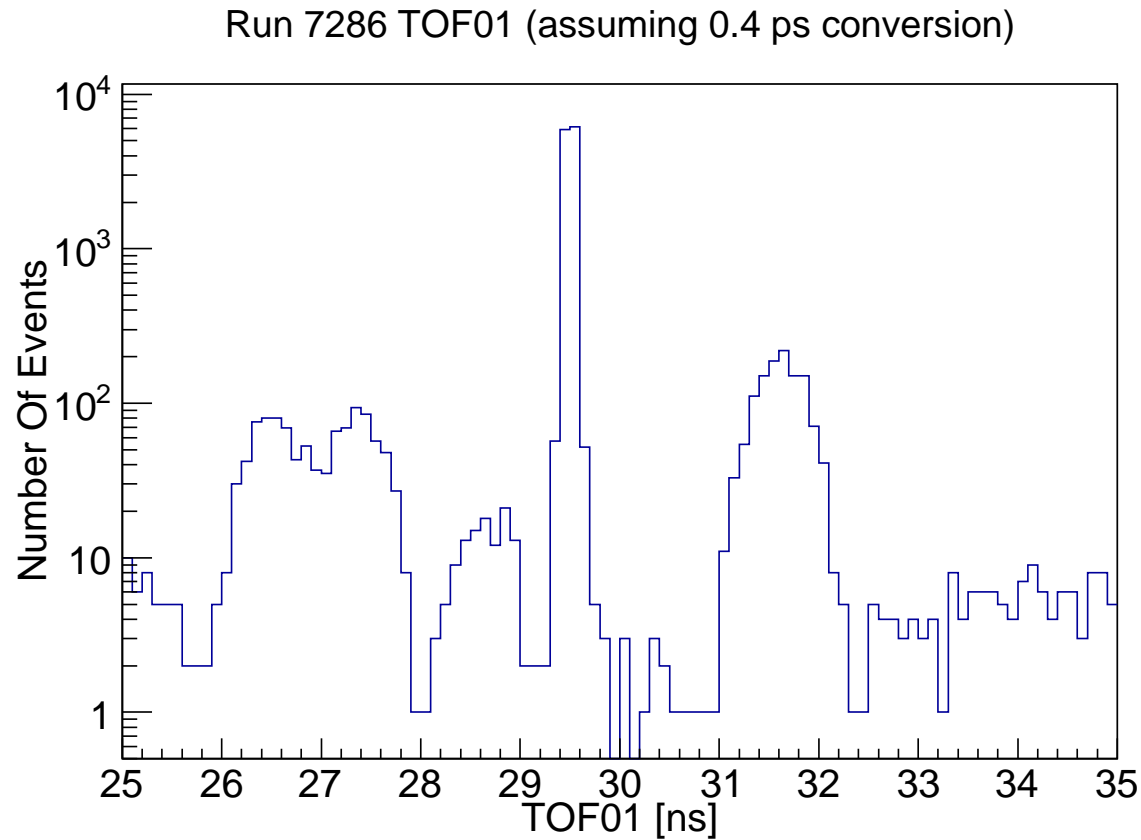

Cut-Based PID

Scott Wilbur



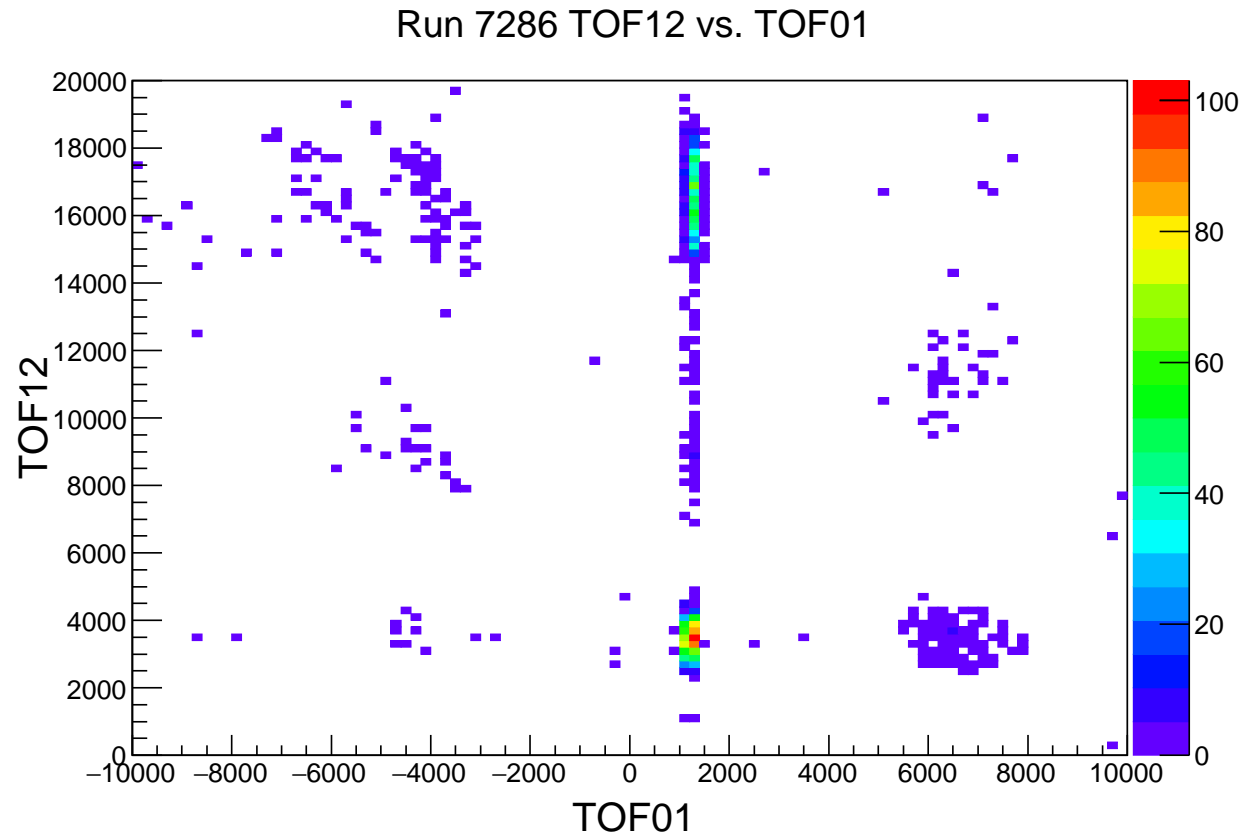
- TOF provides excellent separation
- TOFtdcConversionFactor is not right, where to find correct one?

TOF TDC Conversion



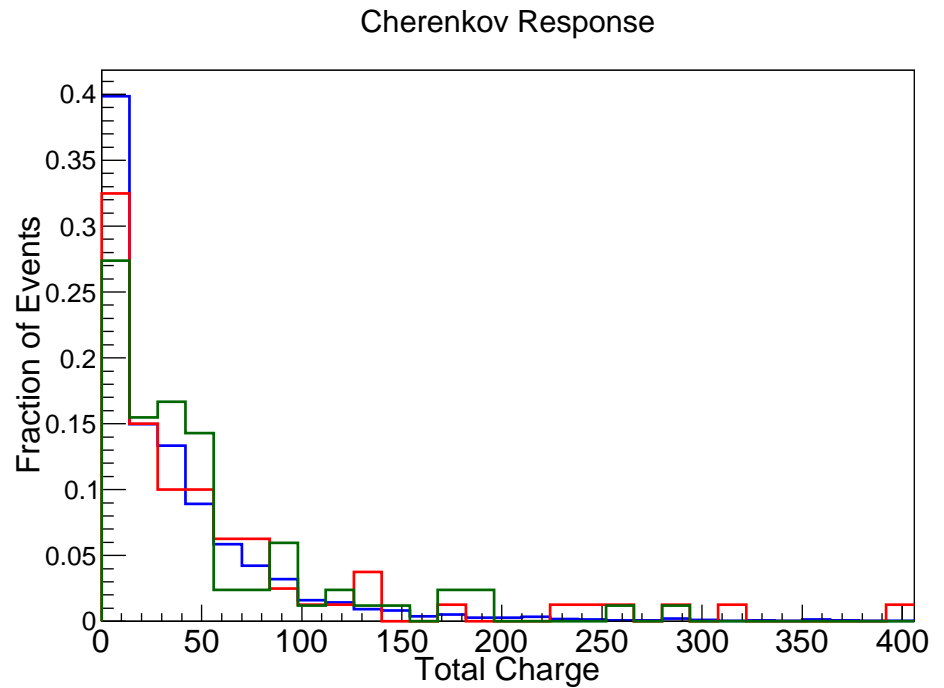
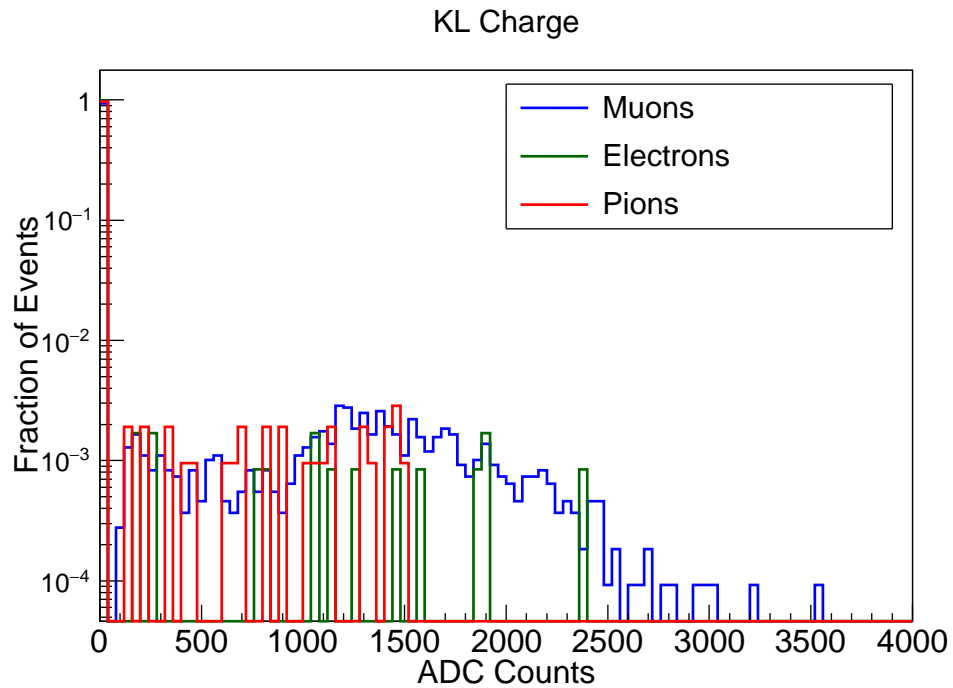
- TOFtdcConversionFactor in MC is 0.025 ns (from config file)
- In (recent) data, it looks like 0.4 ps, with 29 ns offset in TOF1 - TOF0

TOF Hit Mismatching



- comparing TOF01 to TOF12 shows decays in flight
- also shows some track mismatches (either that or muons turning into pions...)

Other Variables



- KL and Cherenkov modules don't have enough separation for cut-based ID
- EMR data didn't seem to exist in the runs I checked (Run Type "Physics Data" in cdb)

Next Steps

- Find dataset in which EMR data exist
- Figure out how to automatically set TOF conversion factor
- Wrap PID in a self-contained python script