

Kin reported his continuing effort on time-of-flight (ToF) binning. The WFDs setup limit the data in the ToF range of 50-180ns; and carbon energy of 300keV-1000keV. He compared several scenarios:

1. ToF binning with banana cut and $\text{ToF} > 50\text{ns}$ (as shown last time);
2. ToF binning without banana cut and $\text{ToF} > 50\text{ns}$;
3. ToF binning with banana cut and $\text{ToF} > 90\text{ns}$;
4. ToF binning without banana cut and $\text{ToF} > 90\text{ns}$;
5. ToF binning with banana cut and $\text{ToF} > 120\text{ns}$;
6. ToF binning without banana cut and $\text{ToF} > 120\text{ns}$.

The idea is to see if the polarization “dip” in the center of the beam will disappear or not. The results show that when $\text{ToF} > 120\text{ns}$ with banana cut, the polarization profile is flat (with larger error bar since less events). He also started analyze some intensity scan runs. He plotted various ToF binning for two sets of data: 0.26×10^{11} vs. 0.43×10^{11} , and 0.73×10^{11} vs. 0.81×10^{11} . The difference among the various of ToF binning is bigger at higher intensity. Nick presented a proposal to check warm snake thin quads quality and polarity with beam. It has been done in the past for the cold snake thin quads. By varying the quads strength and measuring the tune change, one can compare with model prediction. Since we are pressured with limited beam time, we need a detailed study plan beforehand. Leif suggested to measure frequency during the measurement. Waldo suggested to check the thin quads wiring with Hall probe during shutdown if it has not been done yet.

Haixin