2025.06.10

Current working:

1. Uncertainty due to background is estimated by removing it from PWA, the difference of center value is taken to be its uncertainty.

2. Through Professor Ping‘s discussion, we use the event box for fitting, found that the fitting was successful. We have get the preliminary results of the systematic uncertainty by Boxfill method. Currently, there is still under work.

3. Uncertainty of quoted mass and width of the other fifteen resonance states besides X(2085). In estimation, mass and width of those resonance states are replaced by new ones, which are randomly sampled according to the Gaussian distribution. New mass and width of X(2085) is obtained with smeared Breit-Wigner shape and the difference between center value is taken as its uncertainty.

4. Through the fitting, we found that the differences in mass and width were 47 MeV and 22 MeV respectively.

work.

Next planning:

1. Continue to fit to obtain systematic uncertainty.

2. Improve the system uncertainty section about X(2085) in the memo.