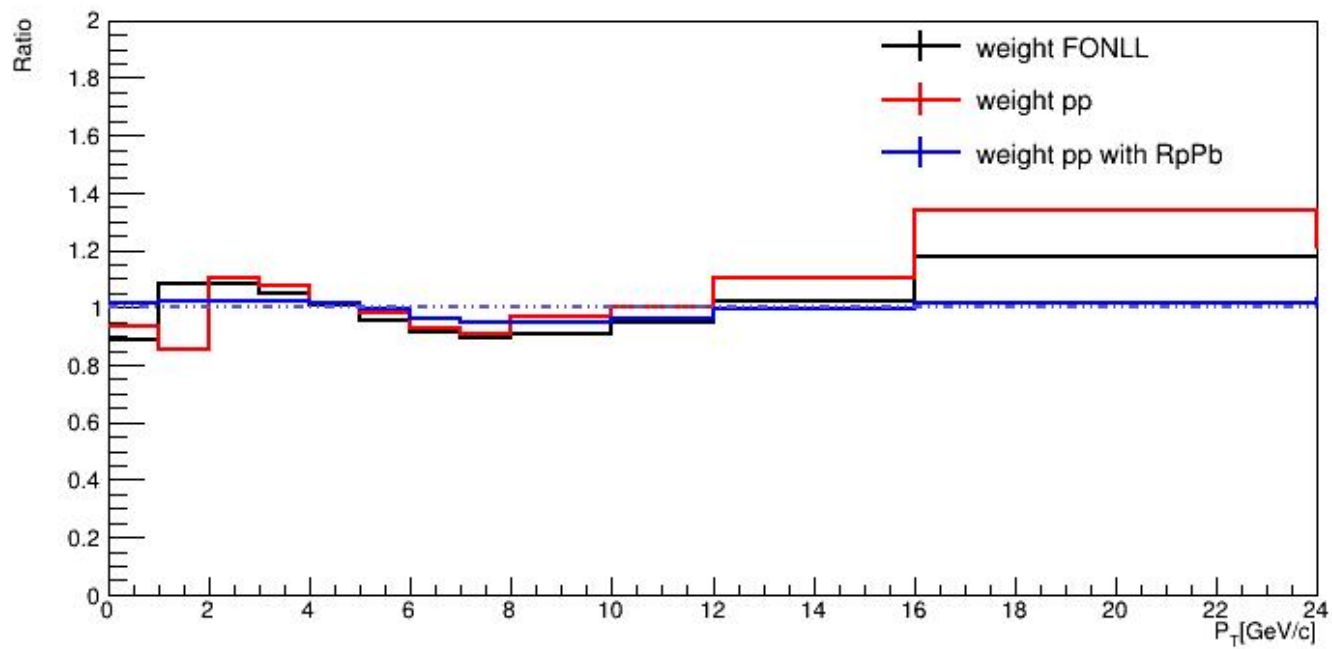
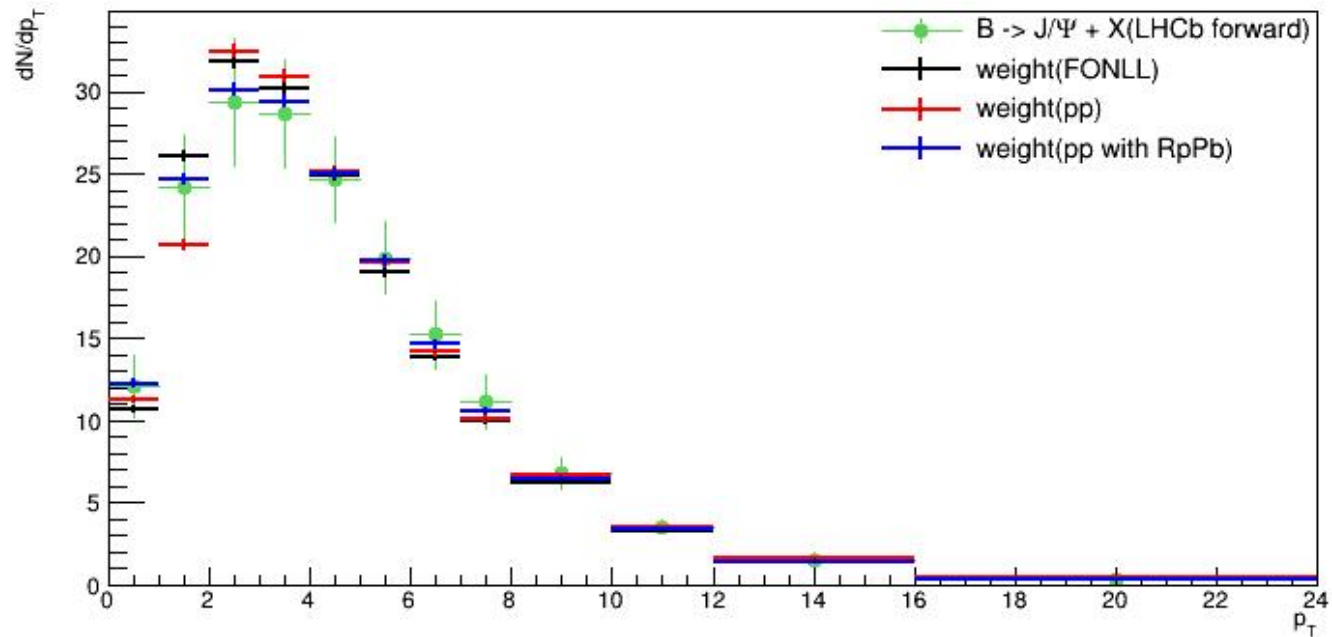


Beauty hadron production in p-Pb collisions with Bayesian Unfolding

Liang Dong

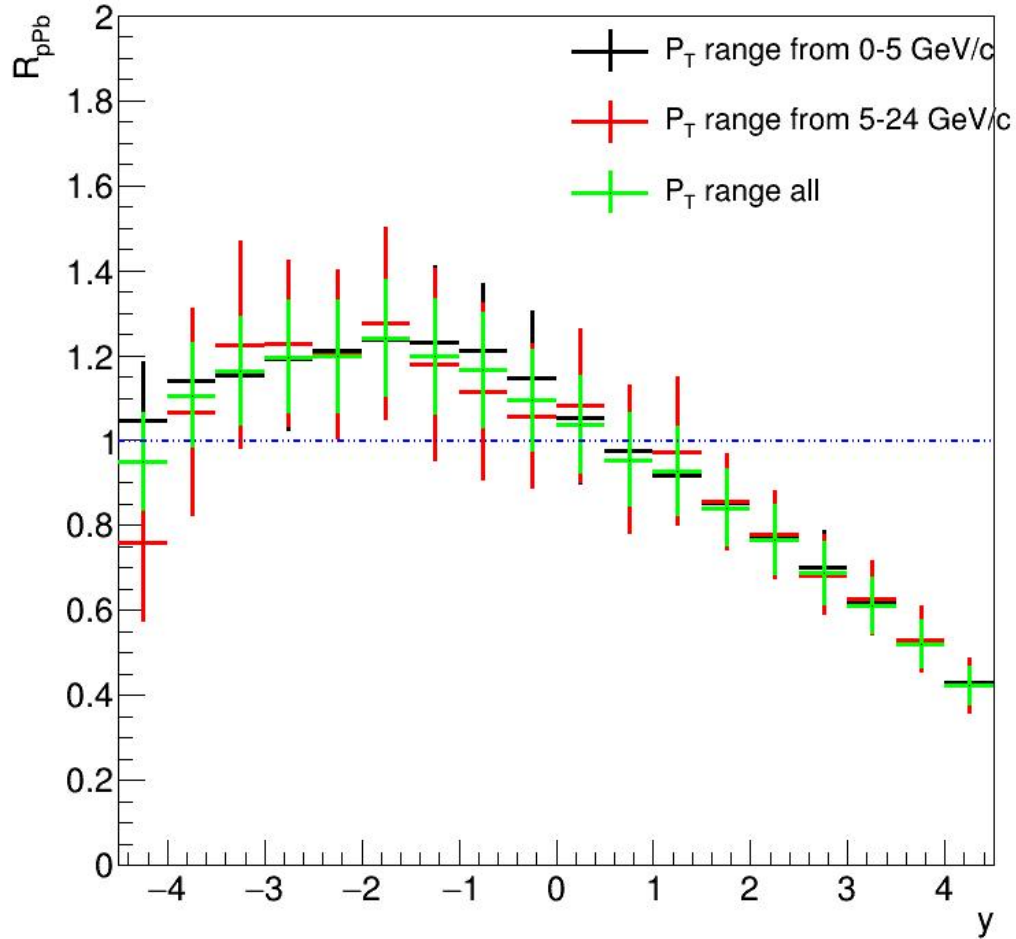
2024/12/24



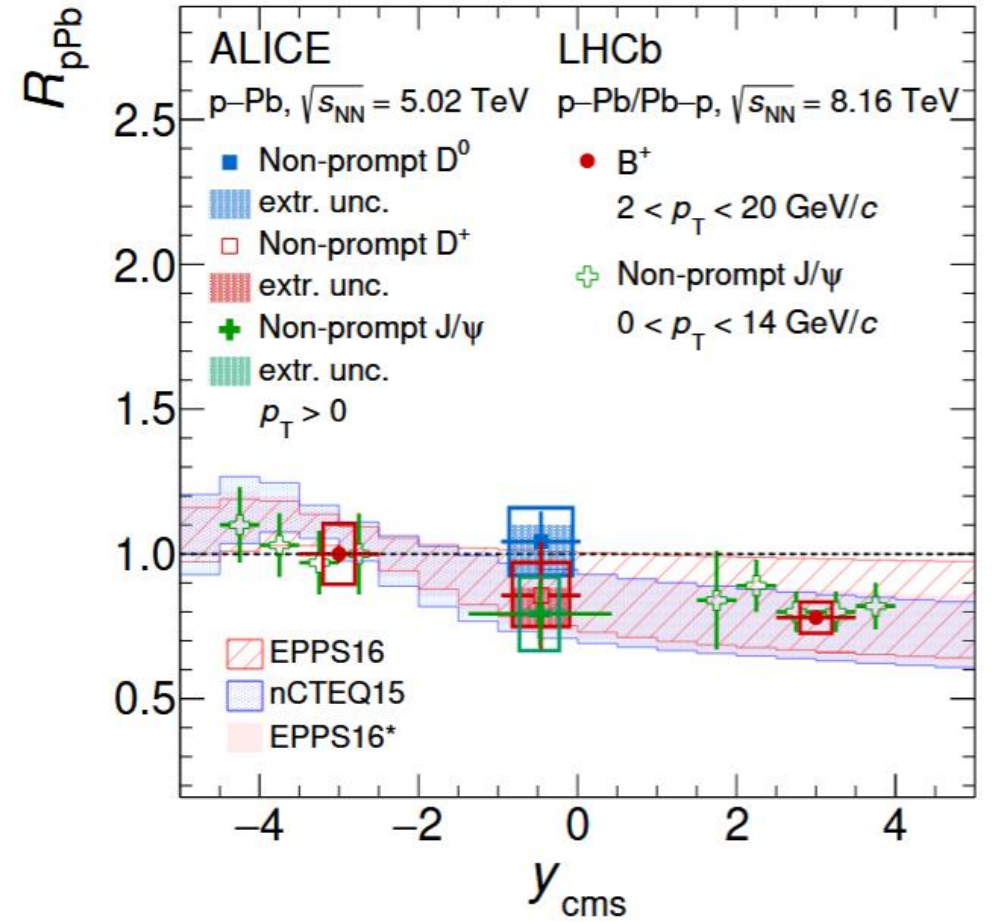
The different shapes of P_T spectra of beautiful hadrons have an influence on the Unfolding results.

R_{pPb} vs y

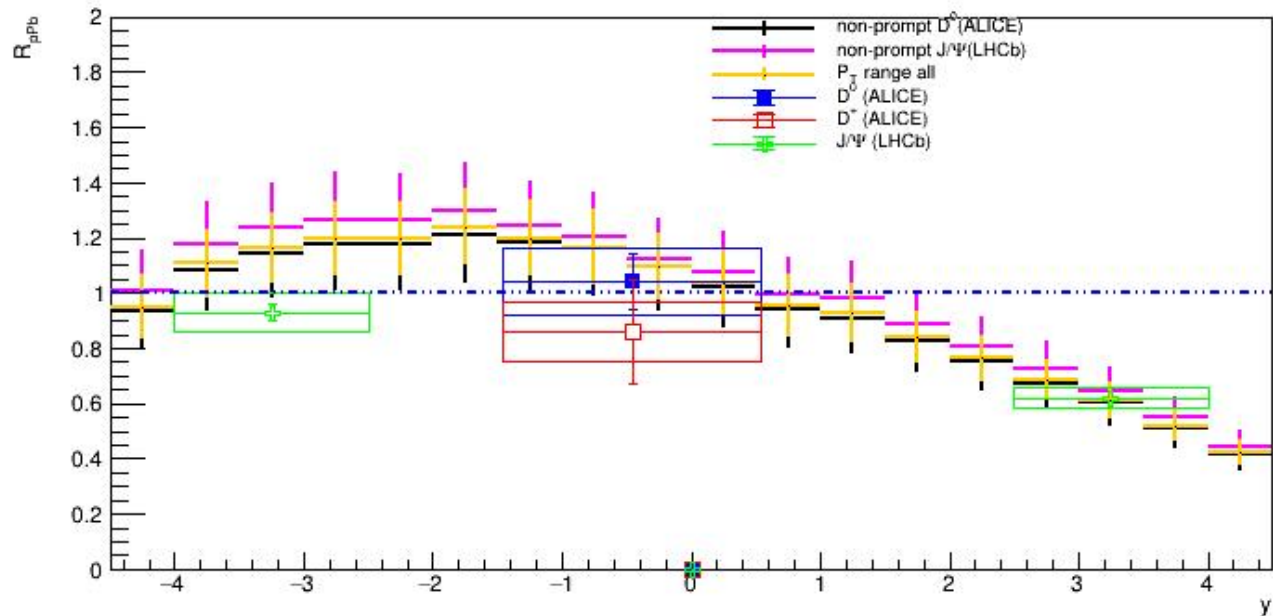
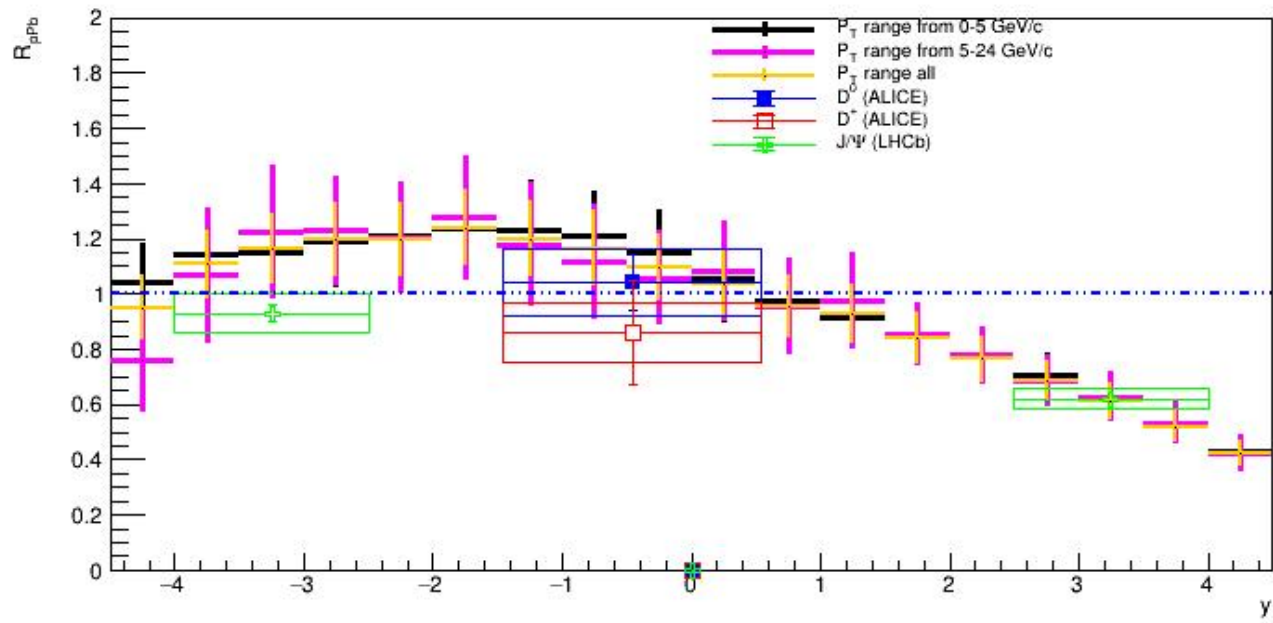
Unfolding output



experimental data

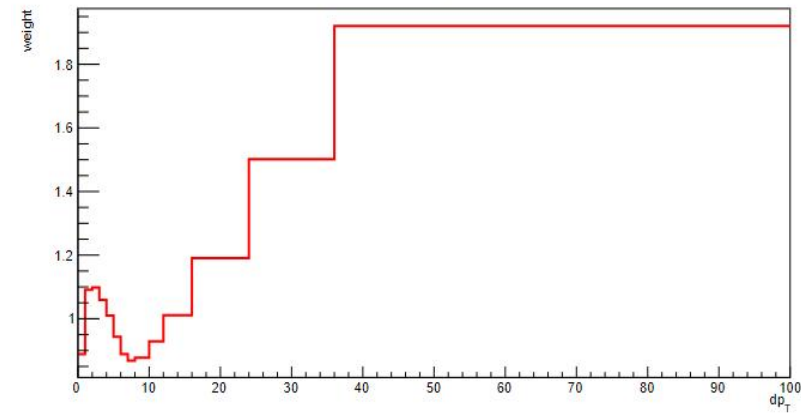


1. The maximum position is inconsistent with the model calculation.
2. Compared with the model, the forward rapidity decreases rapidly.

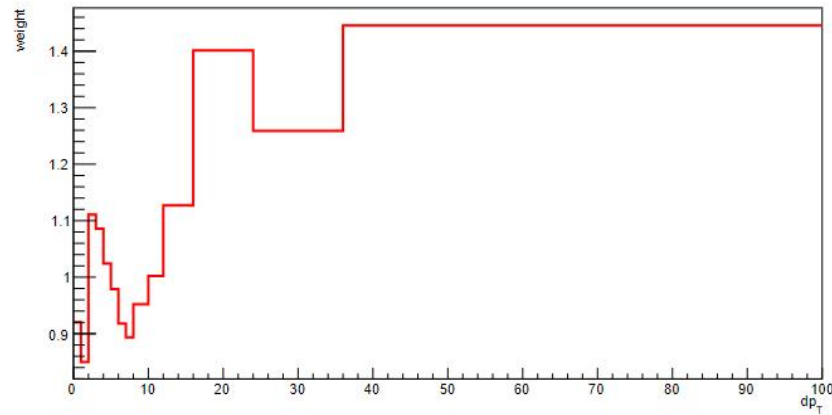


The forward rapidity is consistent with the experimental data

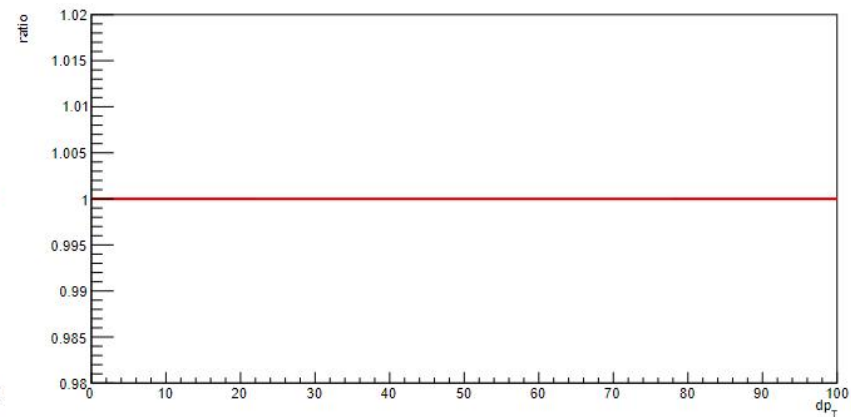
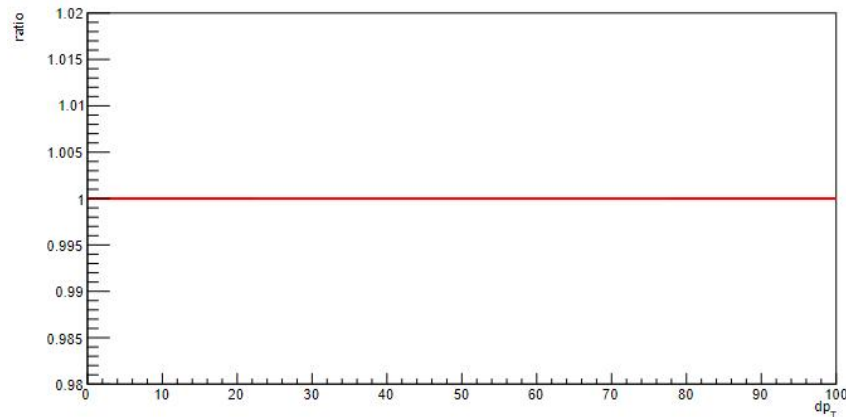
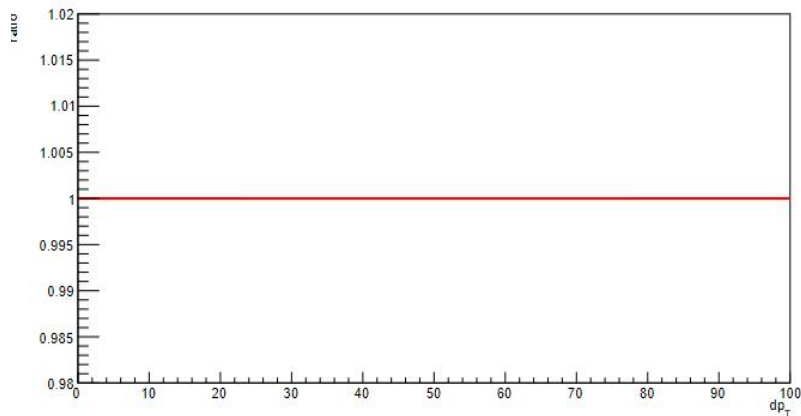
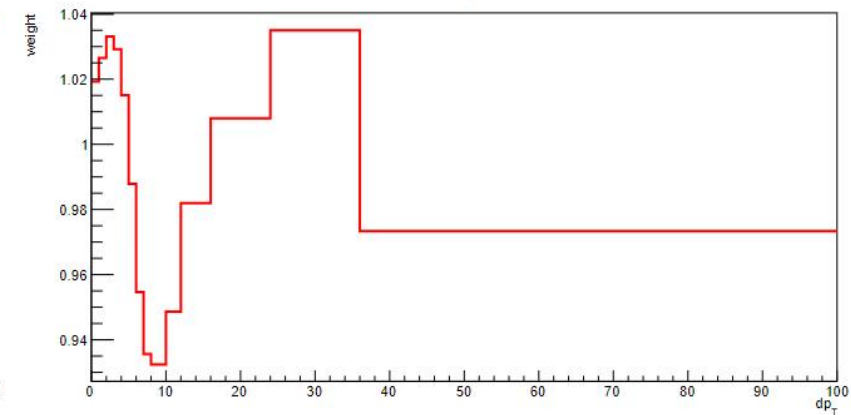
weight



weight



weight



FONLL

pp

pp with R_{pPb}

```

double SimTreeAna::BmesonReweight(double motherPt){
    double pt[14] = {1,2,3,4,5,6,7,8,10,12,16,24,36,100};
    //double weight[14] = {0.889218,1.09108, 1.09859, 1.0593, 1.00961, 0.942756, 0.889209, 0.867786, 0.877638, 0.928581, 1.01126, 1.19047, 1.50118, 1.91995};//FONLL
    //double weight[14] = {0.920215,0.849592, 1.11097, 1.08586, 1.02405, 0.978878, 0.917939, 0.893684, 0.952333, 1.00227, 1.12712, 1.40141, 1.25888, 1.4453};//pp
    double weight[14] = {1.01933,1.0265, 1.03306, 1.02919, 1.01508, 0.987882, 0.954665, 0.935586, 0.932366, 0.948617, 0.982, 1.00797, 1.03496, 0.973314};//pp with RpPb
    for(int i=0;i<14;i++){
        if(motherPt<pt[i])
            return weight[i];//weight[i];
    }
    return 0.;
}

```