

STAR HF PWG Meeting

NPE analysis on P+P Run2012 @200Gev

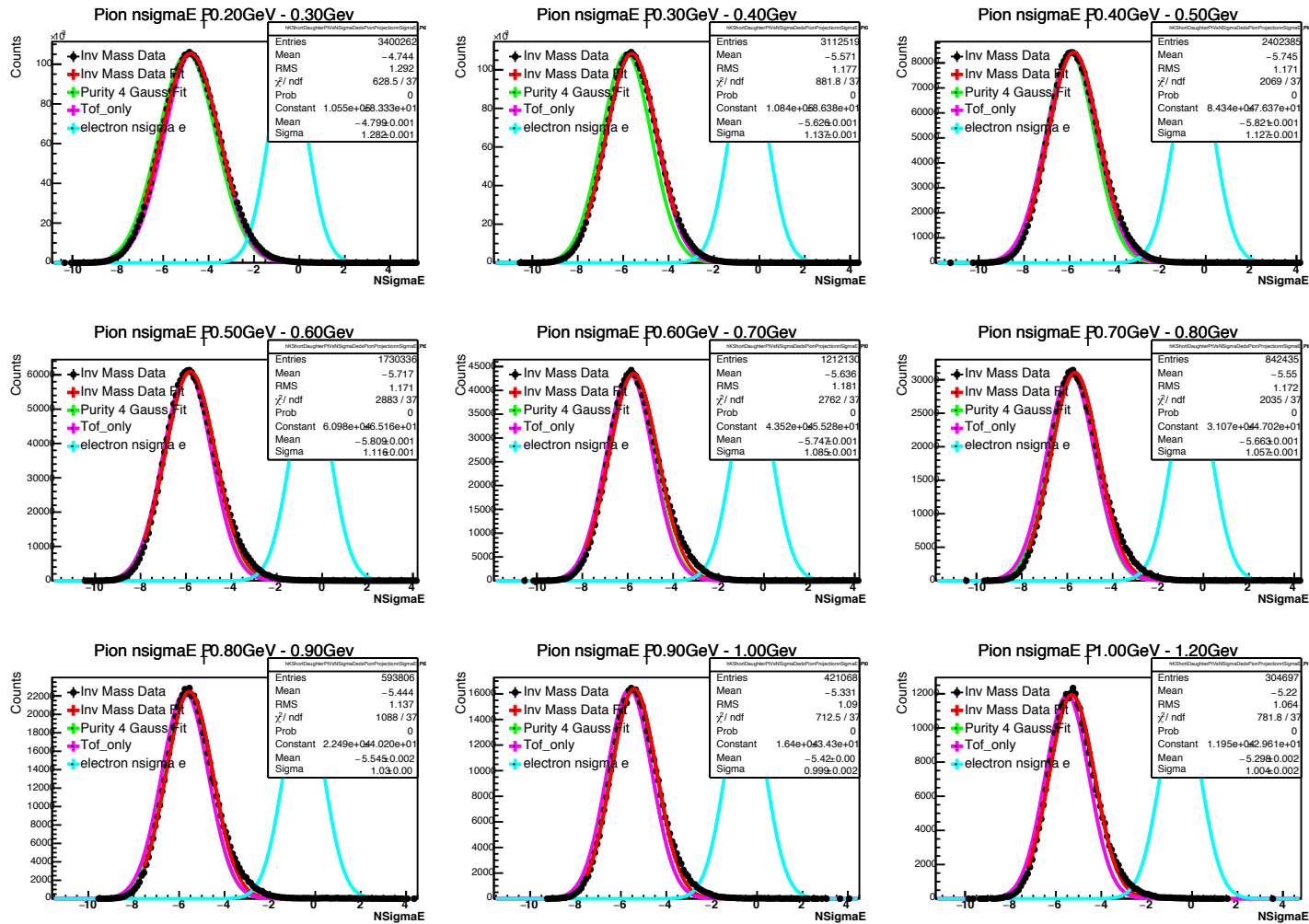
Xiaozhi Mustafa Zhenyu Ye

26/3/2015

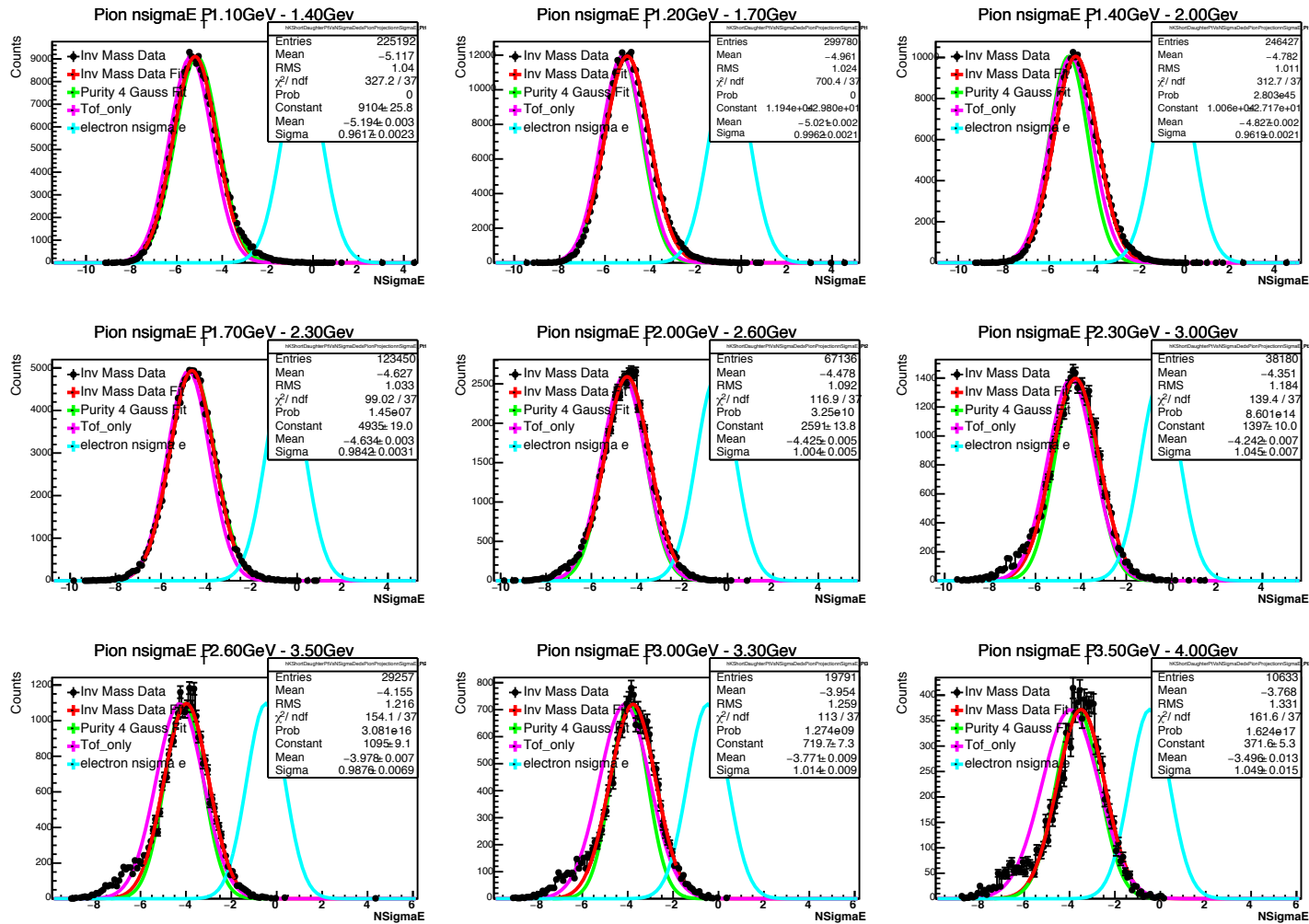
OutLine

- Check Inclusive electron purity
- Tracking efficiency and photonic electron reconstruction from VPDMB embedding
- Get the preliminary NPE cross section from VPDMB Data sample

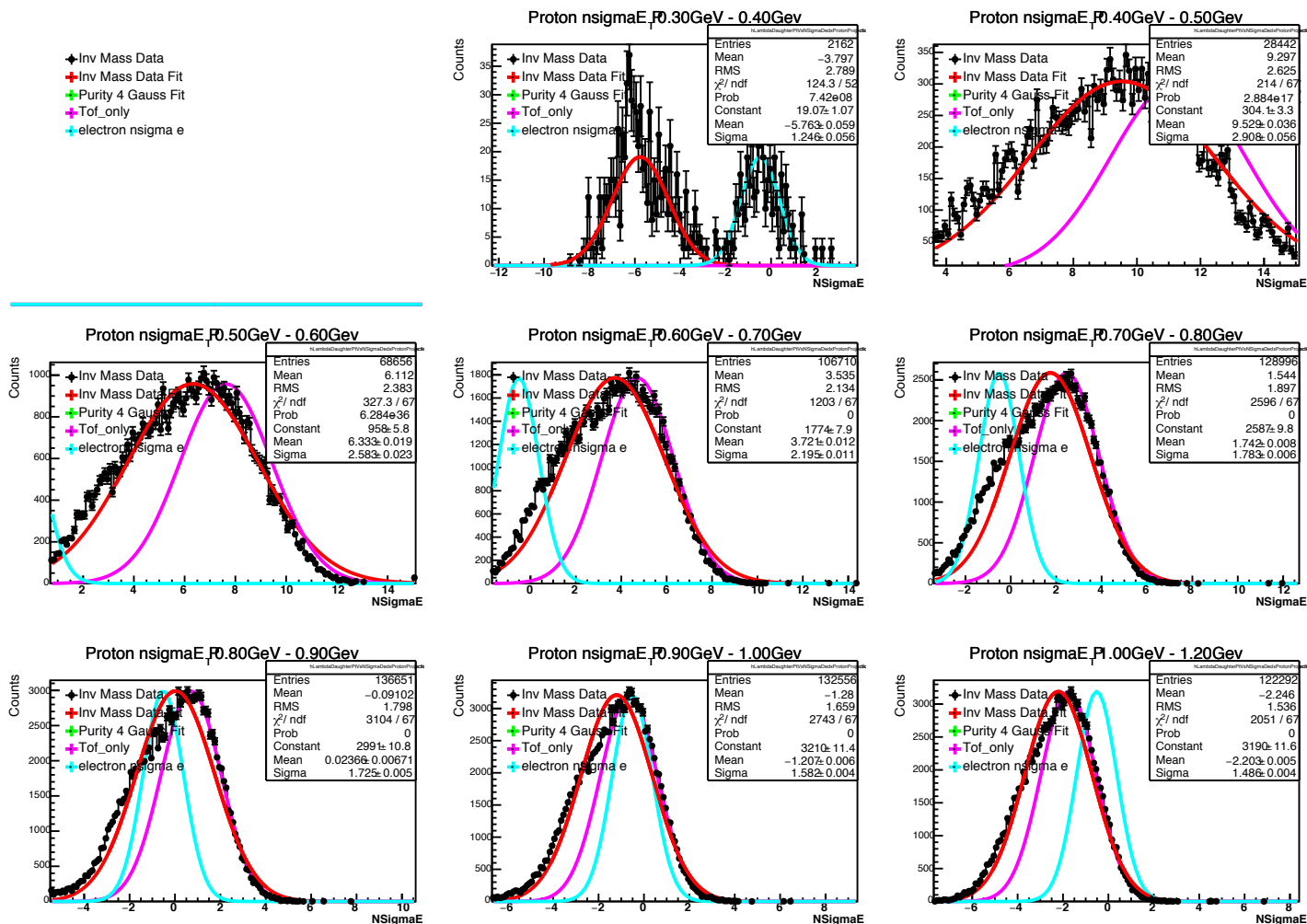
Reconstruction Kshort Pion Nsigma electron Data point



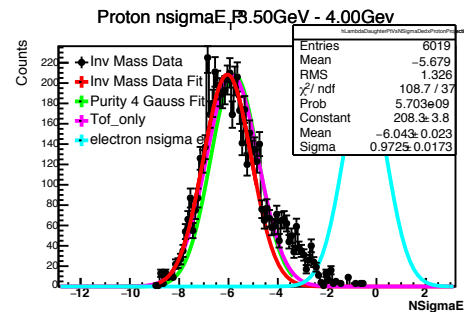
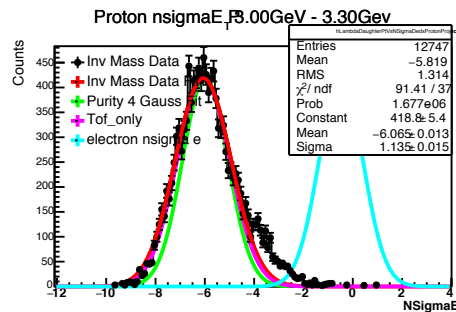
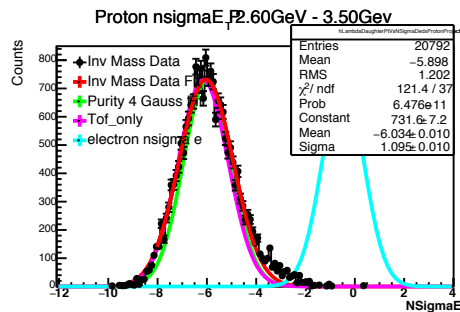
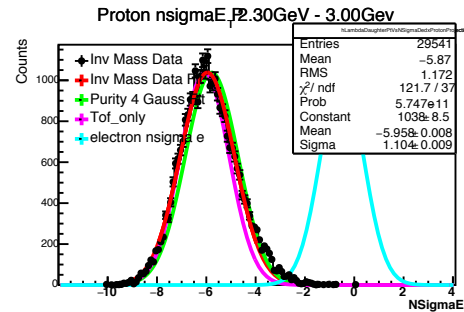
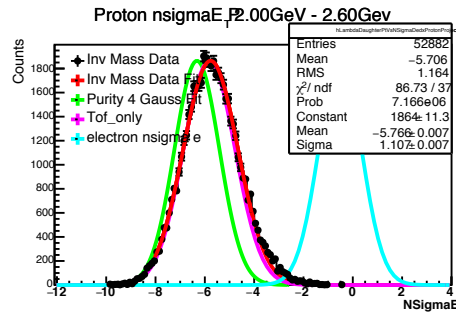
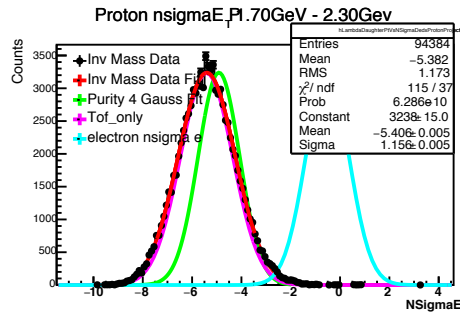
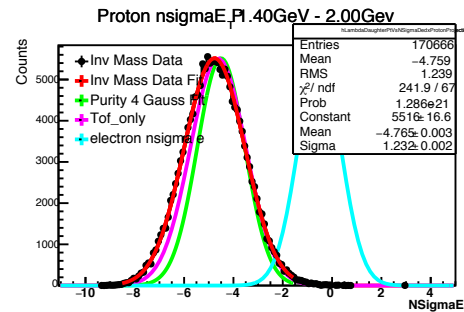
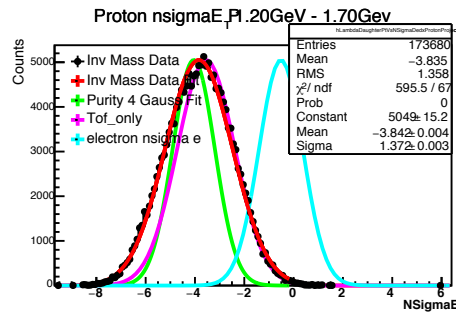
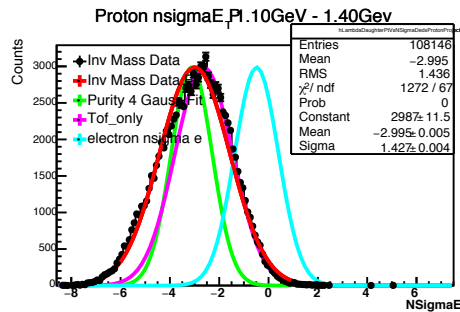
Reconstruction Kshort Pion Nsigma electron Data point



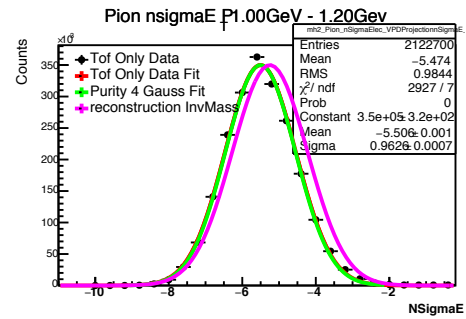
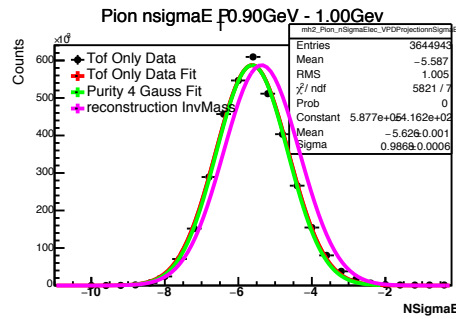
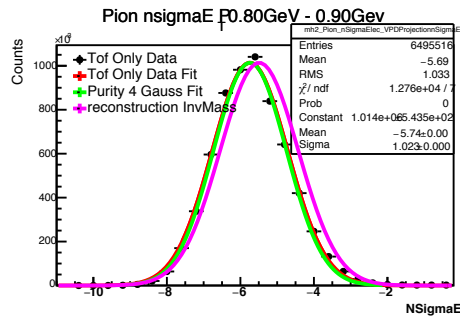
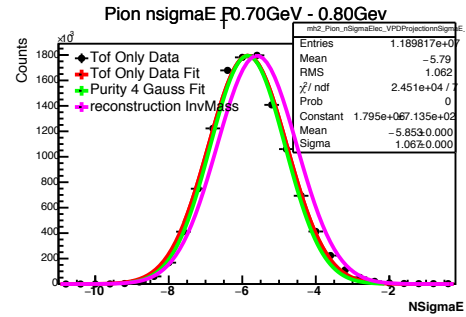
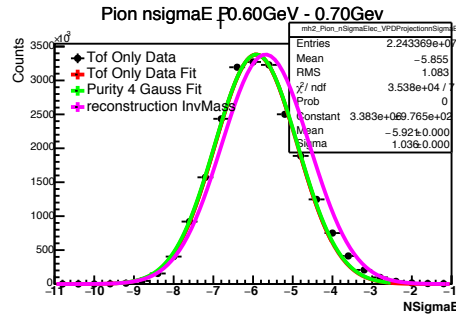
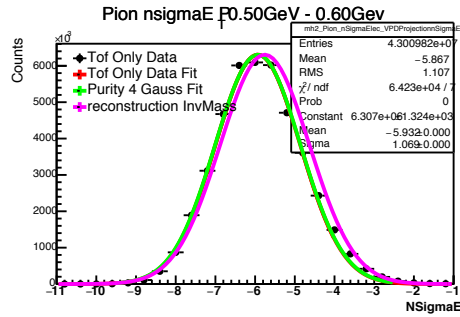
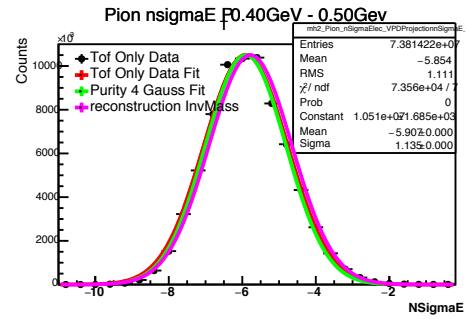
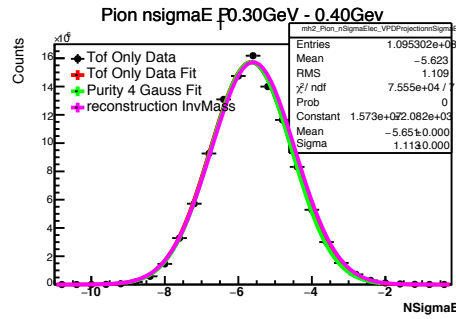
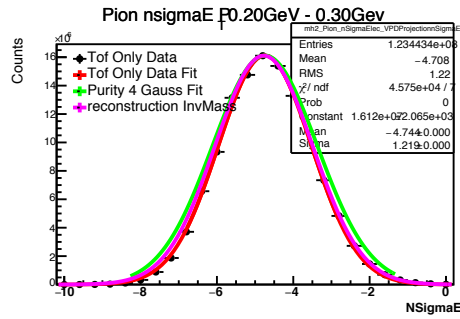
Reconstruction Lamda Proton Nsigma electron Data point



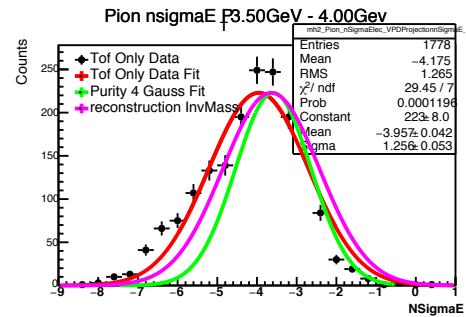
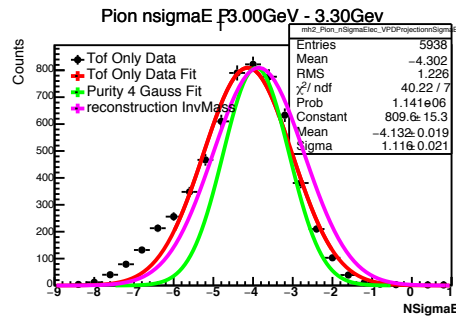
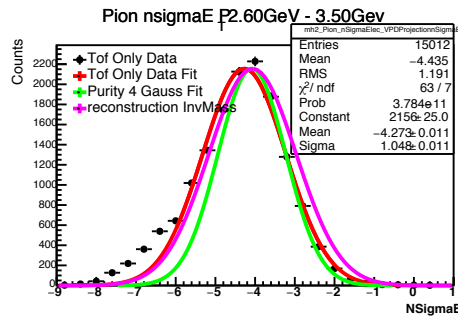
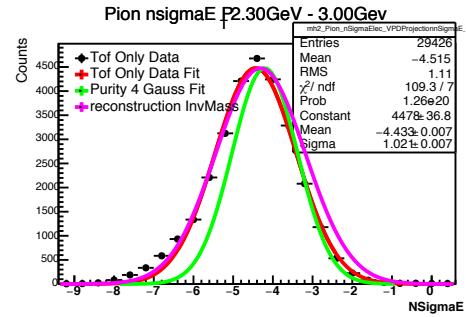
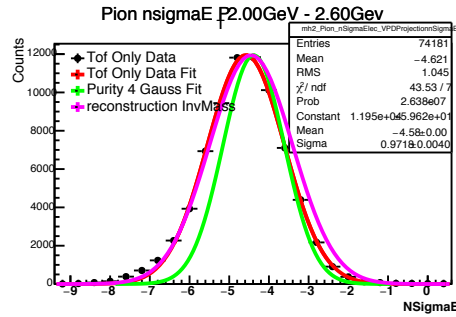
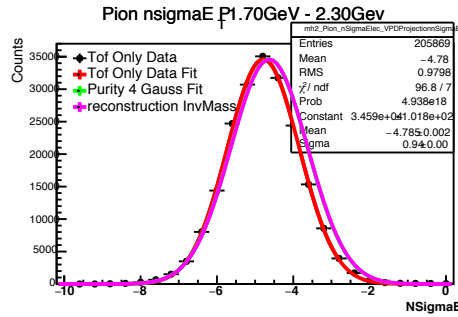
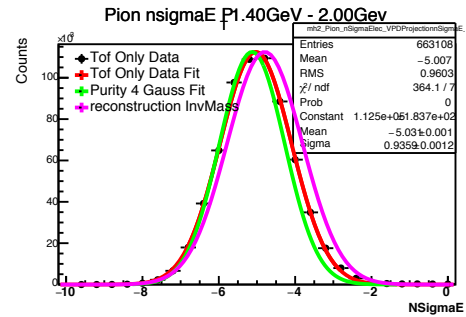
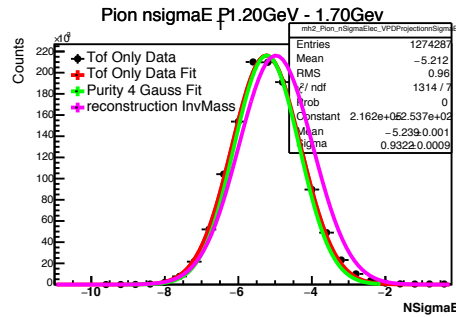
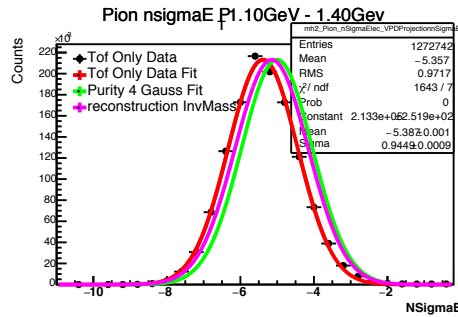
Reconstruction Lamda Proton Nsigma electron Data point



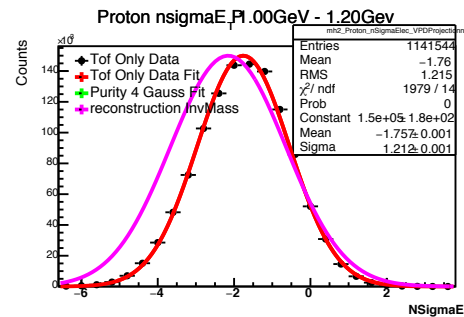
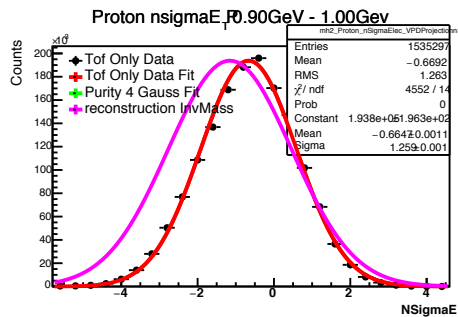
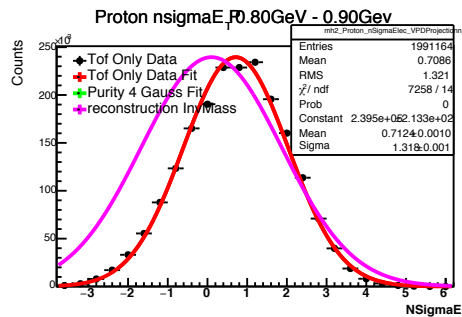
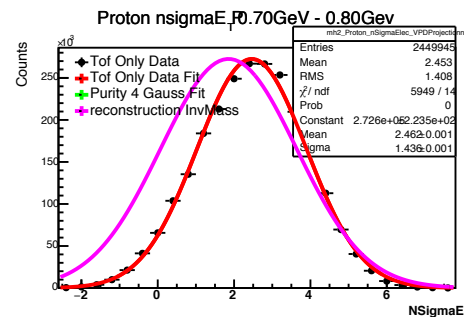
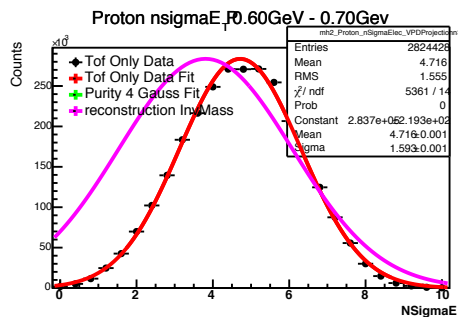
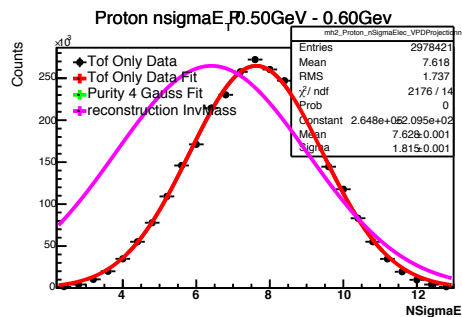
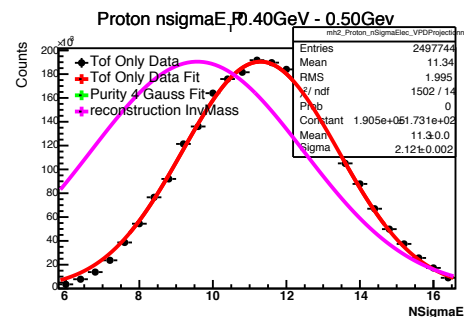
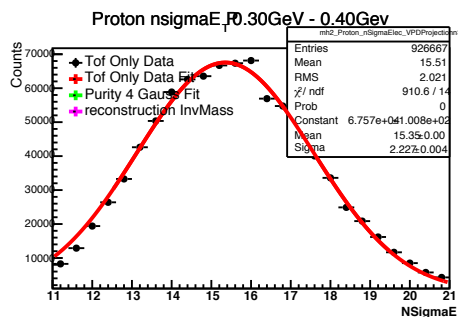
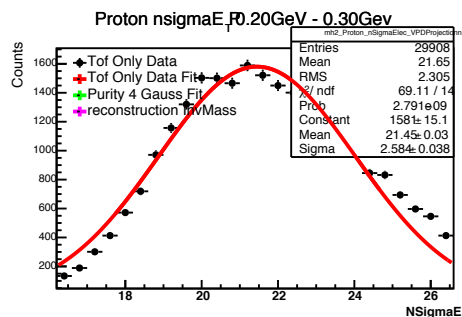
Tof Only Cut Pion nsigma electron



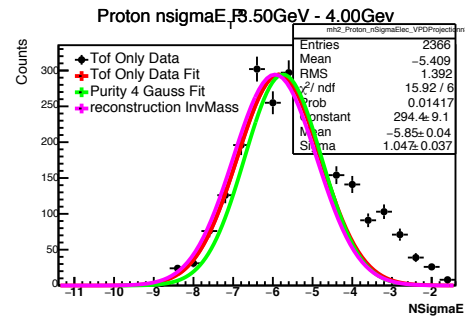
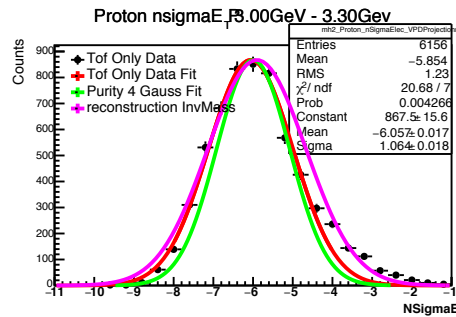
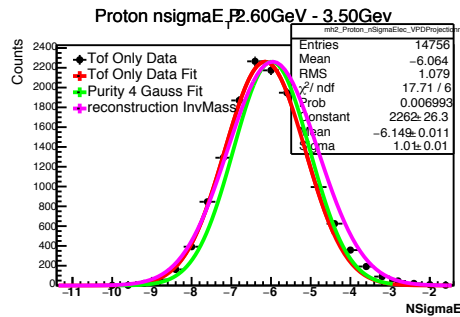
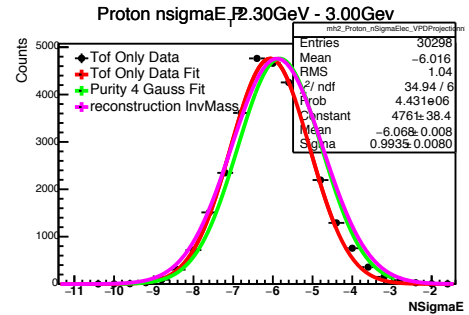
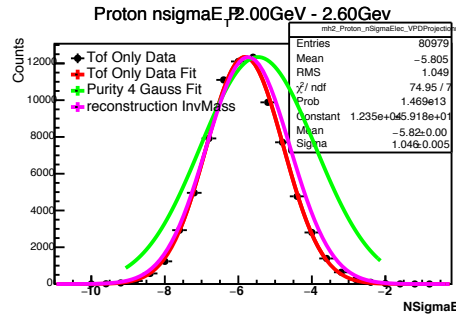
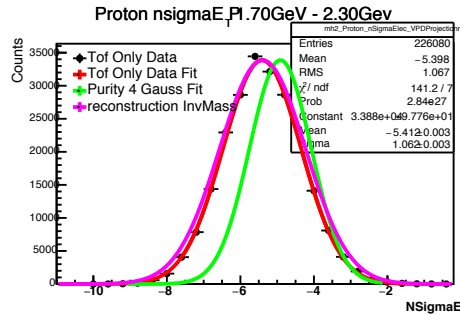
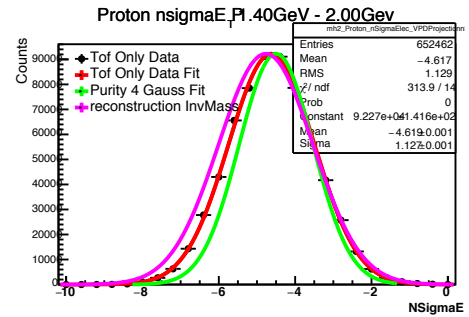
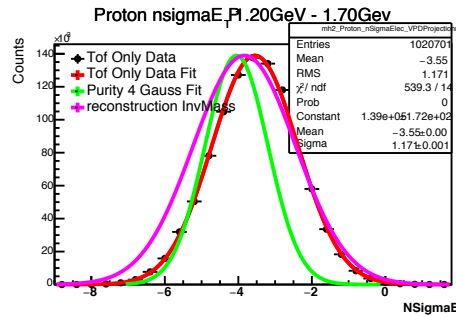
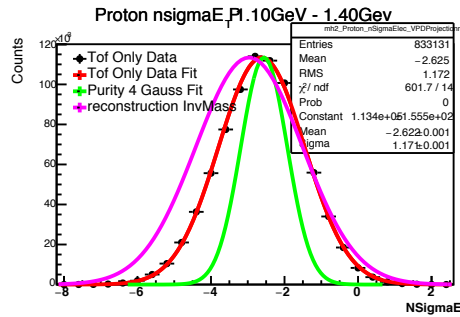
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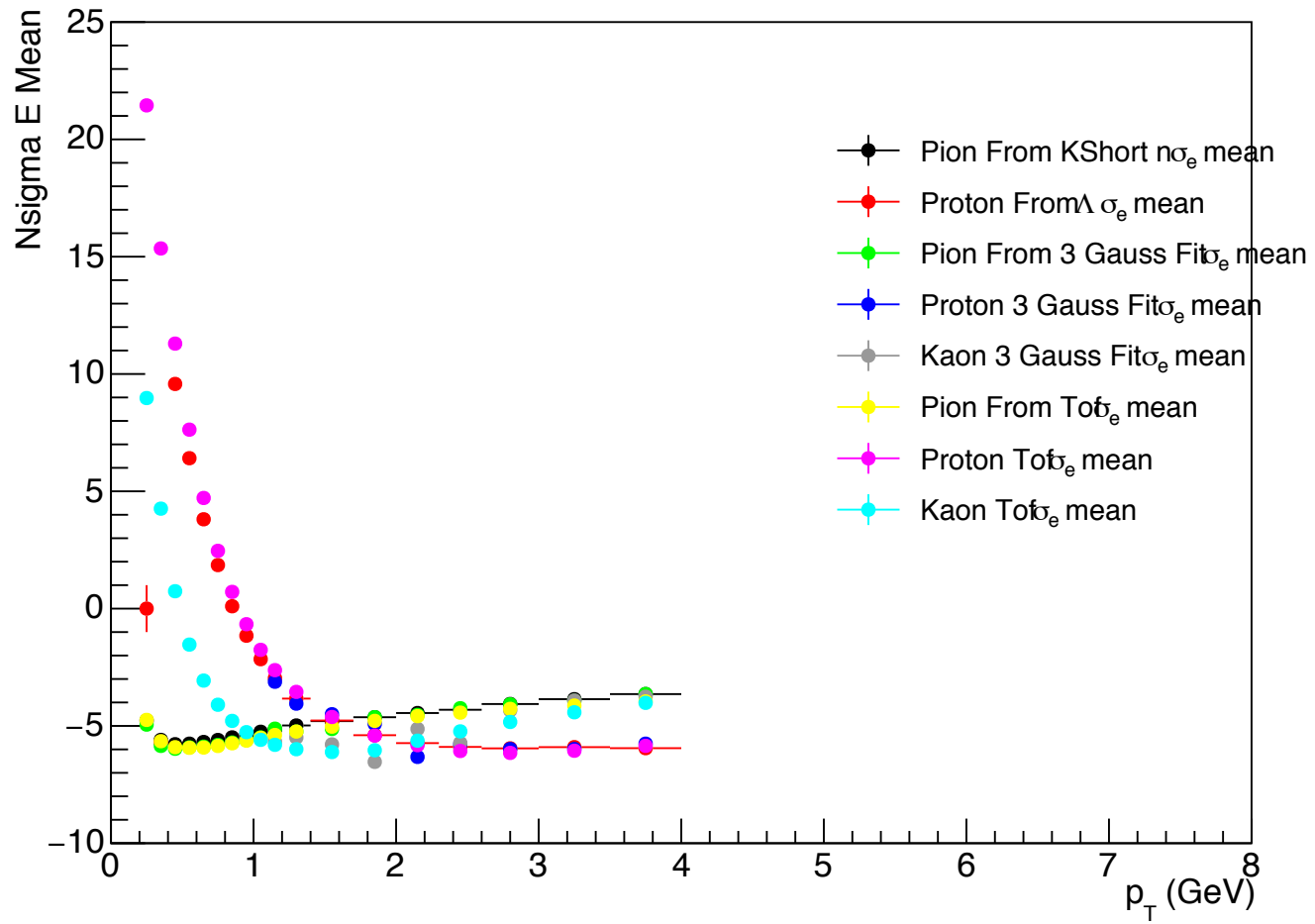


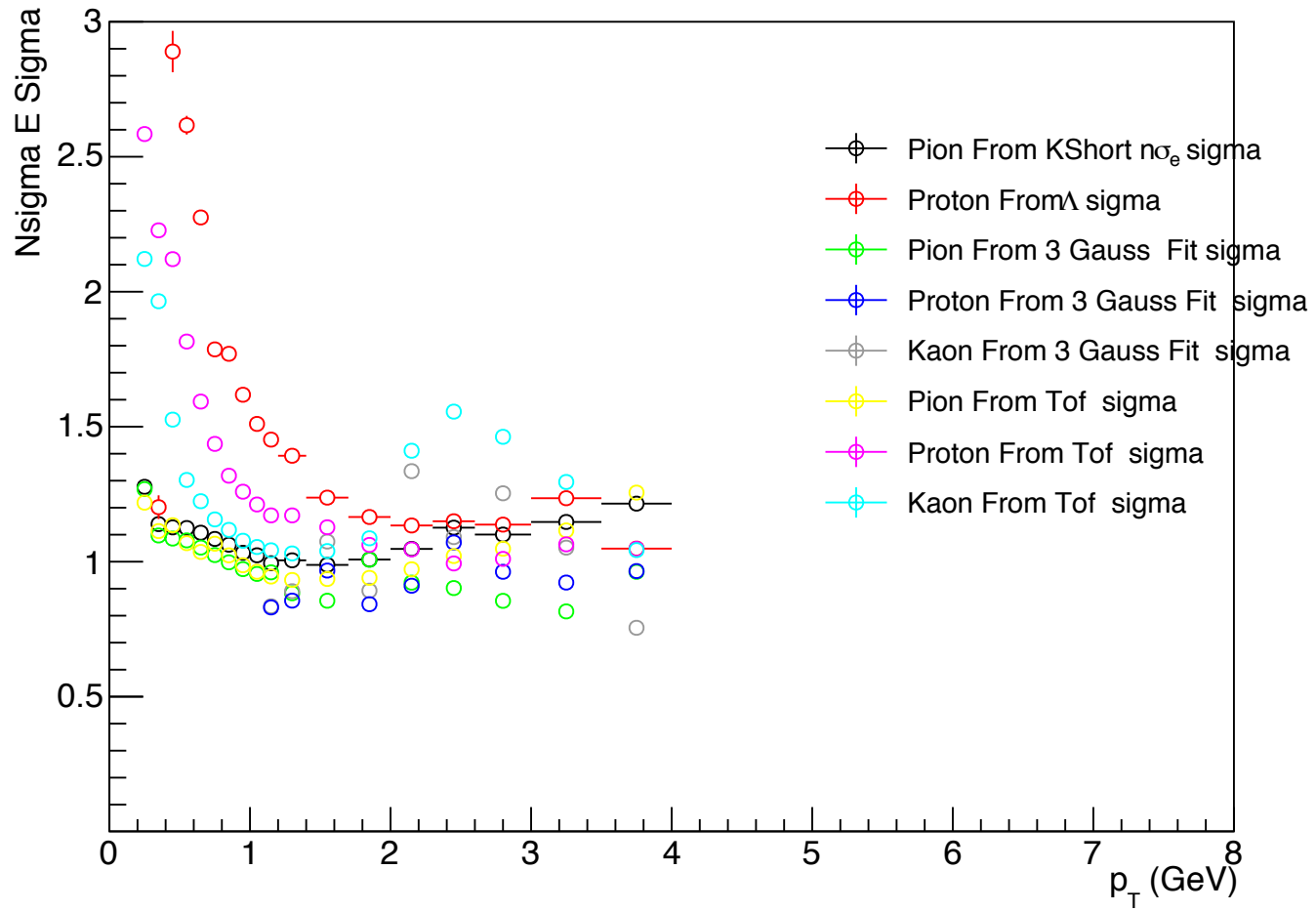
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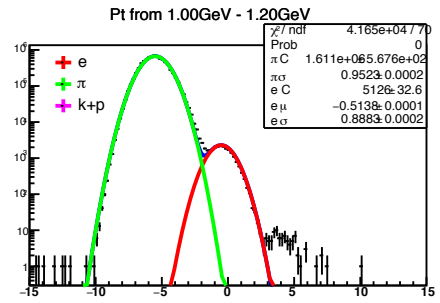
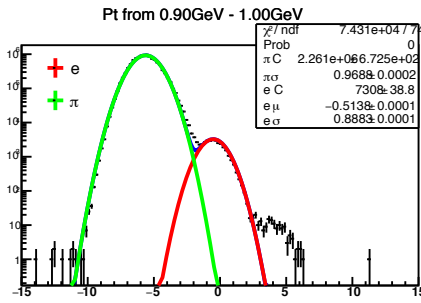
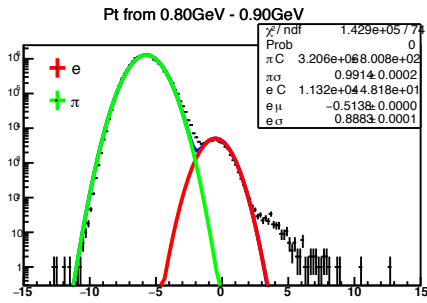
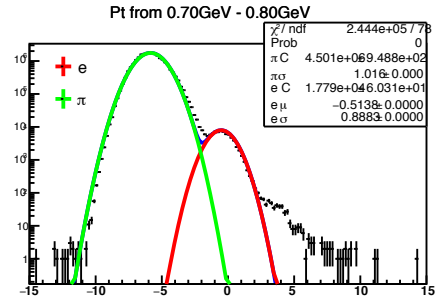
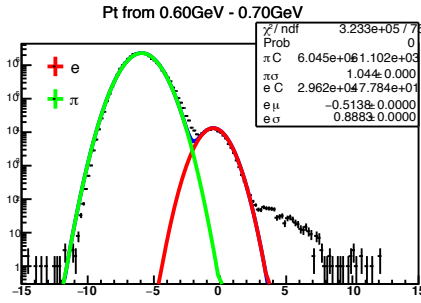
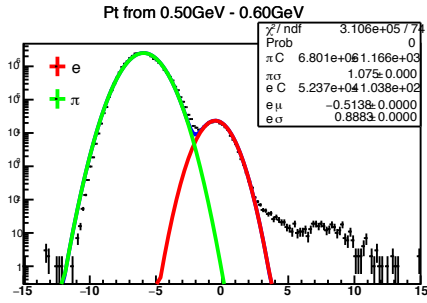
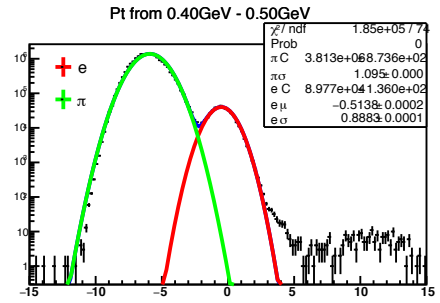
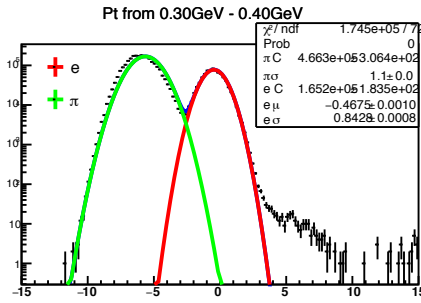
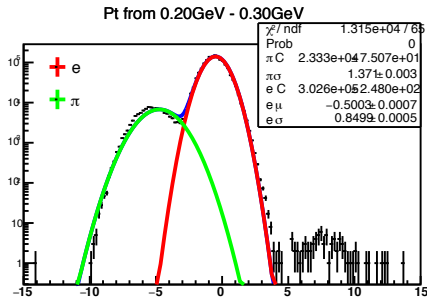


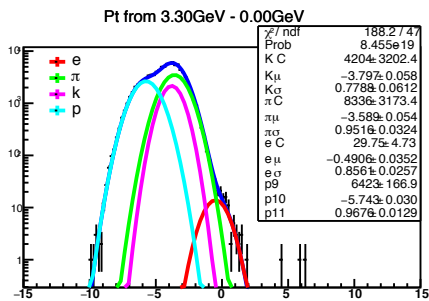
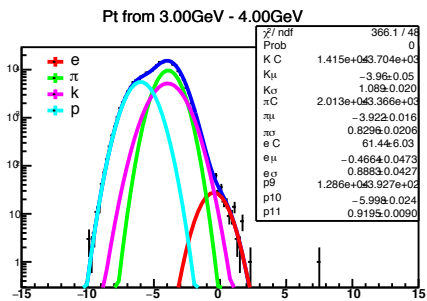
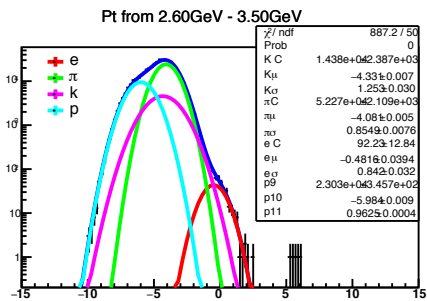
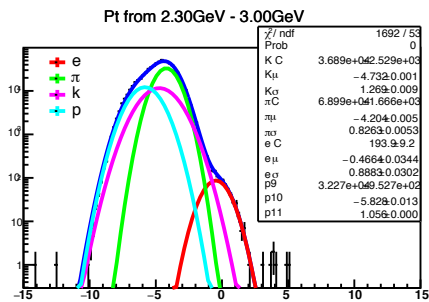
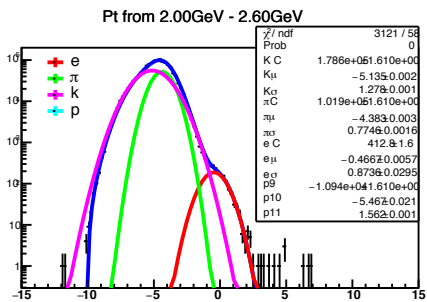
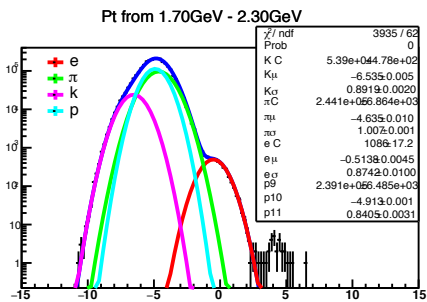
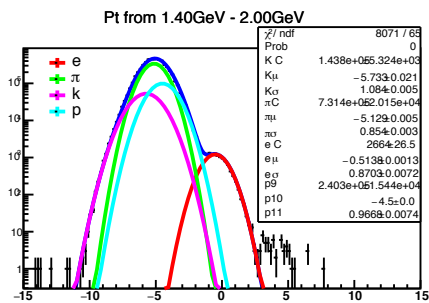
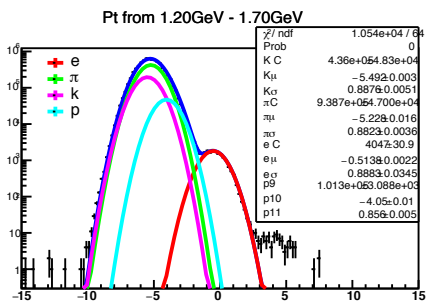
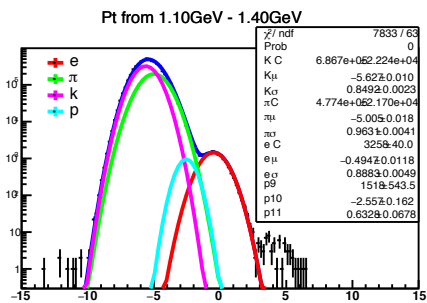
Tof Only Cut Proton nsigma electron

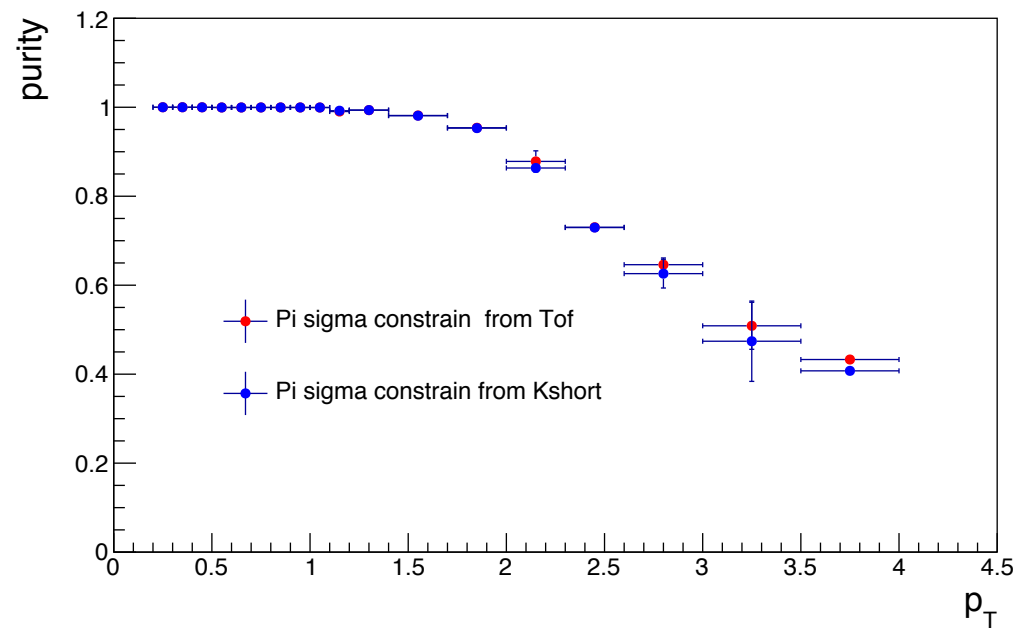




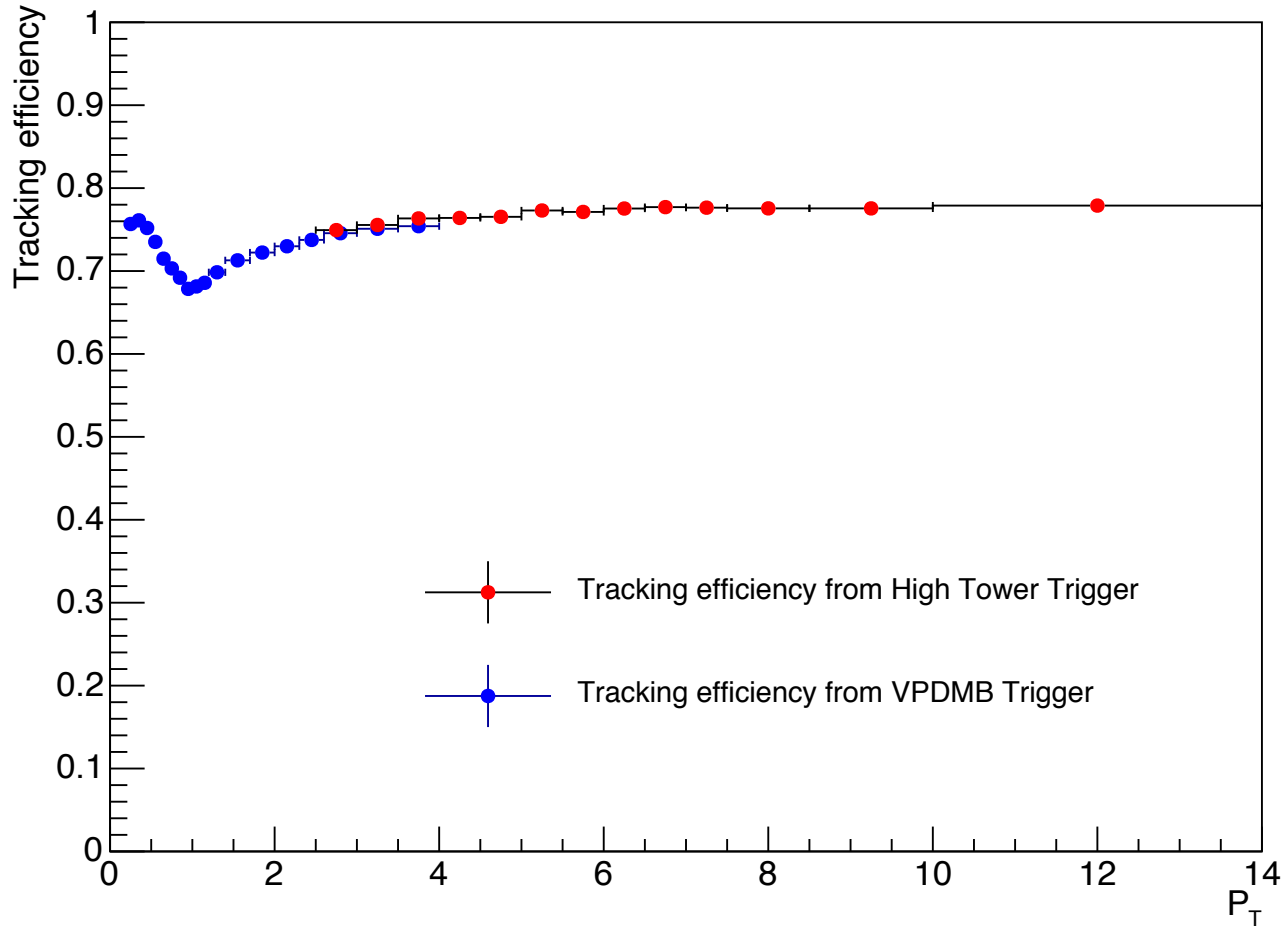


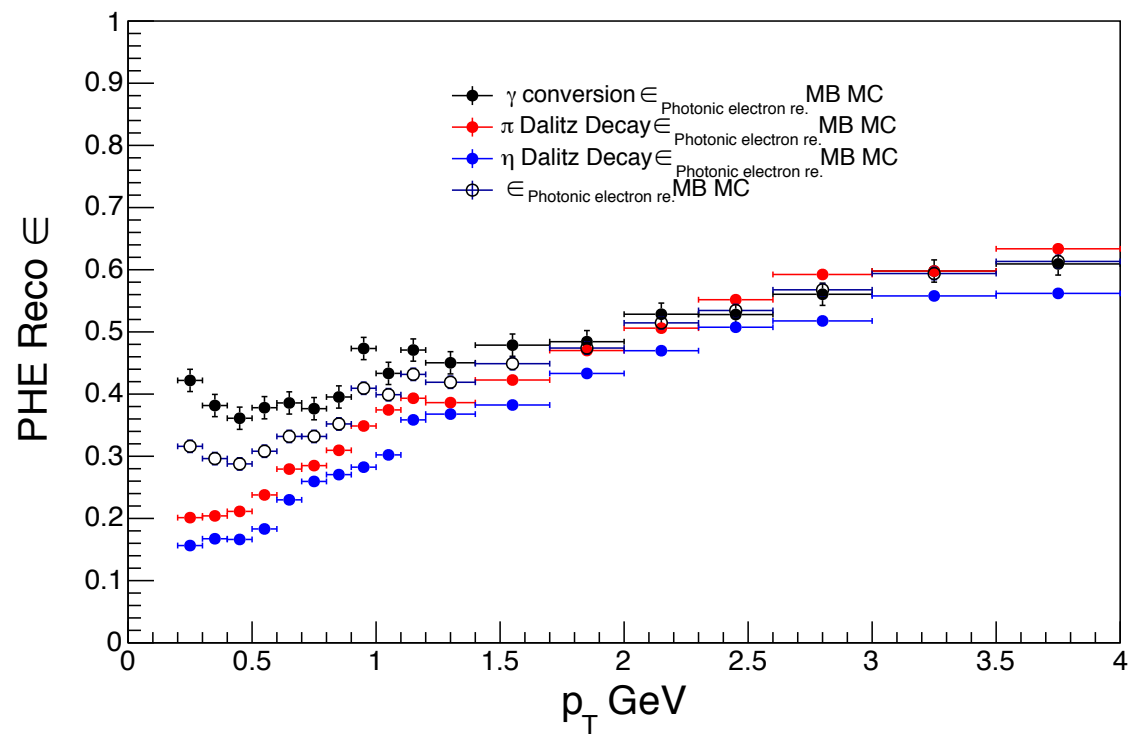




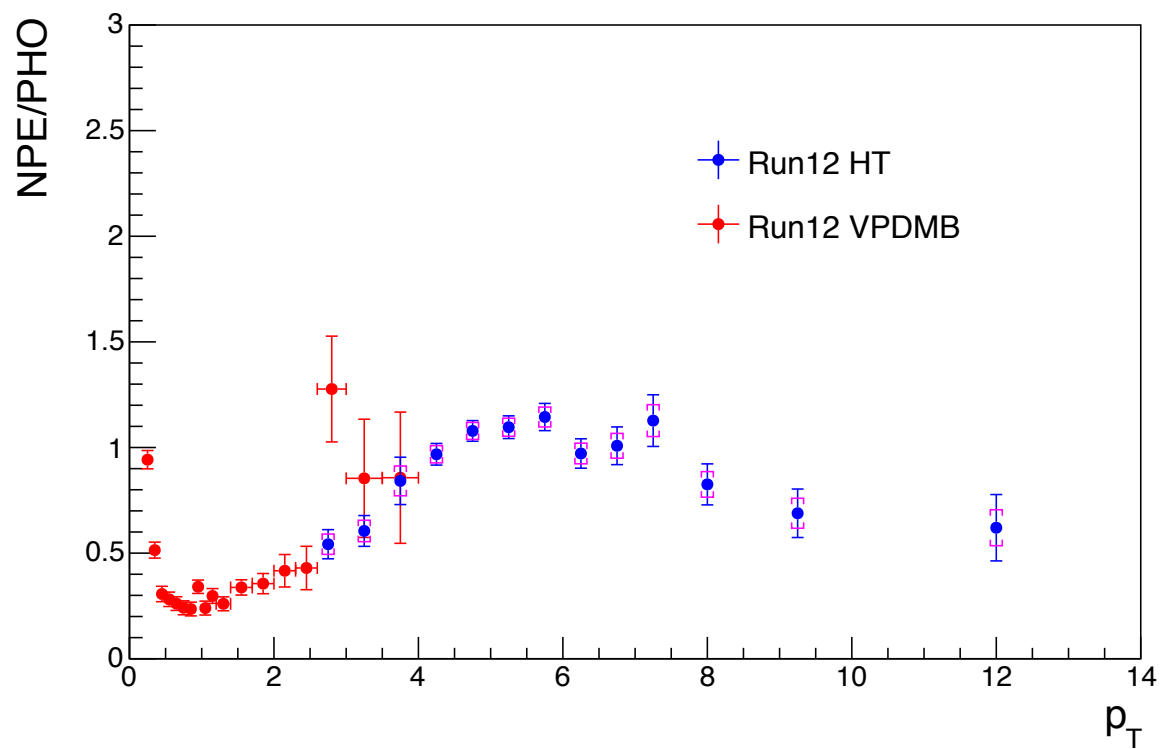


Tracking Efficiency

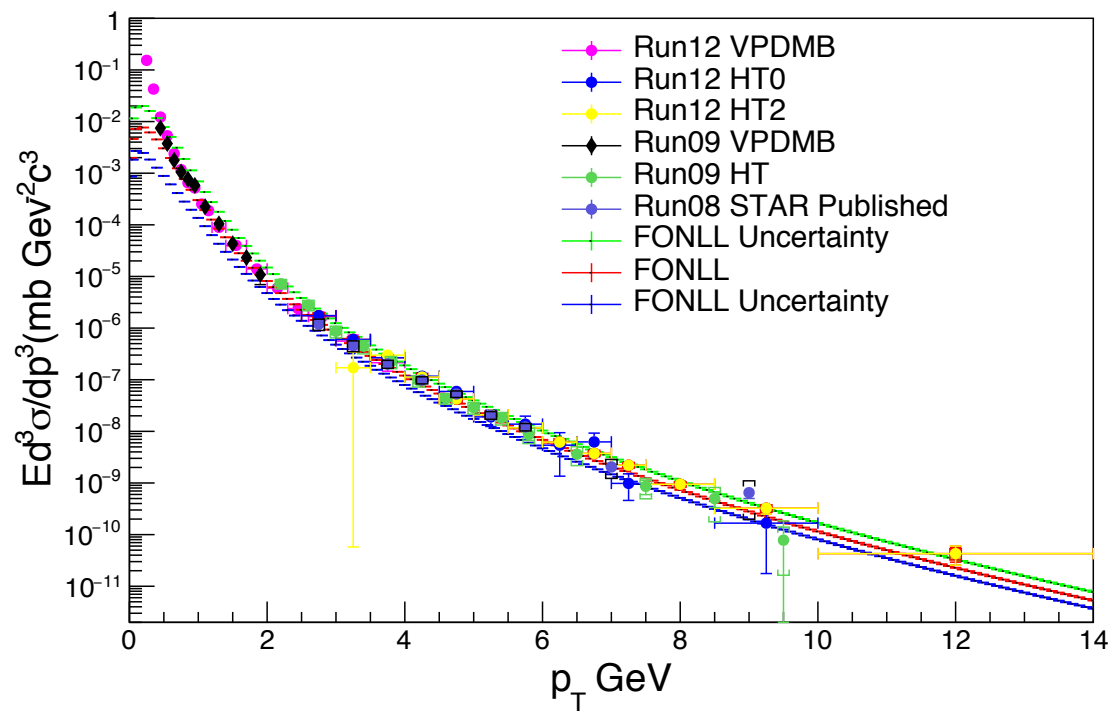




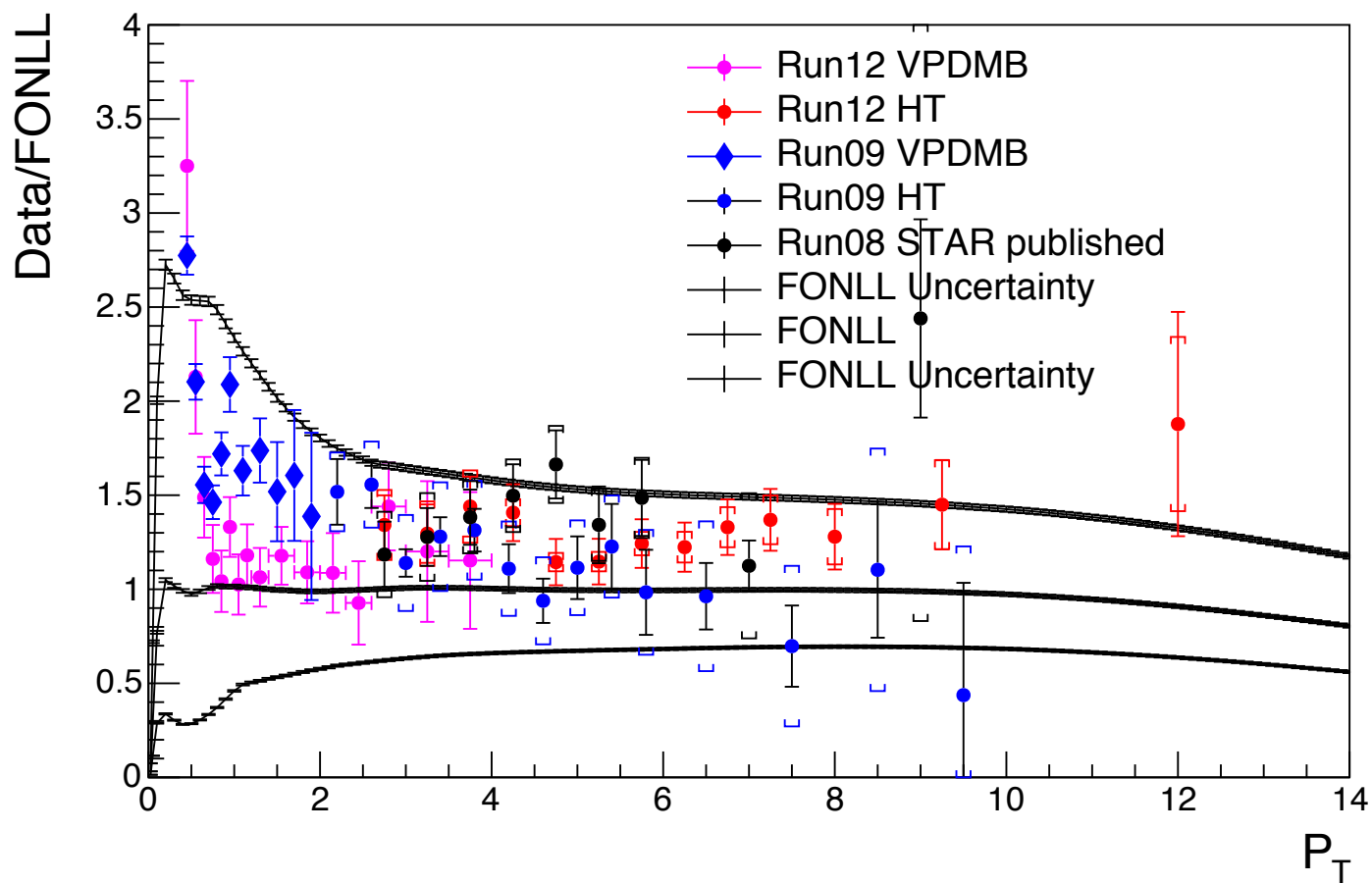
Non-photonic and Photonic electron ratio



NPE Cross Section



Data and FONLL Ratio



Summary & outlook

- MB trigger NPE cross section consistent with the pQCD prediction except the first two pt bin , need more study on the relative contribution from the photonic electron background
- HT trigger efficiency cross check with MB data sample