

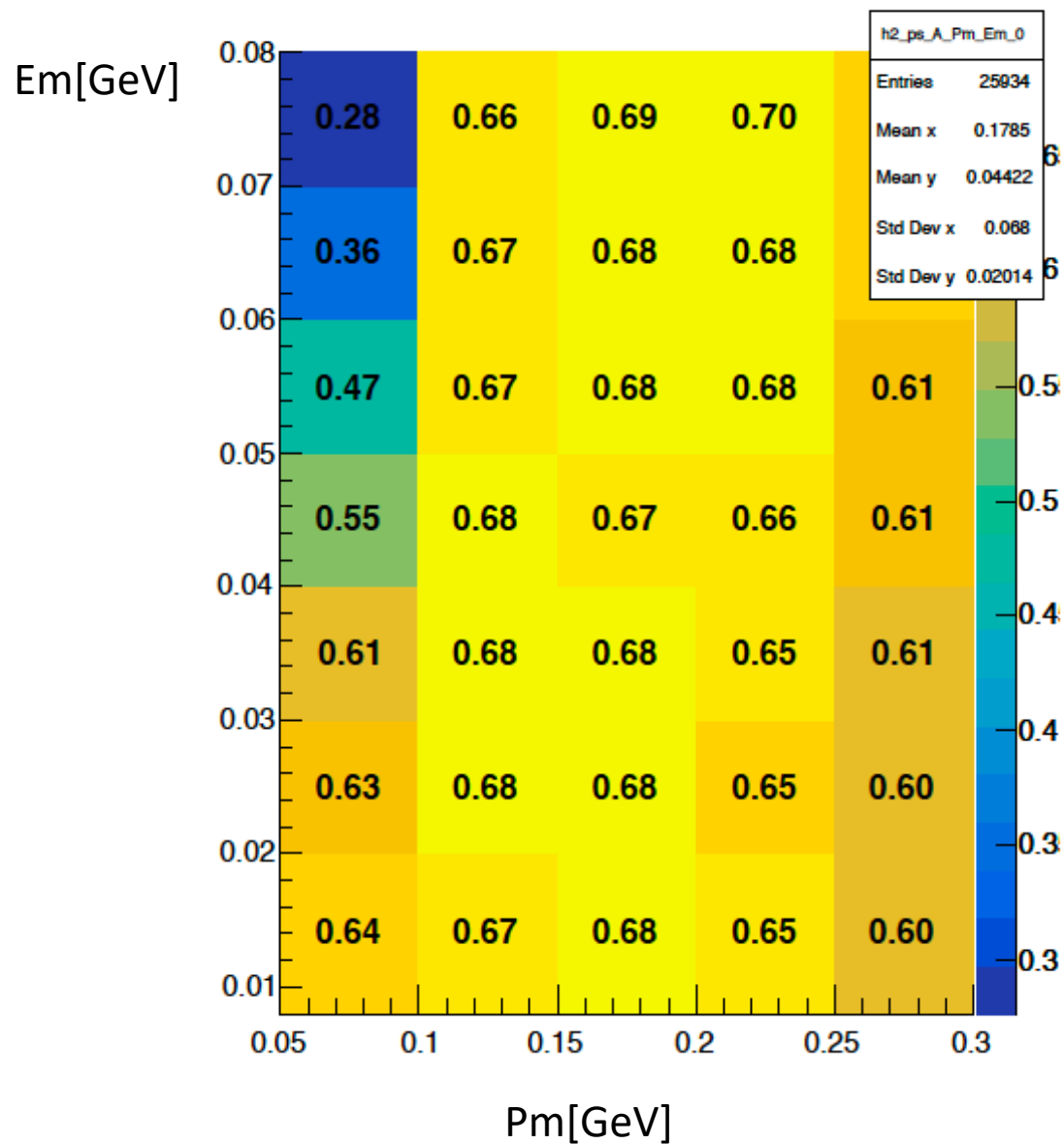
Tritium($e, e'p$) cross section Analysis

Update

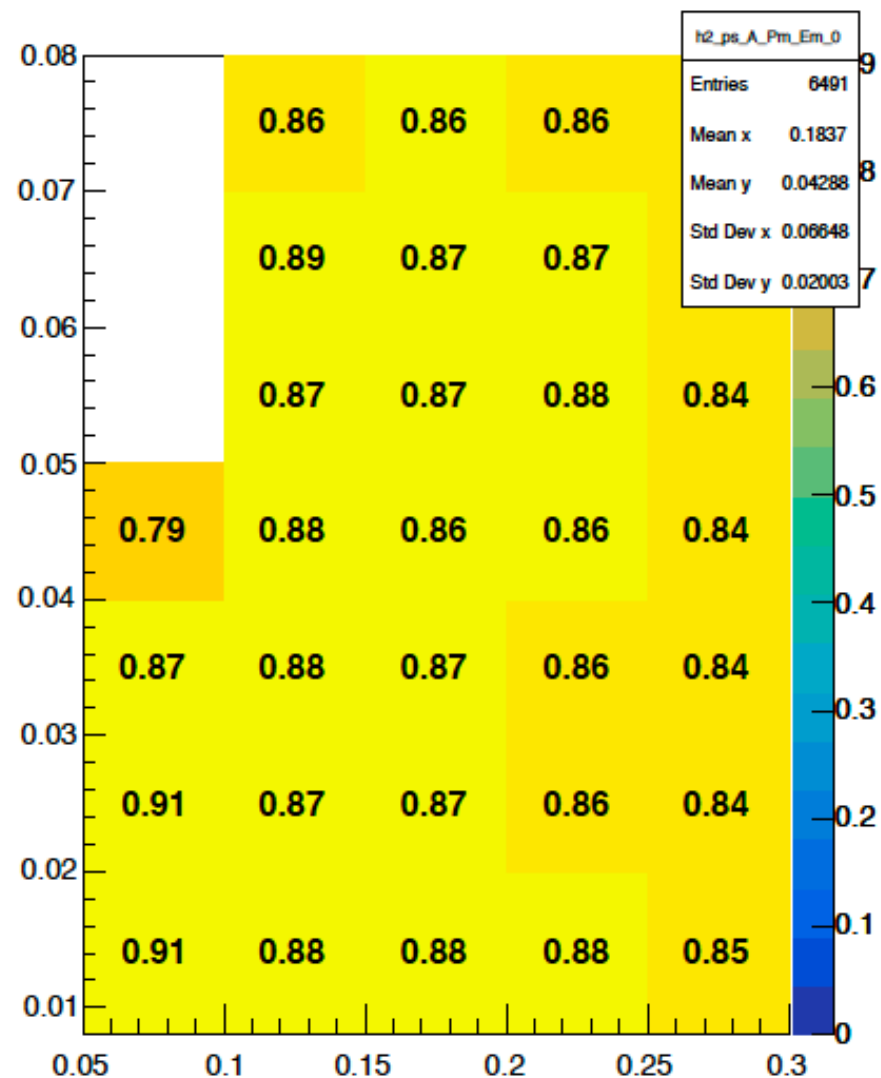
- Debug whole process to calculate the effective phase space (VB)
- Using the uniform cross section to confirm the calculation
- Select the (Pm, Em) bin where the calculation of VB stay away from the edges
- Extracted cross section in 2D (Pm, Em)
- Integrate over selected Em range
- Open acceptance cuts
- Calculate for both (He3 and 3H), Data and SIMC
- Take ratio Data/SIMC extracted cross section as function of Pm

Compare the Acceptance (Pm, Em) using the Large (tight) acceptance

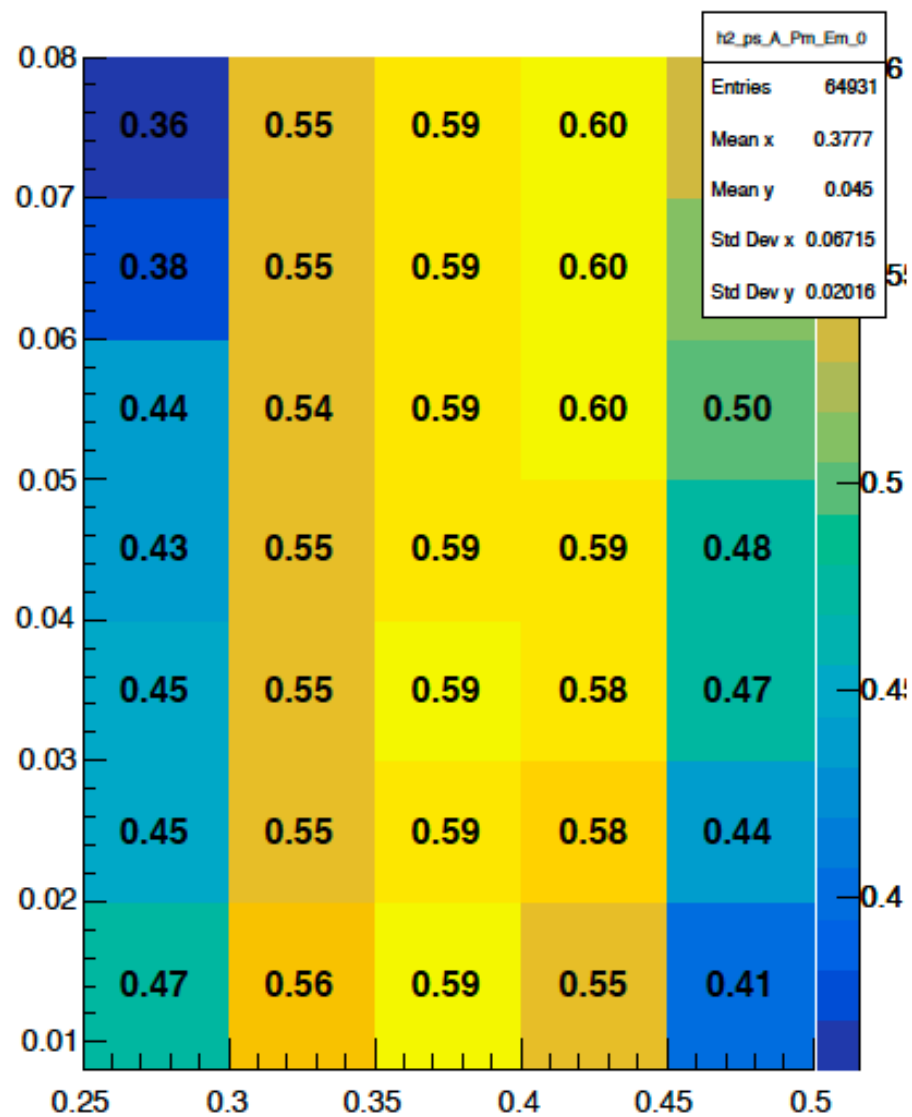
Acceptance distribution Pm vs Em



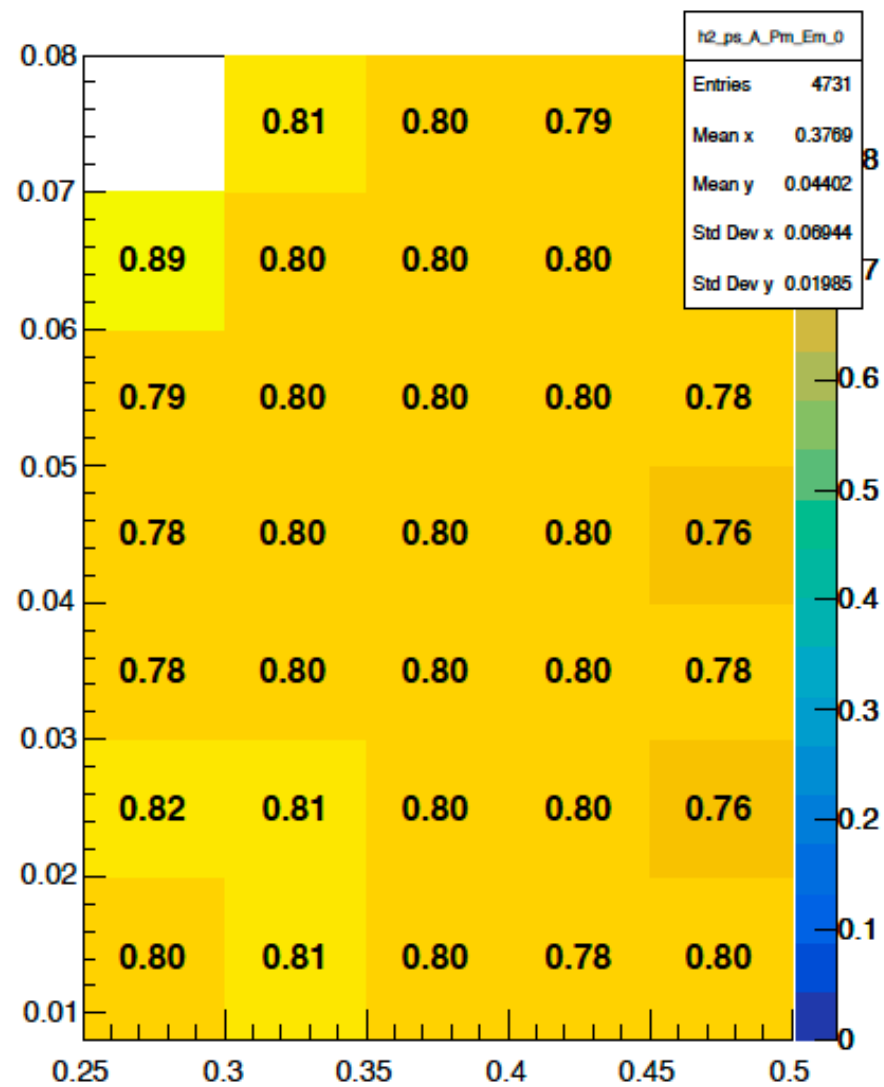
Acceptance distribution Pm vs Em



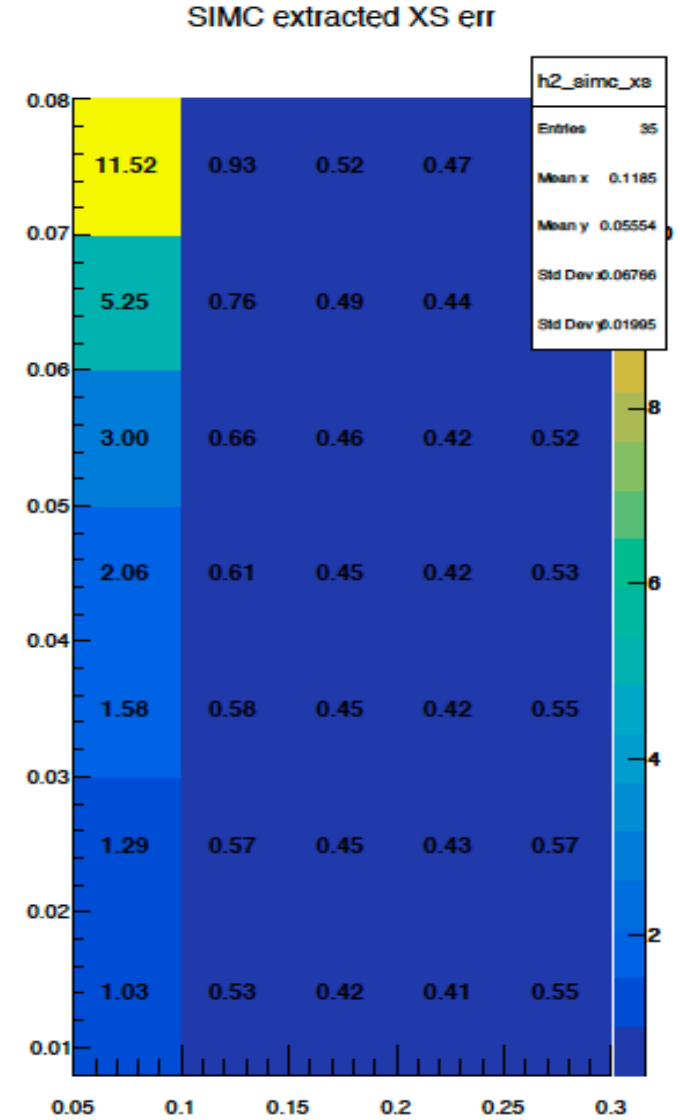
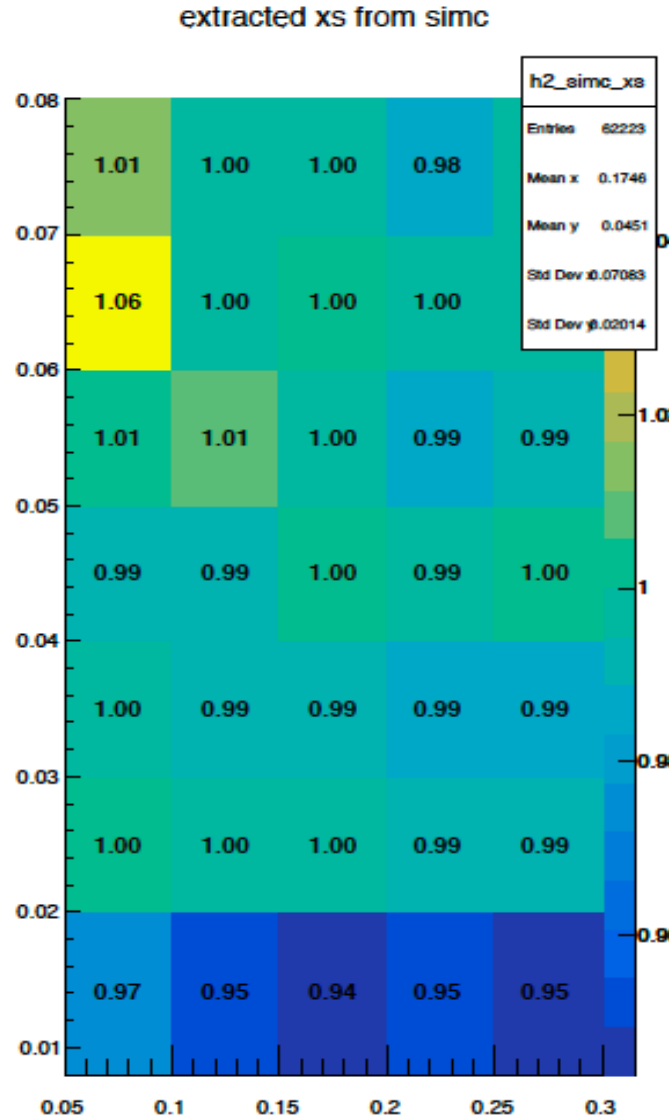
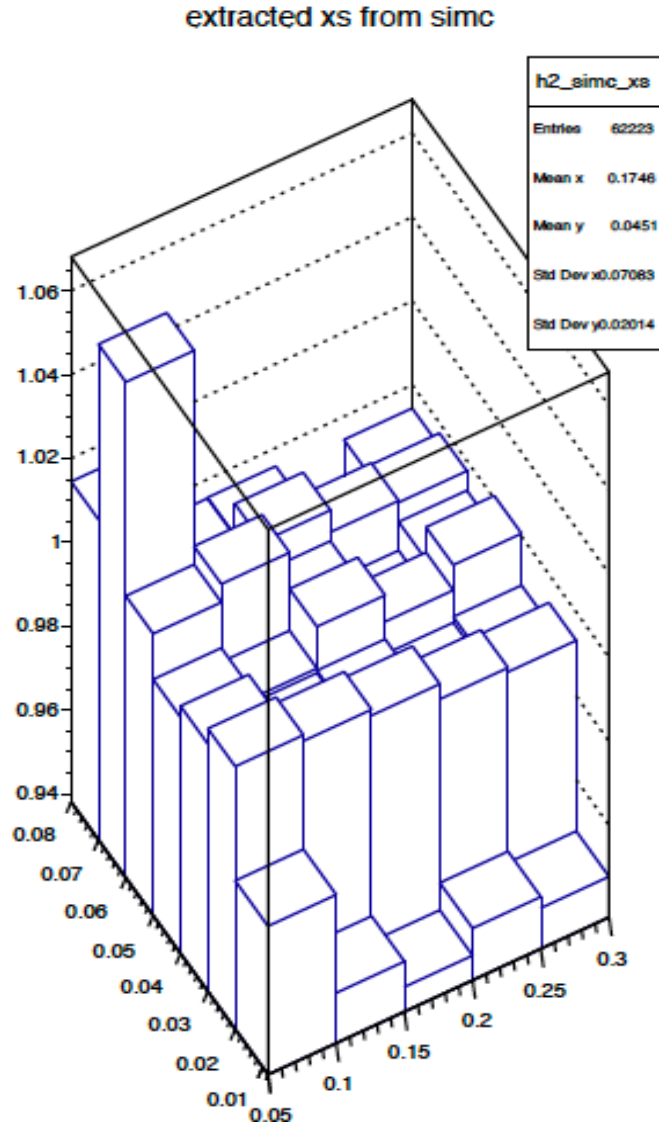
Acceptance distribution Pm vs Em



Acceptance distribution Pm vs Em

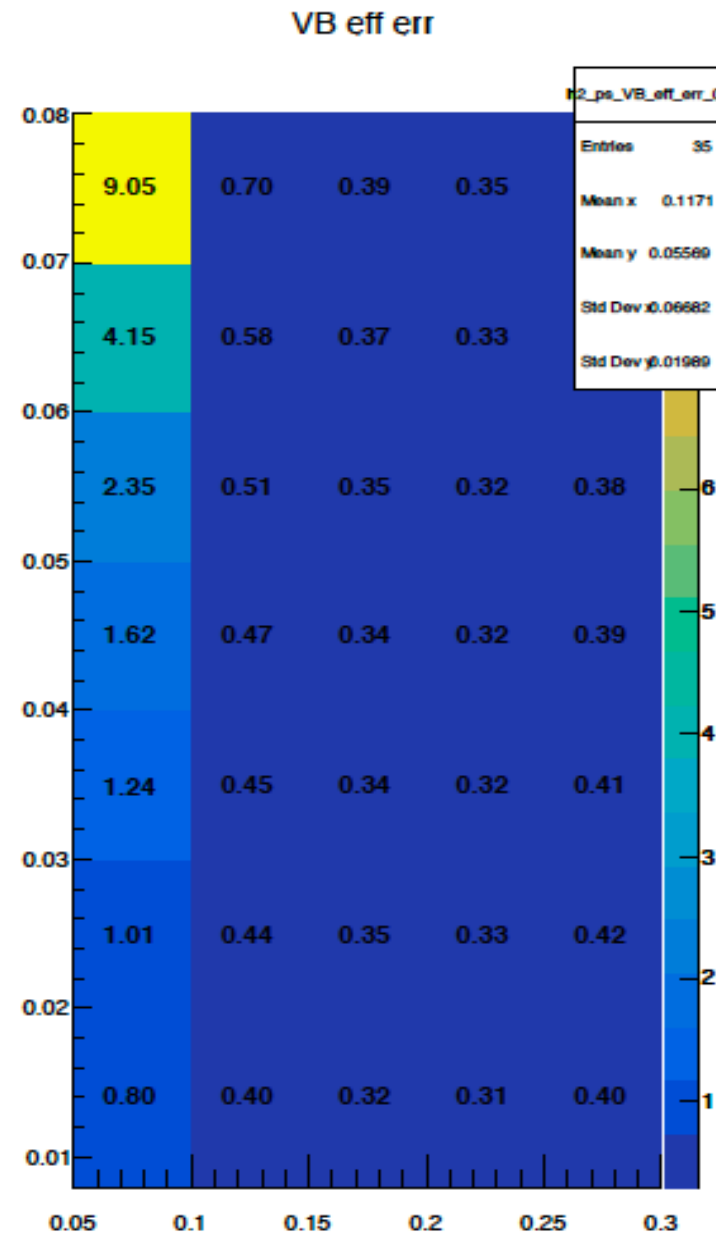
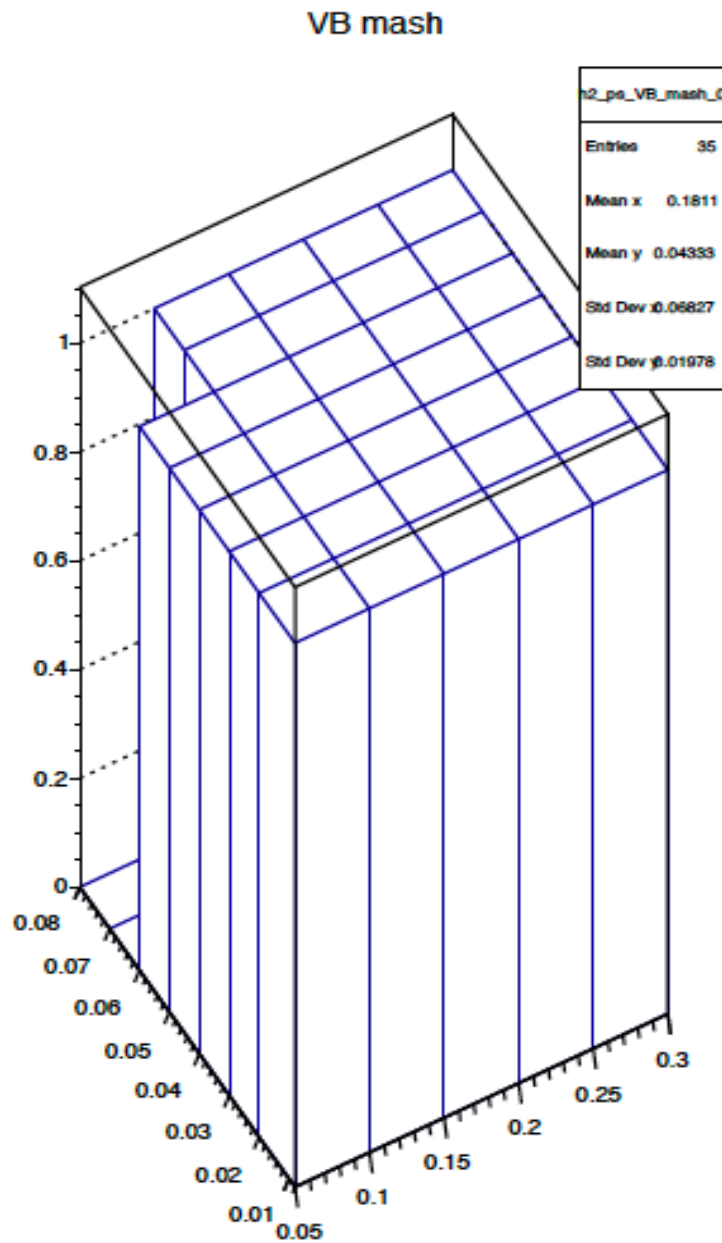
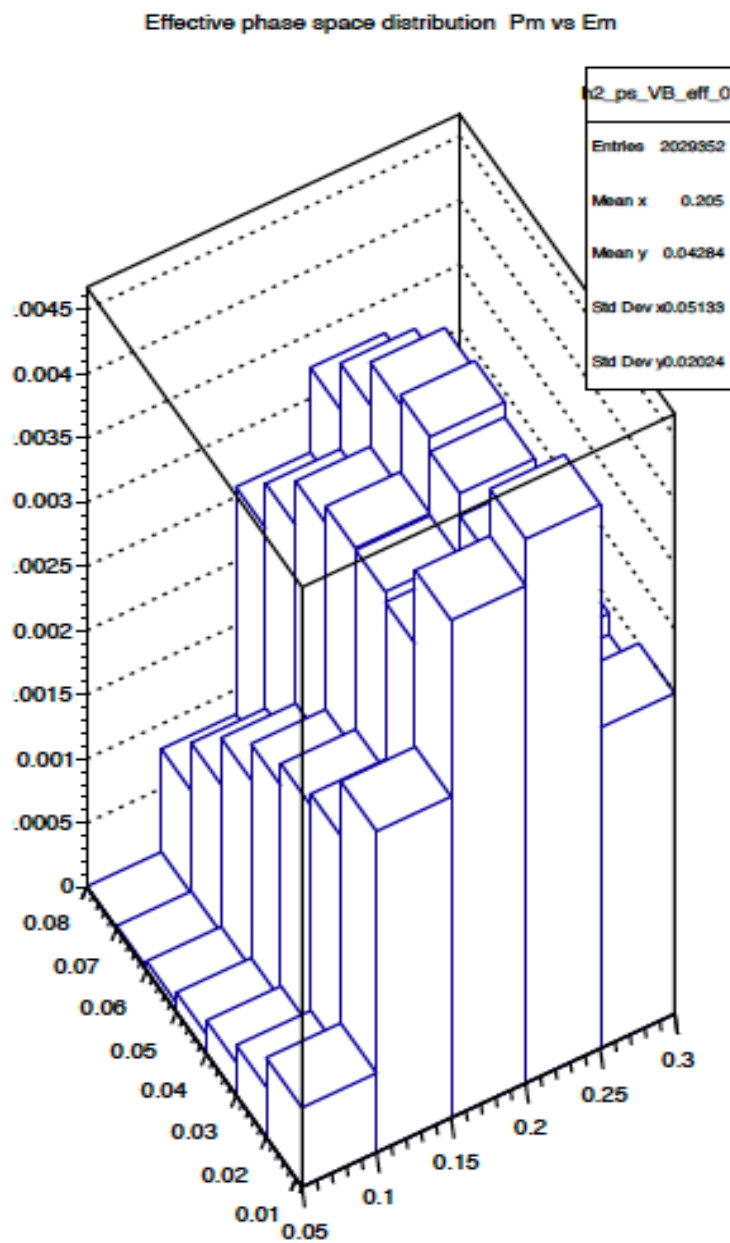


Using the uniform cross section to get select VB(Pm, Em) bin



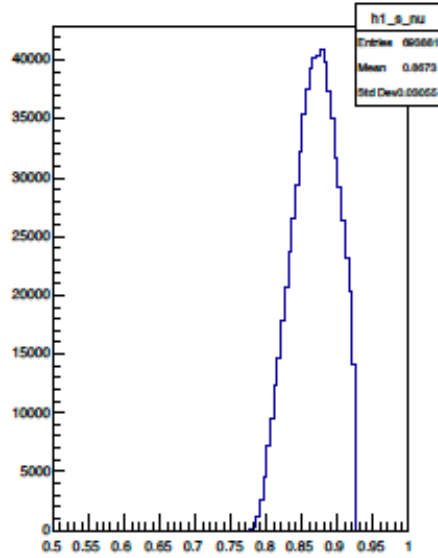
Example: fast kinematic, big acceptance cuts

Select the VB(Pm, Em) where uniform extracted cross section [0.95, 1.05]

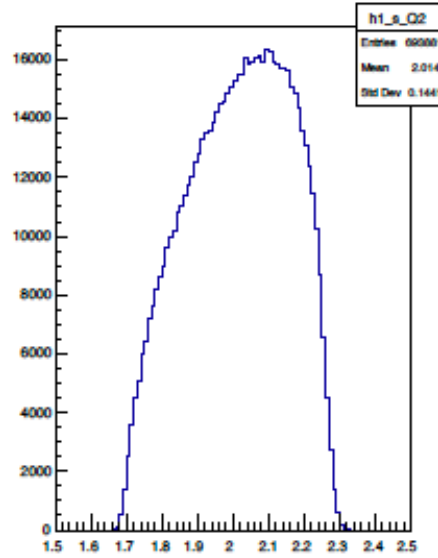


4 Variables (Nu, omega, Pm, Em) range check

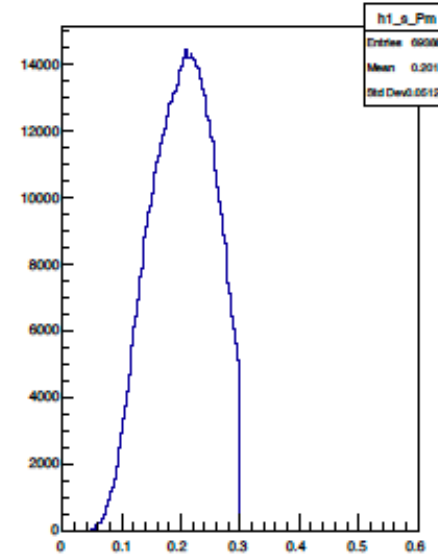
Nu distribution in SIMC



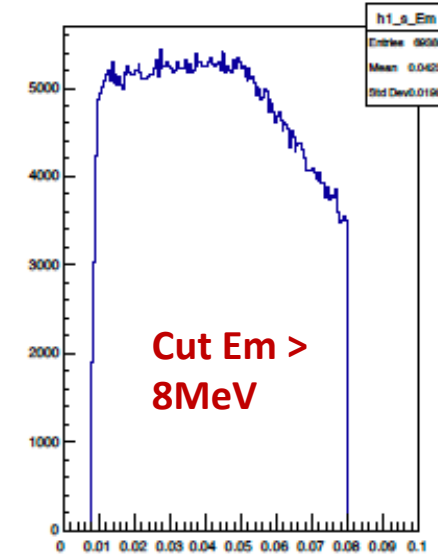
Q2 distribution in SIMC



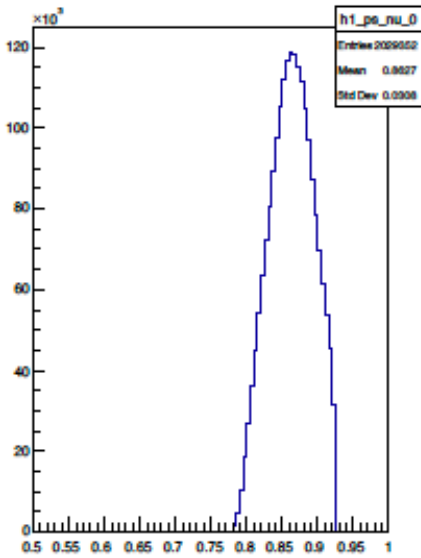
Pm distribution in SIMC



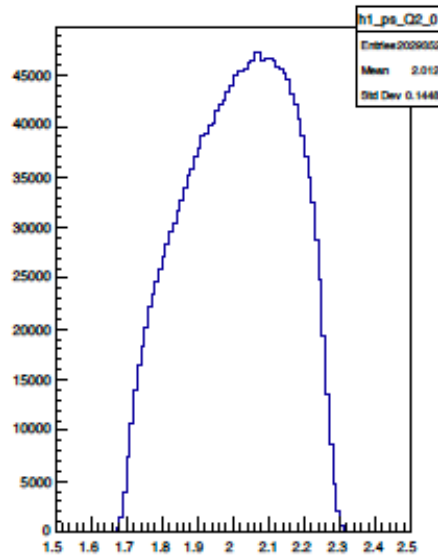
Em distribution in SIMC



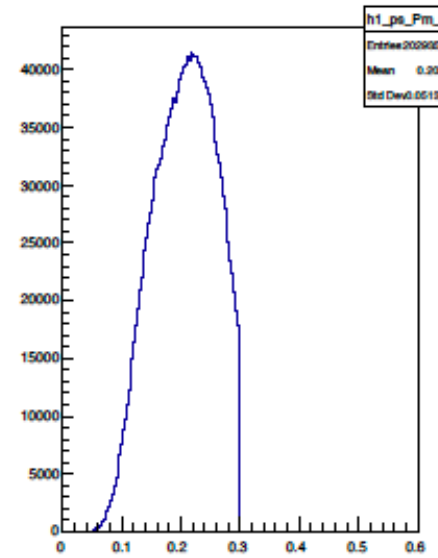
PS nu distribution



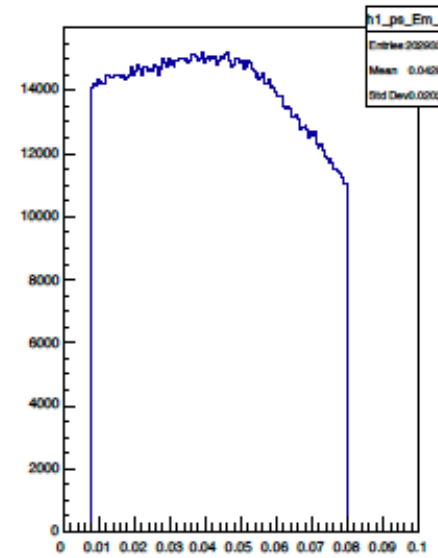
PS Q2 distribution



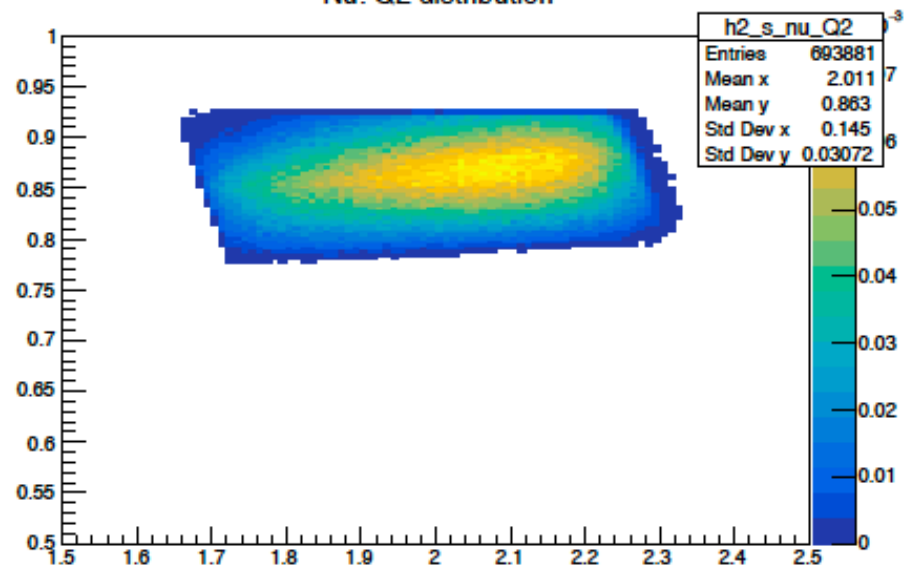
PS Pm distribution



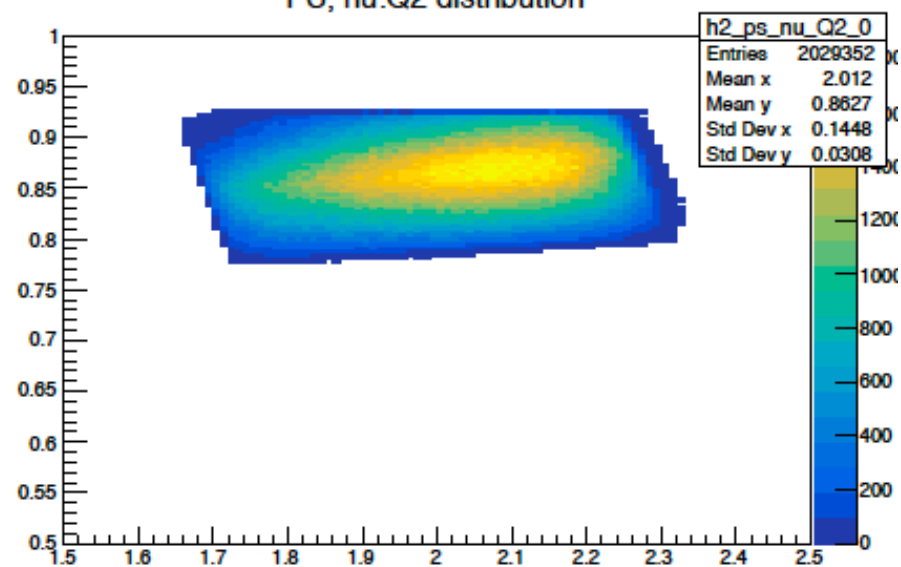
PS Em distribution



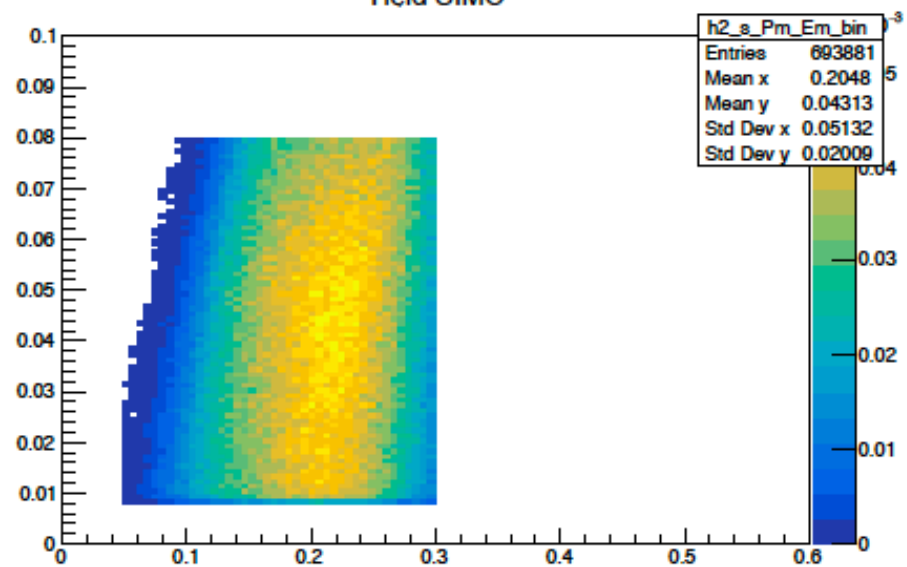
Nu: Q2 distribution



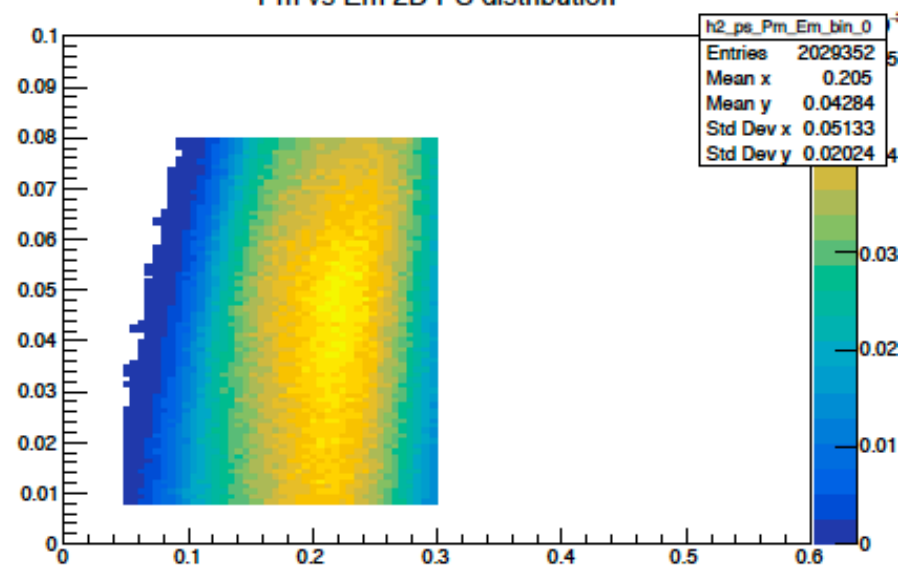
PS, nu:Q2 distribution



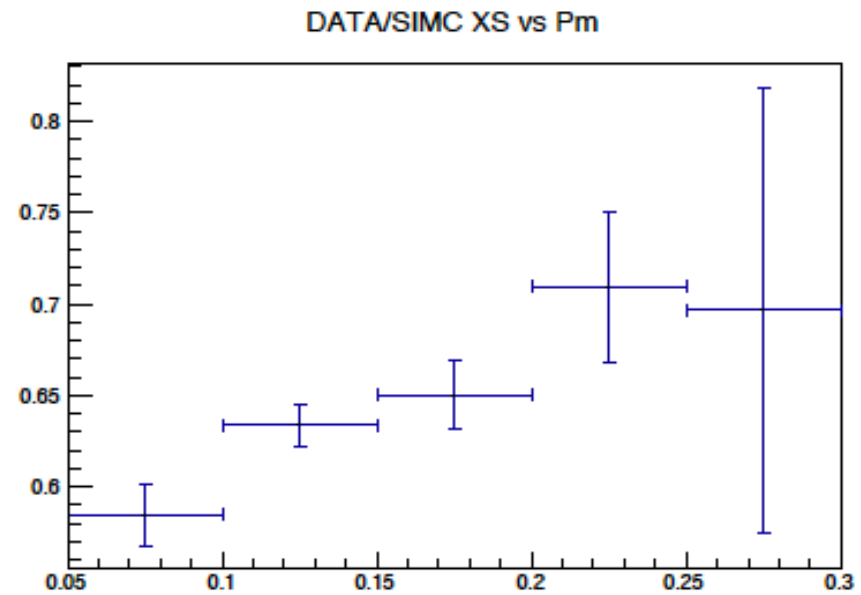
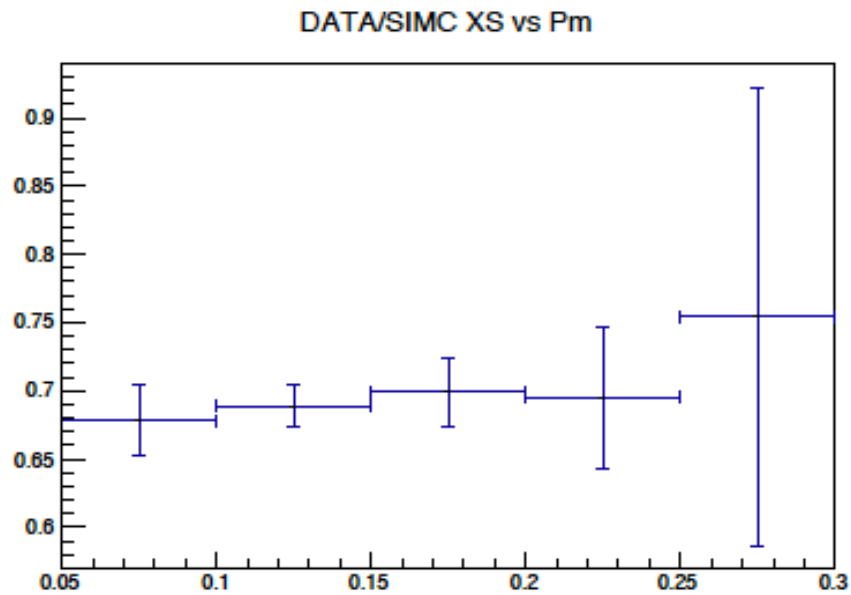
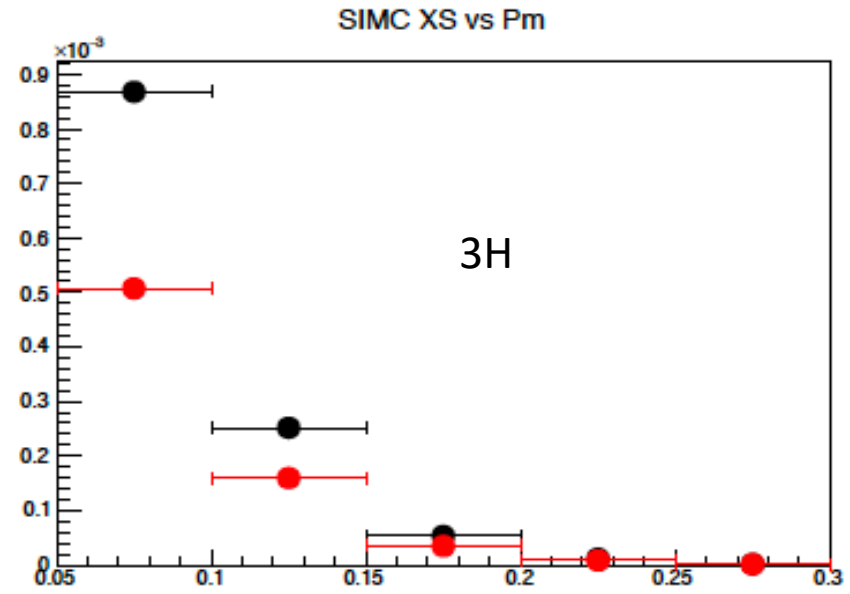
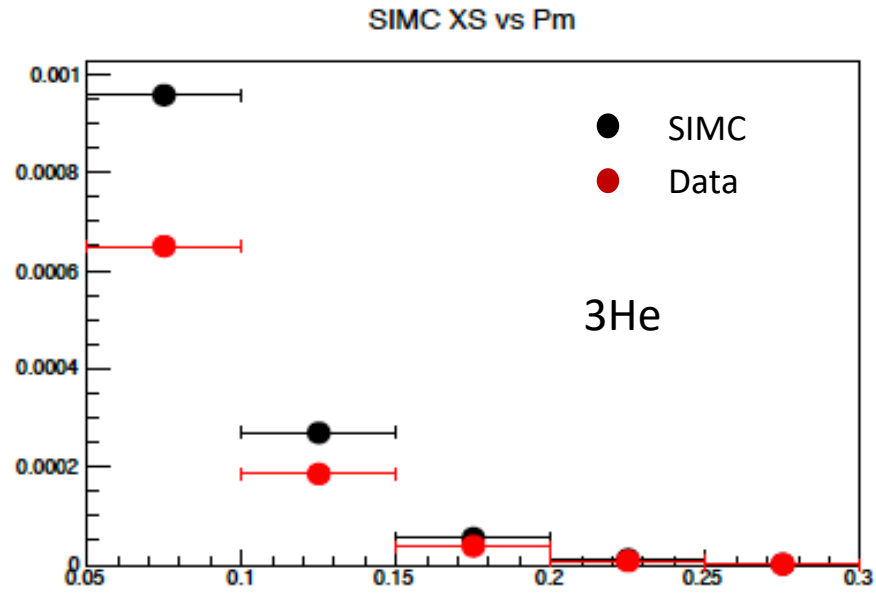
Yield SIMC



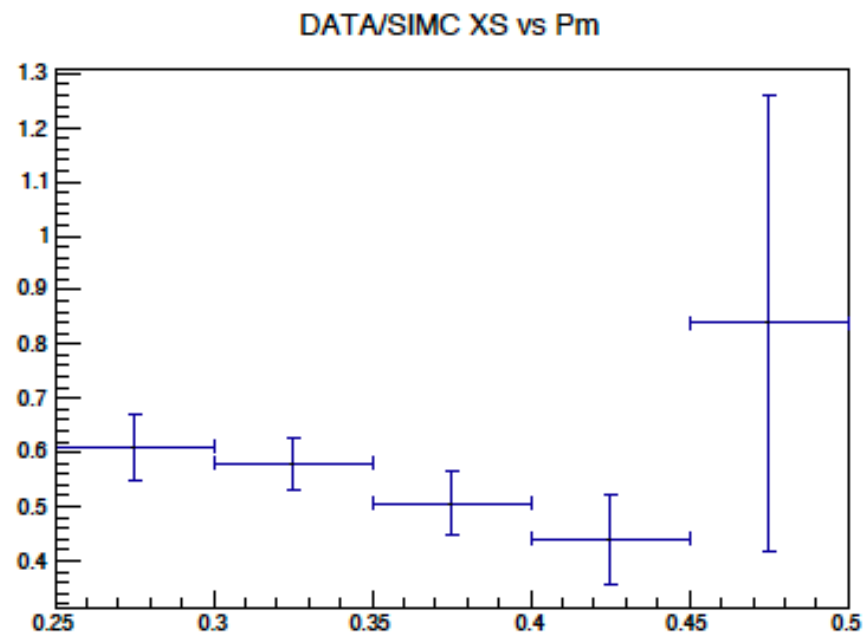
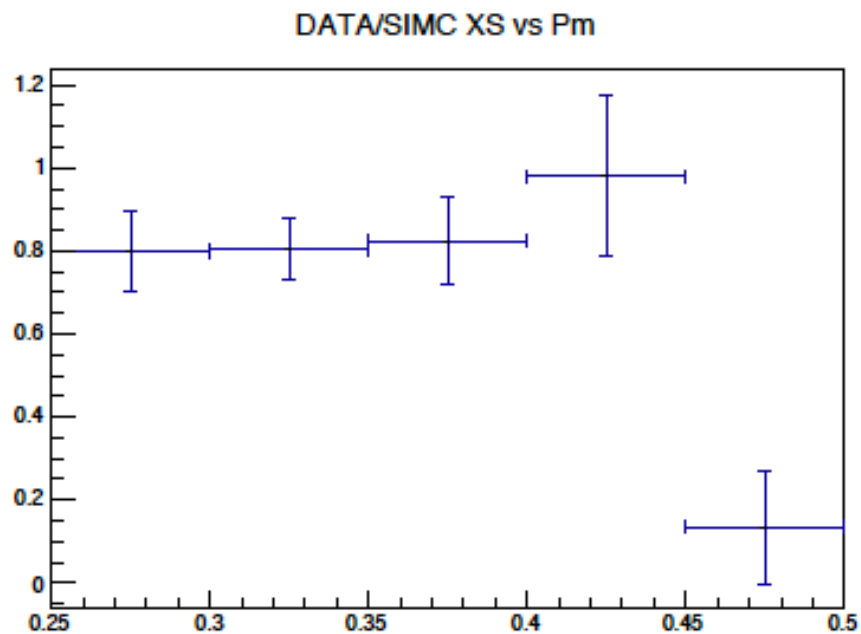
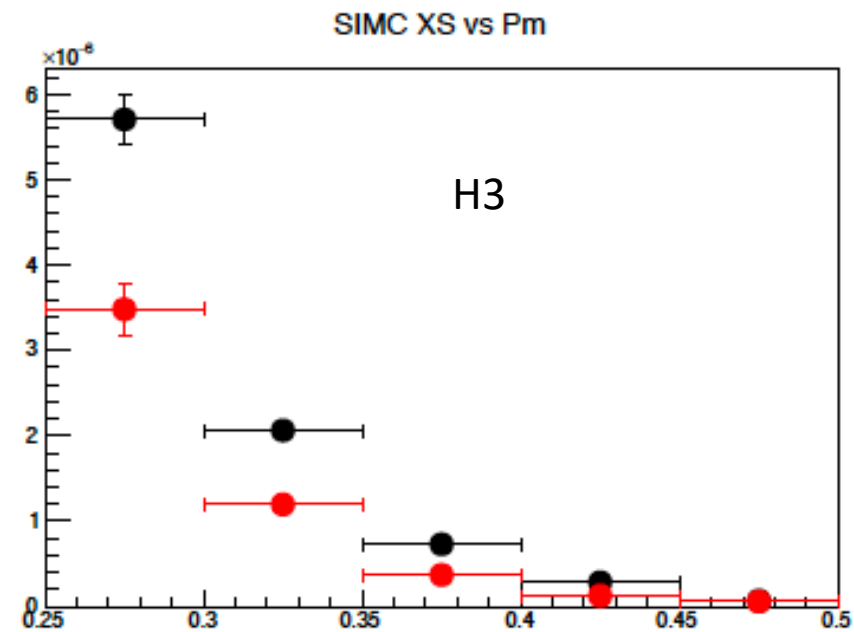
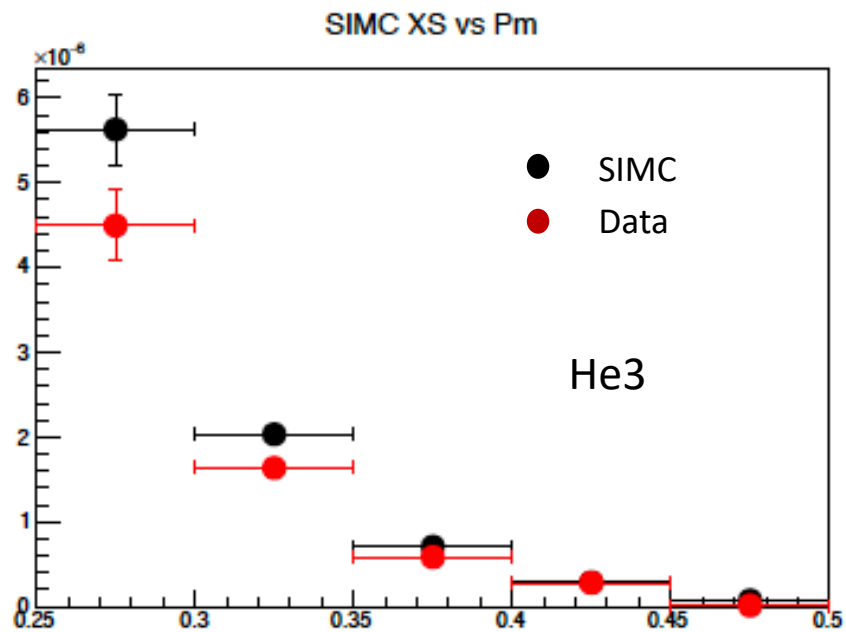
Pm vs Em 2D PS distribution



The extracted cross section Data and SIMC as function of Pm

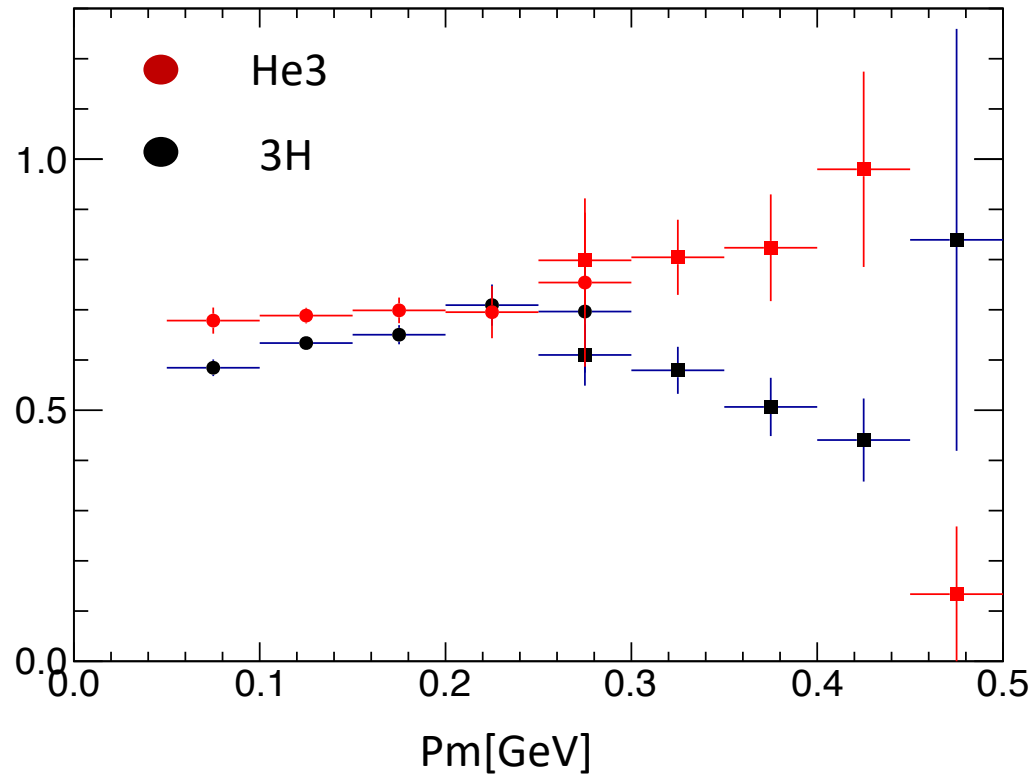


Slow + big acceptance

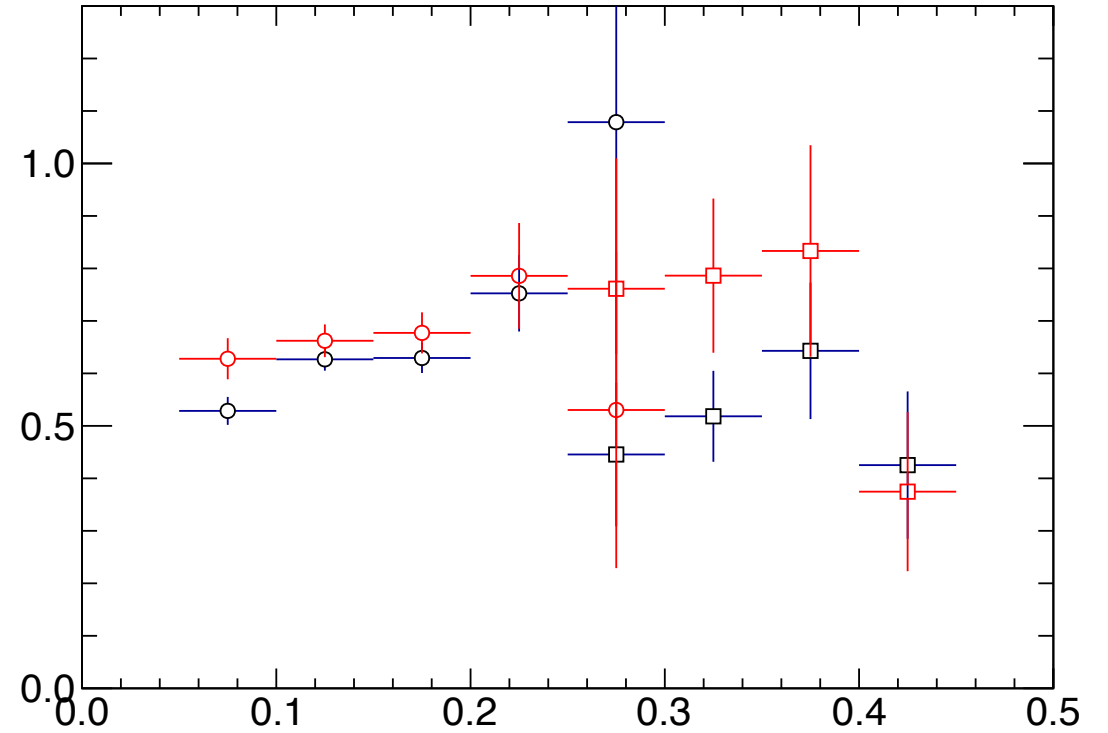


Combined plots for comparison two targets

Data/SIMC, For Big acceptance cuts

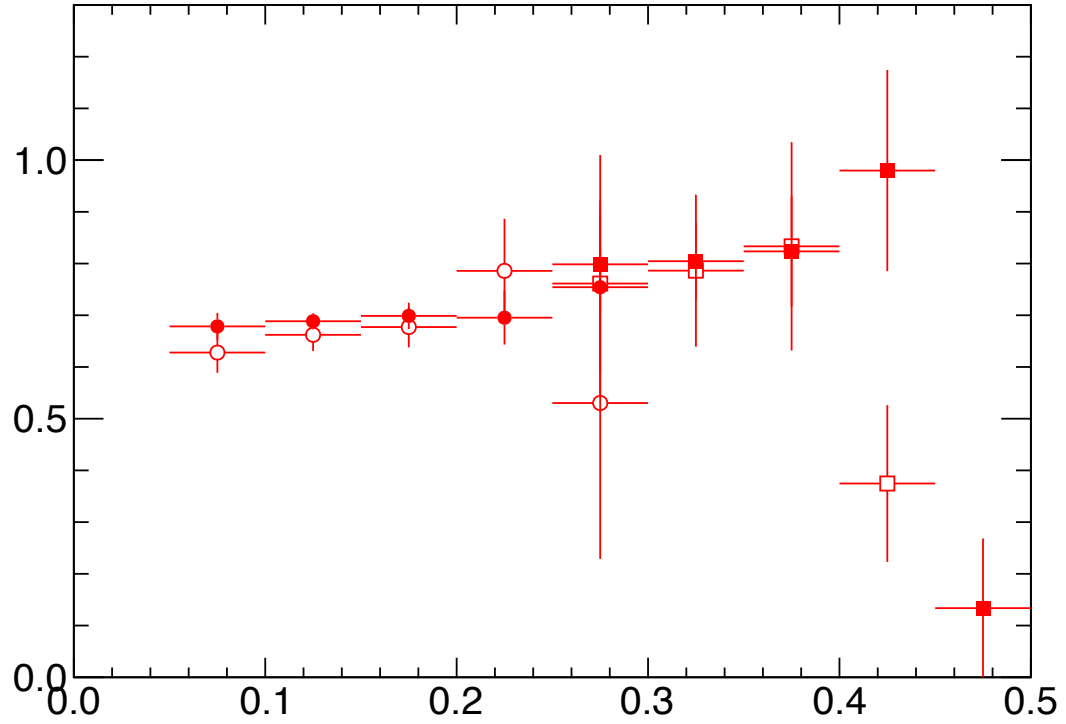


Data/Simc for smaller acceptance cuts

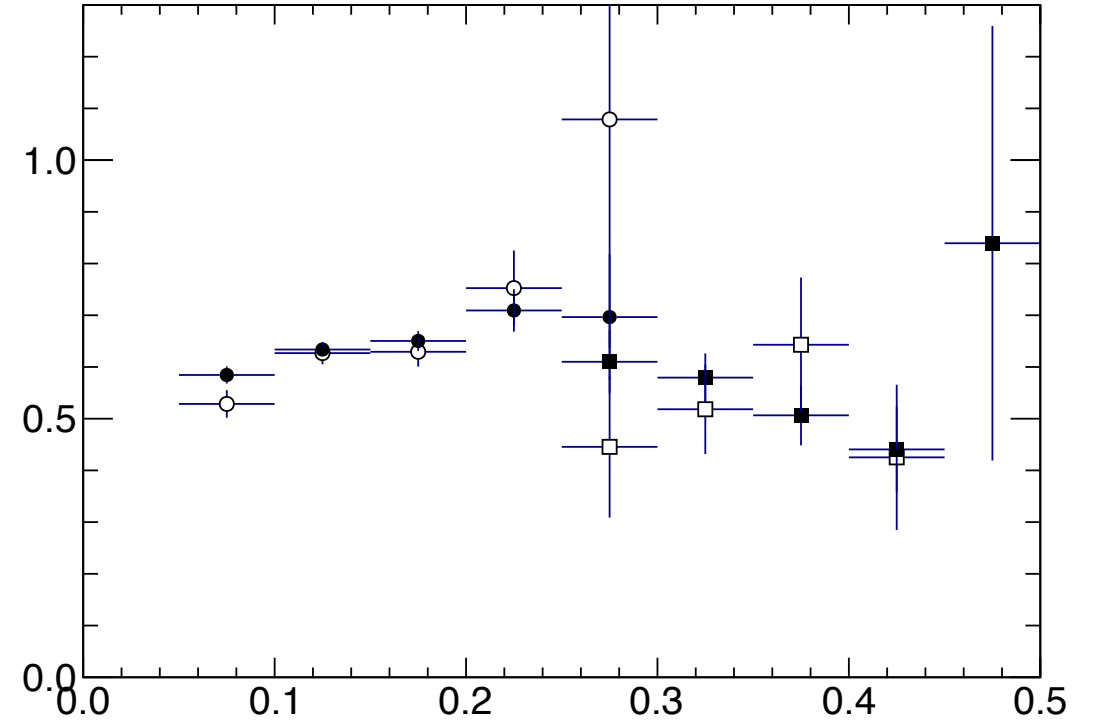


Acceptance effects in each target

He3, Data/SIMC XS, Big and small cross acceptance



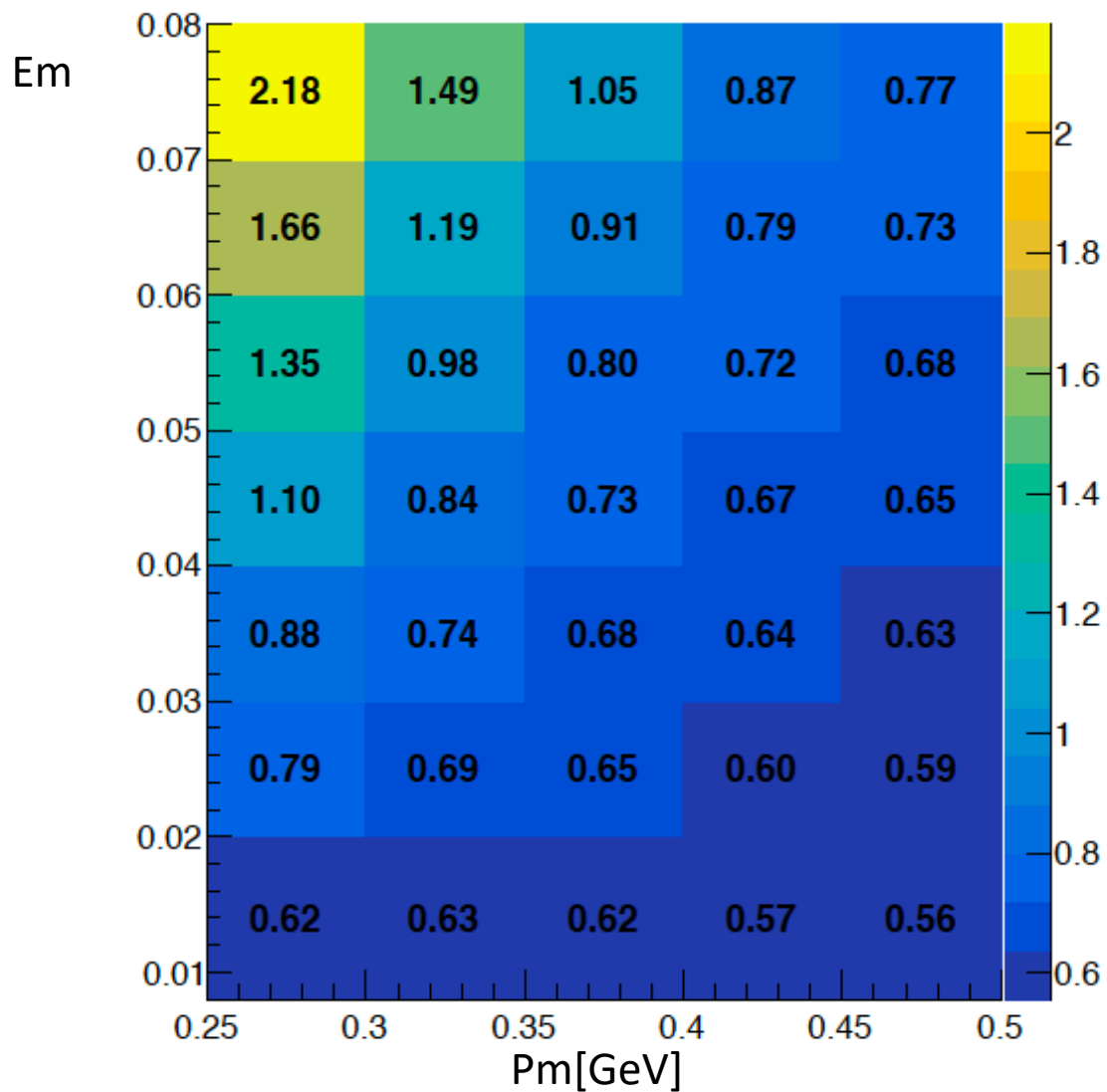
H3, Data/SIMC XS, Big and small cross acceptance



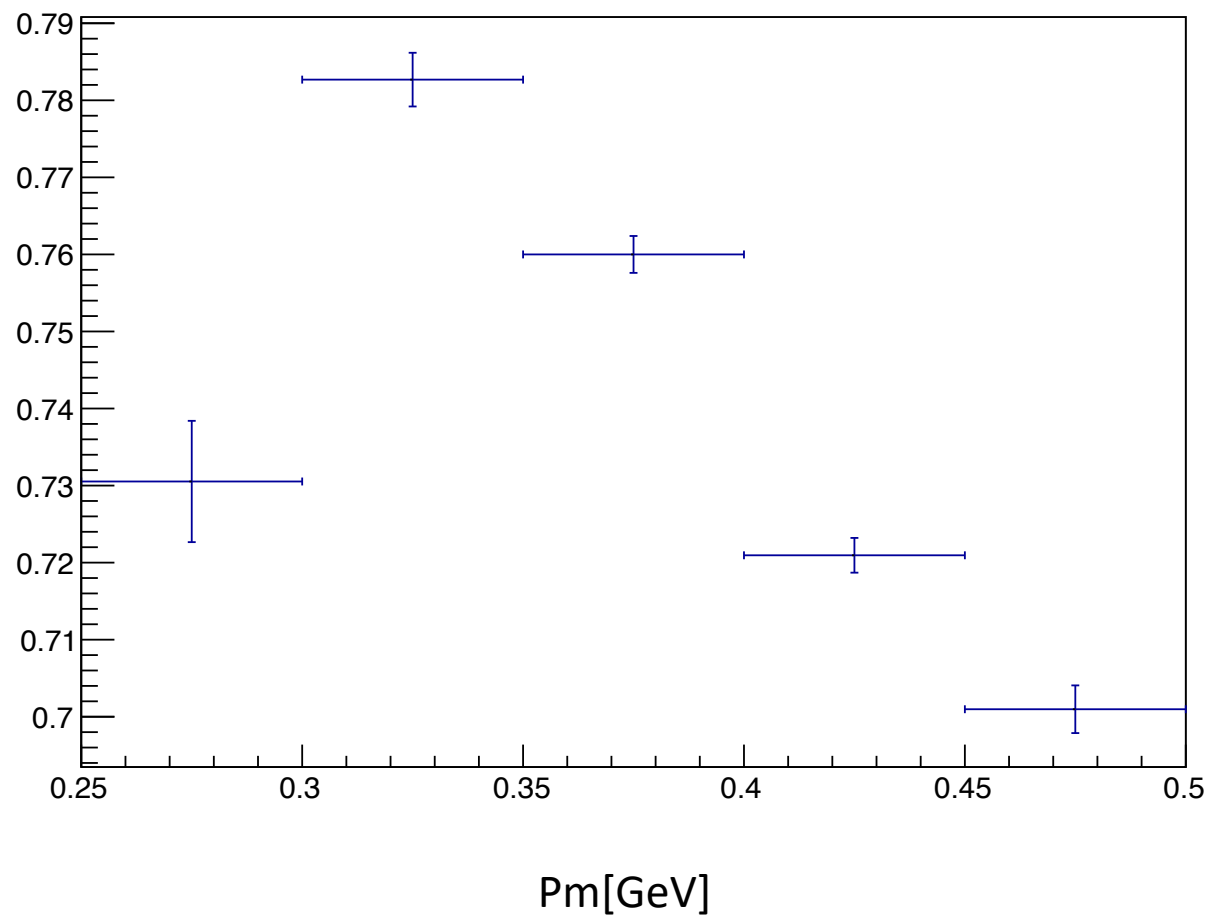
First look at the Radiative correction as a function of (Pm,Em)

3H, slow, big acceptance

3H Radiative correction

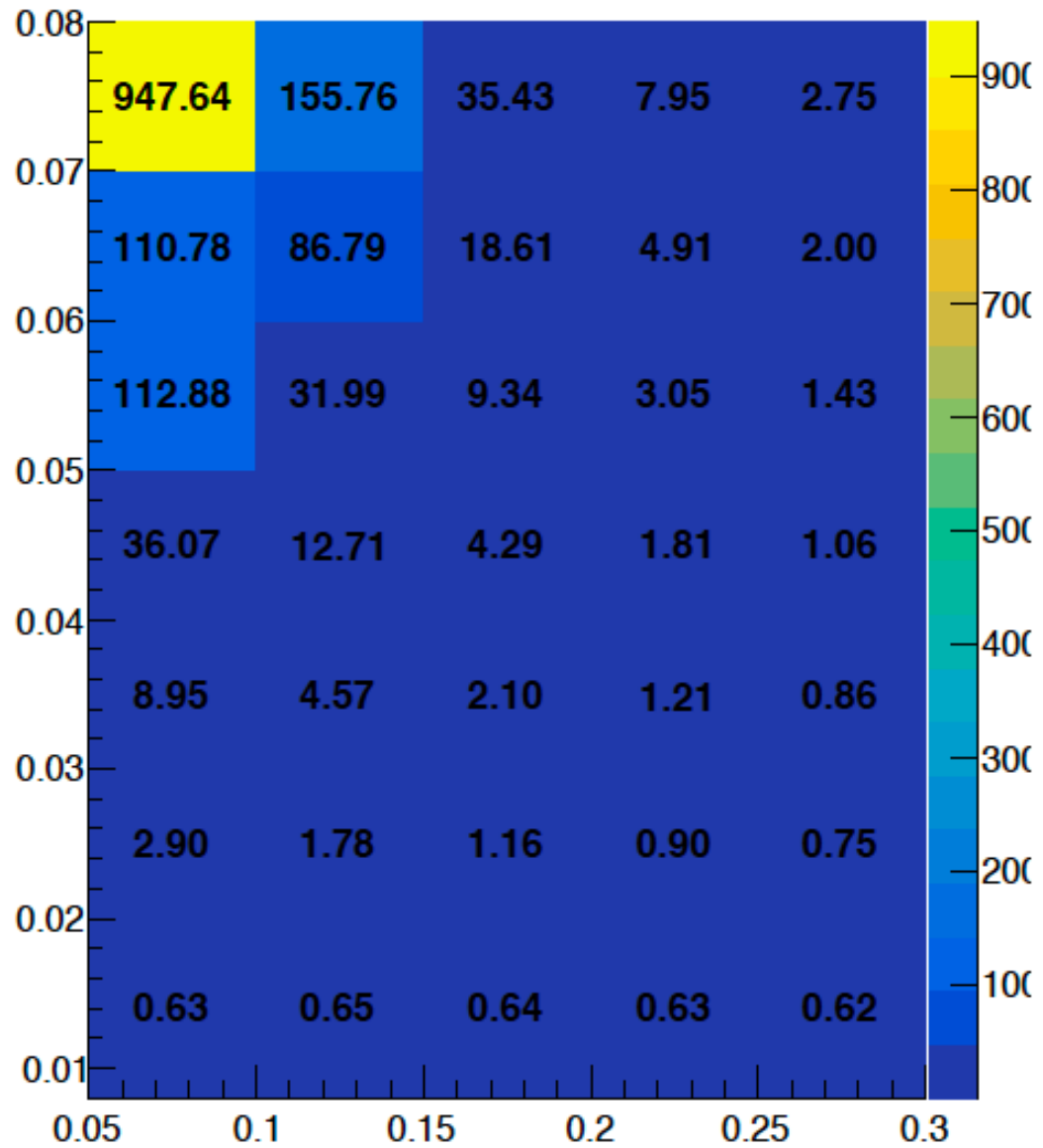


3H 1D RC



3H, fast3, Big acceptance

3H Radiative correction



3H 1D RC

