Update on the efficiency calculation of (ɣd➔ρ^0p(n) and (ɣhe4➔ρ^0p(trit) processes,and their ratio

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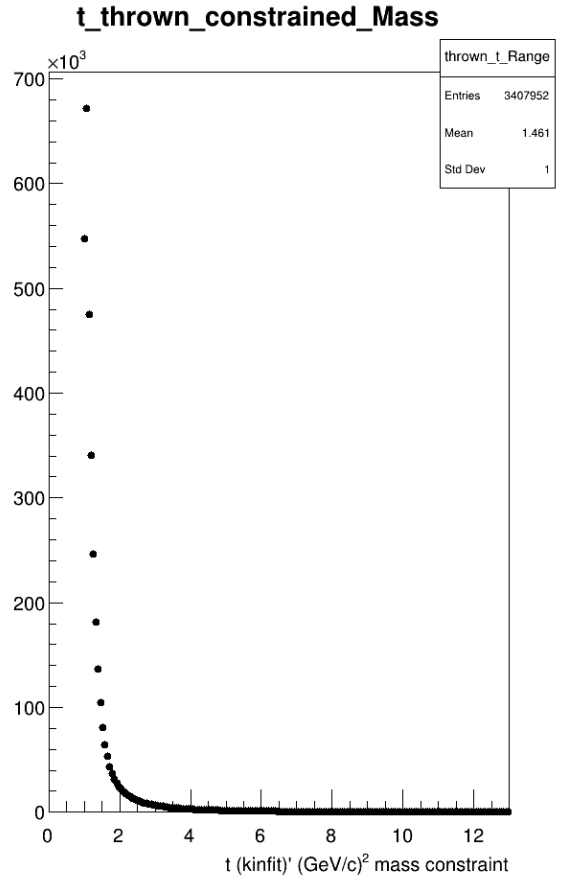
Efficiency calculation

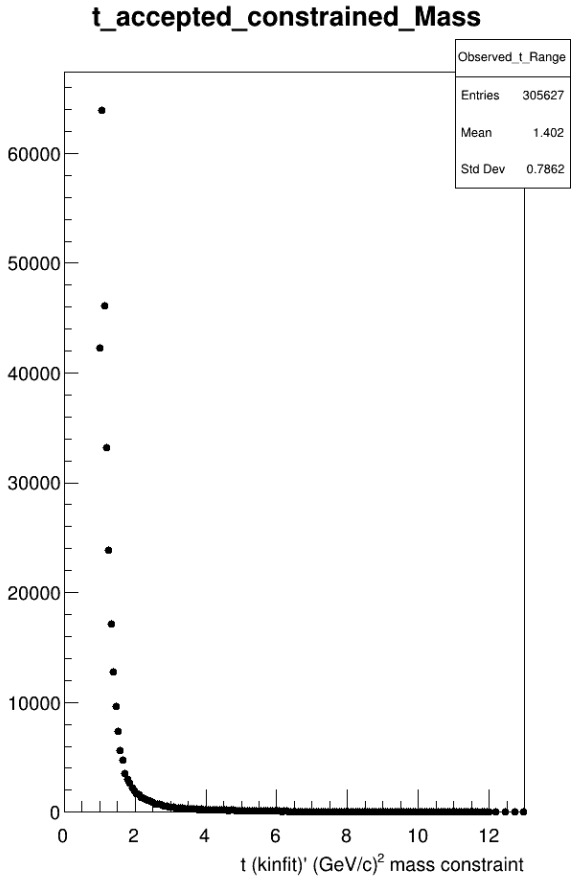
MethodA

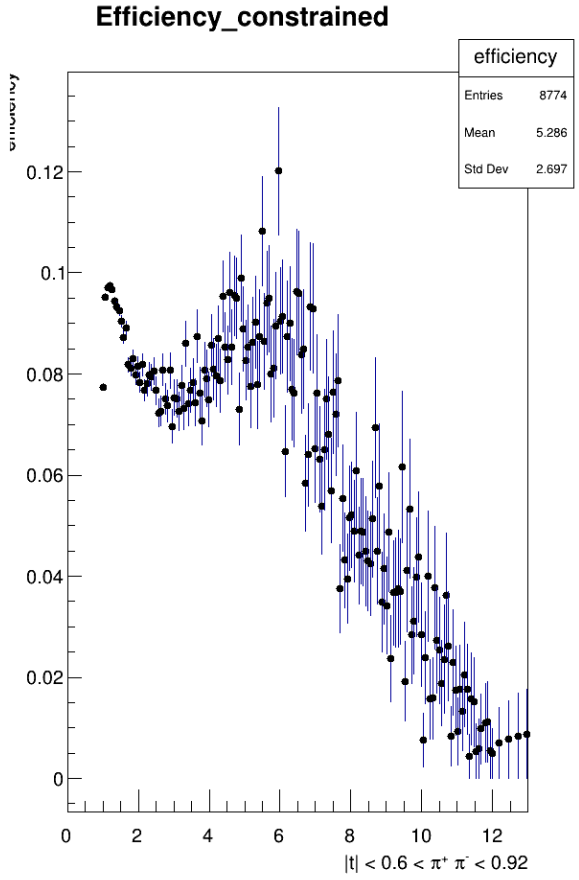
- Obtain a |t| distribution for both the thrown and observed simulations for the mass range of [0.6 < Mrho <0.92].
- Calculate the ratio of the |t| distribution to obtain the efficiency as a function of |t|.

Thrown Data:	Observed simulation
Using mc_thrown plugin	:Using Reactor_filter plugin
Generator: MF	:Generator: MF
|t| > 0.7 && |u| >0	:|t| > 0.7 && |u| >0
In Selector |t| > 1 && |u| > 1	In Dselector:: same cut applied on data

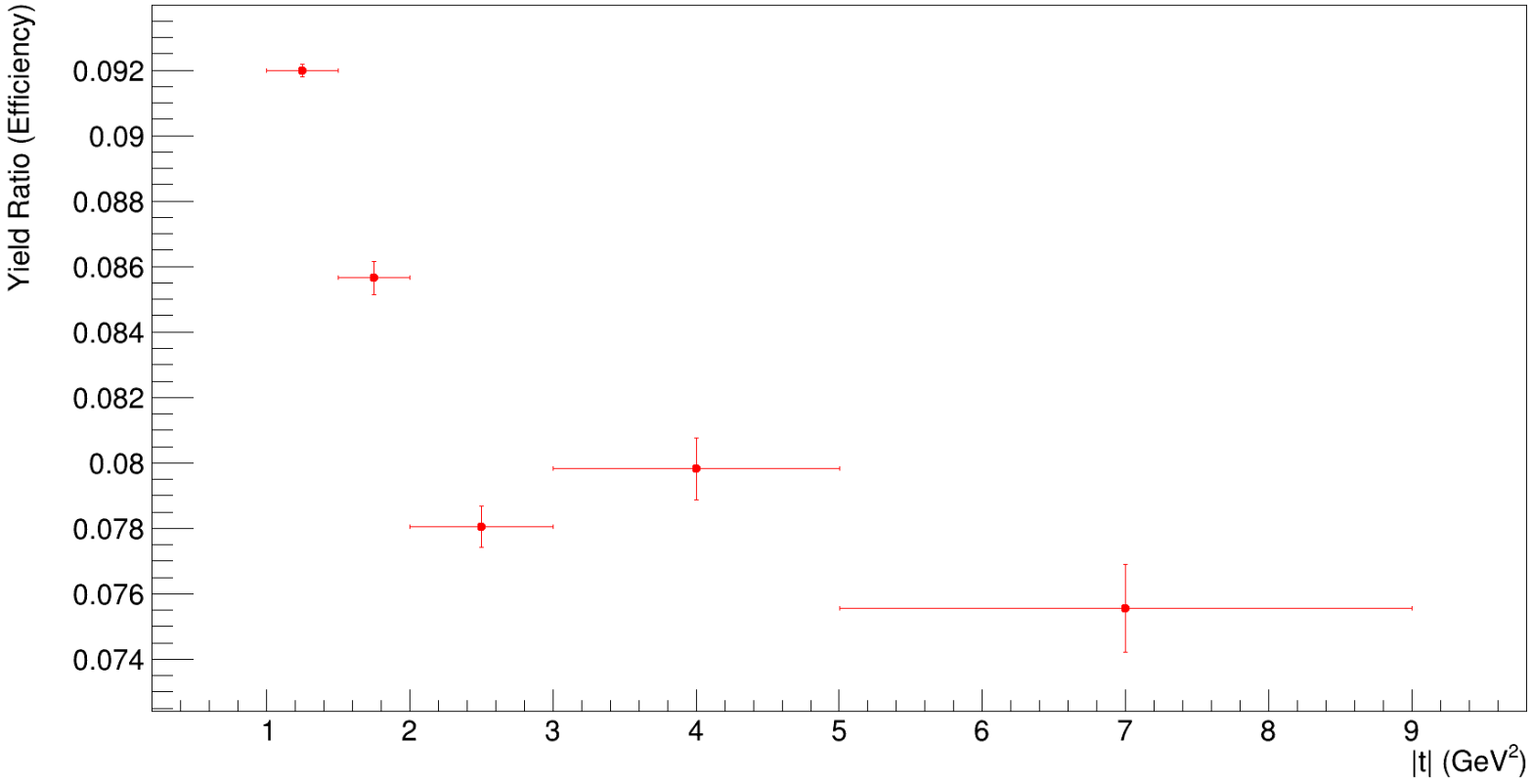
A. Efficiency for deuterium as a function of |t|.



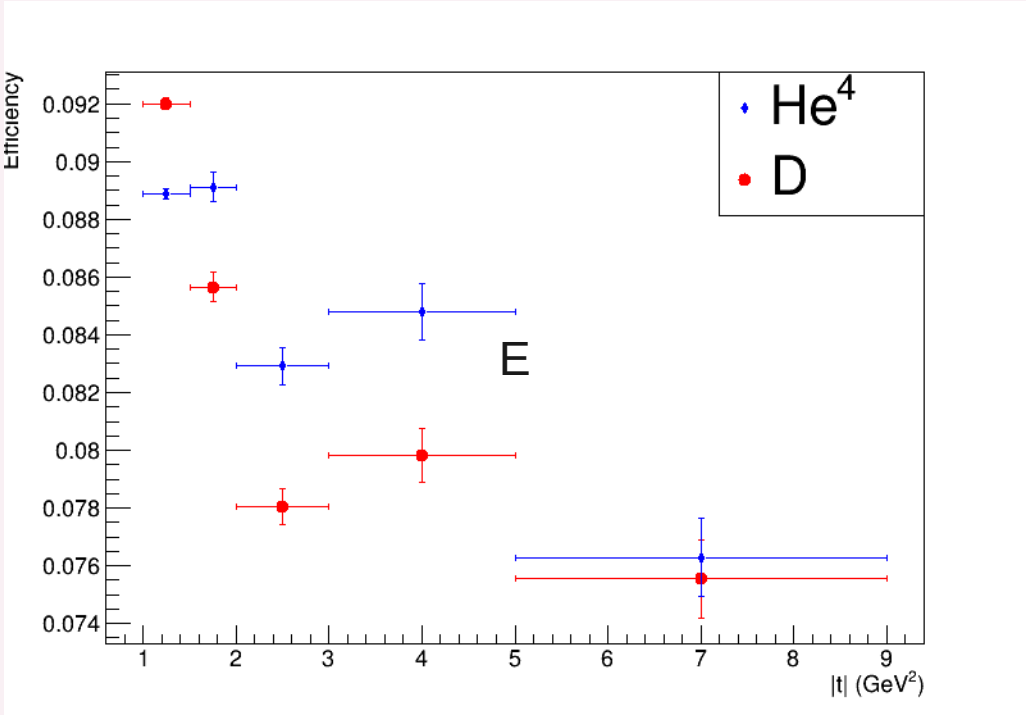


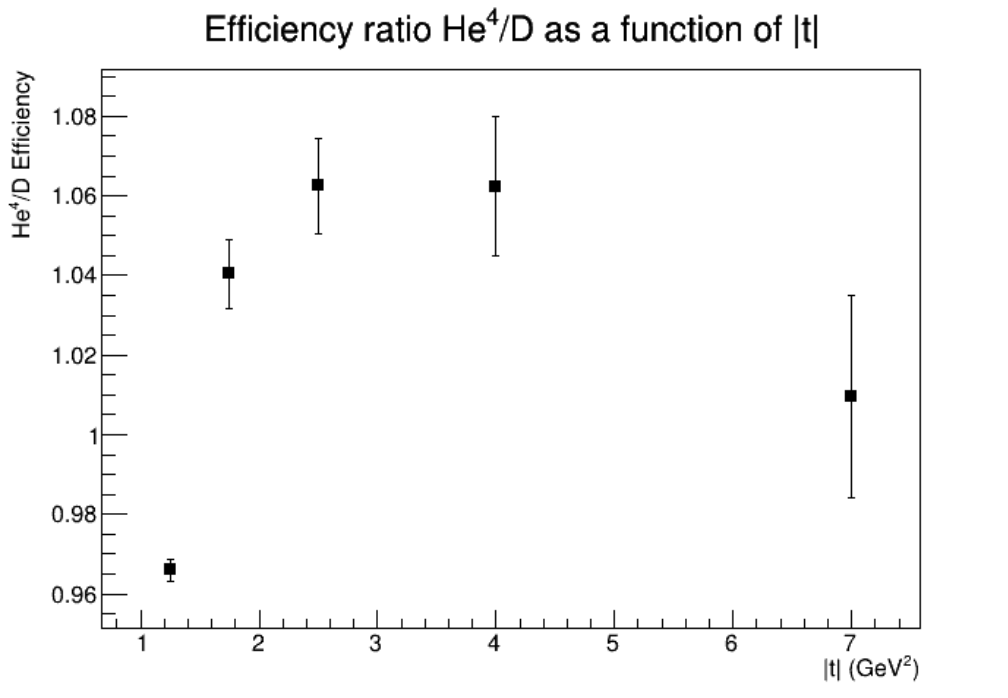


Efficiency for deuterium as a function of |t|.



Ratio of efficiency between deuterium and helium

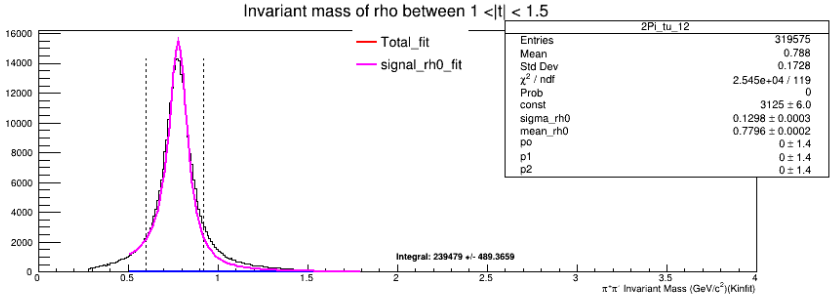


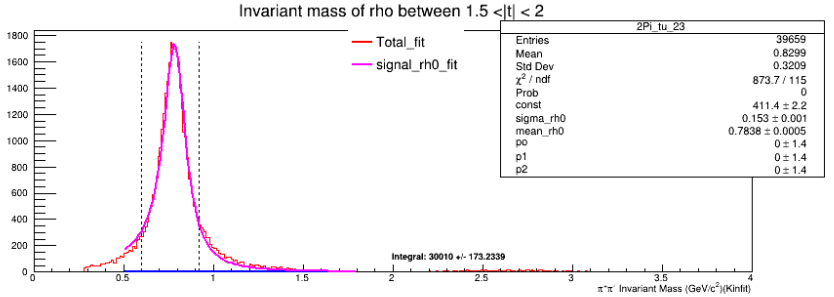


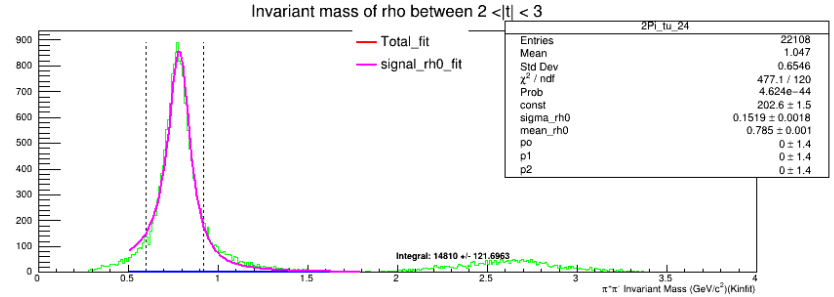
Calculation of efficiency from invariant mass of rho0

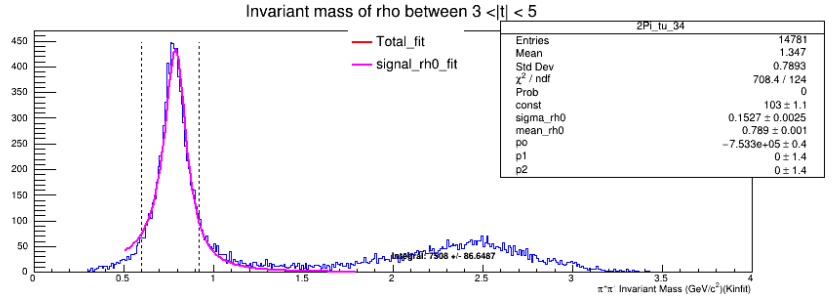
- My range for |t| distribution are as follows.
- 1 < |t| <= 1.5
- 1.5 <|t| <= 2
- 2 <|t| <= 3
- 3 <|t| <= 5
- 5 <|t| <= 9
- $Efficiency_{helium} / Efficiency_{deuterium} = (observed_{he} / thrown_{he}) / (observed_{D} / thrown_{D})$

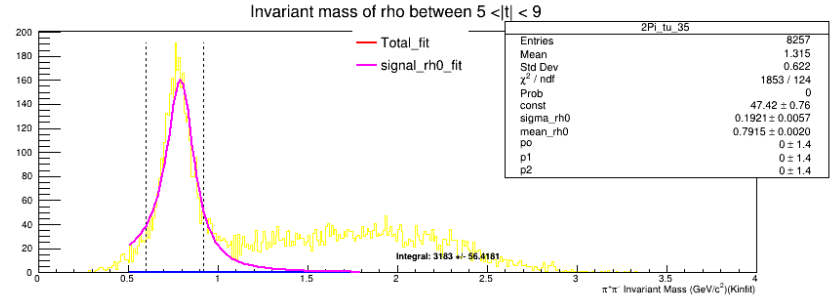
Yield of invariant mass of observed simulation Deuterium.



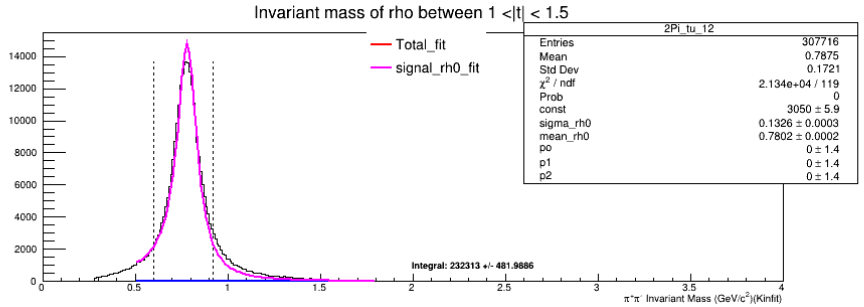


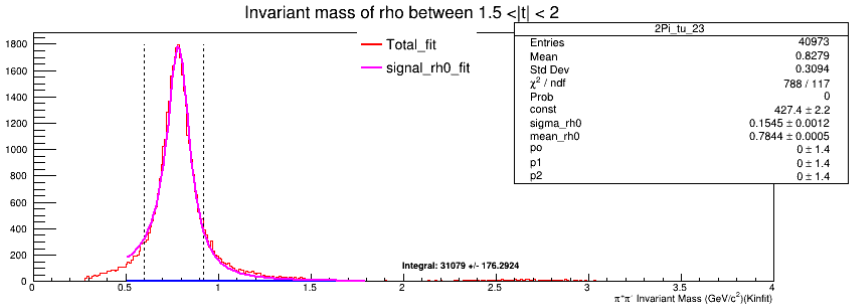


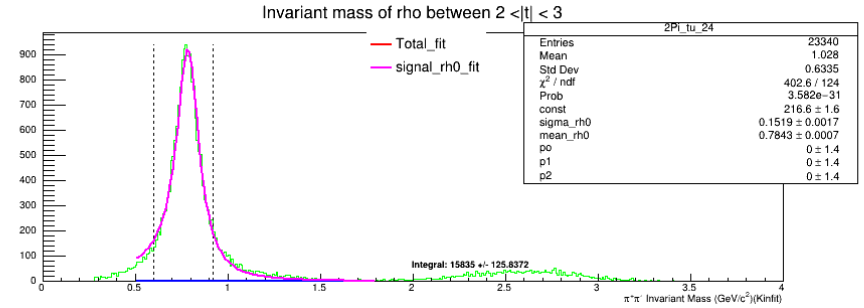


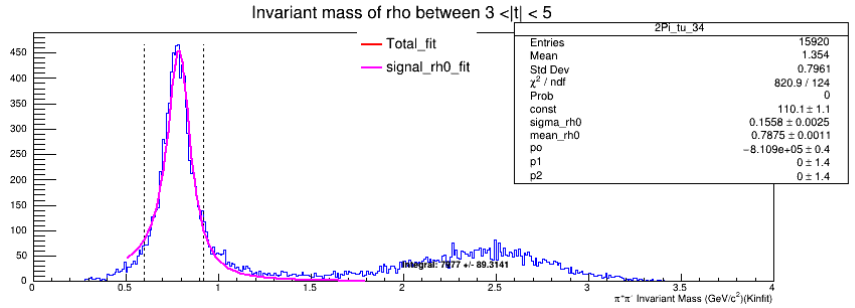


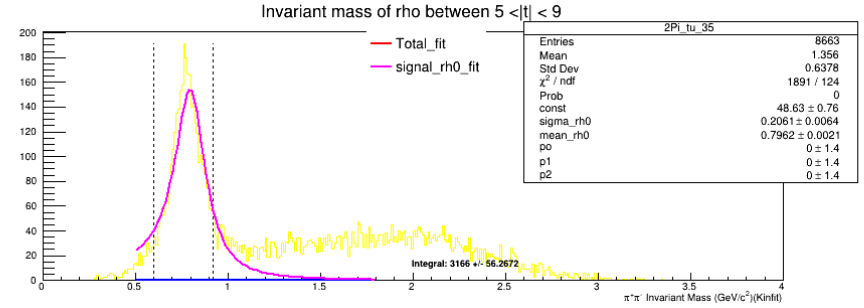
Yield of invariant mass of observed simulation Helium.











Ratio of efficiency He4/D