
Prelim Cross-Section Ratio of (He4/D2)

Event Selection

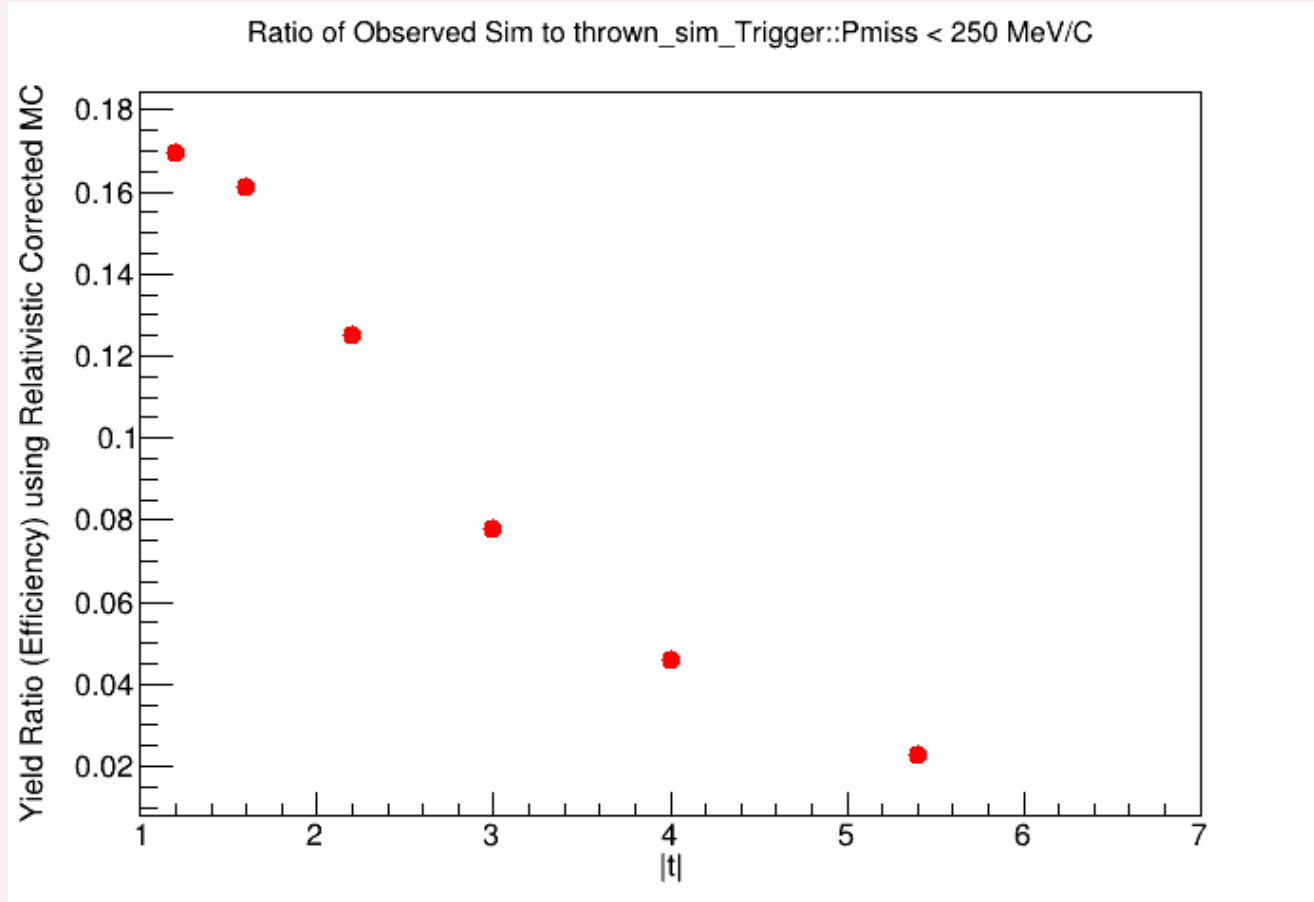
- ▶ $\text{Gamma} + \text{Deuterium} \rightarrow \text{Pi}^+ + \text{Pi}^- + \text{Proton} + X$
- ▶ $\text{Gamma} + \text{Helium} \rightarrow \text{Pi}^+ + \text{Pi}^- + \text{Proton} + X$
- ▶ Event Selection:
 - C.L > 0.001
 - Vertex(51,78)
 - Beam Energy > 6.5
 - No Extra track && shower
 - Pmiss $< 250 \text{ MeV}/c$

Event Selection:

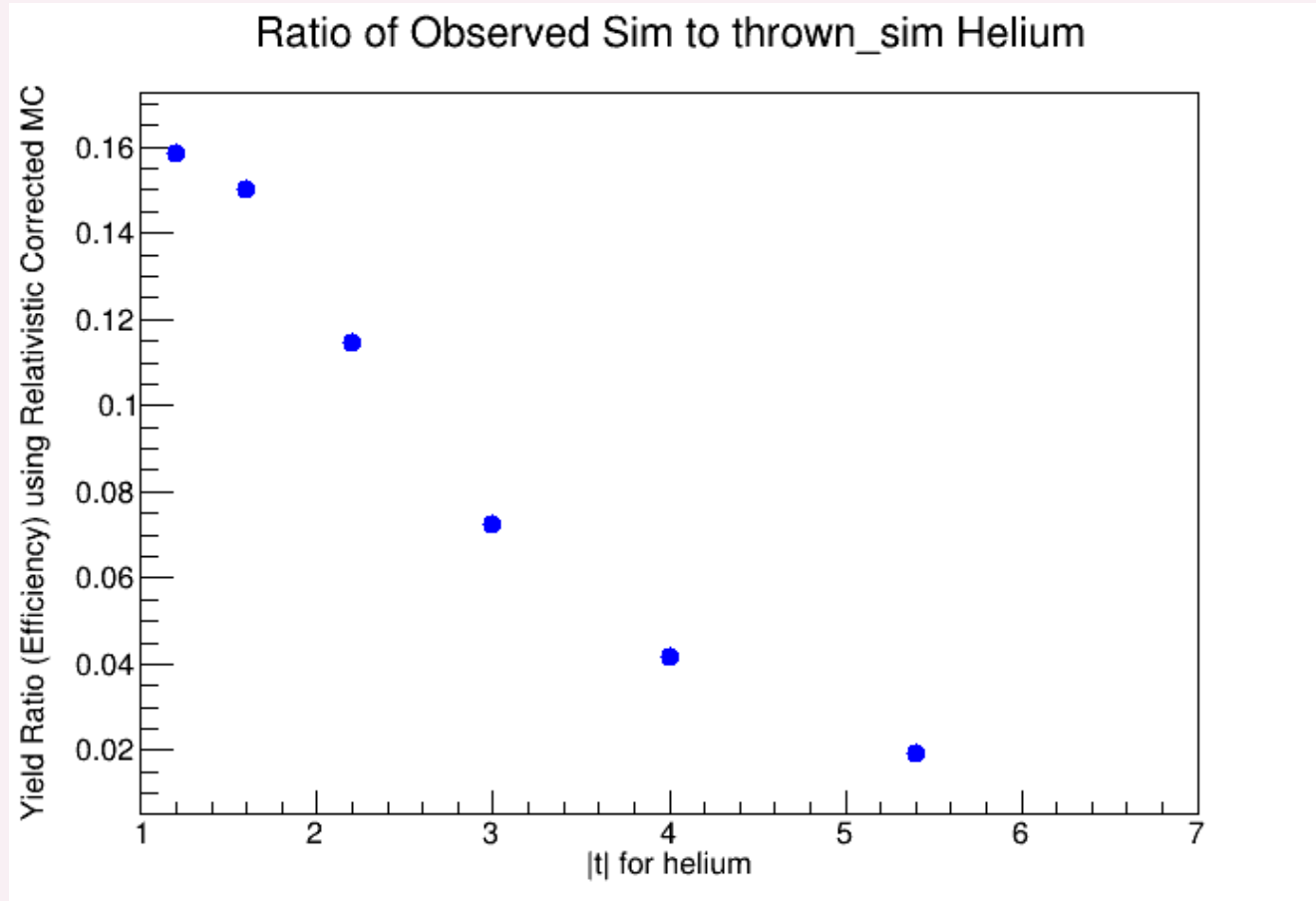
S.N	Range t	PiPlus Theta	Protn Theta	PiMinus Theta			
1	1.0-1.4	<35	>25	<35			
2	1.4-1.8	<35	>25	<35			
3	1.8-2.6	<35	>25	<35			
4	2.6-3.4	<35	>25	<35			
5	3.4-4.6	<35	>20	<35			
6	4.6-6.2	<35	>20	<35			

Trigger Cut Applied

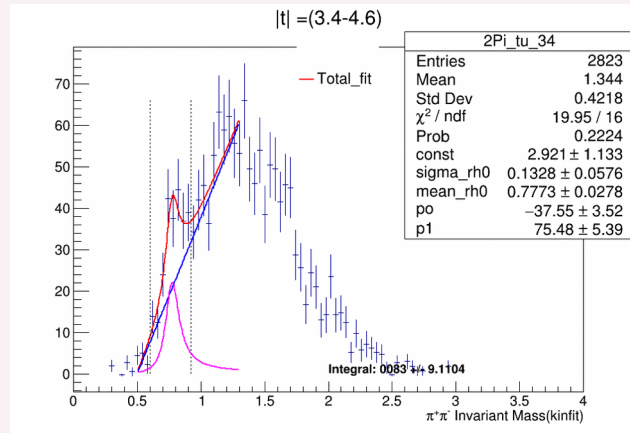
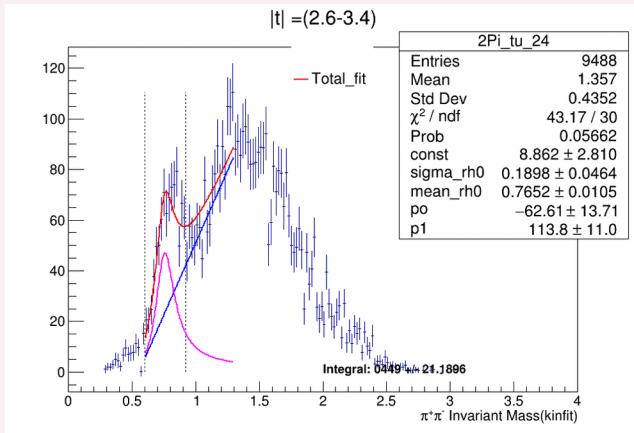
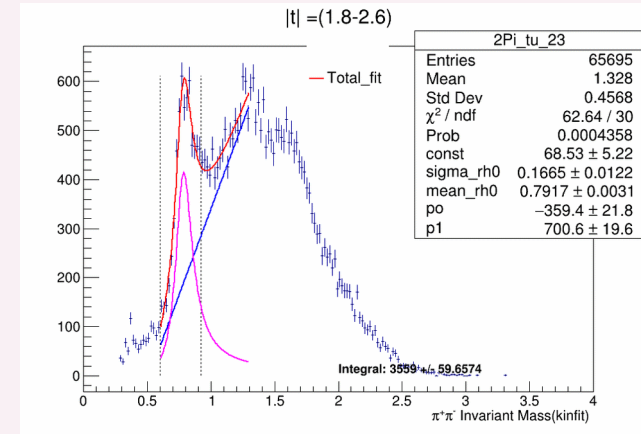
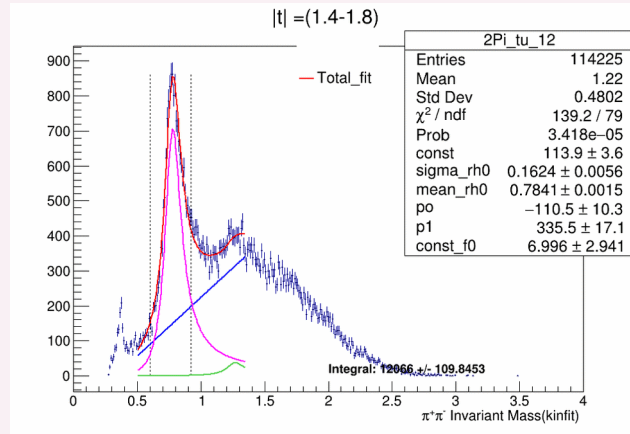
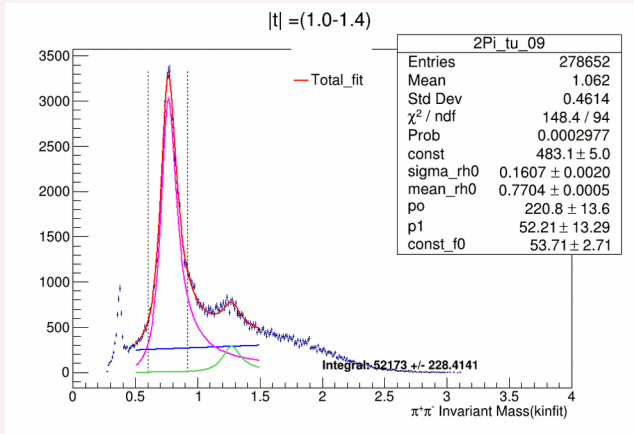
Deuterium Efficiency:



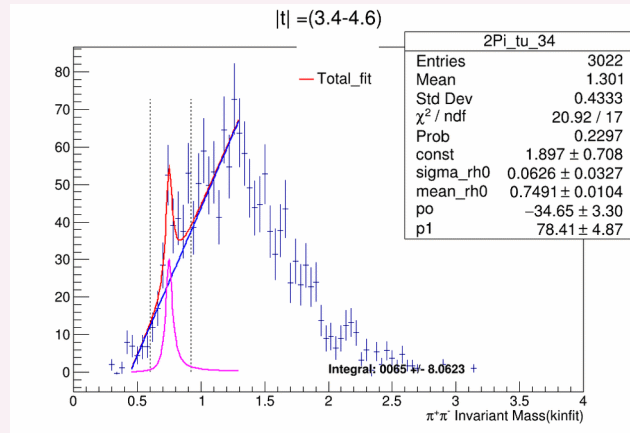
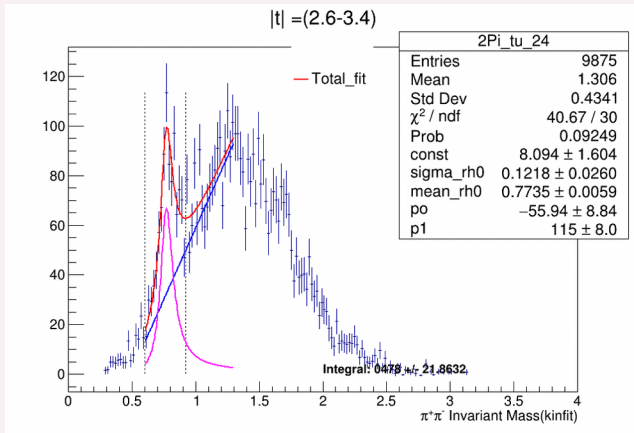
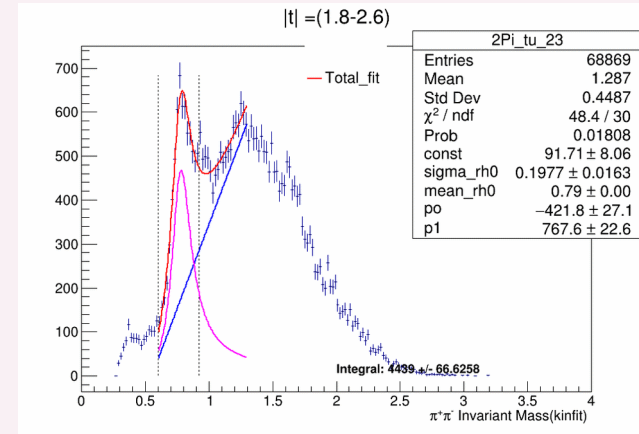
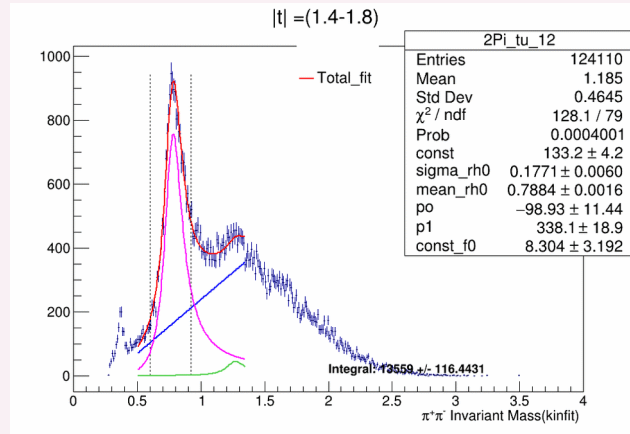
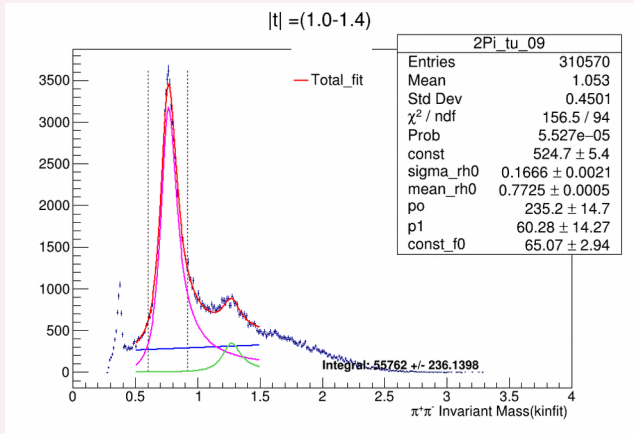
Helium_Efficiency



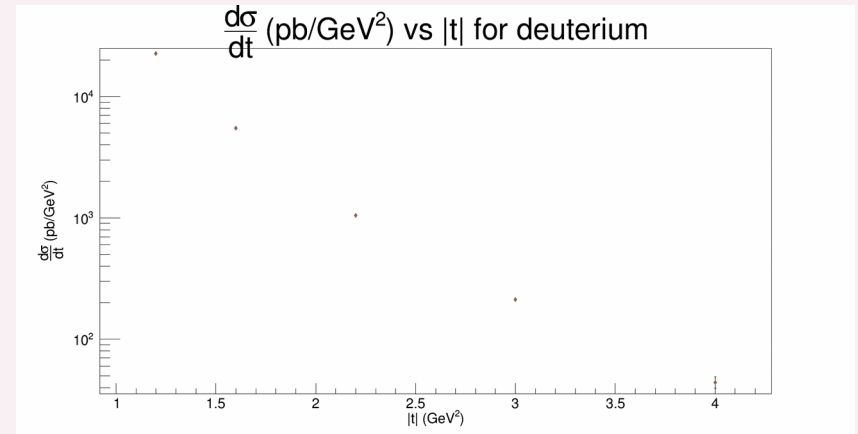
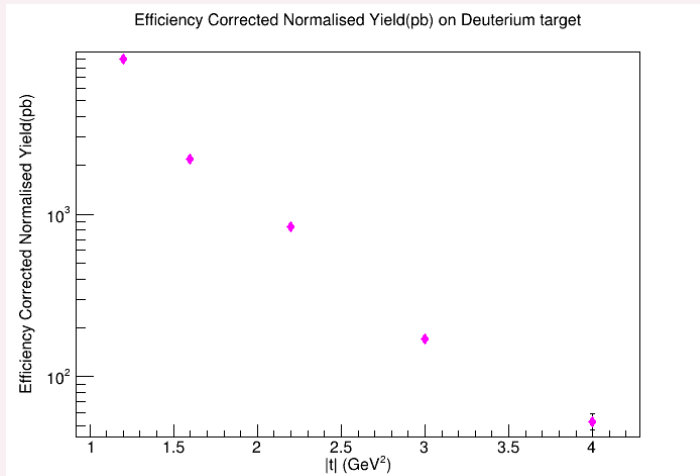
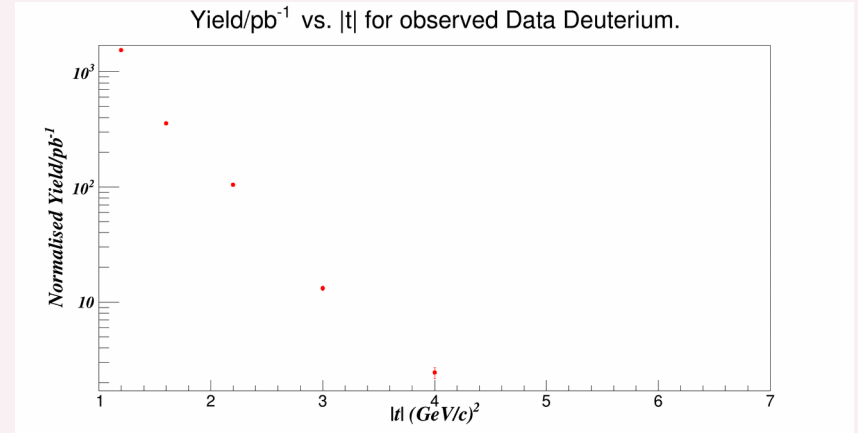
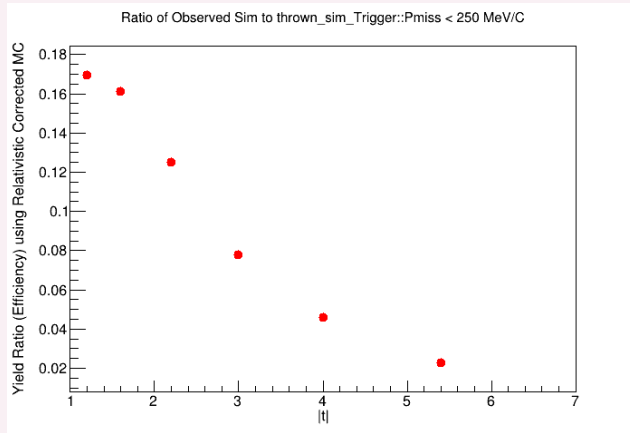
Data: Deuterium_yield



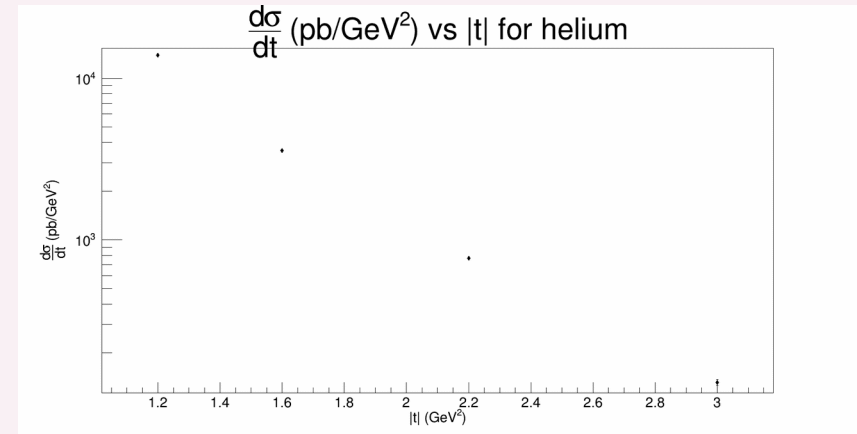
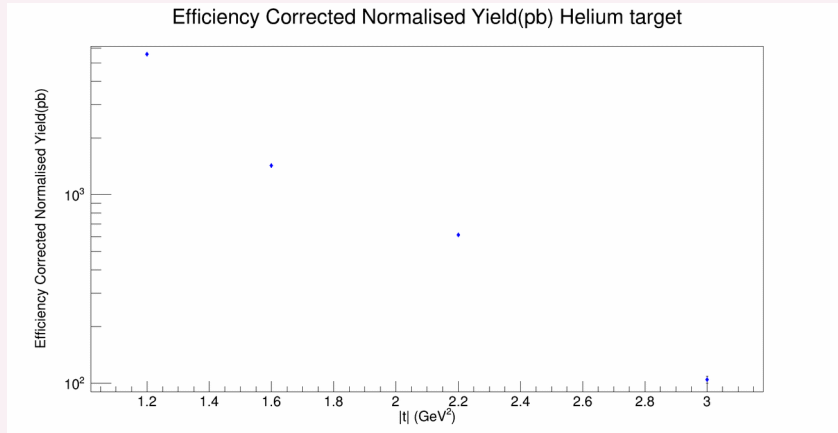
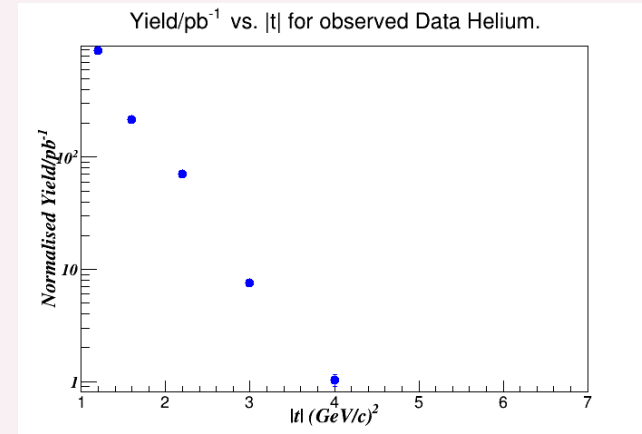
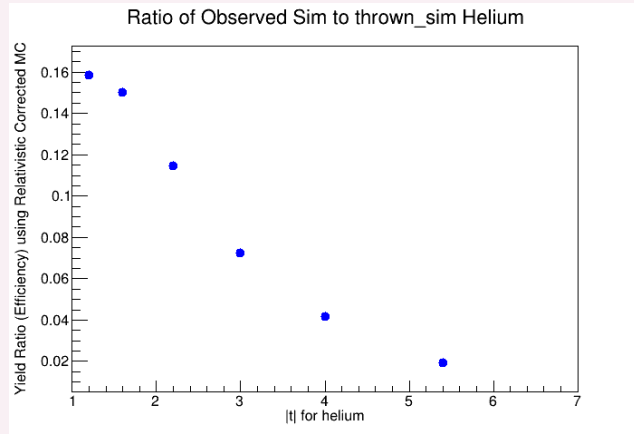
Data: Helium_Yield



Deuterium Cross_section

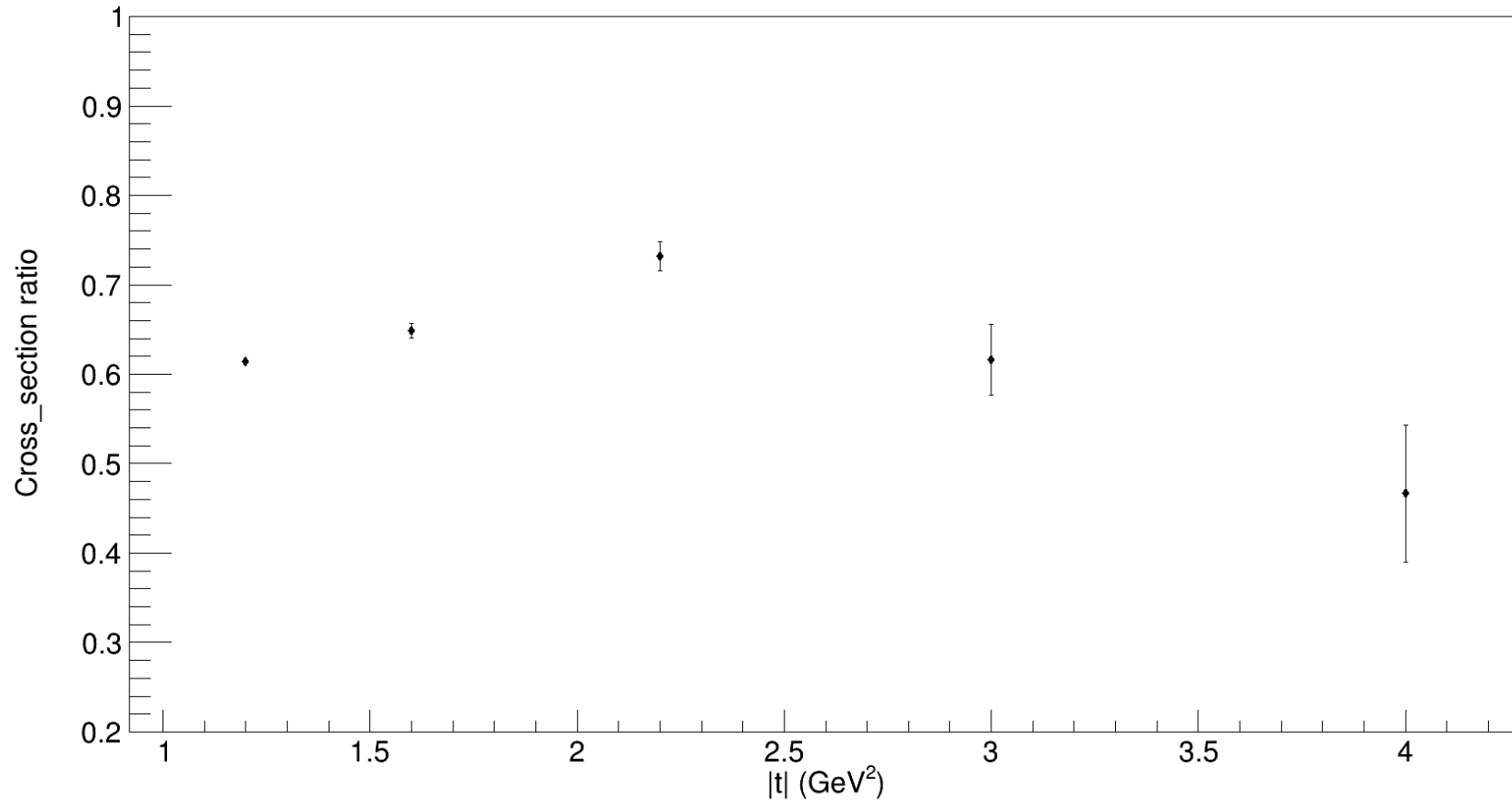


Helium_Cross Section

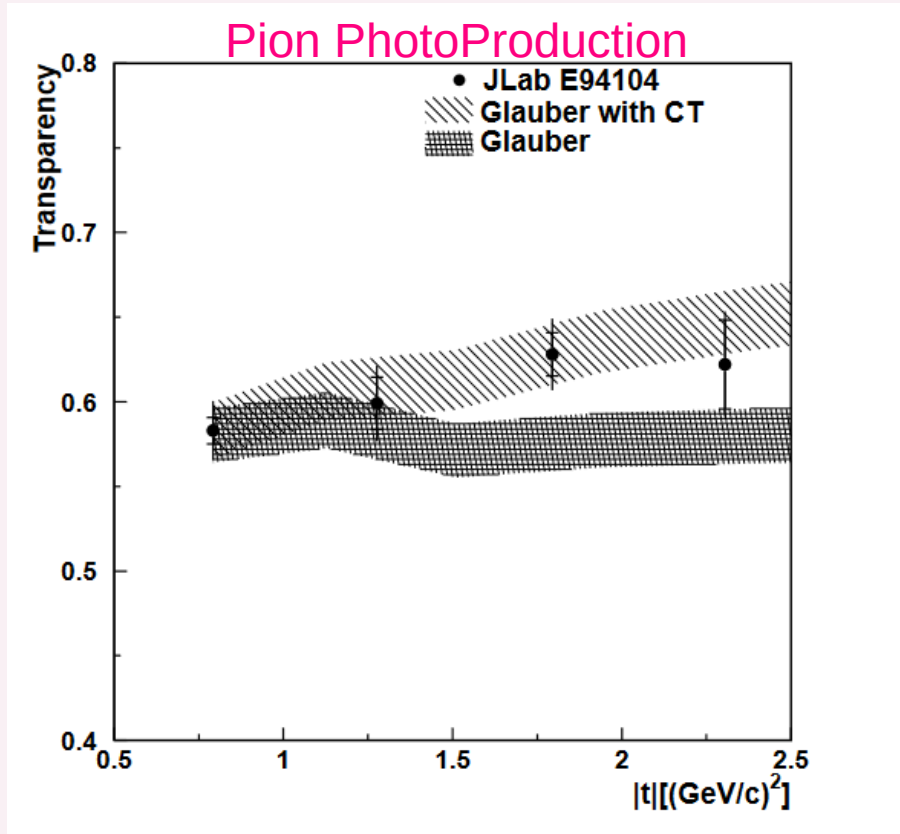


Prelim Cross Section Ratio (He4/D2)

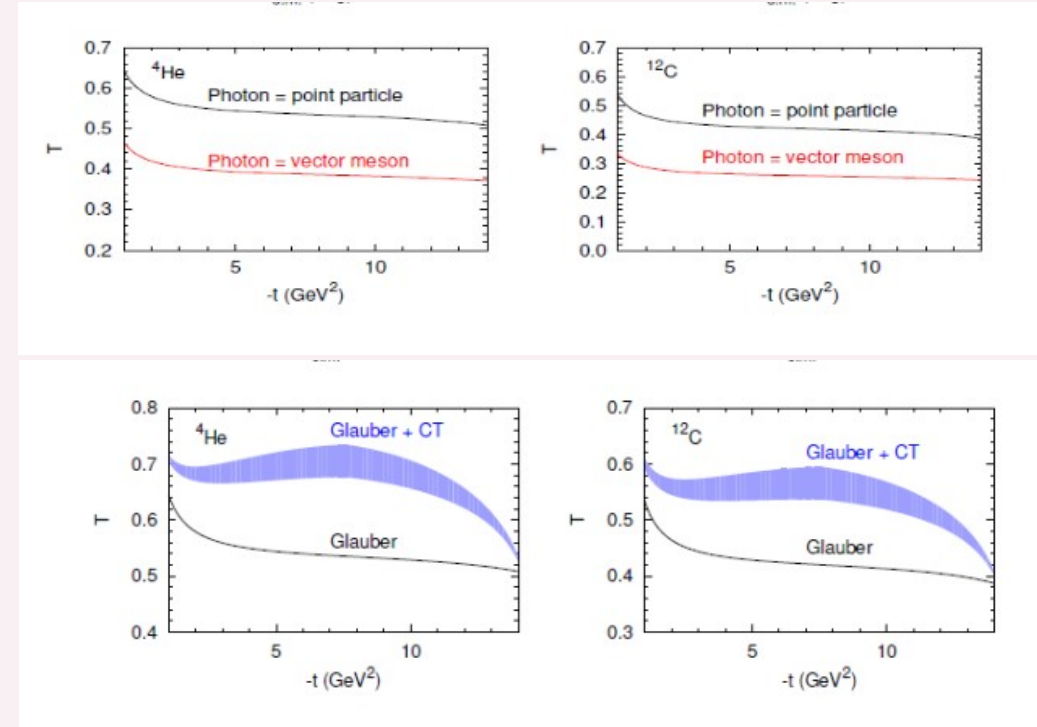
Cross_section ratio (He4/D2)



Previous Study



D. Dutta *et al.*, Phys. Rev. C 68, 064603 (2003)



A. B. Larionov *et al.* Phys. Lett. B760, 753 (2016)