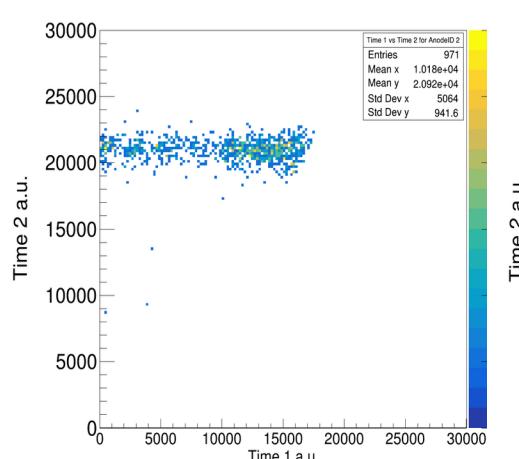
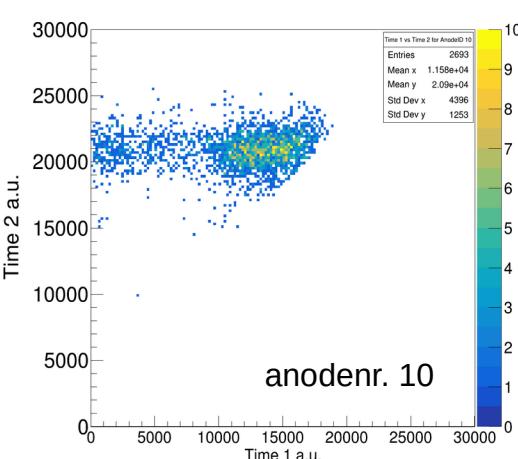
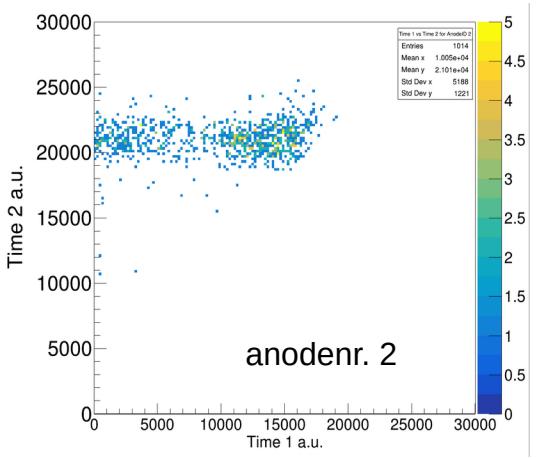


S444 experiment - update2

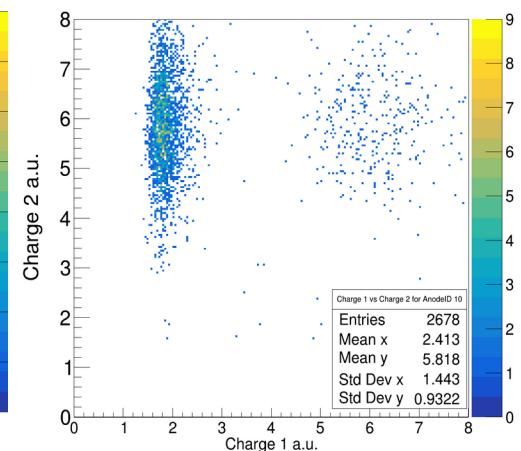
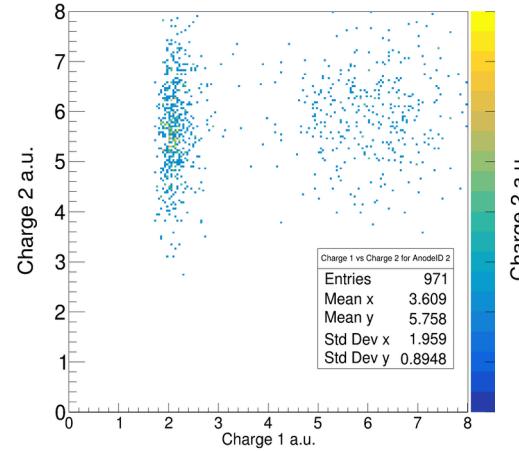
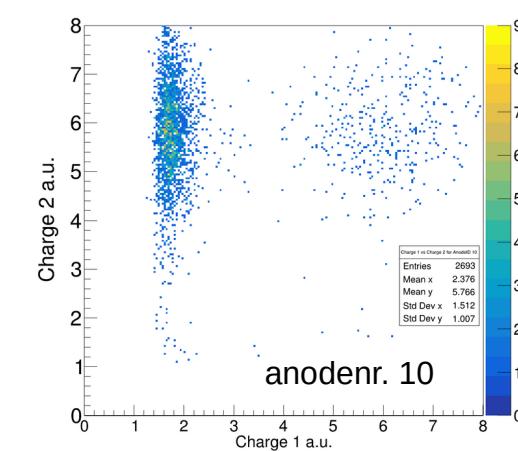
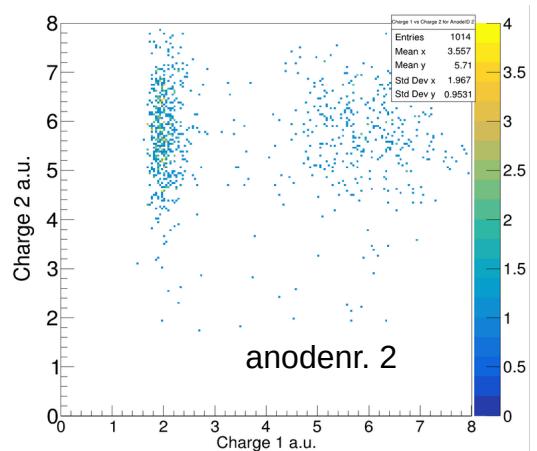
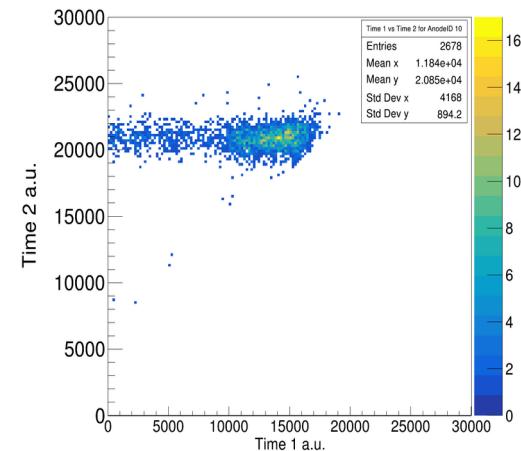
28.08.2024

Time1 vs Time2 in TWIM – no cut on charge 400 AMeV

Carbon Target

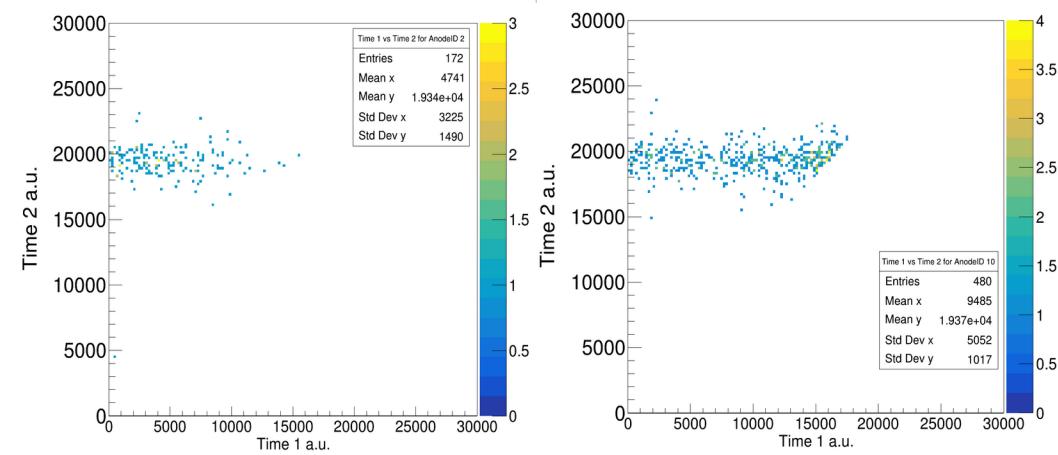


Empty Target

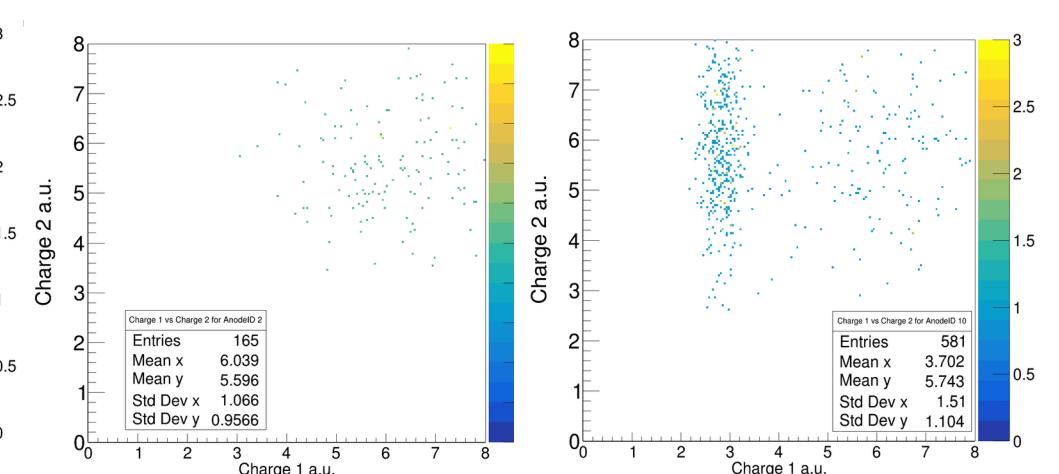
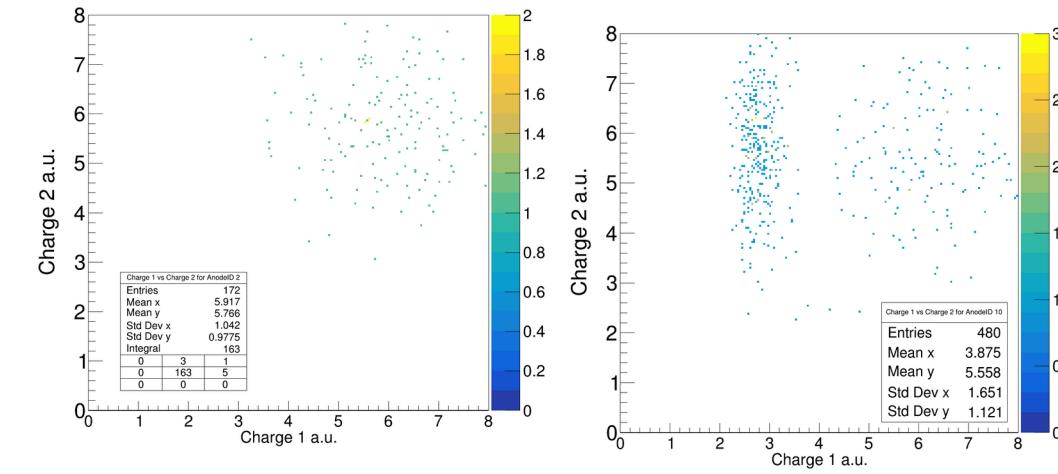
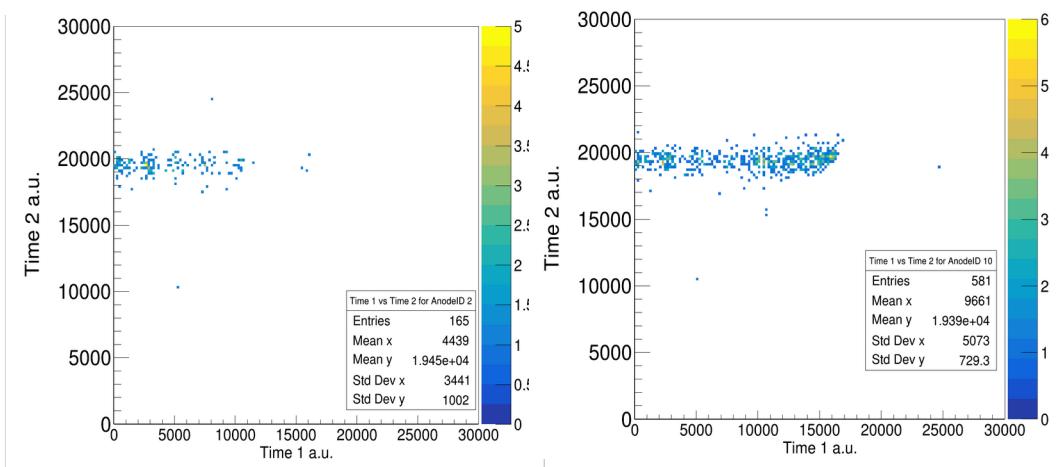


Time1 vs Time2 in TWIM – no cut on charge 550 AMeV

Carbon Target

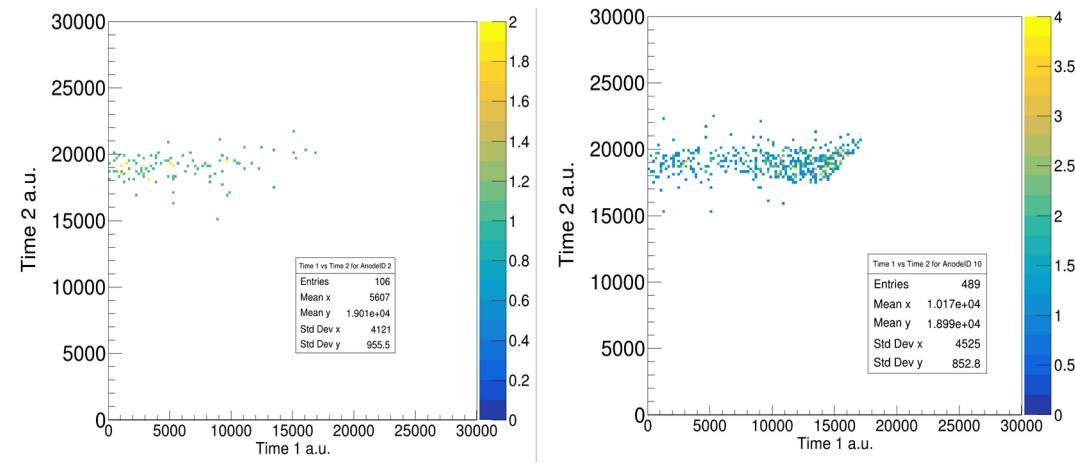


Empty Target

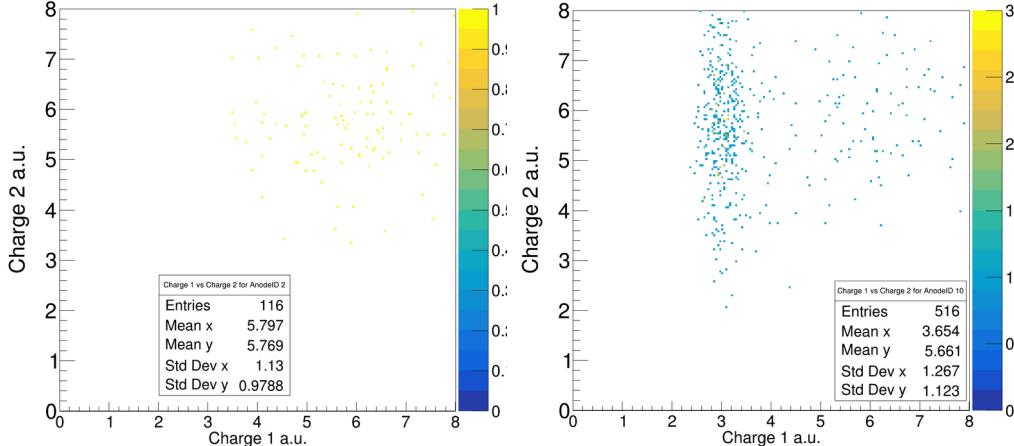
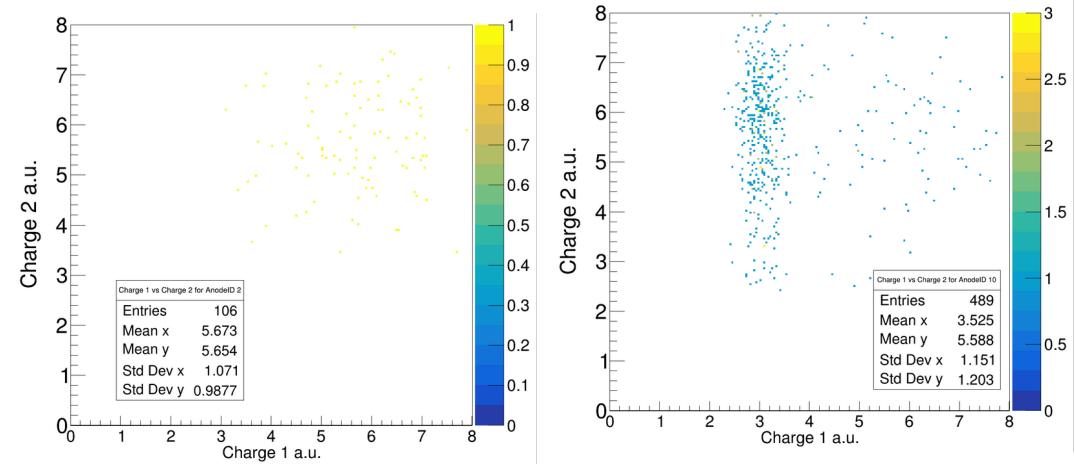
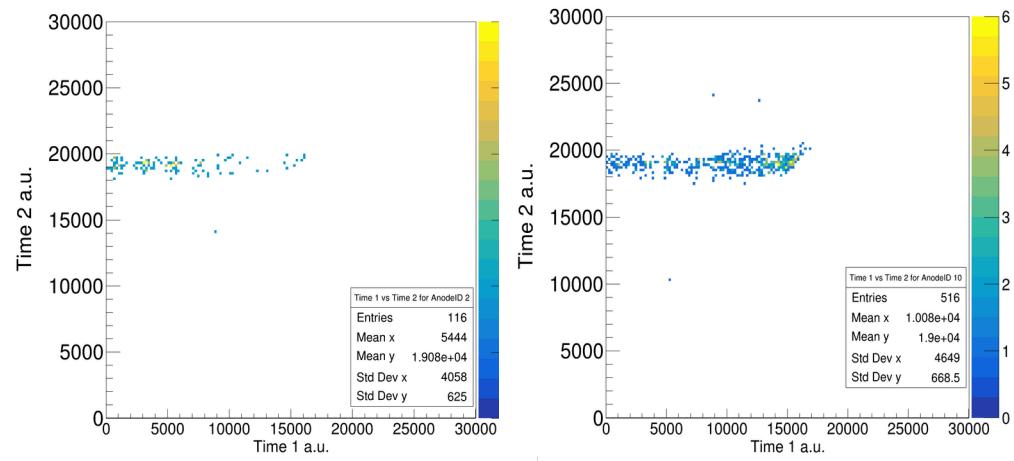


Time1 vs Time2 in TWIM – no cut on charge 650 AMeV

Carbon Target

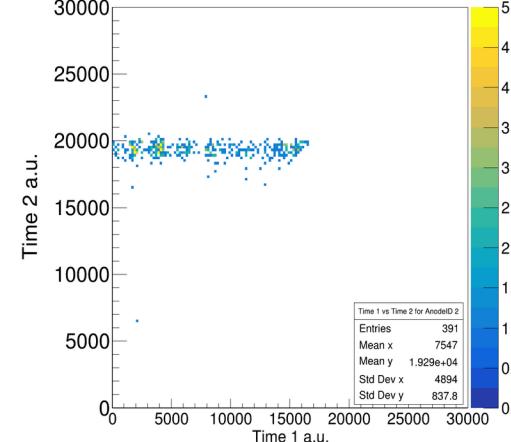
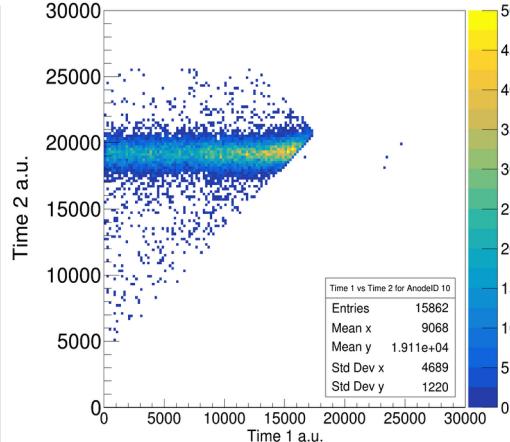
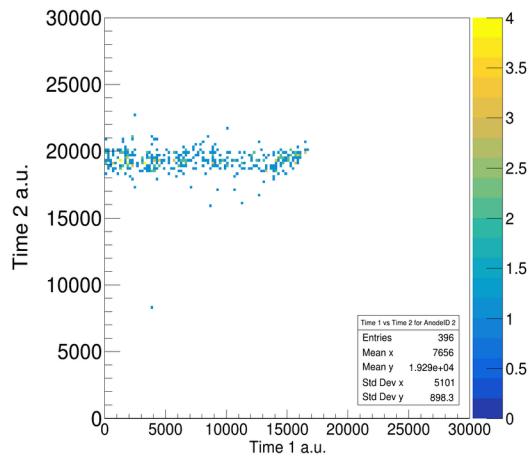


Empty Target

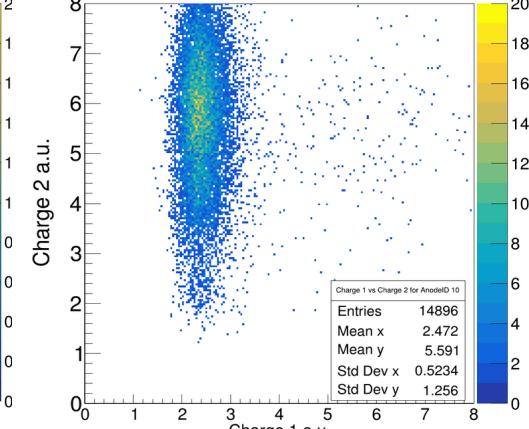
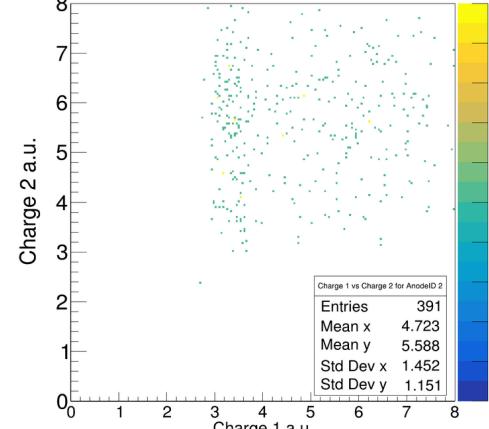
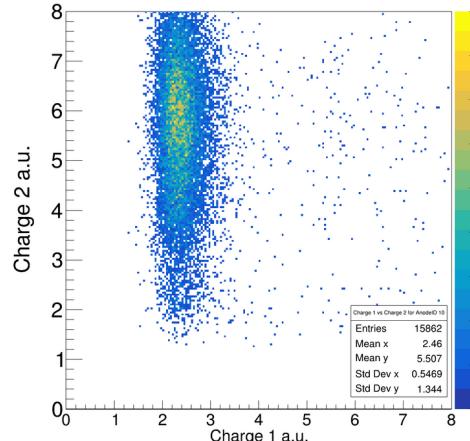
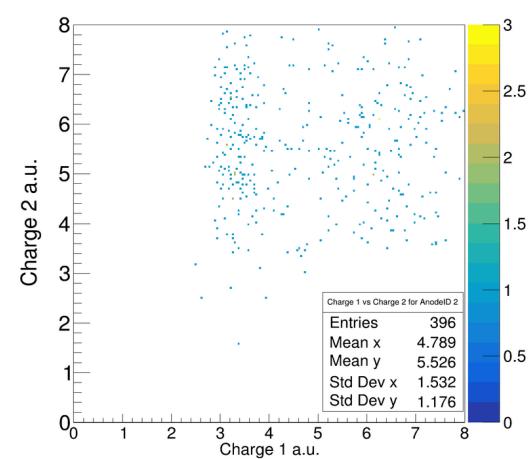
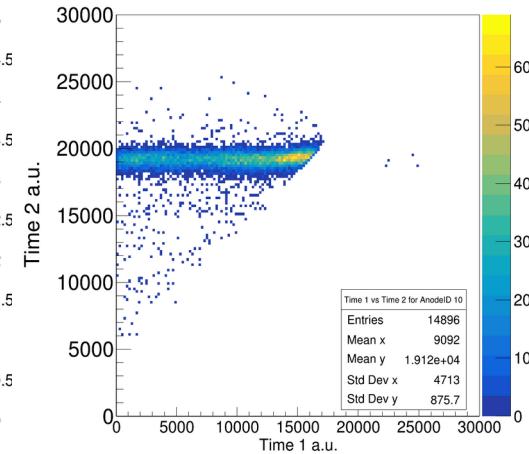


Time1 vs Time2 in TWIM – no cut on charge 800 AMeV

Carbon Target

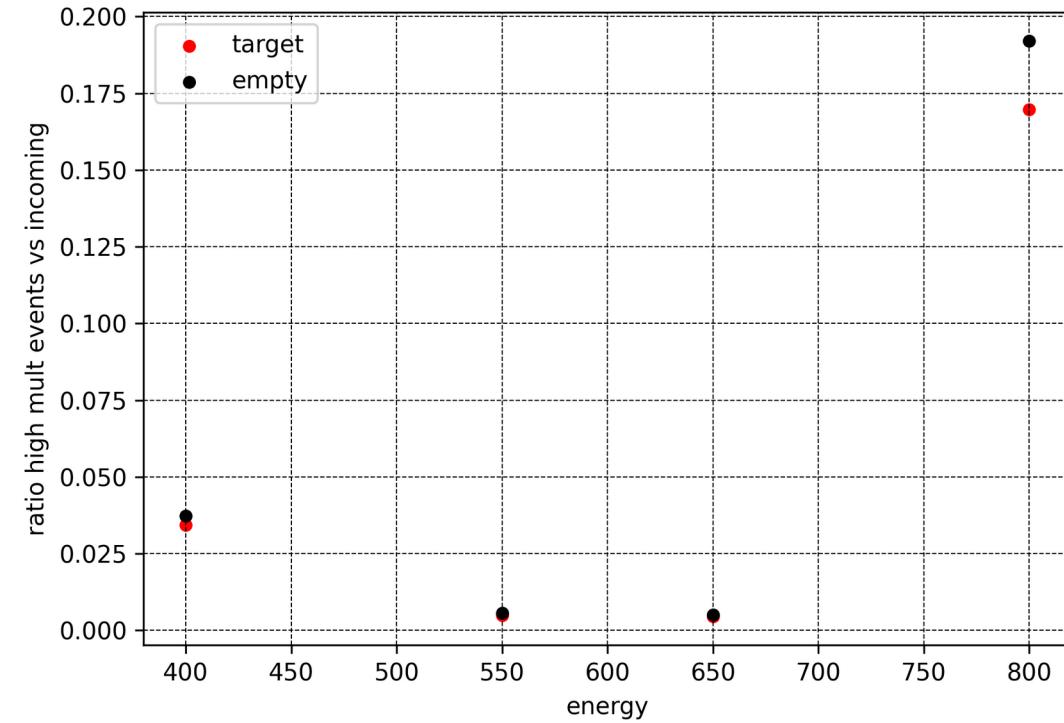


Empty Target

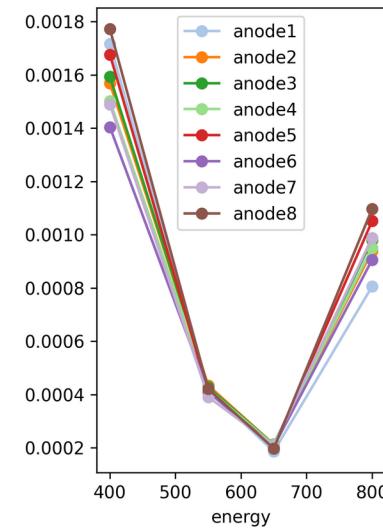


TWIM Multiplicities

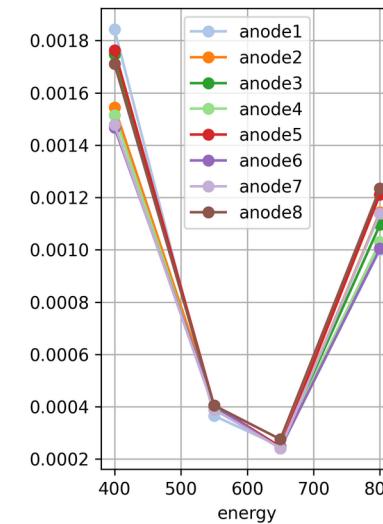
ratio high mult events vs all incoming events



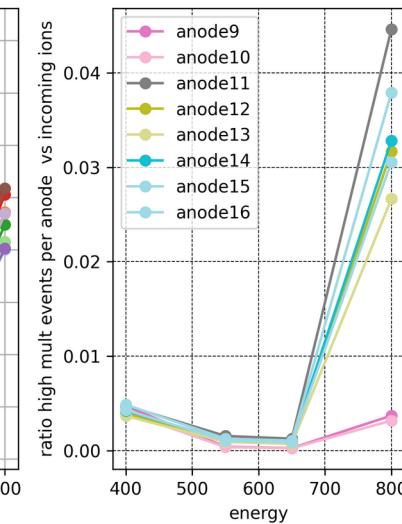
Target Runs



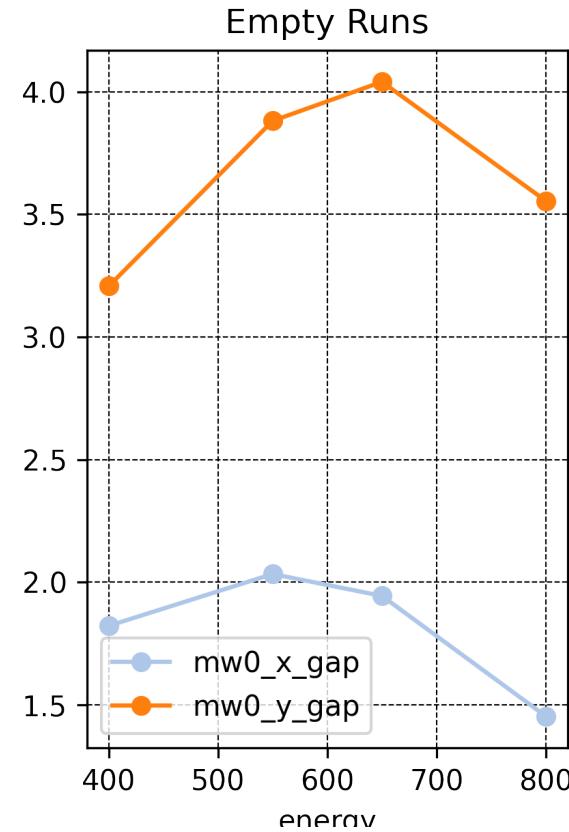
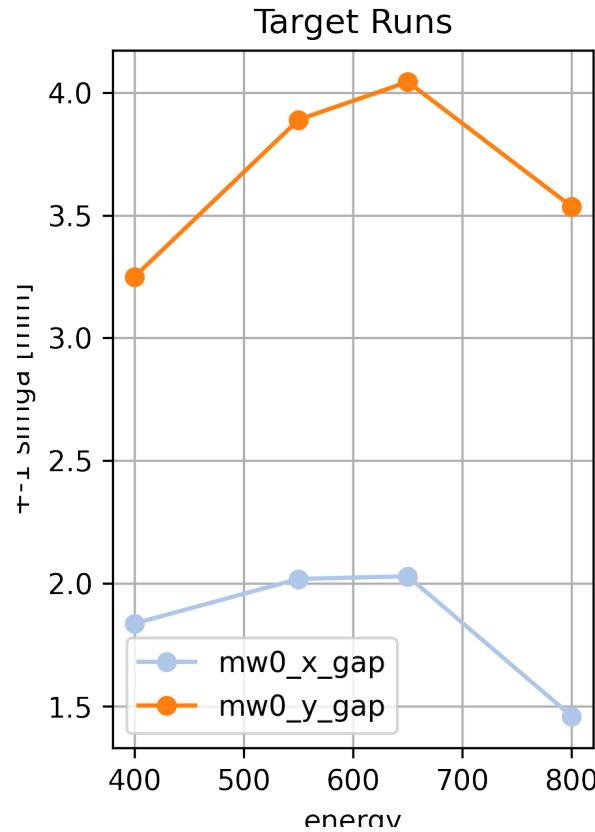
Empty Runs



Target Runs

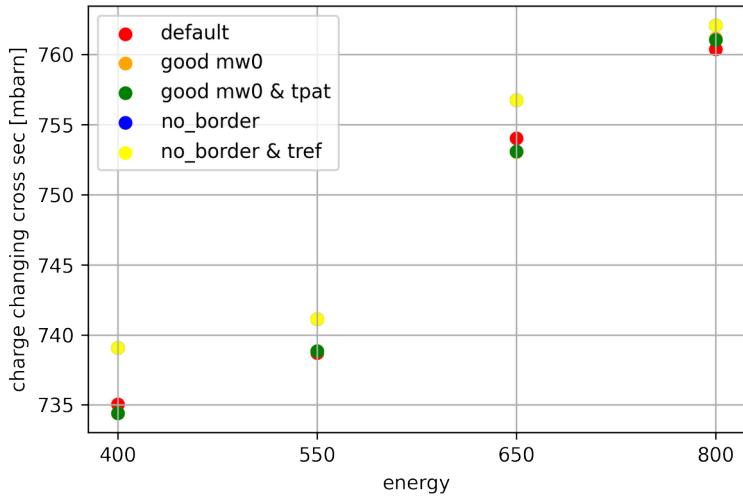


MW0 openign gaps (+-sigma cut condition for x and y)



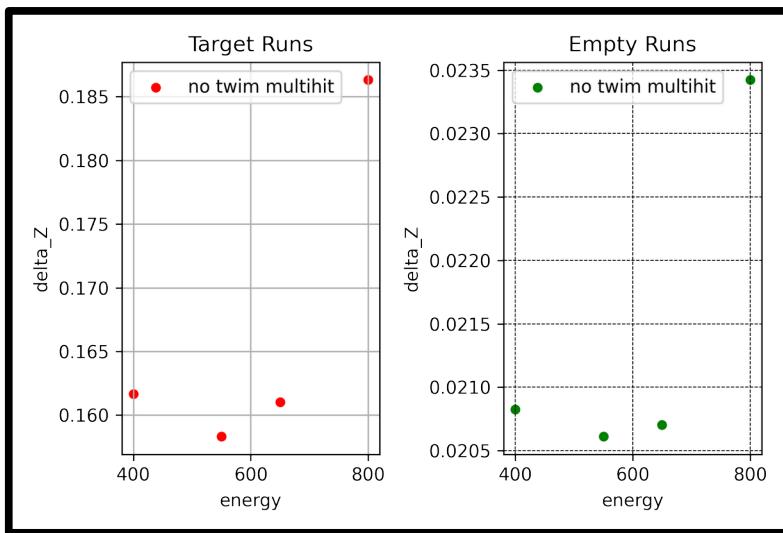
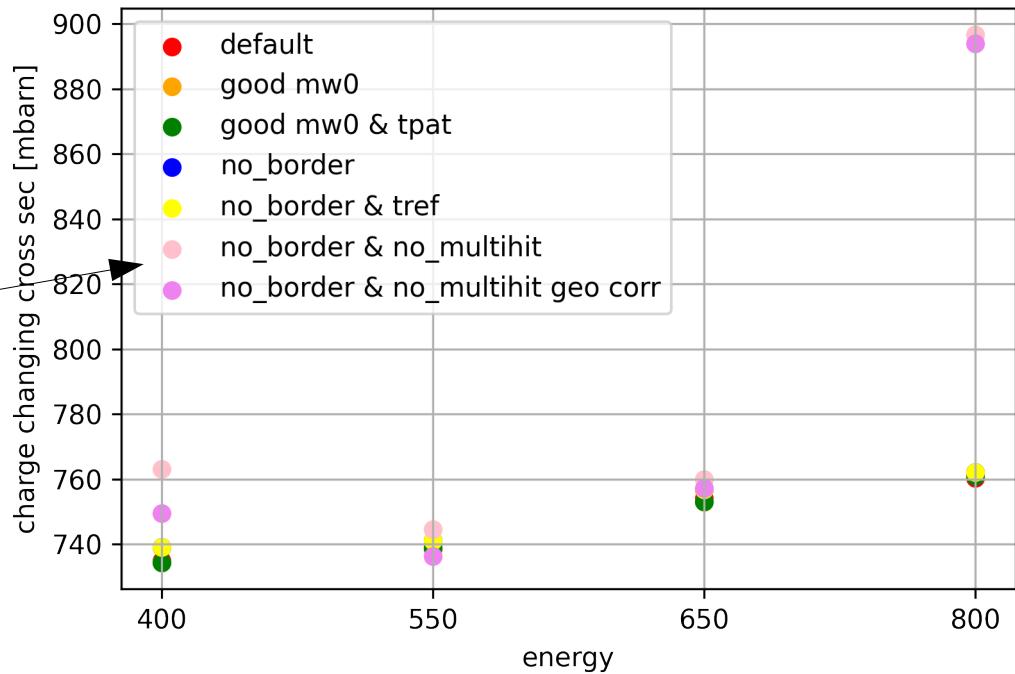
Cross Sections for different conditions

Charge Changing Cross Section with geo. corr.

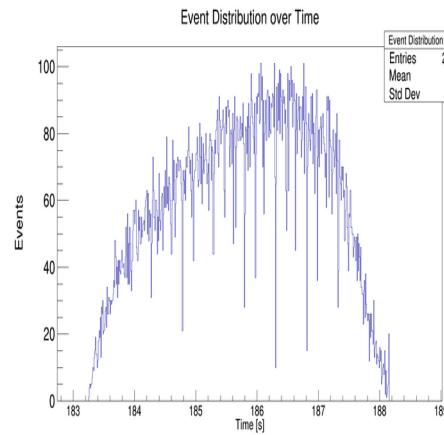


Now applying multiplicity cut on TWIM:
Only select events with no high multiplicity hits in TWIM anodes

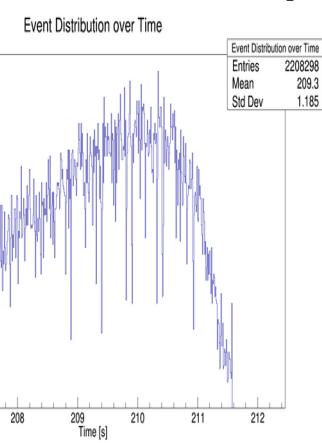
Charge Changing Cross Section with geo. corr.



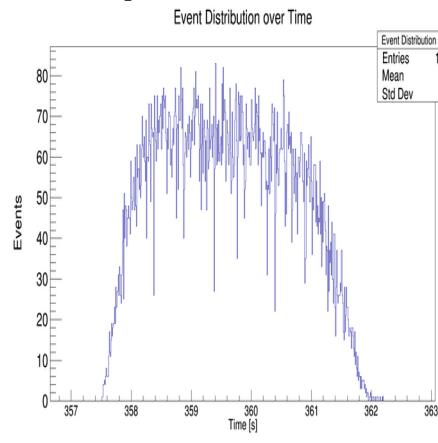
Shape of beam spills



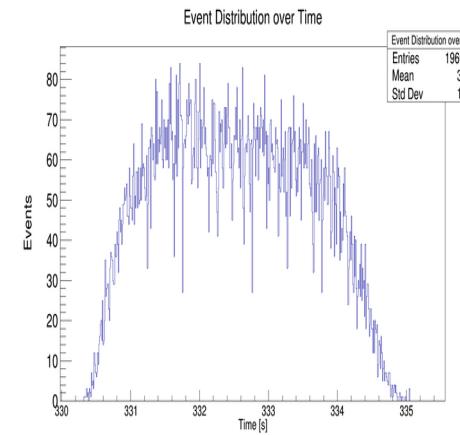
400 AmeV carbon



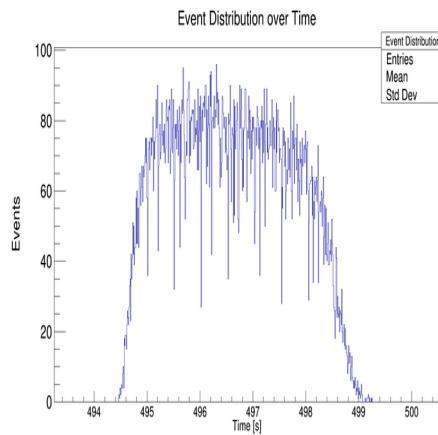
400 AmeV empty



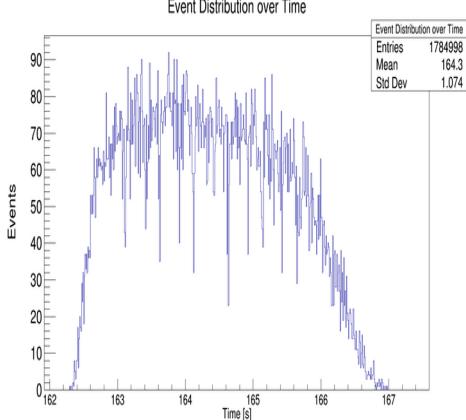
650 AmeV carbon



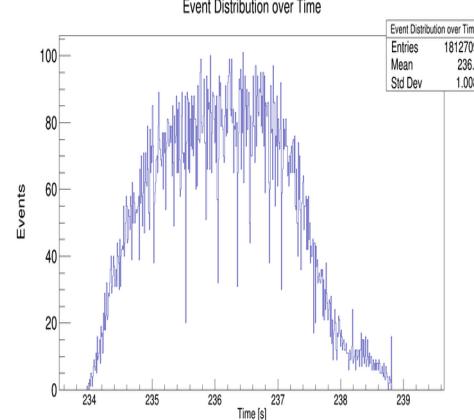
650 AmeV empty



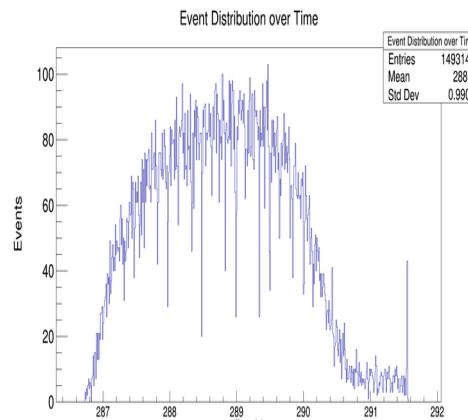
550 AmeV carbon



550 AmeV empty



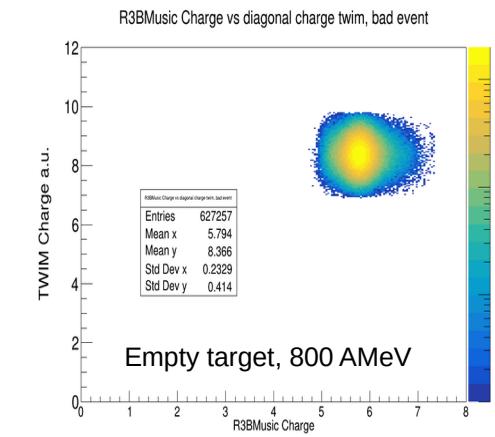
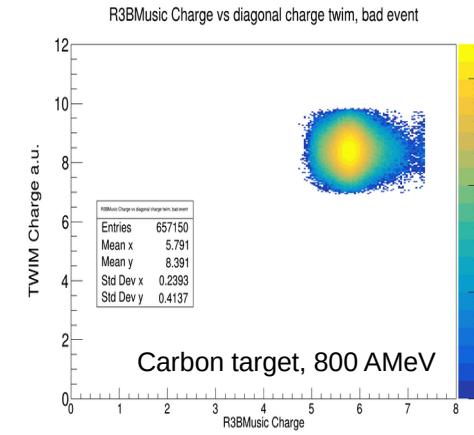
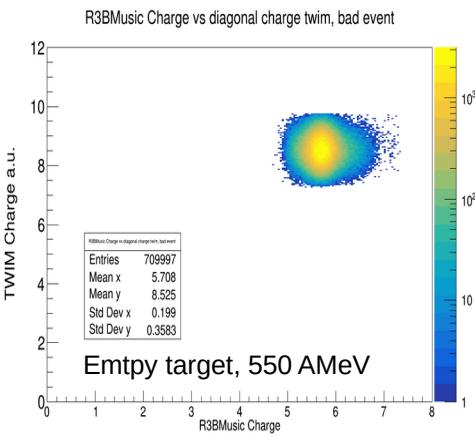
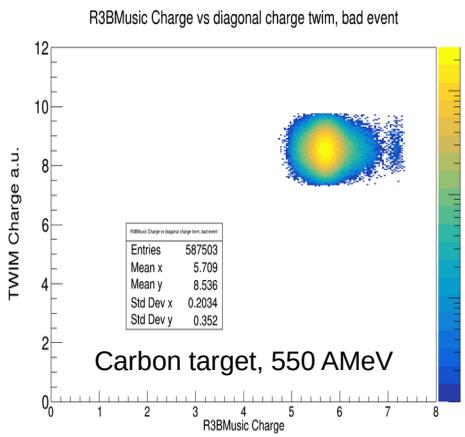
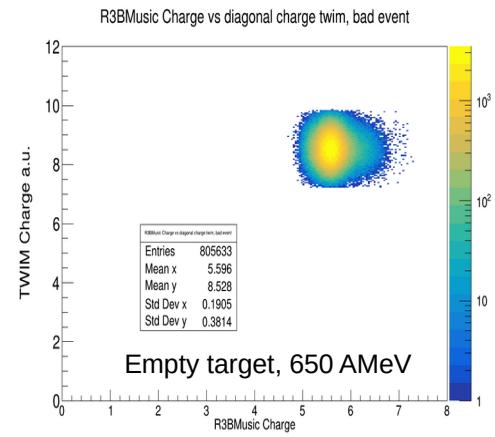
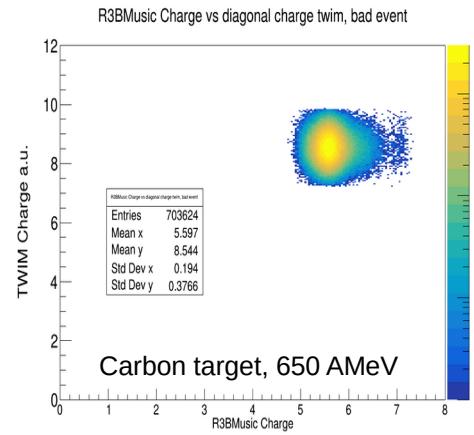
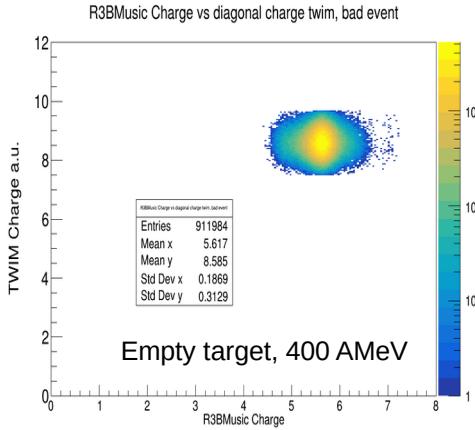
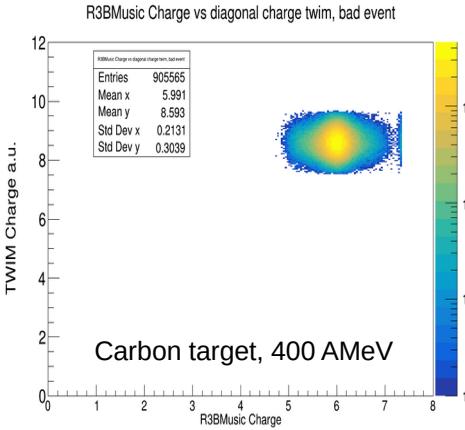
800 AmeV carbon



800 AmeV empty

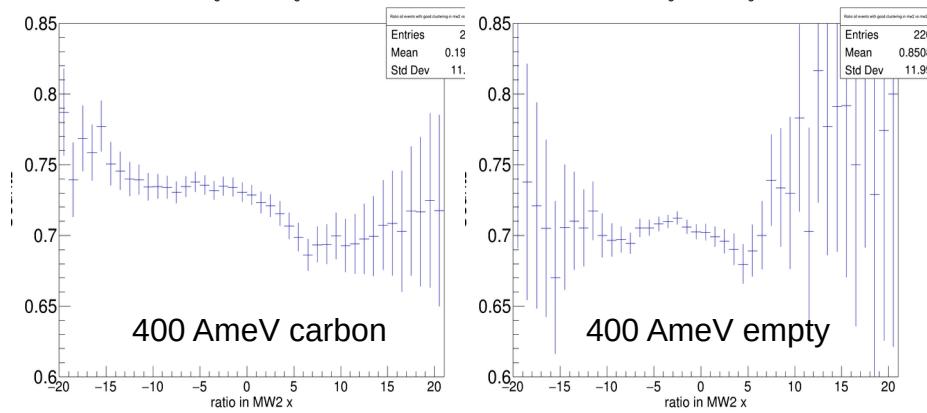
Applied cuts:
 $\pm 1\sigma$ MW0 x-y
 Charge cut = 6 in TWIM

R3BMusic vs Twim Charge

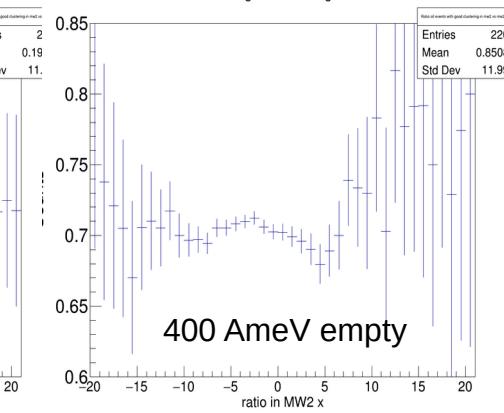


Efficiency of MW3 depening on MW2 x-position

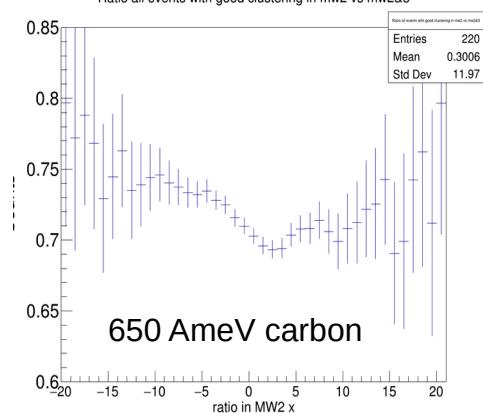
Ratio all events with good clustering in mw2 vs mw2&3



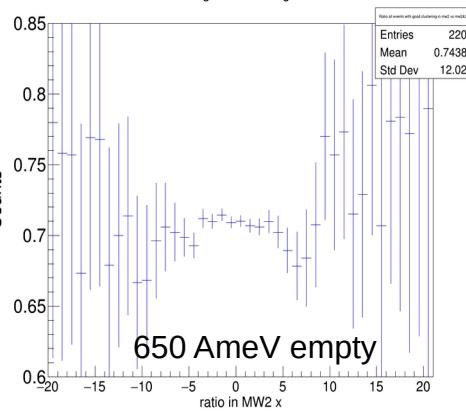
Ratio all events with good clustering in mw2 vs mw2&3



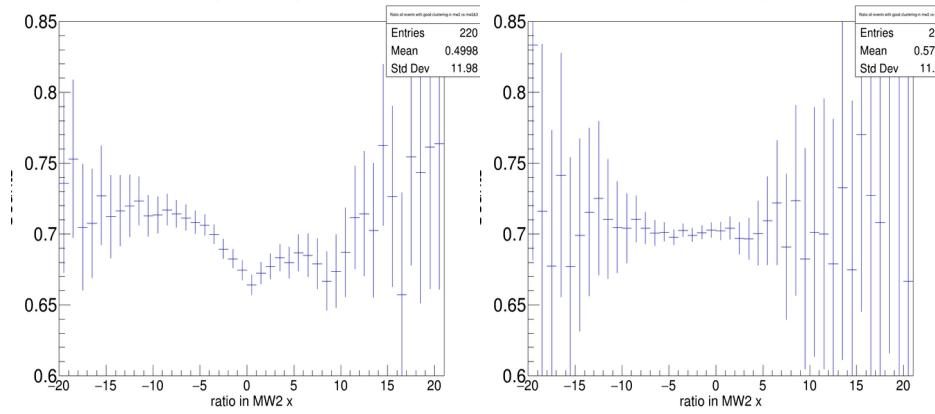
Ratio all events with good clustering in mw2 vs mw2&3



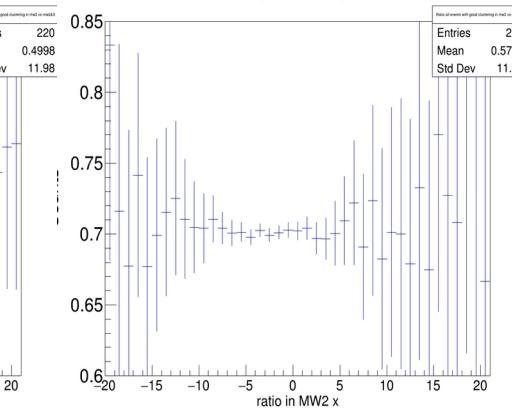
Ratio all events with good clustering in mw2 vs mw2&3



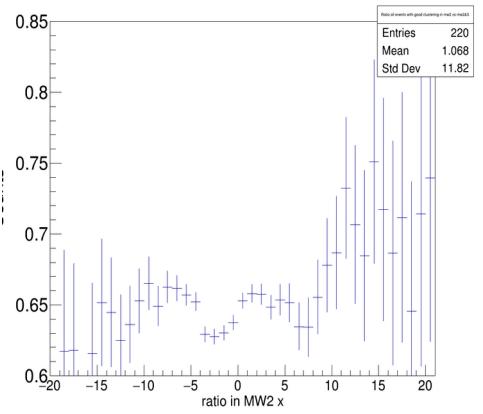
Ratio all events with good clustering in mw2 vs mw2&3



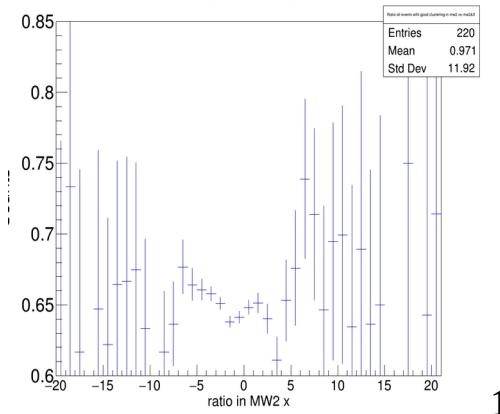
Ratio all events with good clustering in mw2 vs mw2&3



Ratio all events with good clustering in mw2 vs mw2&3

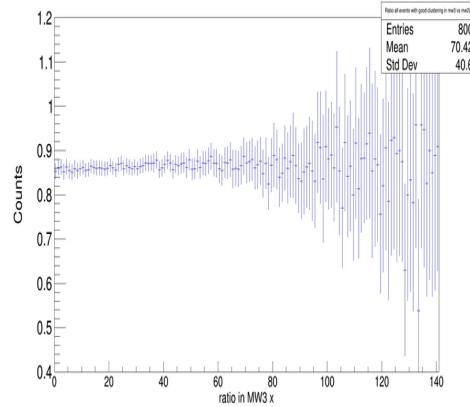


Ratio all events with good clustering in mw2 vs mw2&3



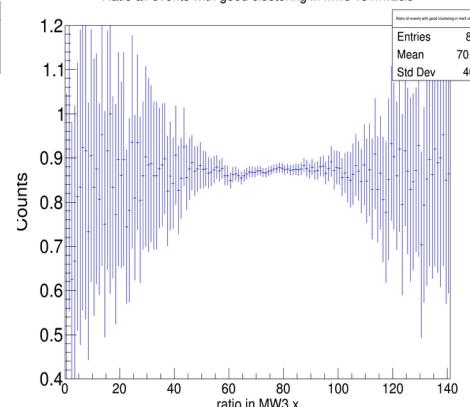
Efficiency of MW2 depening on MW3 x-position

Ratio all events with good clustering in mw3 vs mw2&3



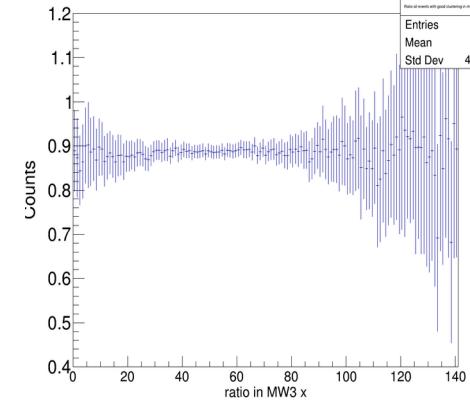
400 AmeV carbon

Ratio all events with good clustering in mw3 vs mw2&3



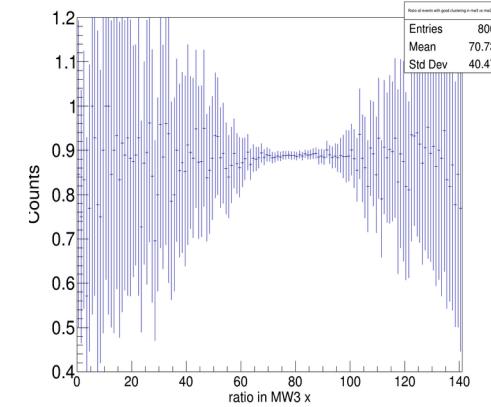
400 AmeV empty

Ratio all events with good clustering in mw3 vs mw2&3



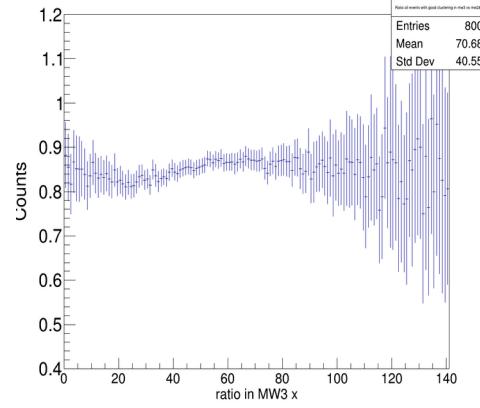
650 AmeV carbon

Ratio all events with good clustering in mw3 vs mw2&3



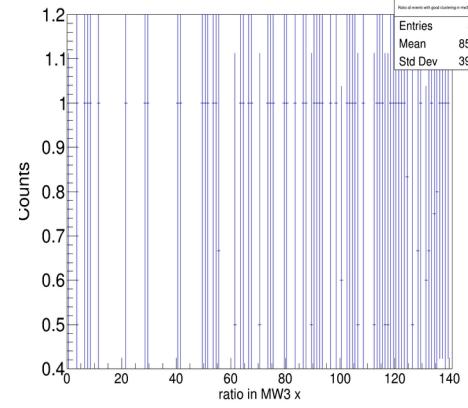
650 AmeV empty

Ratio all events with good clustering in mw3 vs mw2&3



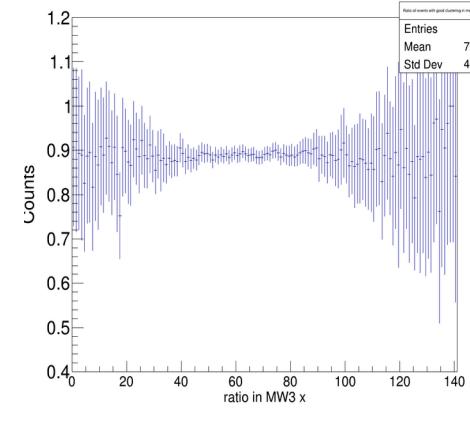
550 AmeV carbon

Ratio all events with good clustering in mw3 vs mw2&3



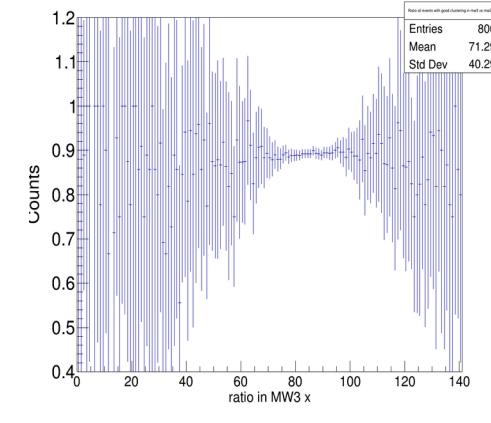
550 AmeV empty

Ratio all events with good clustering in mw3 vs mw2&3



800 AmeV carbon

Ratio all events with good clustering in mw3 vs mw2&3



800 AmeV empty