

D(e,e'p) Q2 Cut Study

General Cuts:

$|E_m| < 40 \text{ MeV}$

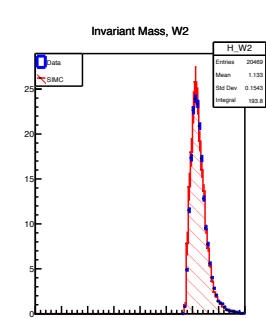
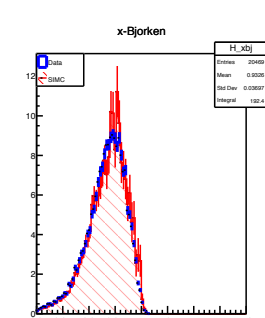
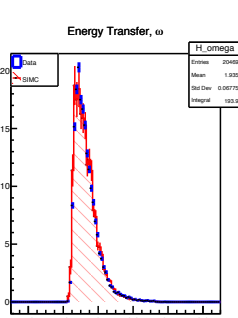
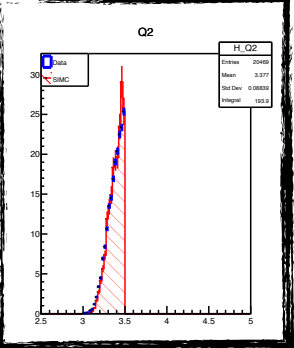
HMS Delta: $(-8, 8) \%$

SHMS Delta: $(-10, 22) \%$

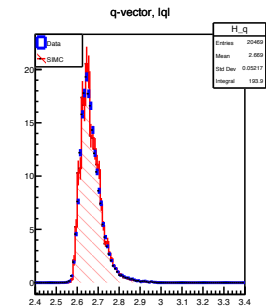
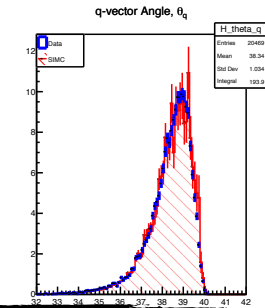
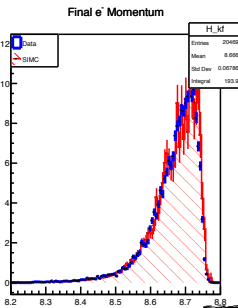
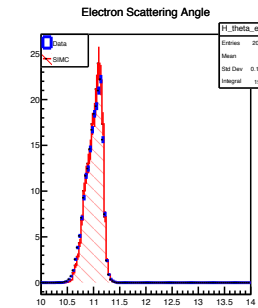
$|Z_{tar_Diff}| < 2 \text{ cm}$

Coin. Time Cut: $(11, 15) \text{ ns}$

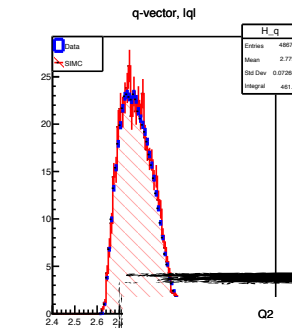
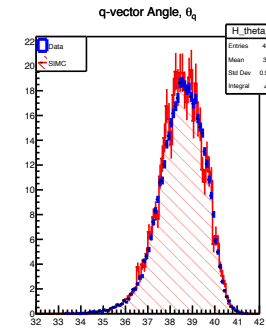
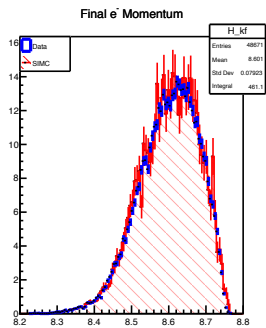
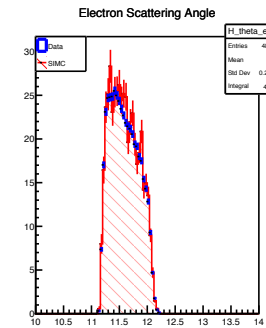
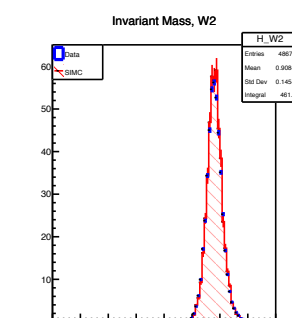
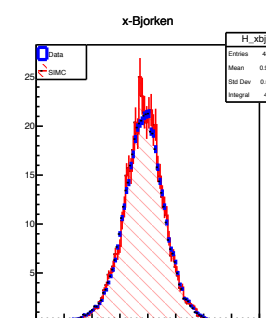
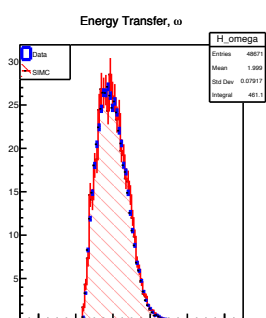
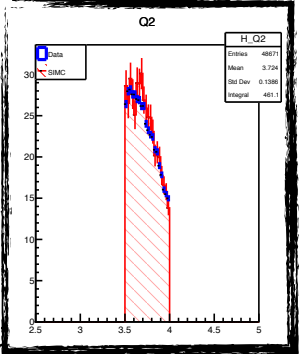
HMS Collimator Cut



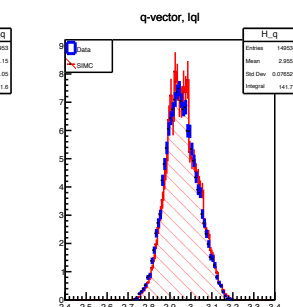
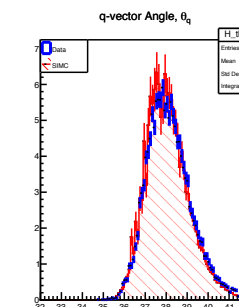
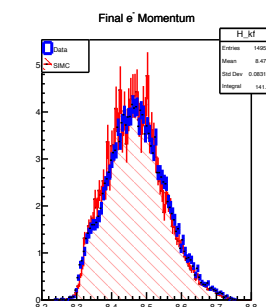
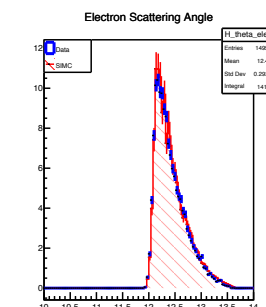
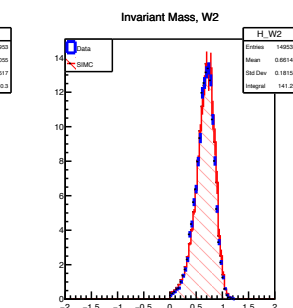
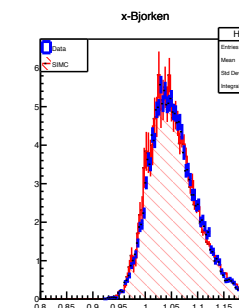
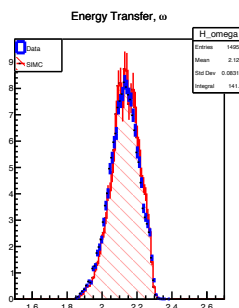
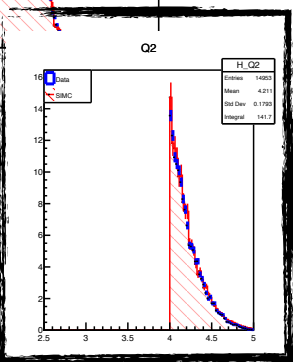
Q2: (3, 3.5)



Q2: (3.5, 4)

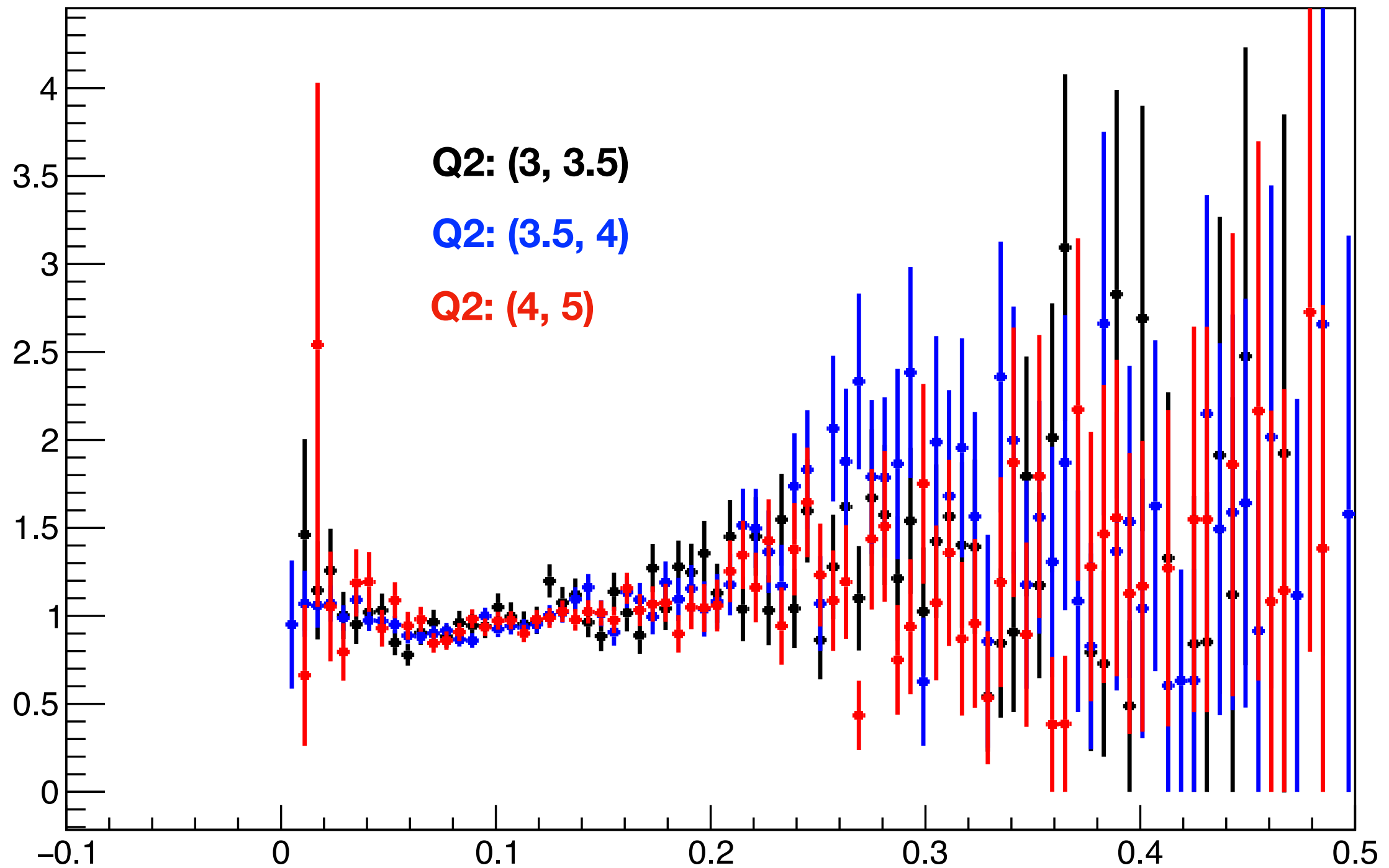


Q2: (4, 5)



Missing Momentum Yield Ratio for different Q2 Bins

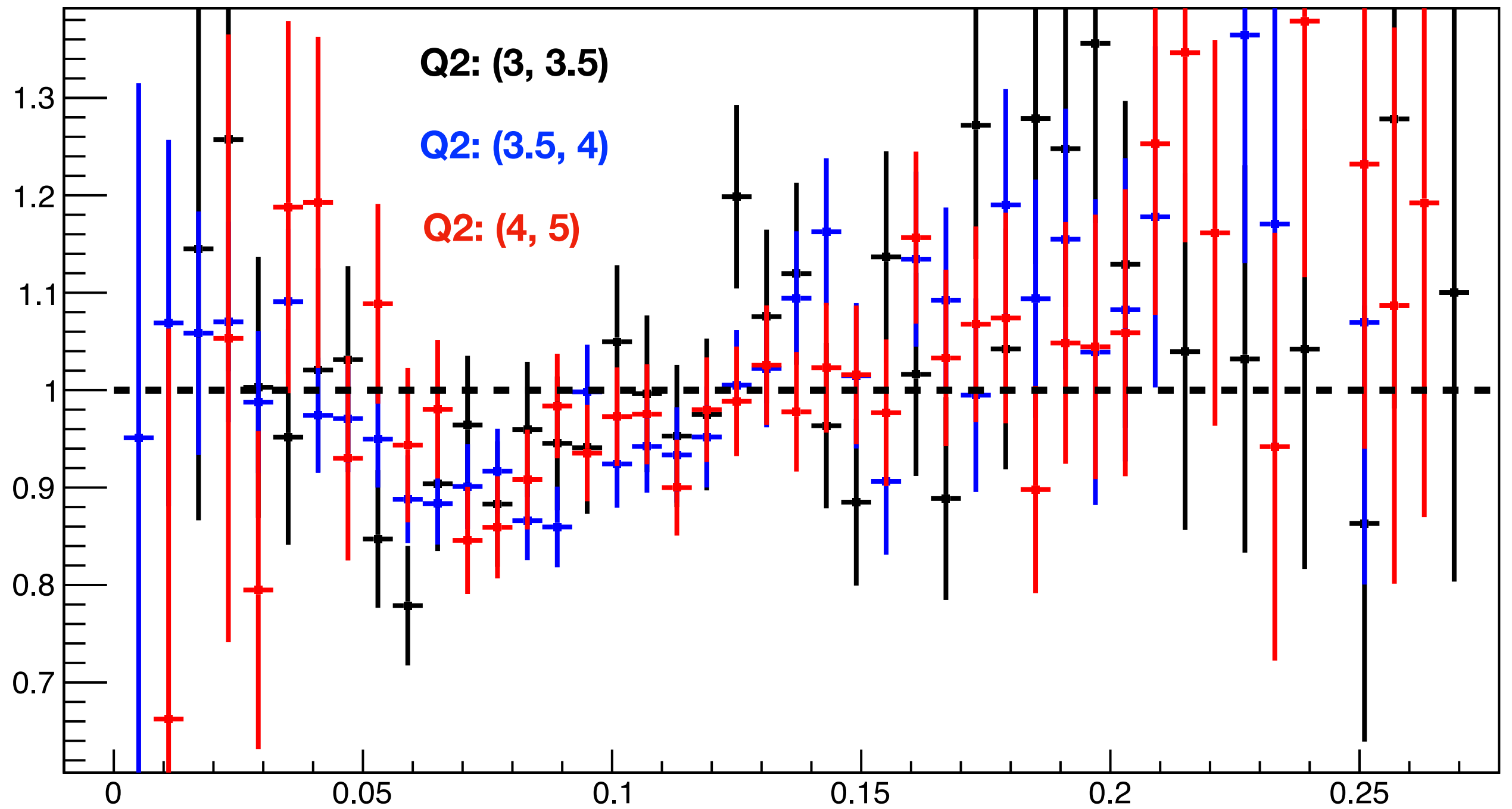
Missing Momentum



There does NOT seem to be much variation in shape in the Missing Momentum DATA/ SIMC Yield Ratio

Missing Momentum Yield Ratio for different Q2 Bins: Zoomed In

Missing Momentum



D(e,e'p) Em Cut Study

General Cuts:

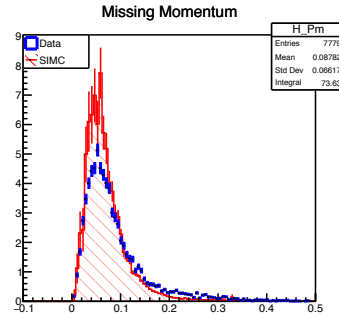
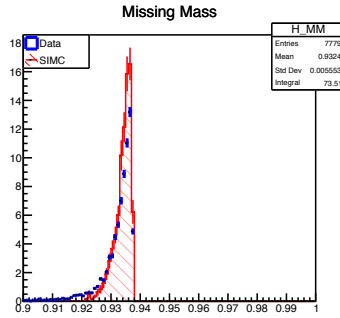
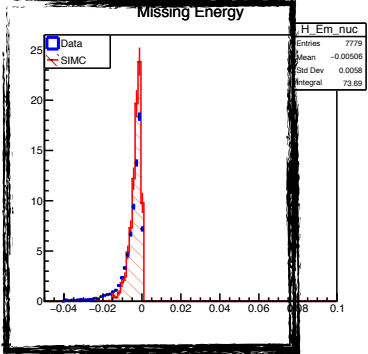
HMS Delta: (-8,8) %

SHMS Delta: (-10, 22) %

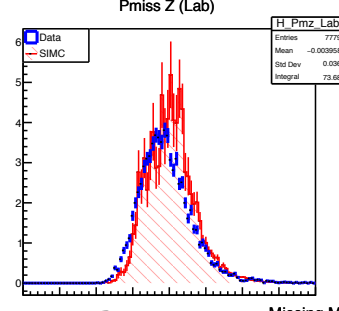
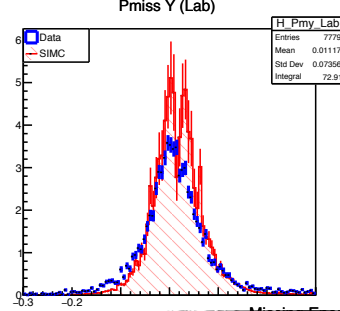
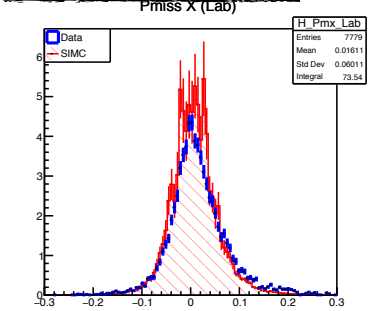
|Ztar_Diff| < 2 cm

Coin. Time Cut: (11, 15) ns

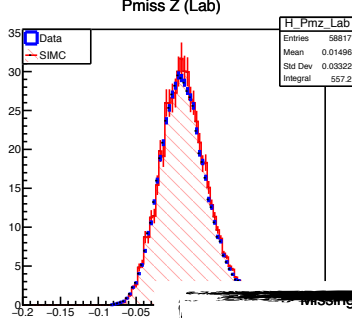
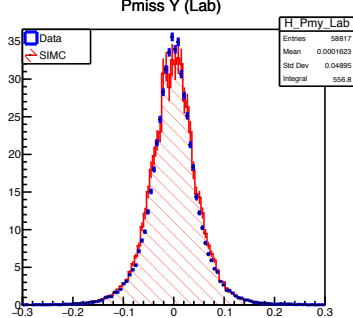
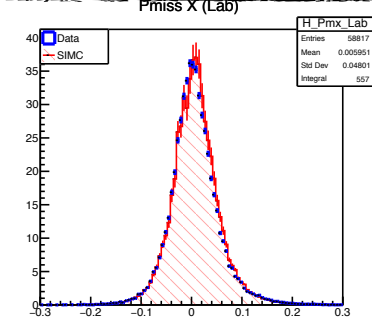
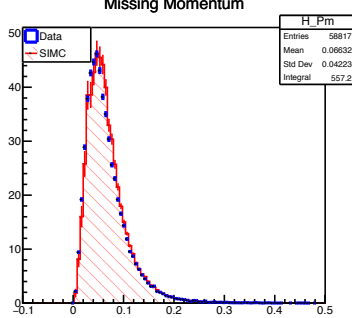
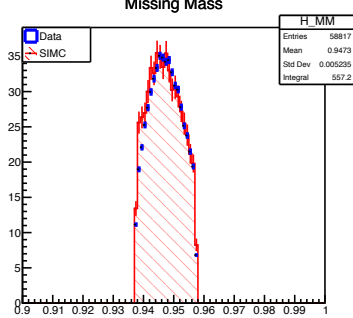
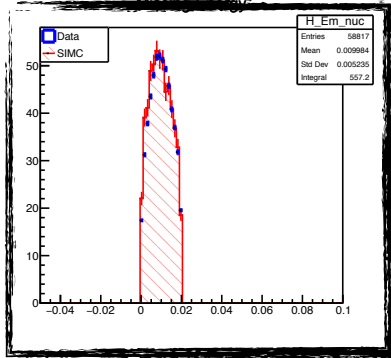
HMS Collimator Cut



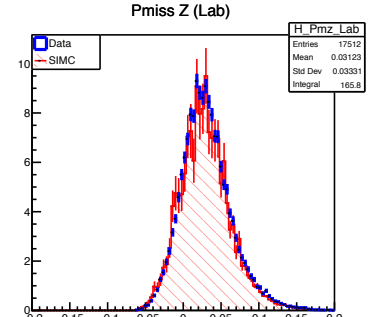
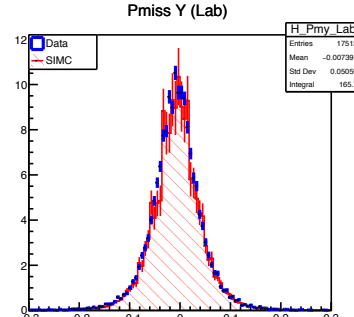
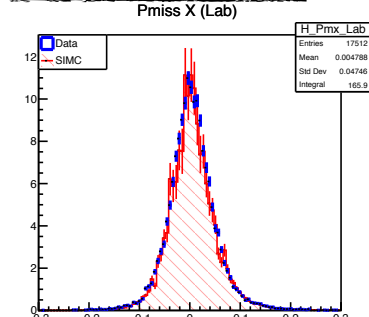
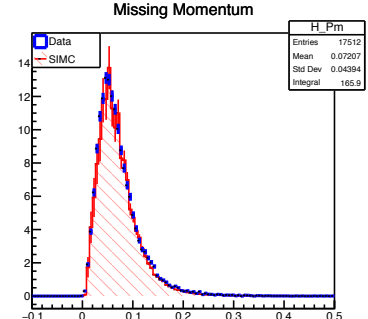
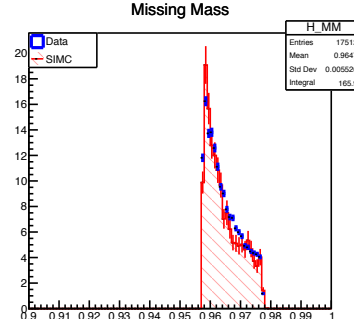
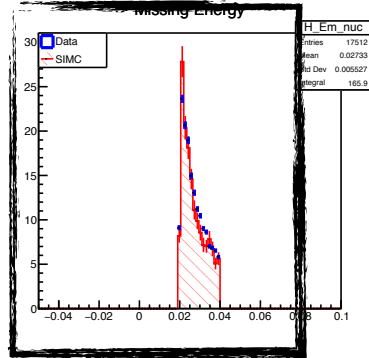
Emiss: (-40, 0) MeV



Emiss: (0, 20) MeV

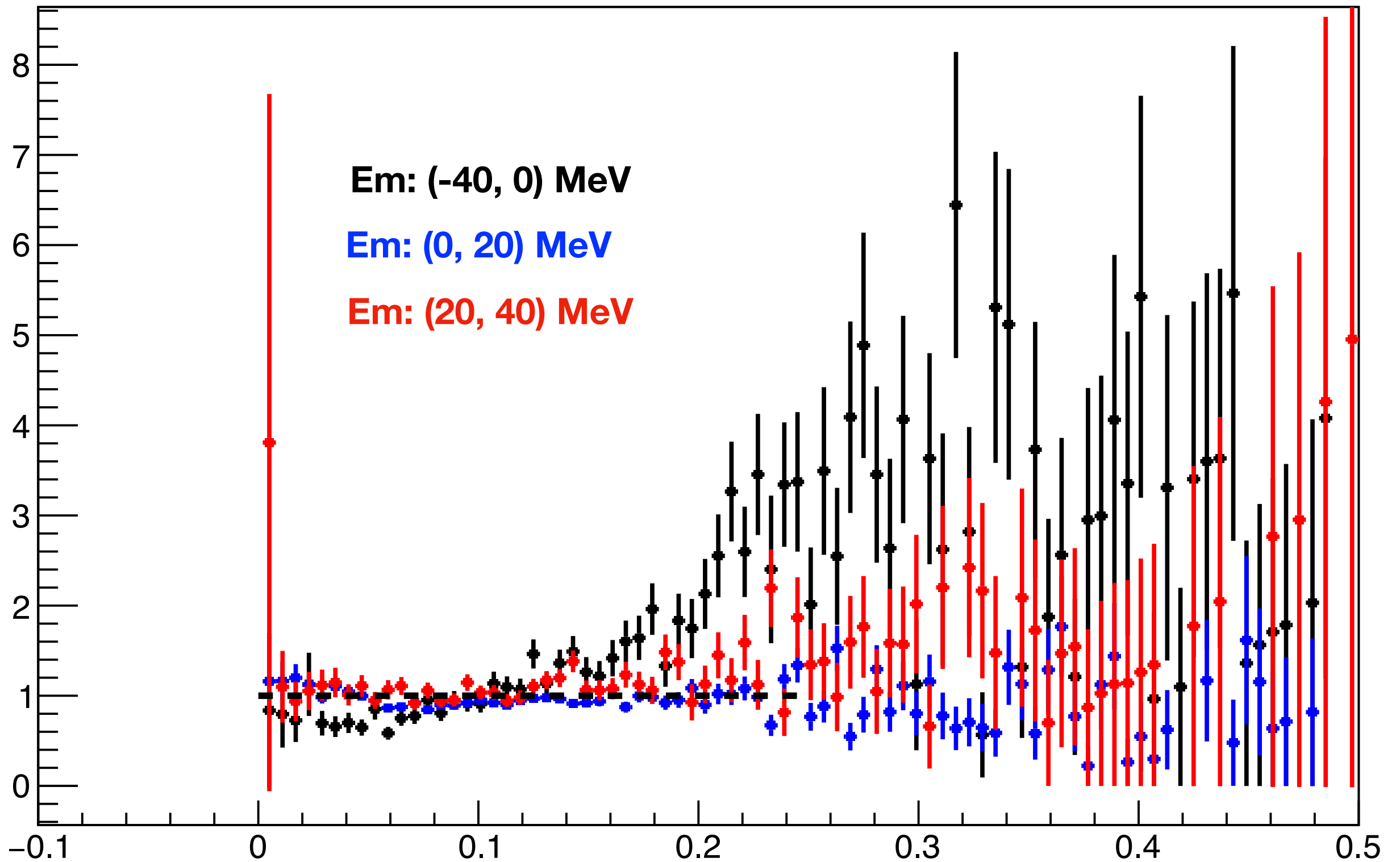


Emiss: (20, 40) MeV

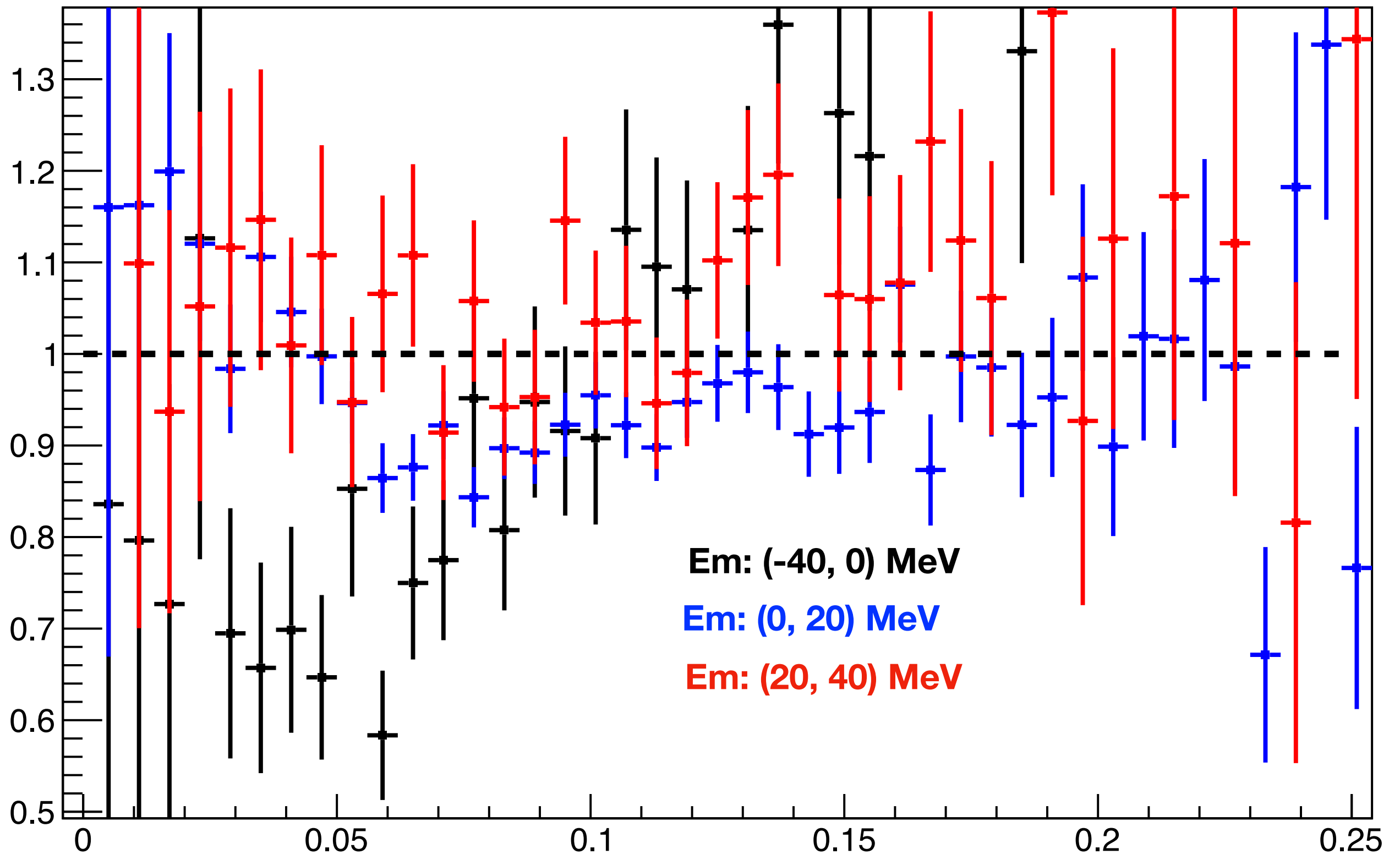


Missing Momentum Yield Ratio for different Em Bins

Missing Momentum



Missing Momentum Yield Ratio for different Em Bins: Zoomed In Missing Momentum



The shape of the yield Ratio seems to change significantly with different E_m bins.
Maybe a tighter missing energy cut is the way to go?