

KaonLT Analysis Update (Pi-Delta BSA Analysis)

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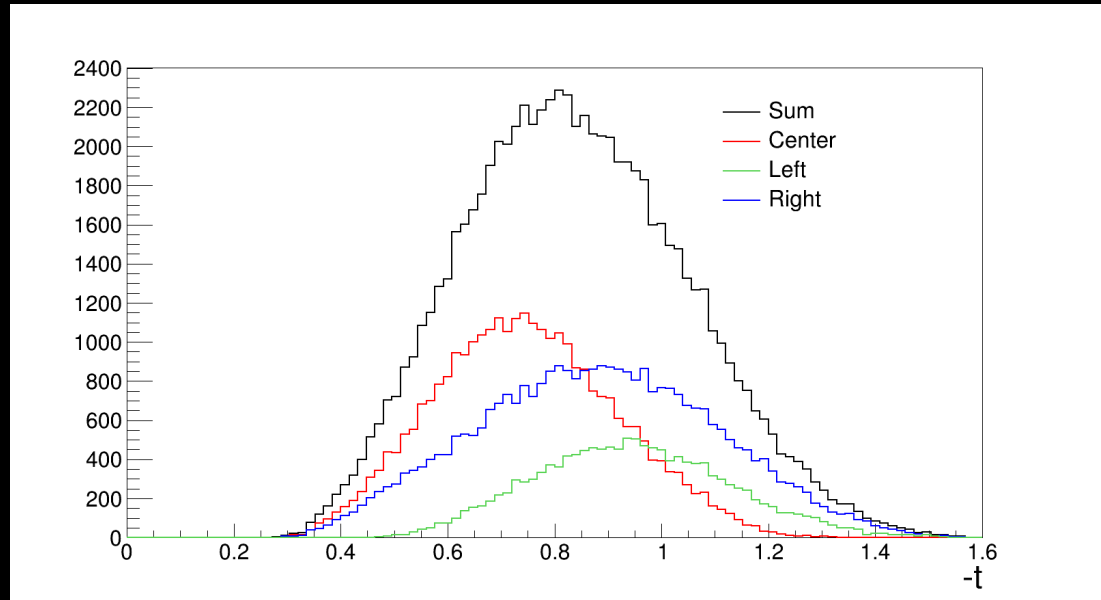
University of Regina

Kinematics

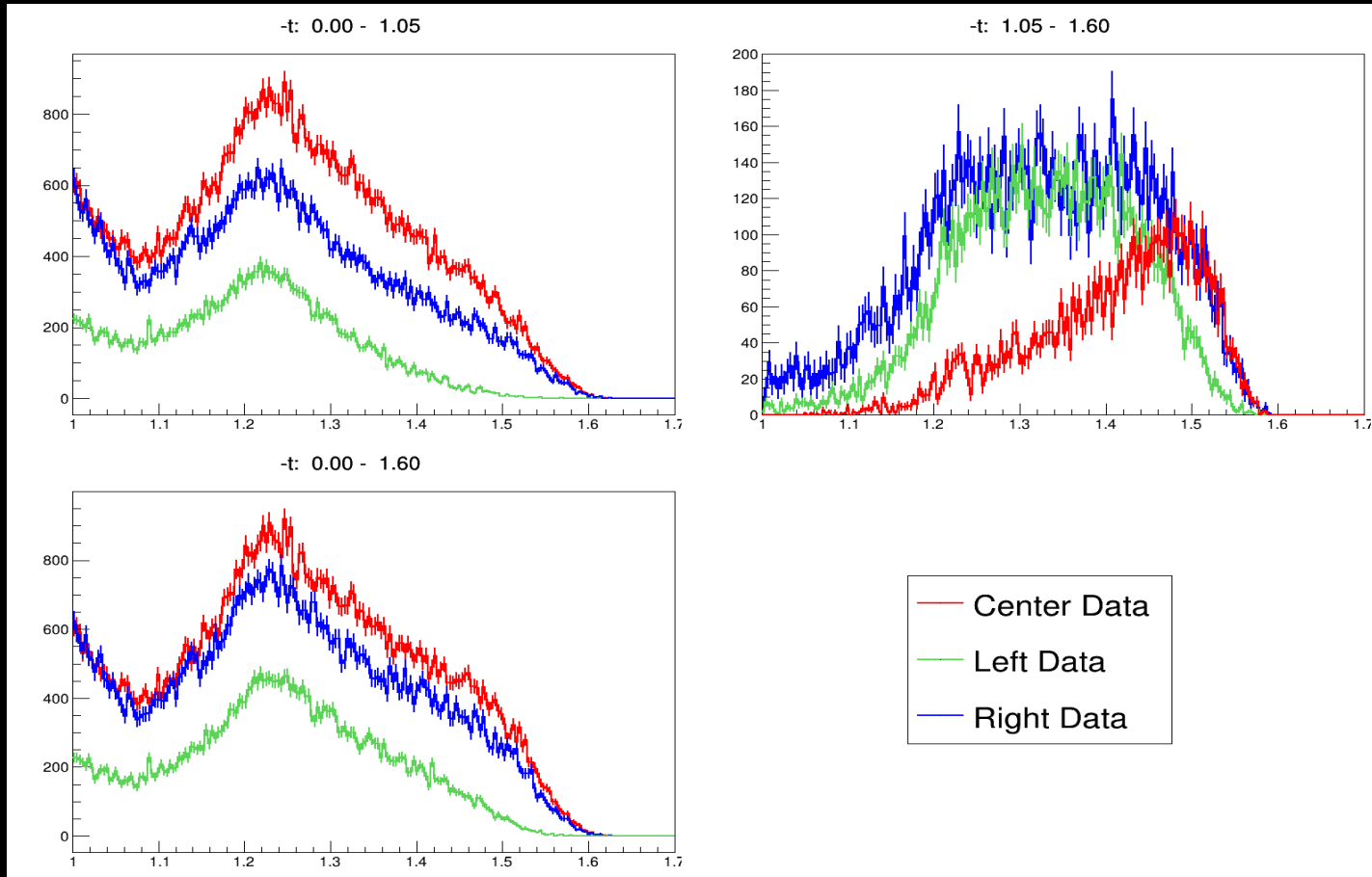
E (GeV)	Q^2 (GeV ²)	W (GeV)	x_B
10.6	5.5	3.02	0.40
10.6	4.4	2.74	0.40
10.6	3.0	3.14	0.25
10.6	3.0	2.32	0.40
10.6	2.115	2.95	0.21

$Q = 5.5, W = 3.02$ (t distribution)

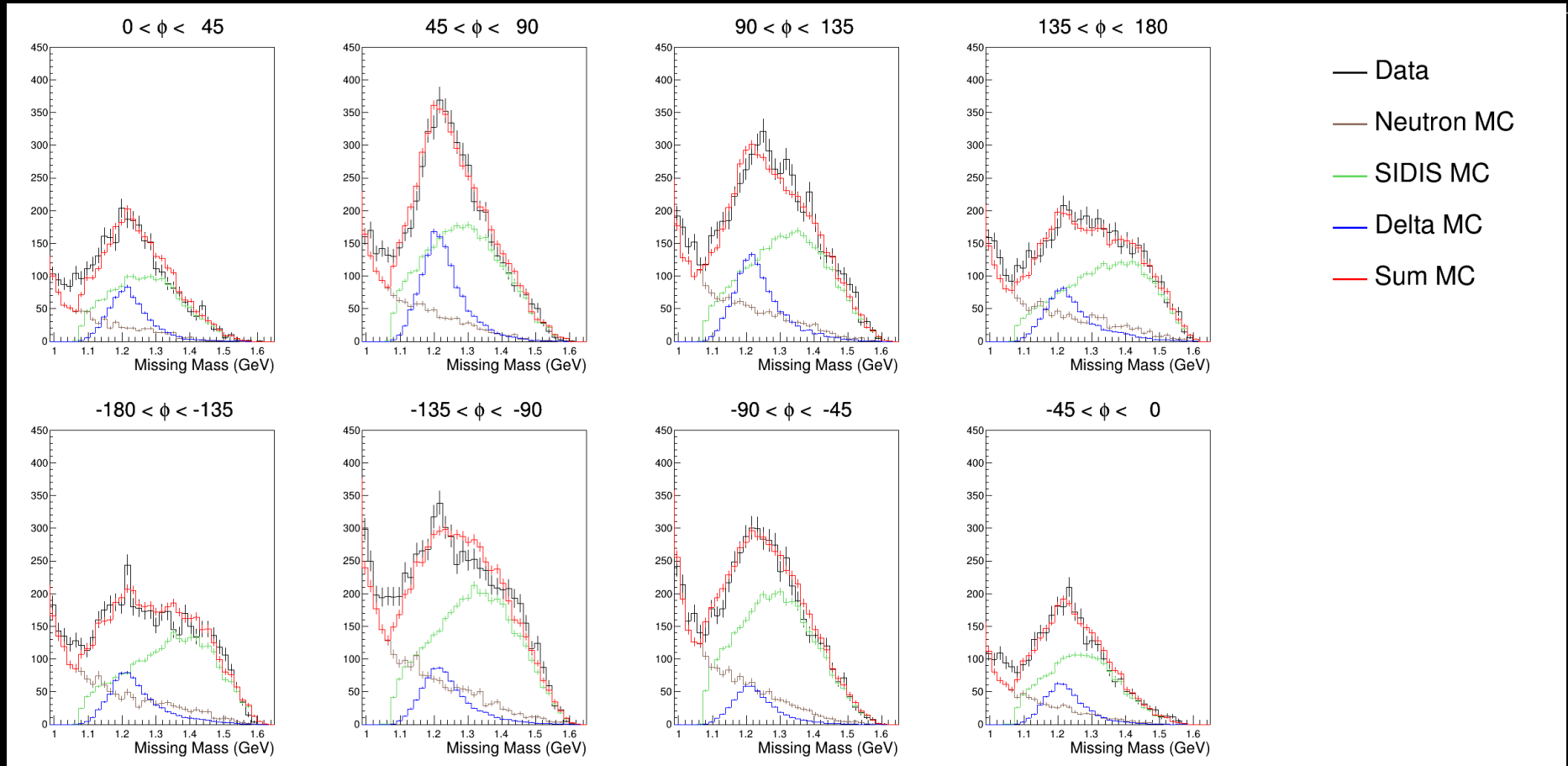
- Low statistics setting.
 - 1 t bins
 - 8 ϕ bins
- Bin exclusions
 - Very low or no stats.
 - Fit fails.



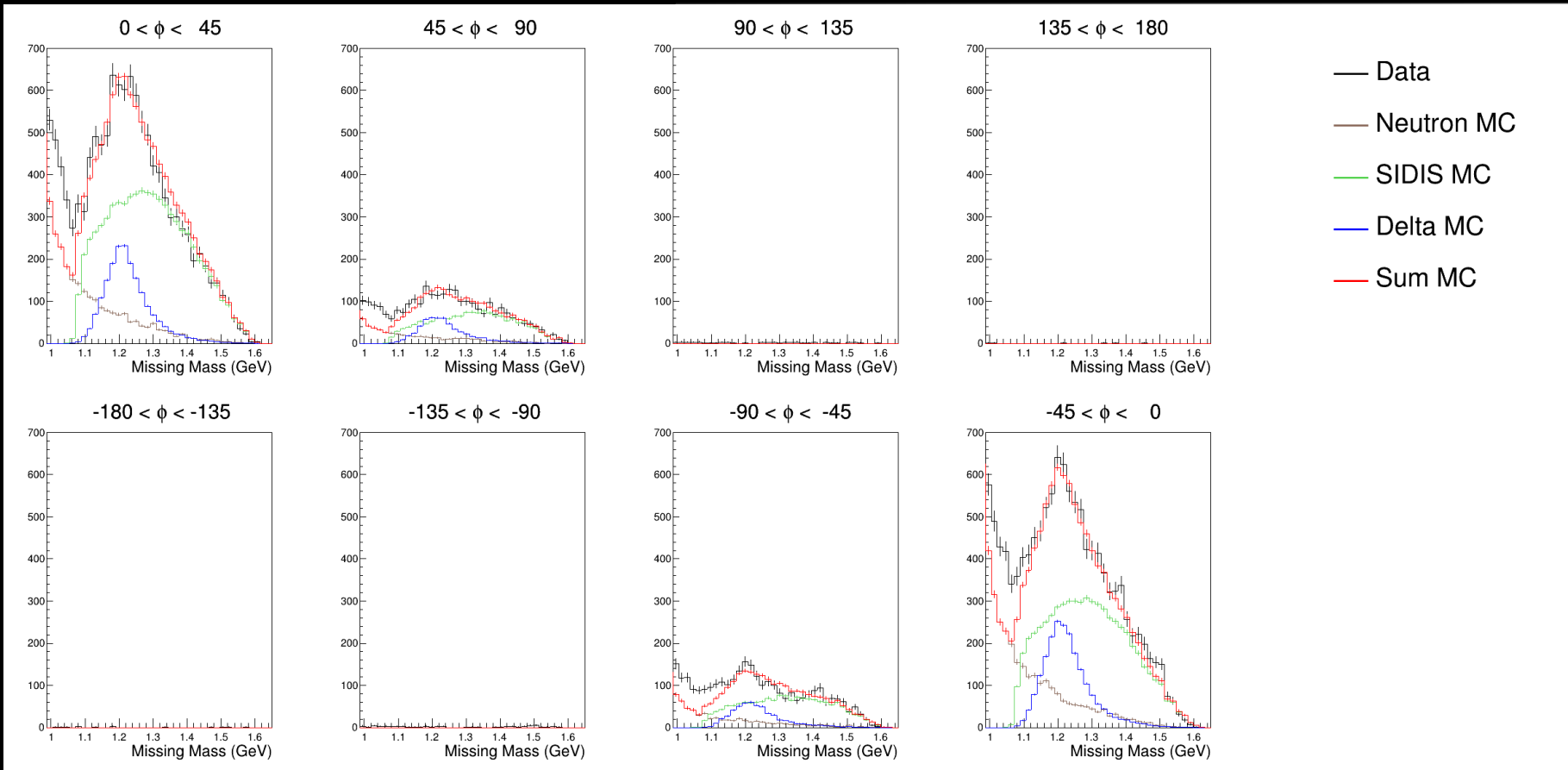
$Q = 5.5, W = 3.02$ (t distribution)



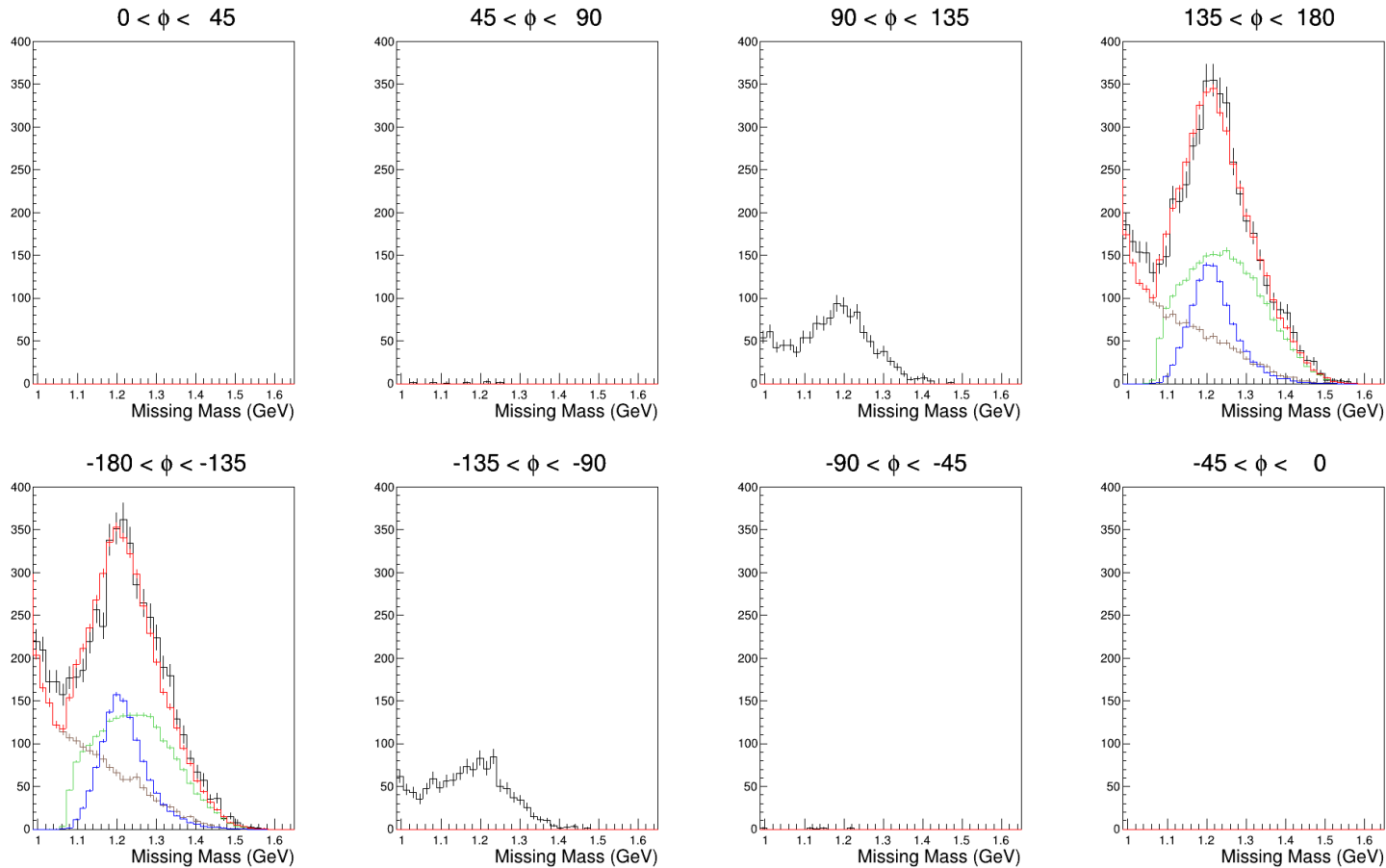
$Q = 5.5, W = 3.02, \text{Center}$



$Q = 5.5, W = 3.02, \text{Right}$

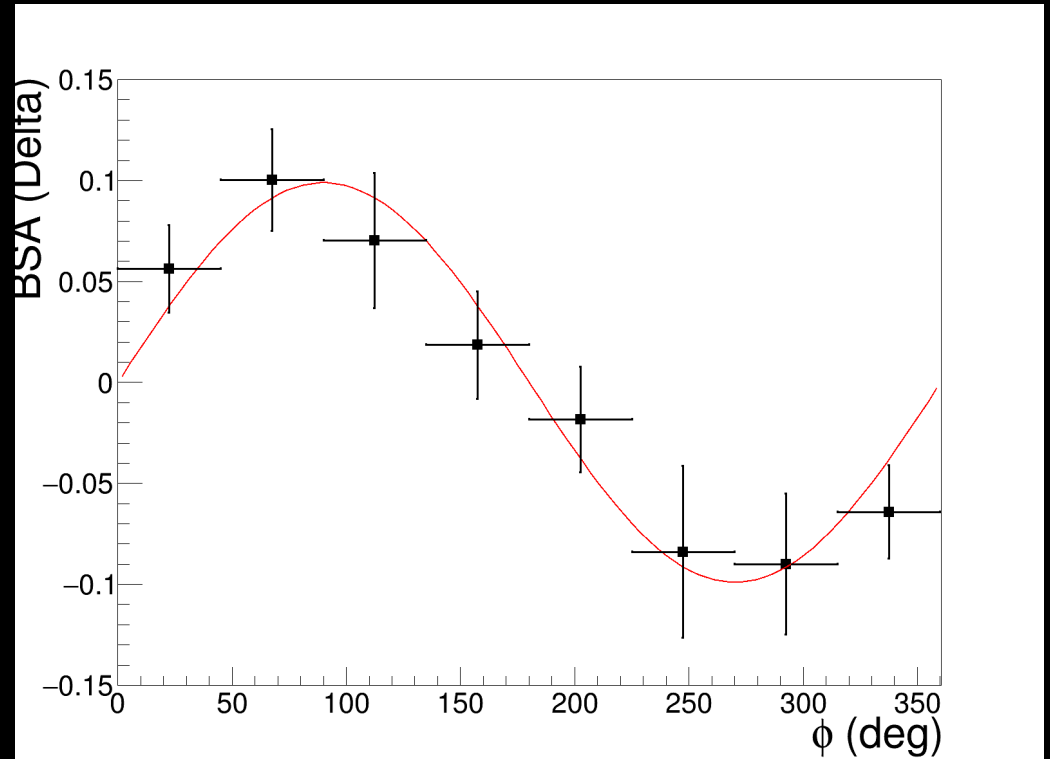


$Q = 5.5, W = 3.02, \text{Left}$



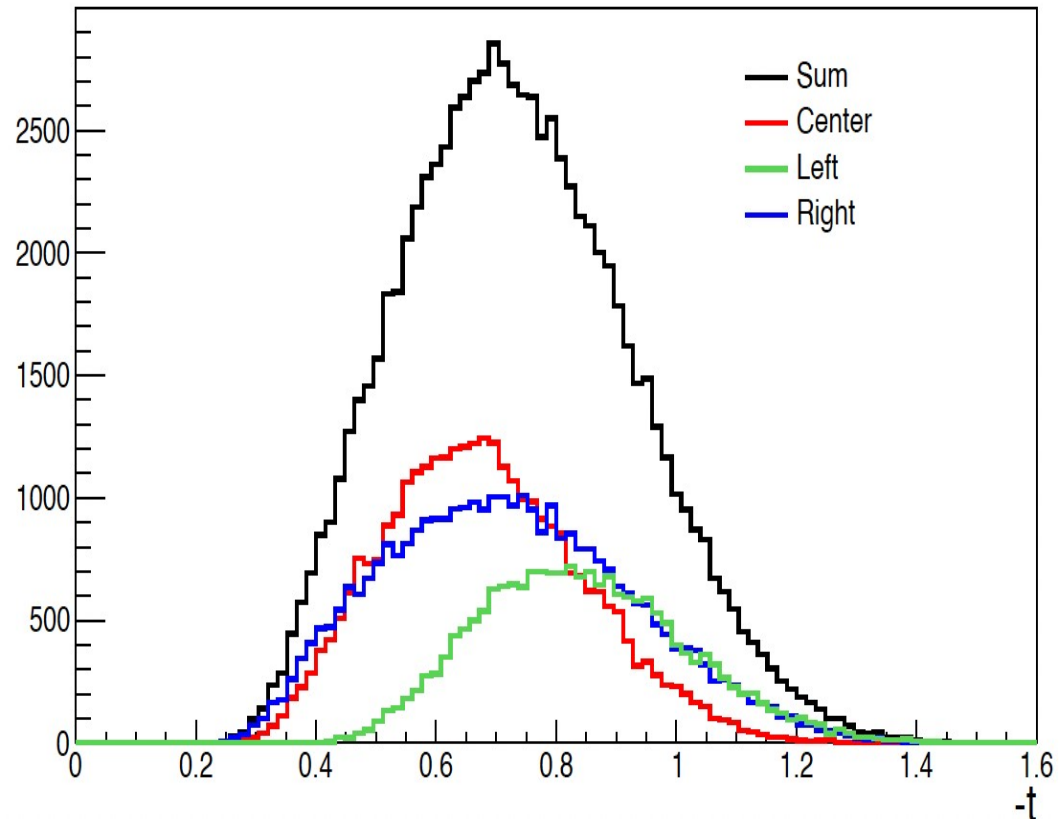
$Q = 5.5, W = 3.02$ (Asymmetry)

- Asymmetry is calculated by integrating Delta MM (1.11-1,4 GeV).
- A cut dependence for MM will be done for systematic uncertainty.

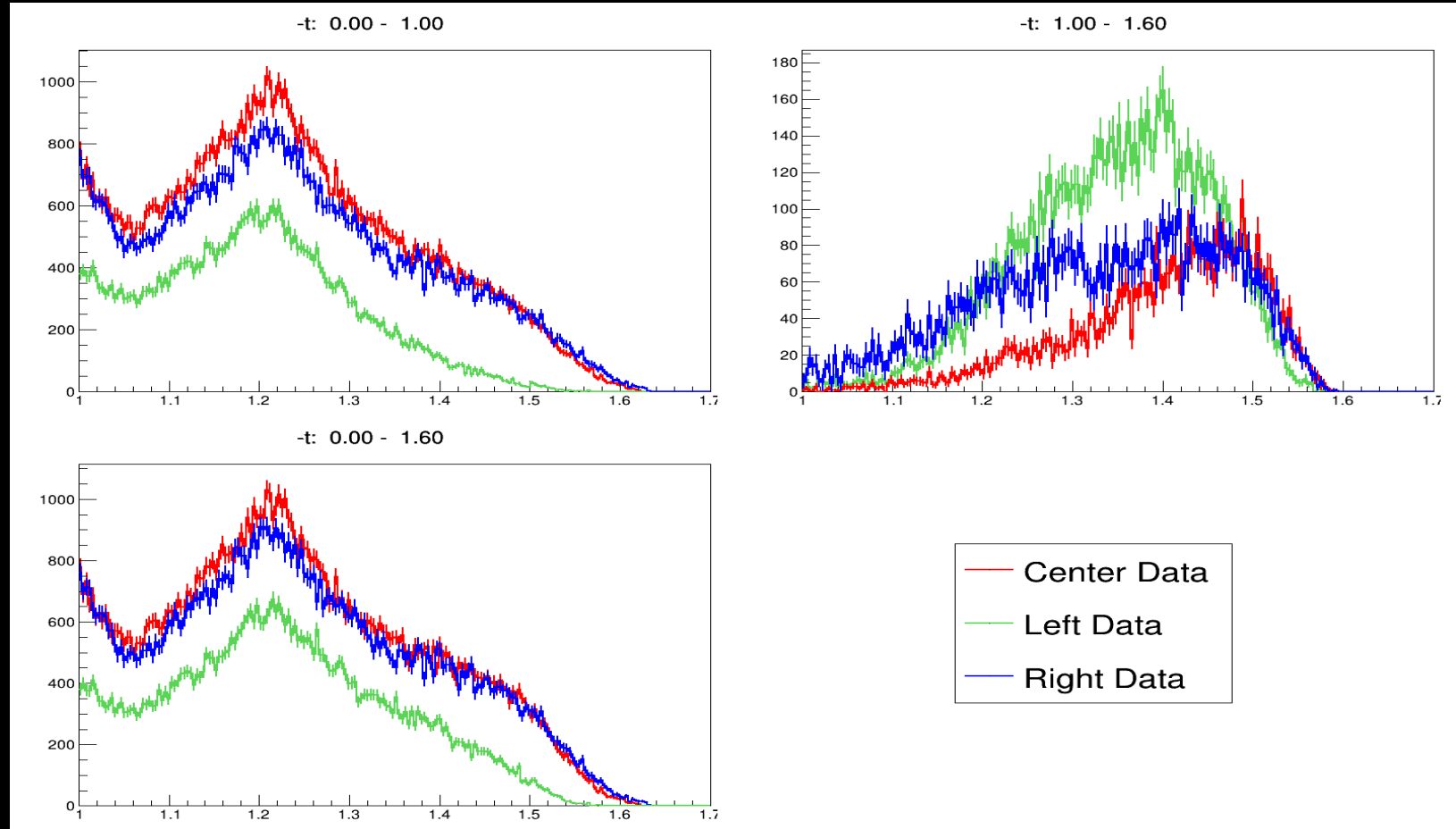


$Q = 4.4, W = 2.74$ (t distribution)

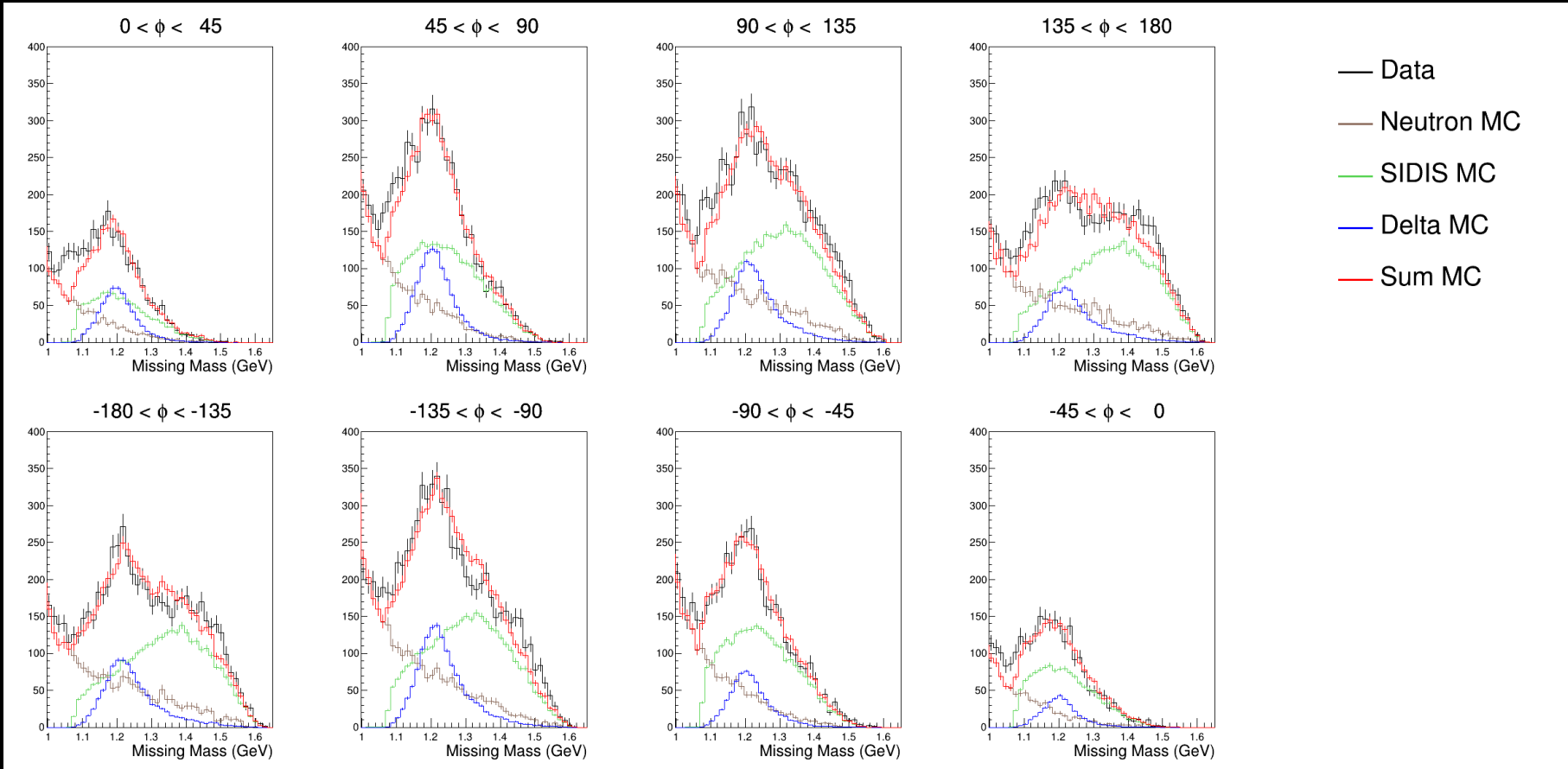
- Low statistics setting.
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- Bin exclusions
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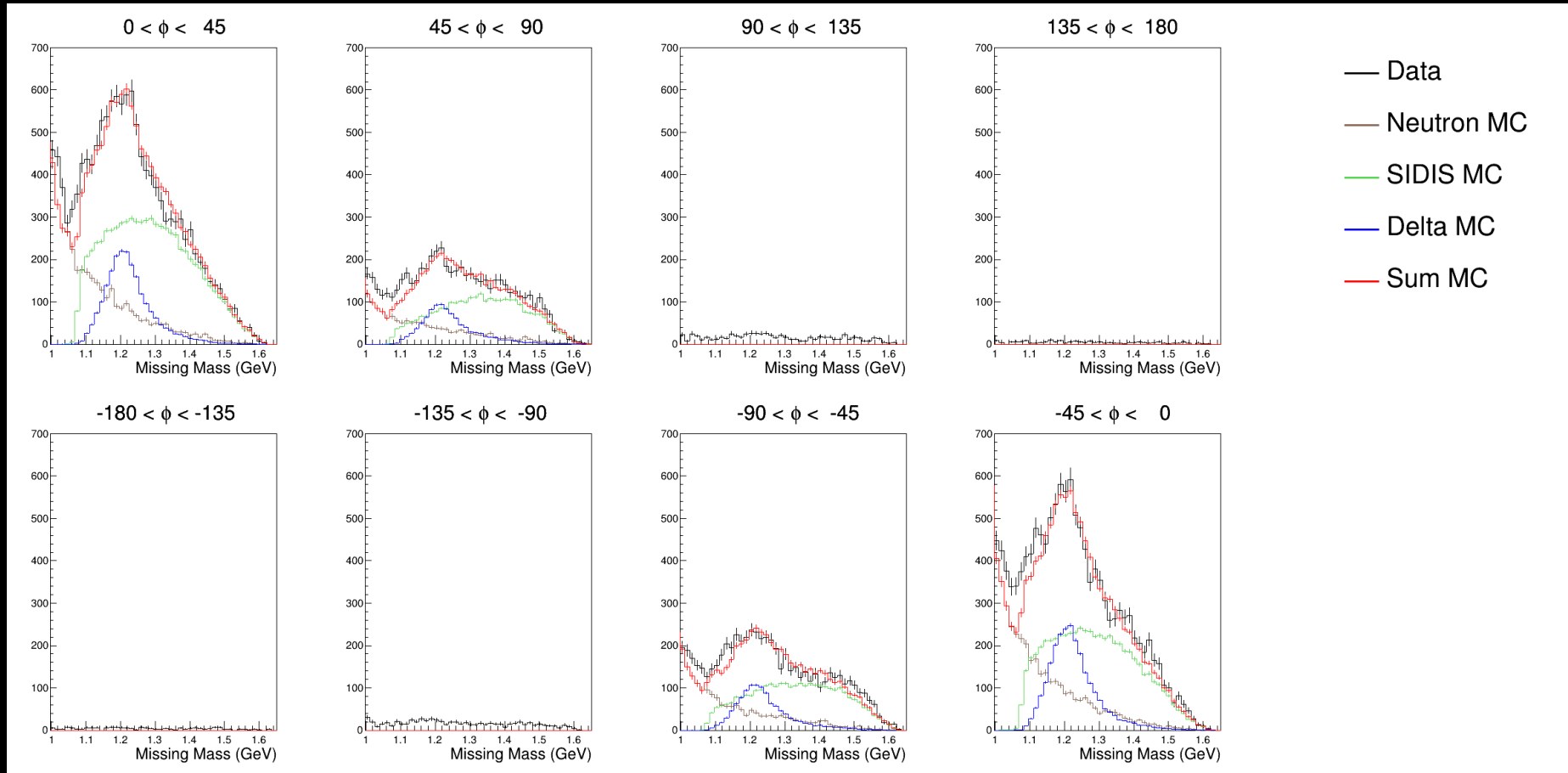
$Q = 4.4, W = 2.74$ (t distribution)



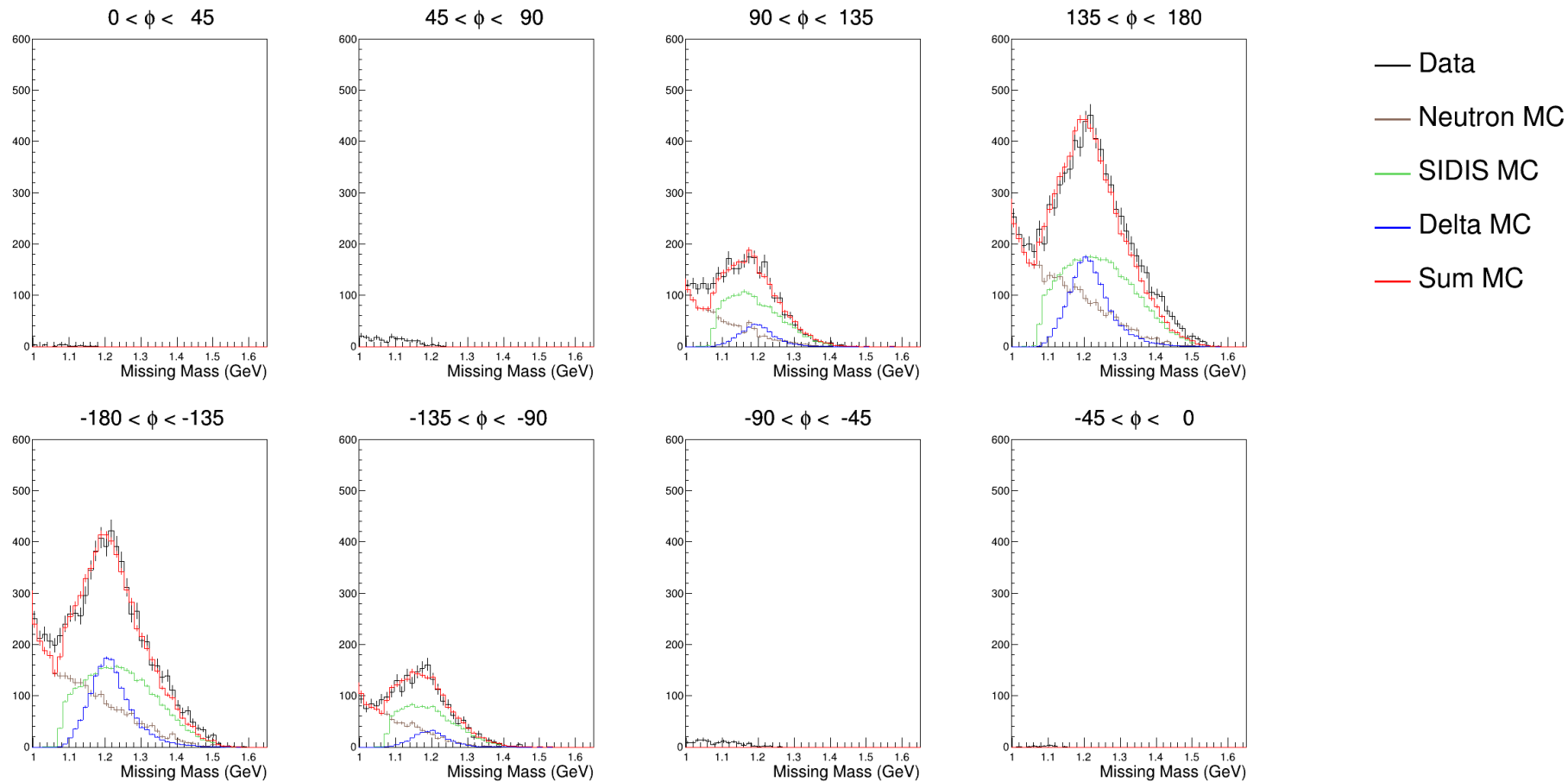
Q = 4.4, W = 2.74, Center



Q = 4.4, W = 2.74, Right

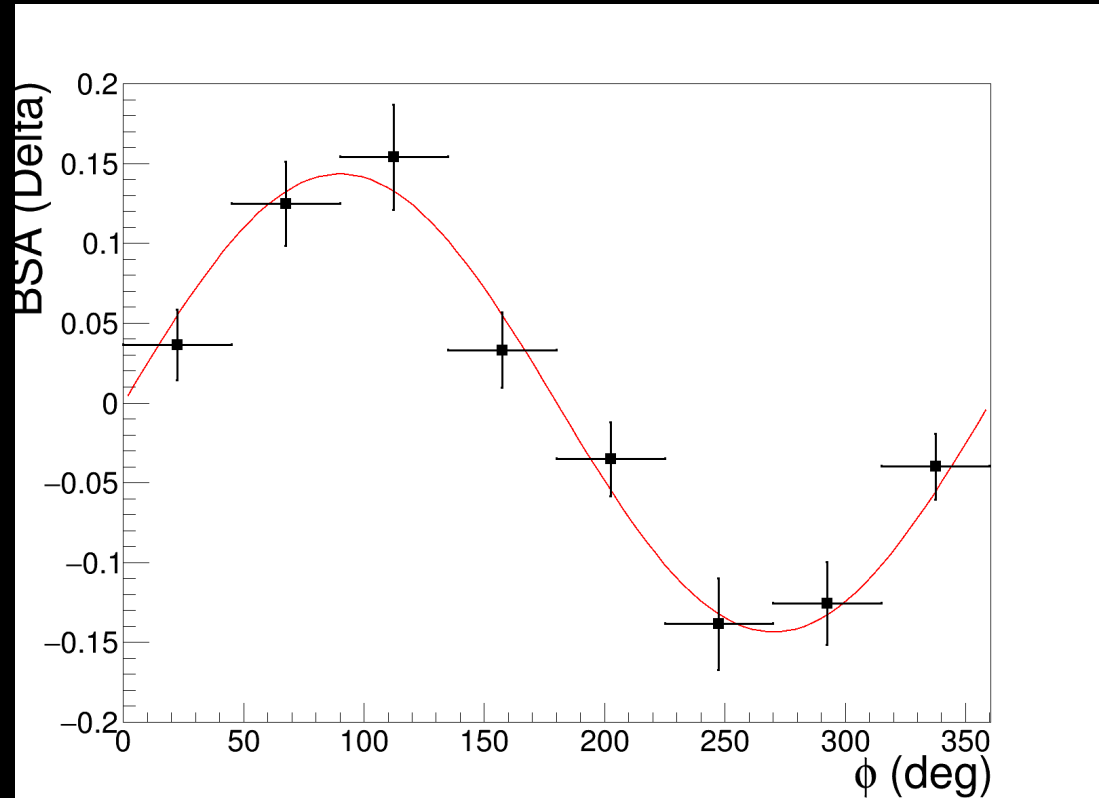


Q = 4.4, W = 2.74, Left



$Q = 4.4, W = 2.74$ (Asymmetry)

- Asymmetry is calculated by integrating Delta MM (1.11-1,4 GeV).
- A cut dependence for MM will be done for systematic uncertainty.



Summary and Outlook

- Pi-Delta BSA study is starting to give final results.
 - Finished 2 out of 5 settings
 - Work in progress for setting 3.
- Will look into systematic uncertainty after finishing all the settings.
 - Will compare with Alicia's pi-n and CLAS 12 pi-Delta results.