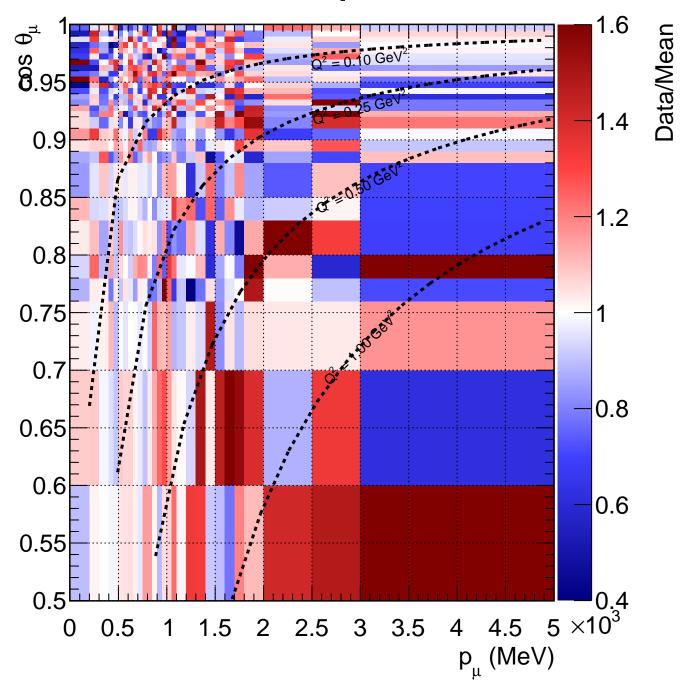
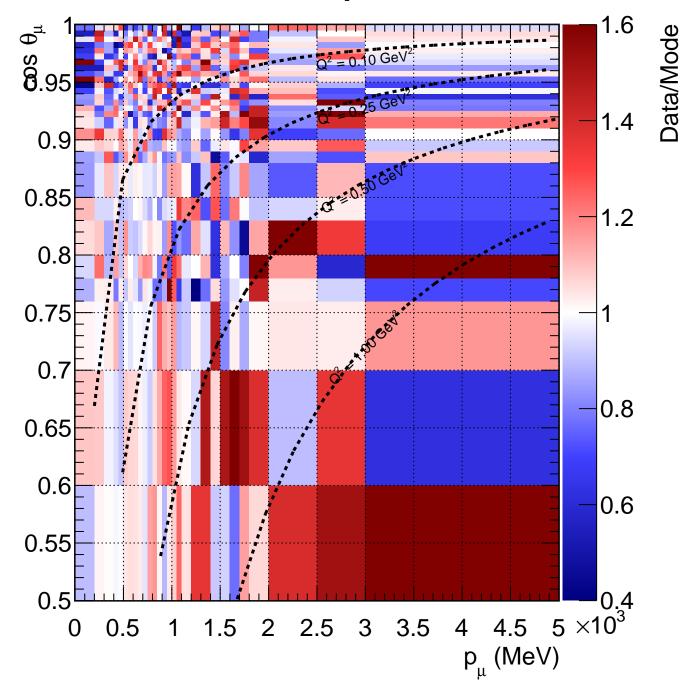


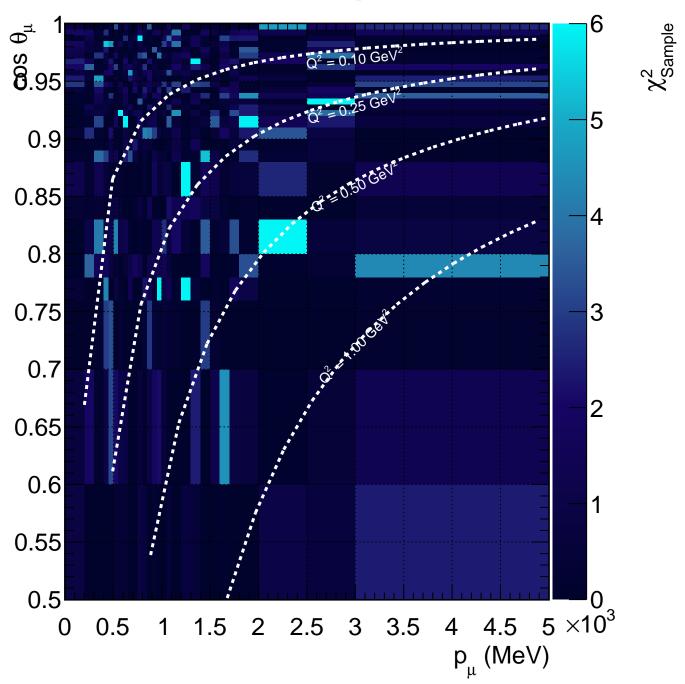
FGD1\_numuCC\_0pi\_mean\_ratio



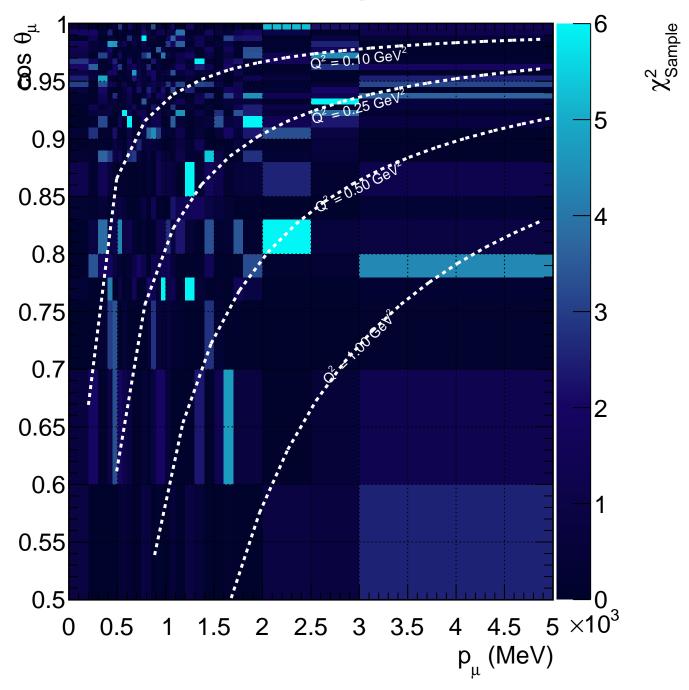
FGD1\_numuCC\_0pi\_mode\_ratio



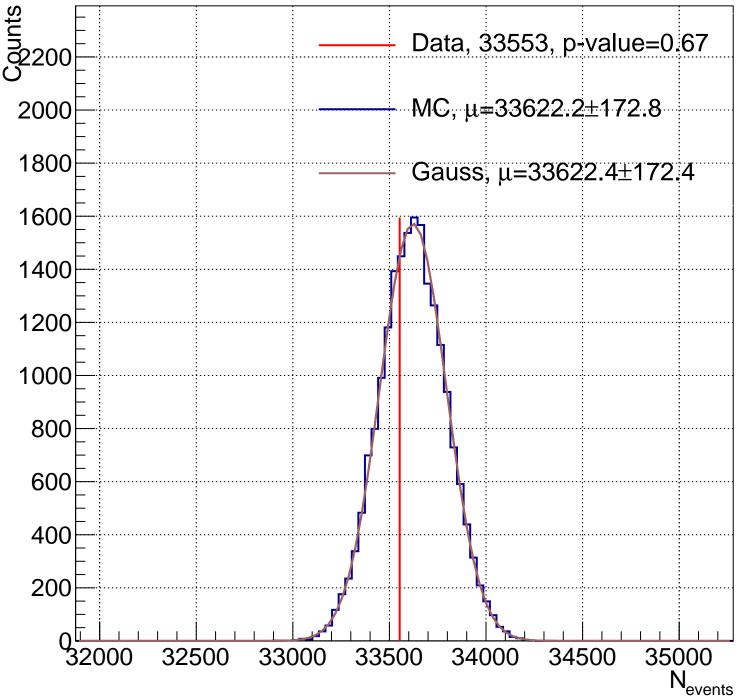
## FGD1\_numuCC\_0pi\_MeanInL

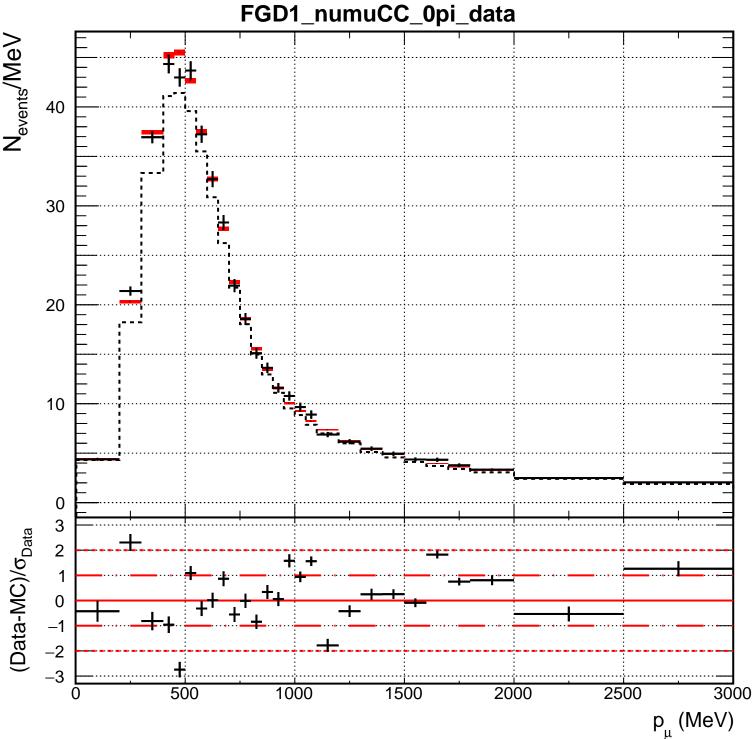


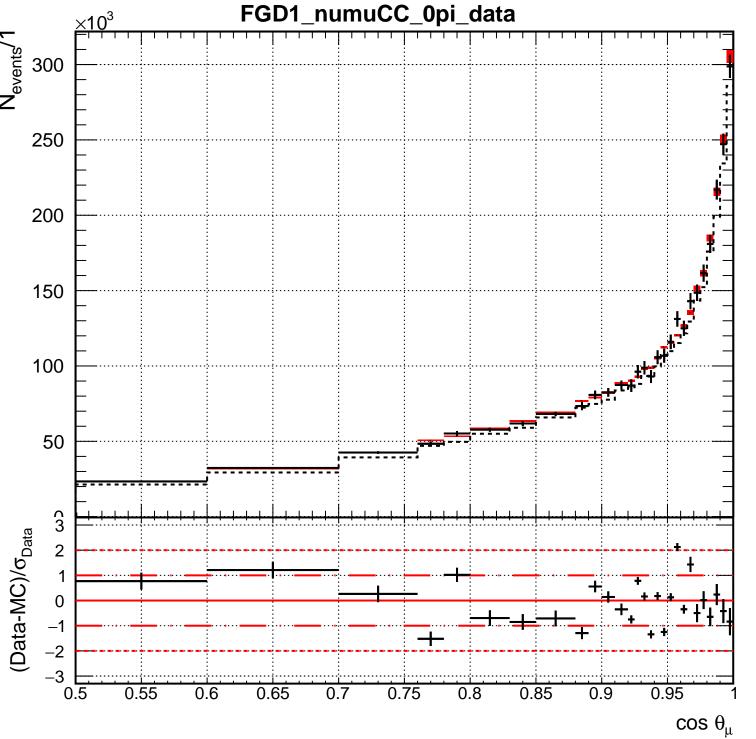
## FGD1\_numuCC\_0pi\_ModelnL

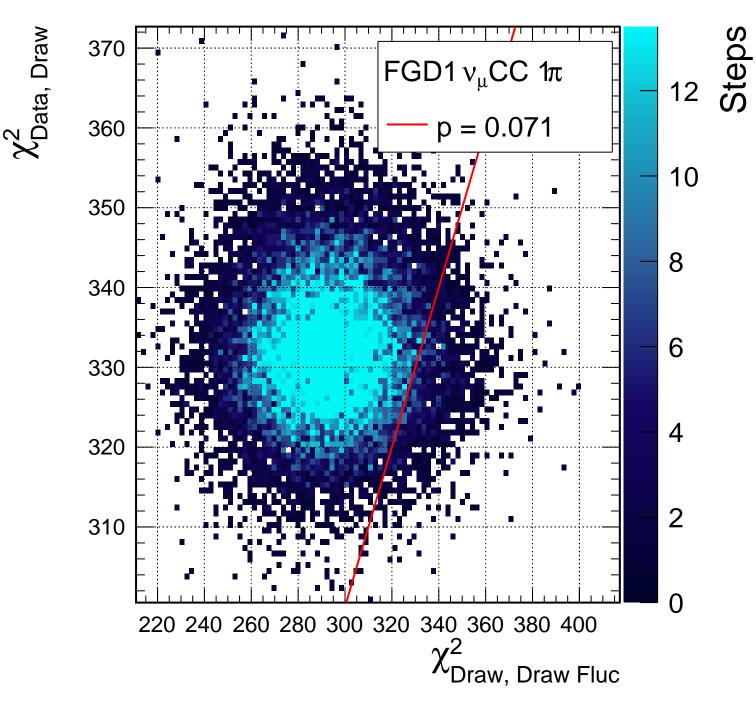


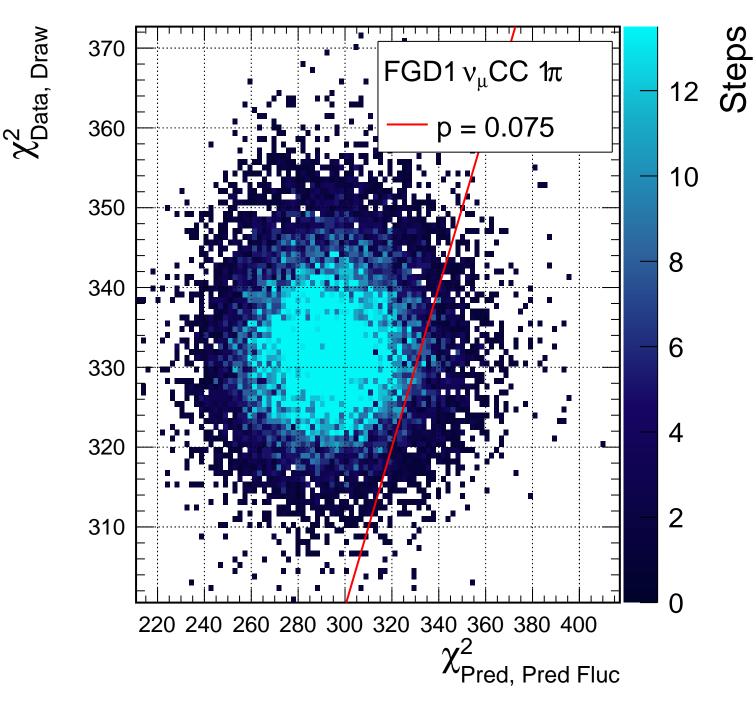
# FGD1\_numuCC\_0pi\_sum\_33553



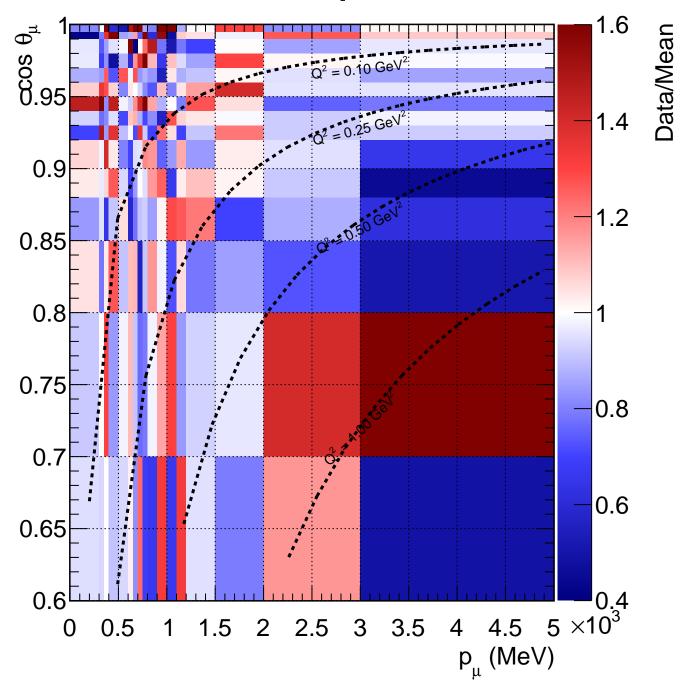




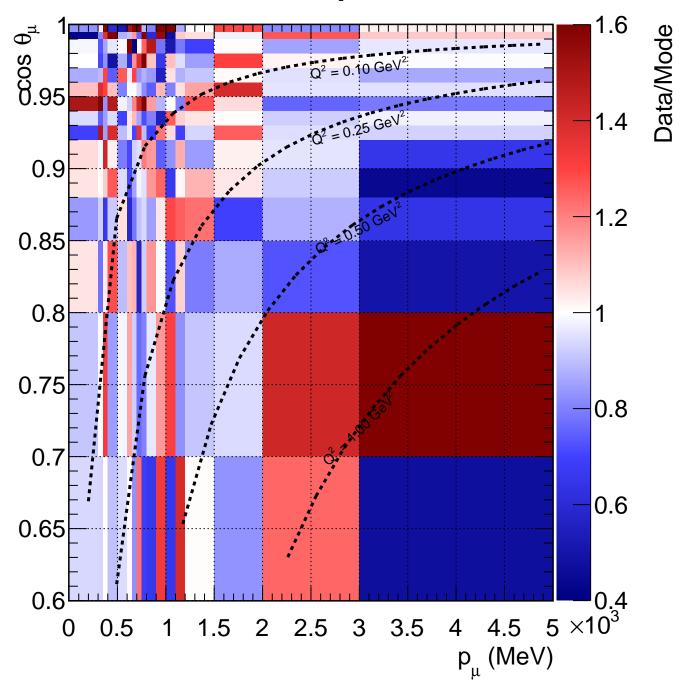




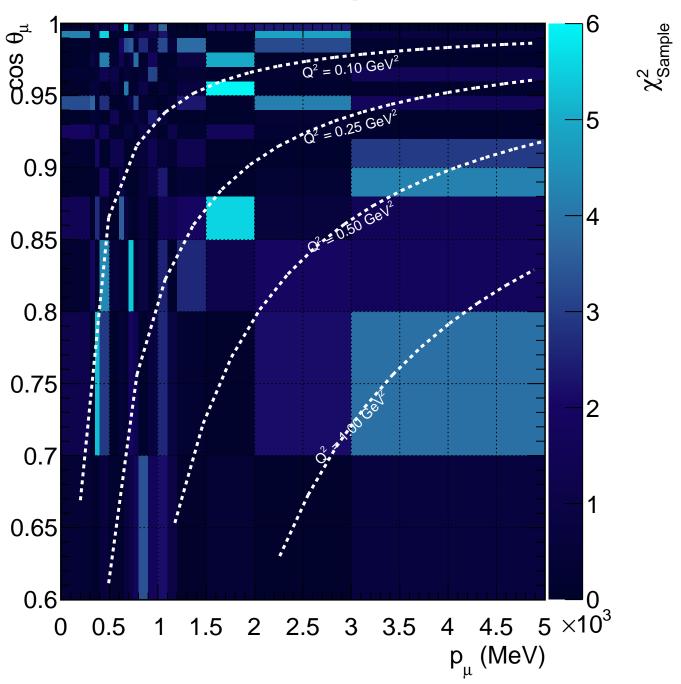
FGD1\_numuCC\_1pi\_mean\_ratio



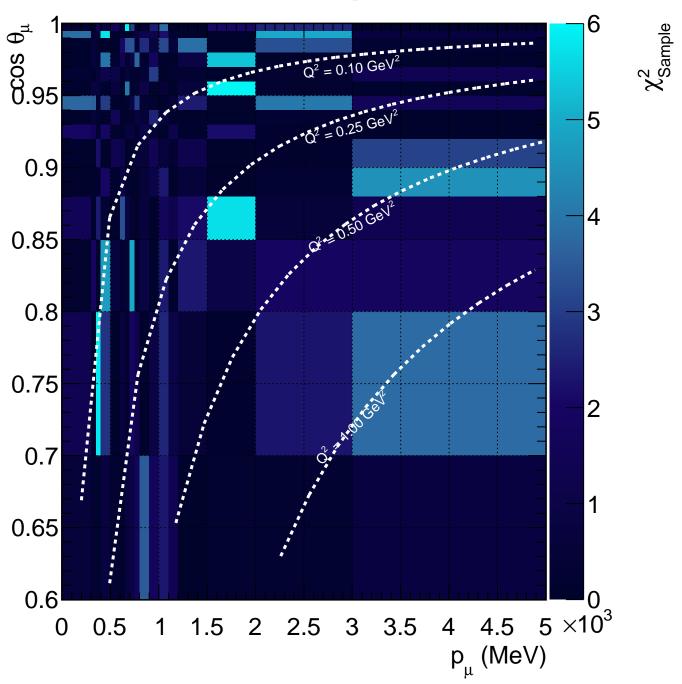
FGD1\_numuCC\_1pi\_mode\_ratio



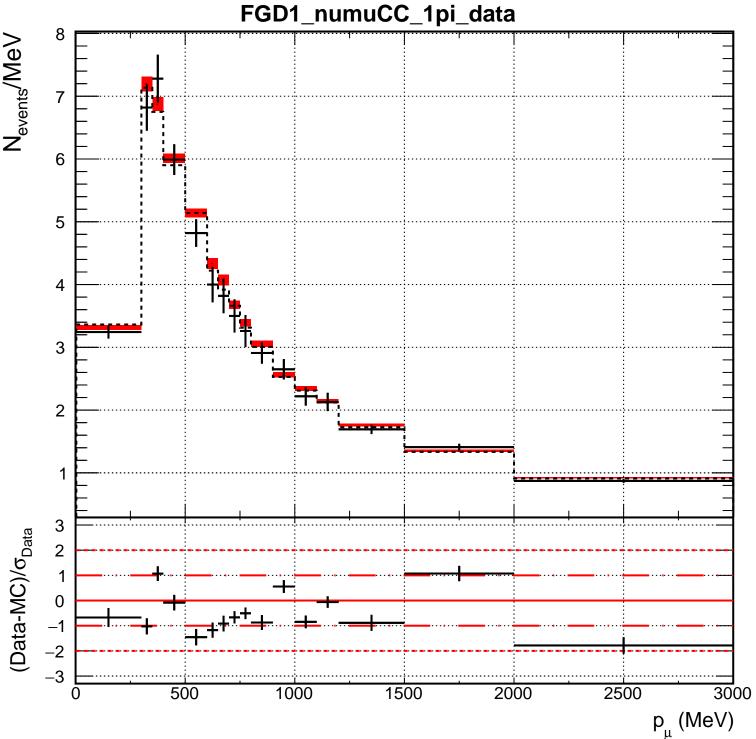
## FGD1\_numuCC\_1pi\_MeanInL

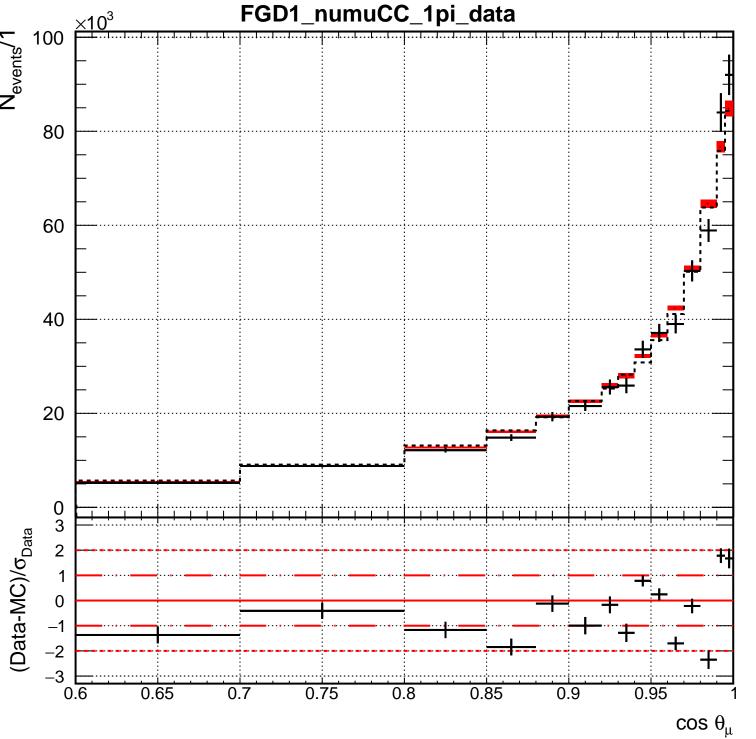


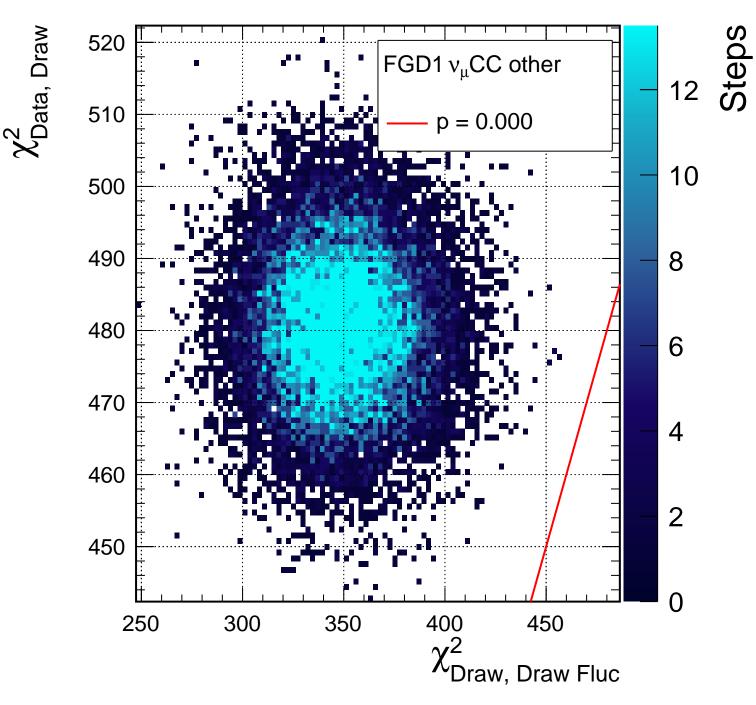
## FGD1\_numuCC\_1pi\_ModelnL

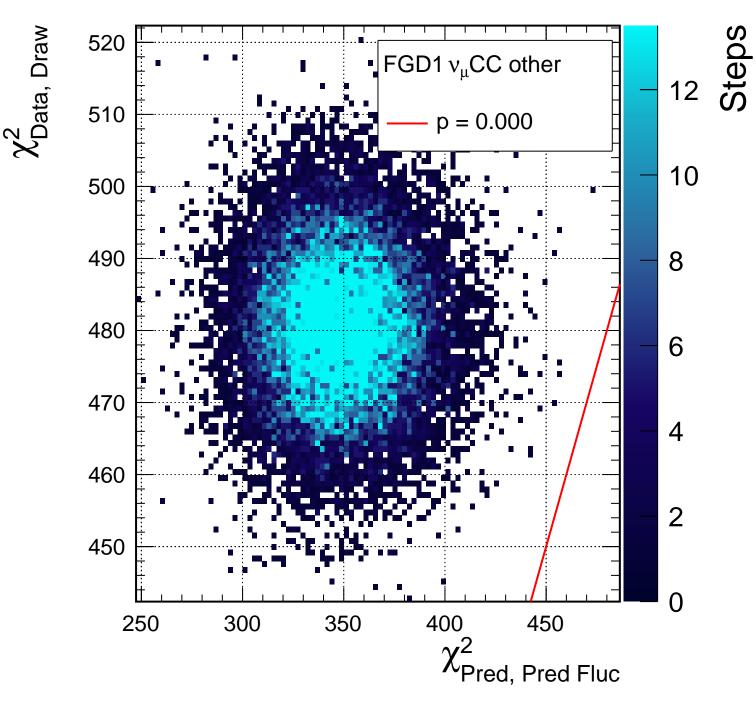


FGD1\_numuCC\_1pi\_sum\_7757 Counts 009 Data, 7757, p-value=1.00 MC,  $\mu$ =7971.4±76.3 Gauss,  $\mu$ =7971.5±75.7 N<sub>events</sub>

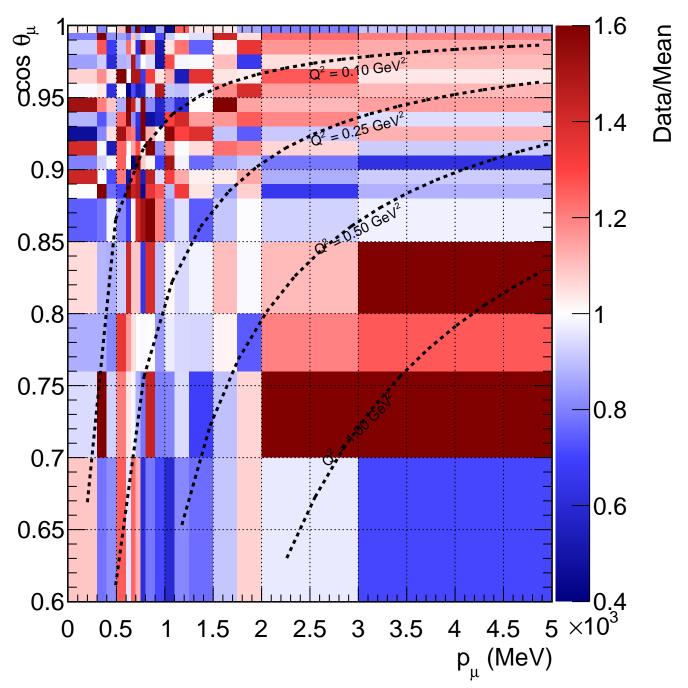




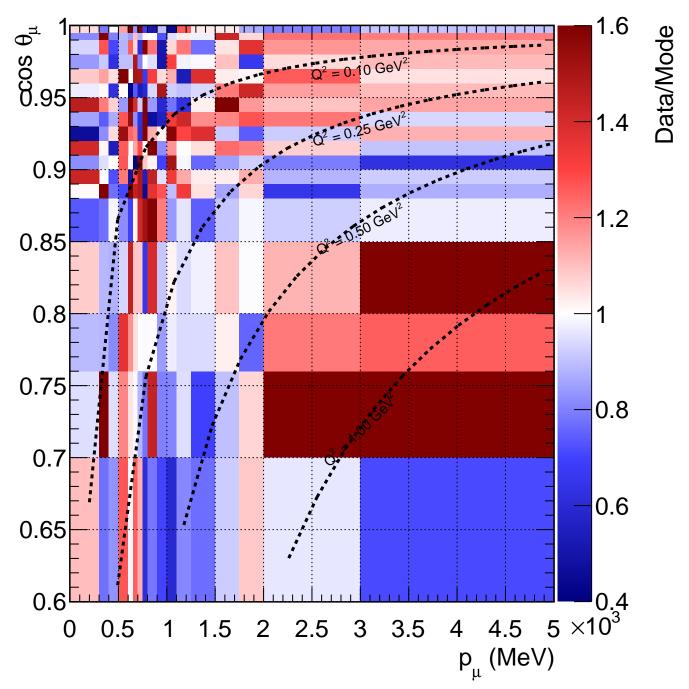




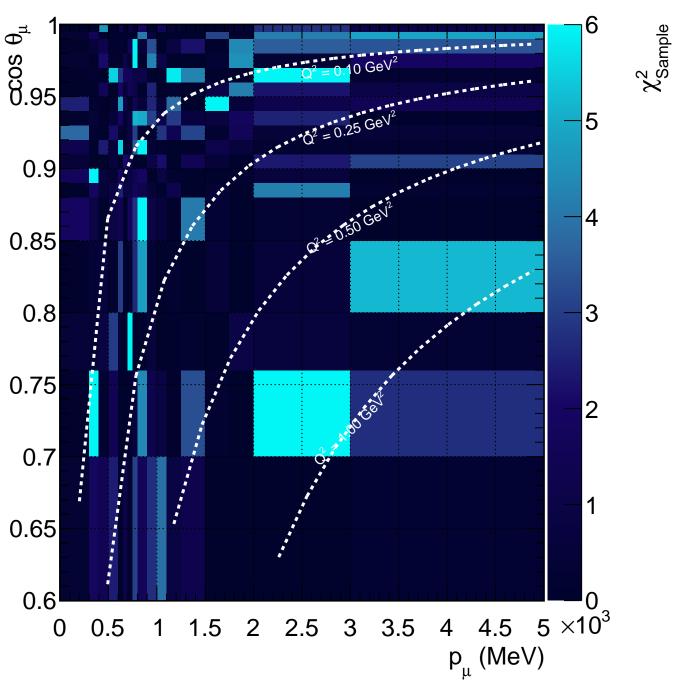
FGD1\_numuCC\_other\_mean\_ratio



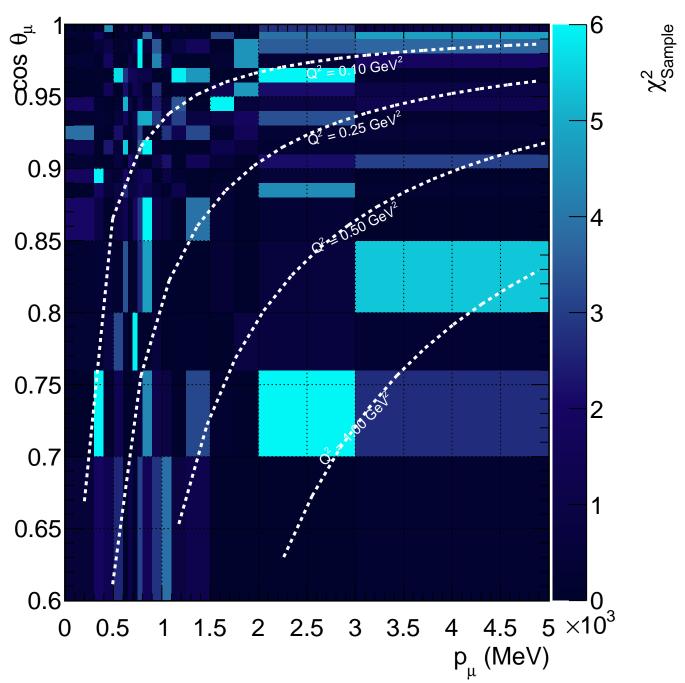
FGD1\_numuCC\_other\_mode\_ratio



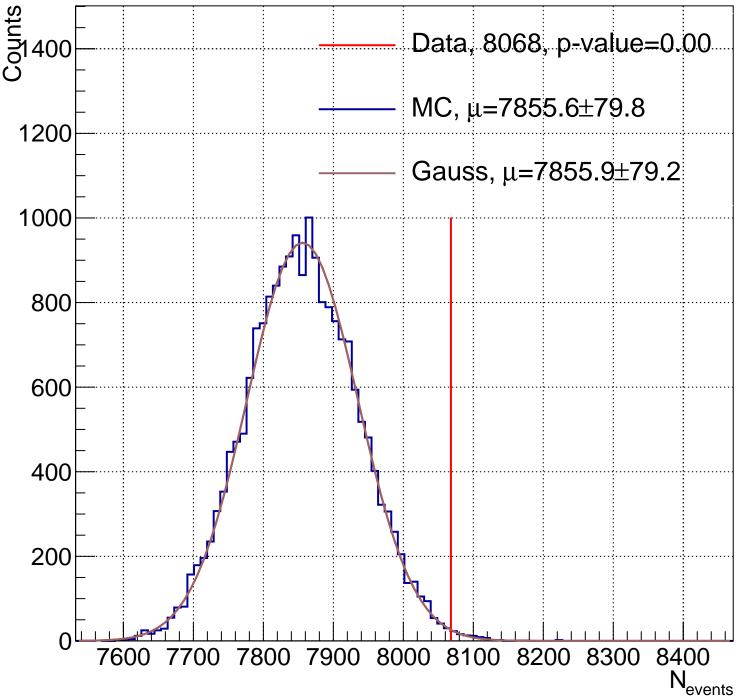
## FGD1\_numuCC\_other\_MeanInL

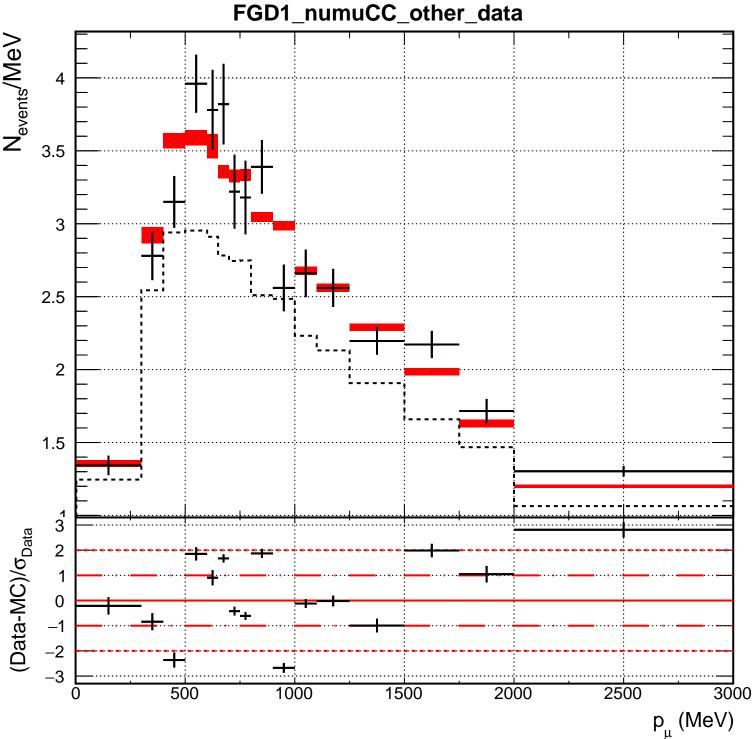


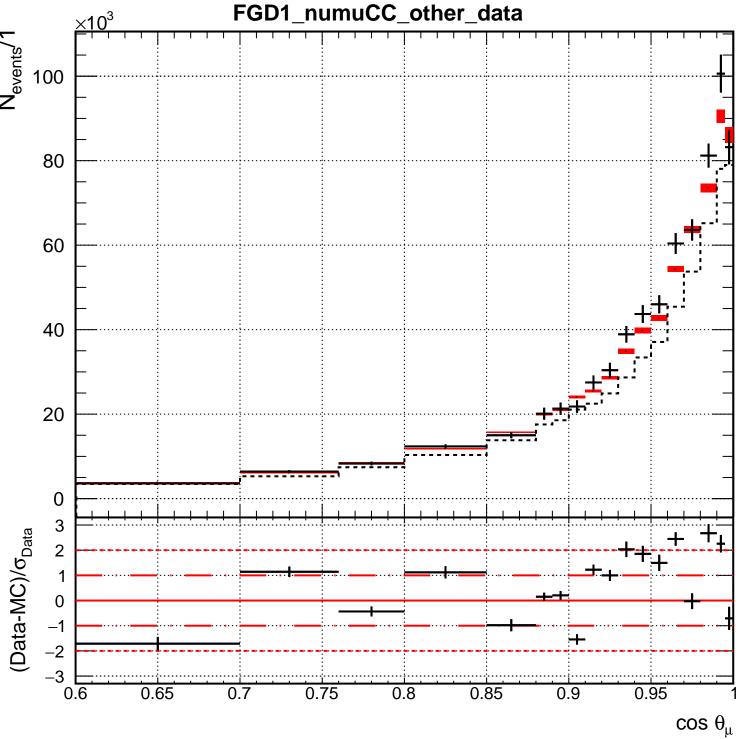
## FGD1\_numuCC\_other\_ModeInL

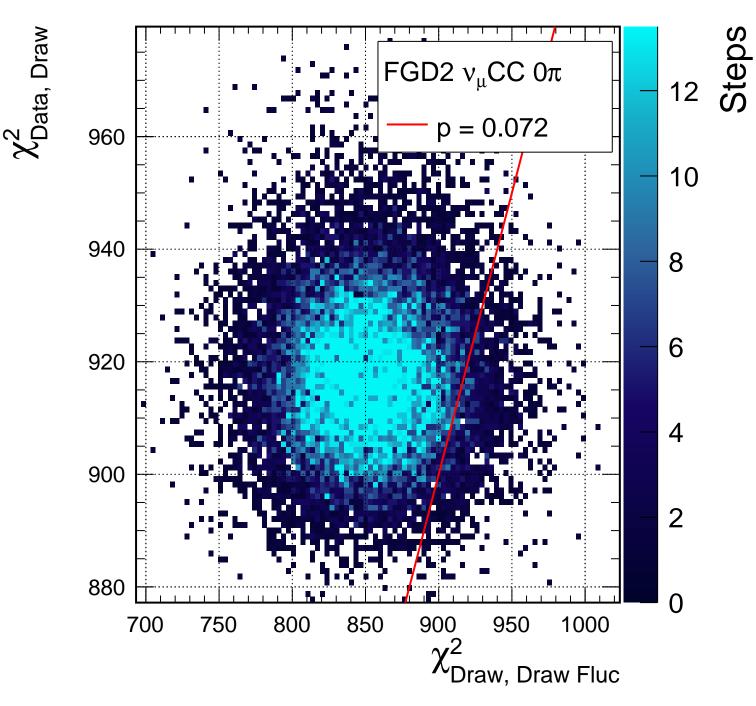


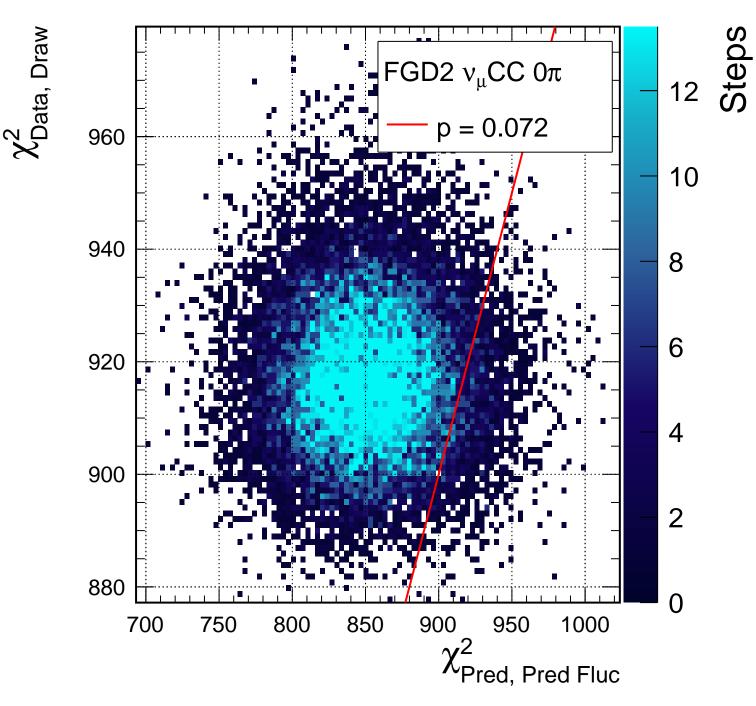
FGD1\_numuCC\_other\_sum\_8068



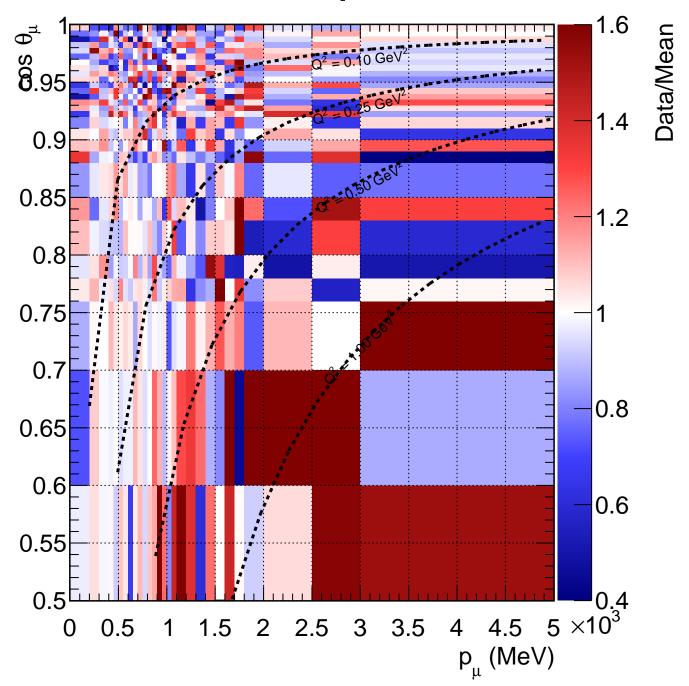




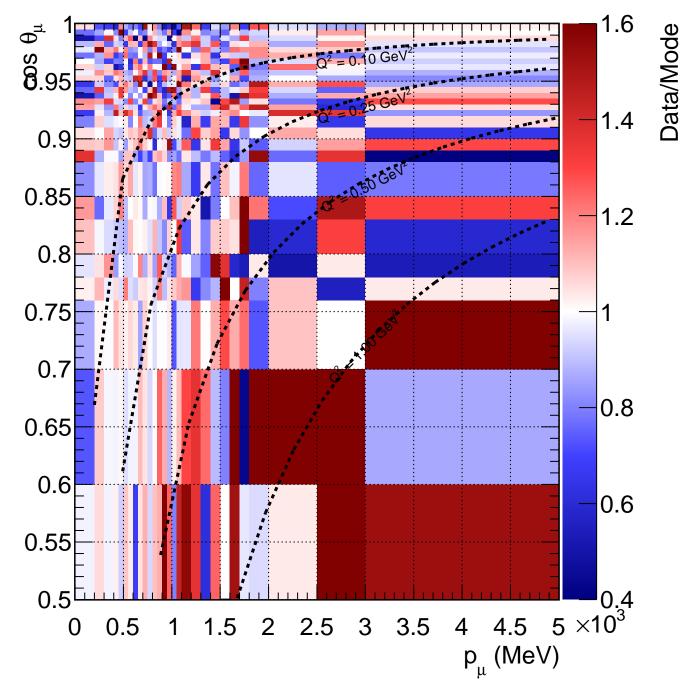




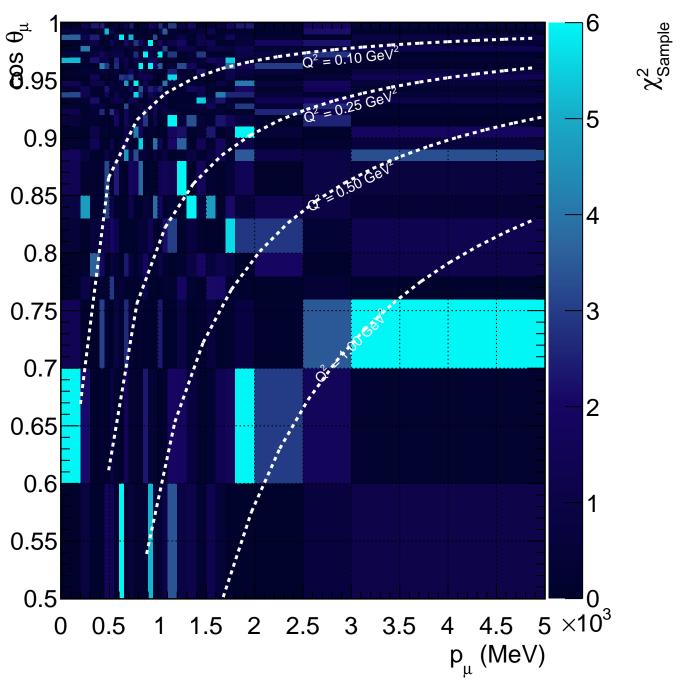
# FGD2\_numuCC\_0pi\_mean\_ratio



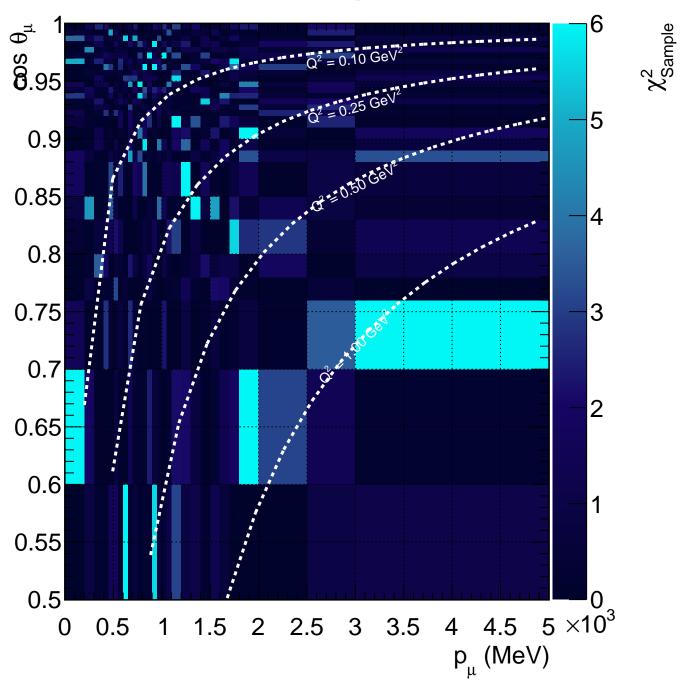
FGD2\_numuCC\_0pi\_mode\_ratio



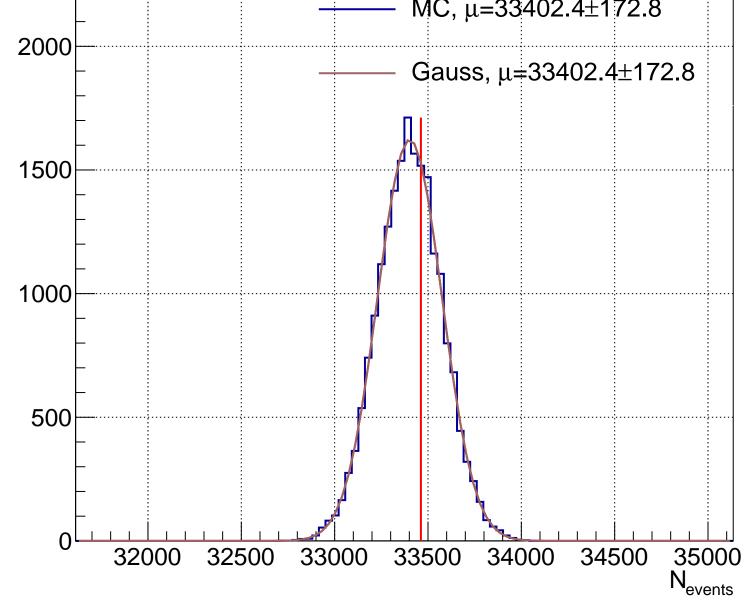
# FGD2\_numuCC\_0pi\_MeanInL

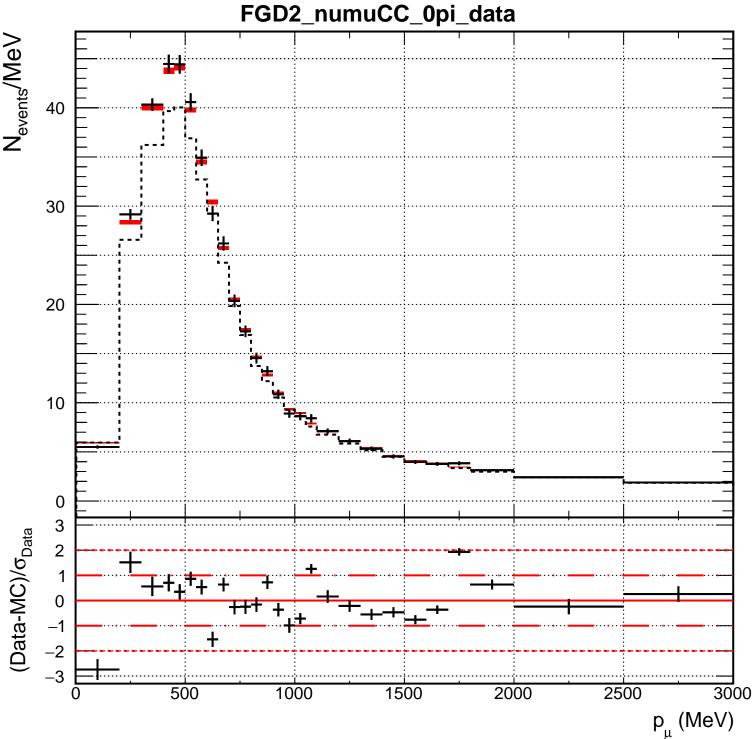


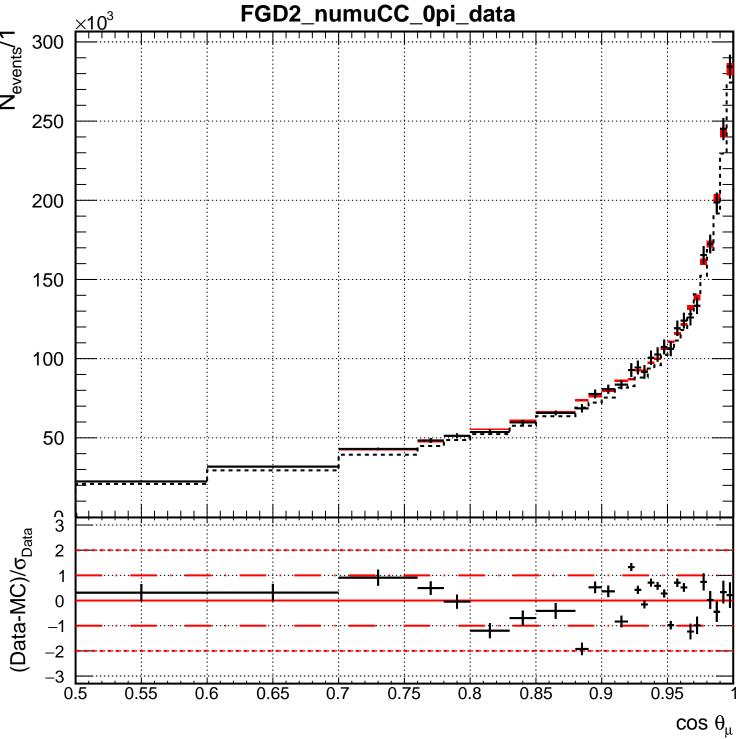
# FGD2\_numuCC\_0pi\_ModeInL

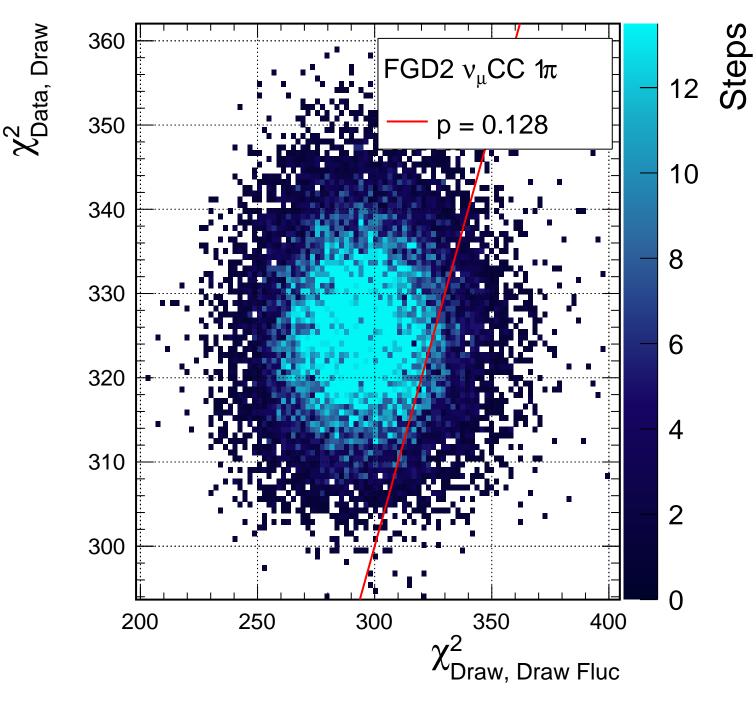


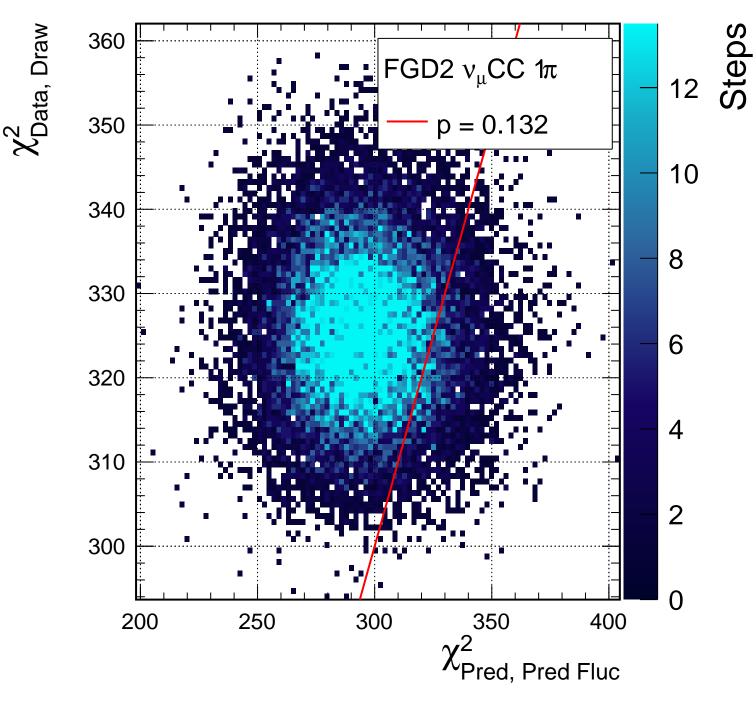
FGD2\_numuCC\_0pi\_sum\_33462 Counts Counts Data, 33462, p-value=0.33 MC,  $\mu$ =33402.4±172.8 Gauss,  $\mu$ =33402.4±172.8



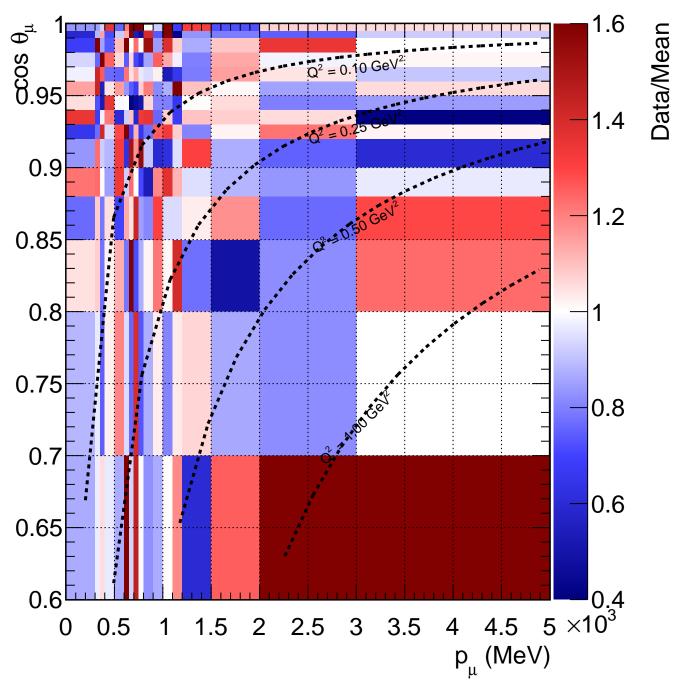




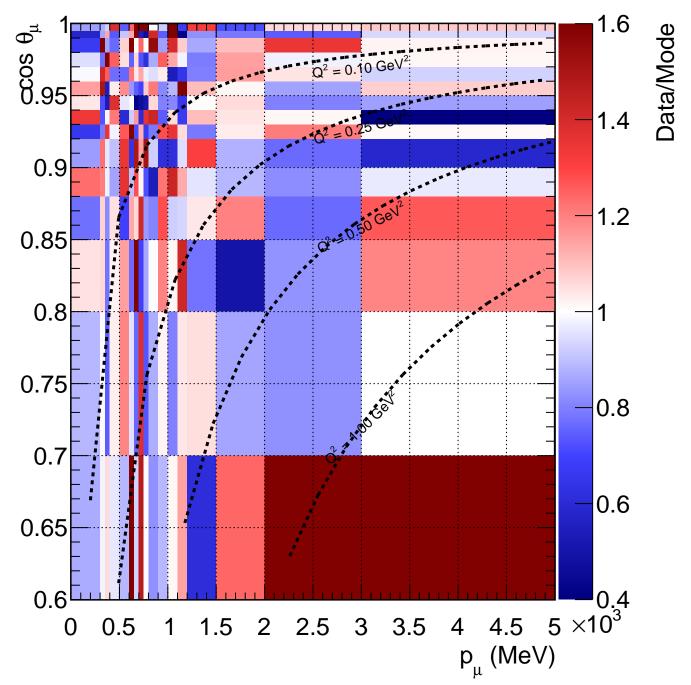




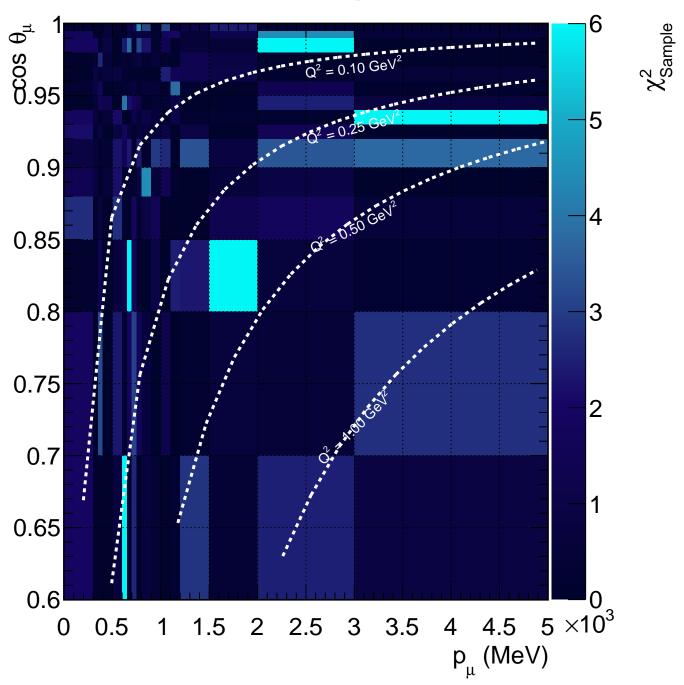
# FGD2\_numuCC\_1pi\_mean\_ratio



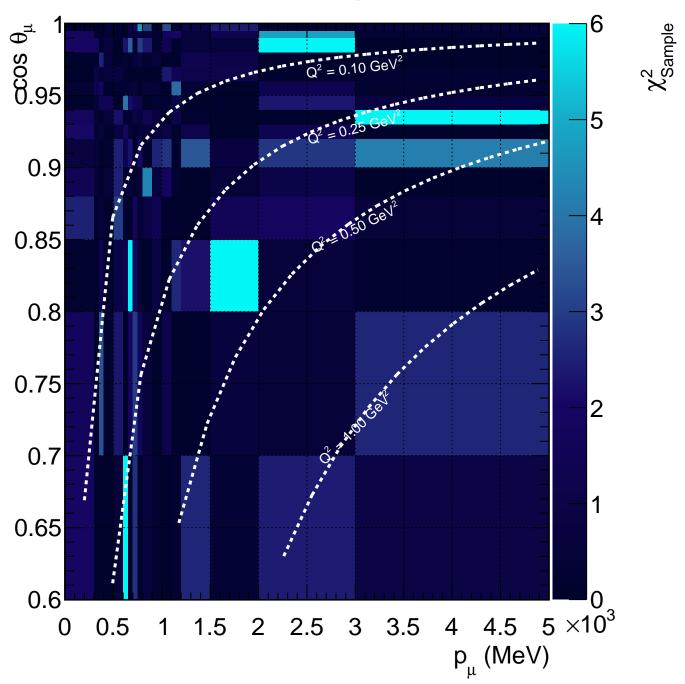
FGD2\_numuCC\_1pi\_mode\_ratio



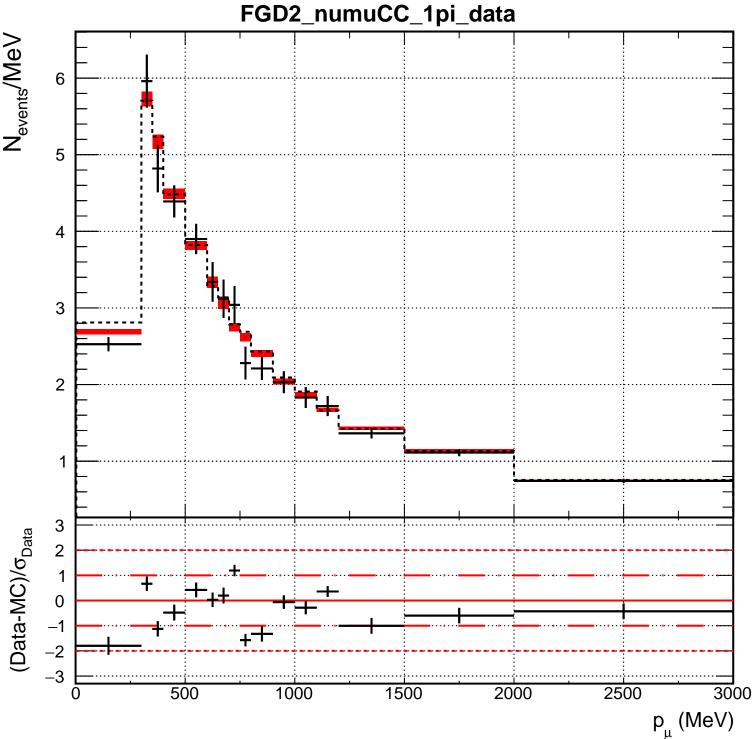
# FGD2\_numuCC\_1pi\_MeanInL

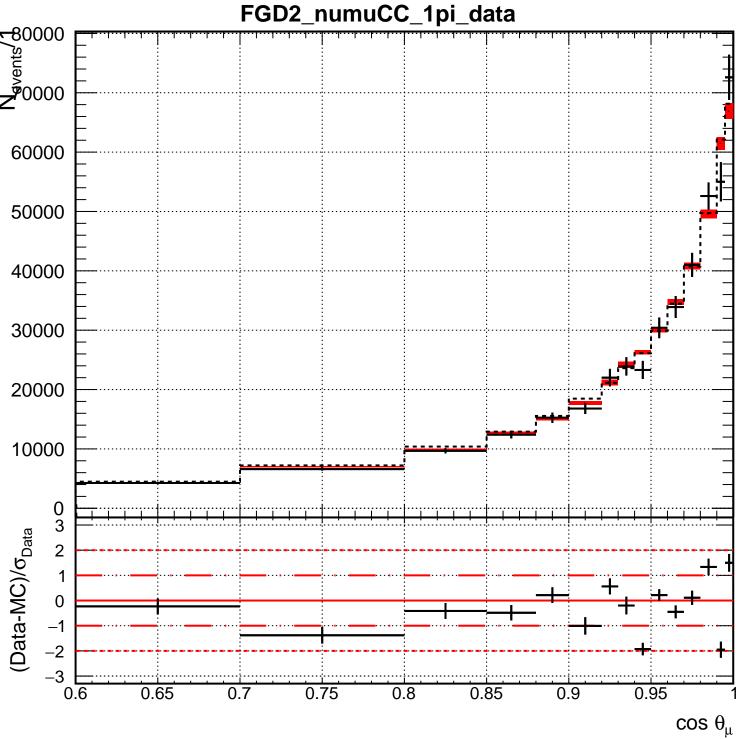


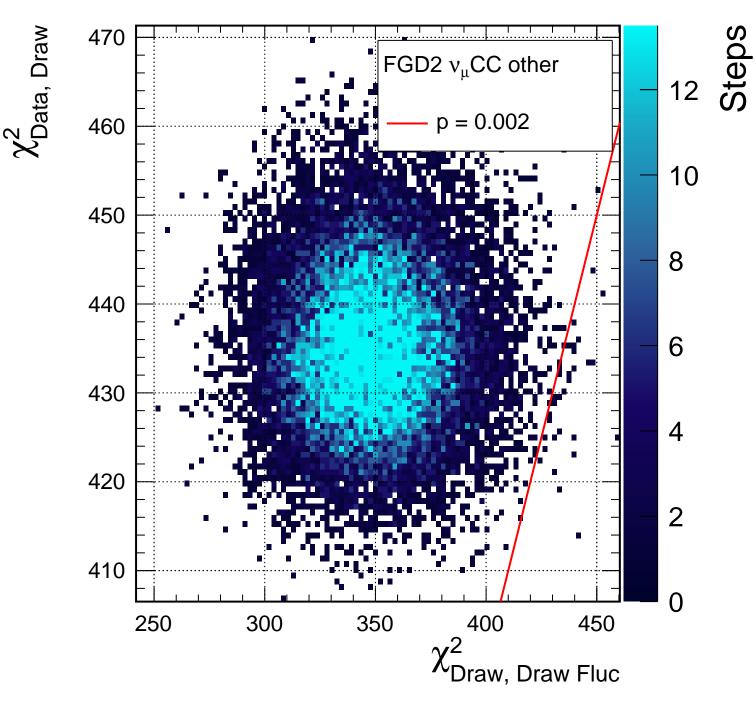
# FGD2\_numuCC\_1pi\_ModeInL

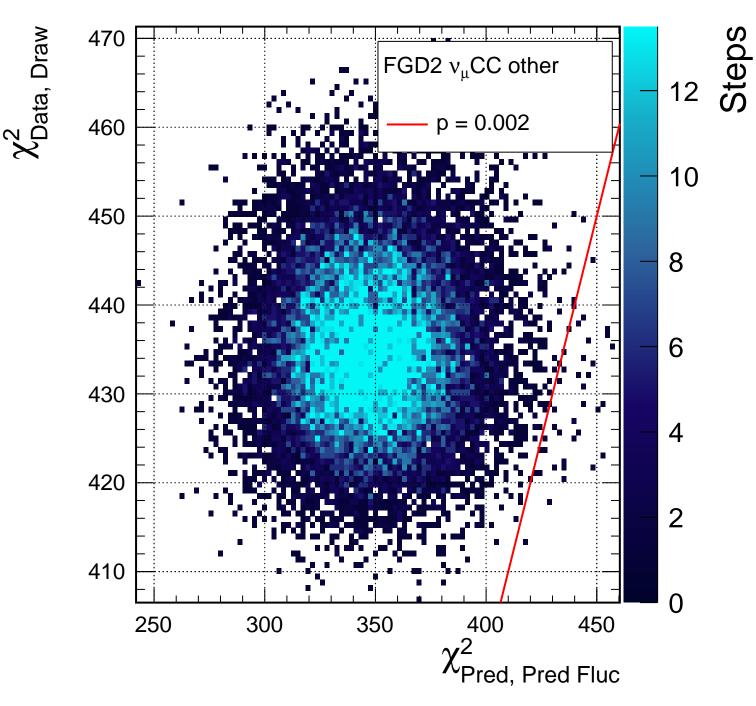


FGD2\_numuCC\_1pi\_sum\_6133 Counts 004 00 Data, 6133, p-value=0.99 MC,  $\mu$ =6282.8±67.4 Gauss,  $\mu$ =6282.7±67.2  $N_{\text{events}}$ 

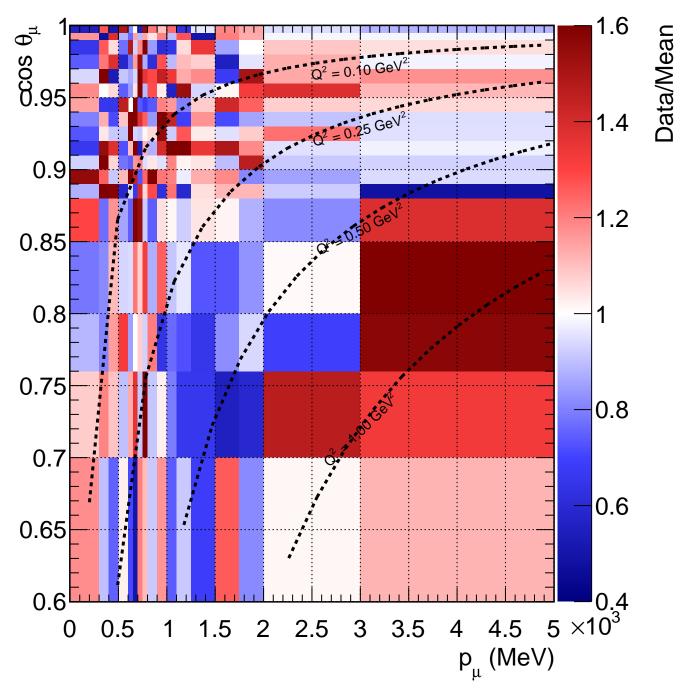




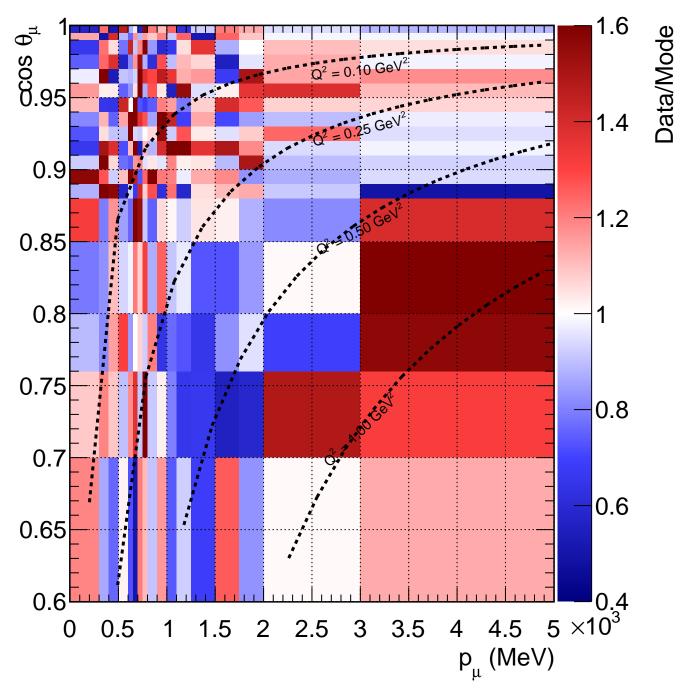




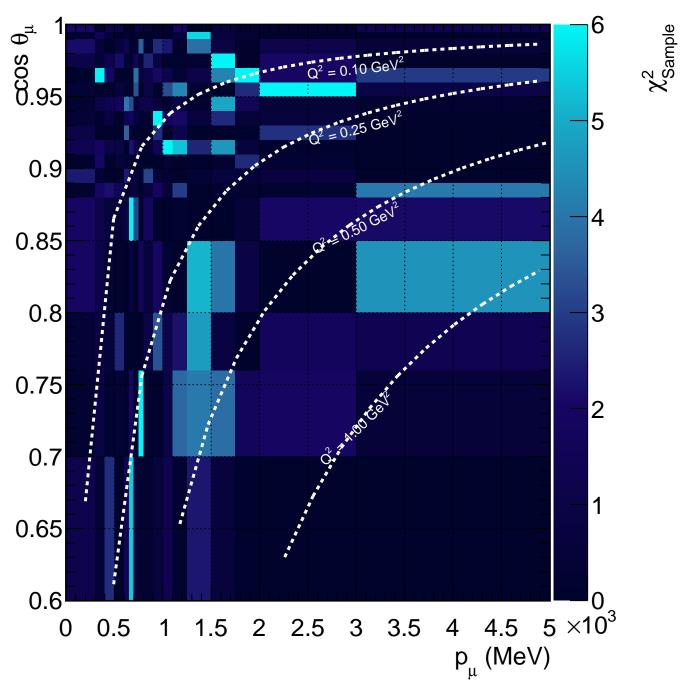
FGD2\_numuCC\_other\_mean\_ratio



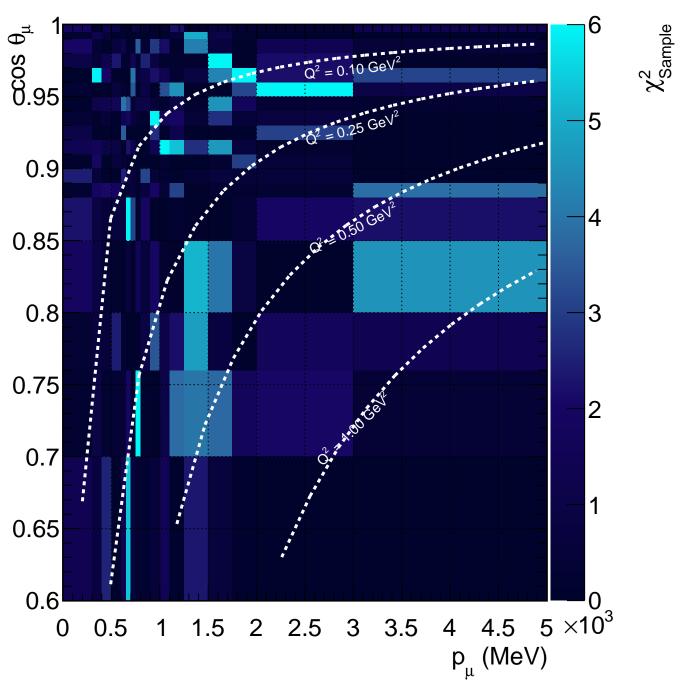
FGD2\_numuCC\_other\_mode\_ratio



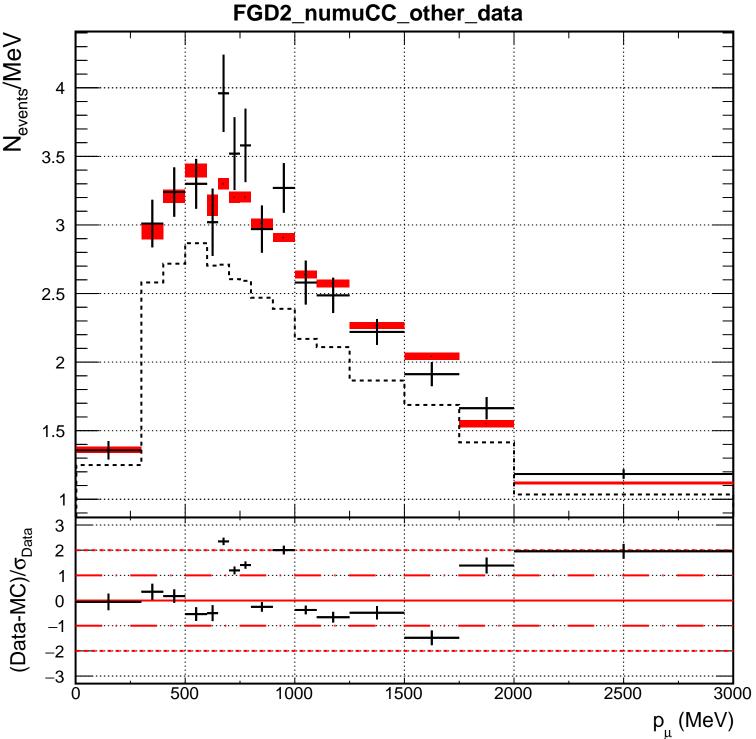
## FGD2\_numuCC\_other\_MeanInL

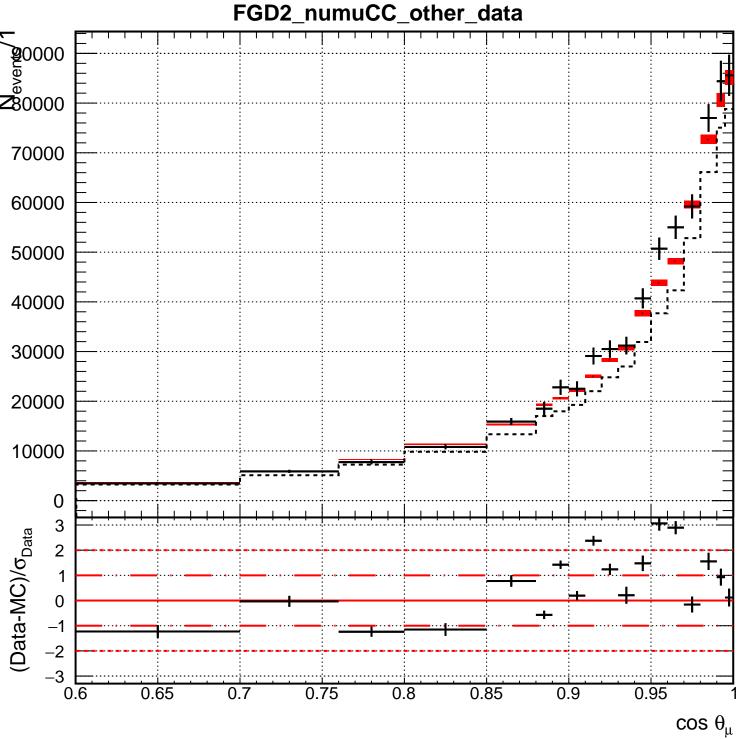


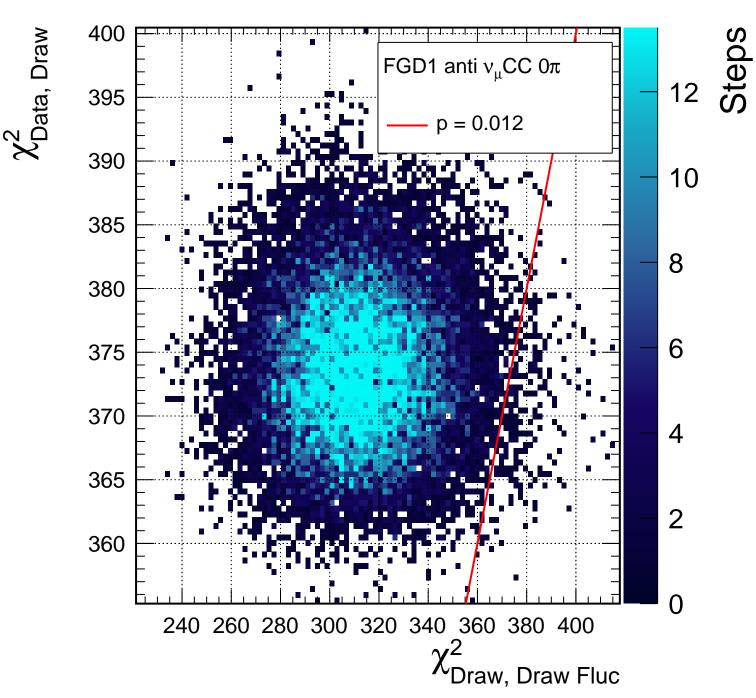
## FGD2\_numuCC\_other\_ModeInL

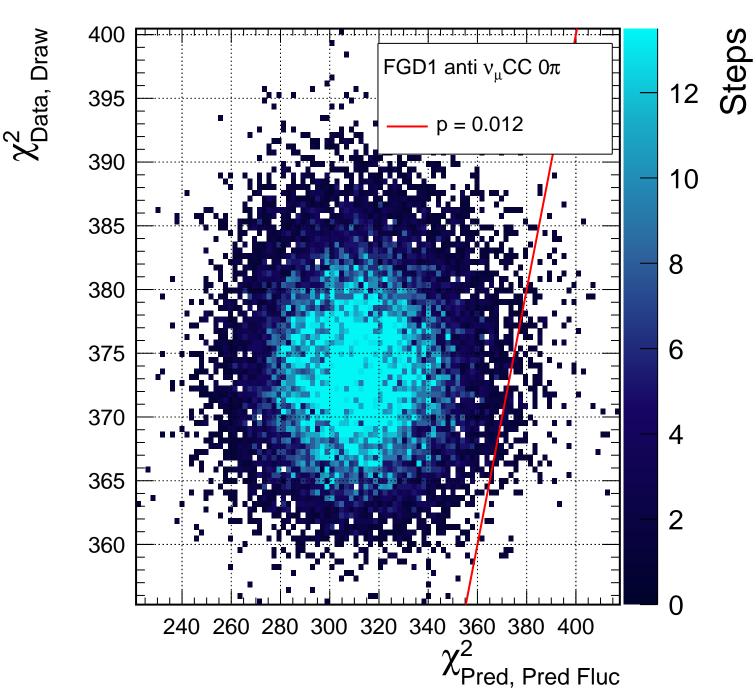


FGD2\_numuCC\_other\_sum\_7664 Counts 004 004 Data, 7664, p-value=0.01 MC,  $\mu$ =7473.9±76.3 1200 Gauss,  $\mu$ =7474.0±75.7 1000 800 600 400 200 7500 7600 7800 7900 7700  $N_{\text{events}}$ 

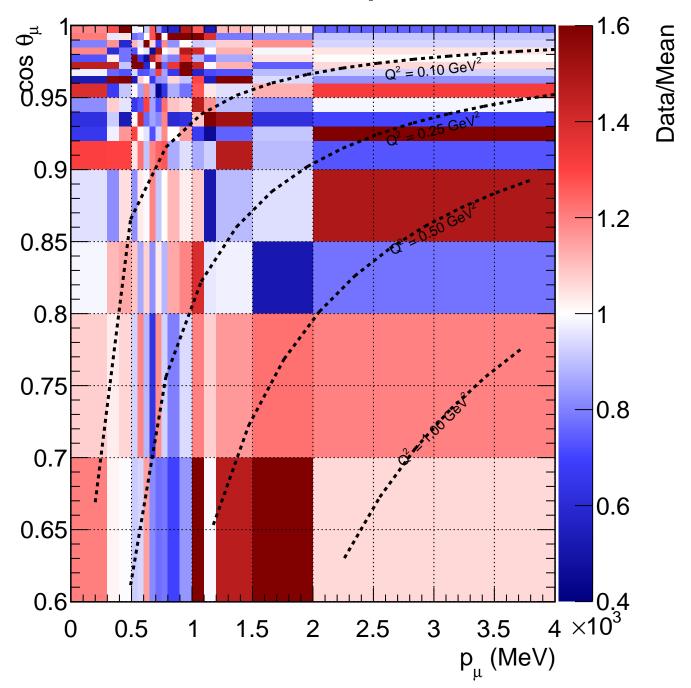




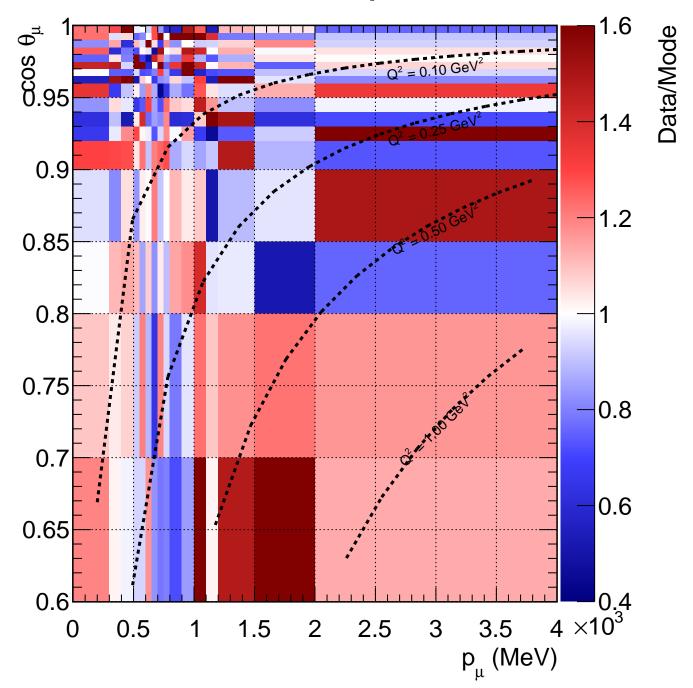




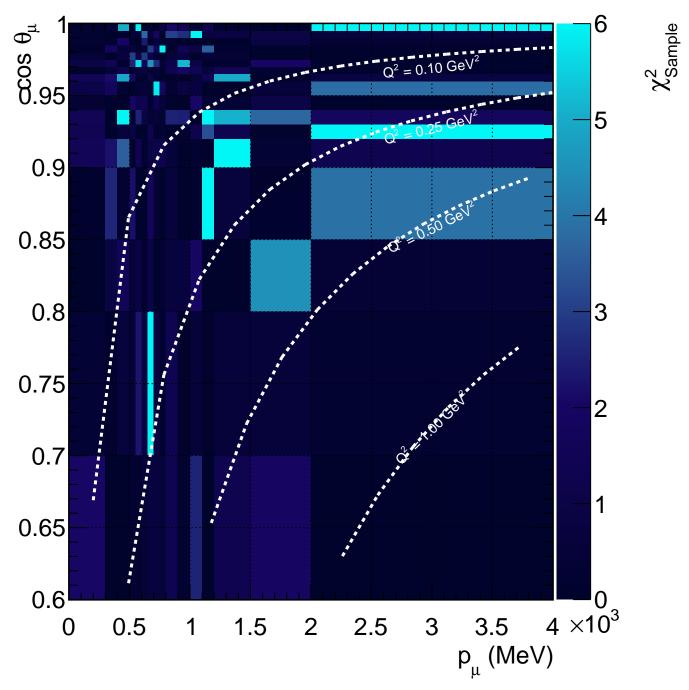
FGD1\_anti-numuCC\_0pi\_mean\_ratio



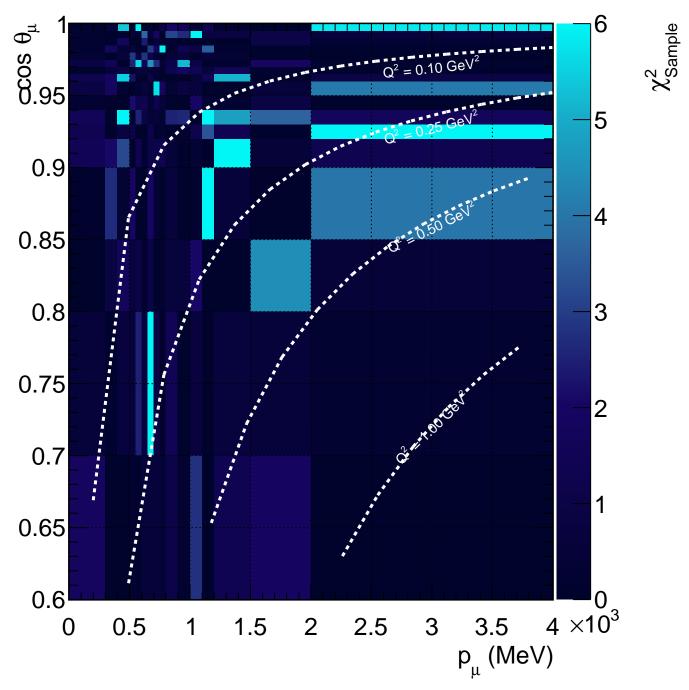
FGD1\_anti-numuCC\_0pi\_mode\_ratio

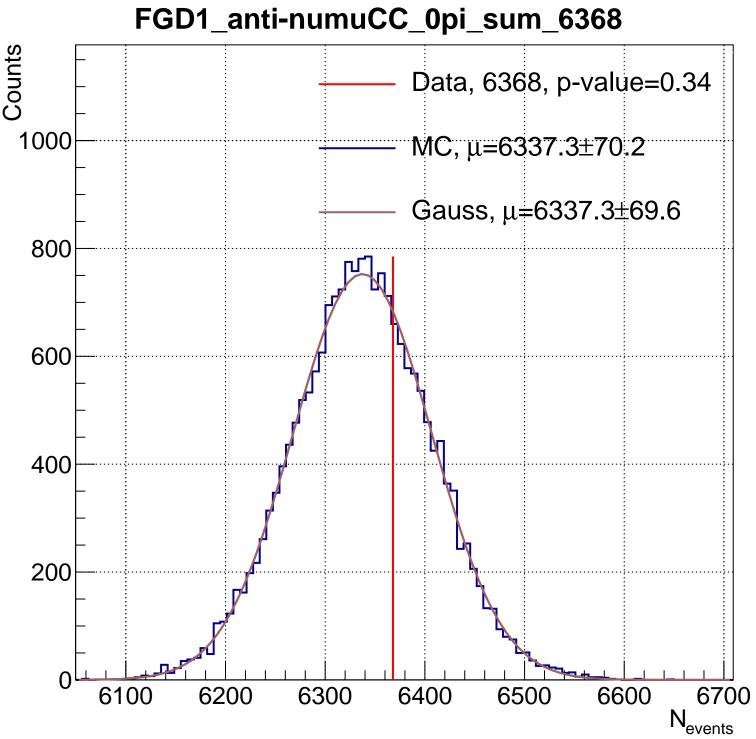


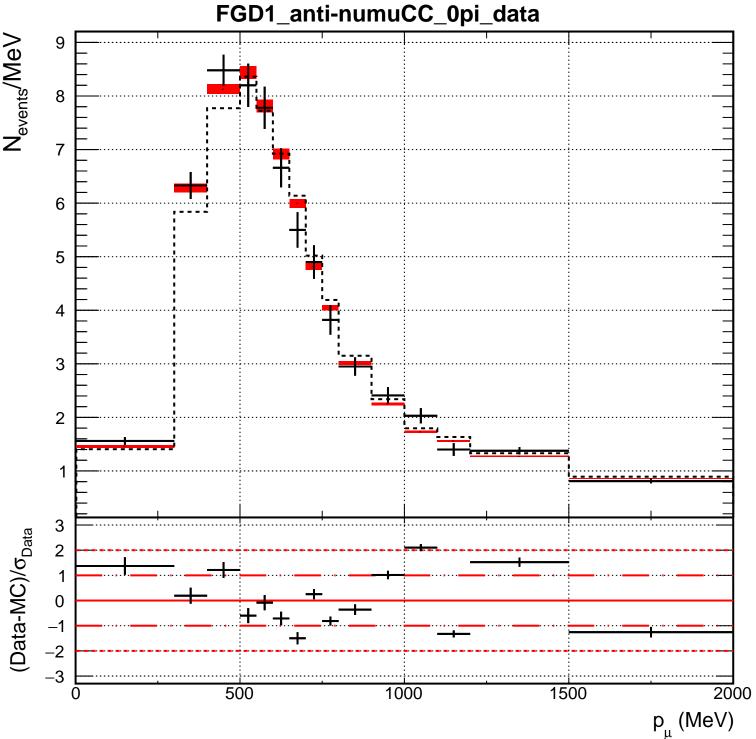
# FGD1\_anti-numuCC\_0pi\_MeanInL

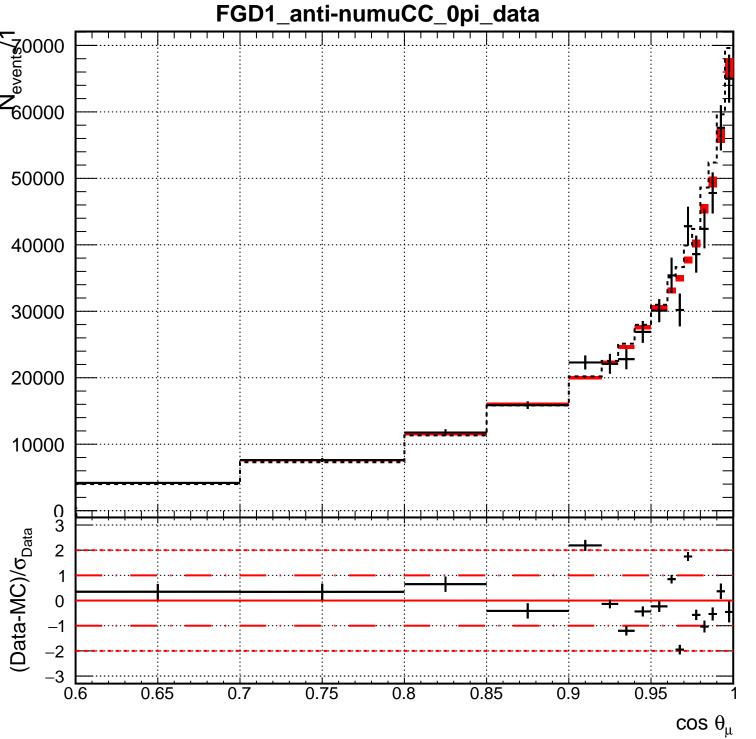


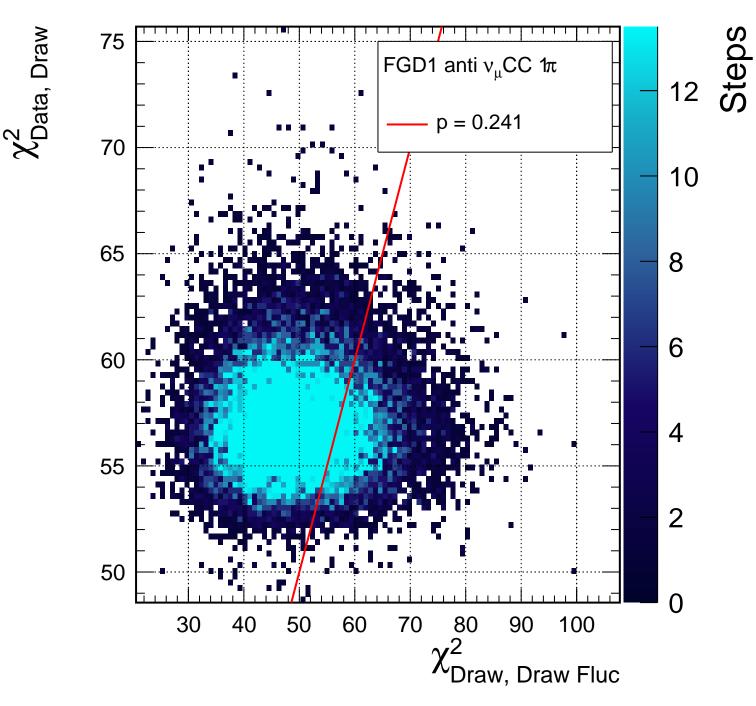
# FGD1\_anti-numuCC\_0pi\_ModeInL

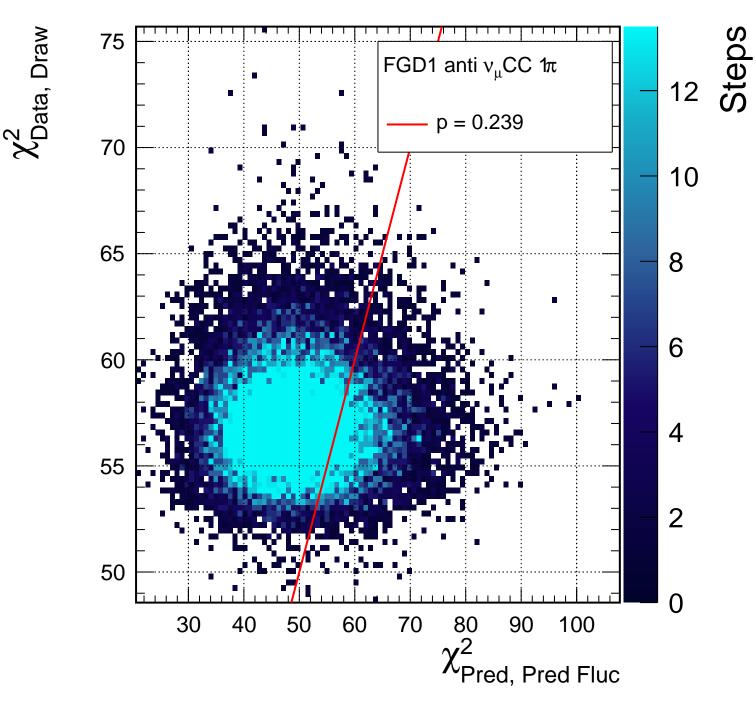




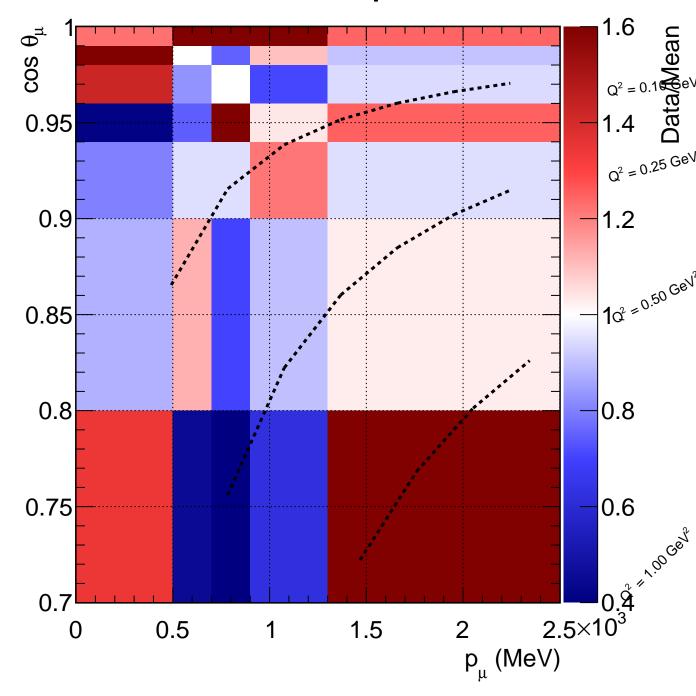




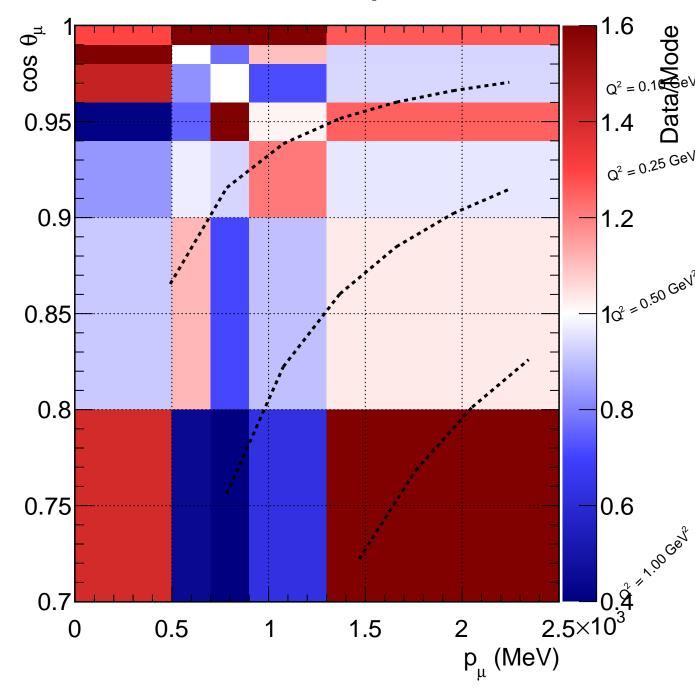




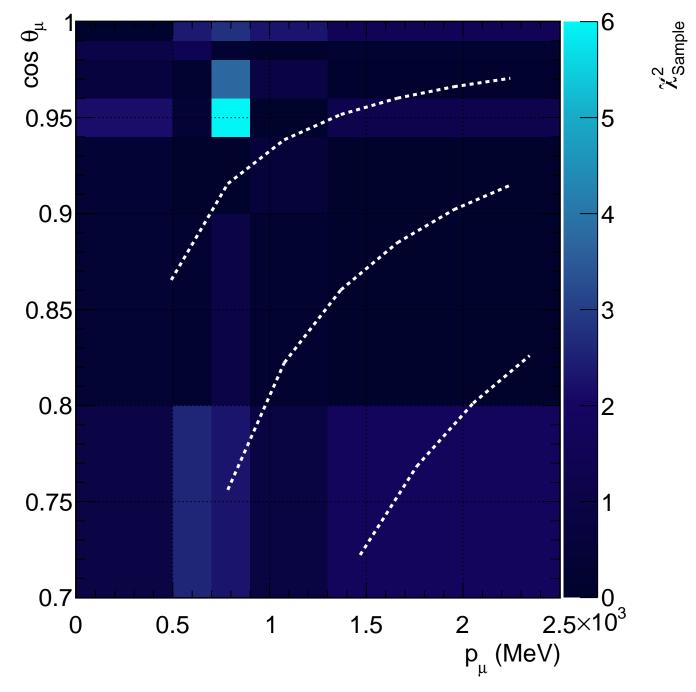
FGD1\_anti-numuCC\_1pi\_mean\_ratio



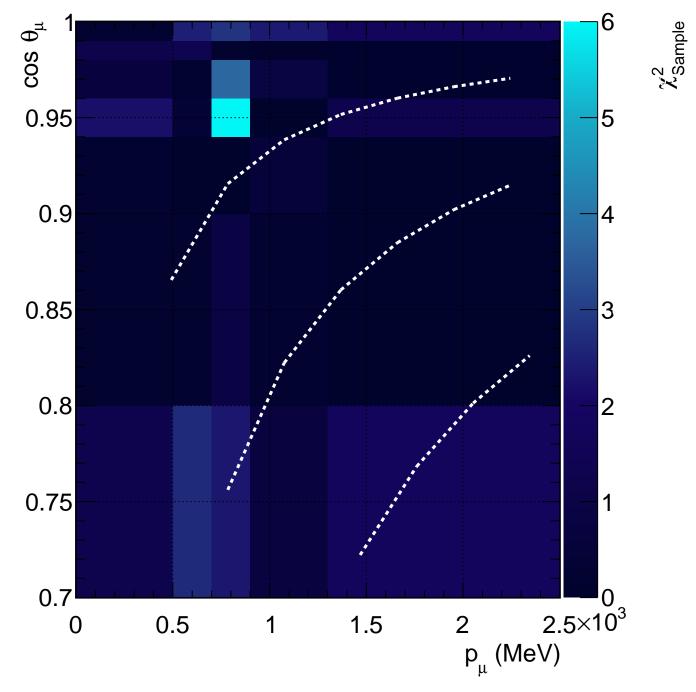
FGD1\_anti-numuCC\_1pi\_mode\_ratio



FGD1\_anti-numuCC\_1pi\_MeanInL

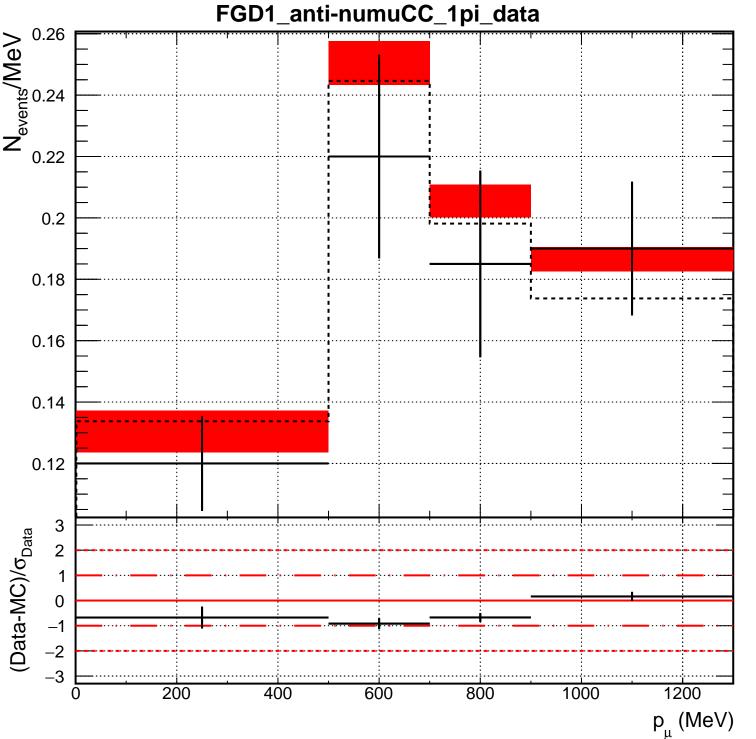


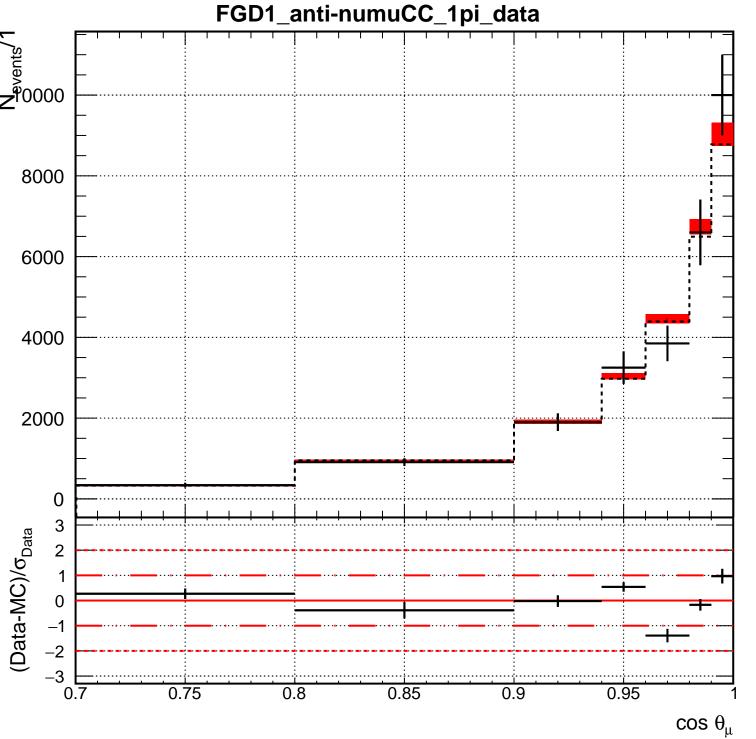
FGD1\_anti-numuCC\_1pi\_ModeInL

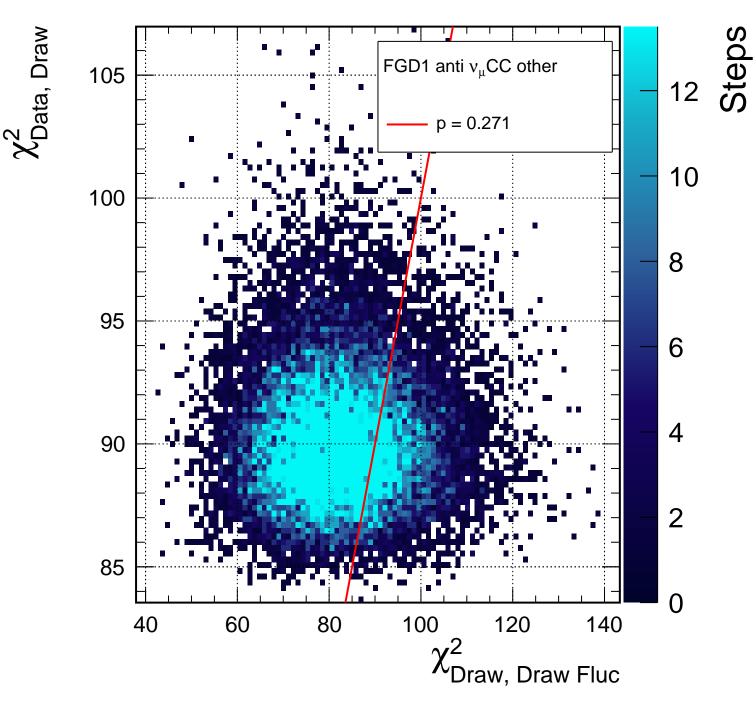


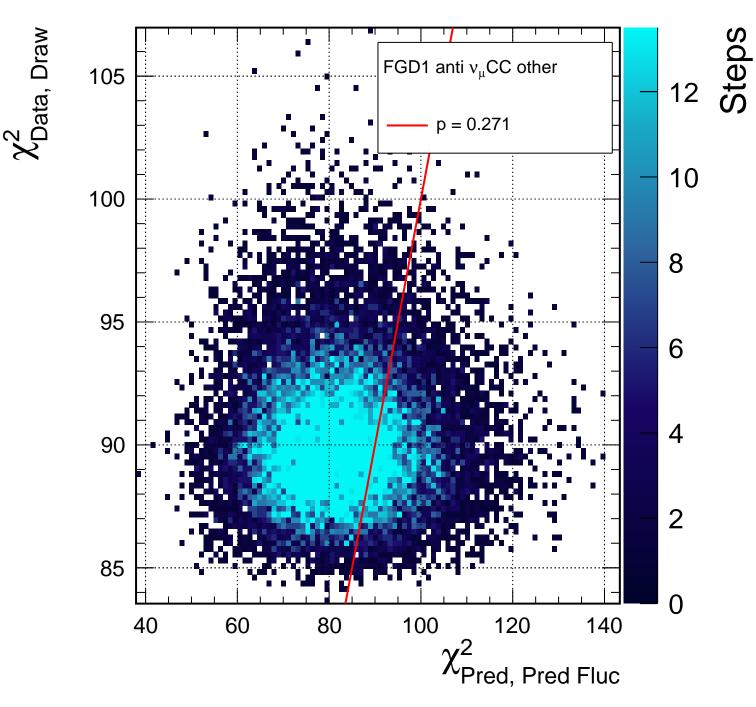
FGD1\_anti-numuCC\_1pi\_sum\_535 Data, 535, p-value=0.65 MC,  $\mu$ =541.2±15.2 Gauss,  $\mu$ =544.3±22.0 

<sup>l</sup>events

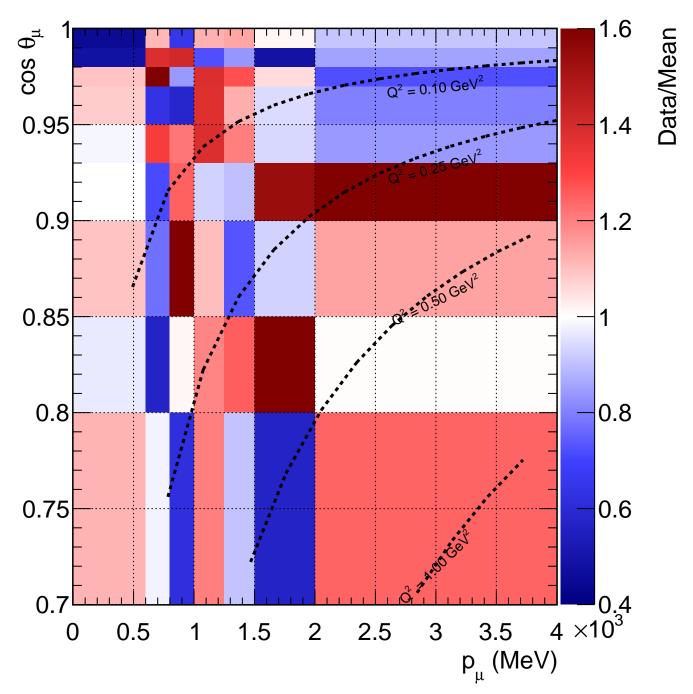




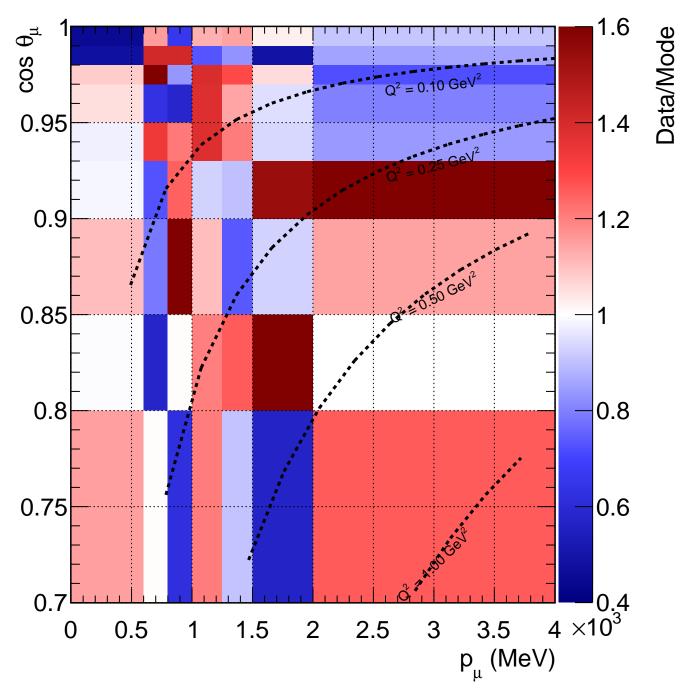




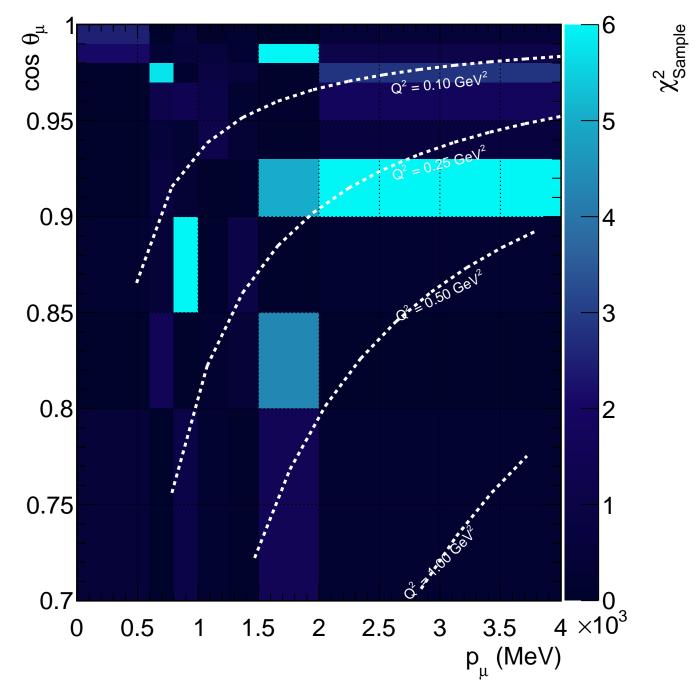
FGD1\_anti-numuCC\_other\_mean\_ratio



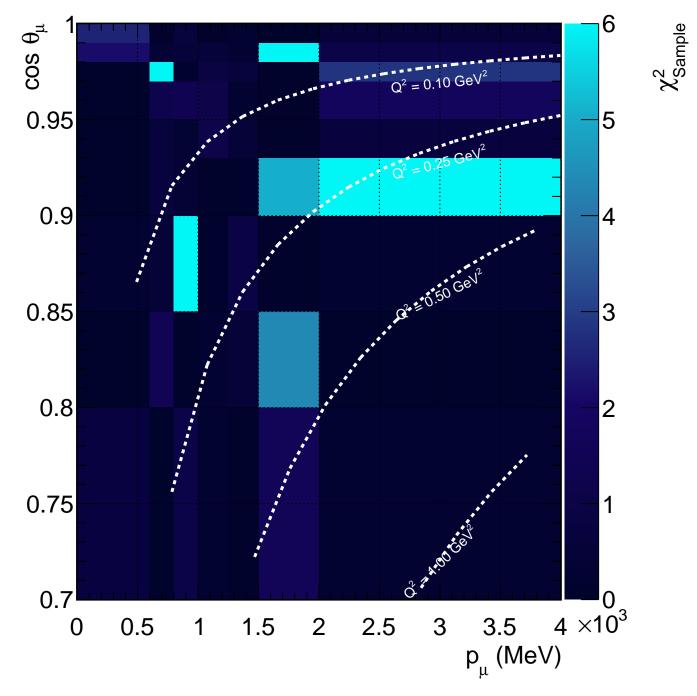
FGD1\_anti-numuCC\_other\_mode\_ratio



FGD1\_anti-numuCC\_other\_MeanInL

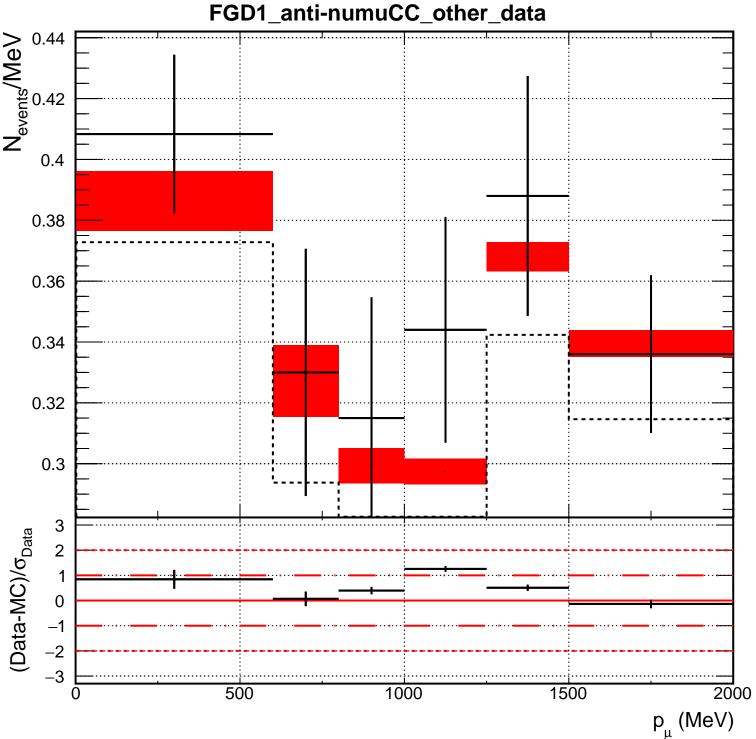


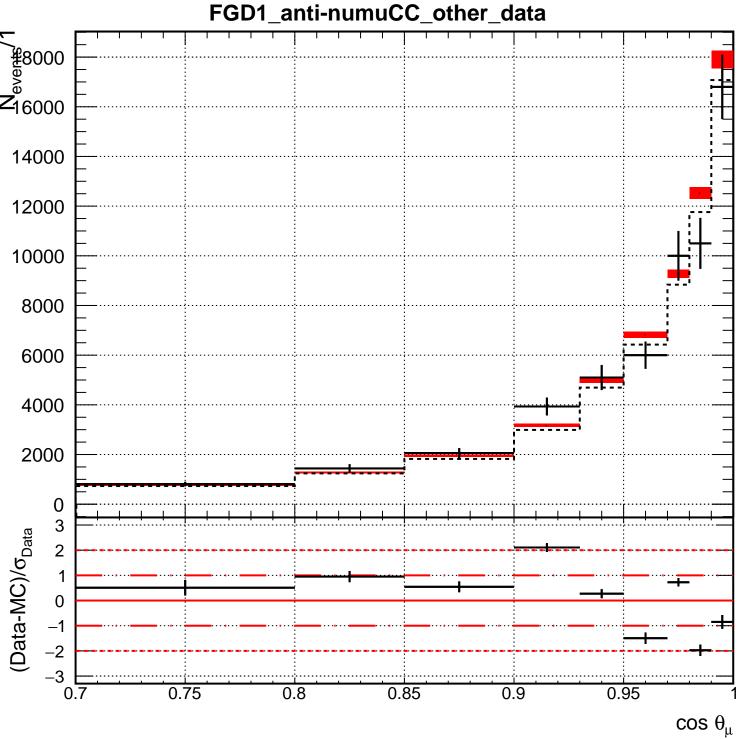
FGD1\_anti-numuCC\_other\_ModeInL

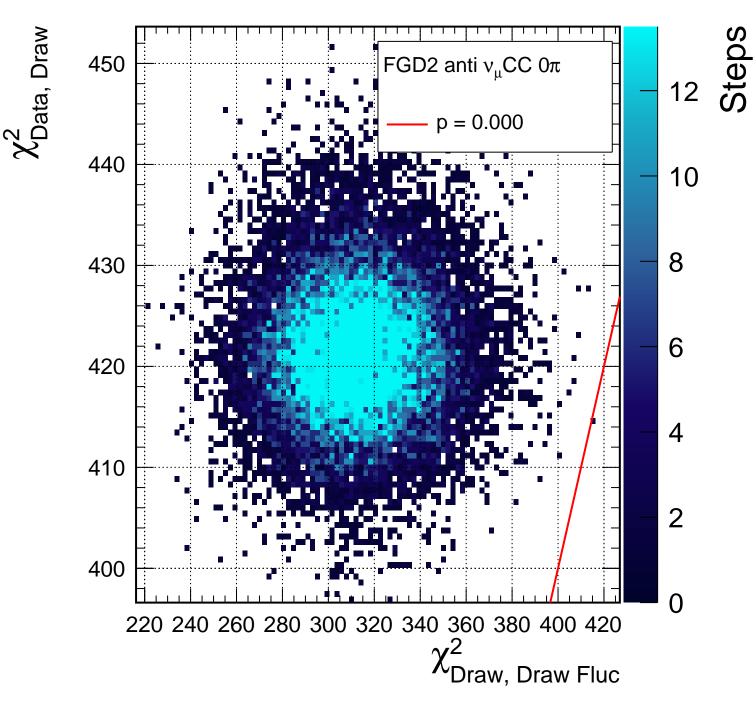


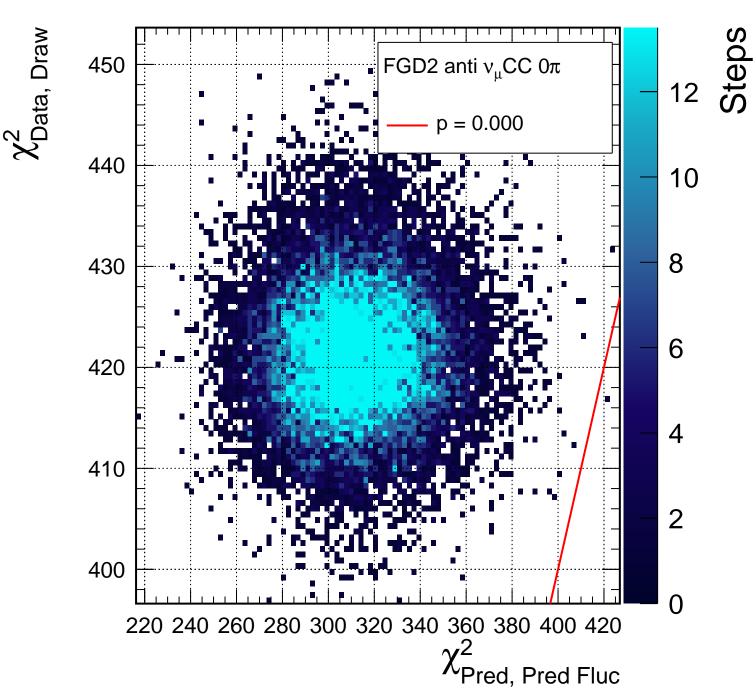
FGD1\_anti-numuCC\_other\_sum\_1102 Counts Data, 1102, p-value=0.34 MC,  $\mu$ =1090.5±26.9 Gauss,  $\mu$ =1089.6±30.0 

<sup>l</sup>events

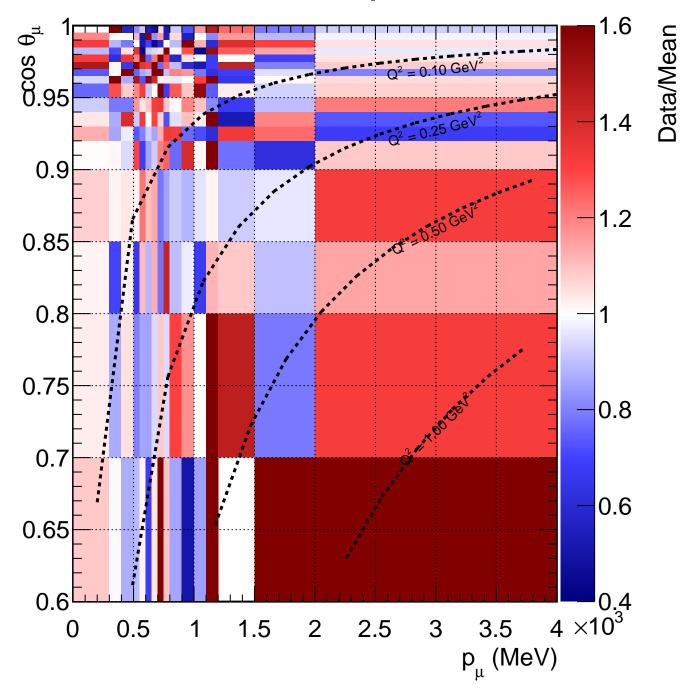




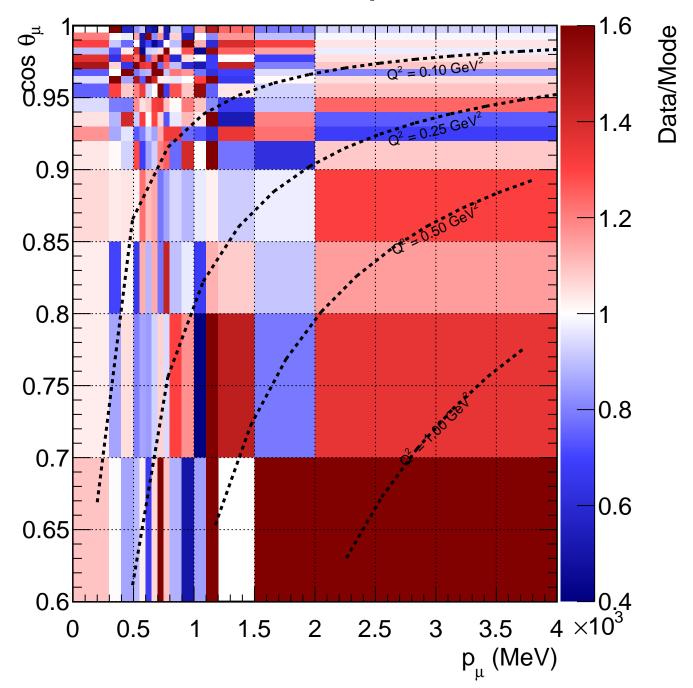




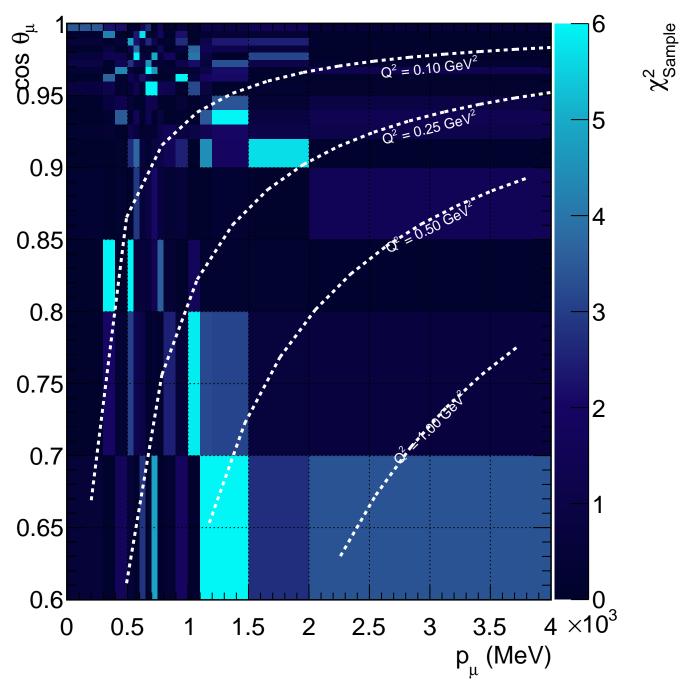
FGD2\_anti-numuCC\_0pi\_mean\_ratio



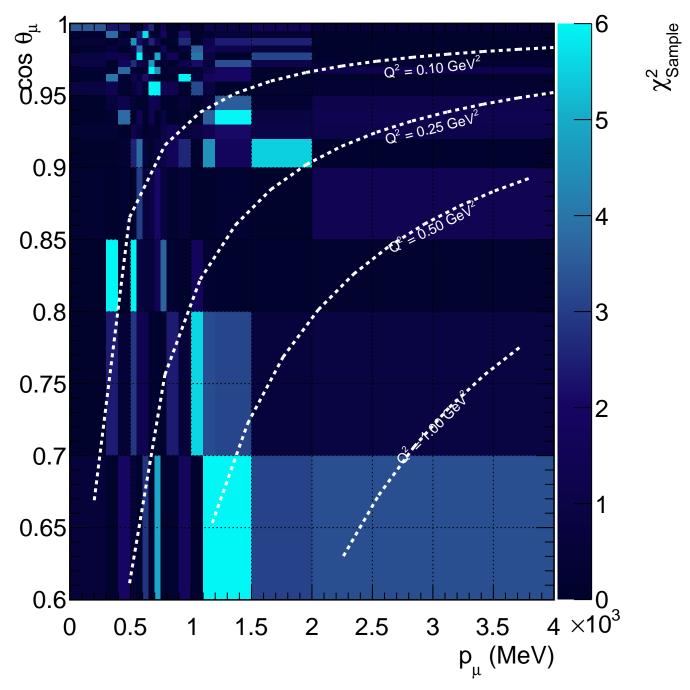
FGD2\_anti-numuCC\_0pi\_mode\_ratio



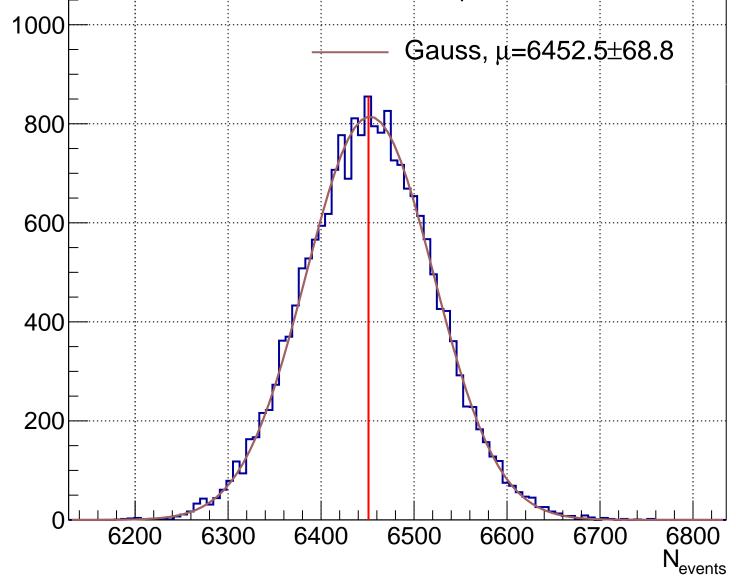
## FGD2\_anti-numuCC\_0pi\_MeanInL

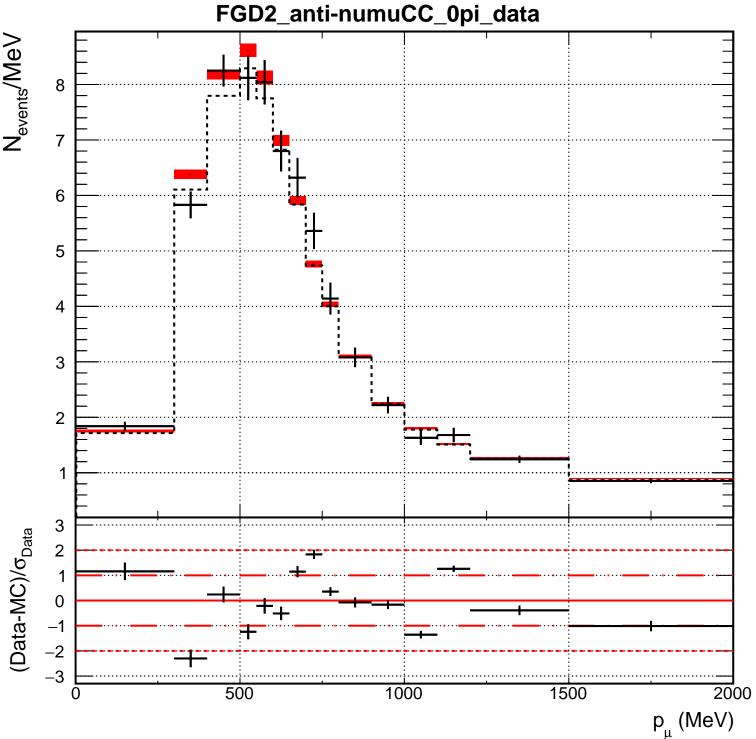


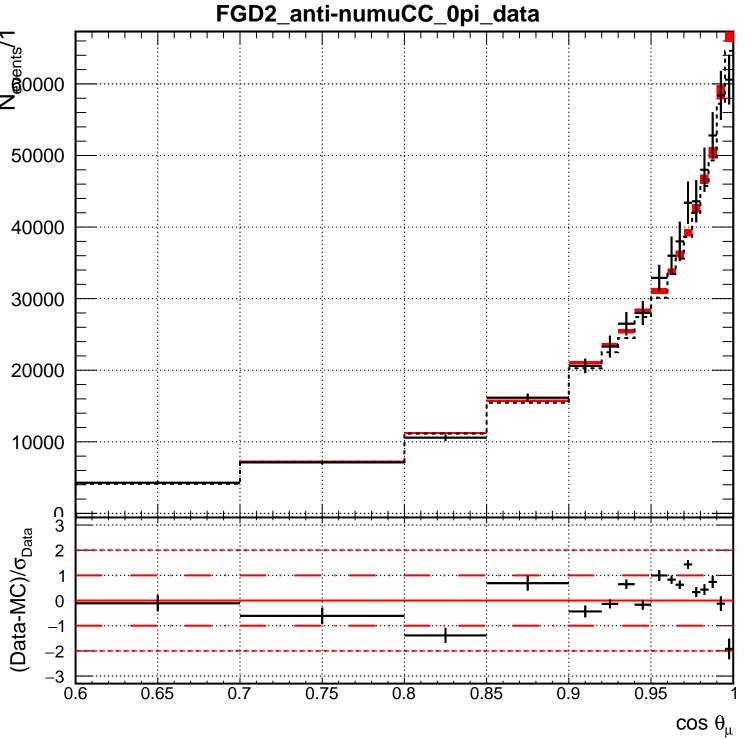
## FGD2\_anti-numuCC\_0pi\_ModeInL

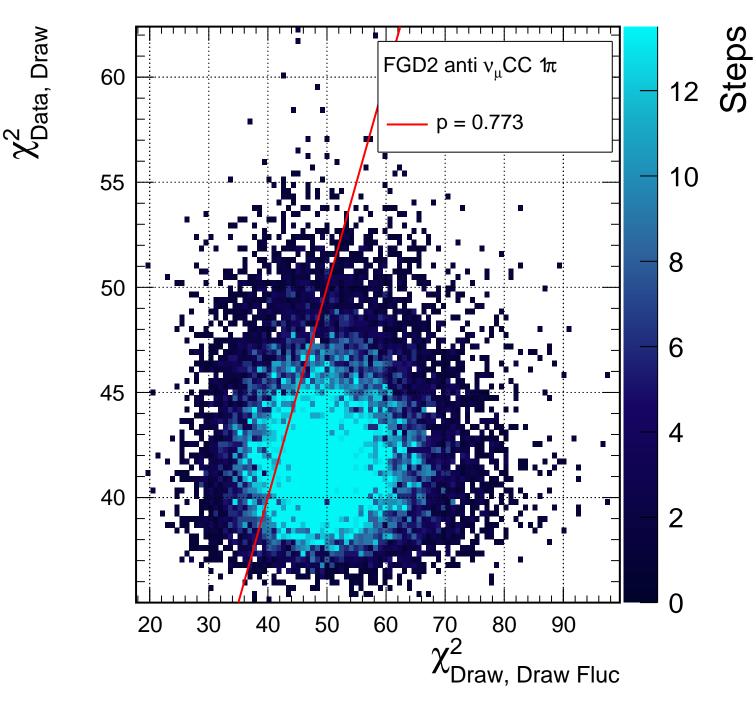


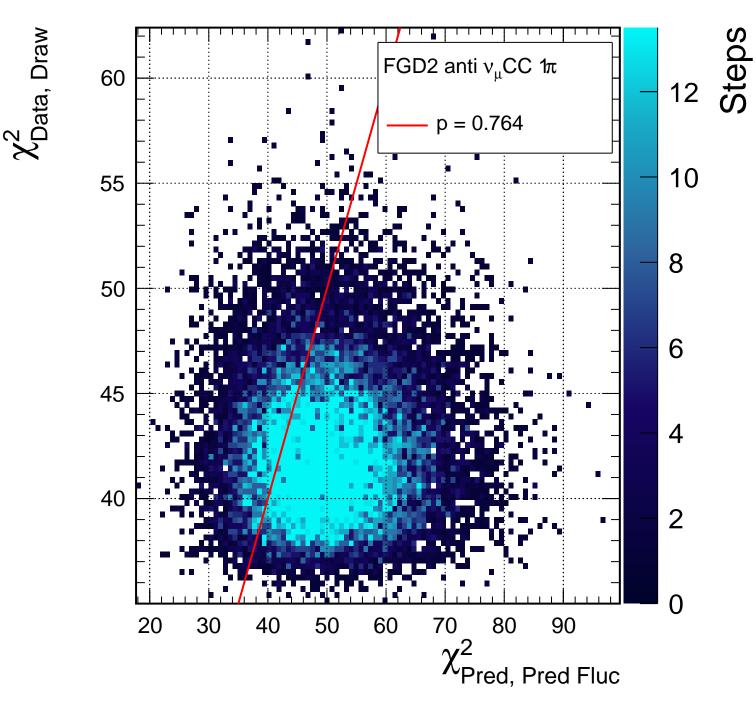
FGD2\_anti-numuCC\_0pi\_sum\_6451 Counts 005 Data, 6451, p-value=0.49 MC,  $\mu$ =6452.2±70.0 Gauss,  $\mu$ =6452.5±68.8 800



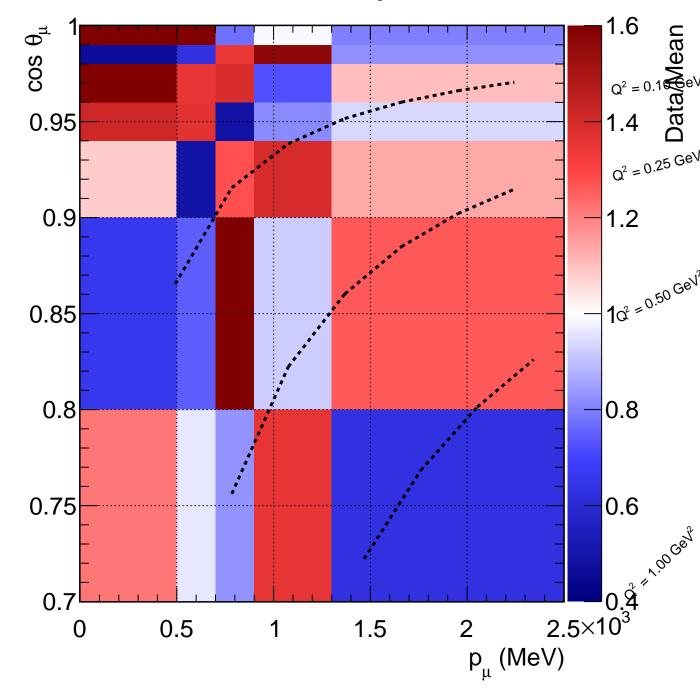




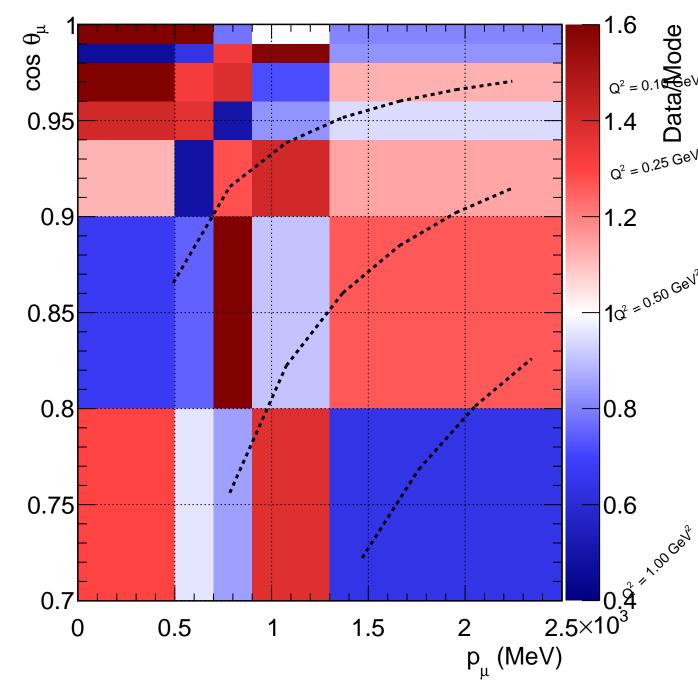




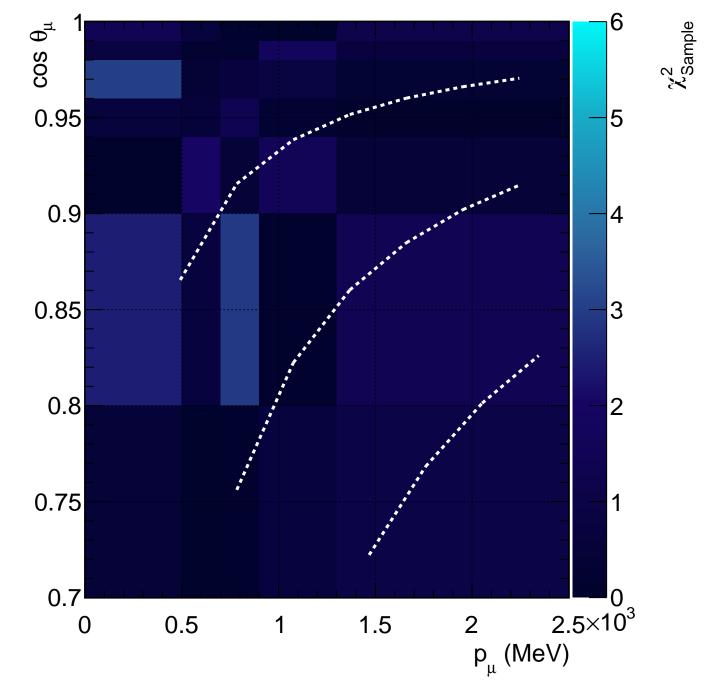
FGD2\_anti-numuCC\_1pi\_mean\_ratio



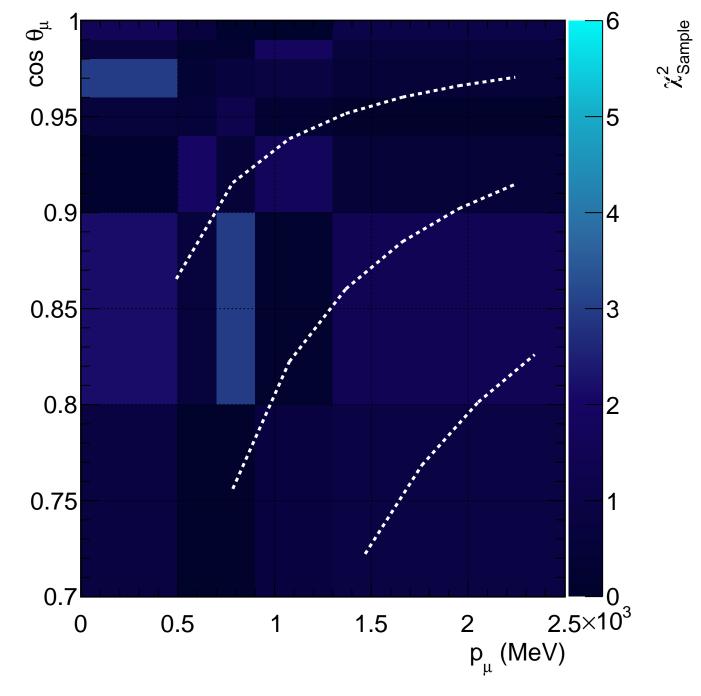
FGD2\_anti-numuCC\_1pi\_mode\_ratio



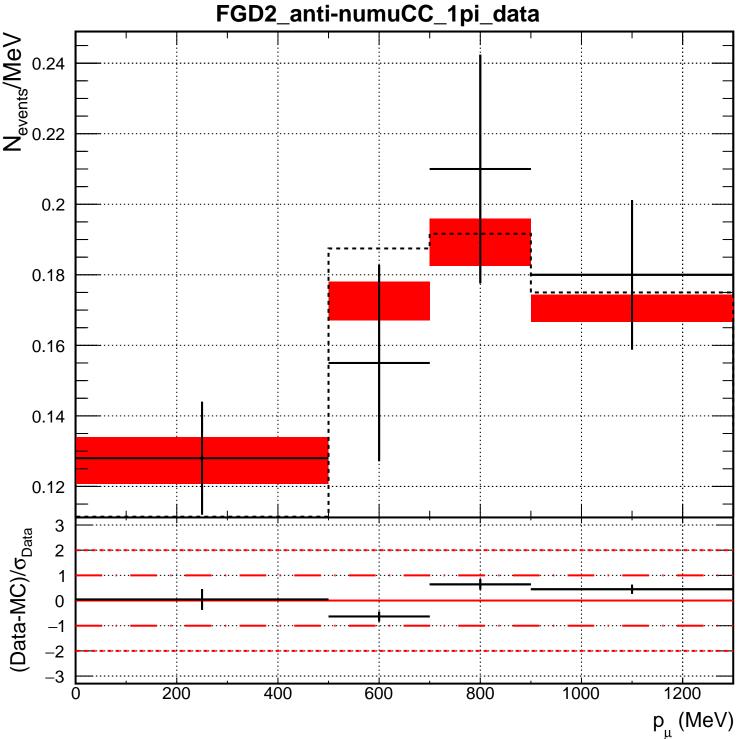
## FGD2\_anti-numuCC\_1pi\_MeanInL

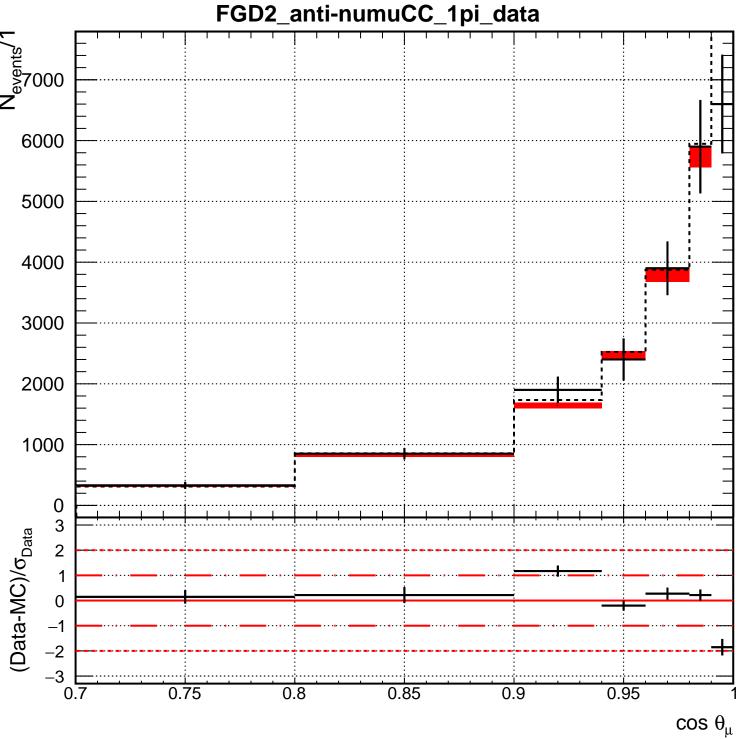


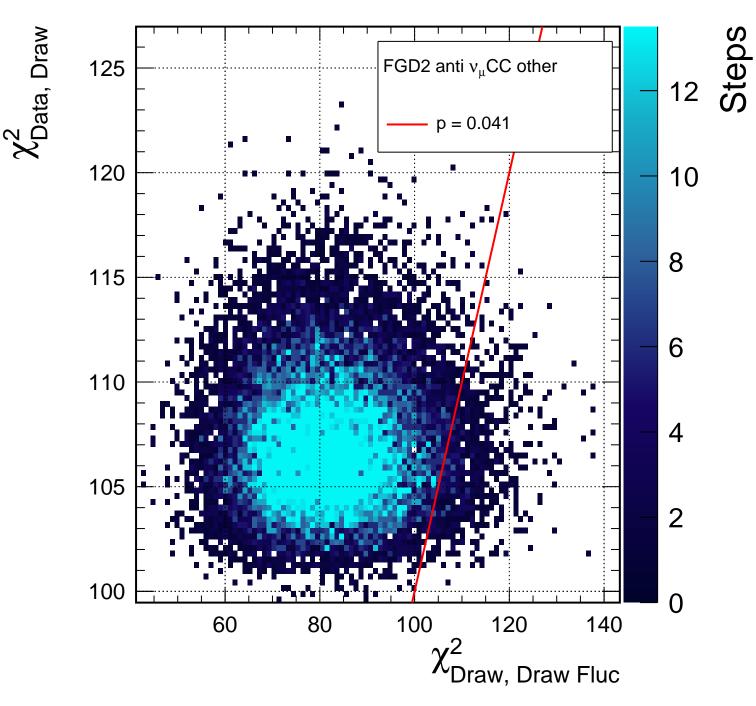
# FGD2\_anti-numuCC\_1pi\_ModeInL

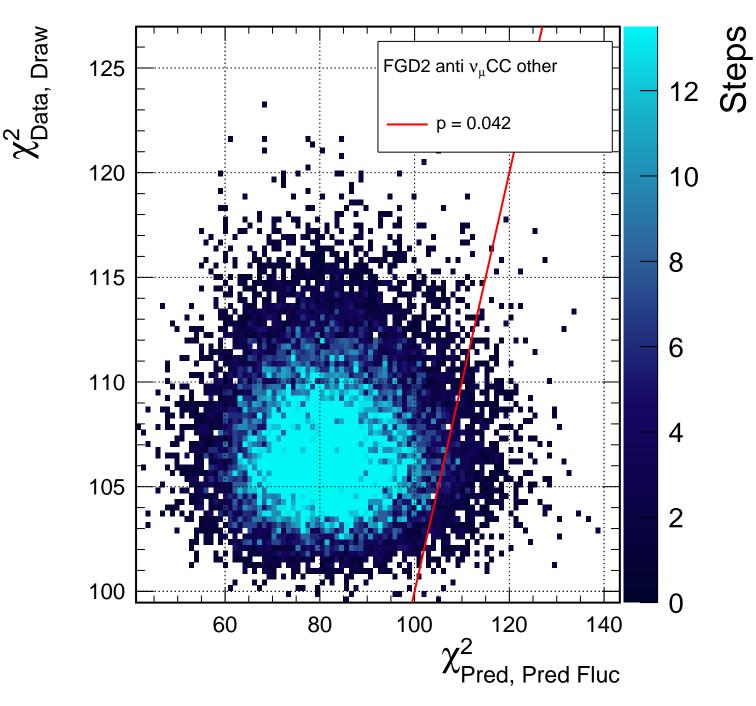


FGD2\_anti-numuCC\_1pi\_sum\_465 Data, 465, p-value=0.66 MC,  $\mu$ =472.3±15.4 Gauss,  $\mu$ =471.7±20.8  $N_{\text{events}}$ 

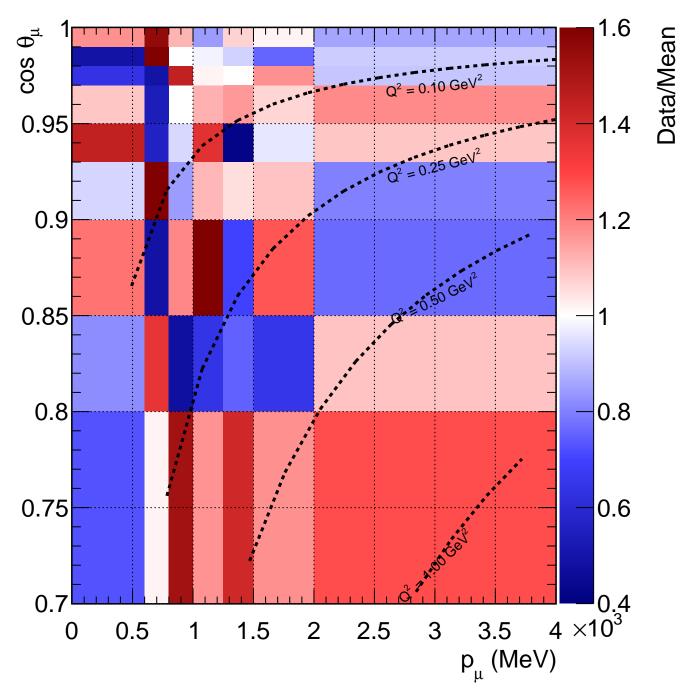




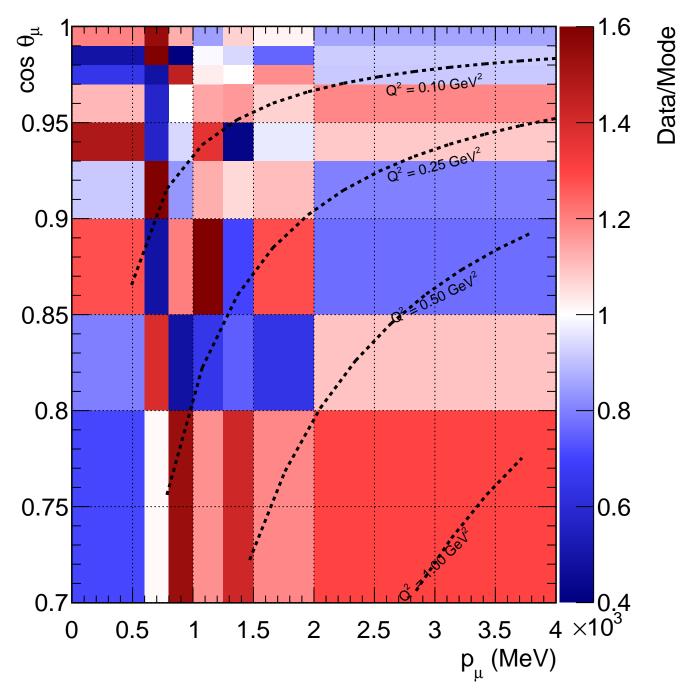




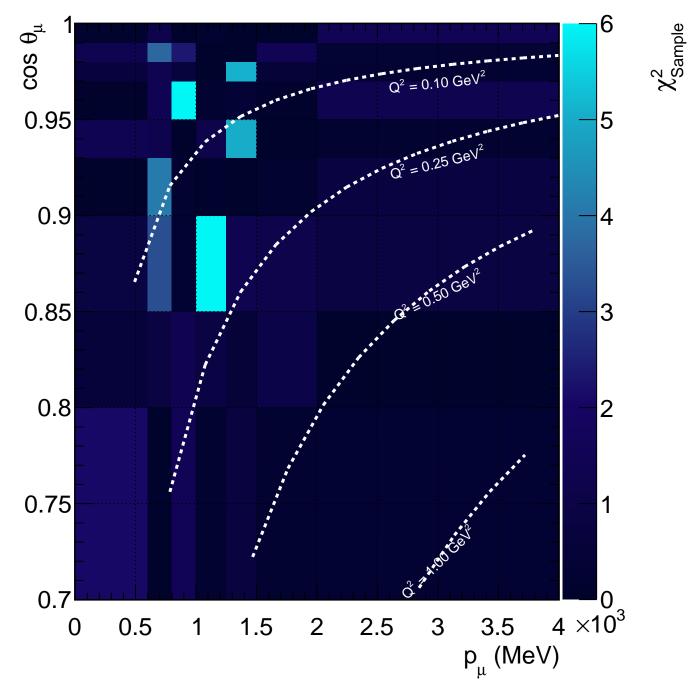
FGD2\_anti-numuCC\_other\_mean\_ratio



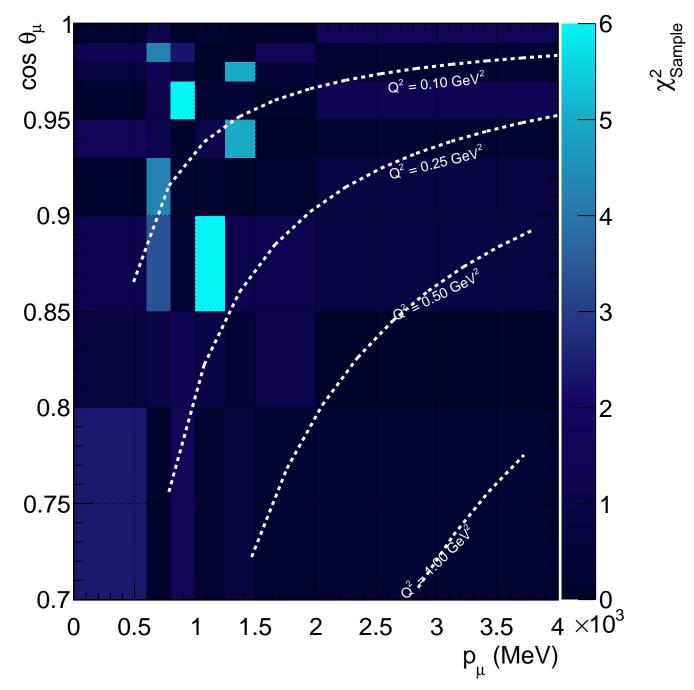
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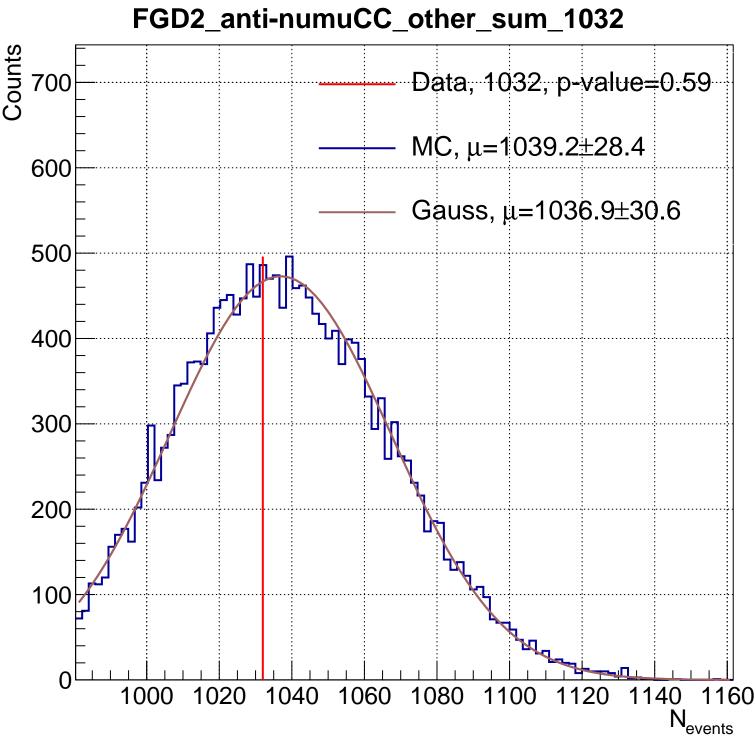


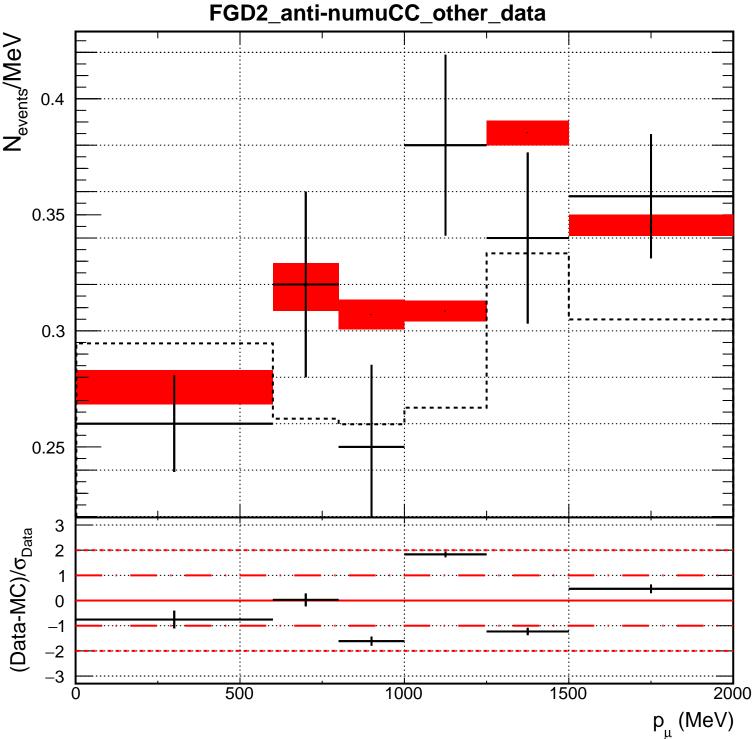
FGD2\_anti-numuCC\_other\_MeanInL

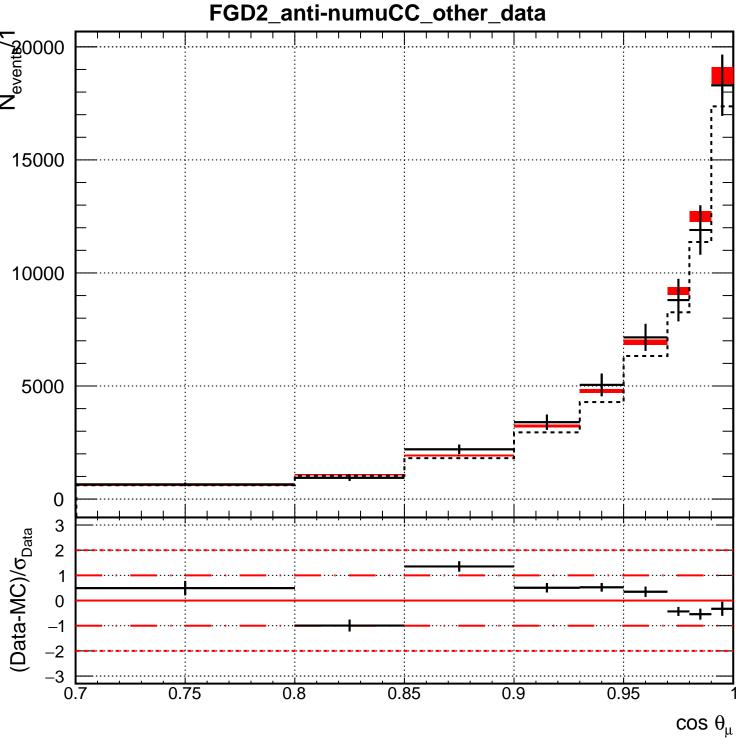


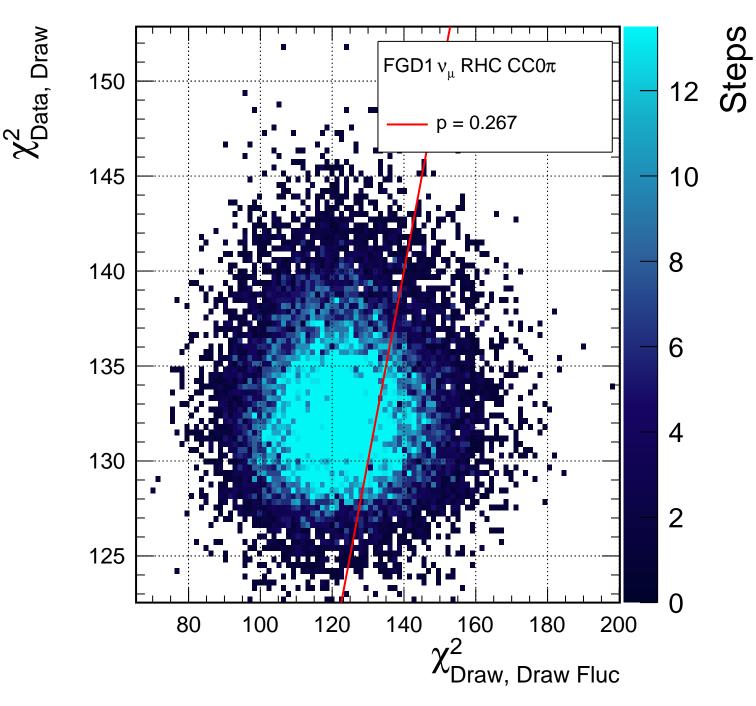
FGD2\_anti-numuCC\_other\_ModeInL

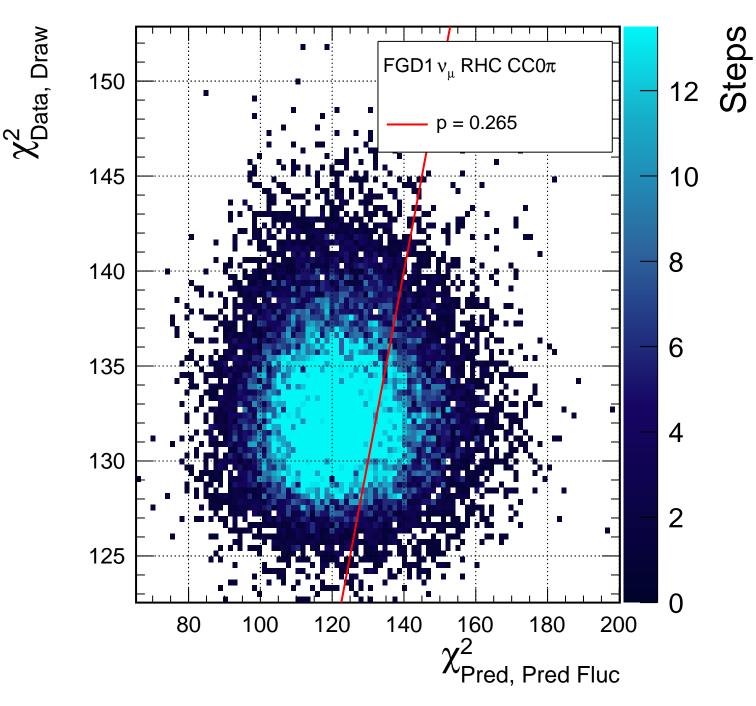




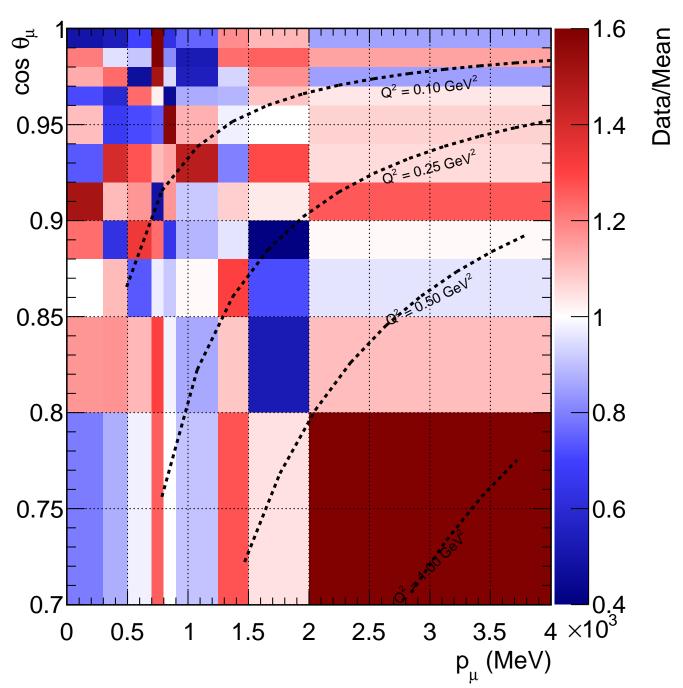




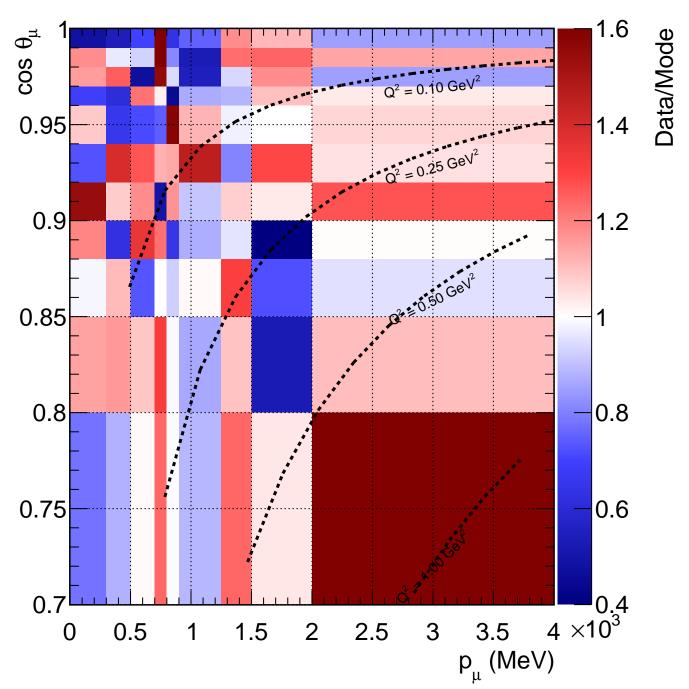




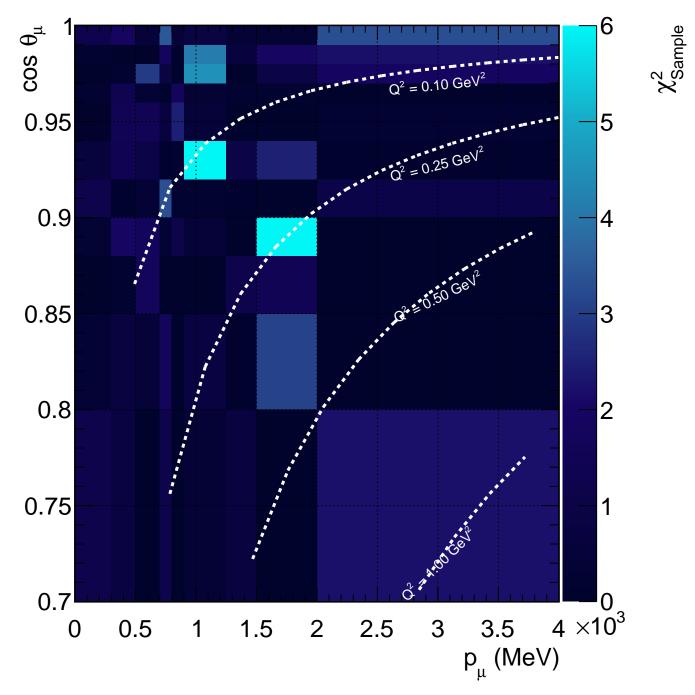
 $FGD1\_NuMuBkg\_CC0pi\_in\_AntiNu\_Mode\_mean\_ratio$ 



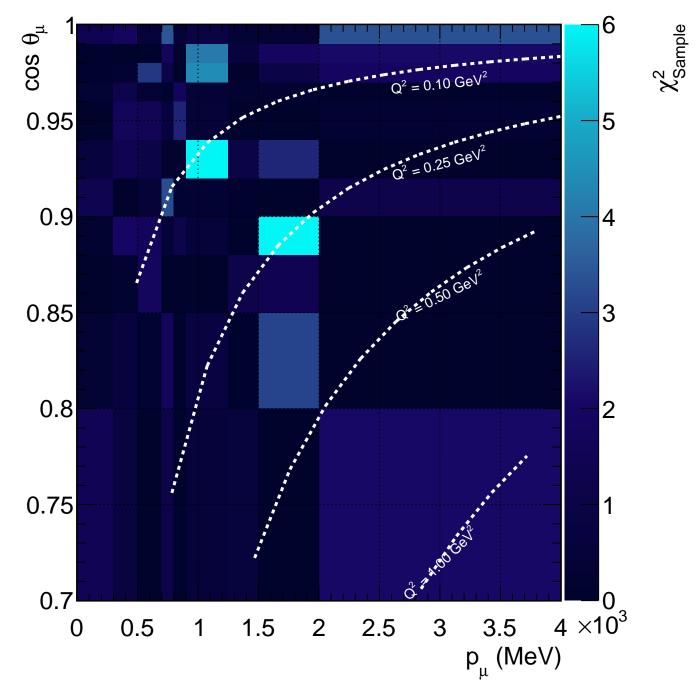
FGD1\_NuMuBkg\_CC0pi\_in\_AntiNu\_Mode\_mode\_ratio

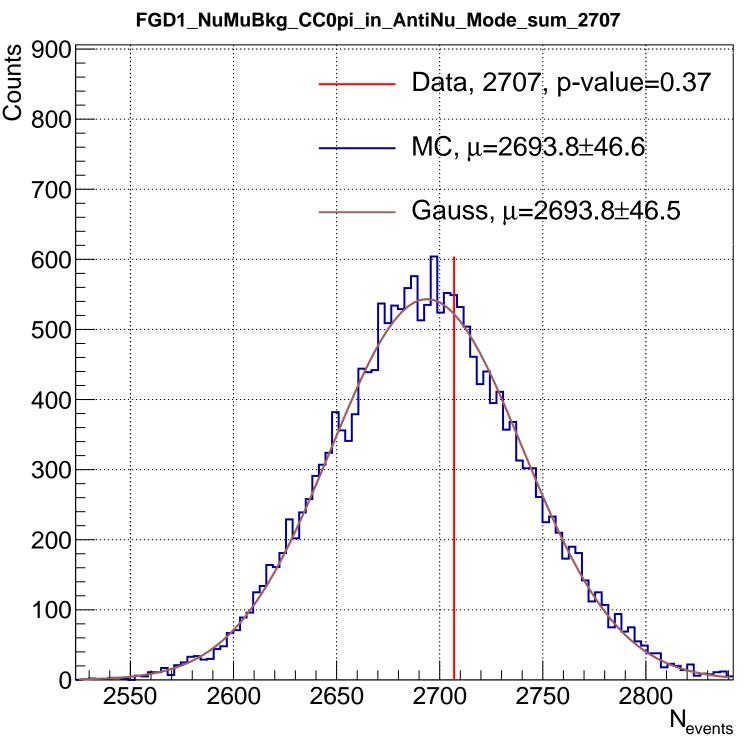


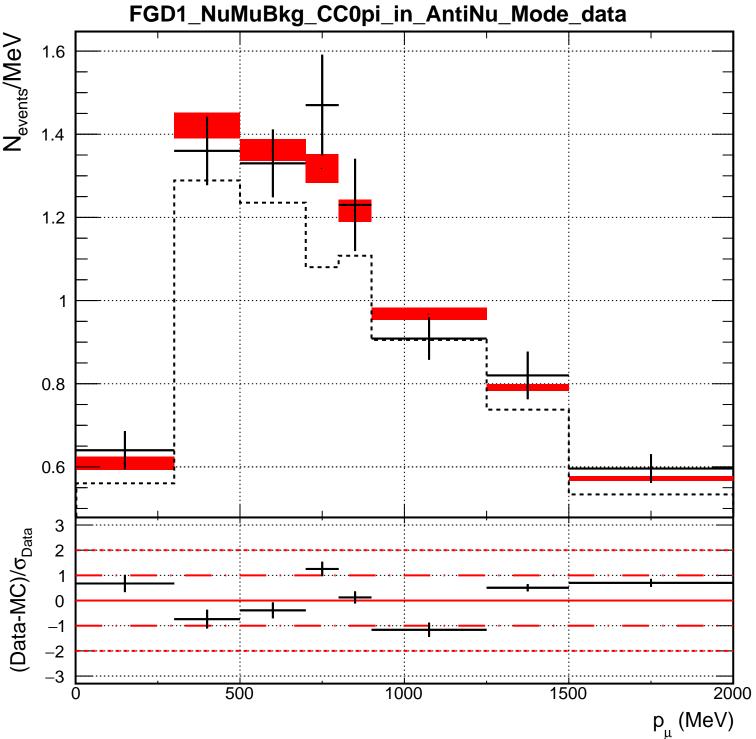
FGD1\_NuMuBkg\_CC0pi\_in\_AntiNu\_Mode\_MeanInL

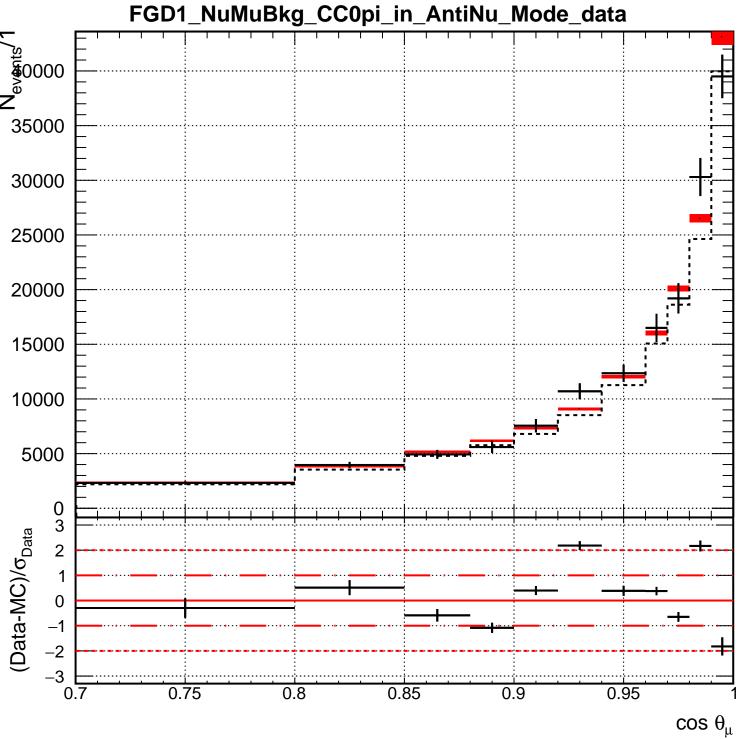


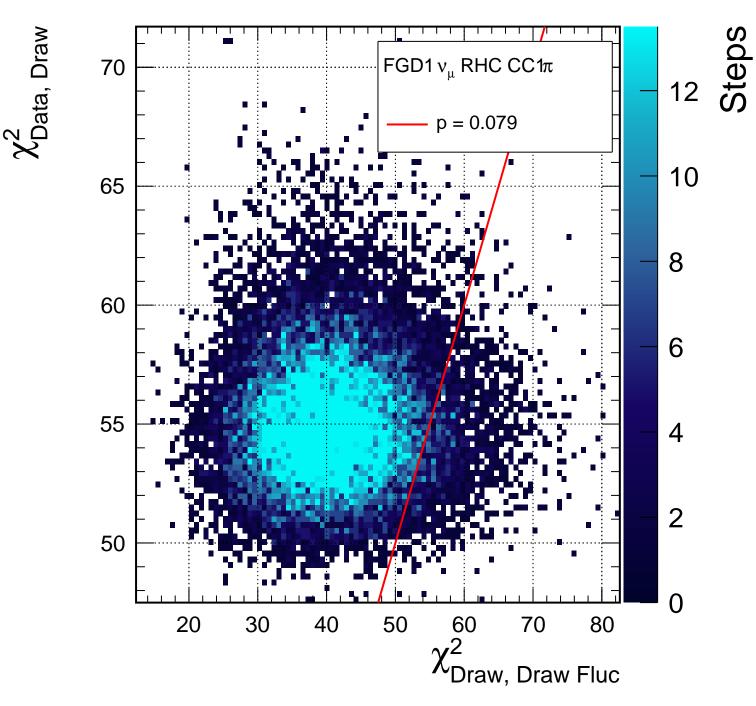
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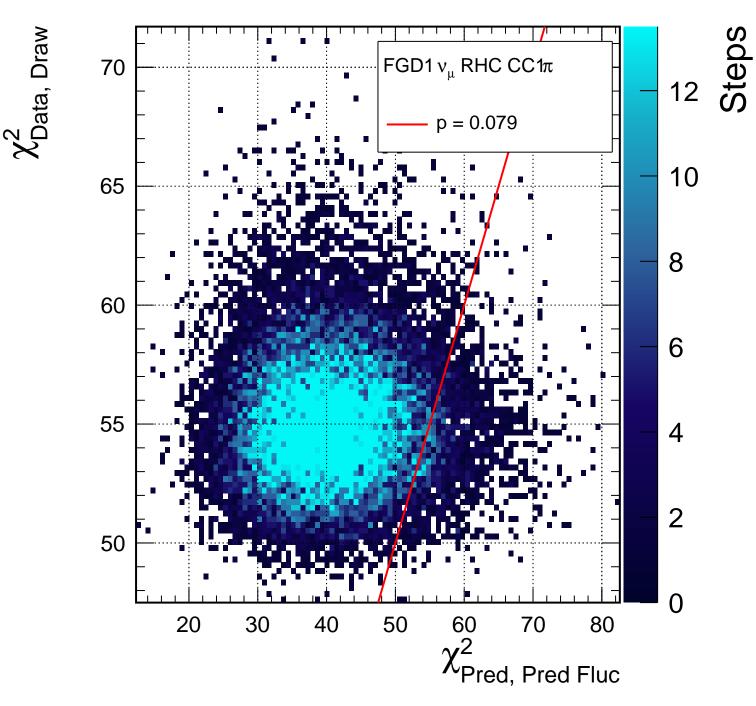




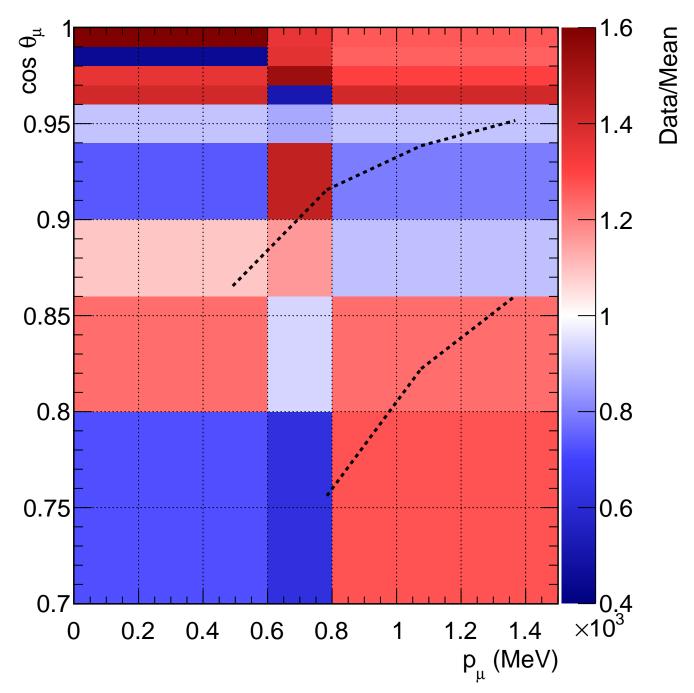




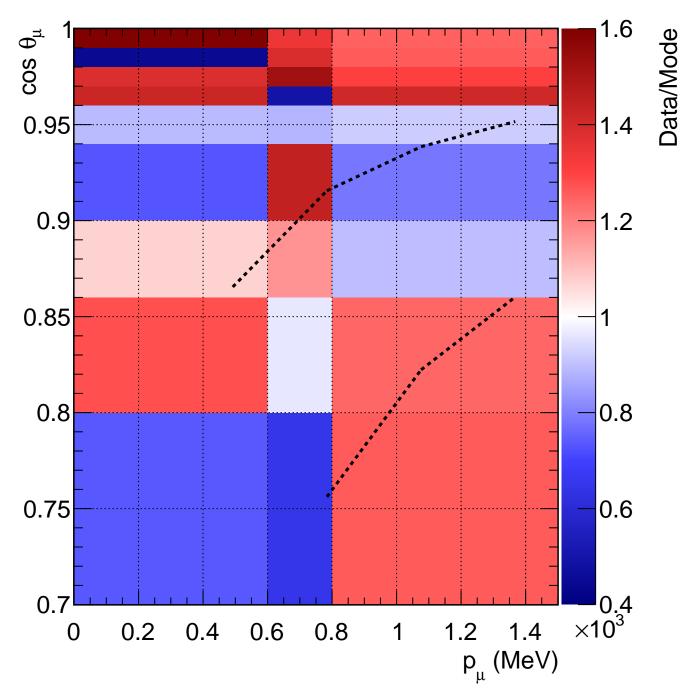




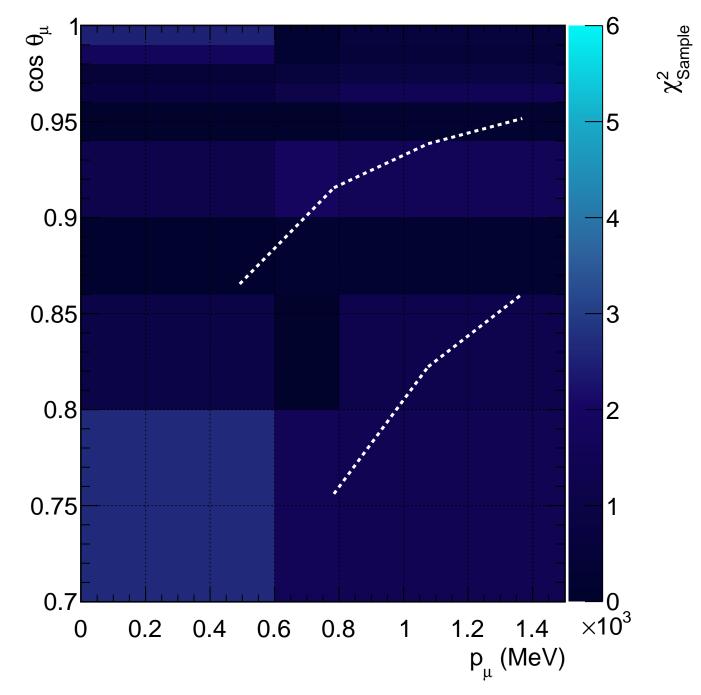
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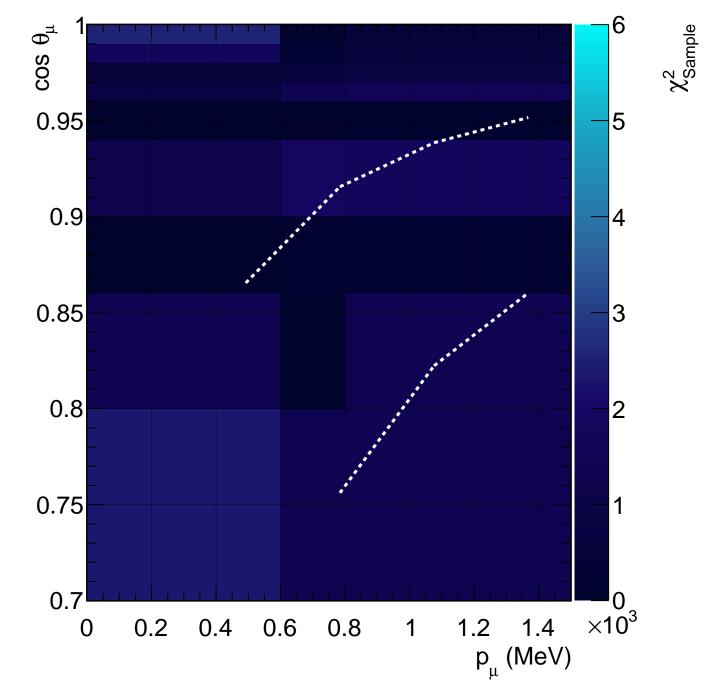
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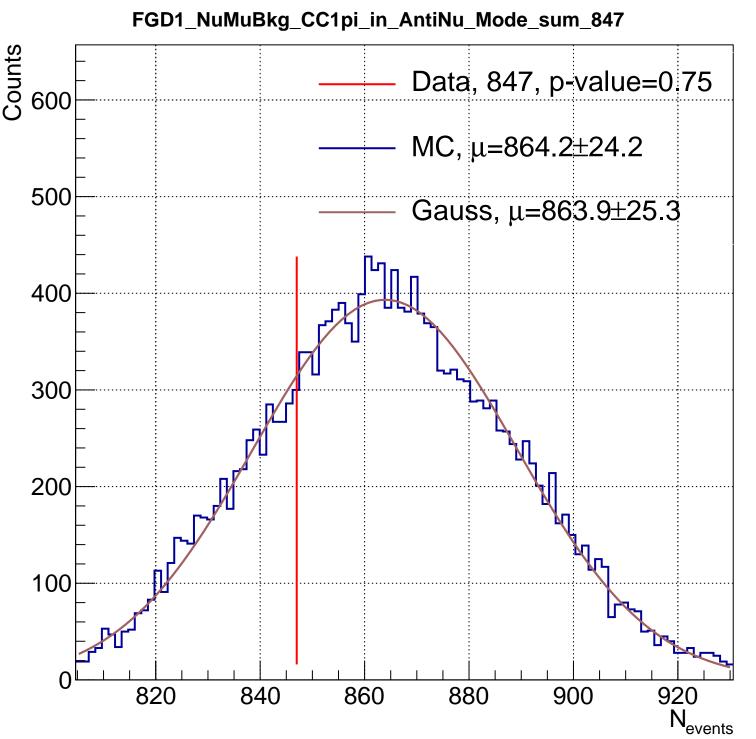


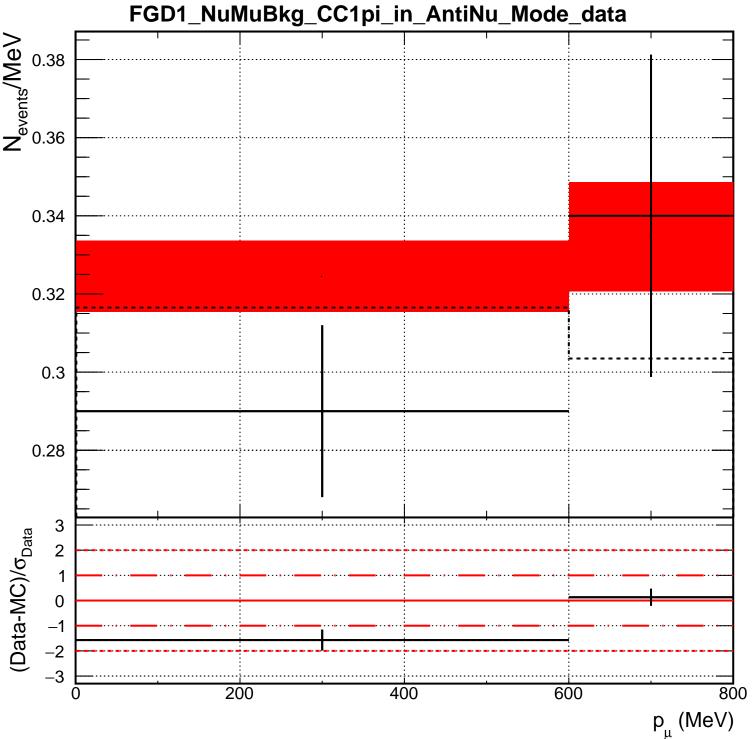
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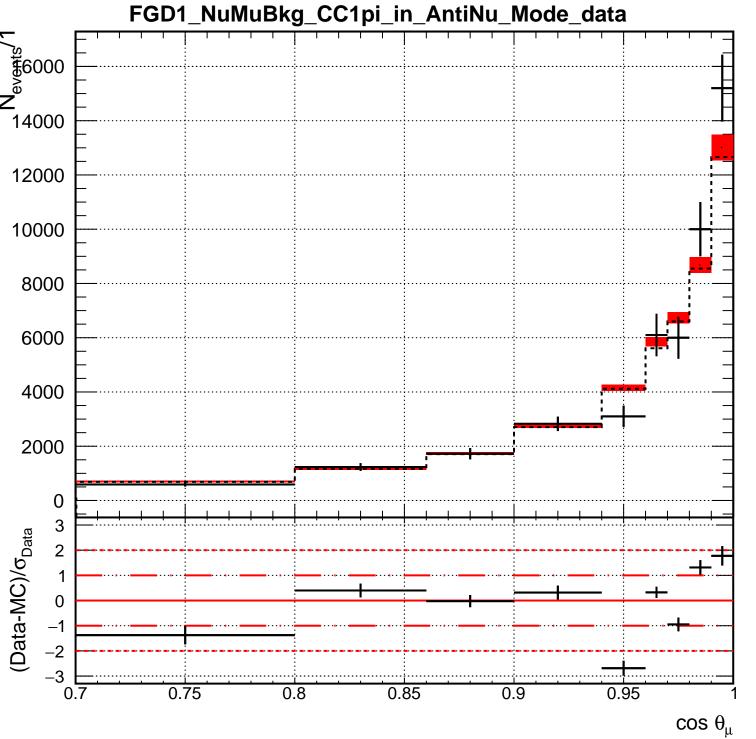


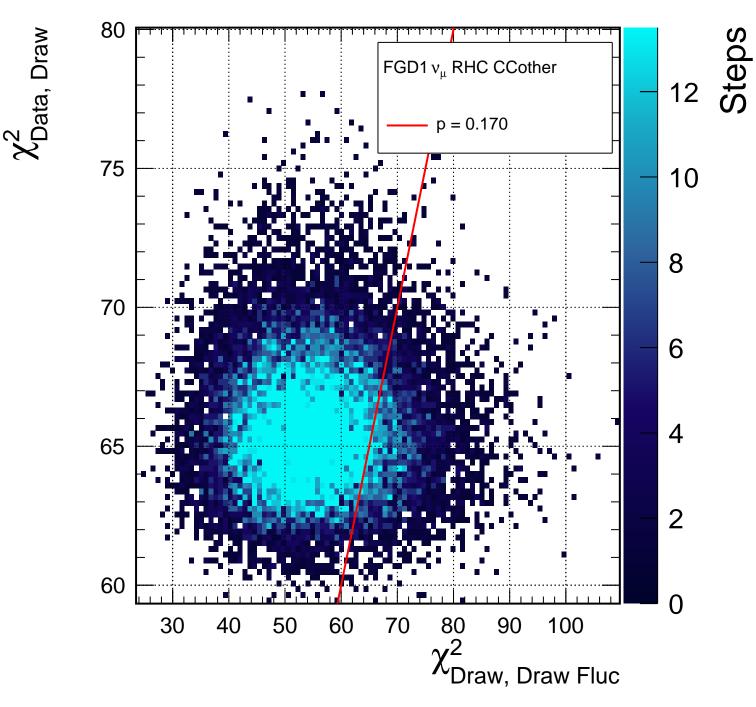
FGD1\_NuMuBkg\_CC1pi\_in\_AntiNu\_Mode\_ModeInL

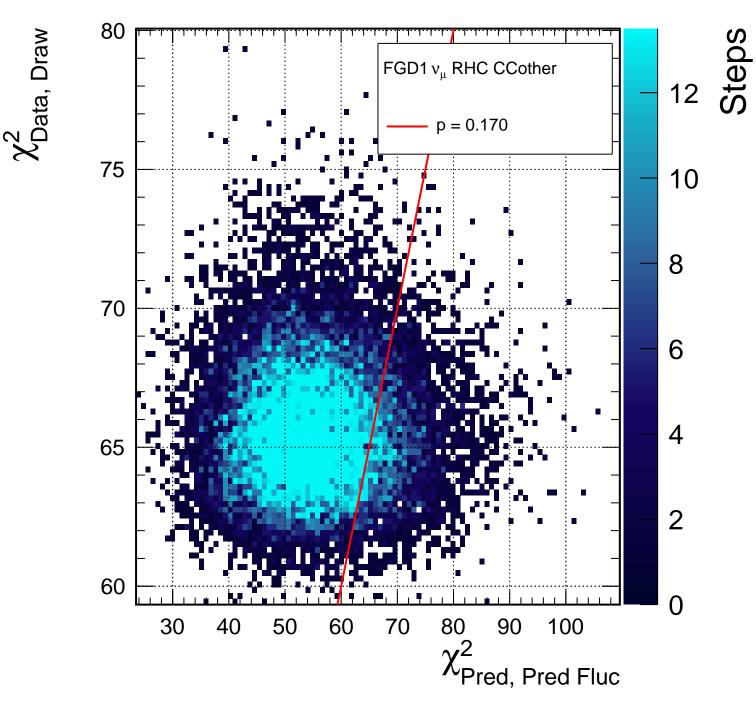




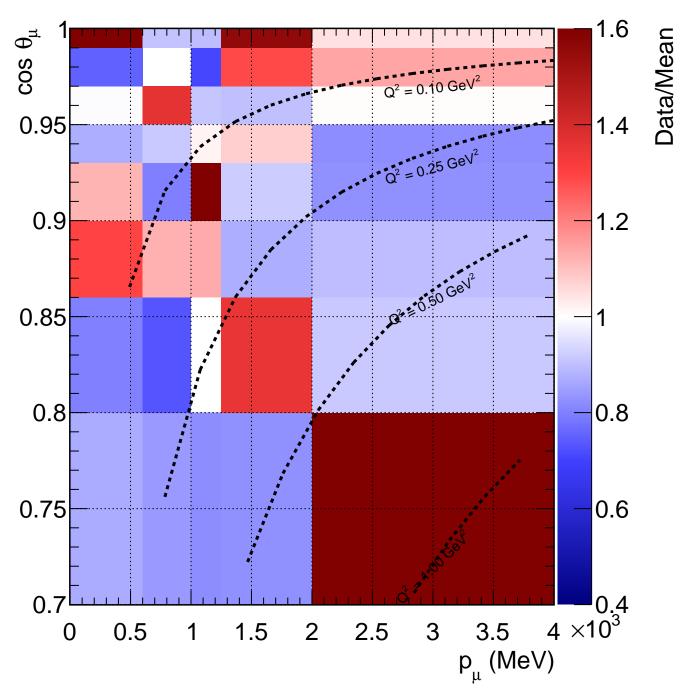




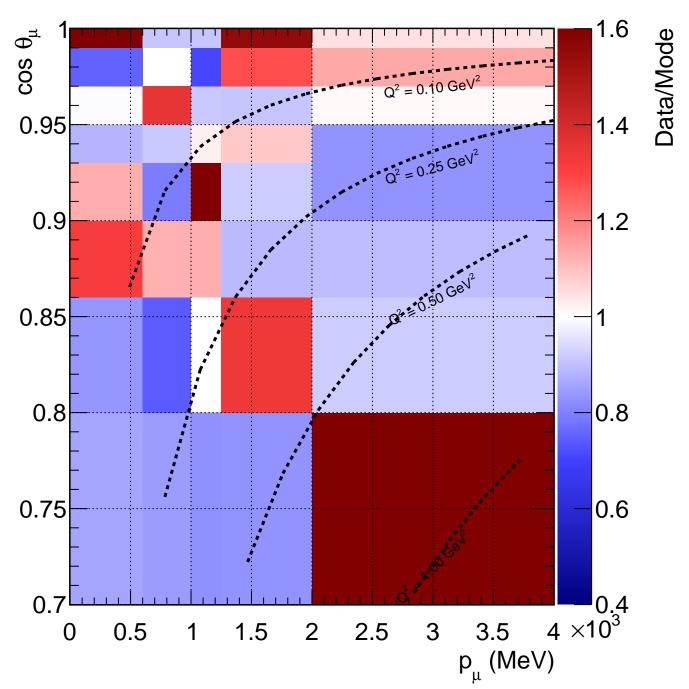




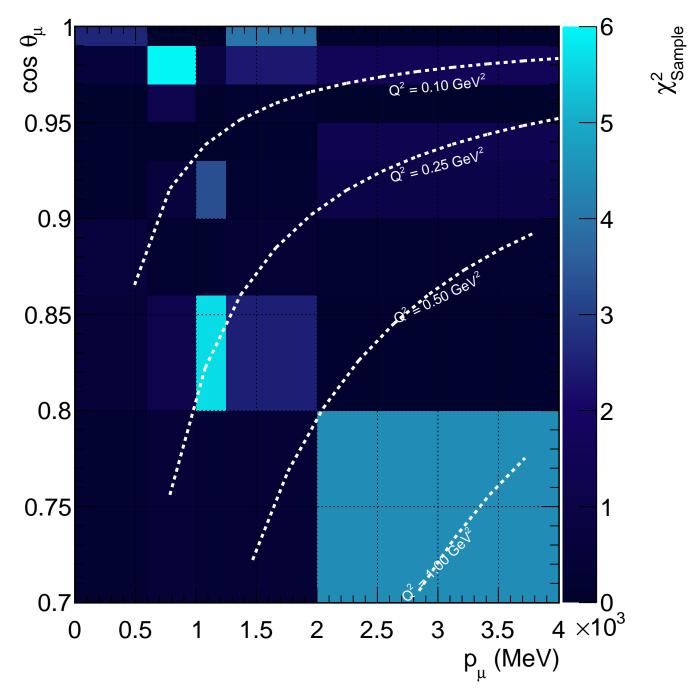
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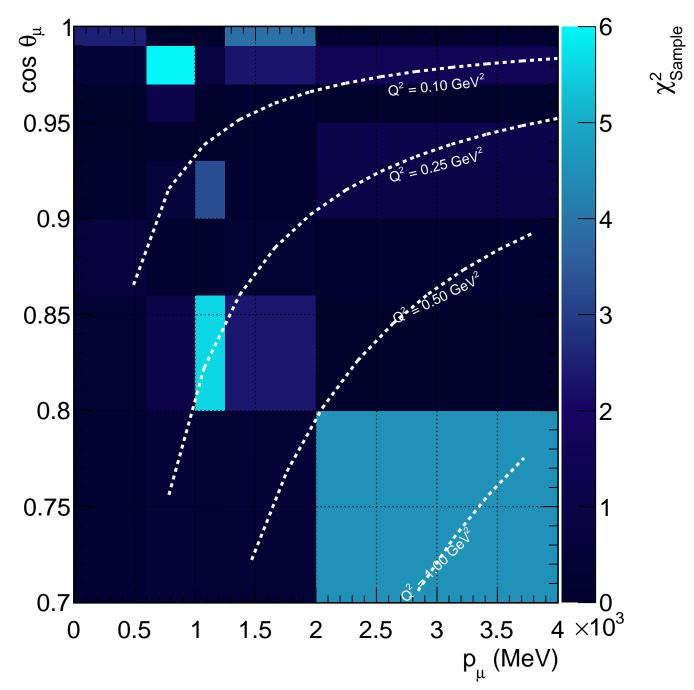
FGD1\_NuMuBkg\_CCother\_in\_AntiNu\_Mode\_mode\_ratio

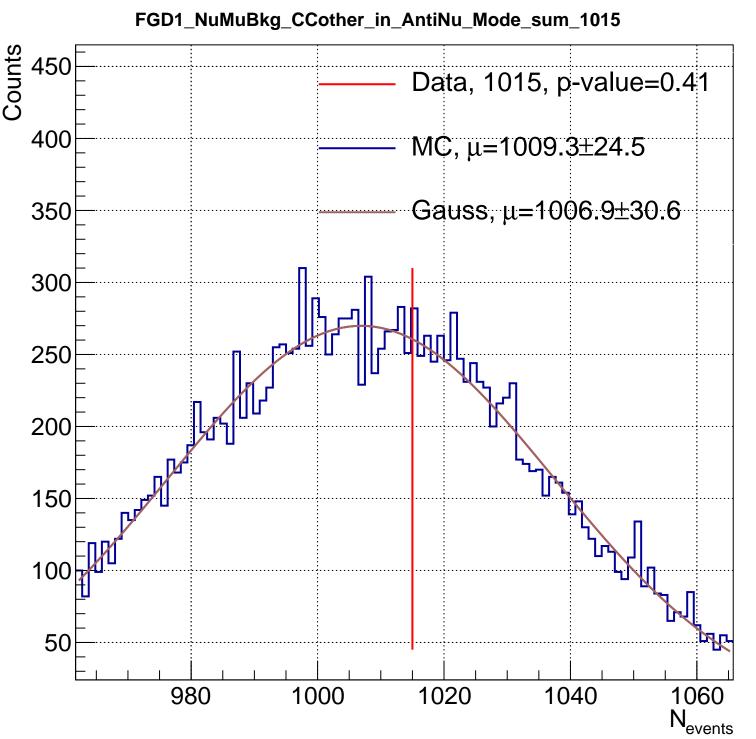


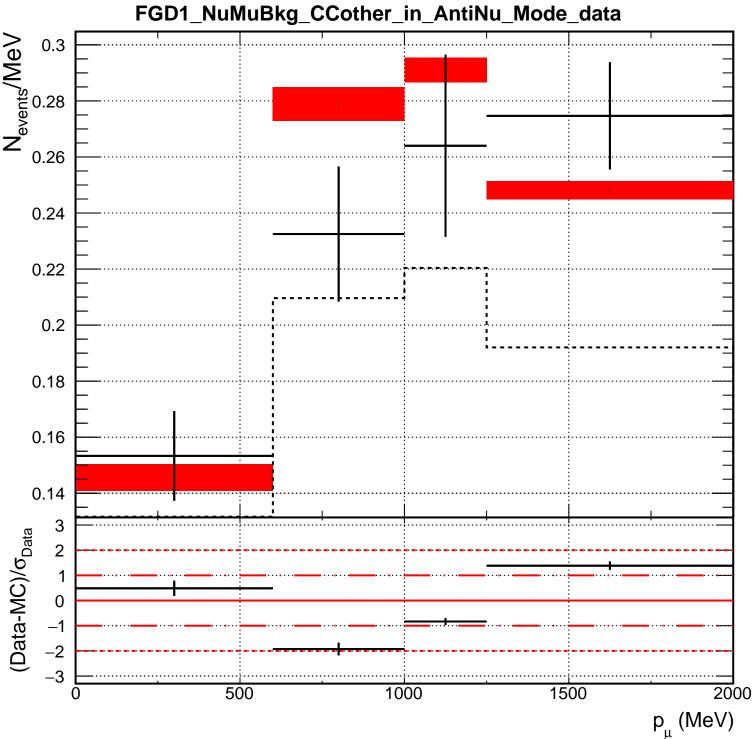
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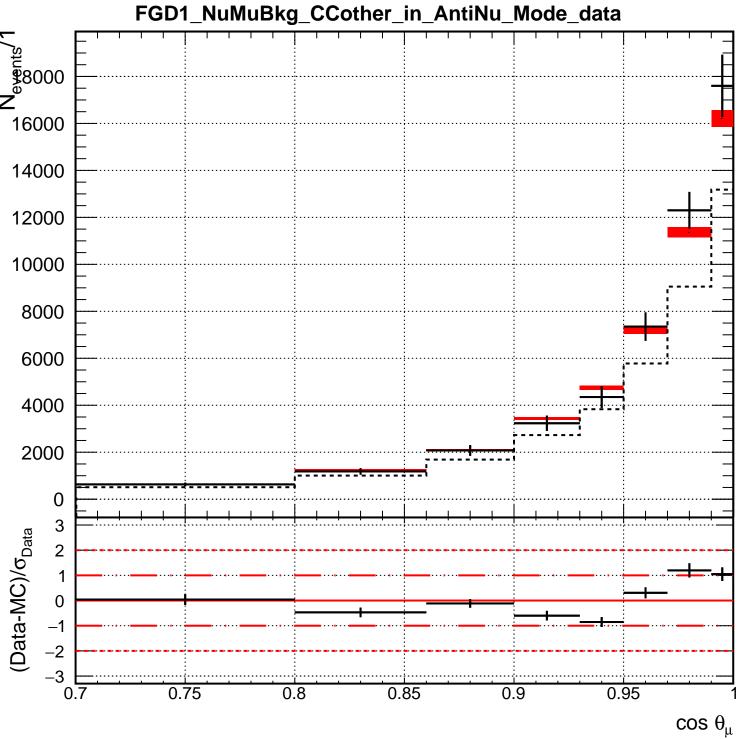


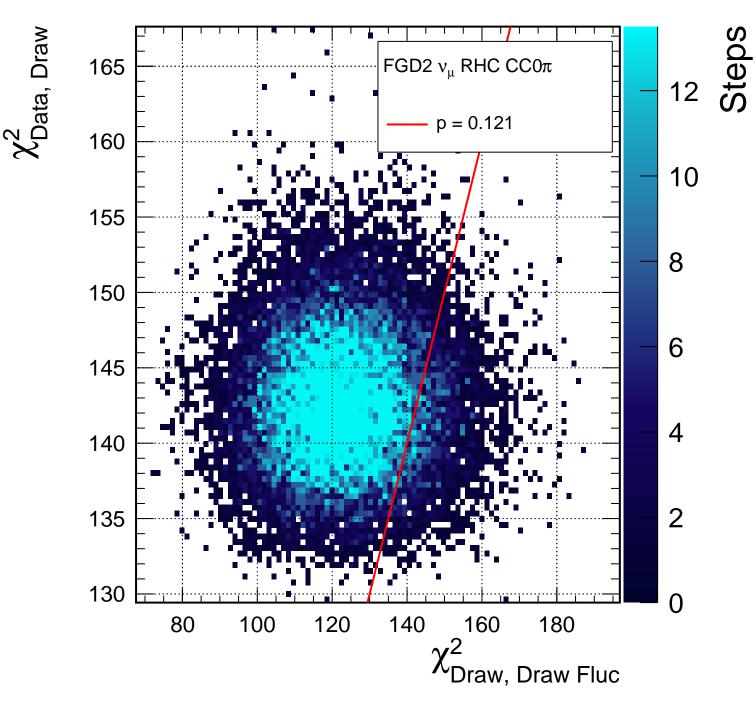
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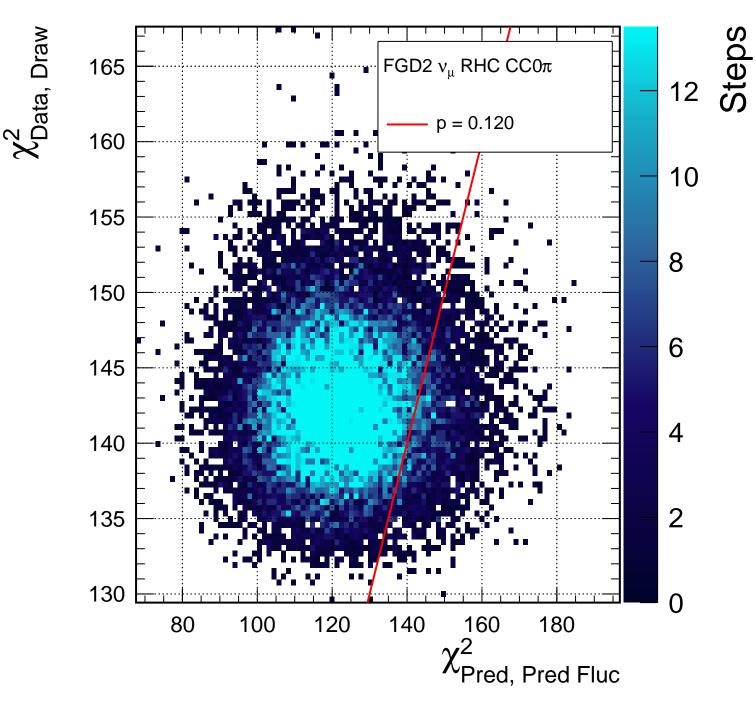




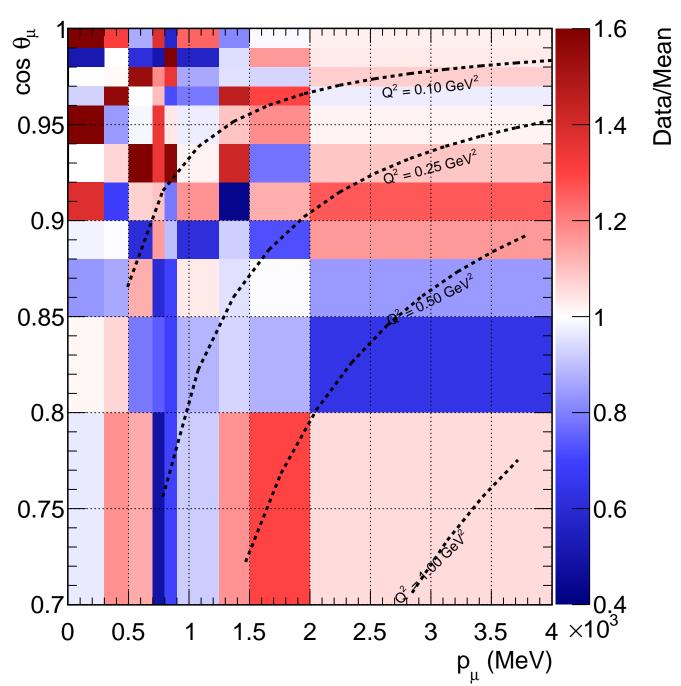




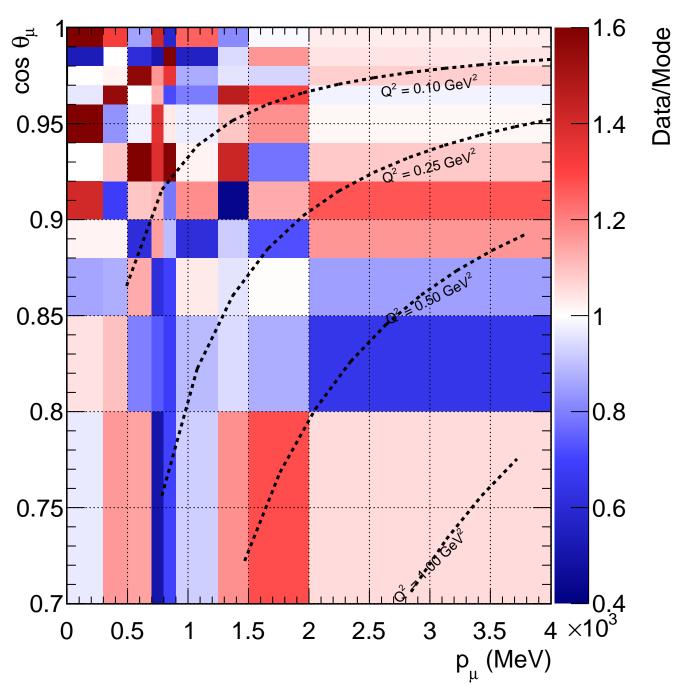




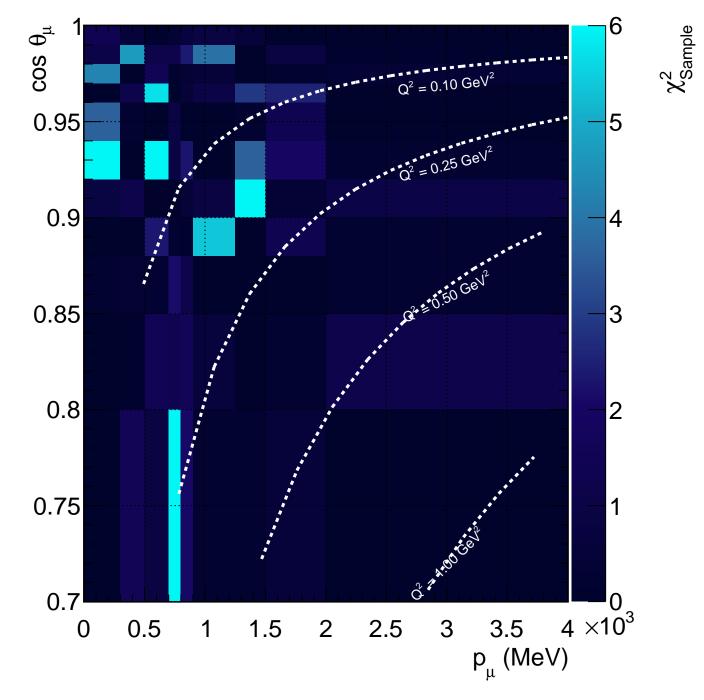
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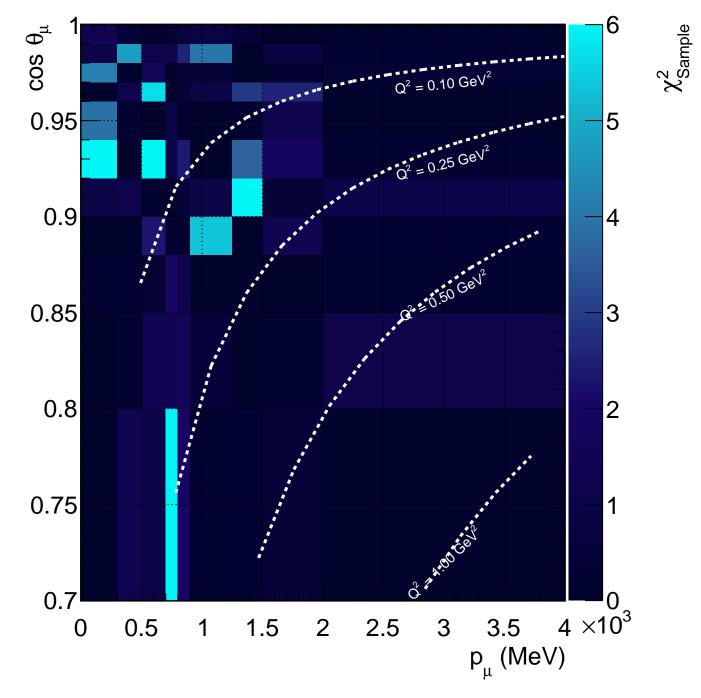
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FGD2\_NuMuBkg\_CC0pi\_in\_AntiNu\_Mode\_MeanInL

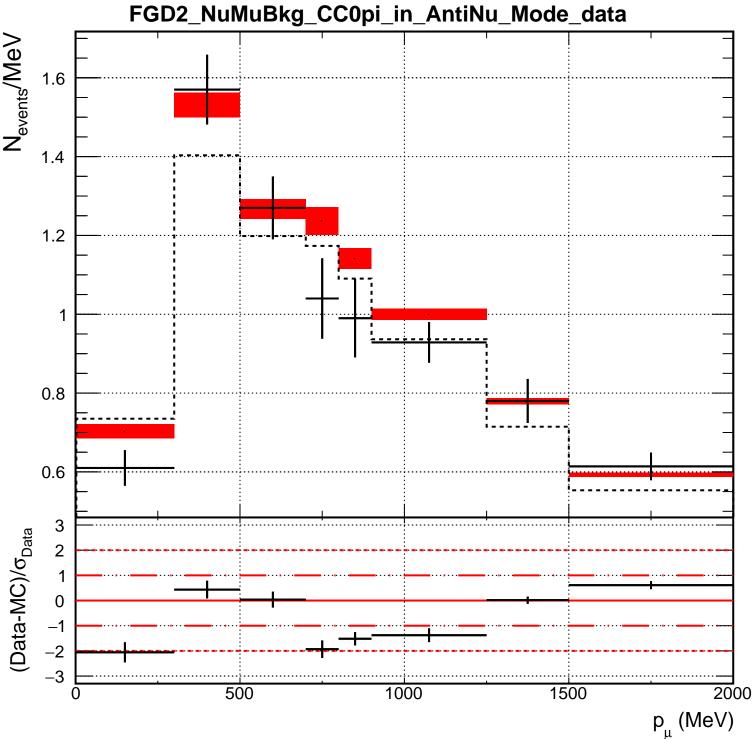


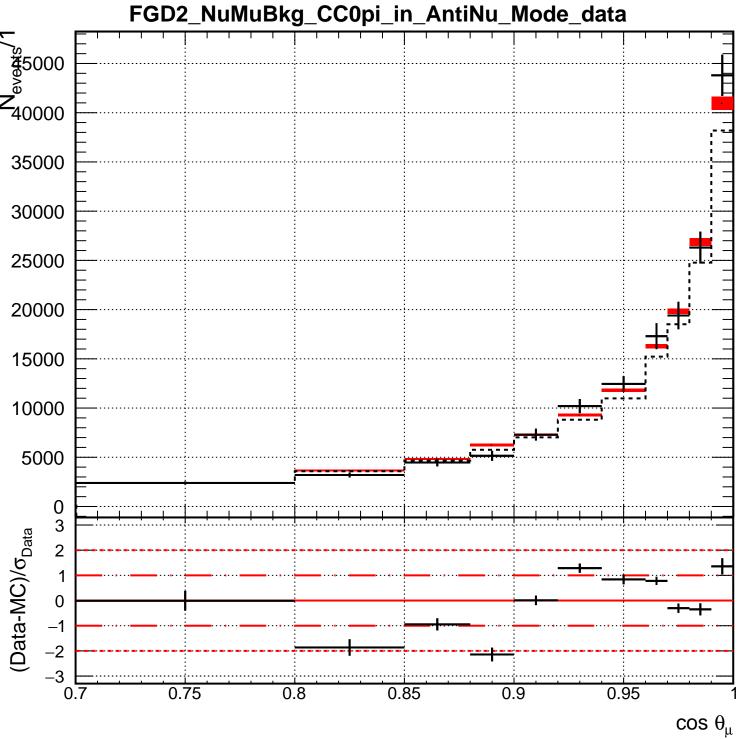
FGD2\_NuMuBkg\_CC0pi\_in\_AntiNu\_Mode\_ModeInL



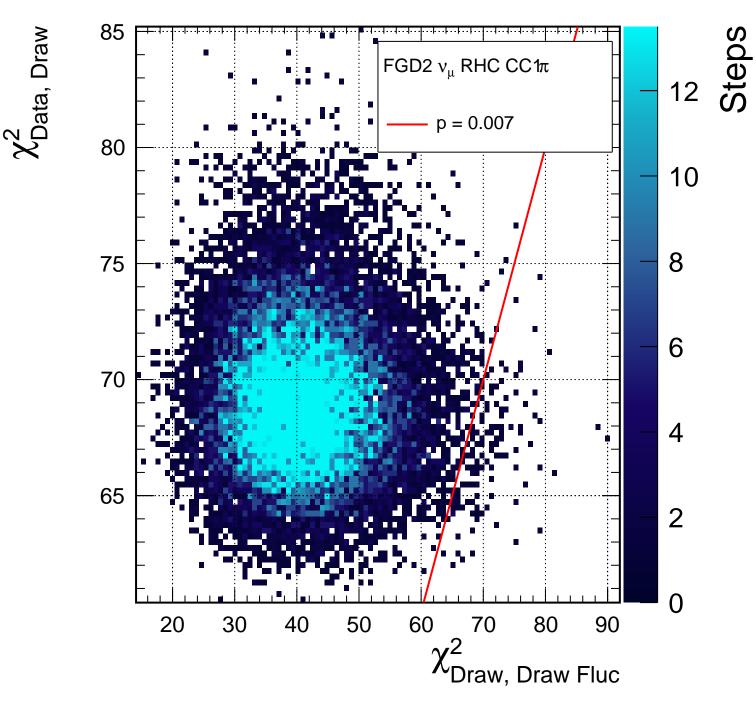
FGD2\_NuMuBkg\_CC0pi\_in\_AntiNu\_Mode\_sum\_2648 Data, 2648, p-value=0.82 MC,  $\mu$ =2694.0±47.1 Gauss,  $\mu$ =2694.1±46.9 

<sup>l</sup>events

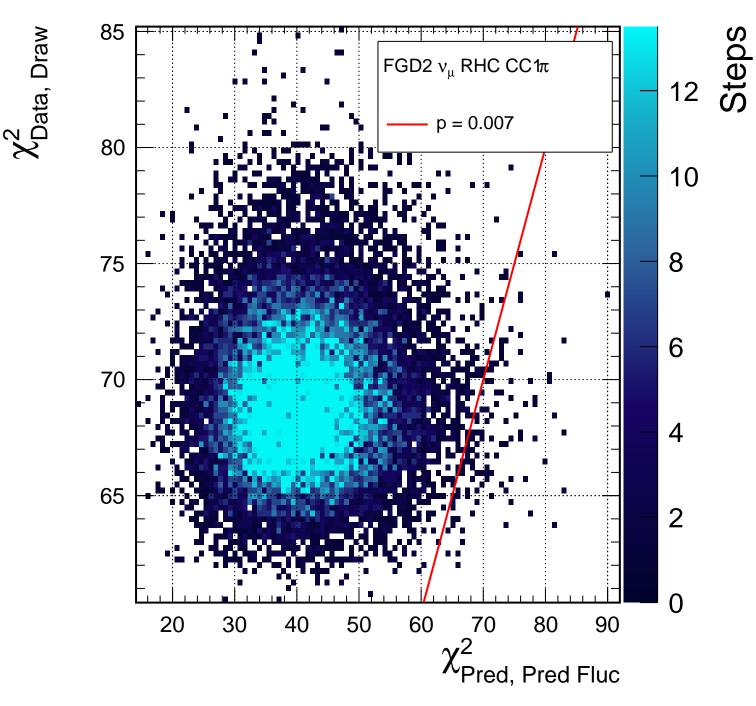




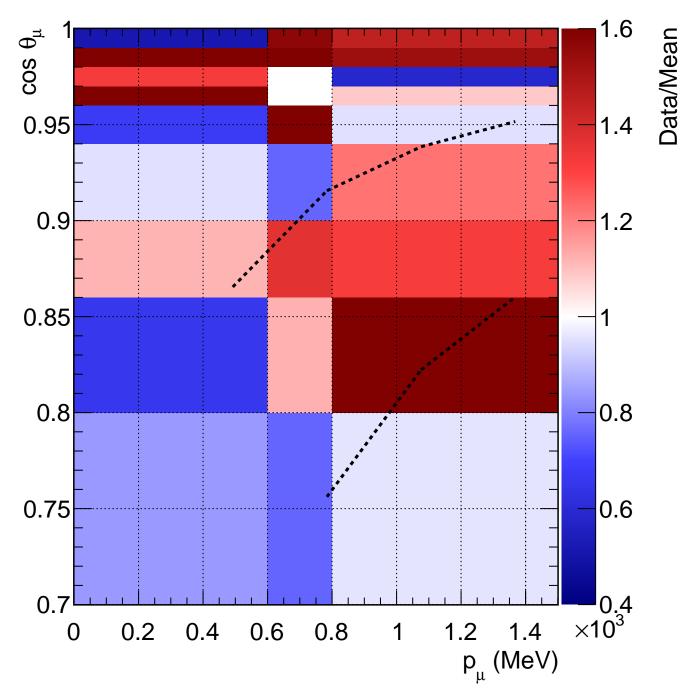
## **DataDrawFluc**



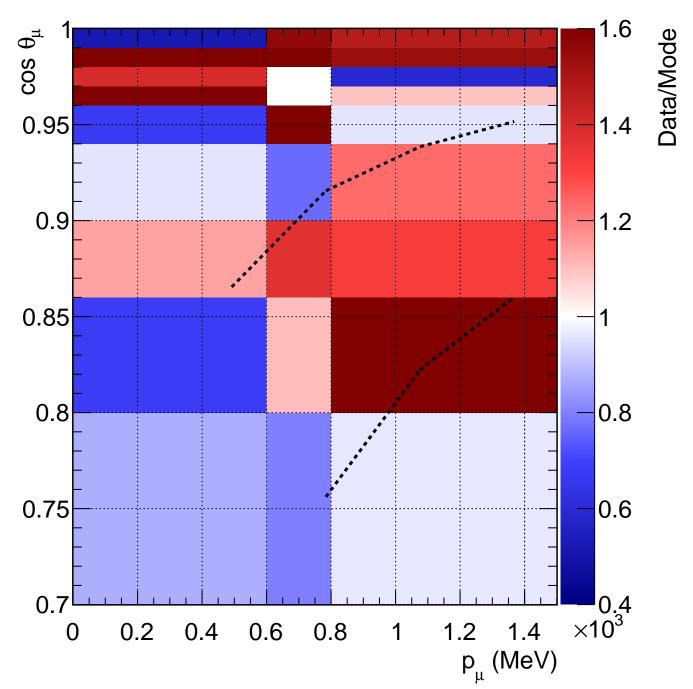
## **DataPredFluc**



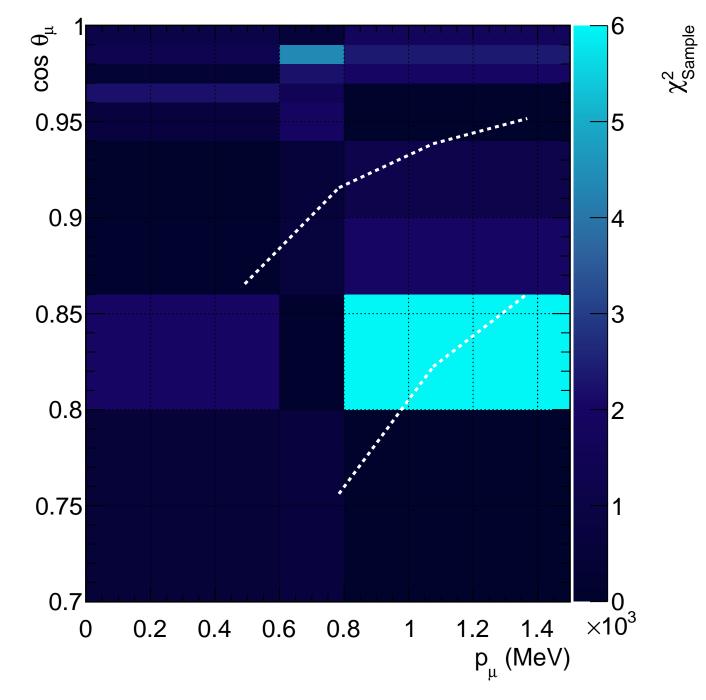
 $FGD2\_NuMuBkg\_CC1pi\_in\_AntiNu\_Mode\_mean\_ratio$ 



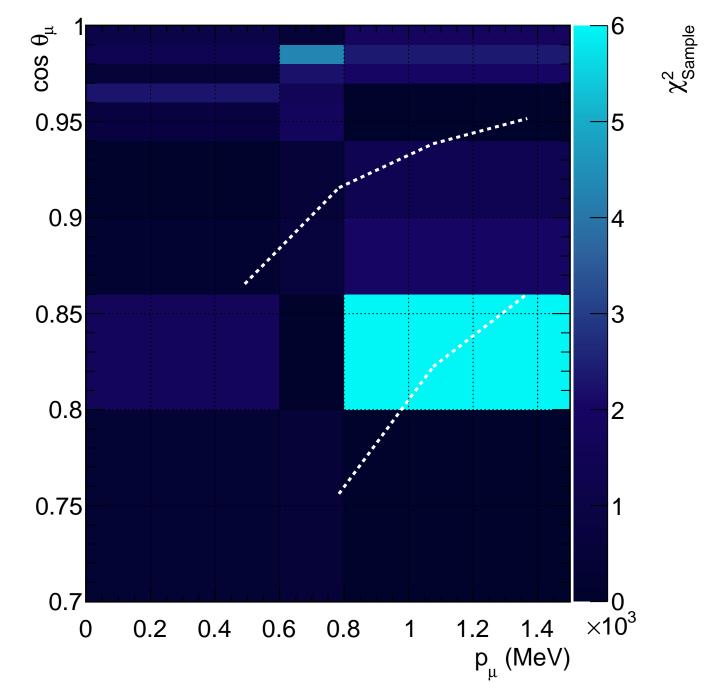
FGD2\_NuMuBkg\_CC1pi\_in\_AntiNu\_Mode\_mode\_ratio

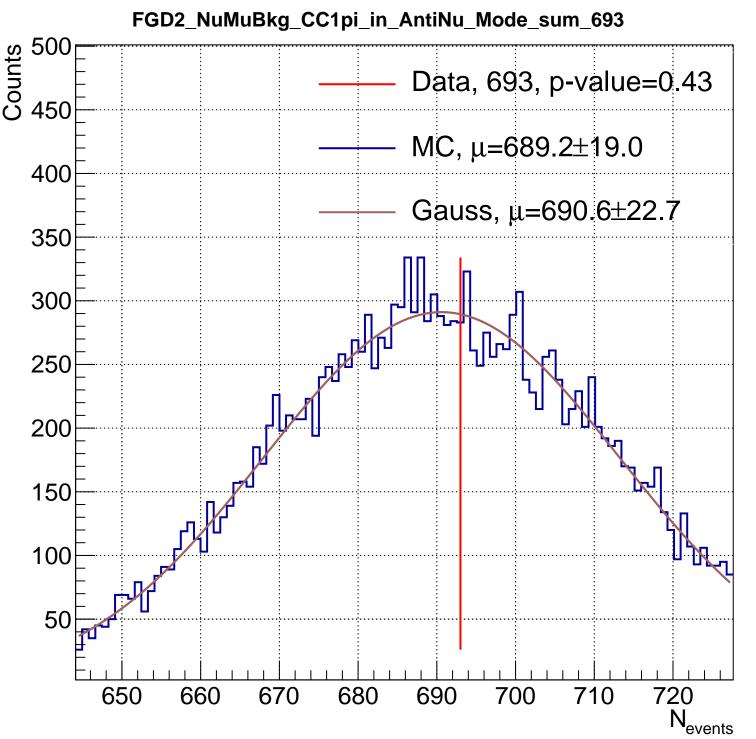


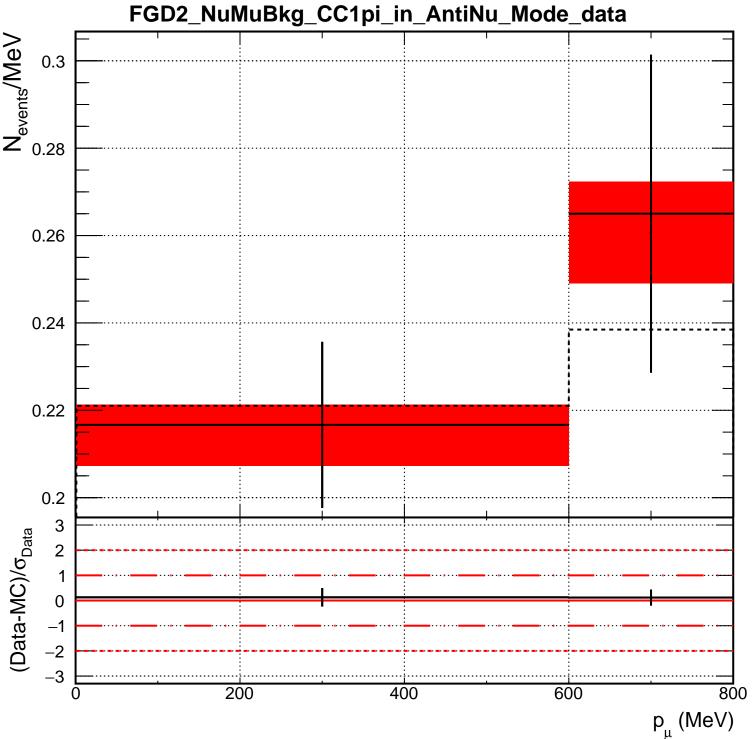
FGD2\_NuMuBkg\_CC1pi\_in\_AntiNu\_Mode\_MeanInL

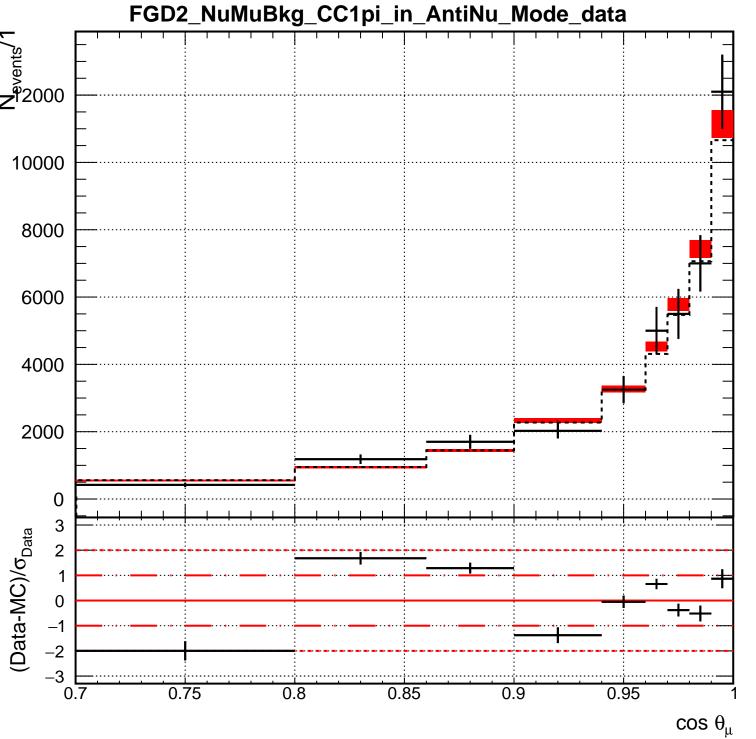


FGD2\_NuMuBkg\_CC1pi\_in\_AntiNu\_Mode\_ModeInL

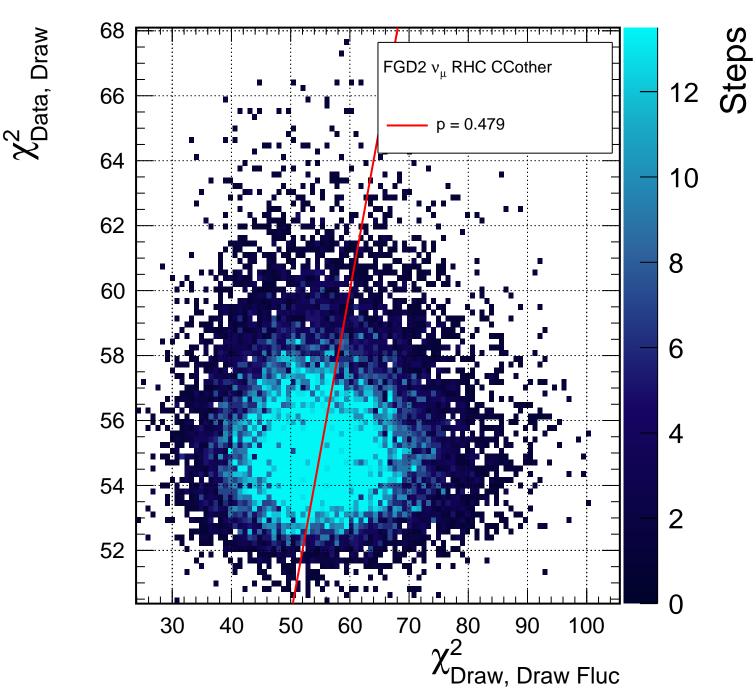




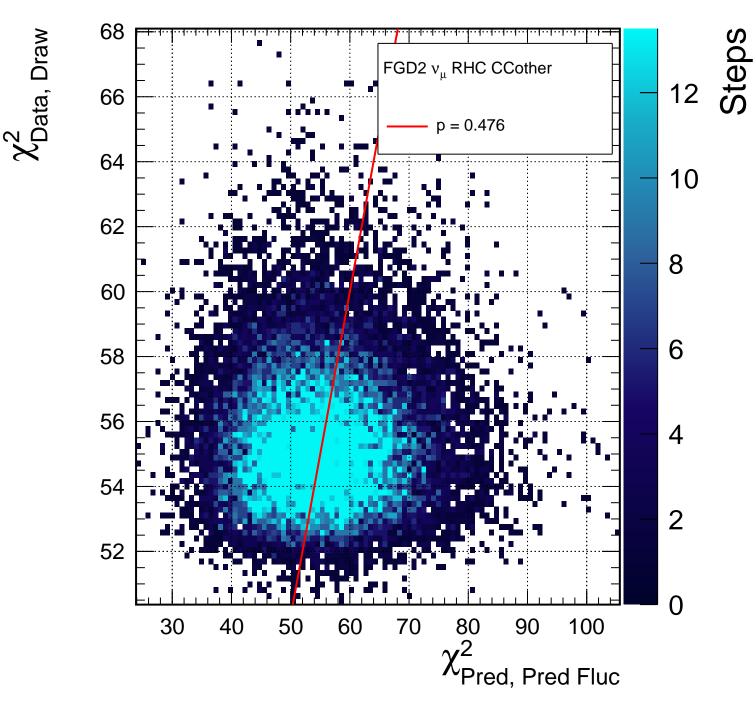




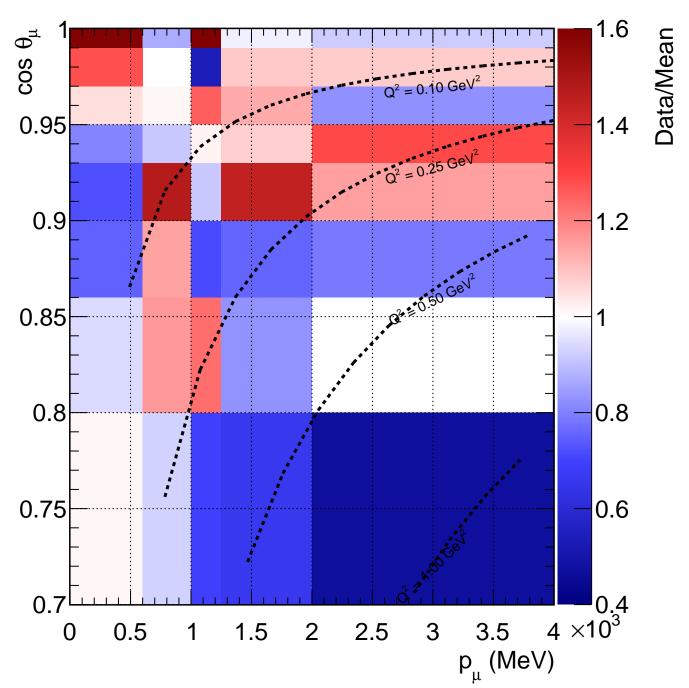
## **DataDrawFluc**



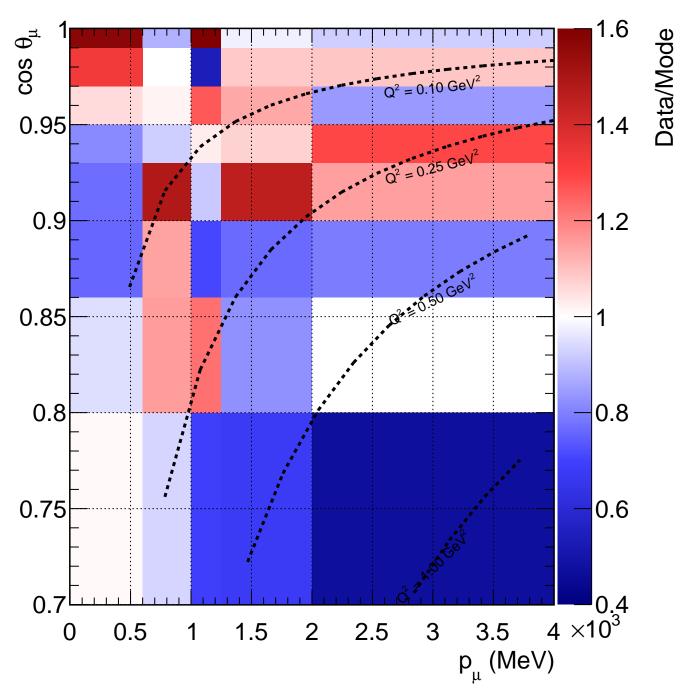
## **DataPredFluc**



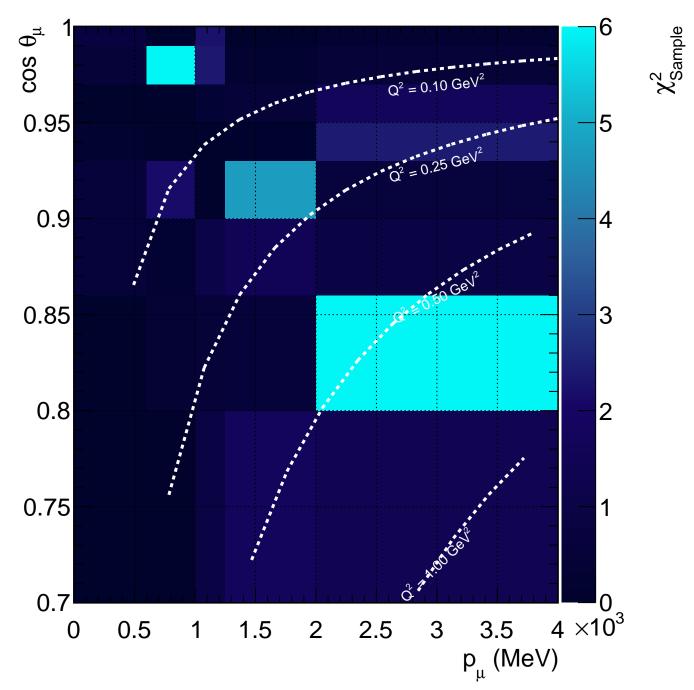
 $FGD2\_NuMuBkg\_CCother\_in\_AntiNu\_Mode\_mean\_ratio$ 



 $FGD2\_NuMuBkg\_CCother\_in\_AntiNu\_Mode\_mode\_ratio$ 



 ${\bf FGD2\_NuMuBkg\_CCother\_in\_AntiNu\_Mode\_MeanInL}$ 



 $FGD2\_NuMuBkg\_CCother\_in\_AntiNu\_Mode\_ModelnL$ 

