Kaons analysis of gen2 data

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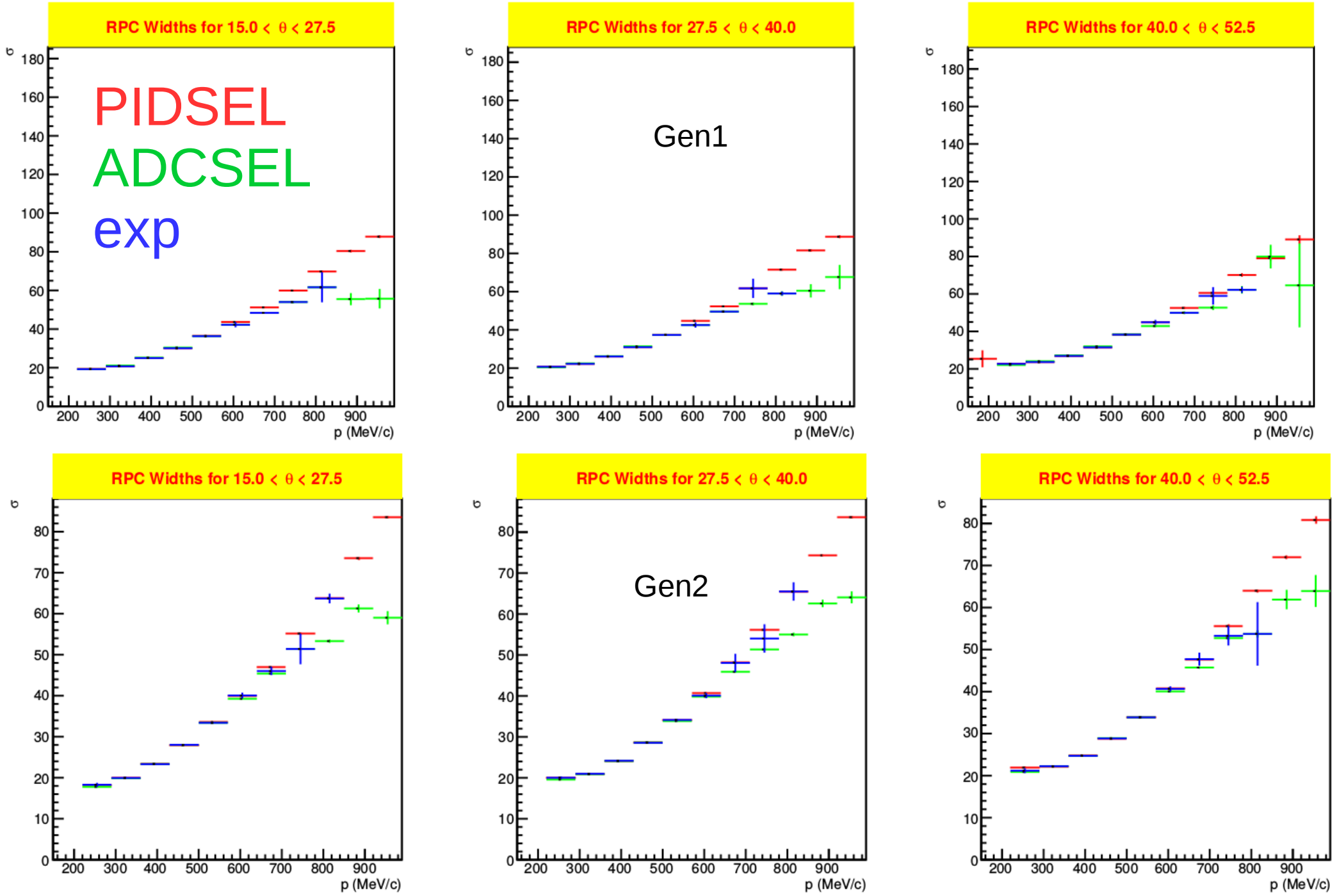
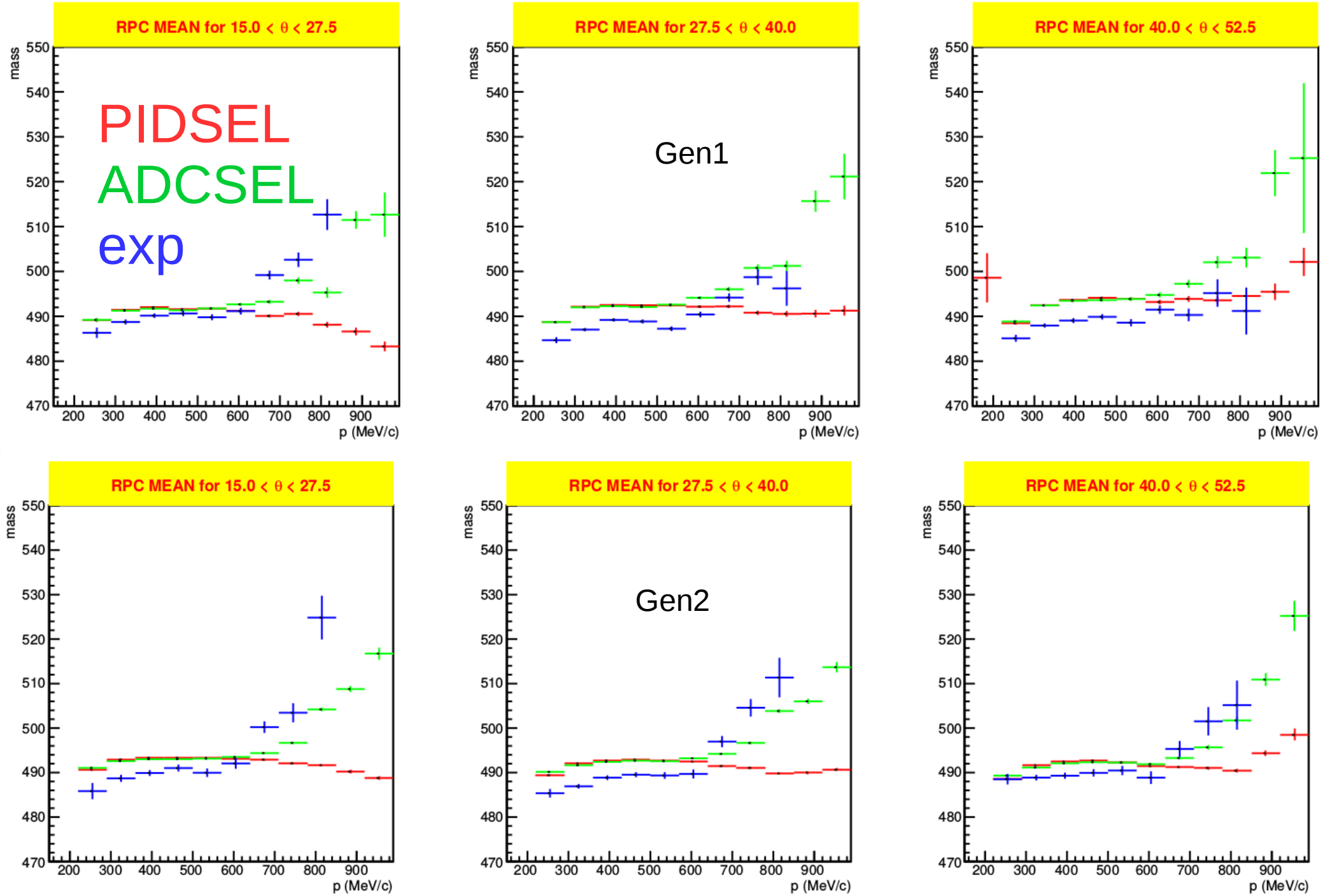
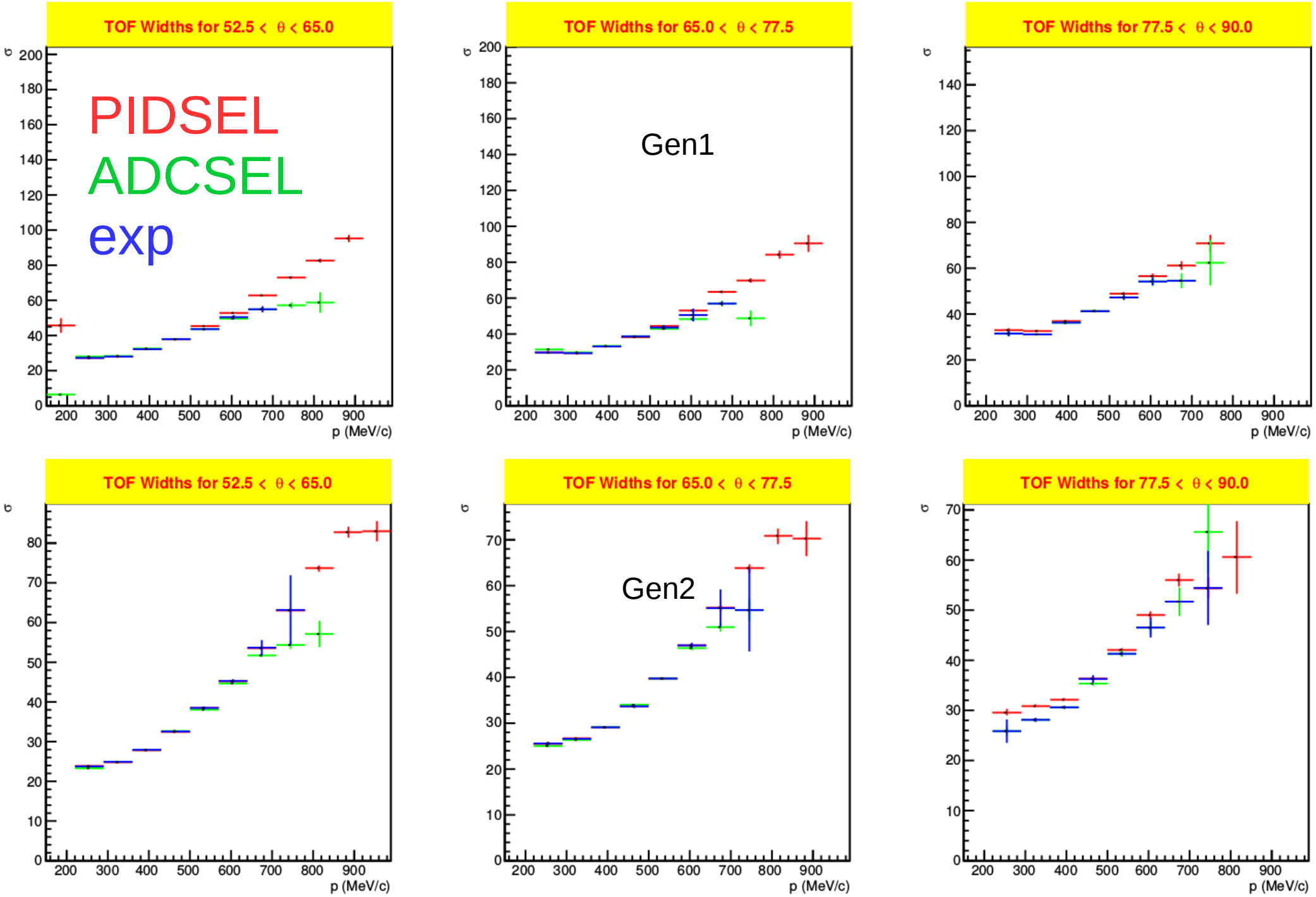
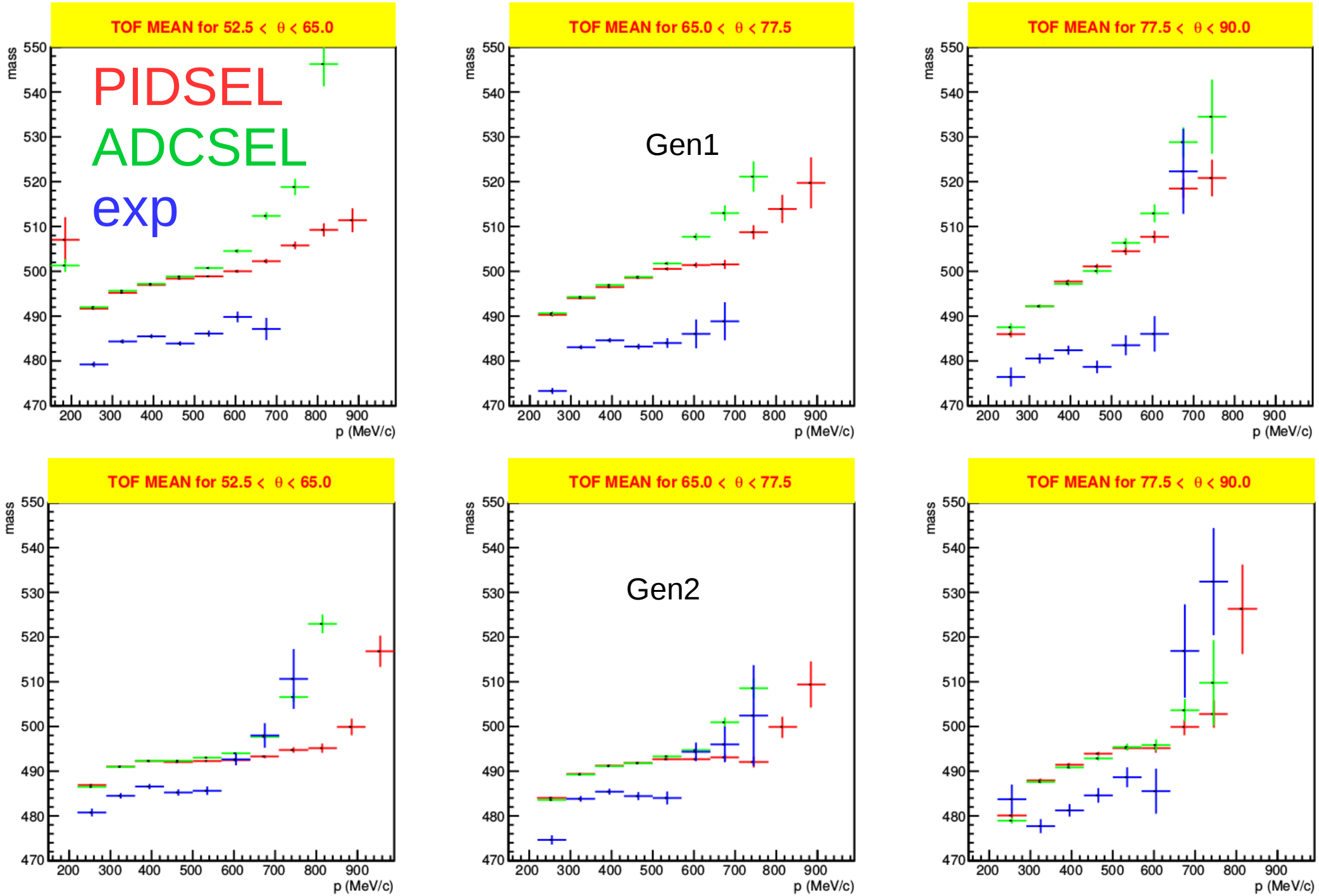
Contents

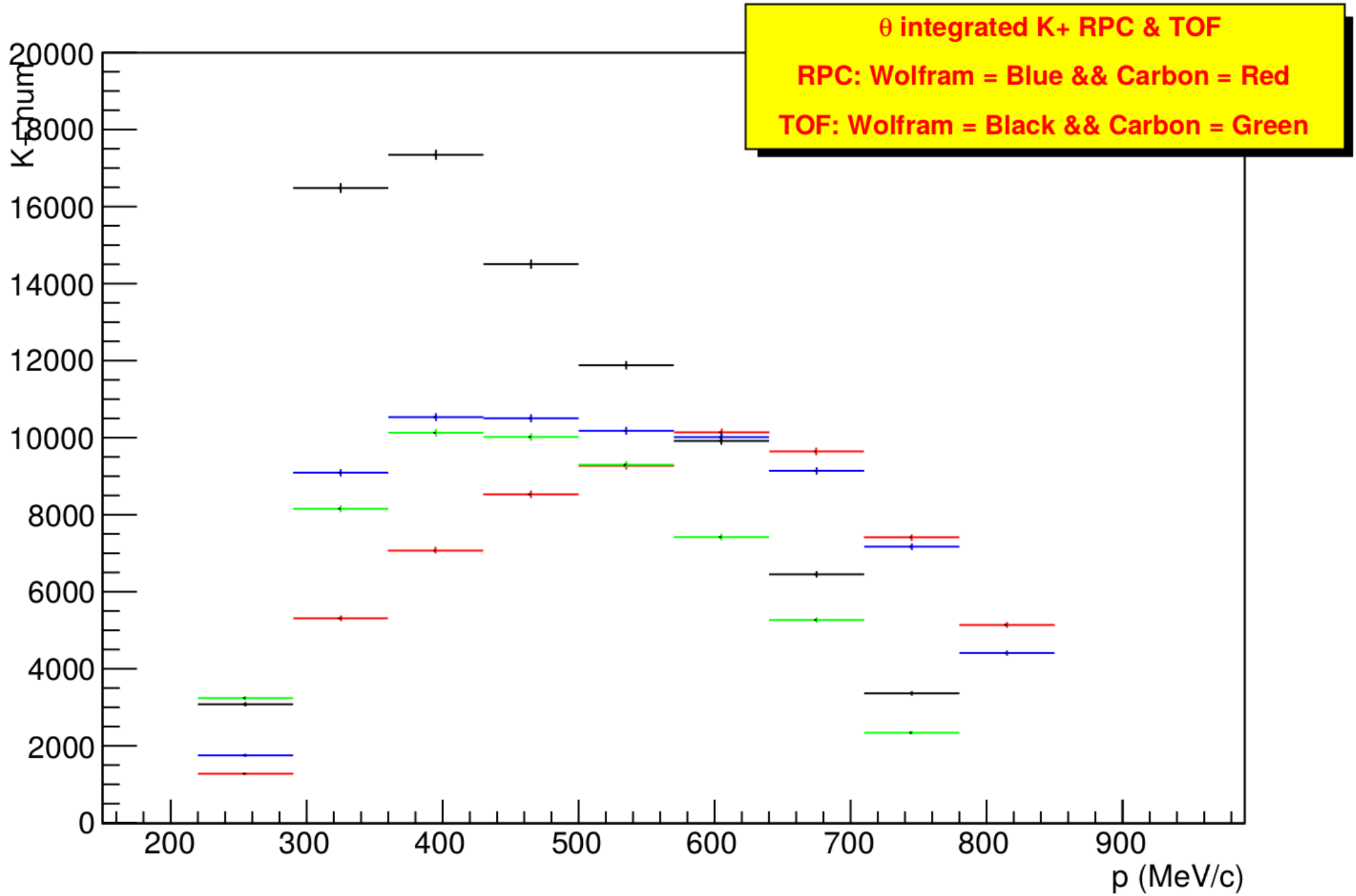
- Mass and s comparison between PIDSEL & ADCSEL for gen2 (exp joana cuts)
- Fits on exp data with constraints from MC fits
- Common bin analysis for K+
- K-/K+ ratios

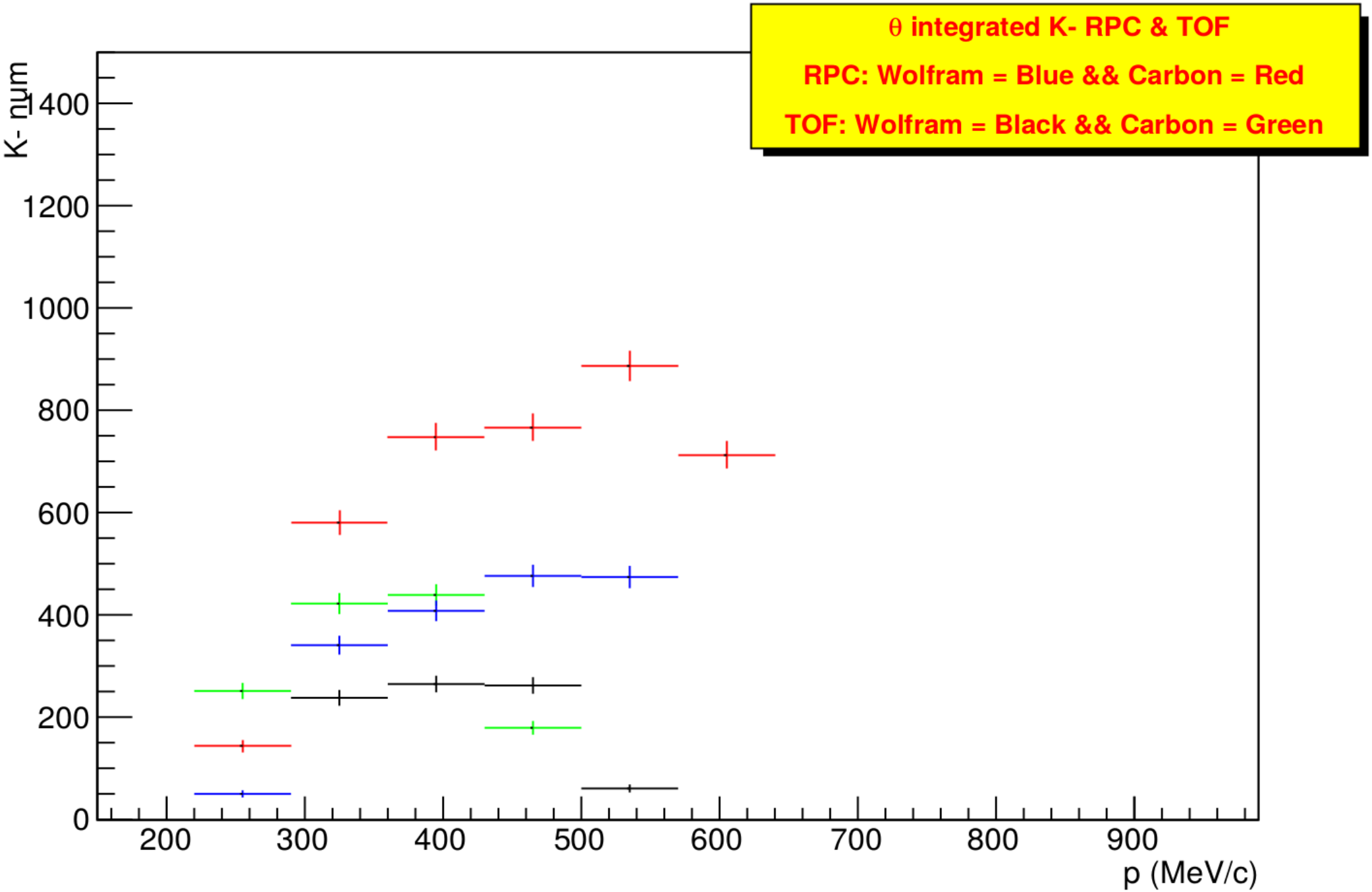

RPC Widths for 15.0 < θ < 27.5
RPC Widths for 27.5 < θ < 40.0
RPC Widths for 40.0 < θ < 52.5
PIDSEL
ADCSEL
exp
Gen1
Gen2
σ
p (MeV/c)

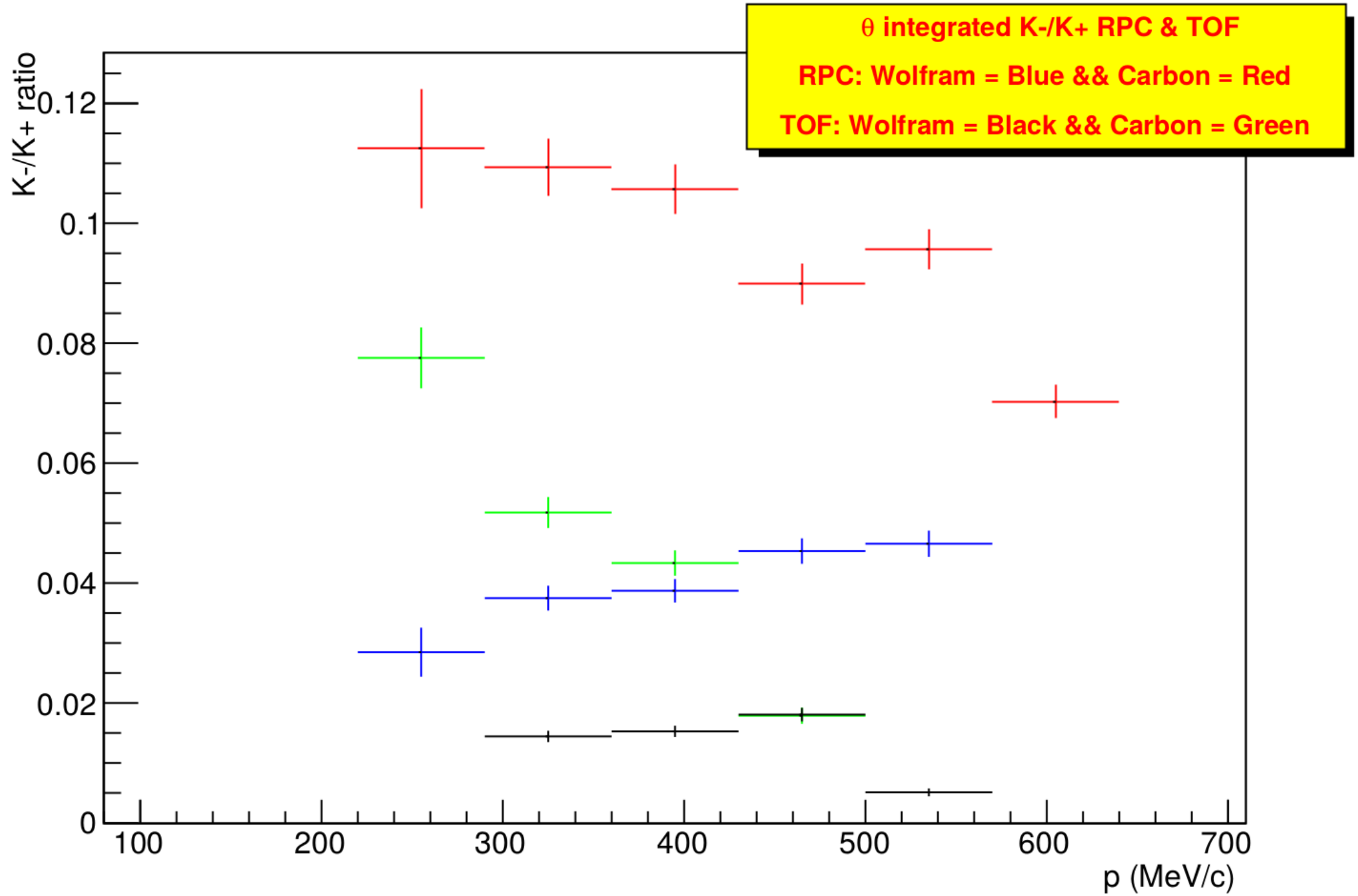

RPC MEAN for 15.0 < θ < 27.5
RPC MEAN for 27.5 < θ < 40.0
RPC MEAN for 40.0 < θ < 52.5
PIDSEL
ADCSEL
exp
Gen1
Gen2
mass
p (MeV/c)

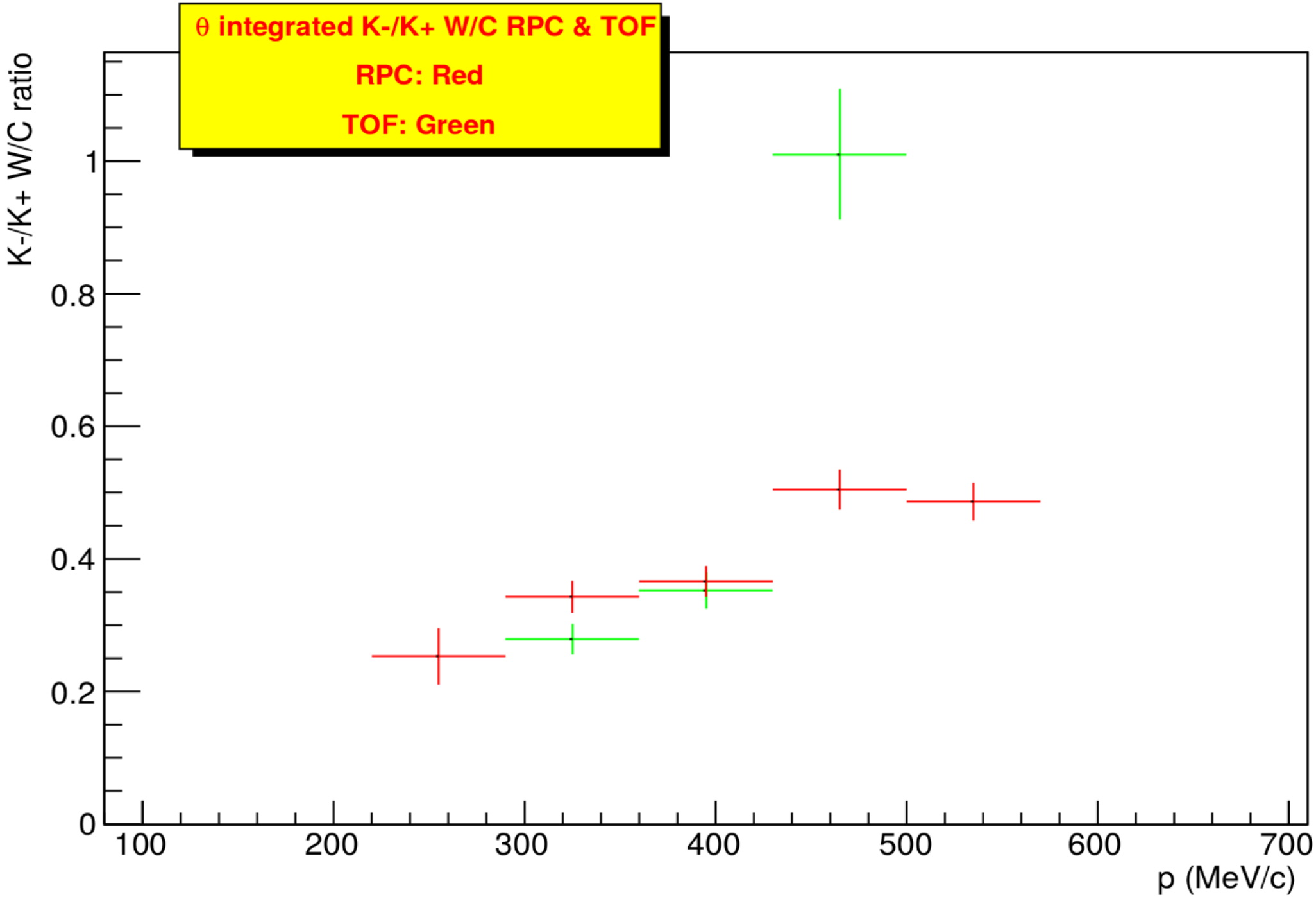

TOF Widths for 52.5 < θ < 65.0
TOF Widths for 65.0 < θ < 77.5
TOF Widths for 77.5 < θ < 90.0
PIDSEL
ADCSEL
exp
Gen1
Gen2
σ
p (MeV/c)


TOF MEAN for 52.5 < θ < 65.0
TOF MEAN for 65.0 < θ < 77.5
TOF MEAN for 77.5 < θ < 90.0
PIDSEL
ADCSEL
exp
Gen1
Gen2
mass
p (MeV/c)

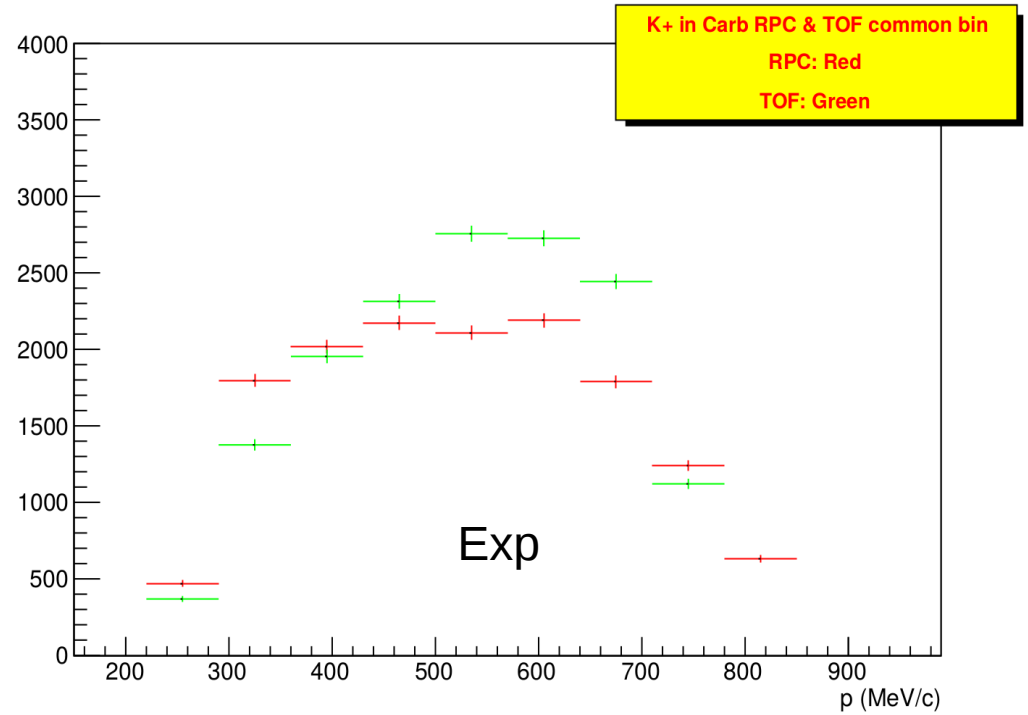

θ integrated K+ RPC & TOF
RPC: Wolfram = Blue && Carbon = Red
TOF: Wolfram = Black && Carbon = Green
K+num
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
200
300
400
500
600
700
800
900
p (MeV/c)

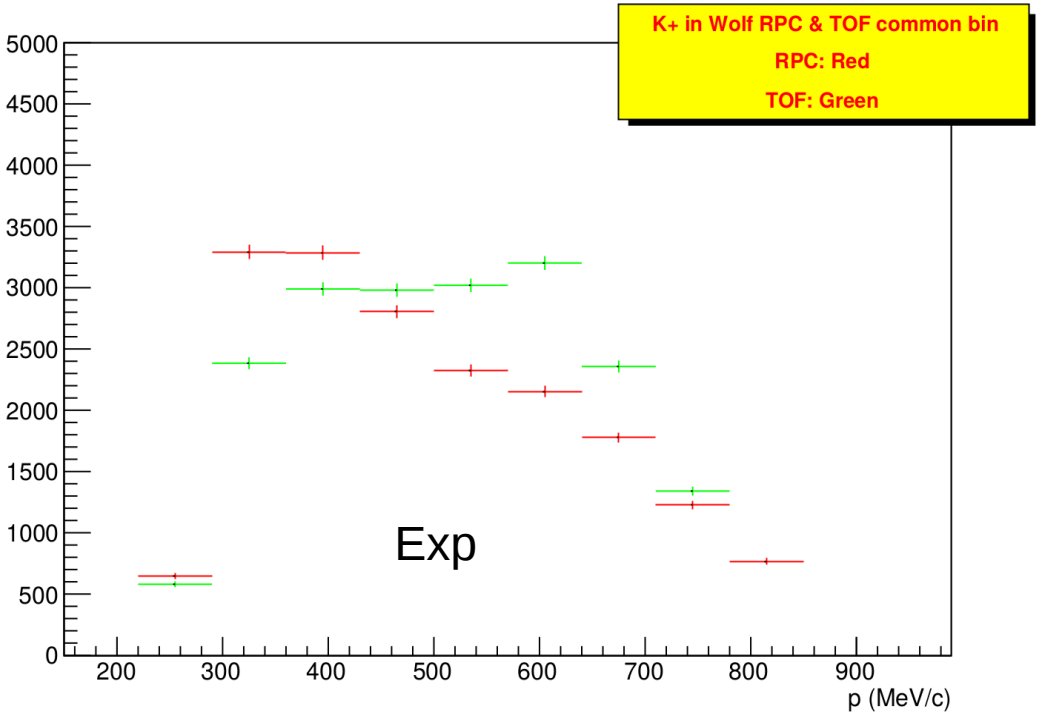

θ integrated K- RPC & TOF
RPC: Wolfram = Blue && Carbon = Red
TOF: Wolfram = Black && Carbon = Green
K- num
0
200
400
600
800
1000
1200
1400
200
300
400
500
600
700
800
900
p (MeV/c)

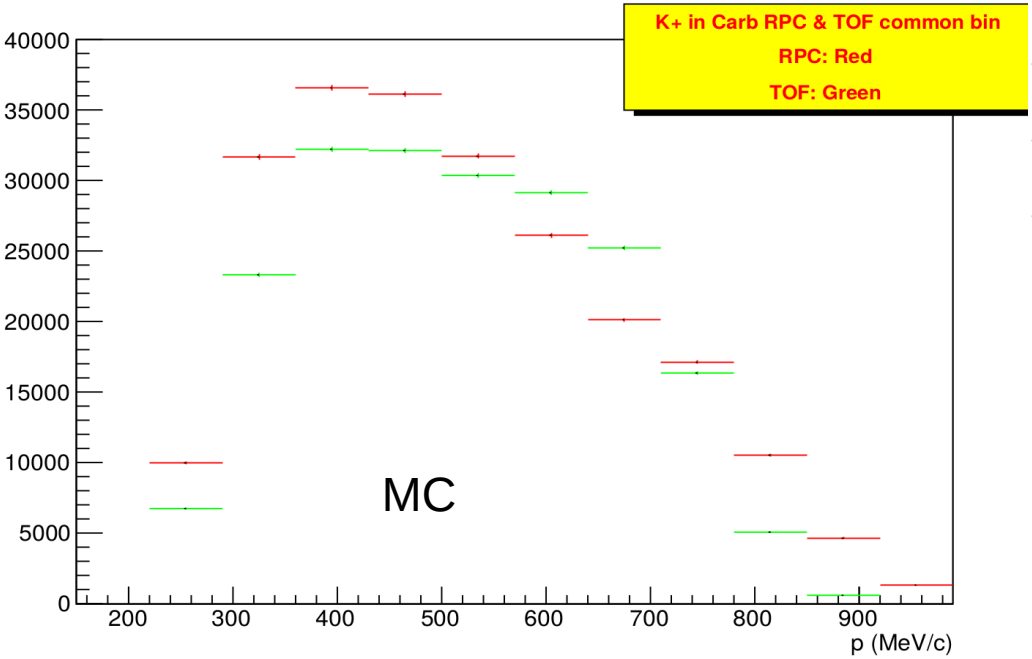

θ integrated K-/K+ RPC & TOF
RPC: Wolfram = Blue && Carbon = Red
TOF: Wolfram = Black && Carbon = Green
K-/K+ ratio
0.12
0.1
0.08
0.06
0.04
0.02
0
100
200
300
400
500
600
700
p (MeV/c)

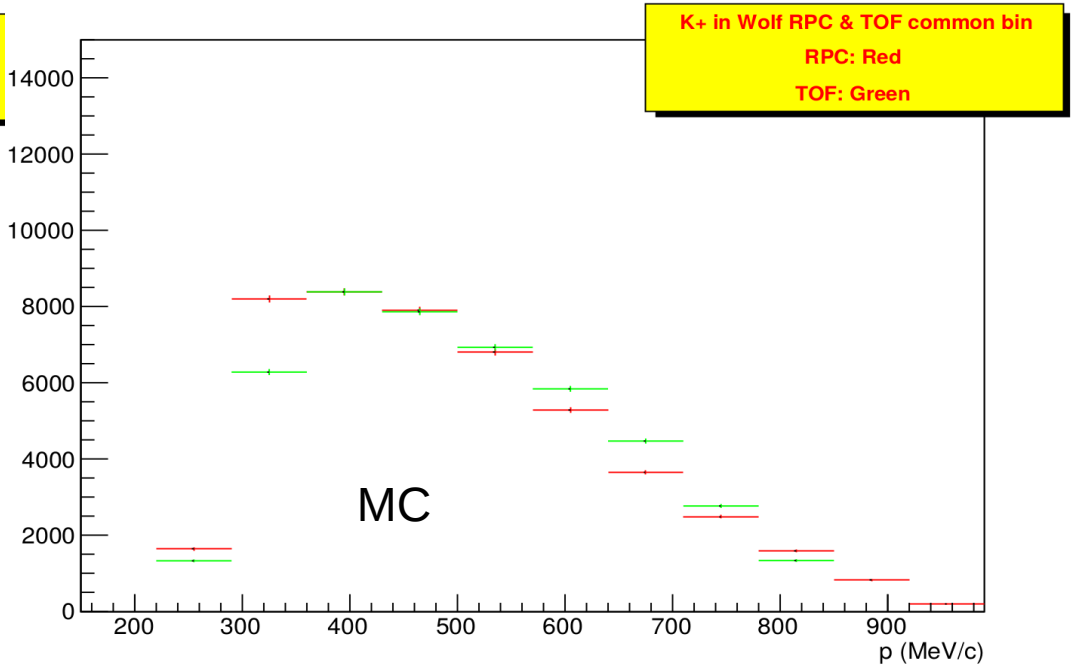


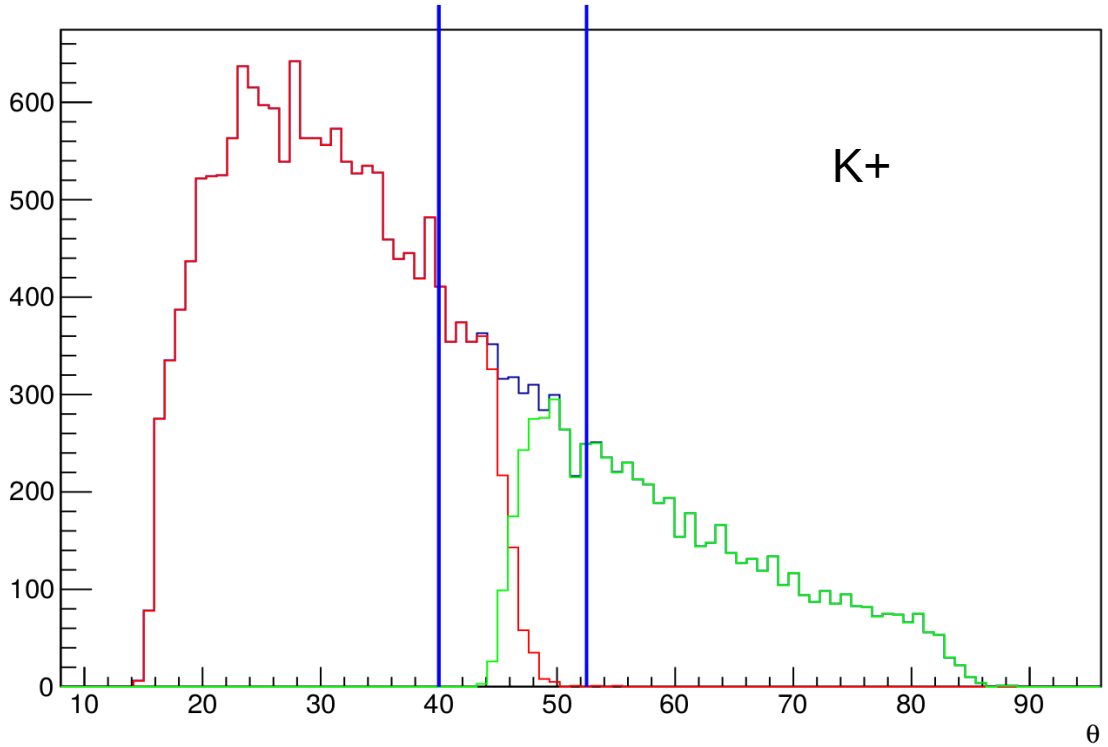
Idea: check if better results can be achieved by fitting only p-slices spectra


K+ in Carb RPC & TOF common bin
RPC: Red
TOF: Green
Exp
p (MeV/c)


K+ in Wolf RPC & TOF common bin
RPC: Red
TOF: Green
Exp
p (MeV/c)

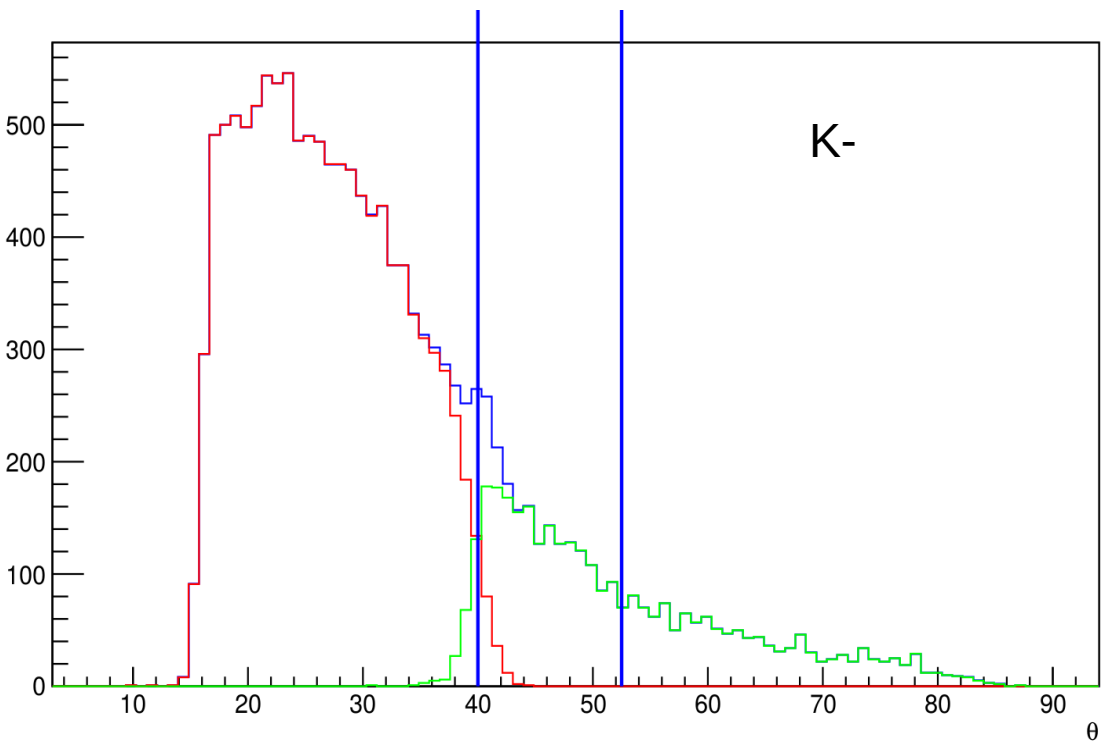

K+ in Carb RPC & TOF common bin
RPC: Red
TOF: Green
MC
p (MeV/c)


K+ in Wolf RPC & TOF common bin
RPC: Red
TOF: Green
MC
p (MeV/c)



Common bin for K+:

$40 < \theta < 52.5$



Different for K-

….input for efficiency correction???