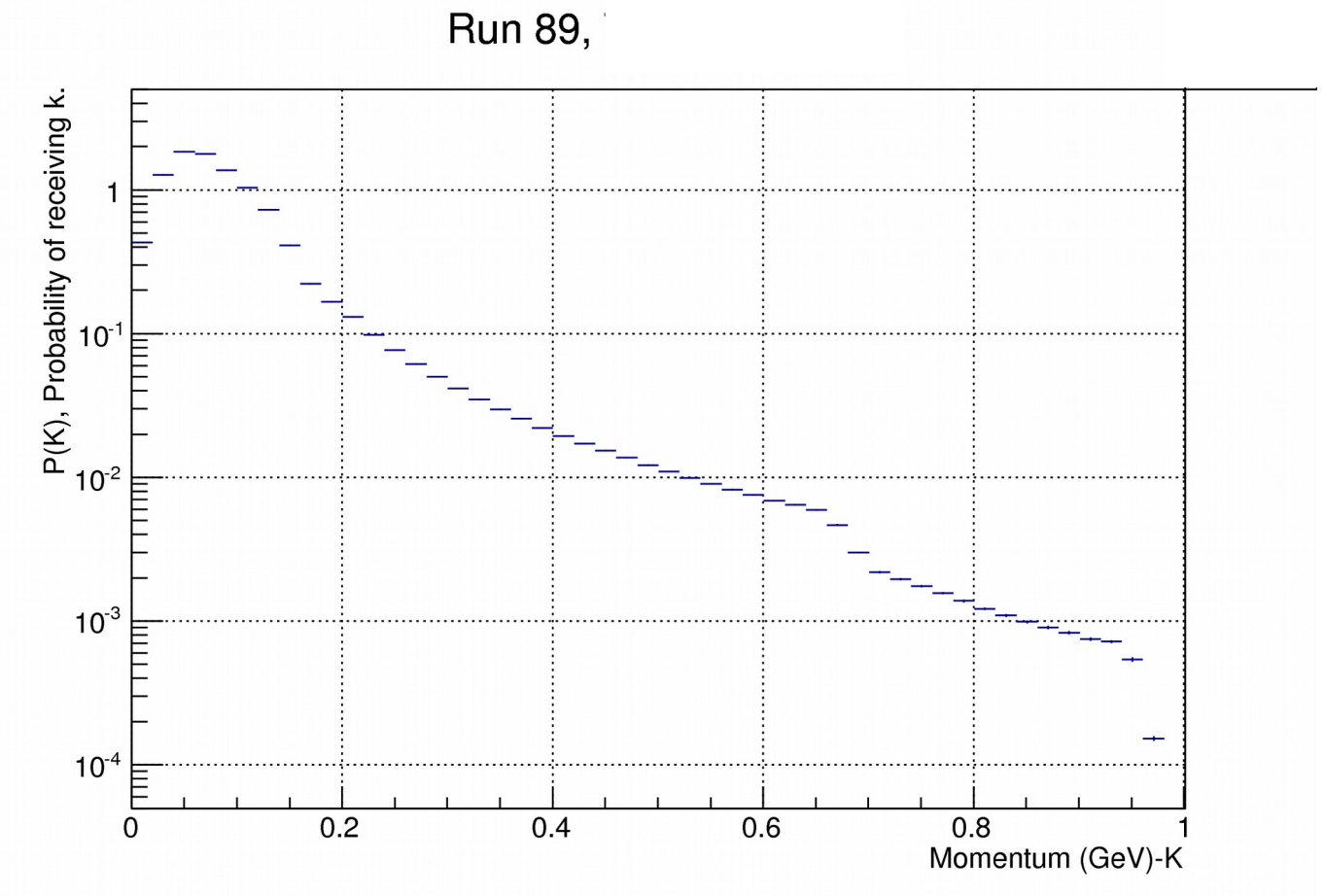
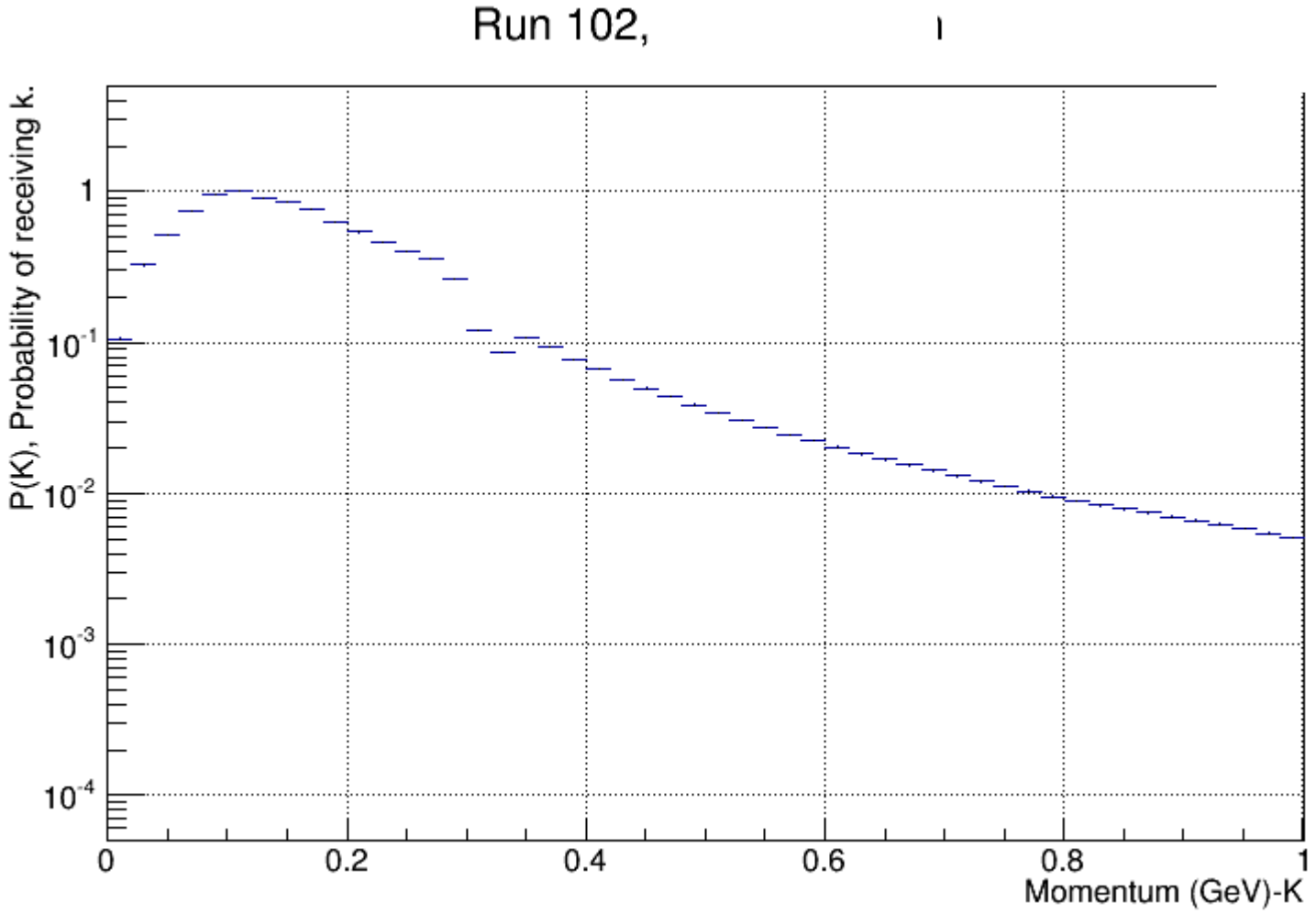
Current goal.

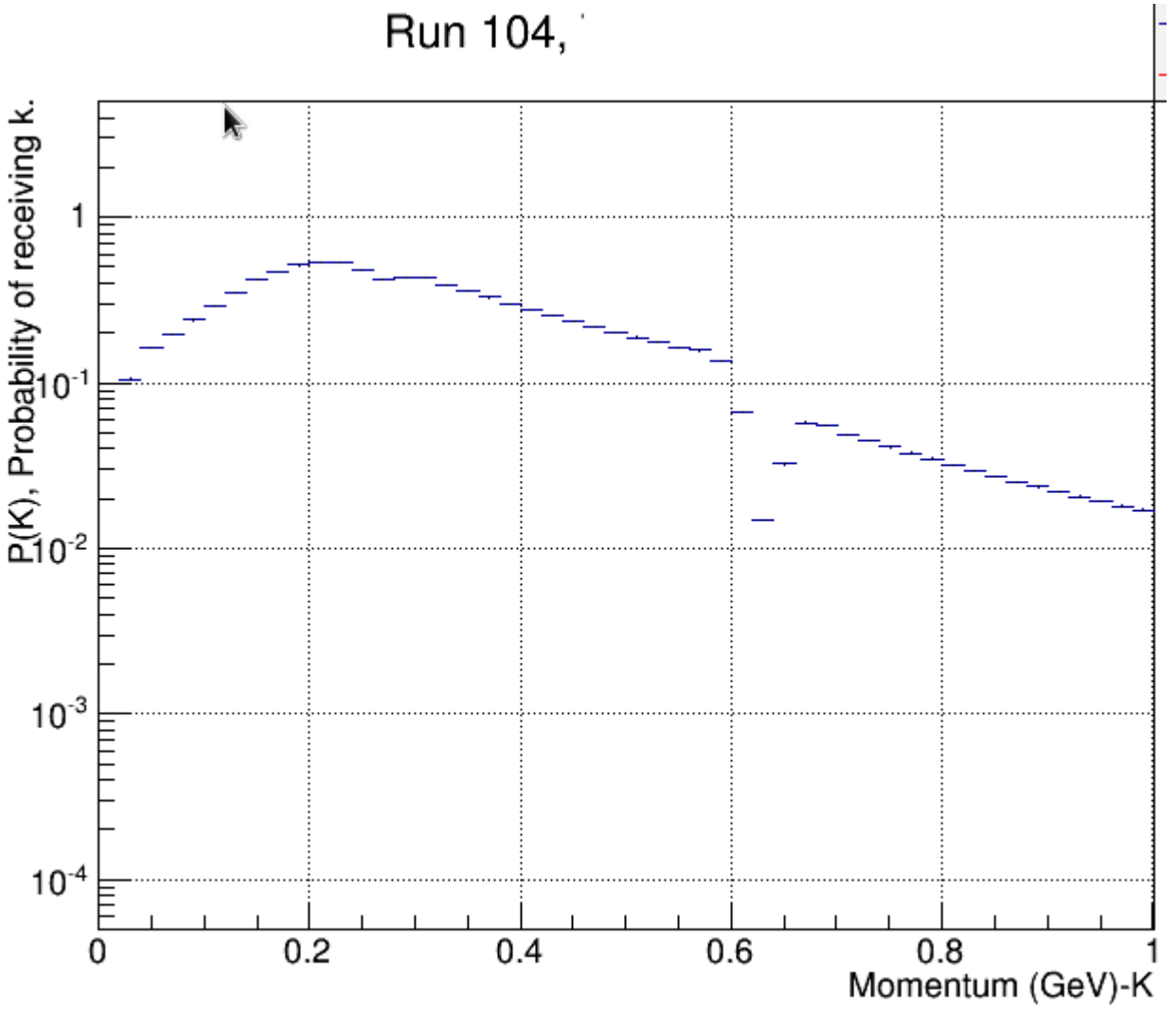
- Continue to smooth out the the “base” run.
  - About 8-10 bins need some work to smooth out entire function
- Doug request that I change my method manipulating my base function
  - Instead of changing the coefficients for my original exp.
    - Add refitting each time,
      - Requiring new intersections and new fit function coefficients
  - Apply some scale factor to the “base” fit function


Run 89,
P(K), Probability of receiving k.
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
0
0.2
0.4
0.6
0.8
1
Momentum (GeV)-K

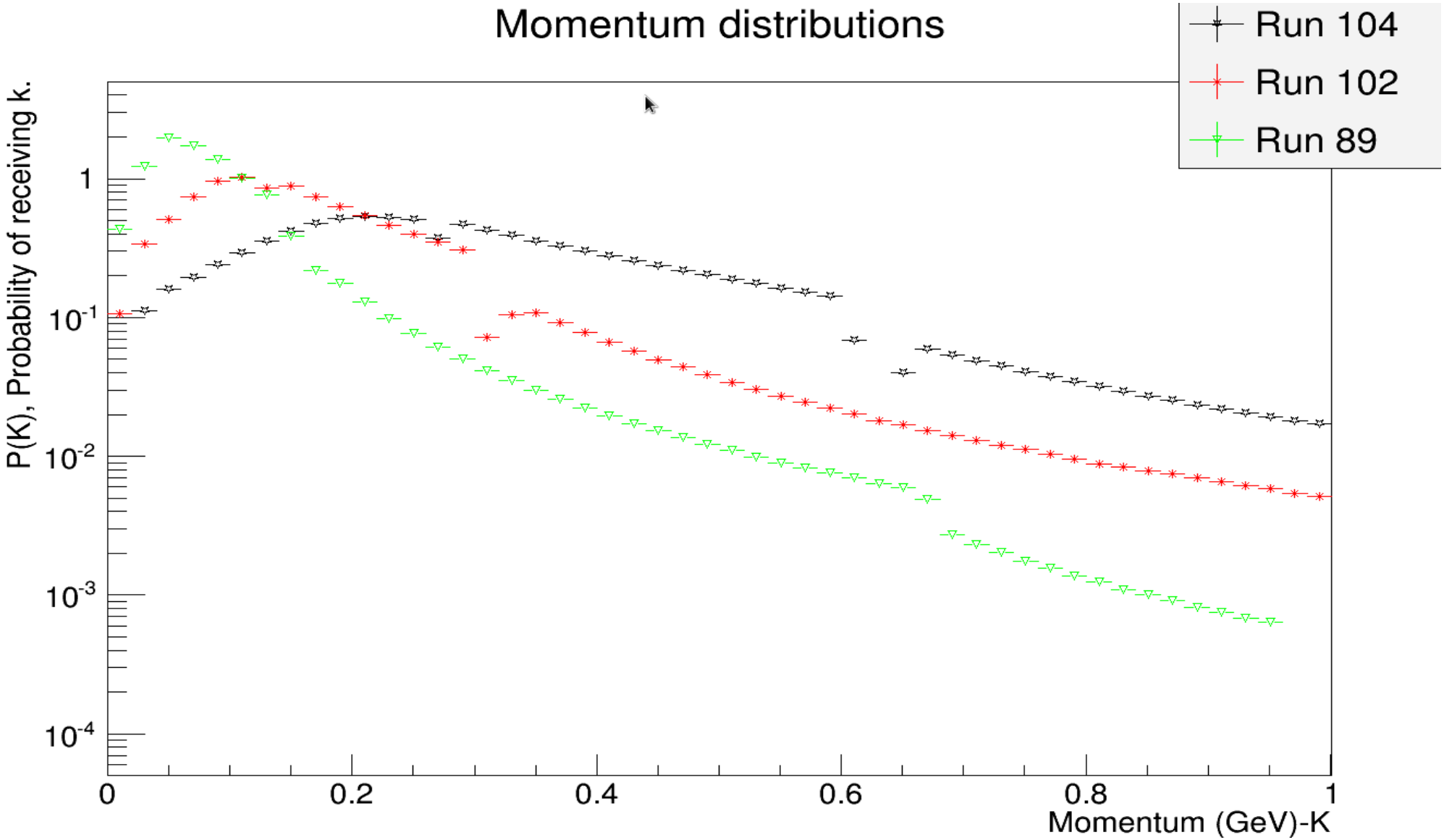
Scale the significant by 2



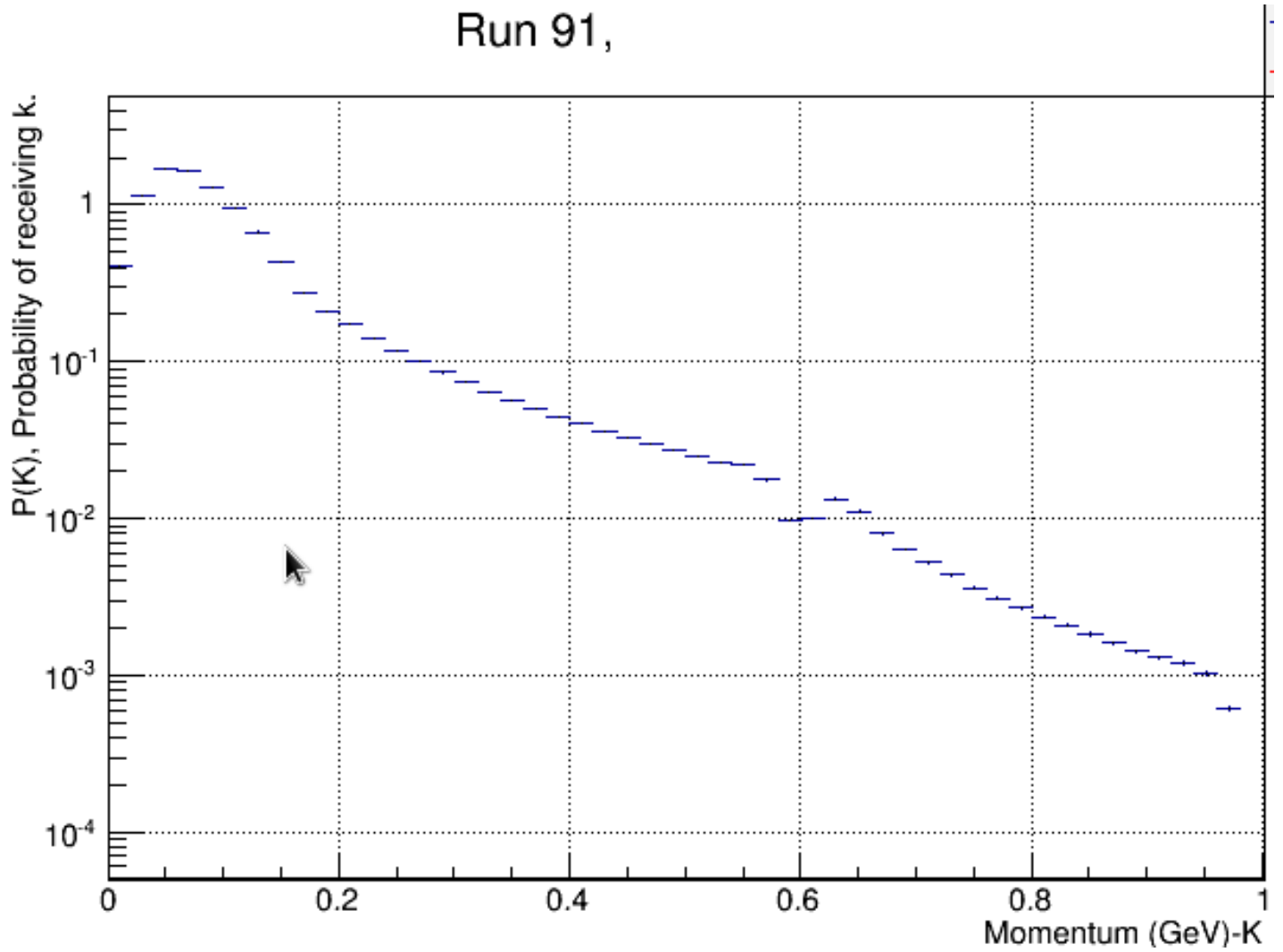
Scale the significant by 4



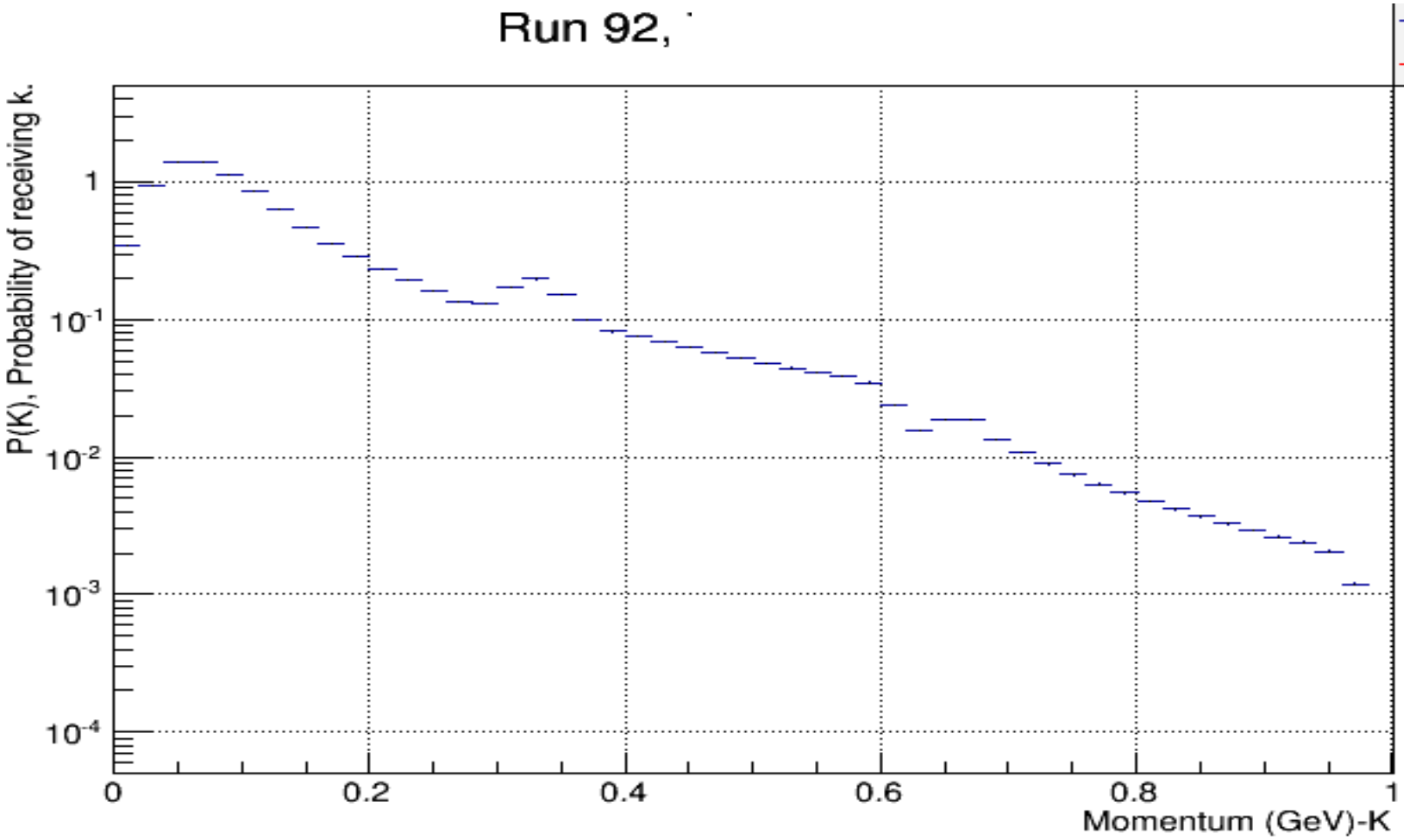
All three: Using scaling factor



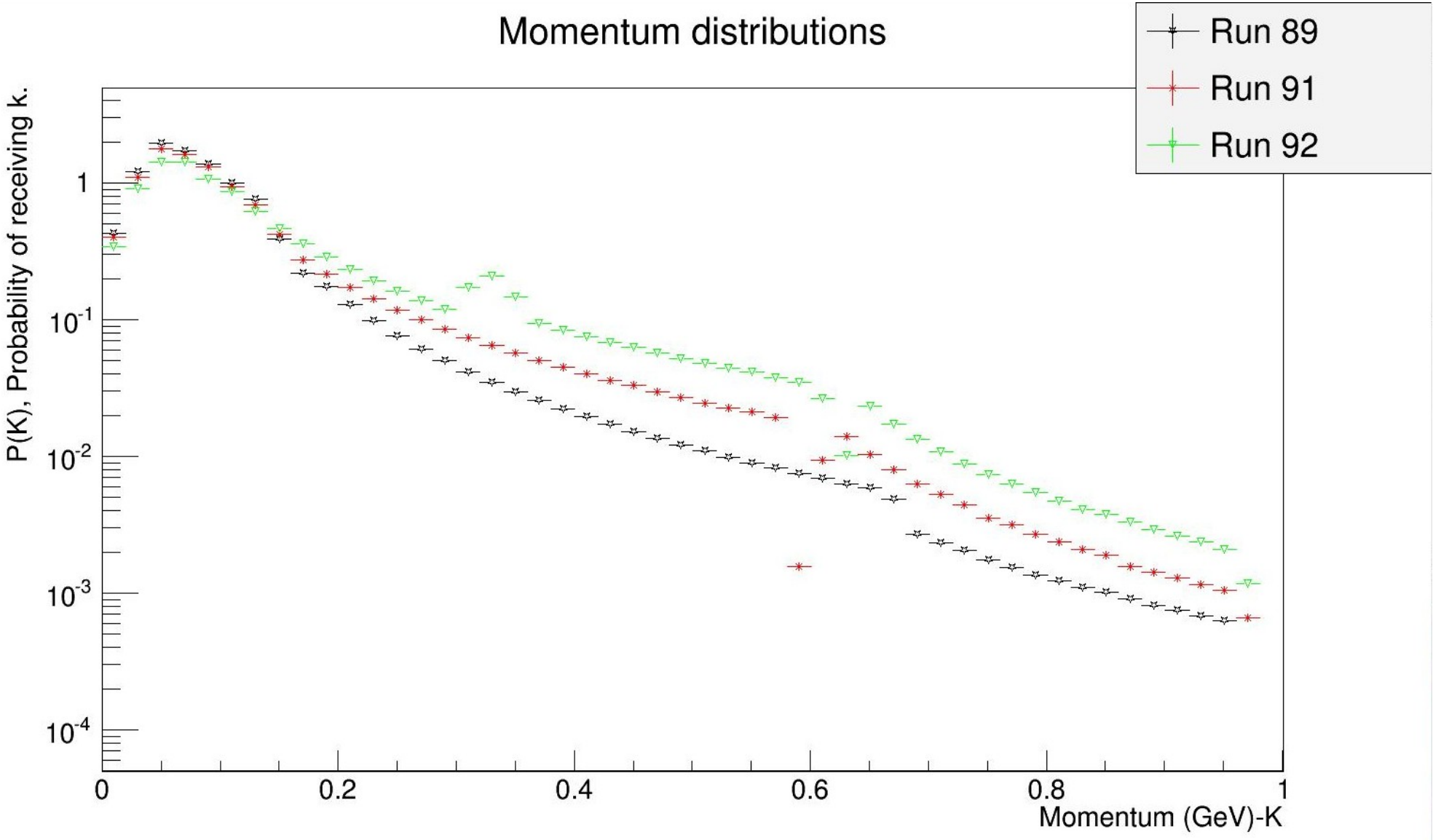
Changed expos and refit: second exp increase by factor of 2

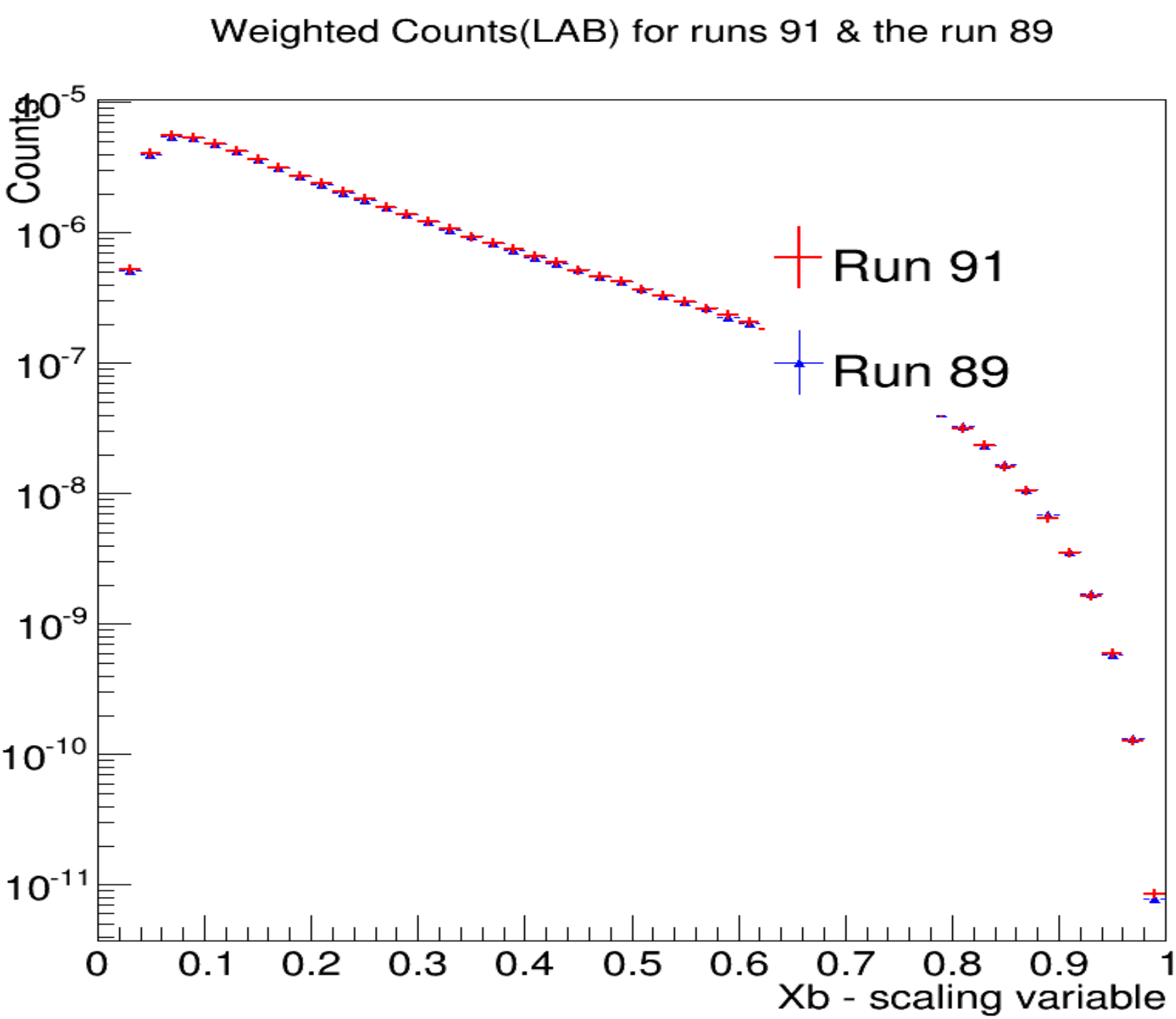


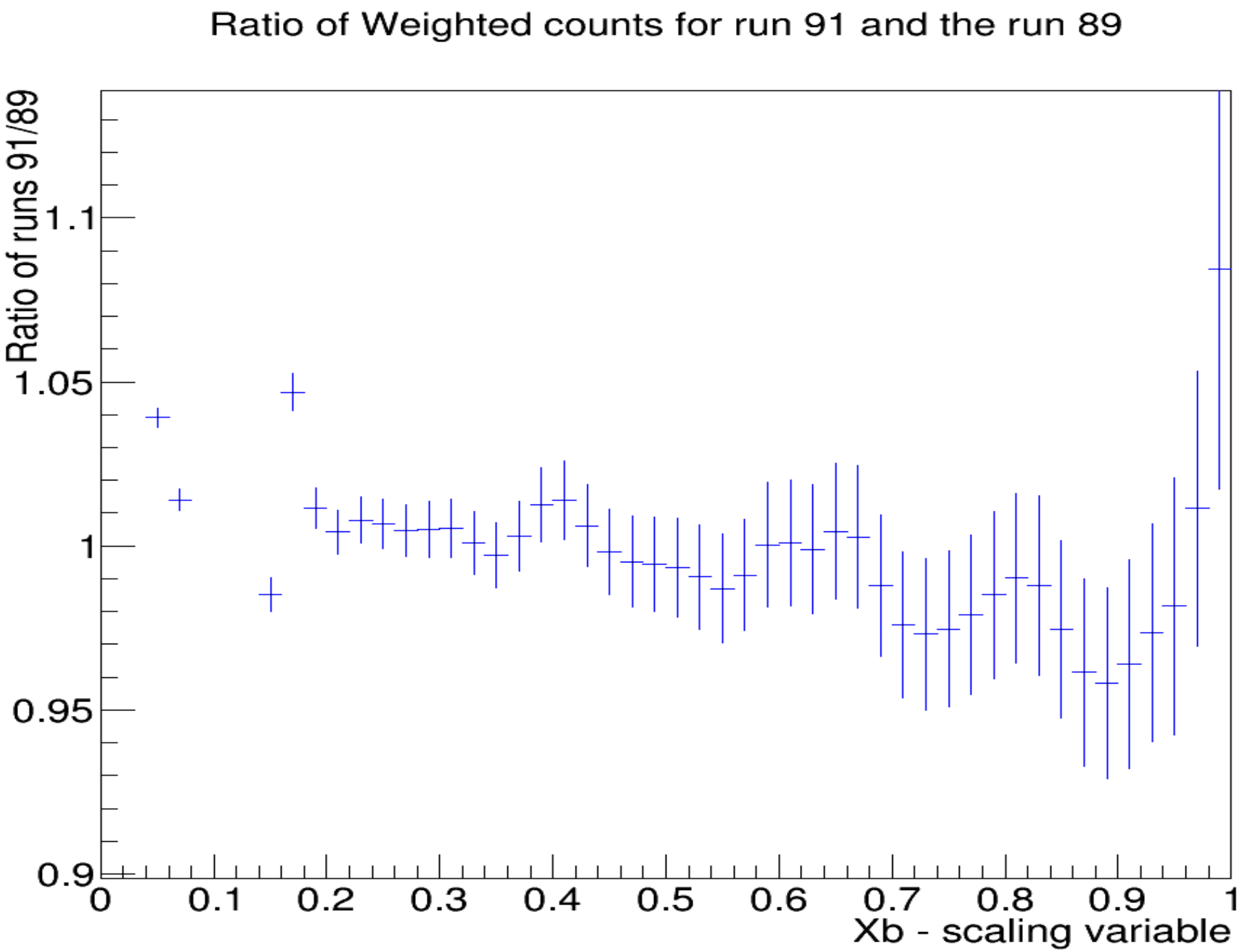
Changed expos and refit: second exp increase by factor of 4

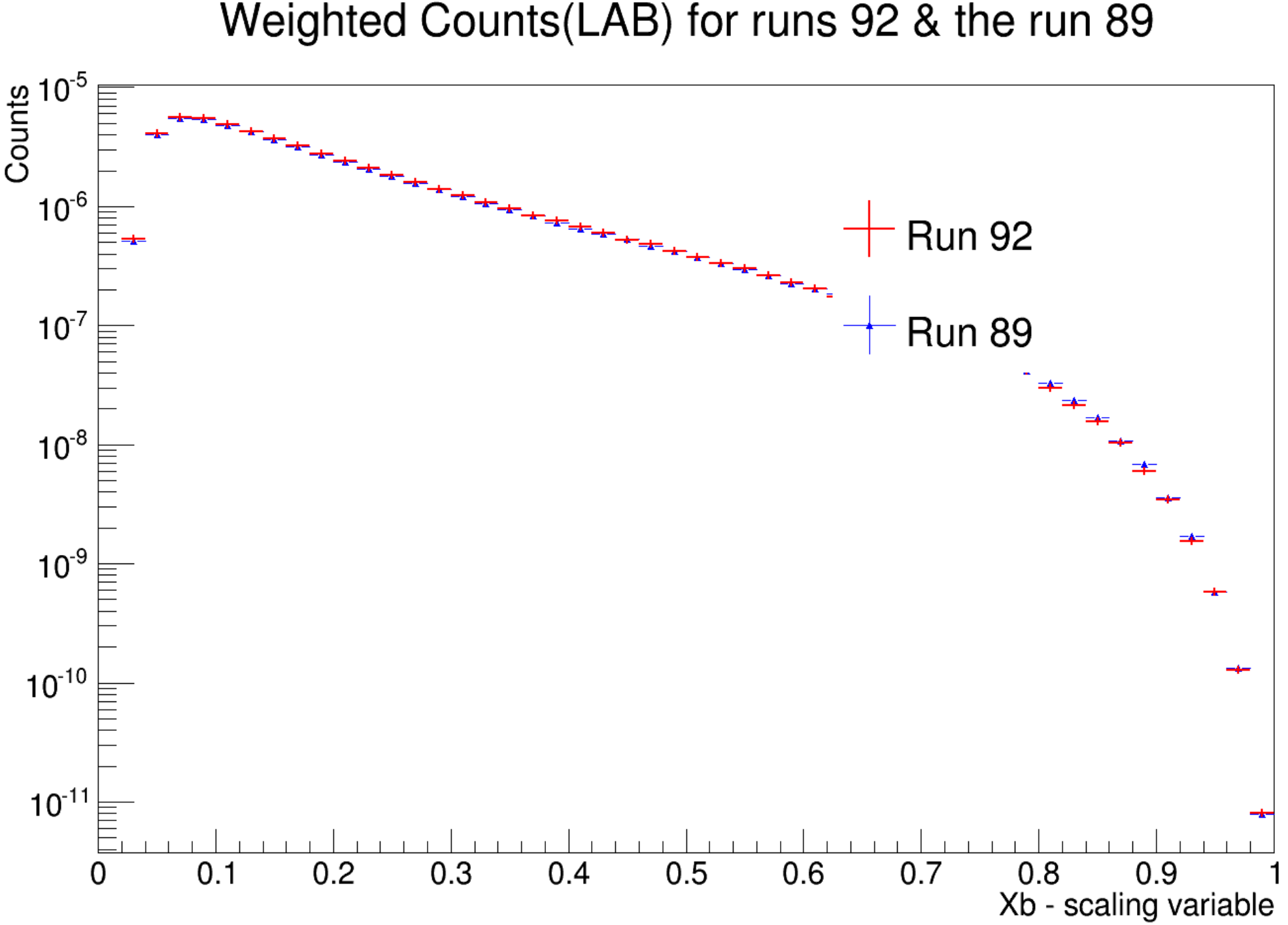


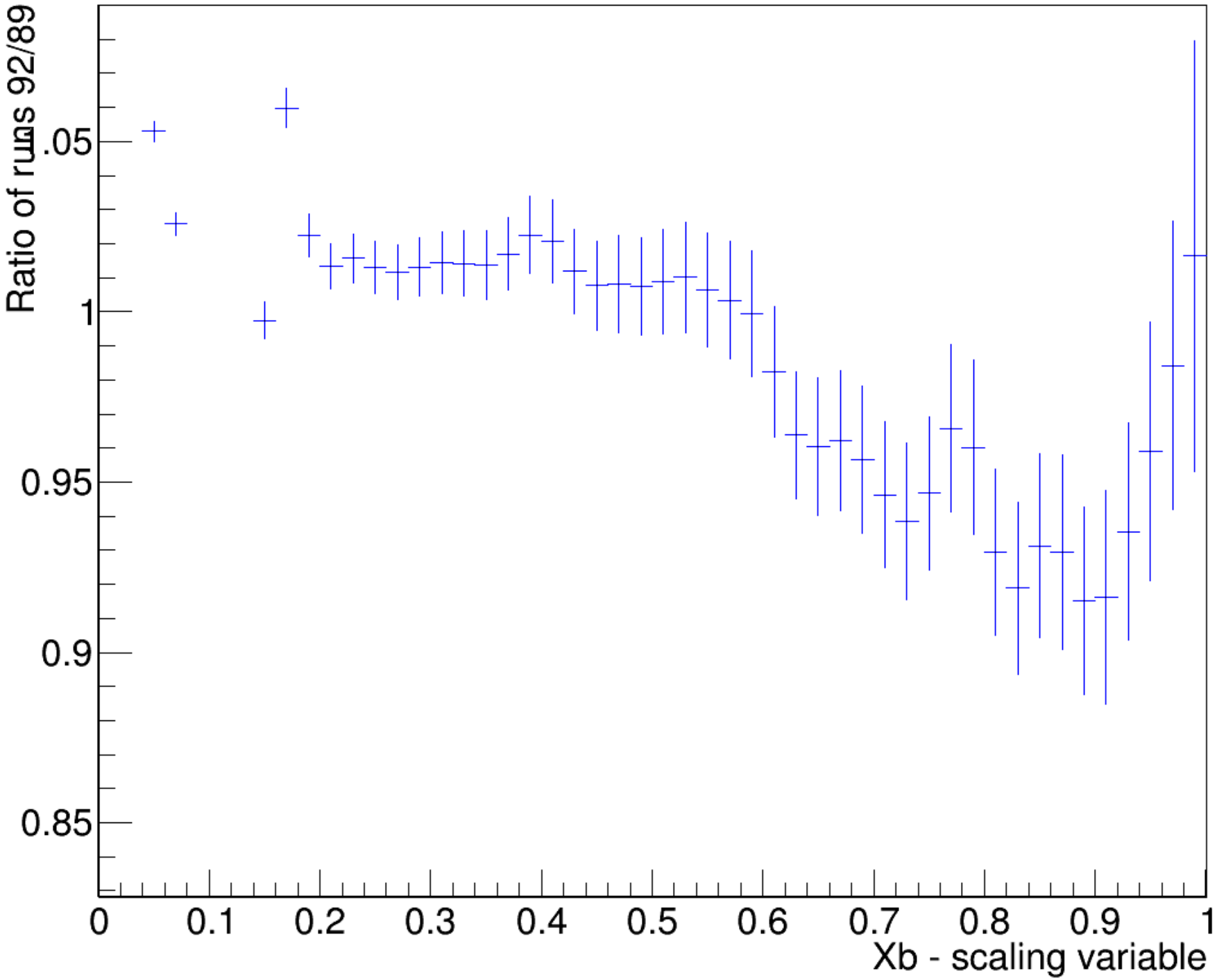
All three: Changing second exponential

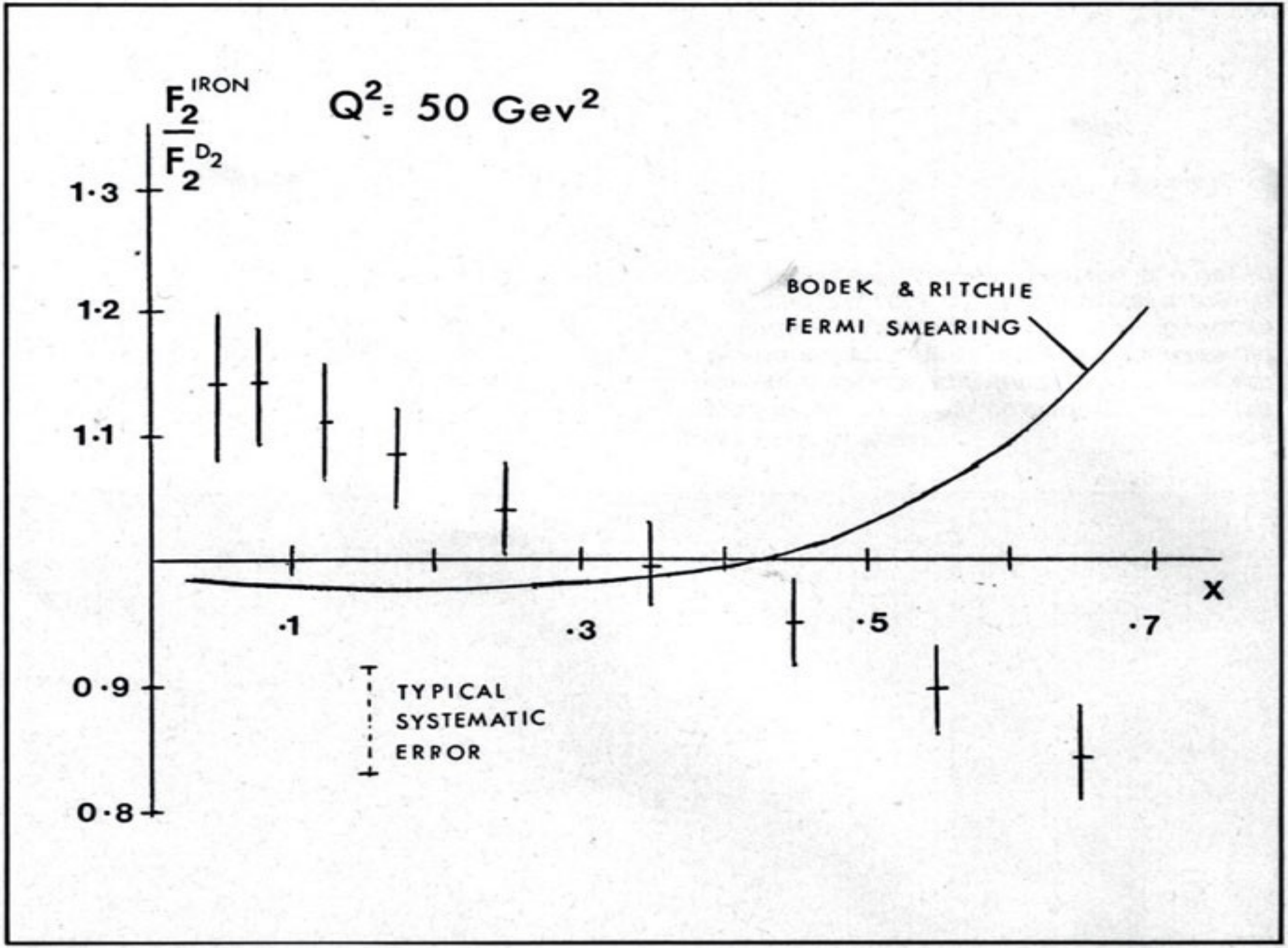


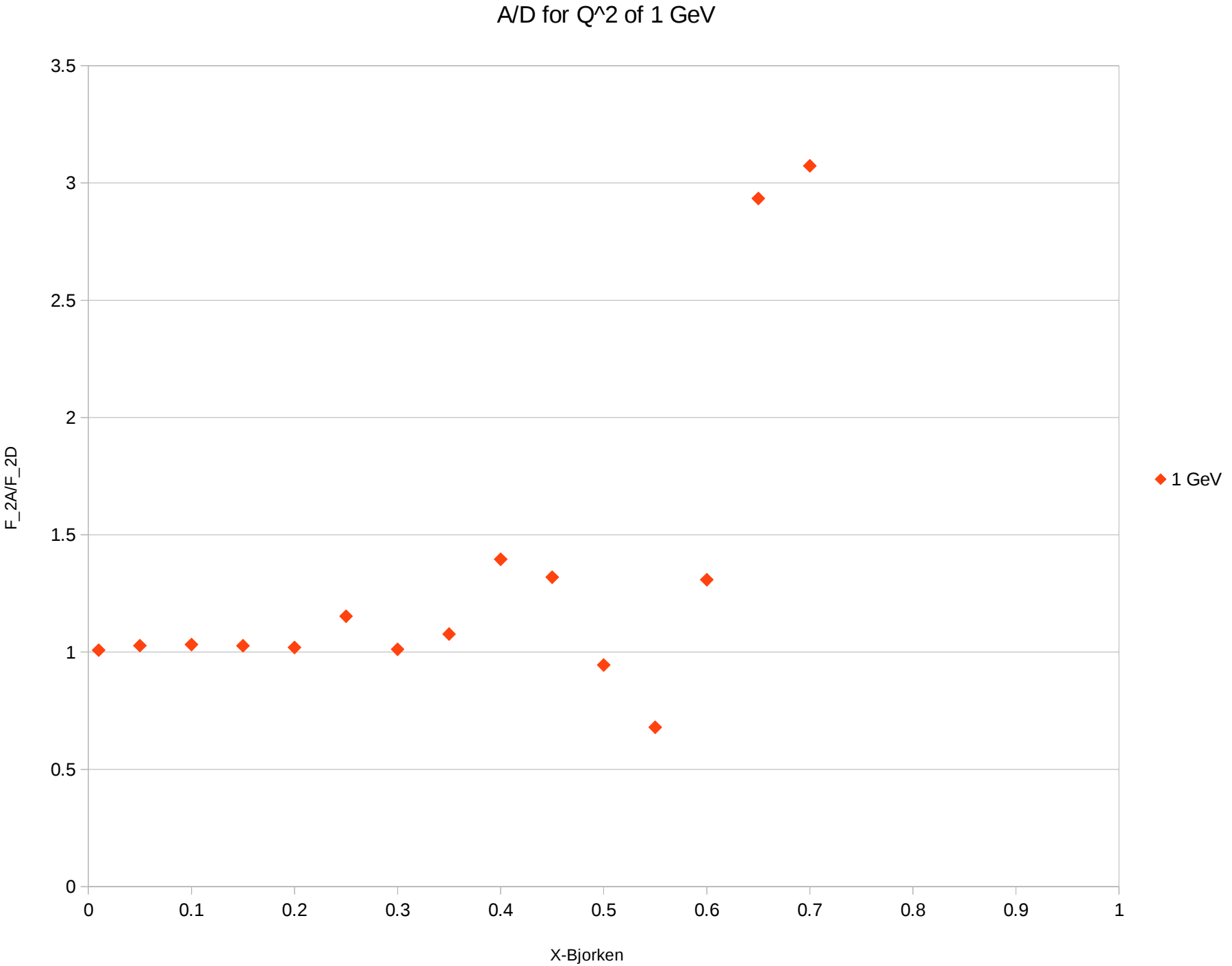

Weighted Counts(LAB) for runs 91 & the run 89
Counts
10^{-5}
10^{-6}
10^{-7}
10^{-8}
10^{-9}
10^{-10}
10^{-11}
Run 91
Run 89
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
Xb - scaling variable

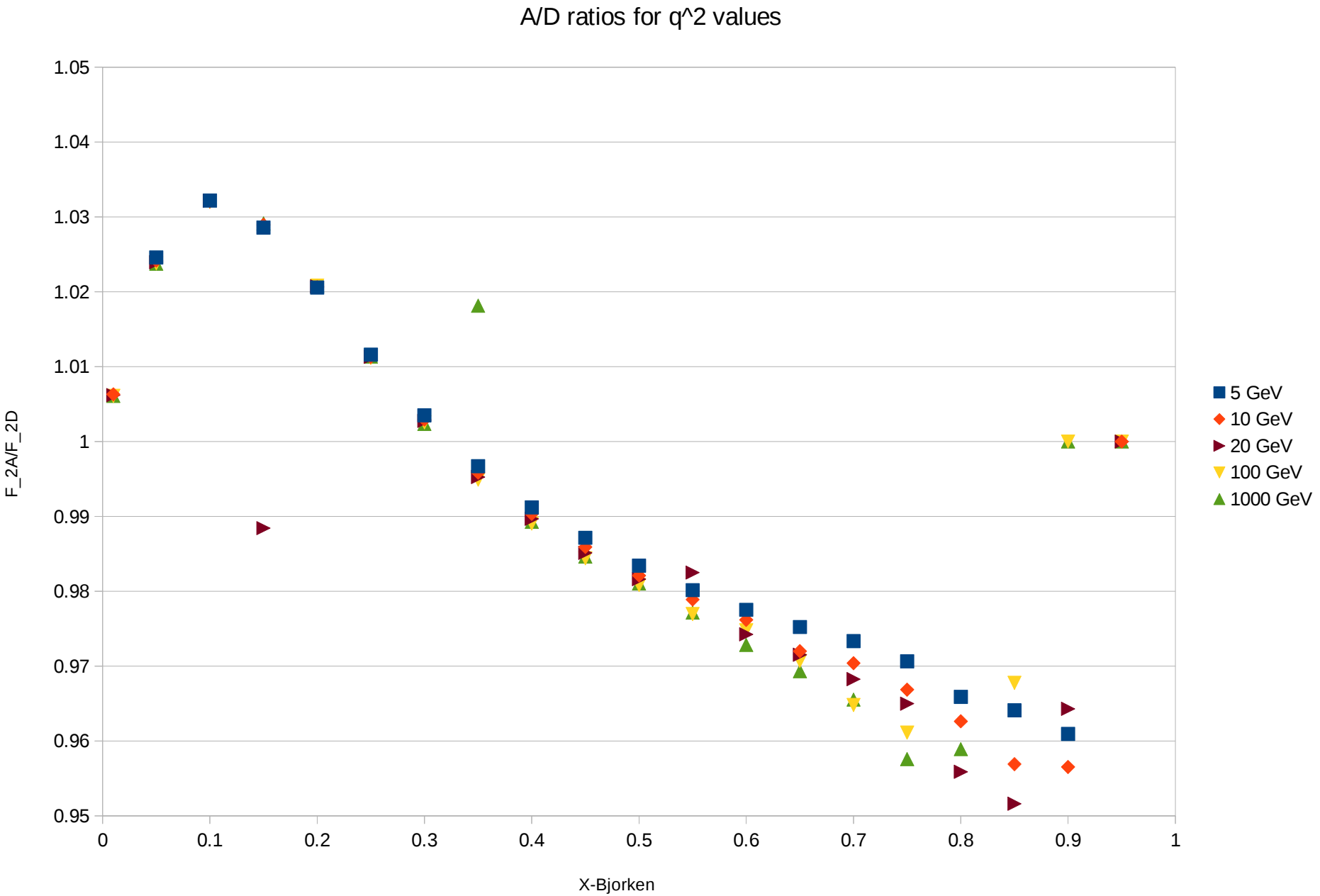

Ratio of Weighted counts for run 91 and the run 89
Ratio of runs 91/89
1.1
1.05
1
0.95
0.9
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
Xb - scaling variable

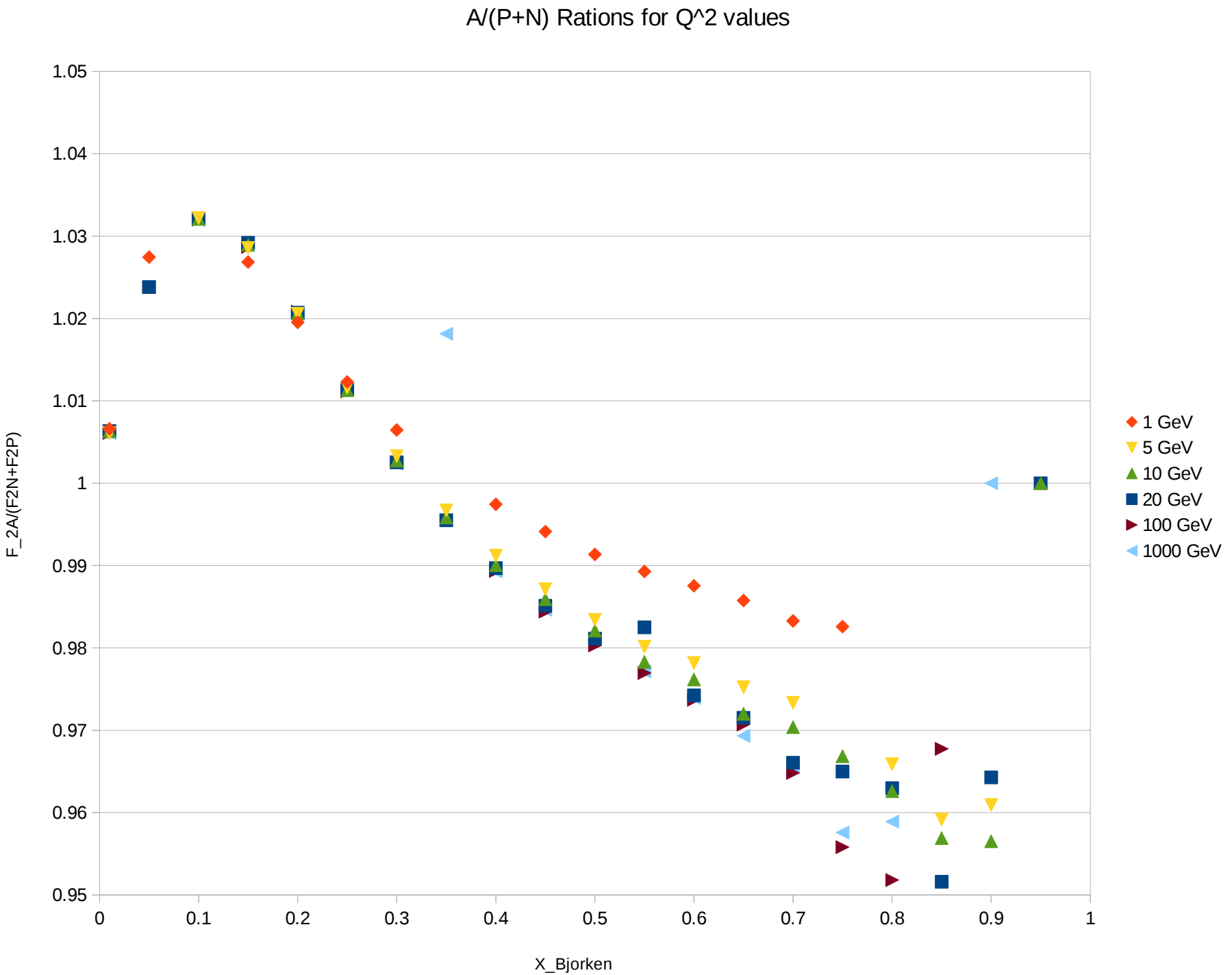

Weighted Counts(LAB) for runs 92 & the run 89
Counts
10^-5
10^-6
10^-7
10^-8
10^-9
10^-10
10^-11
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
Xb - scaling variable
Run 92
Run 89

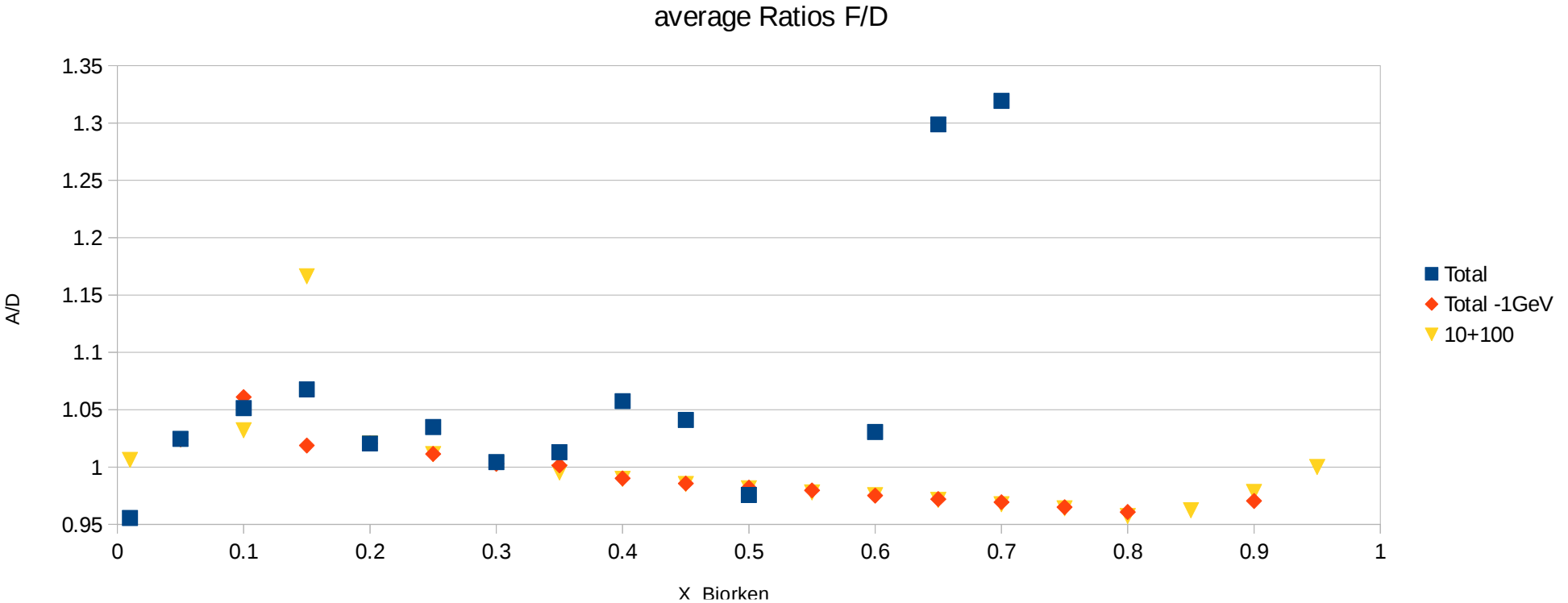

Ratio of Weighted counts for run 92 and the run 89
Ratio of runs 92/89
1.05
1
0.95
0.9
0.85
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
Xb - scaling variable

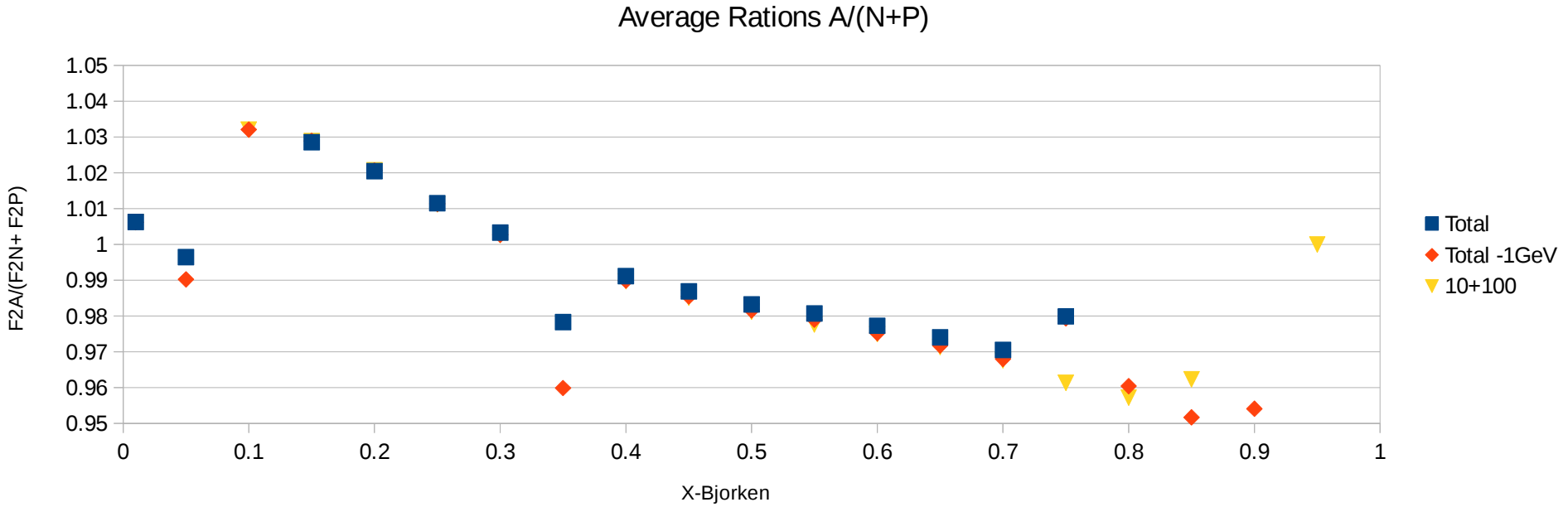

F_2^{IRON}
$F_2^{D_2}$
$Q^2 = 50\ Gev^2$
1·3
1·2
1·1
0·9
0·8
BODEK & RITCHIE
FERMI SMEARING
·1
·3
·5
·7
X
TYPICAL
SYSTEMATIC
ERROR


A/D for Q^2 of 1 GeV
F_2A/F_2D
X-Bjorken
1 GeV
0
0.5
1
1.5
2
2.5
3
3.5
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1


A/D ratios for q^2 values
F_2A/F_2D
X-Bjorken
1.05
1.04
1.03
1.02
1.01
1
0.99
0.98
0.97
0.96
0.95
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
5 GeV
10 GeV
20 GeV
100 GeV
1000 GeV


A/(P+N) Rations for Q^2 values
F_2A/(F2N+F2P)
X_Bjorken
1.05
1.04
1.03
1.02
1.01
1
0.99
0.98
0.97
0.96
0.95
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
1 GeV
5 GeV
10 GeV
20 GeV
100 GeV
1000 GeV


average Ratios F/D
A/D
X_Bjorken
Total
Total -1GeV
10+100


Average Rations A/(N+P)
F2A/(F2N+ F2P)
X-Bjorken
Total
Total -1GeV
10+100