Analysis Progress

for the d_2^n analysis meeting

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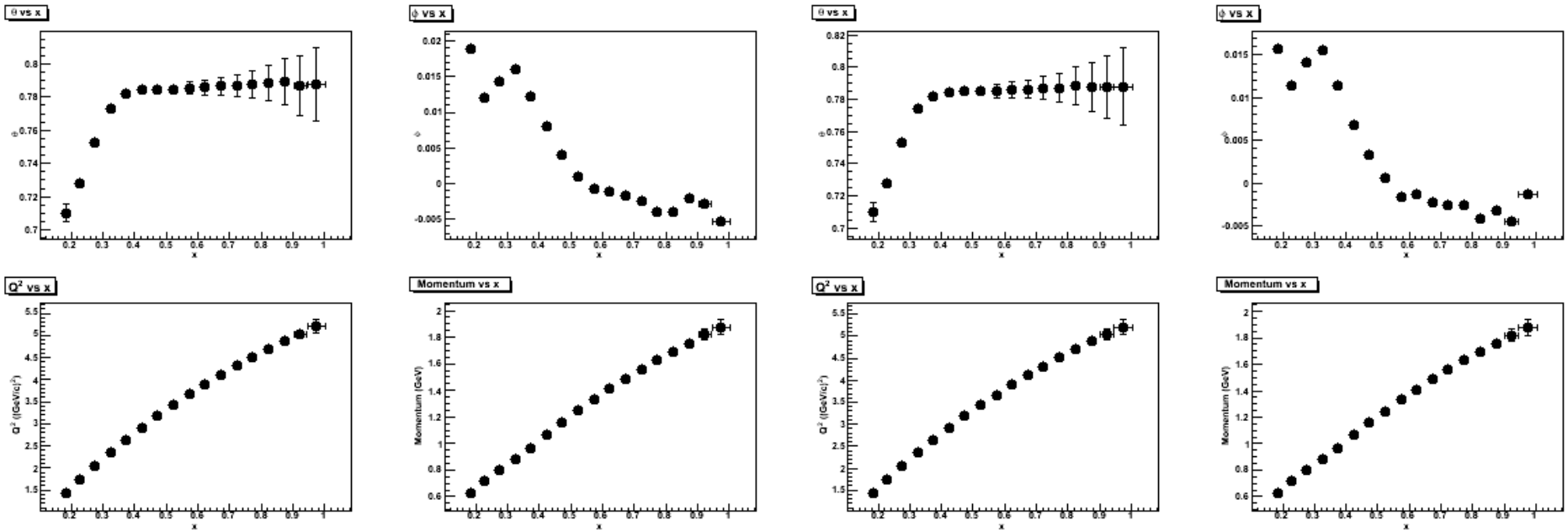
Kinematic Variables by x Bin (i)

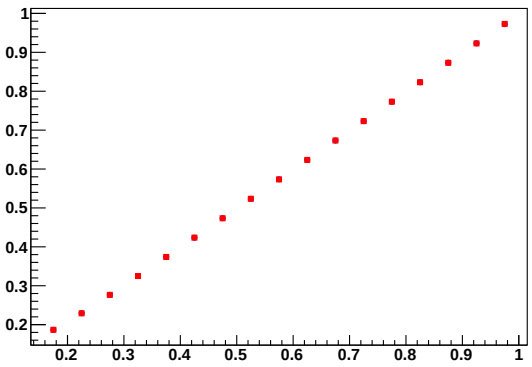
- Recall that Matt found that our binned kinematic variables seemed to behave differently for two different 4.74-GeV run sets
- He used runs 2024-2035 (beginning of dataset)
- I used runs 2150-2163 (end of dataset)



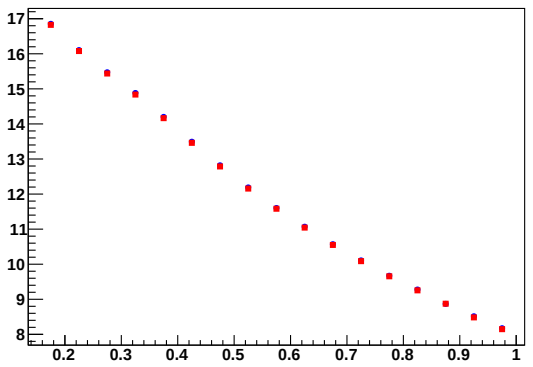
Kinematic Variables by x Bin (ii): x, ν^2, Q^2

- I redid this with my code and my cuts (nearly identical to Matt's)
- Early runs (Matt's) are in red, later runs (mine) are in blue
- For these three variables, our values are in perfect agreement

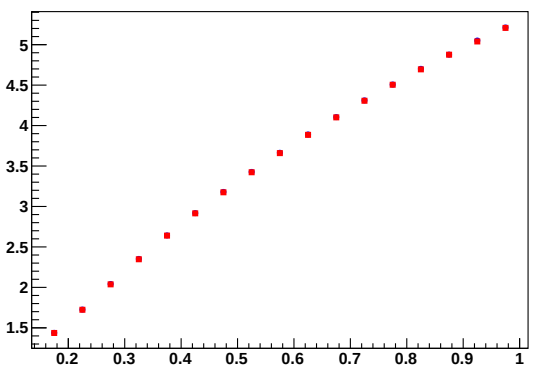
x



ν^2



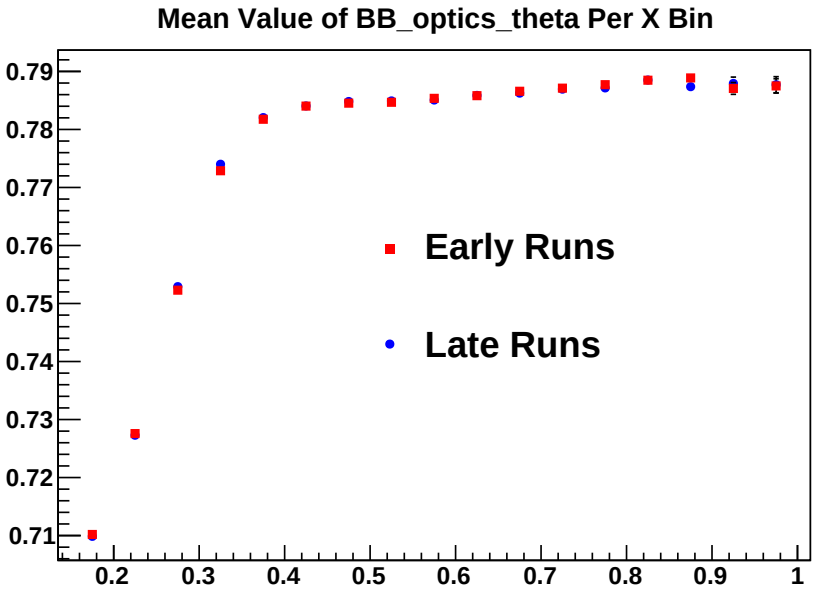
Q^2



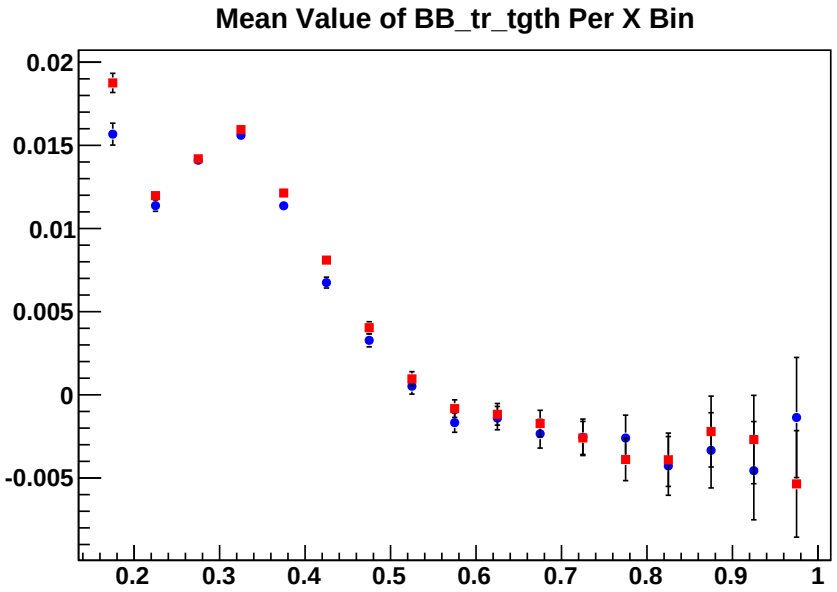
Kinematic Variables by x Bin (ii): θ, ϕ

- What about angles?

Scattering Angle



Azimuthal Angle



What's Next?

- Code for extraction of neutron values in DIS region
  - Rough-guess of $F_2^{^3\mathrm{He}}$
  - Error bars on parameterizations
  - Proper (and asymmetric) error propagation
  - Practical parameterization of $a(x)$, $b(x)$
  - Practical parameterization of EMC effect from Hall C data (improved $F_2^{^3\mathrm{He}}$)
- Data
  - Testing 64-bit skim: currently troubleshooting bizarre farm problem
  - Sign-sorted 5-pass runlist (beam helicity/target spin)