Asymmetry Updates: Missing Mass and Next Steps

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To-Do List

- Implement Dave's delta correction ✓
- Troubleshoot delta correction
- Re-run: asymmetry calculation, mean kinematics, cut dependence
- Decide how to propagate errors - this will be a separate meeting
- Q2 scan
- Finish writing paper text

Draft paper to collaboration by end of March.
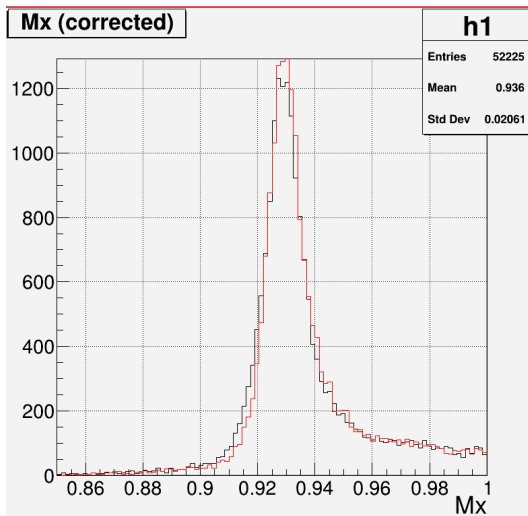
Troubleshooting Delta

- Plots: P_{HMS}=4.7 (correction=-6.0), Q^2=4.4, W=2.74, SHMS left
- **Black:** DG calculation M_X, **Red:** hcana MMpi
- Uncorrected: $\delta = hsdelta + 0.0 * hspfp$

Troubleshooting Delta
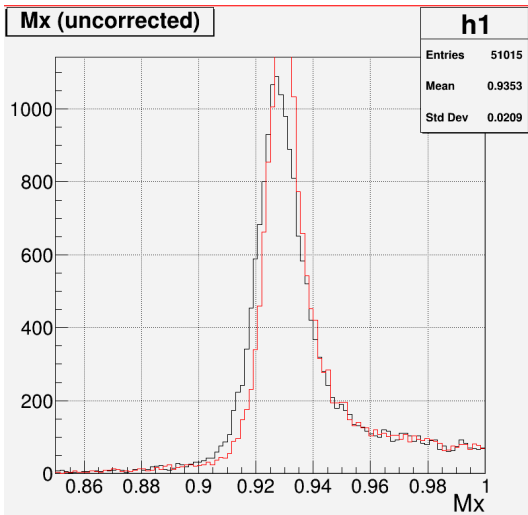
- Plots: P_{HMS}=4.7 (correction=-6.0), Q^2=4.4, W=2.74, SHMS left
- **Black:** DG calculation M_X, **Red:** hcana MMpi
- Corrected: $\delta = hsdelta - 6.0 * hspfp$

- Possible explanation (DG): "hcana has improved handling of the effect of the vertical beam position (due to the raster, which results in non-trivial xtar-correlated effects with ytar"
- Re-implement this in analysis script?
- Add delta correction directly to hcana?
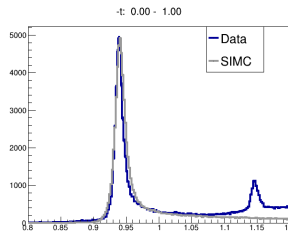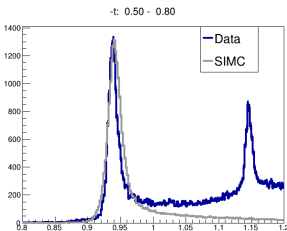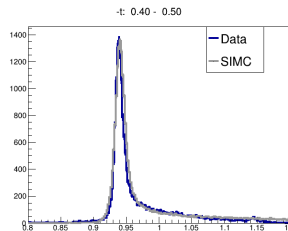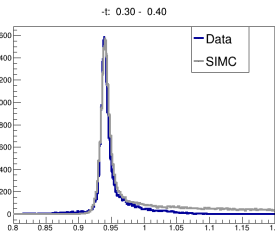- Pick one of the existing data sets for use in BSA paper?

Comparing with SIMC

-t: 0.09 - 0.30   -t: 0.30 - 0.40   -t: 0.40 - 0.50   -t: 0.50 - 0.80   -t: 0.00 - 1.00
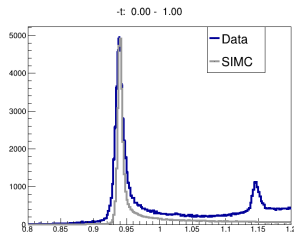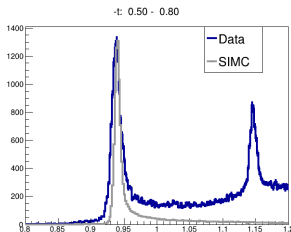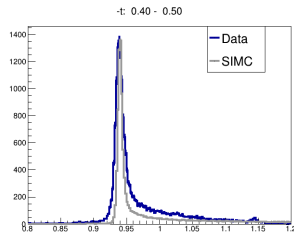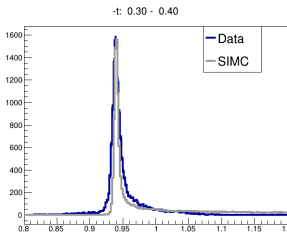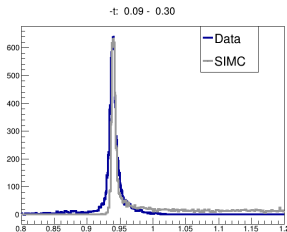
Data: uncorrected   **SIMC:** uncorrected

Data: uncorrected   **SIMC:** resolution implemented

Comparing with SIMC
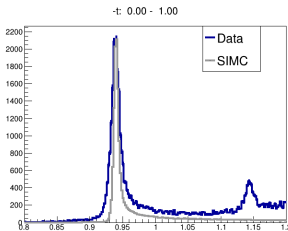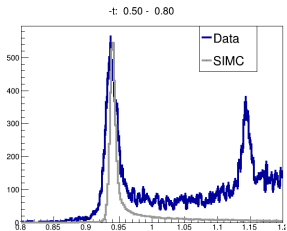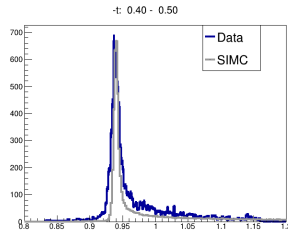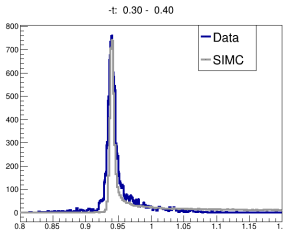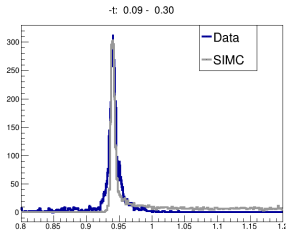
Data: delta corrected   **SIMC:** uncorrected

Comparing with SIMC
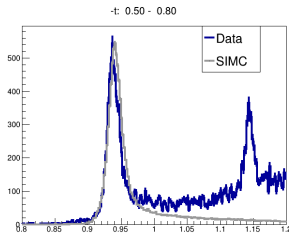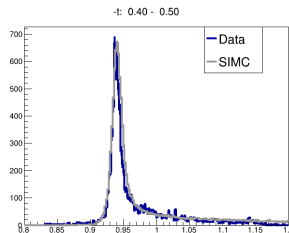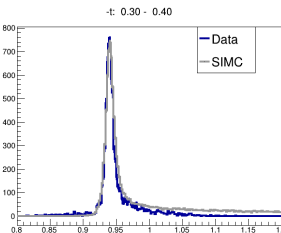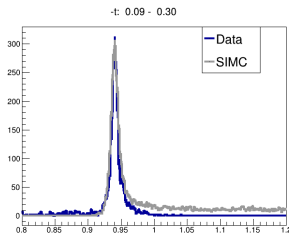

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