PWA - Systematics

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Contents

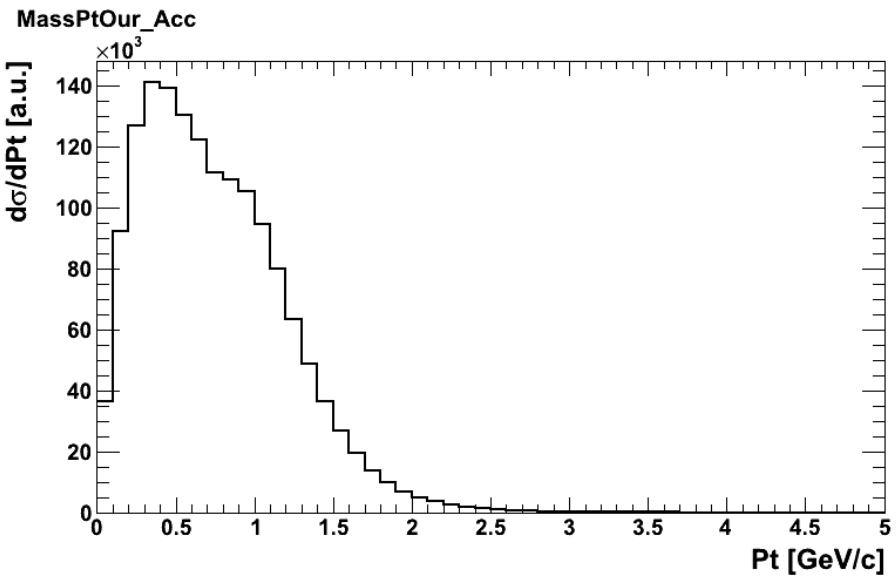
- PWA for MC pure s-wave
- Systematic uncertainties
- Update of mass plots for current acceptance (minor changes)
- Plan for Legangre polynomial corrections

PWA for MC s-wave

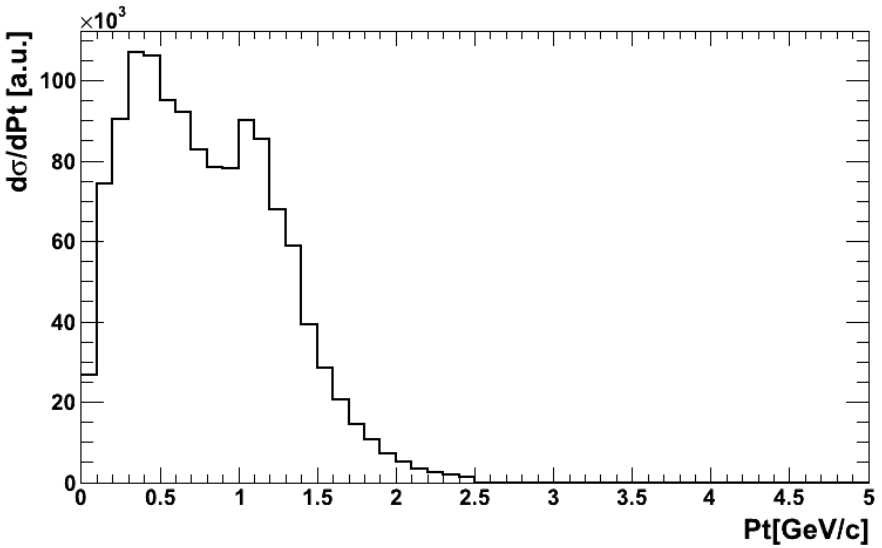
- Rewaighted full available MC sample to match the data in the distribution of Pt-Rapidity of the central state in 50 mass bins.
- Calculated expected value of Legendre polynomials, corrected for detector acceptance.
- Kinematic acceptance – not yet done.

Rewaighted Pt distribution

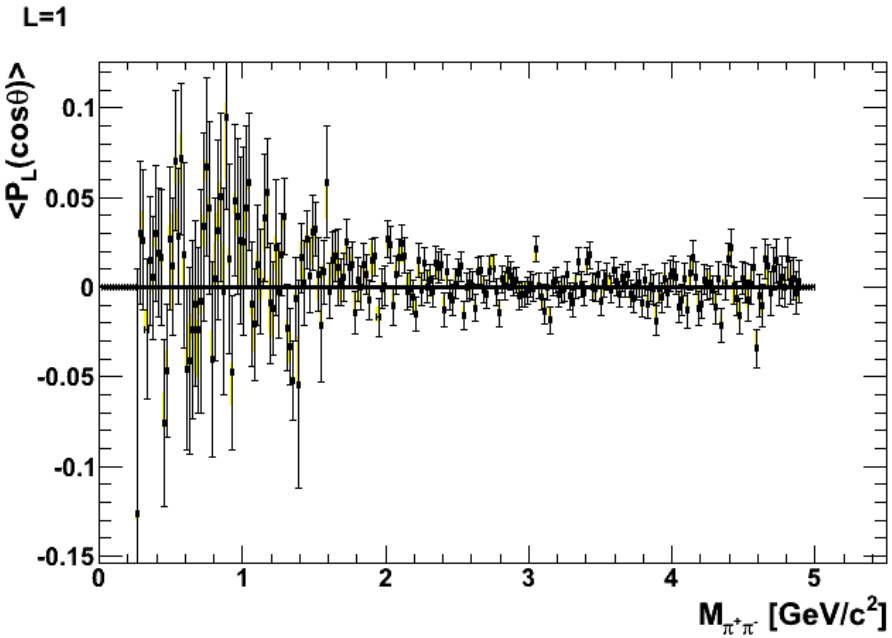
- Data



- MC



MC - PWA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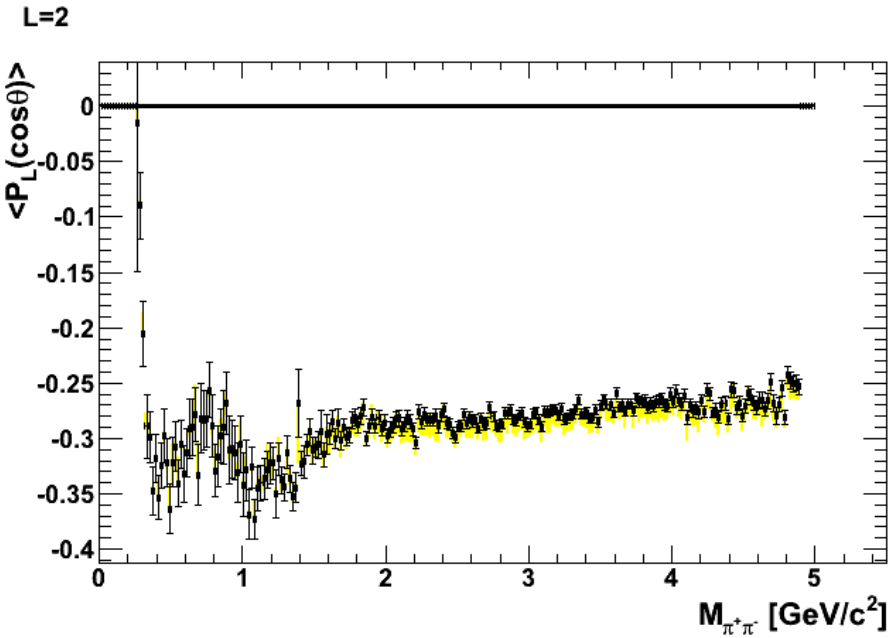
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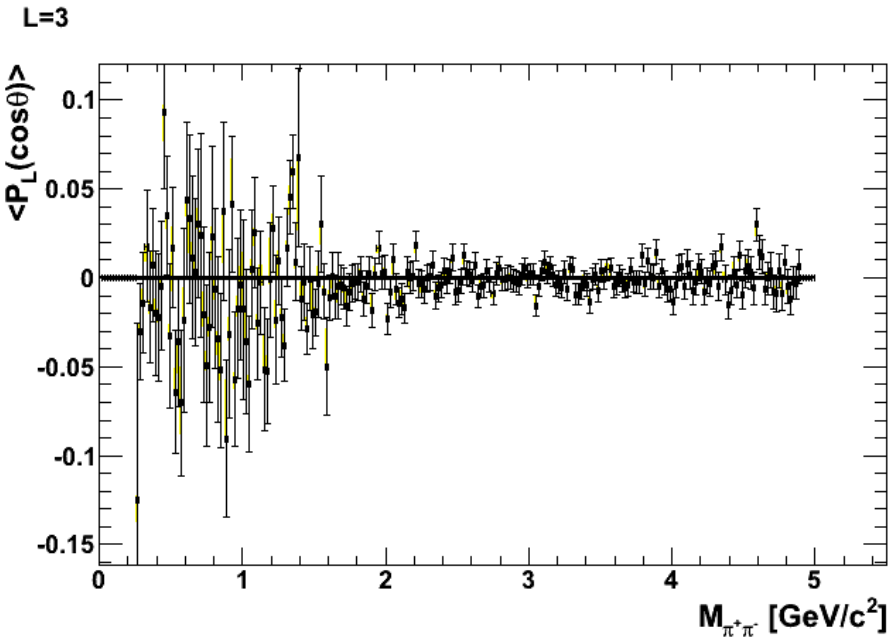
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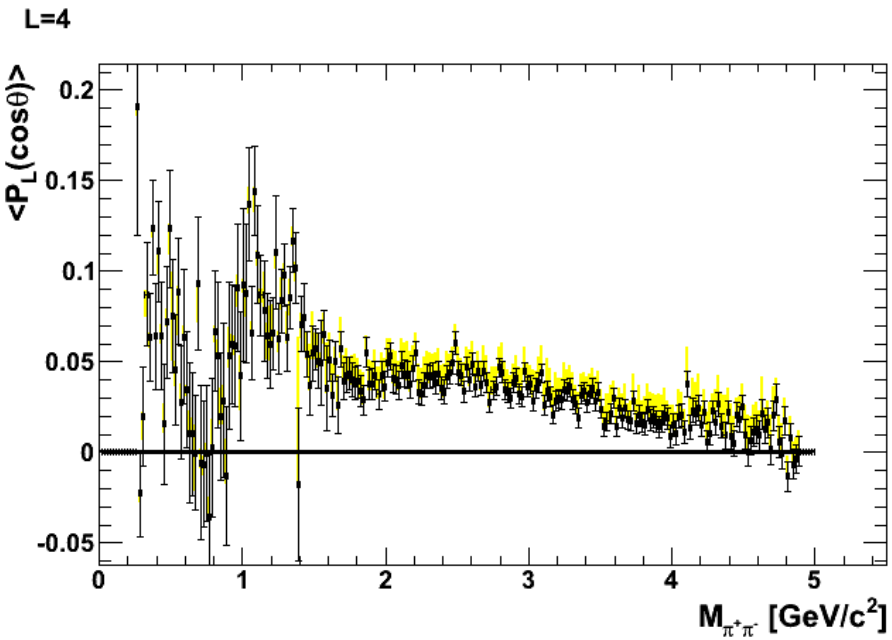
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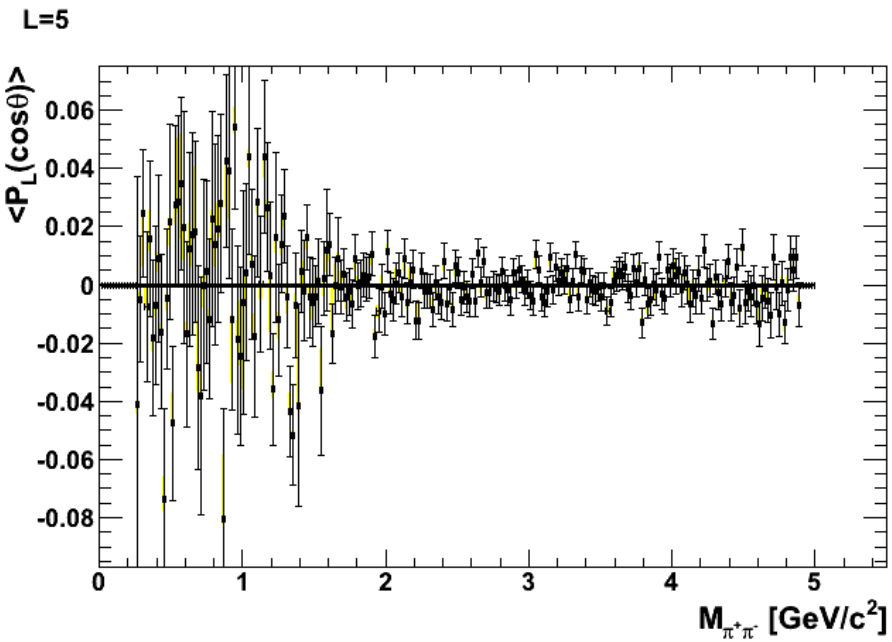
MC - PWA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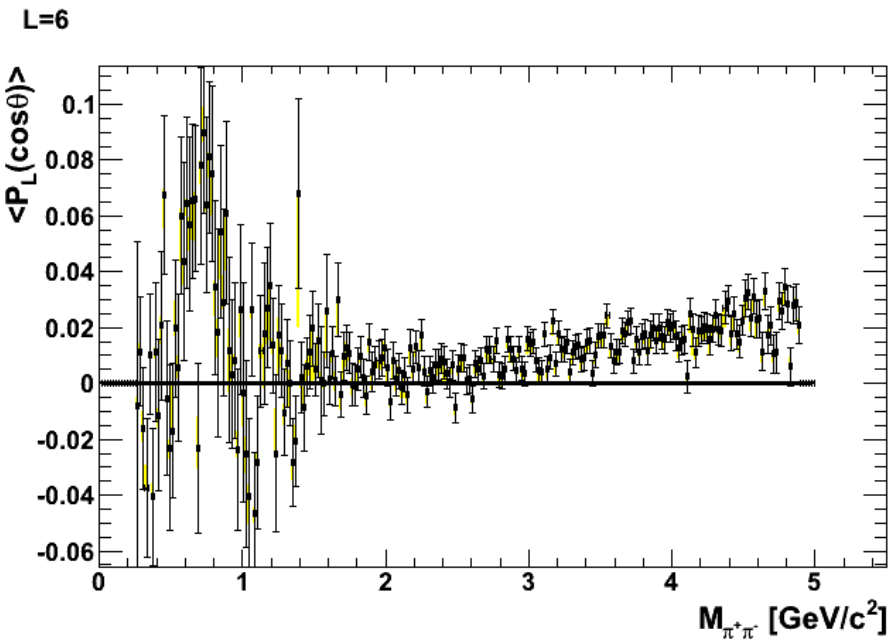
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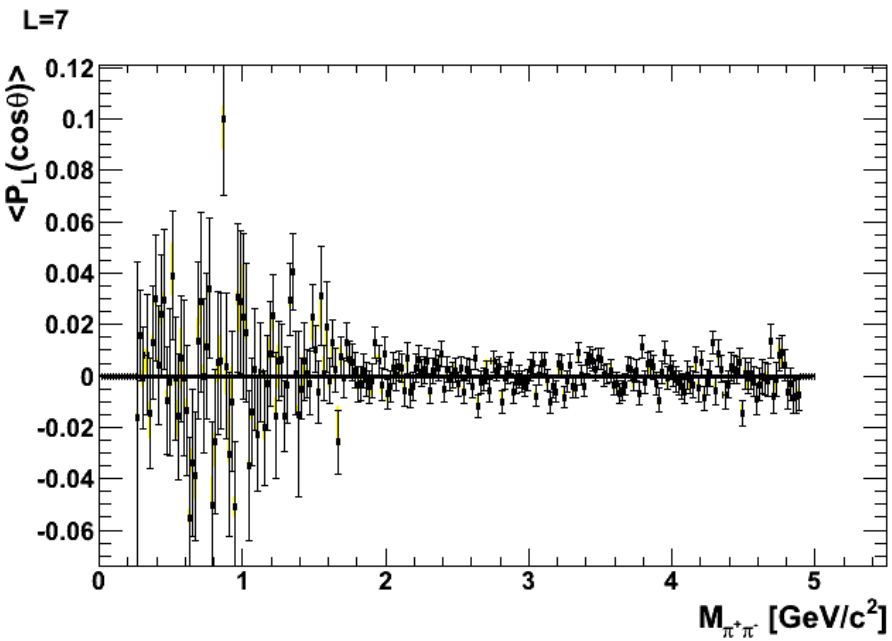
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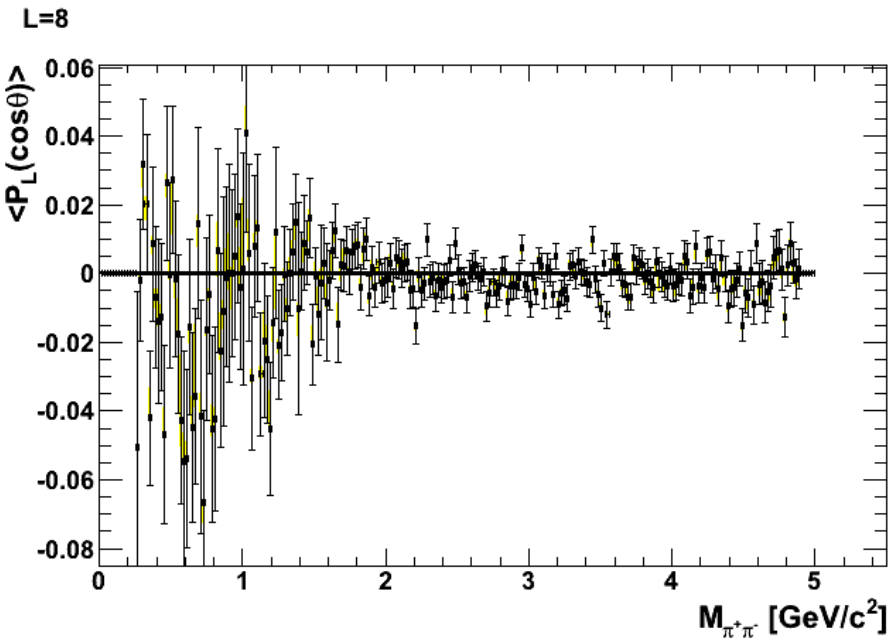
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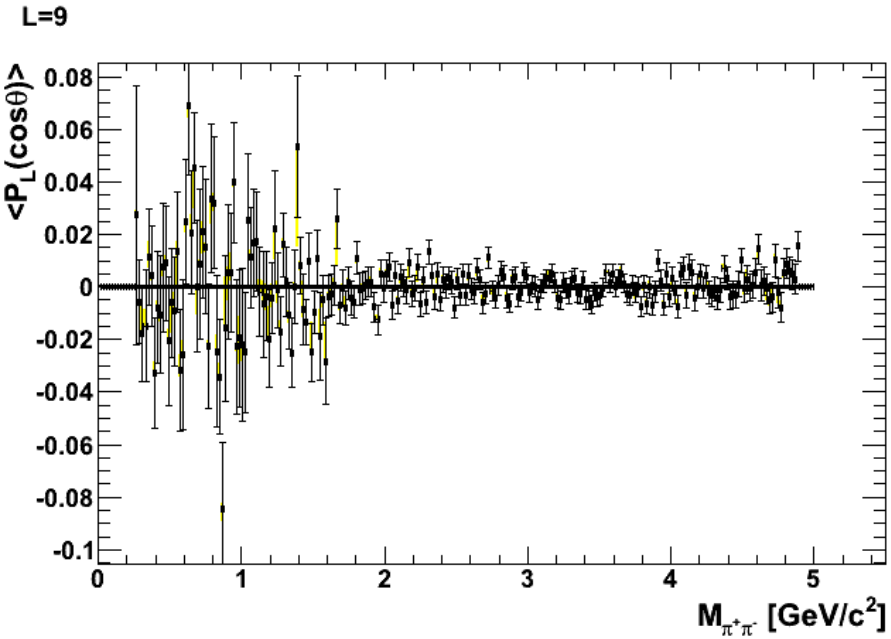
MC - PWA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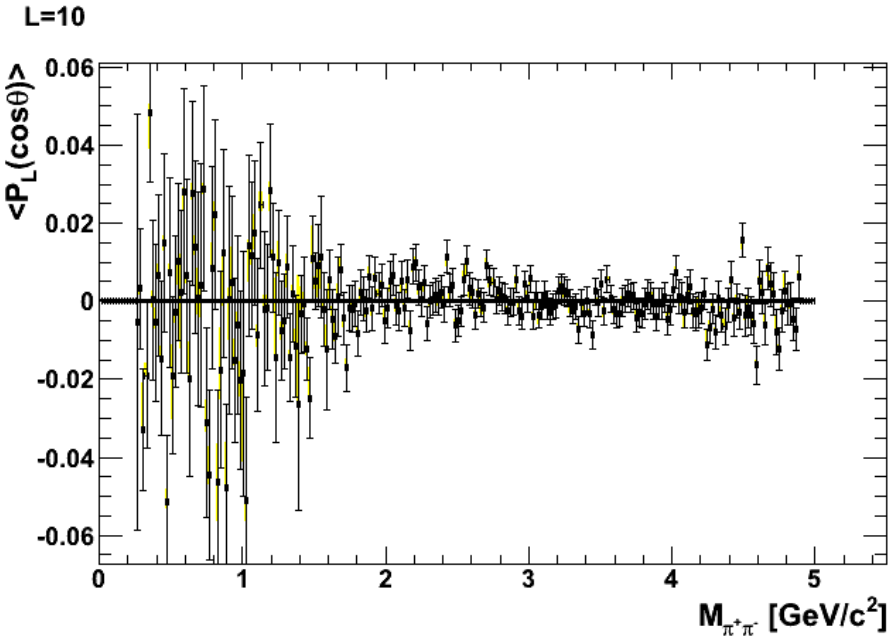
2
3
4
5
M_π+π- [GeV/c^2]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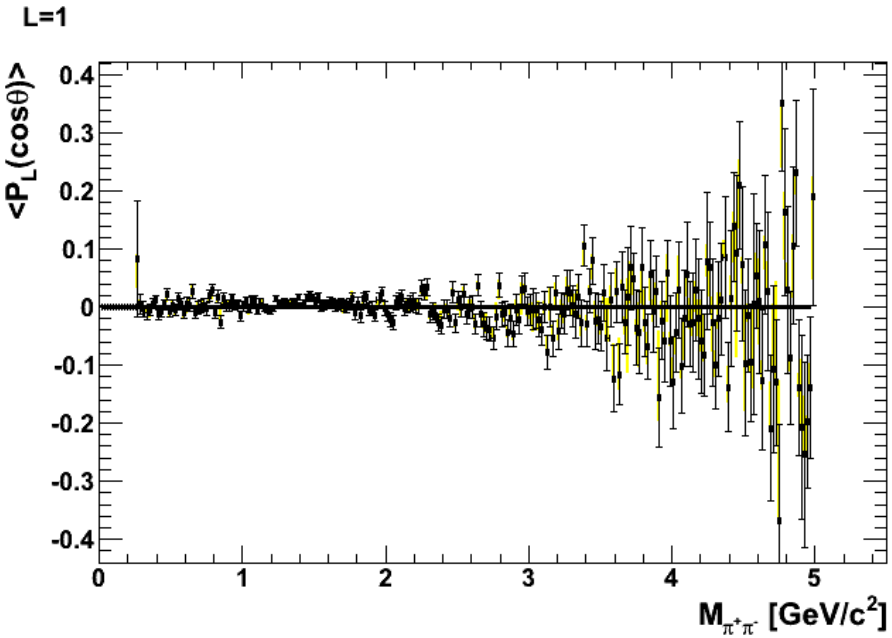
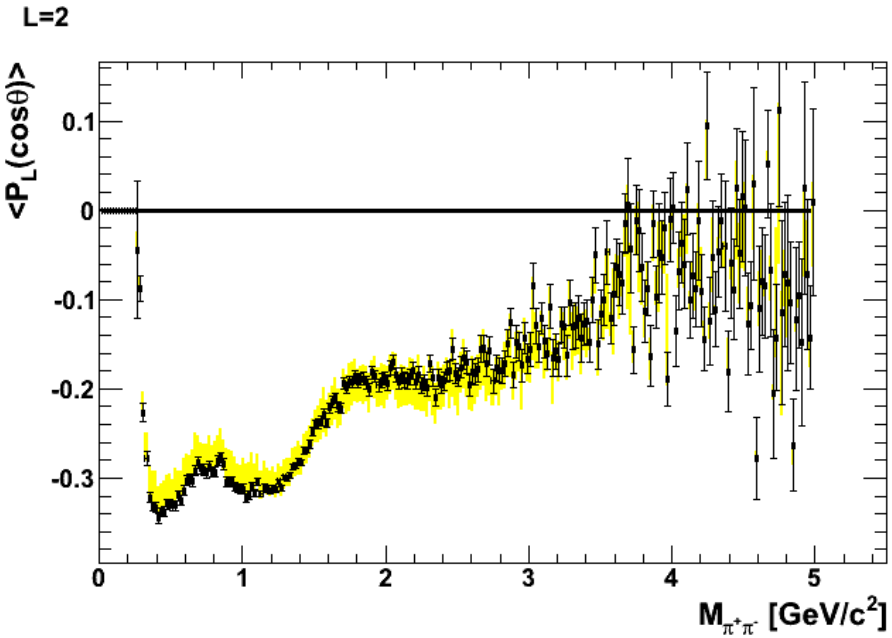
1
2
3
4
5
M_π+π- [GeV/c^2]

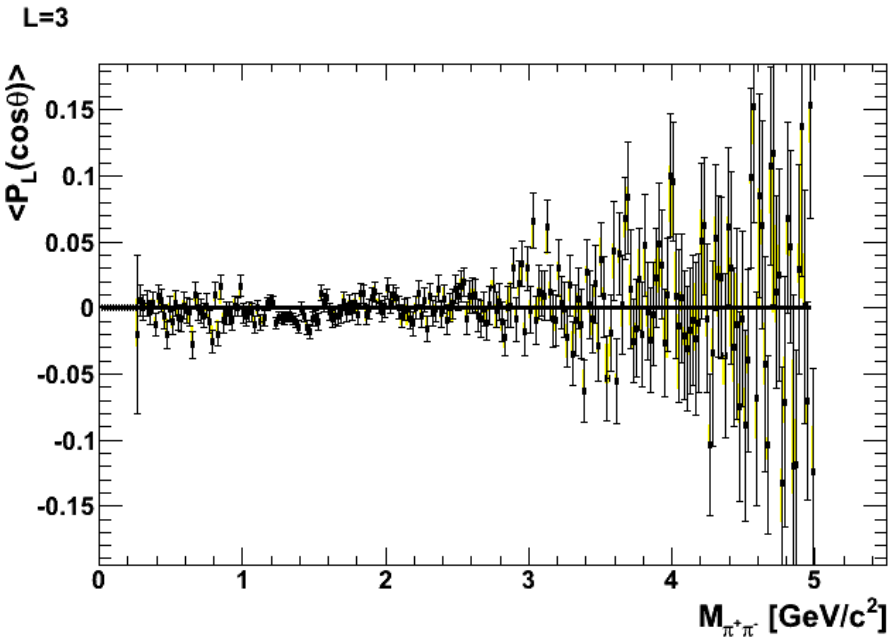
Systematics - Idea

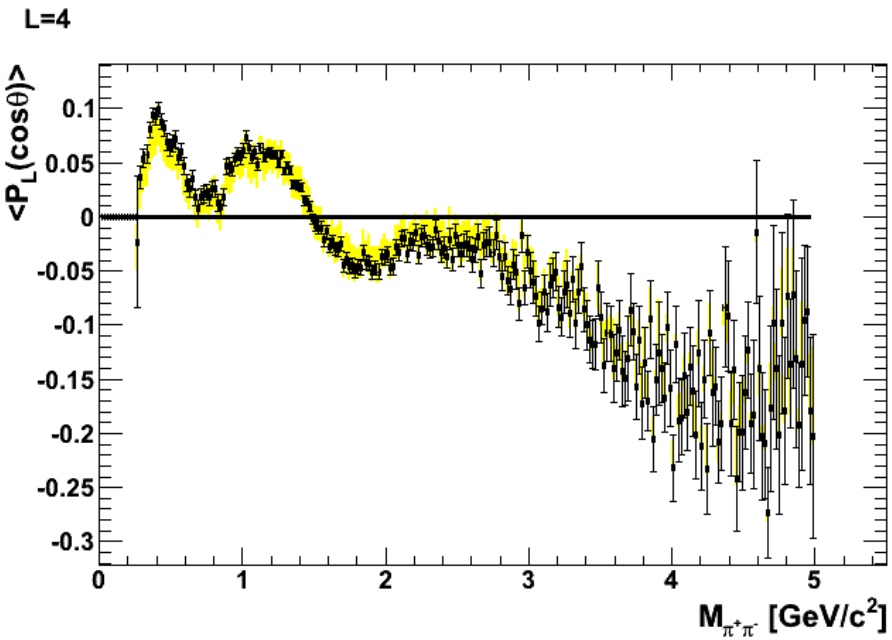
- Check all cuts impact on final distributions by varying their values in reasonable range.
- Variations not changed from last time.

Systematics - PWA

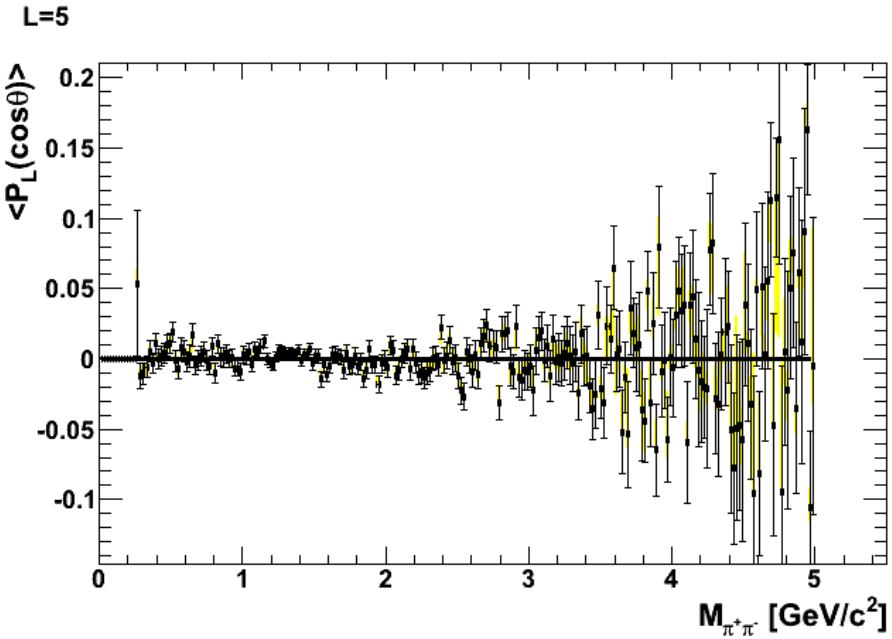


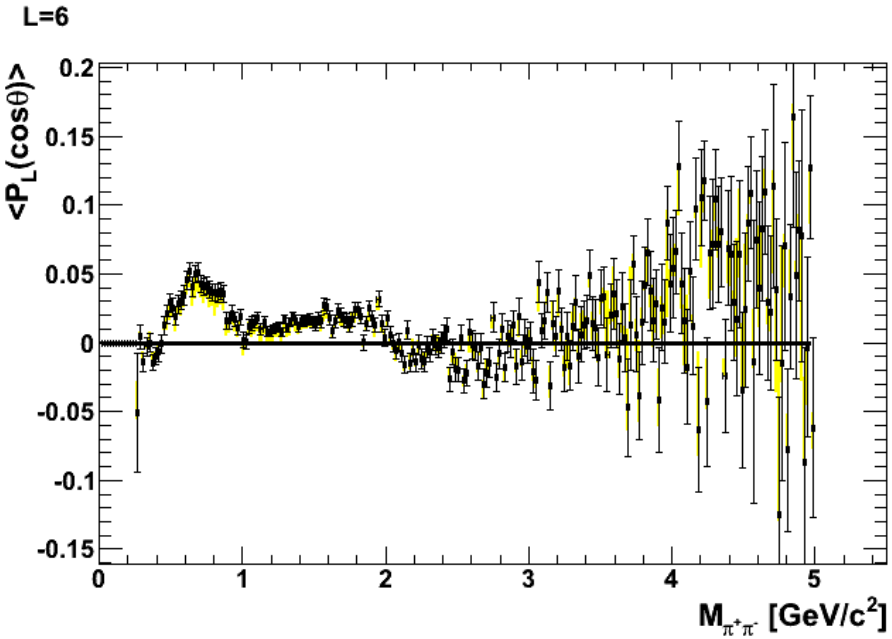


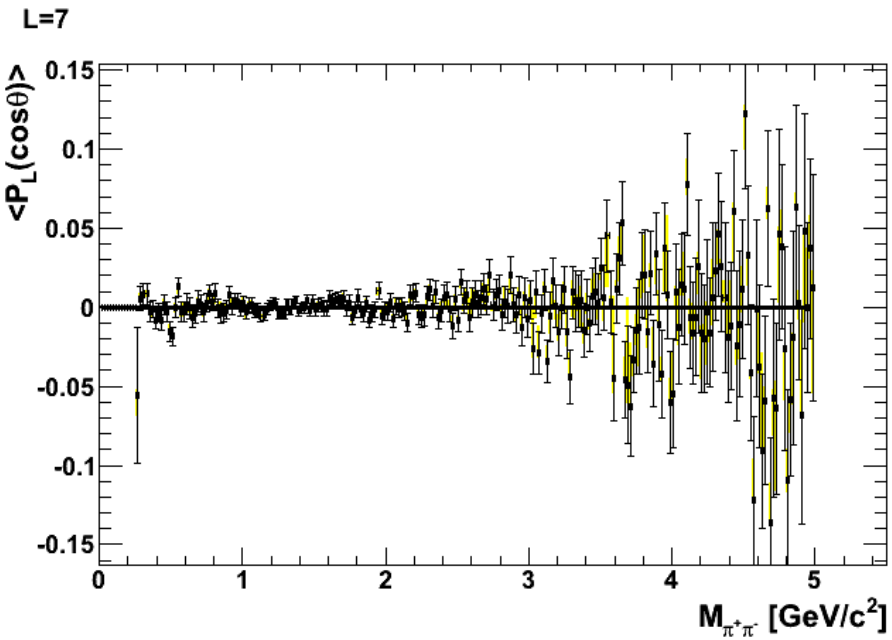


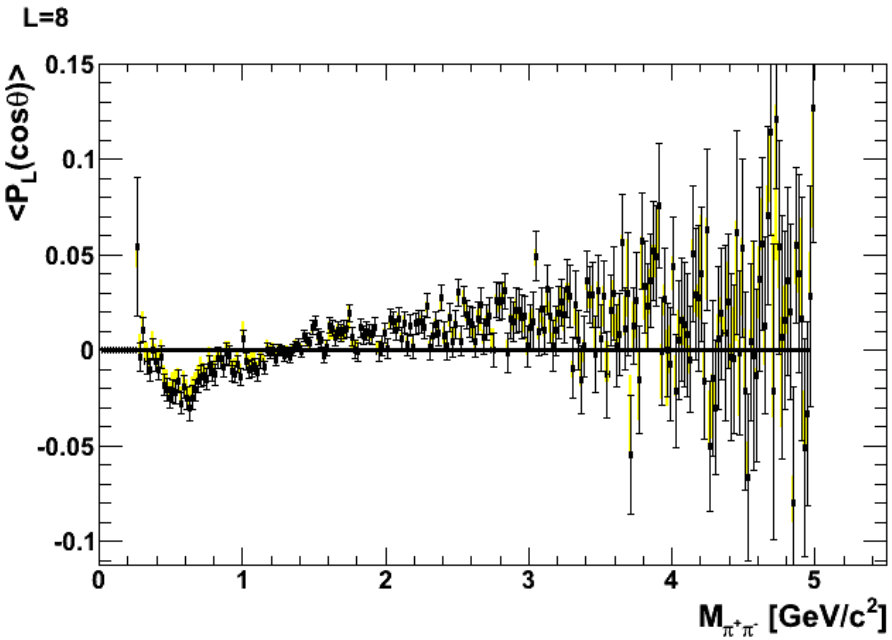


Systematics - PWA

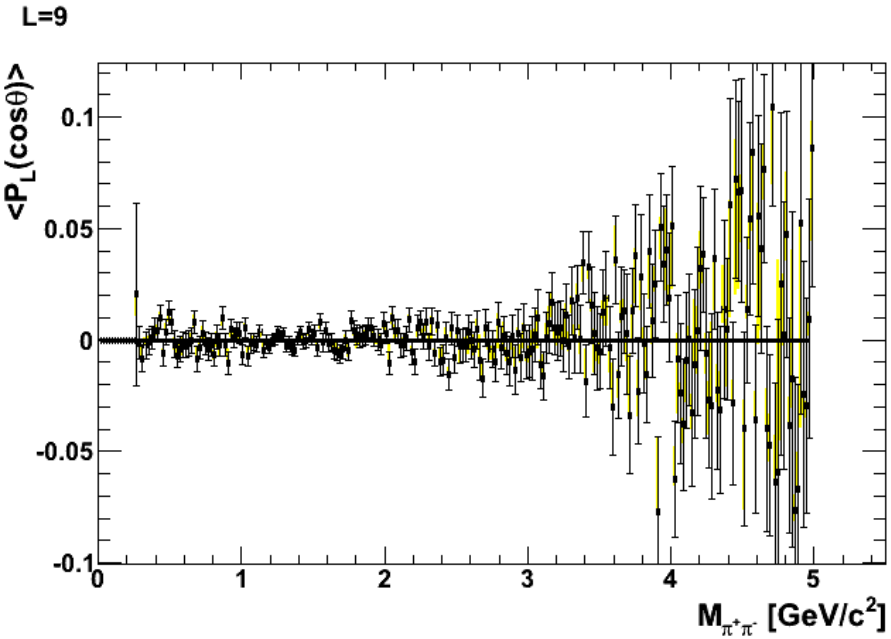


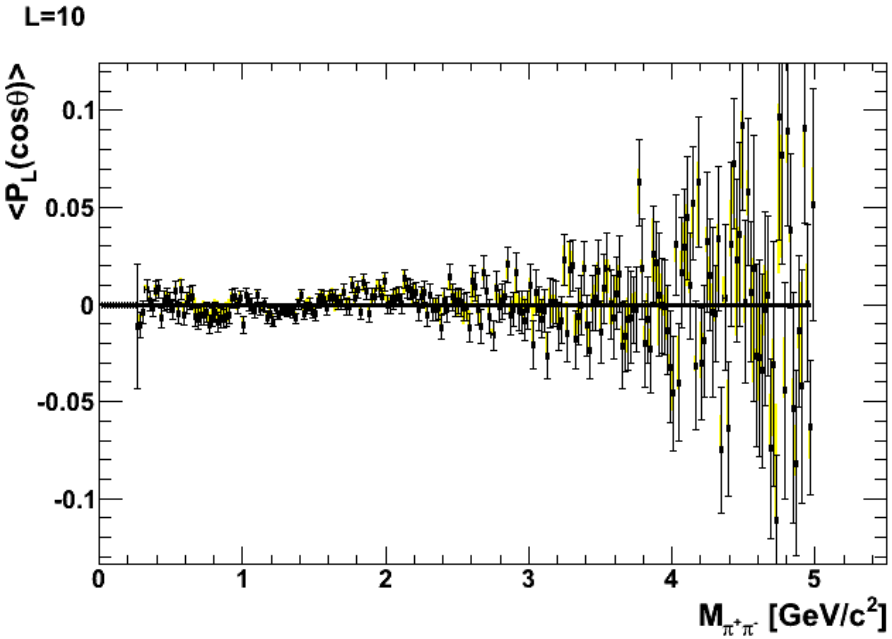




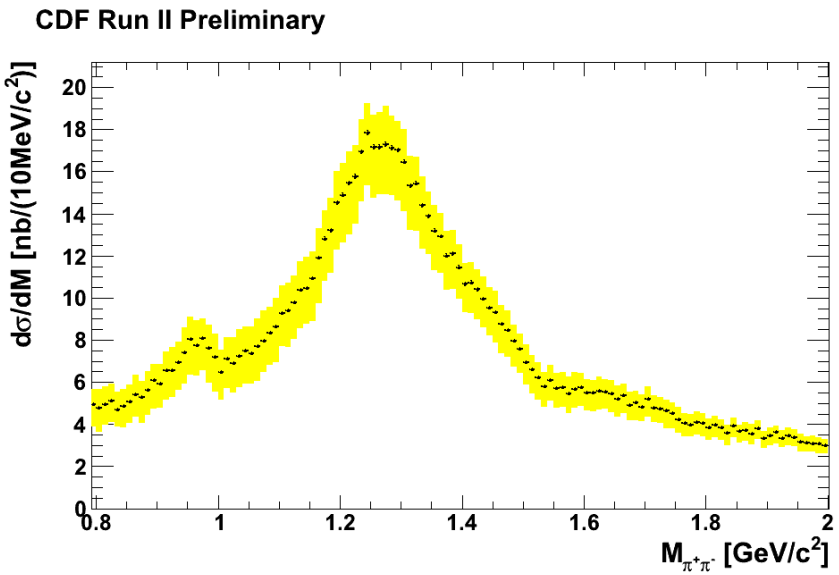


Systematics - PWA





Mass plots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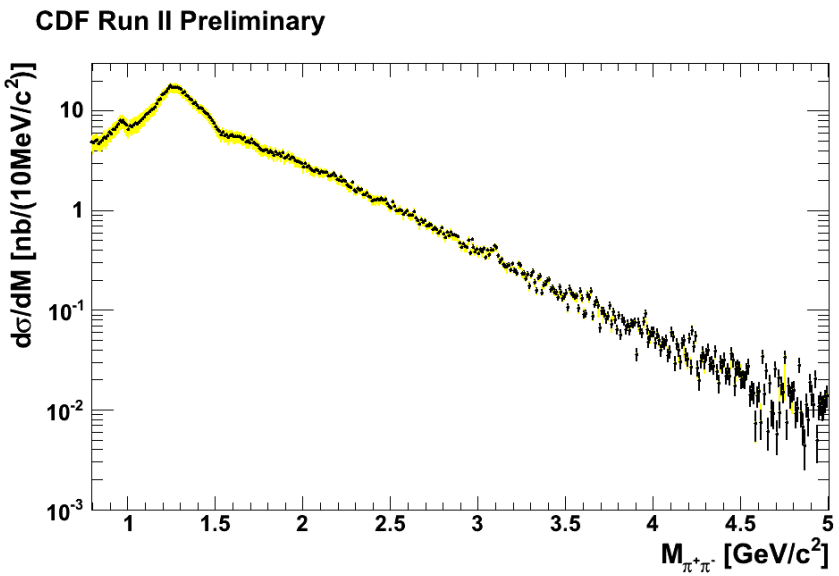
dσ/dM [nb/(10MeV/c²)]
M_π+π- [GeV/c²]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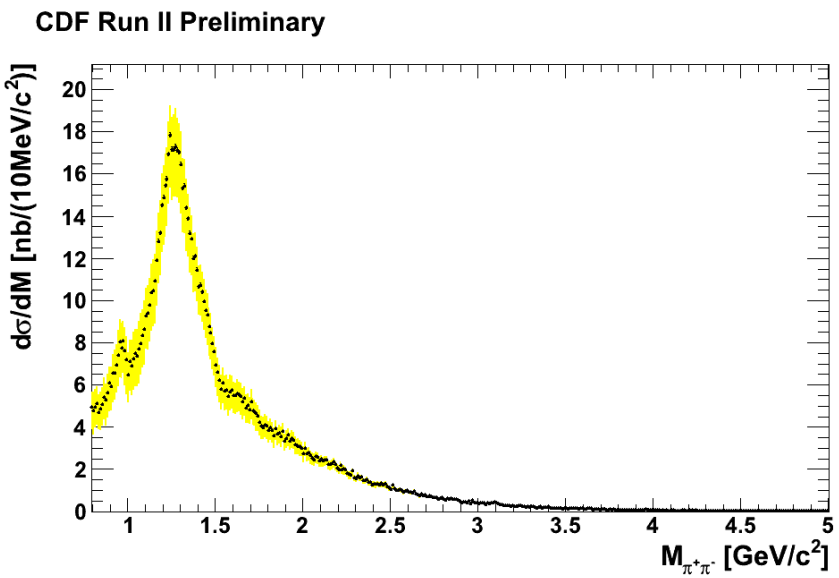
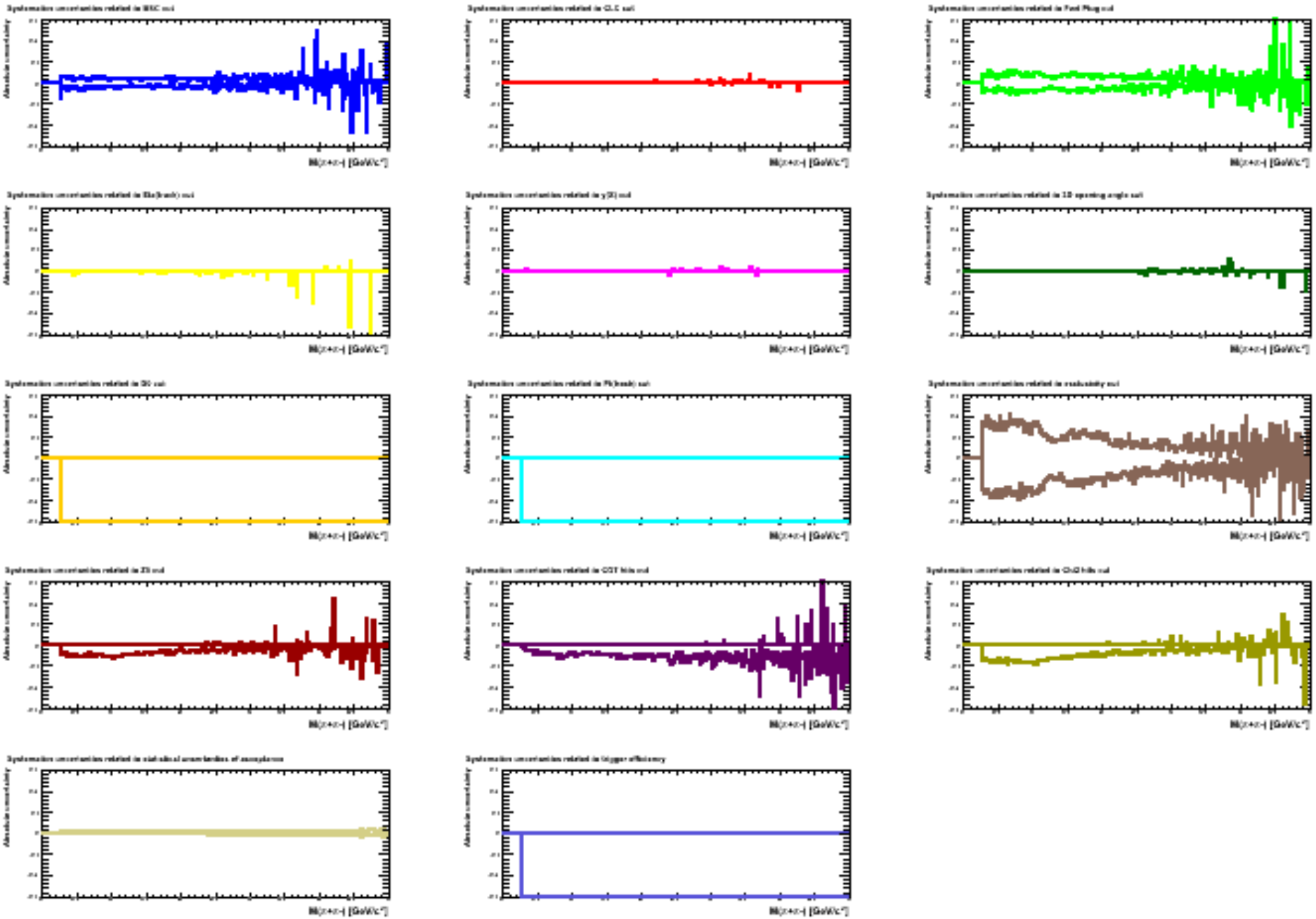
dσ/dM [nb/(10MeV/c²)]
M_π+π- [GeV/c²]


CDF Run II Preliminary
dσ/dM [nb/(10MeV/c²)]
M_π+π- [GeV/c²]

Mass – Systematics

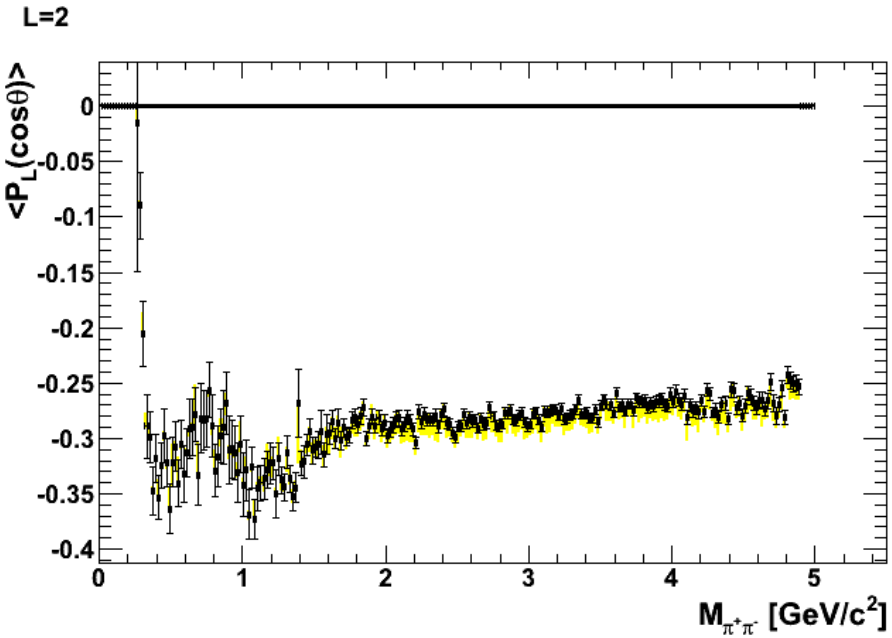


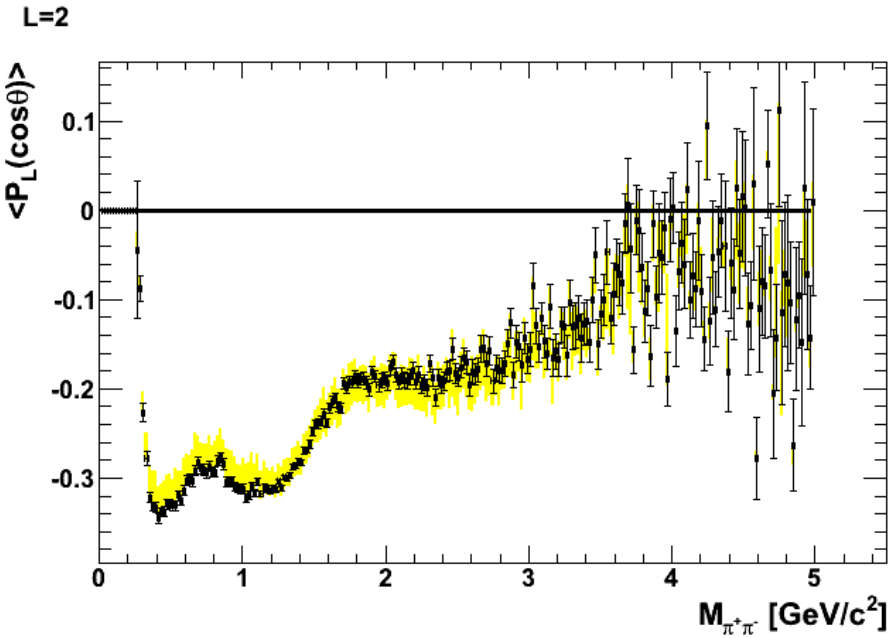
Kinematic acceptance

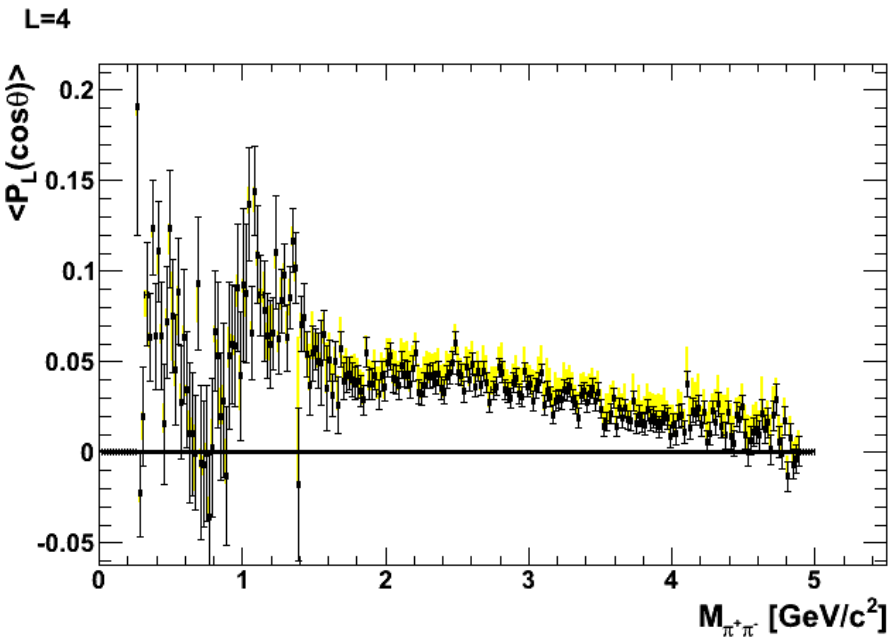
- On the way.
- Still few questions to Jon.

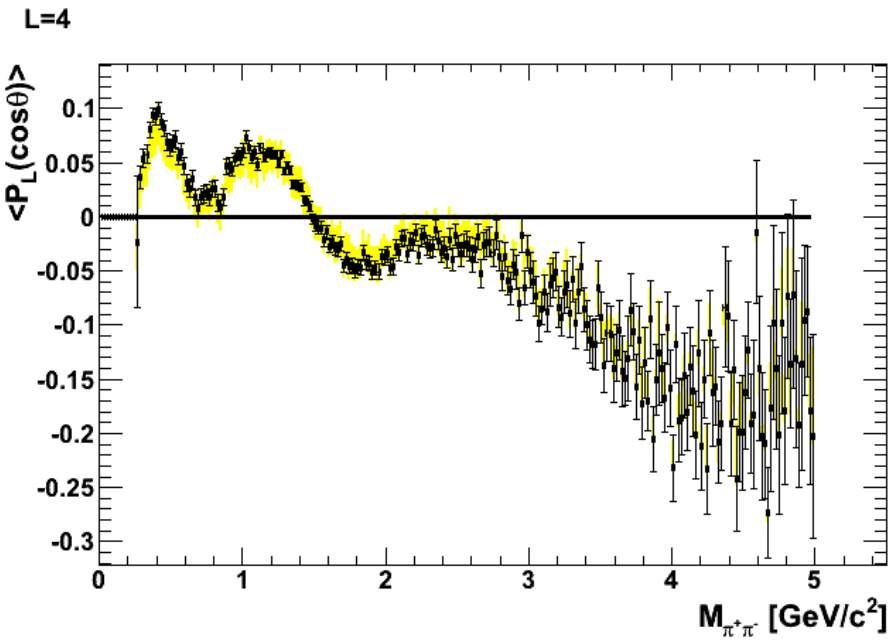
Backup slides

PWA – Data/MC comparison

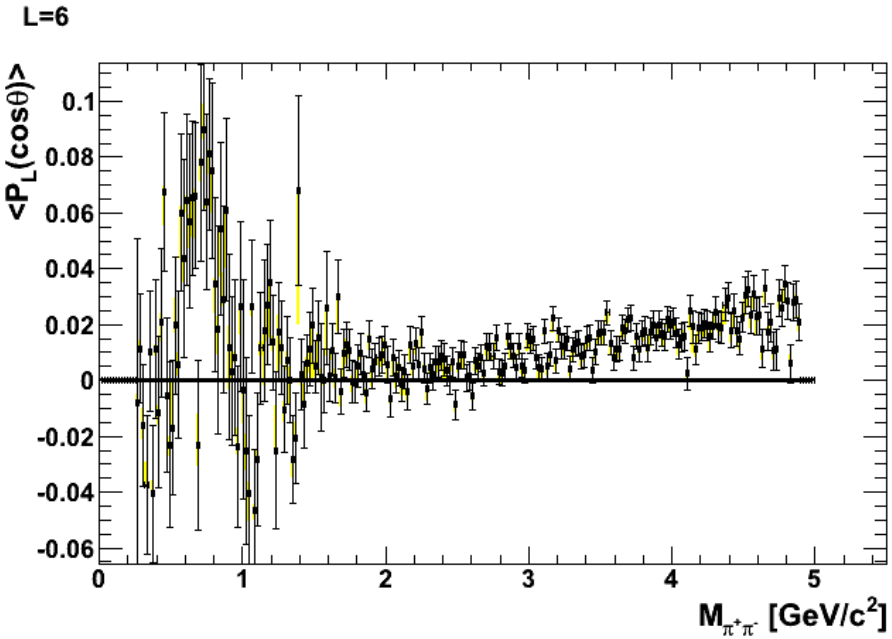


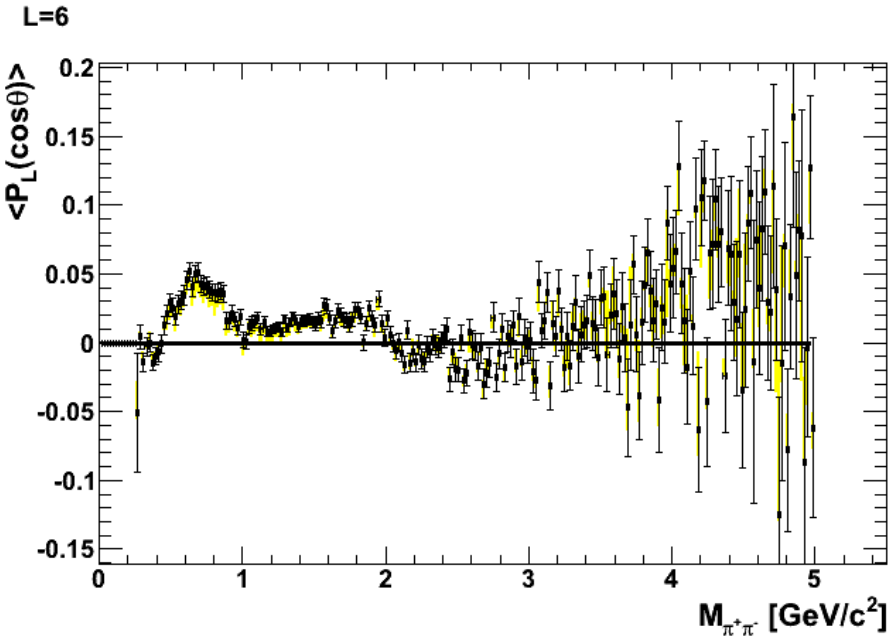


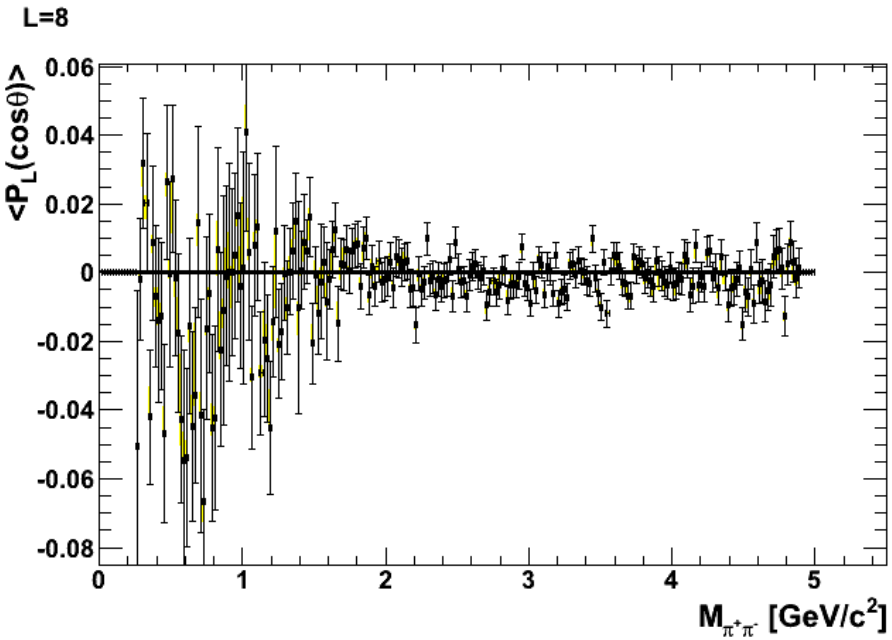


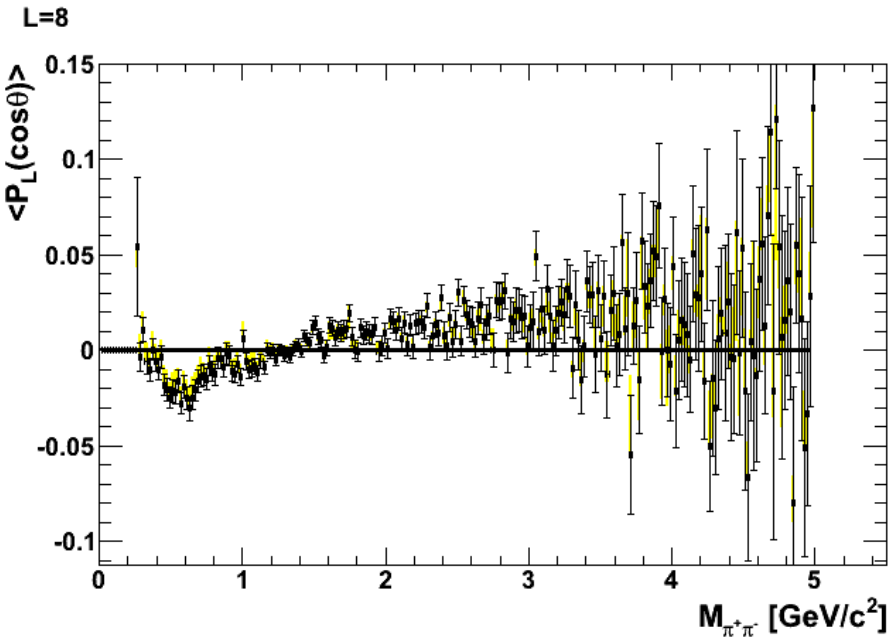


PWA Data/MC comparison









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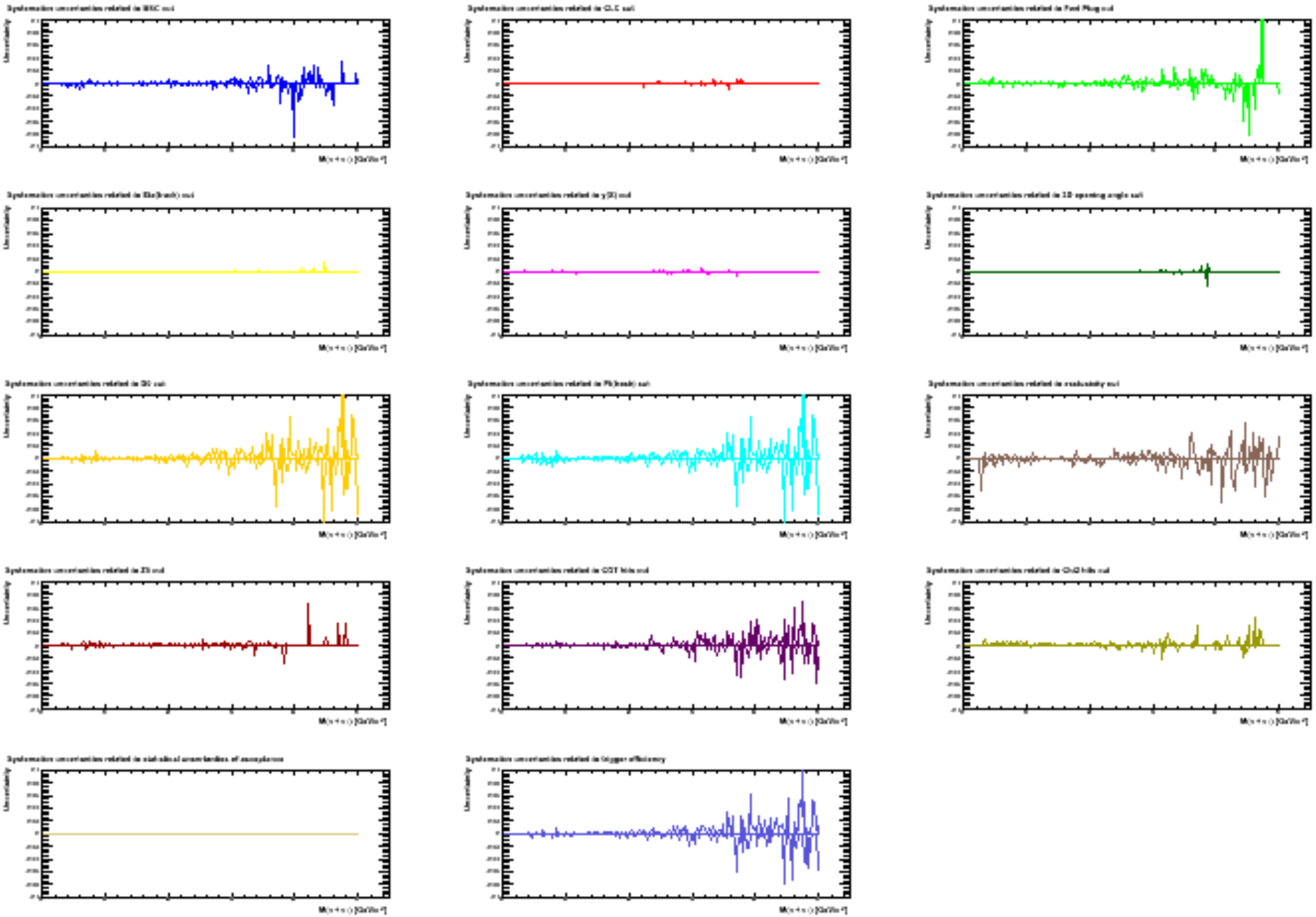

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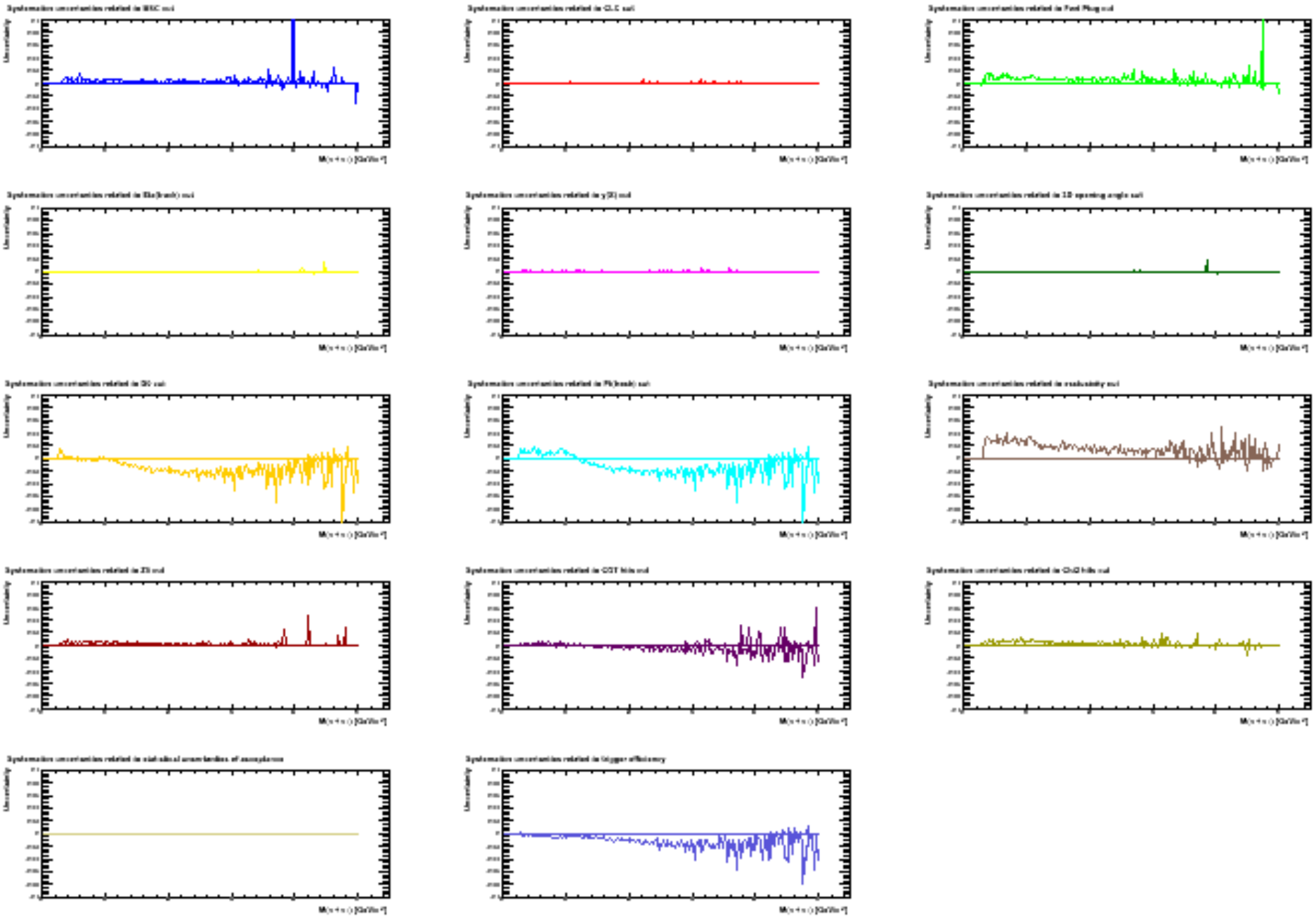

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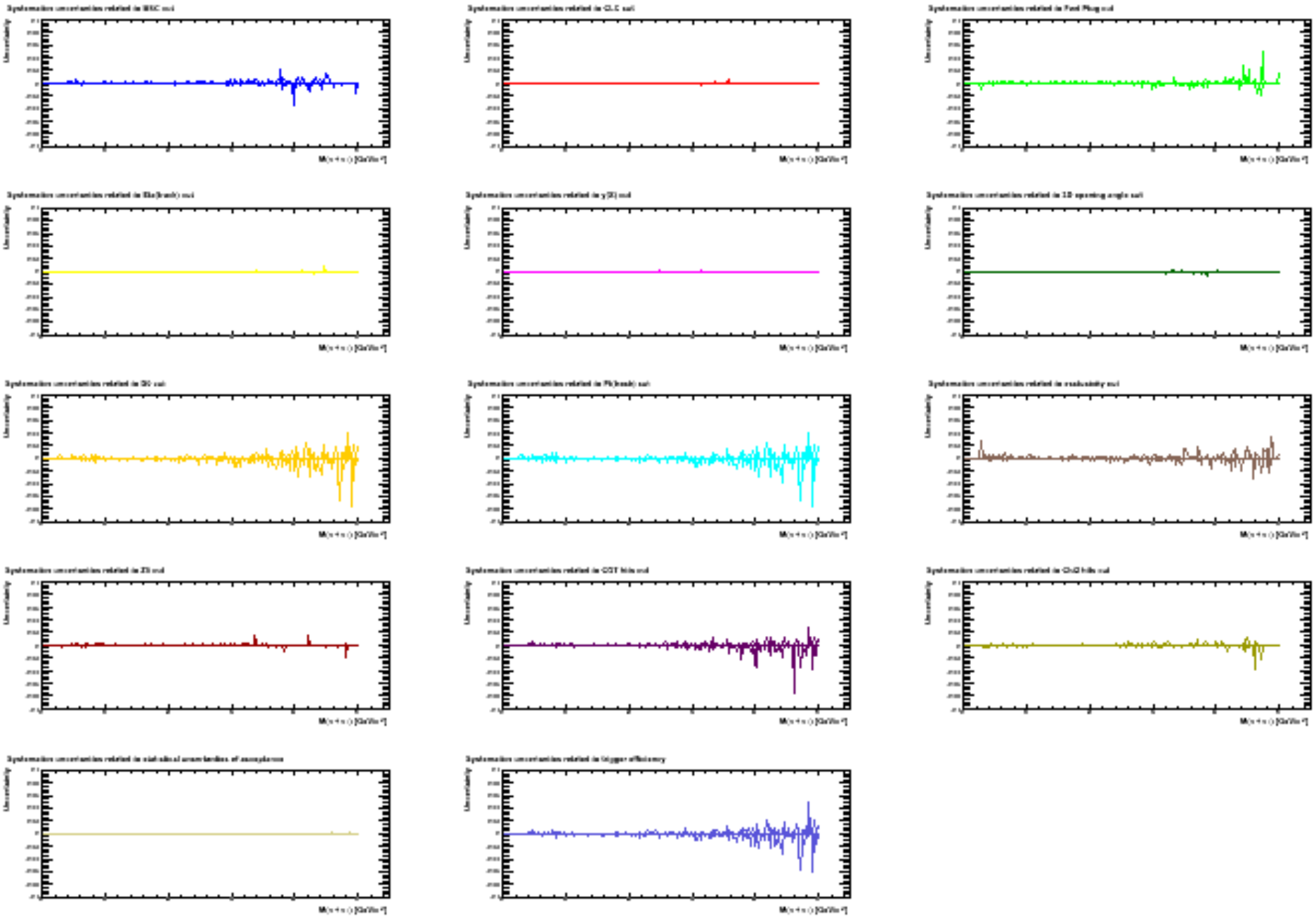

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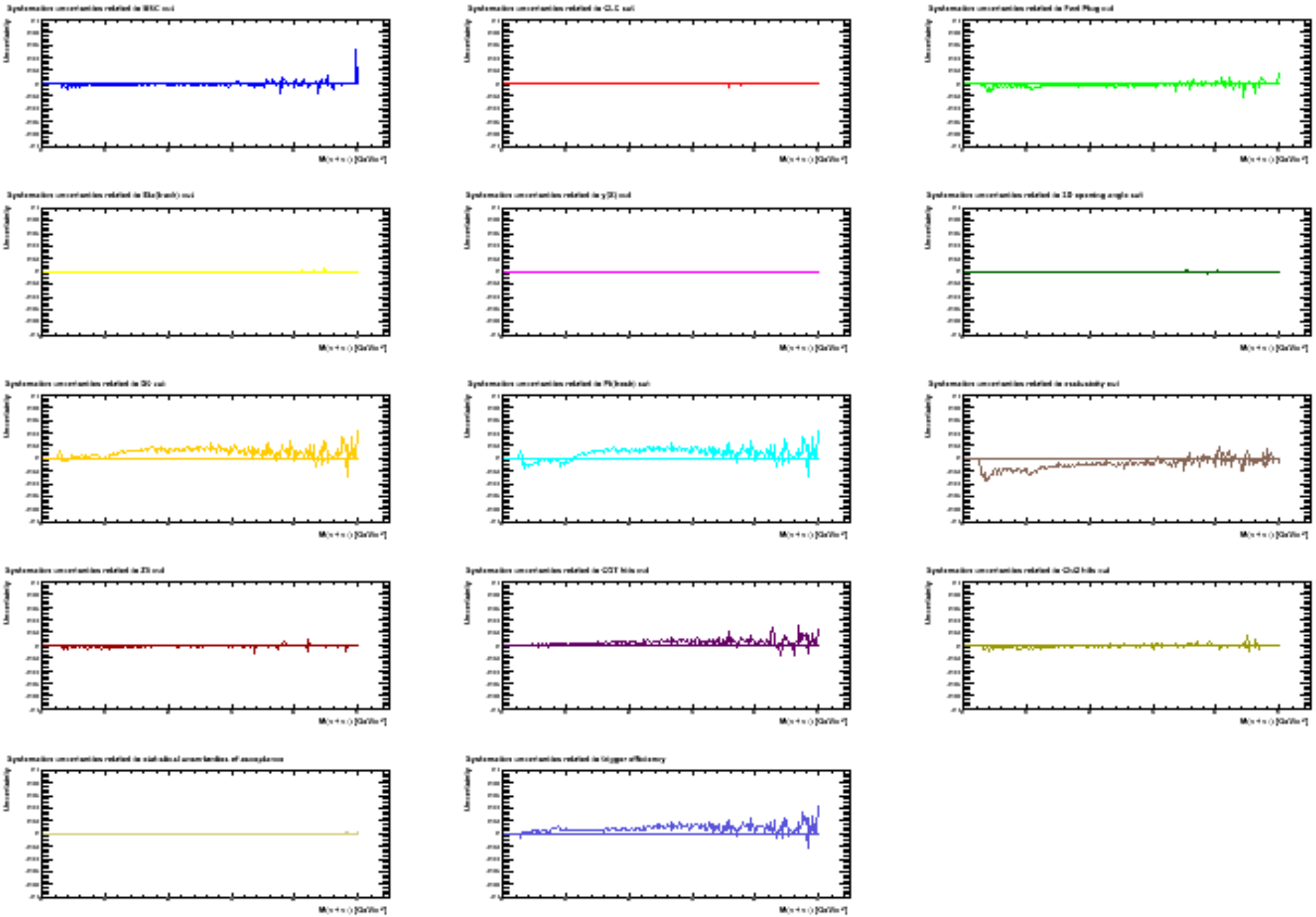

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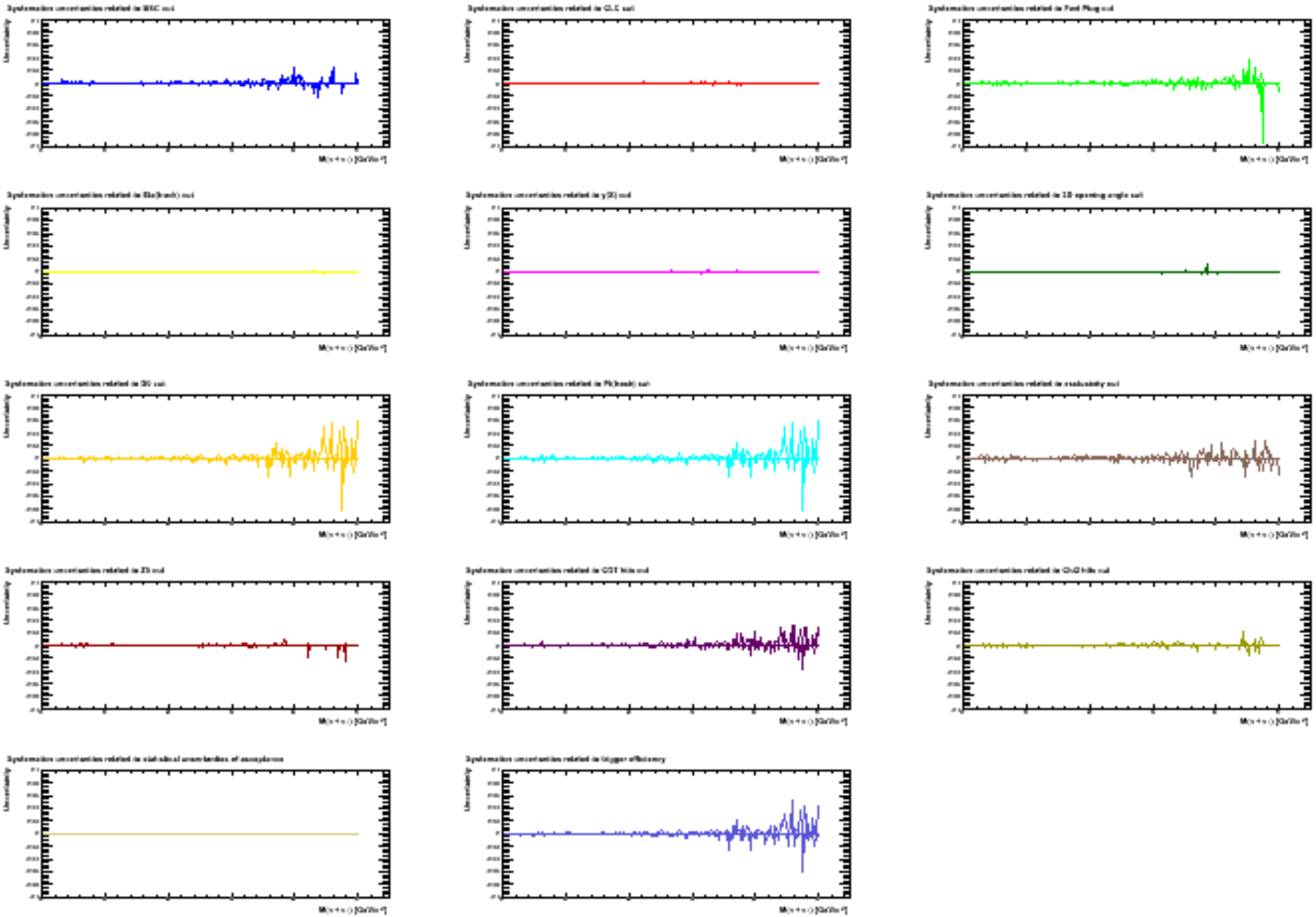

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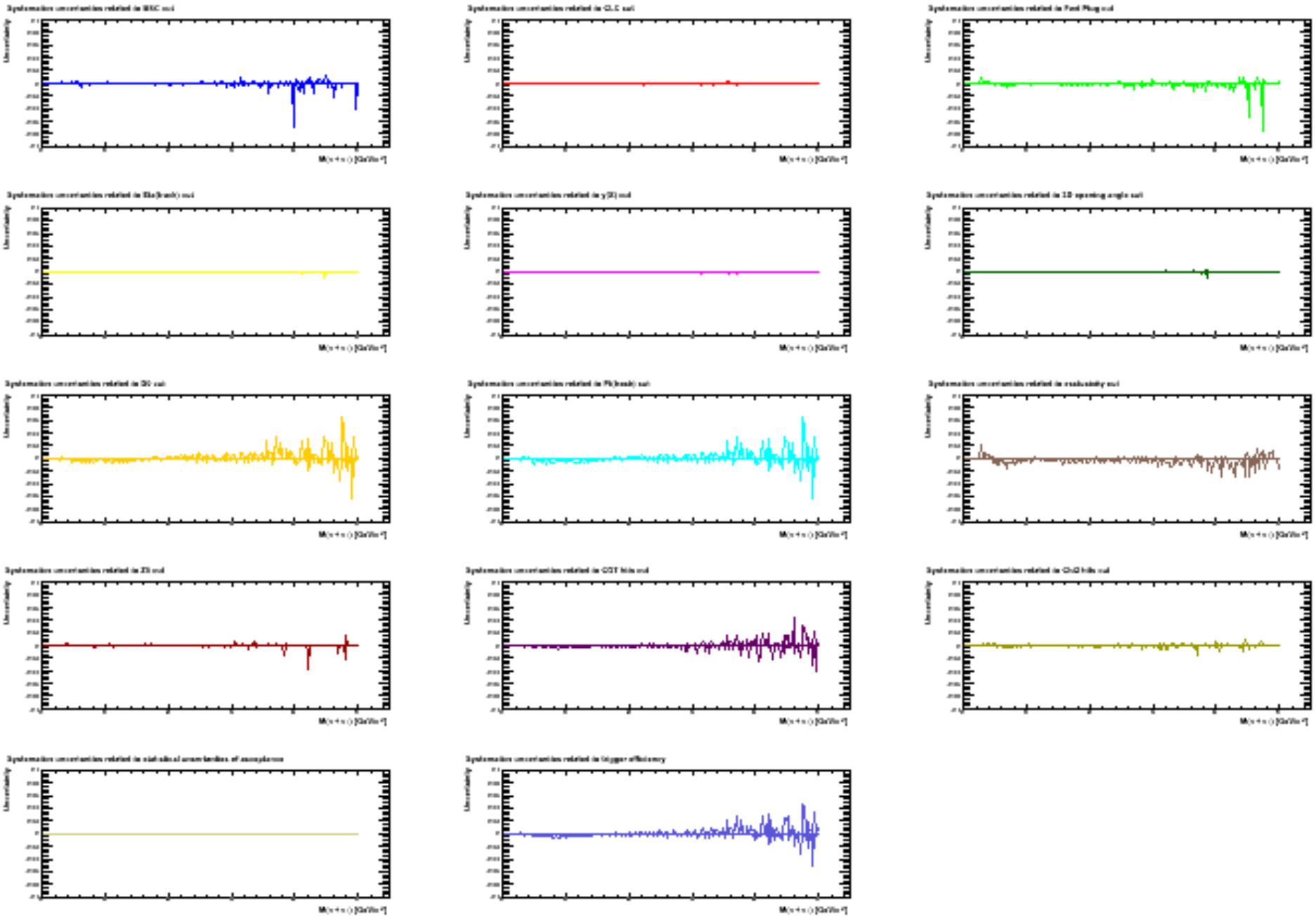

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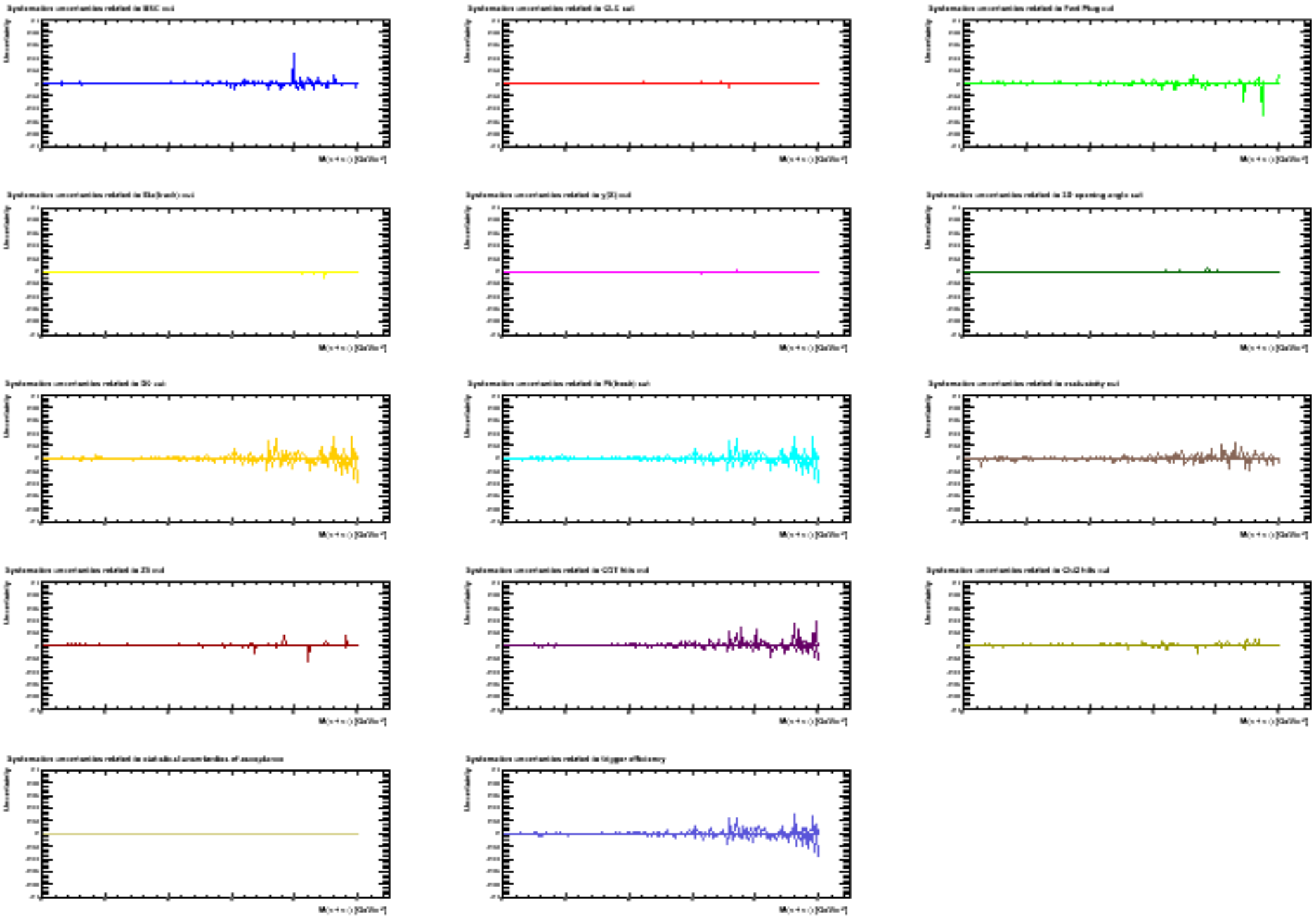

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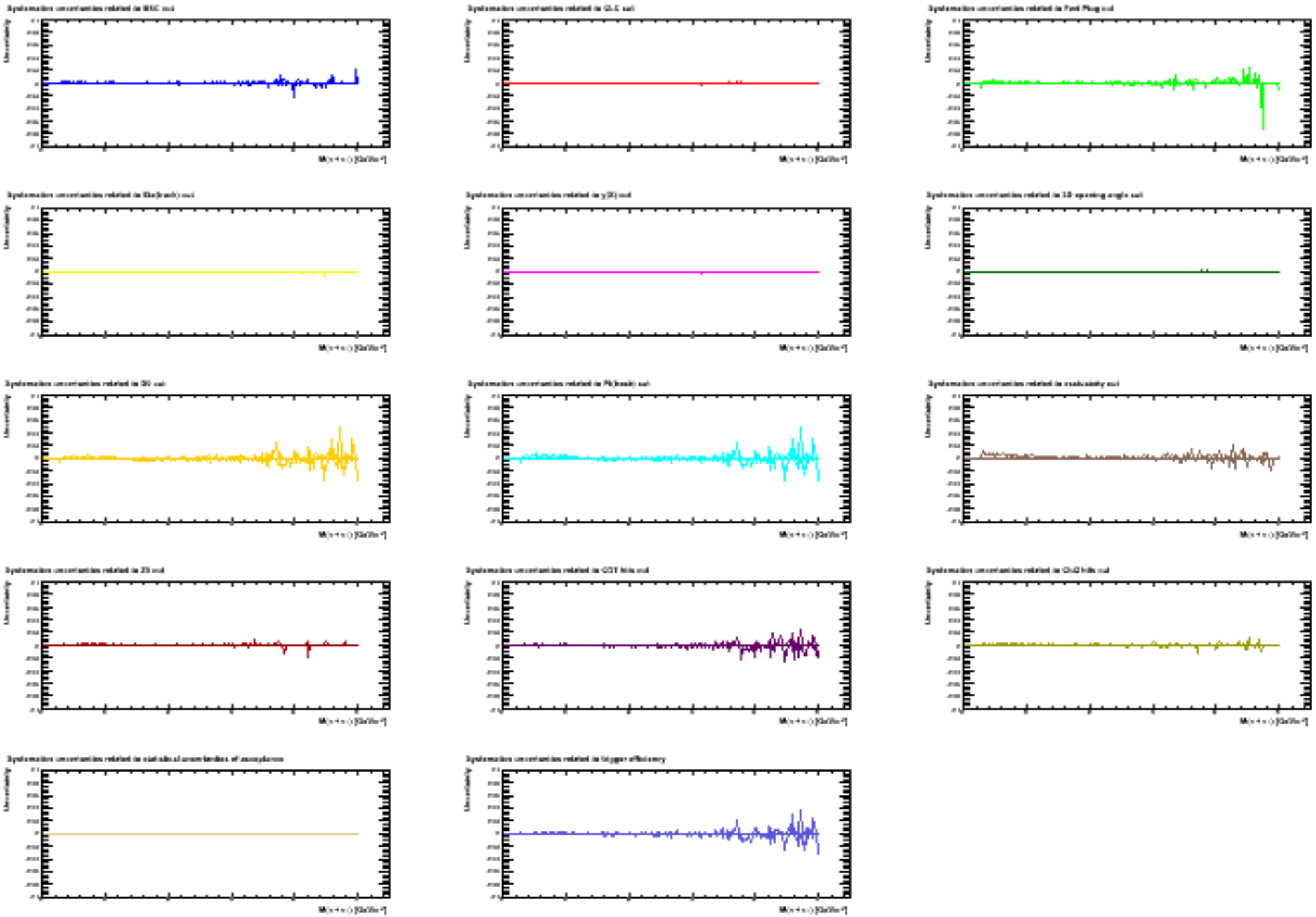

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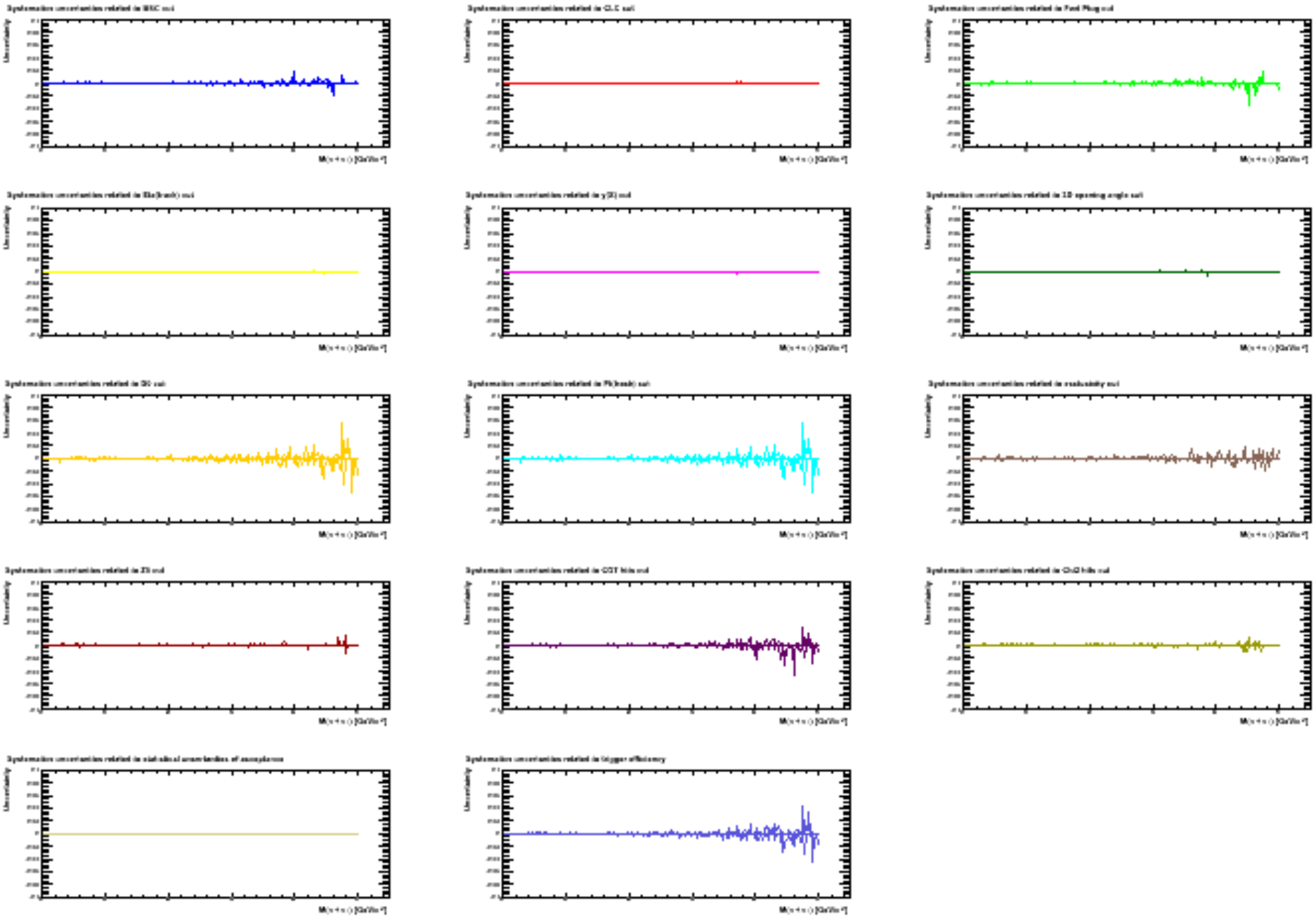

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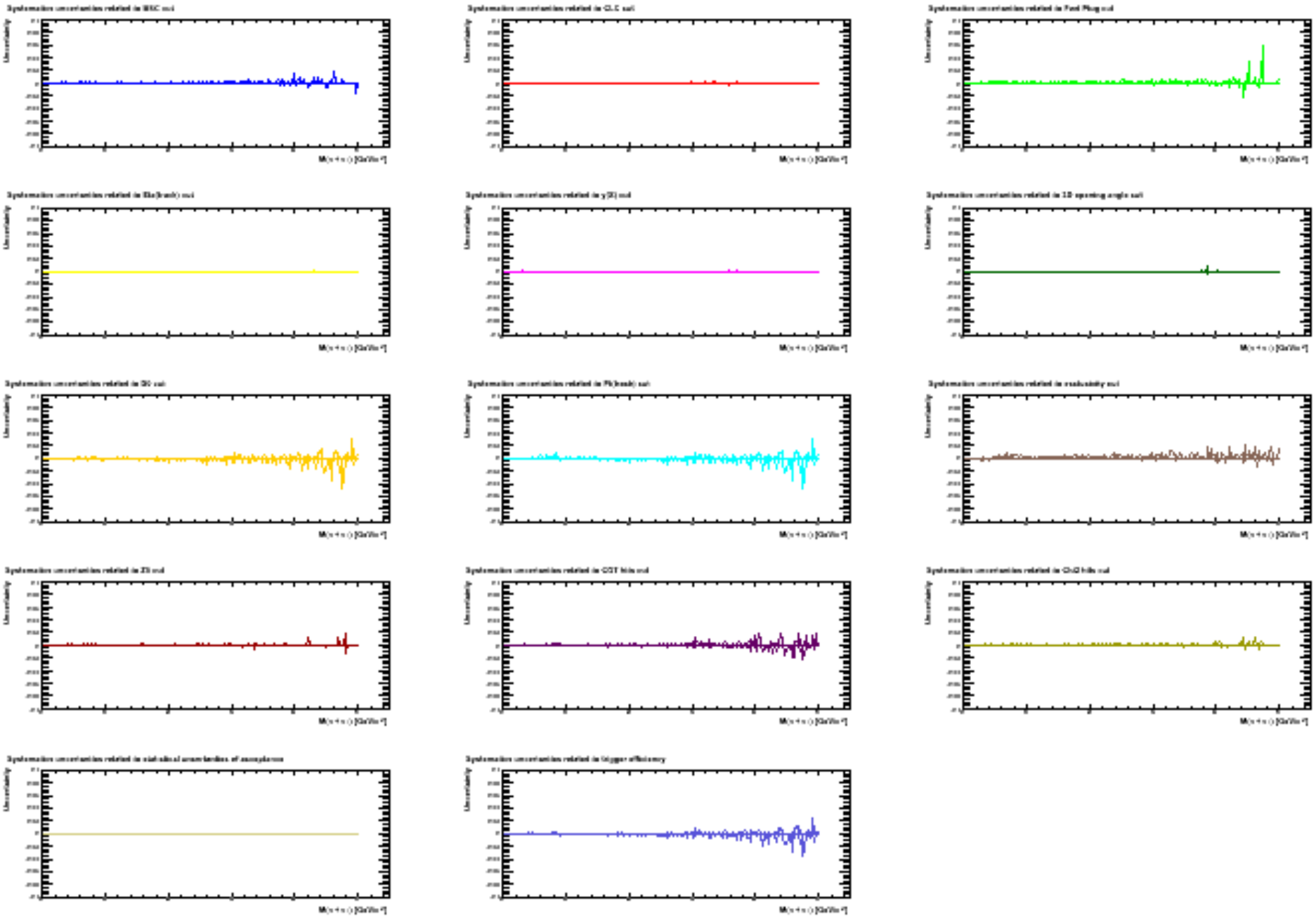
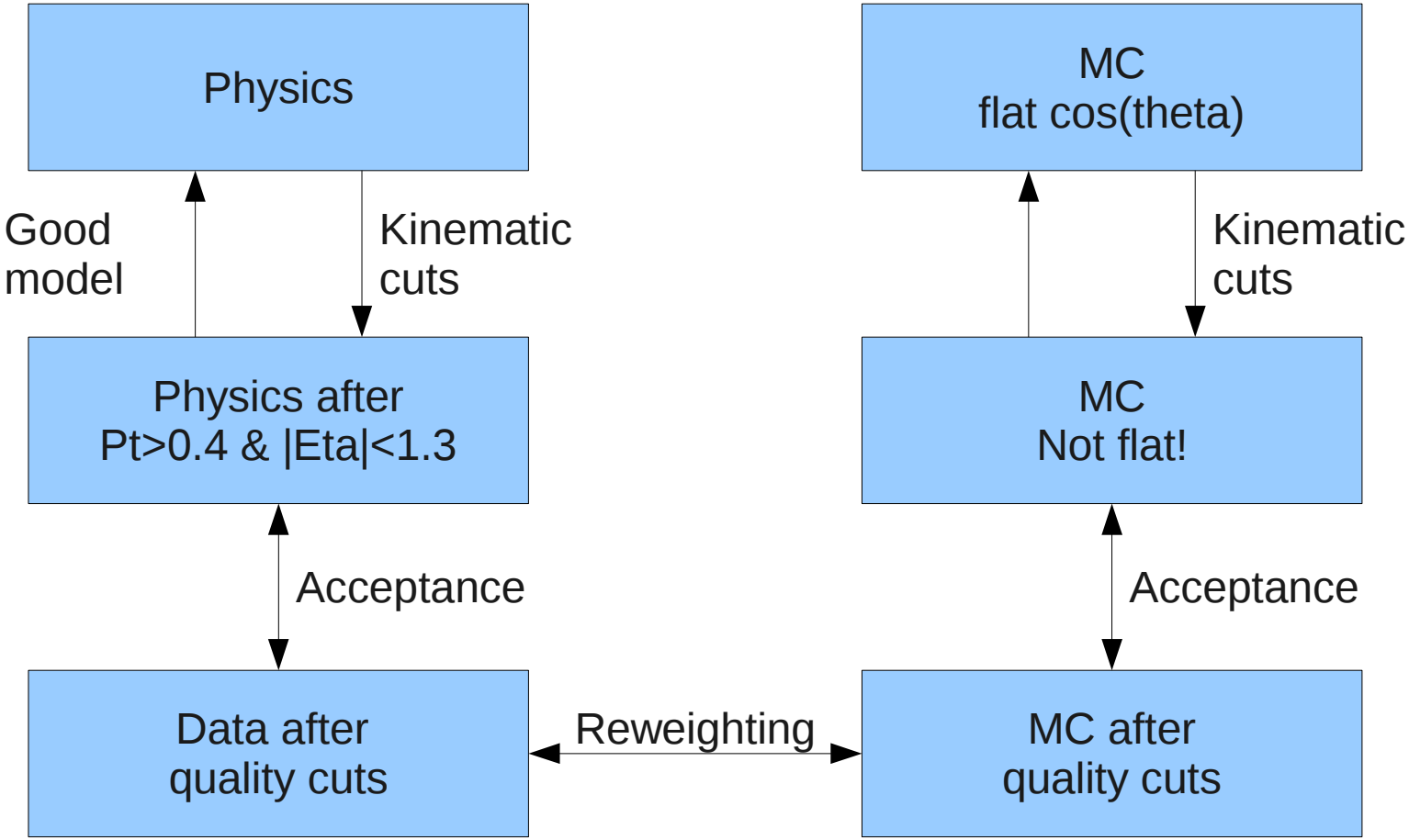
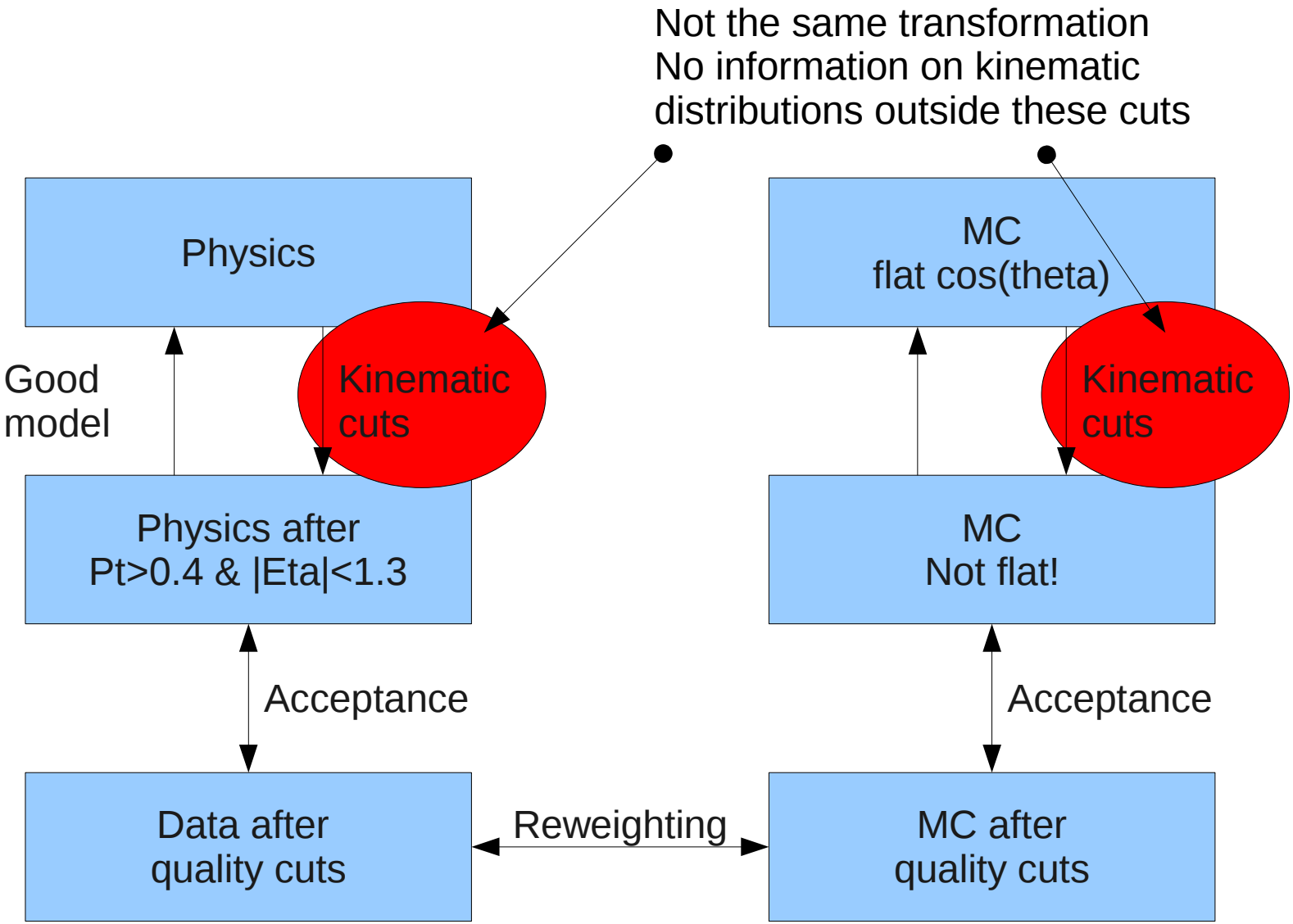


Why not simple acceptance?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