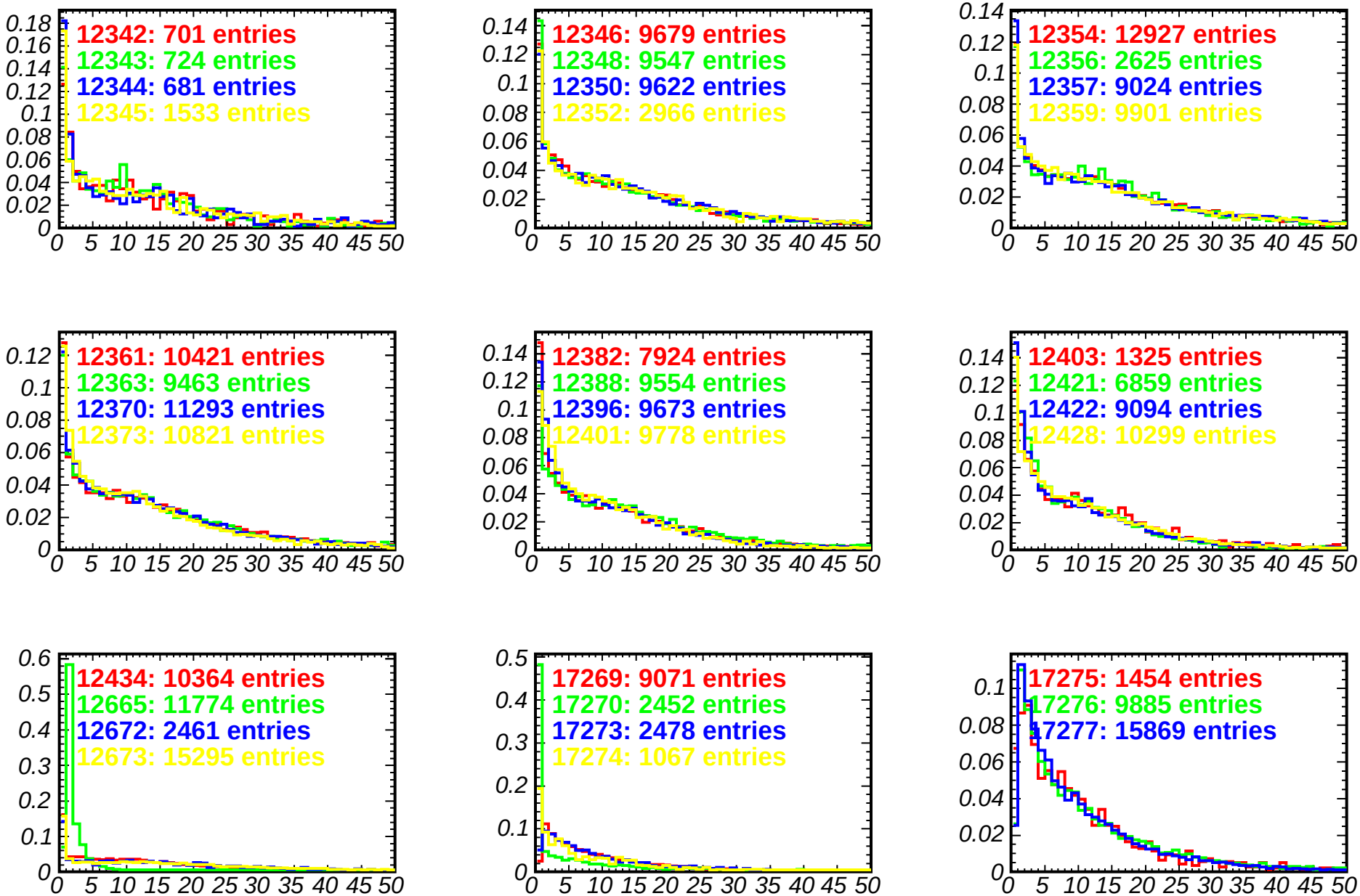
Validating DSTs - Progress and Plans

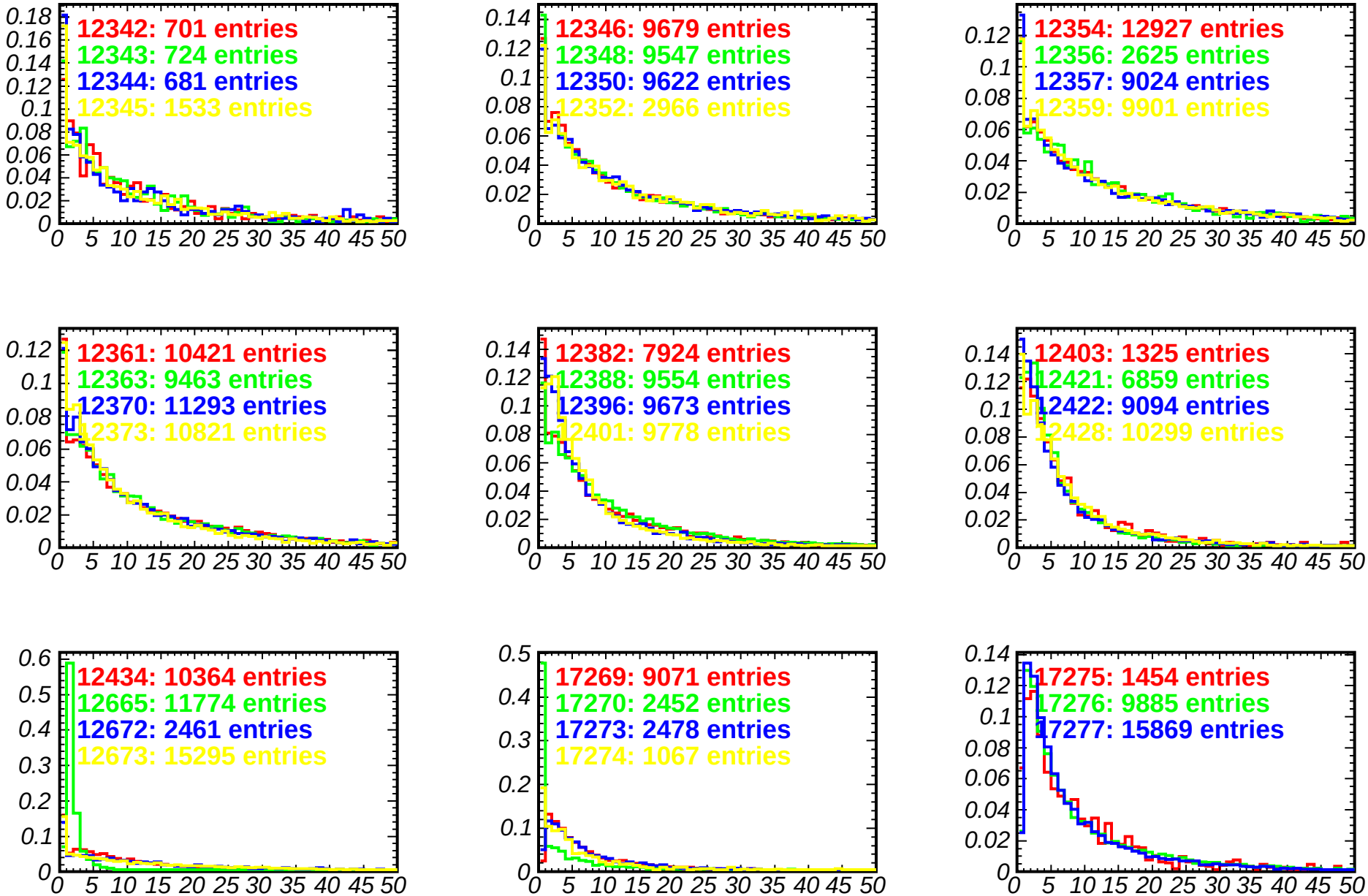
I. Procedure

- Using Pass4aII data
- Data from same targets and beam momentum range
- Use python script GetRunStatFromDB to select runs
- Edit output to run valiDST on these runs
- Run multiHist on the valiDST output
  - script queries user for momentum and target then opens correct files
  - loops over files to create plots of all histograms (grouped by type and overlaid) and creates summed histograms
  - loops again to create discriminator test results
  - loops again to recreate summed histograms with discriminator cut
    rejected histograms go to an error file
- Populate database

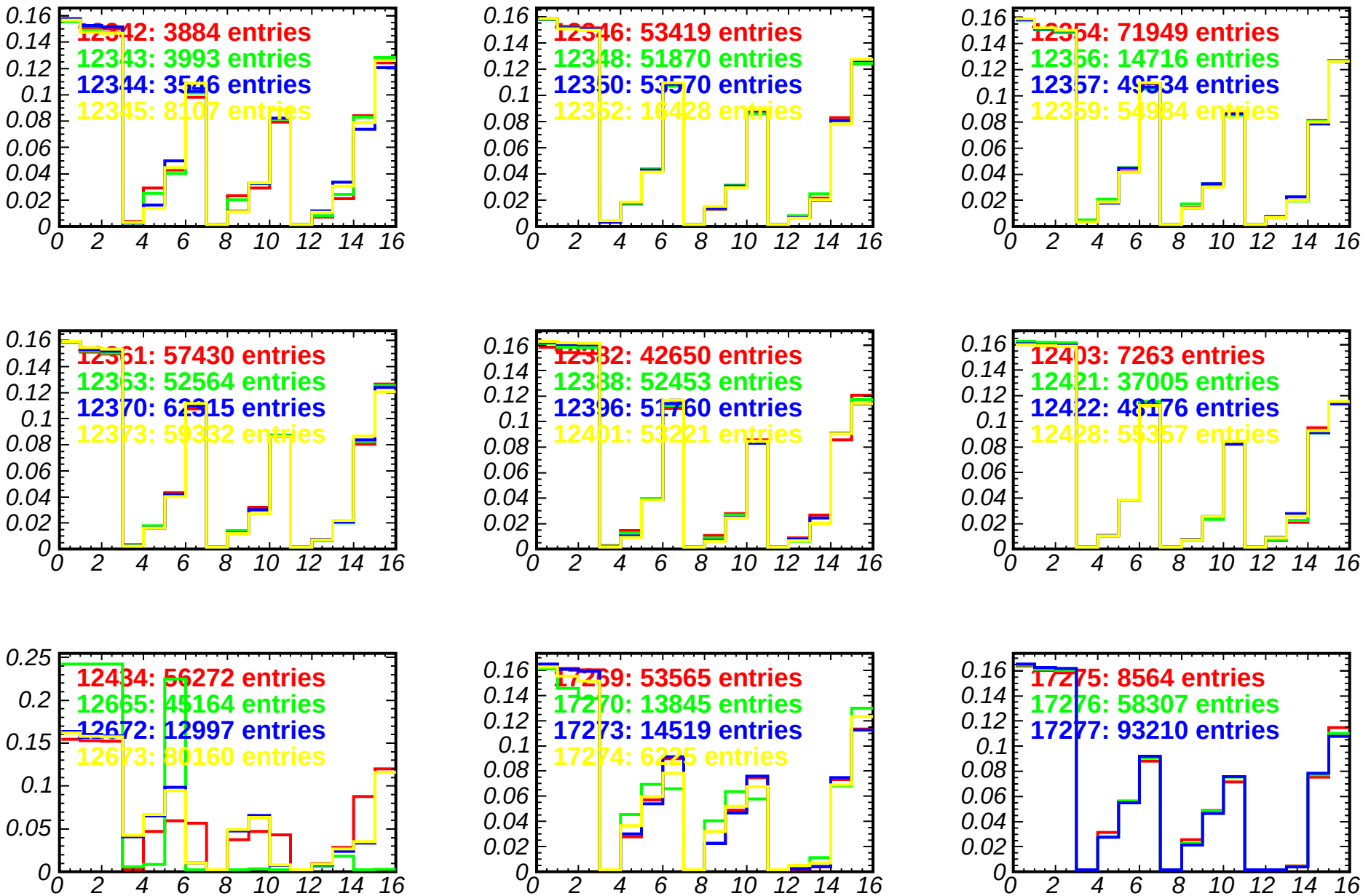
58 Gev/c on C targets: Number of tracks per event



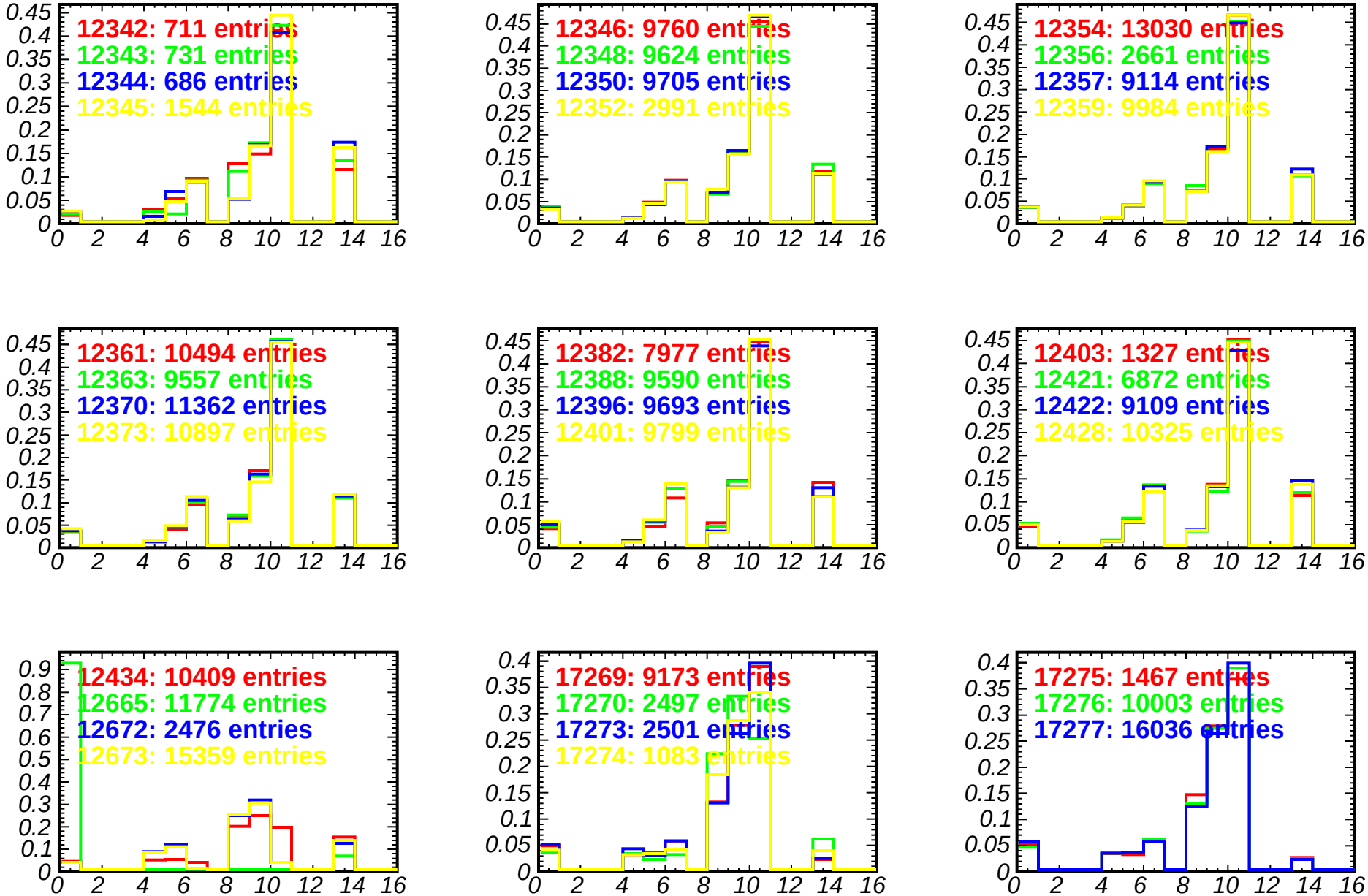
58 Gev/c on C targets: Number of vertices per event



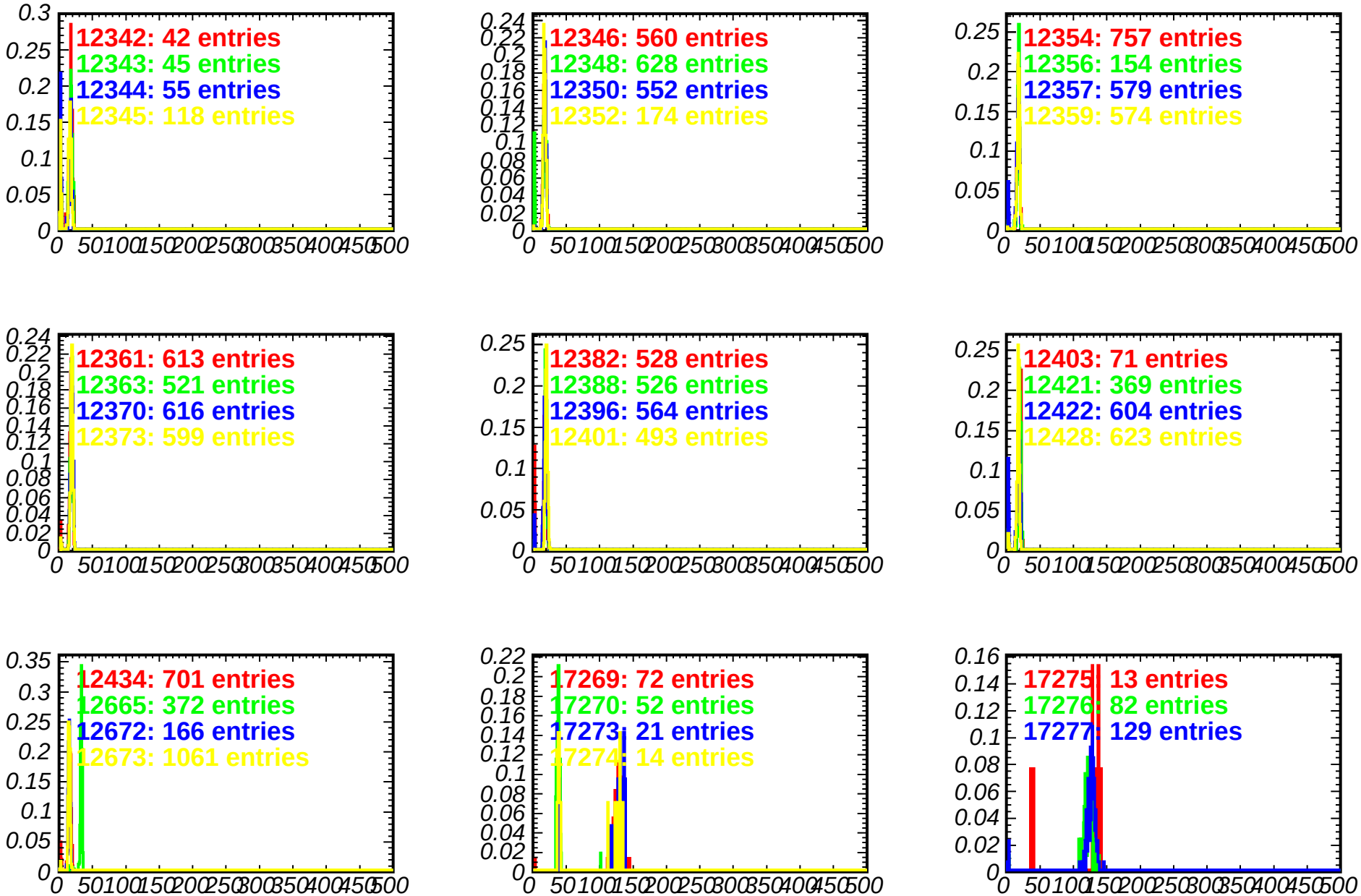
58 Gev/c on C targets: Raw Trigger bits



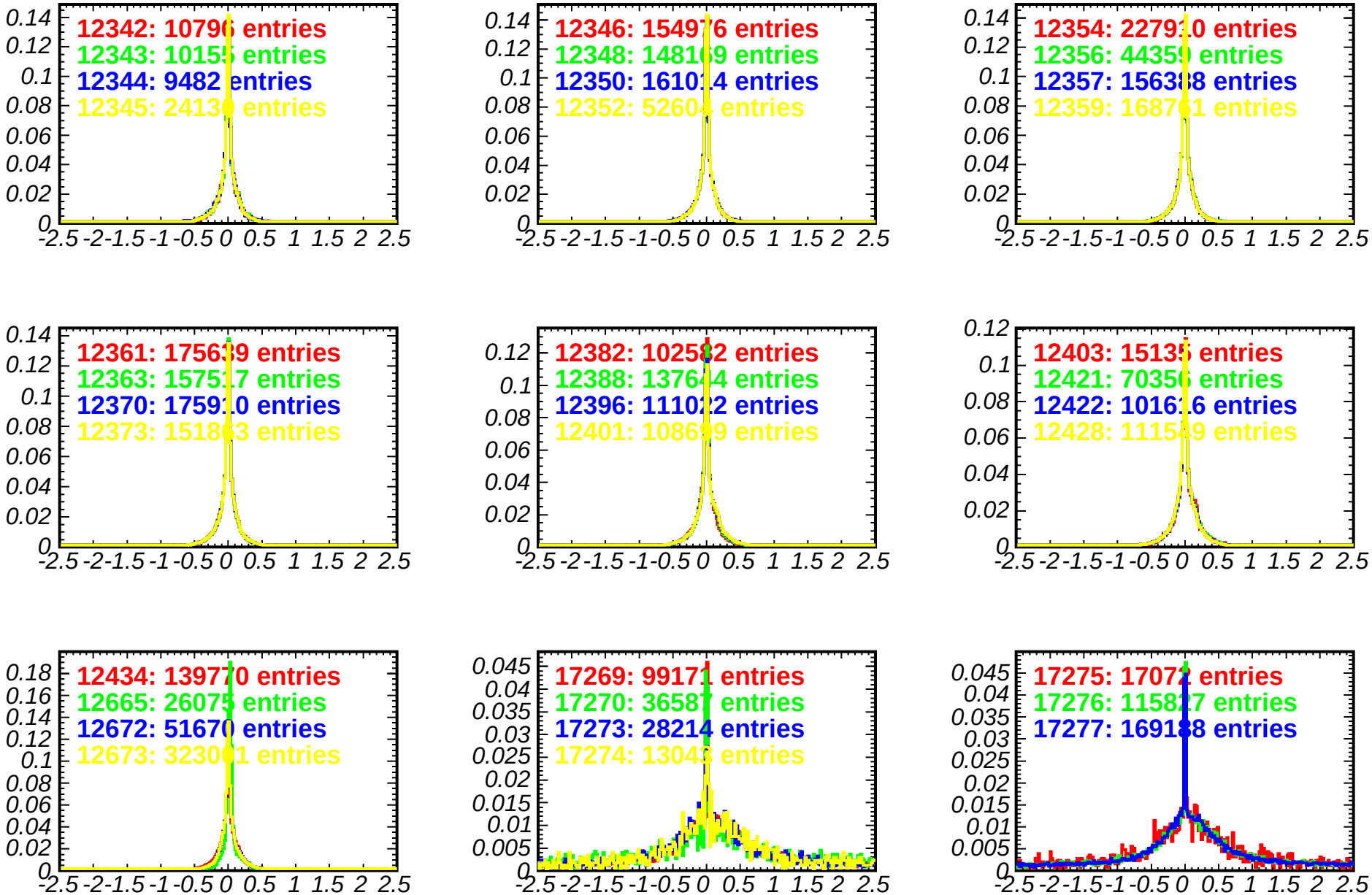
58 Gev/c on C targets: Pre-scaled Trigger bits



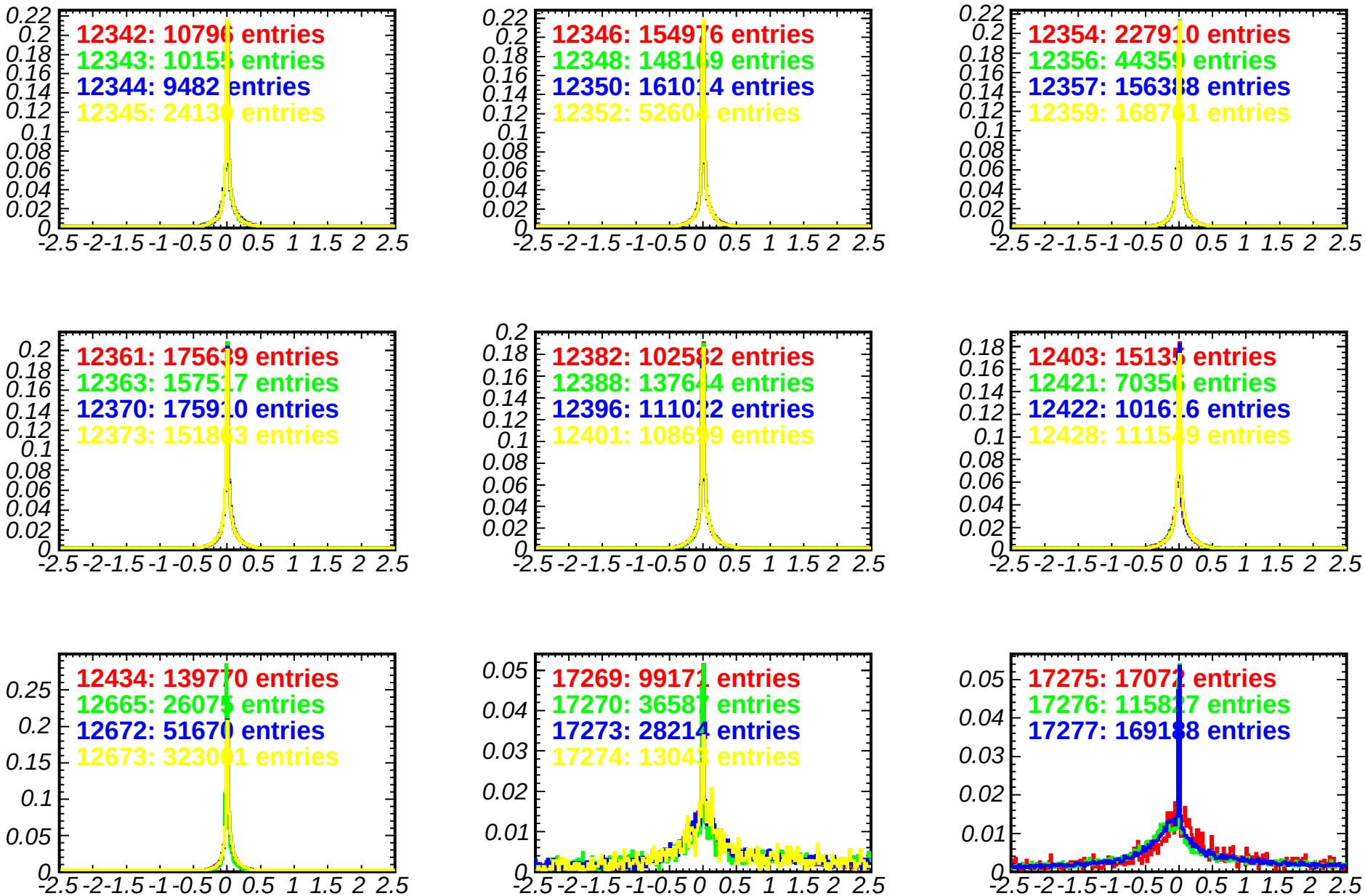
58 Gev/c on C targets: Number of Events per Spill



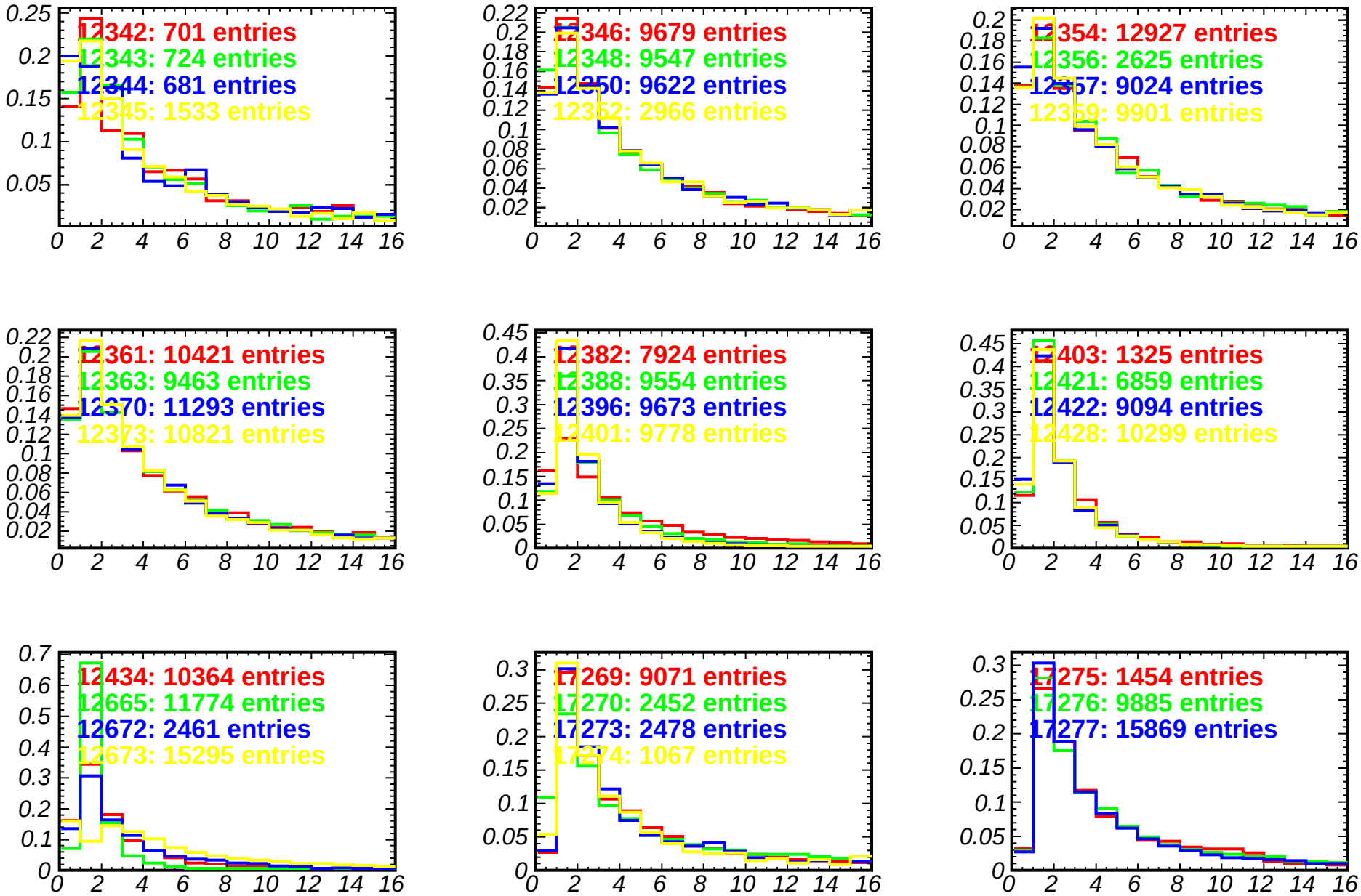
58 Gev/c on C targets: Track P_x at vertex



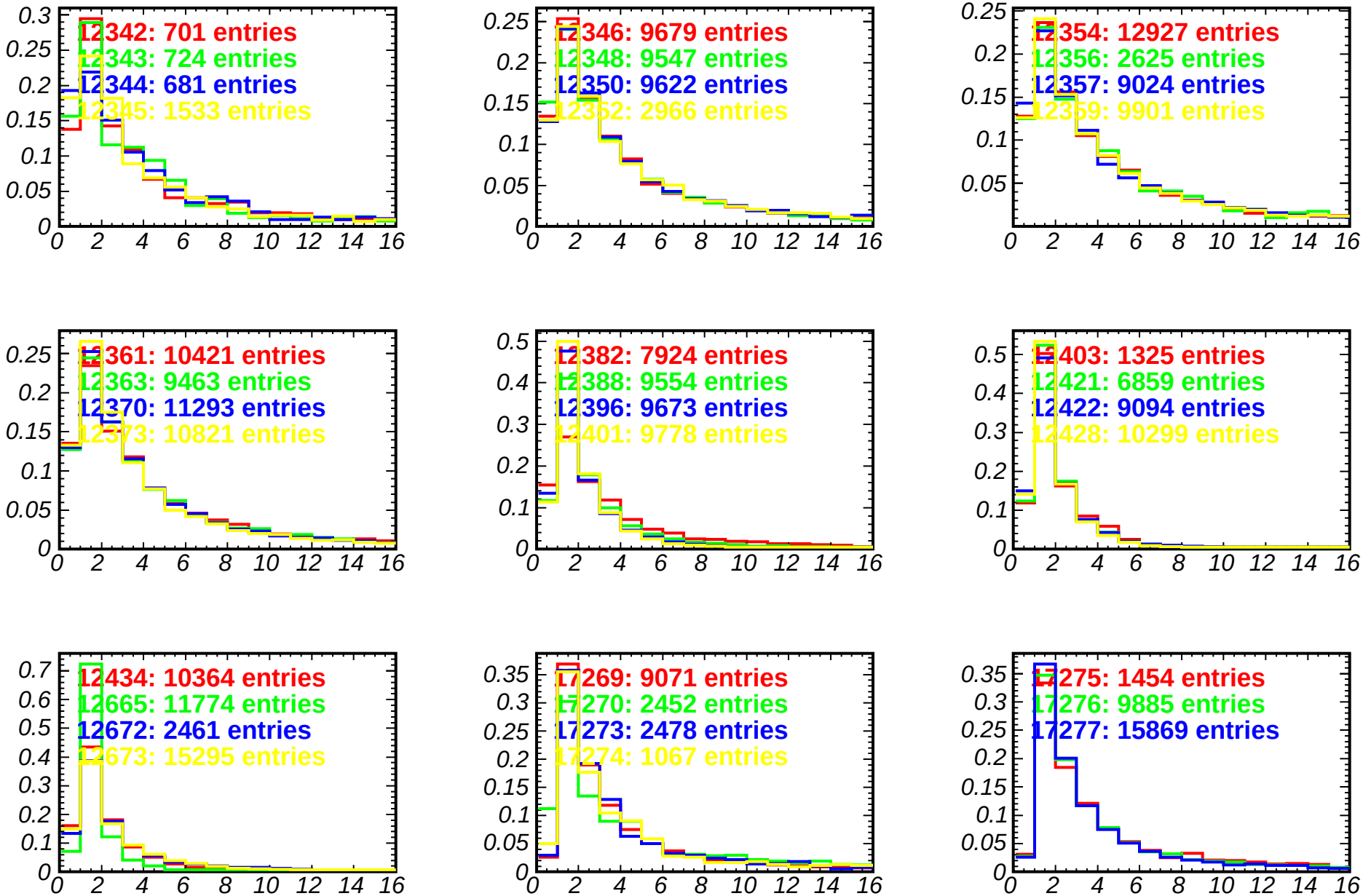
58 Gev/c on C targets: Track P_Y at vertex



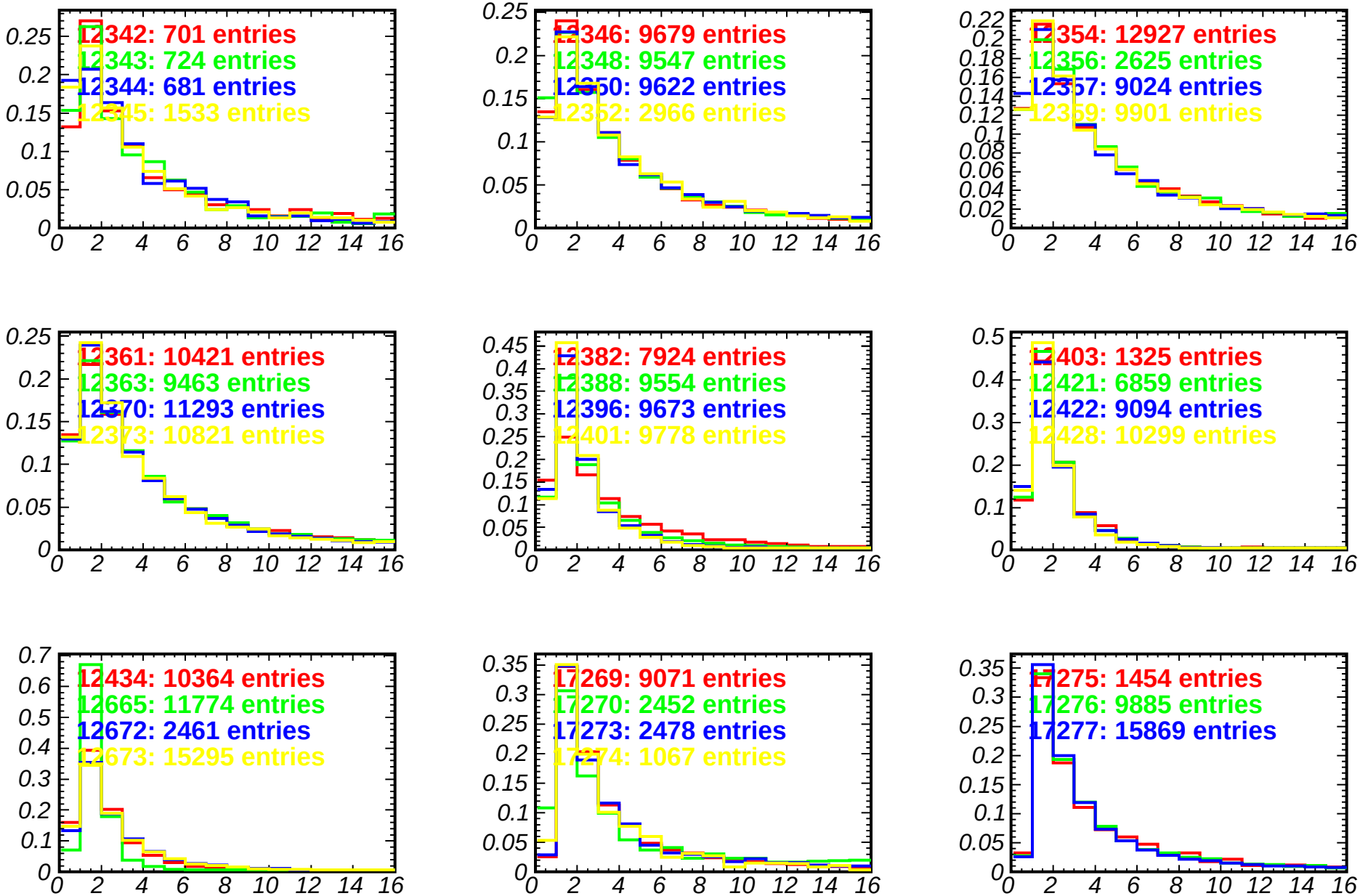
58 Gev/c on C targets: Number of crosses in BC1

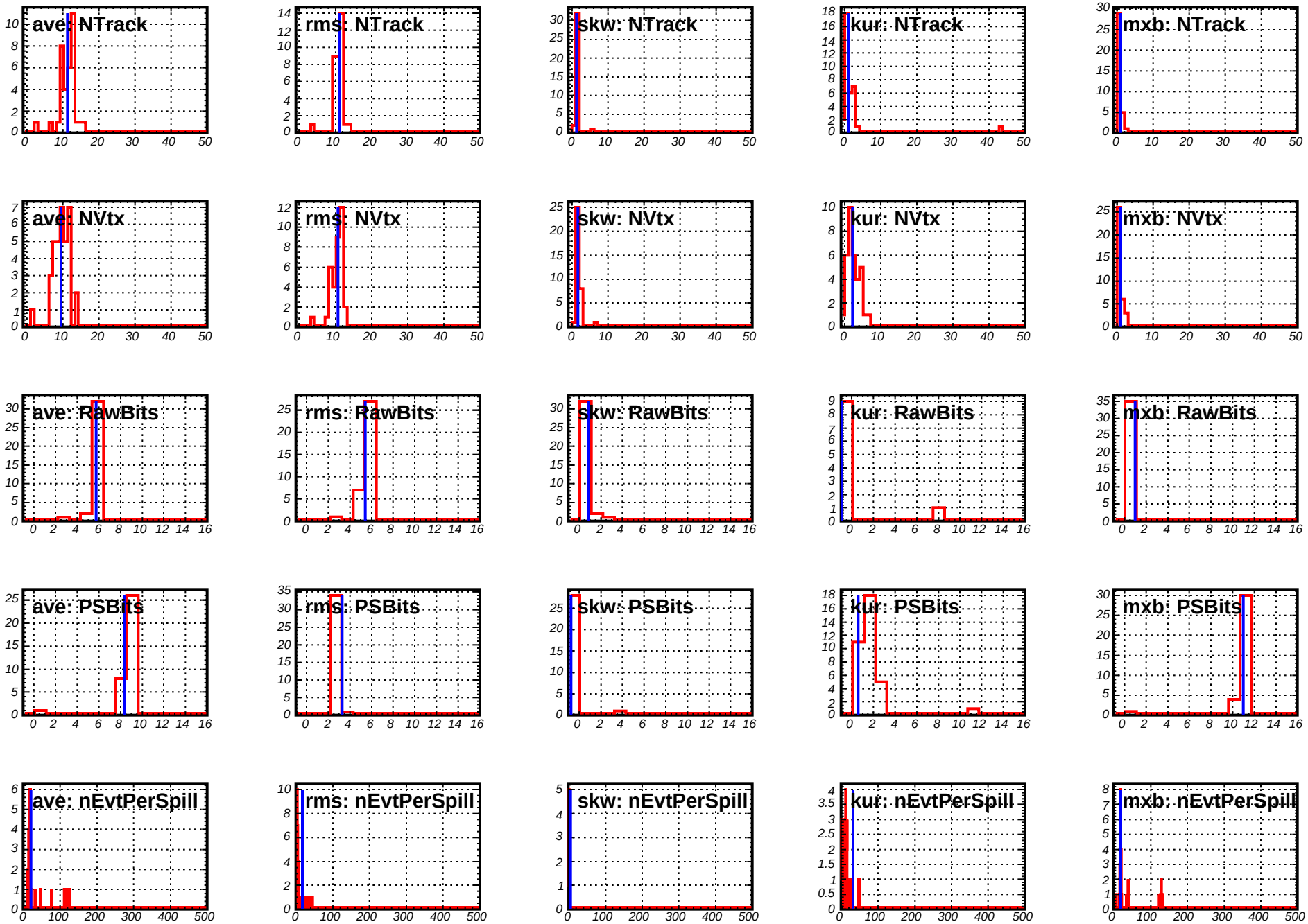


58 Gev/c on C targets: Number of crosses in BC2



58 Gev/c on C targets: Number of crosses in BC3

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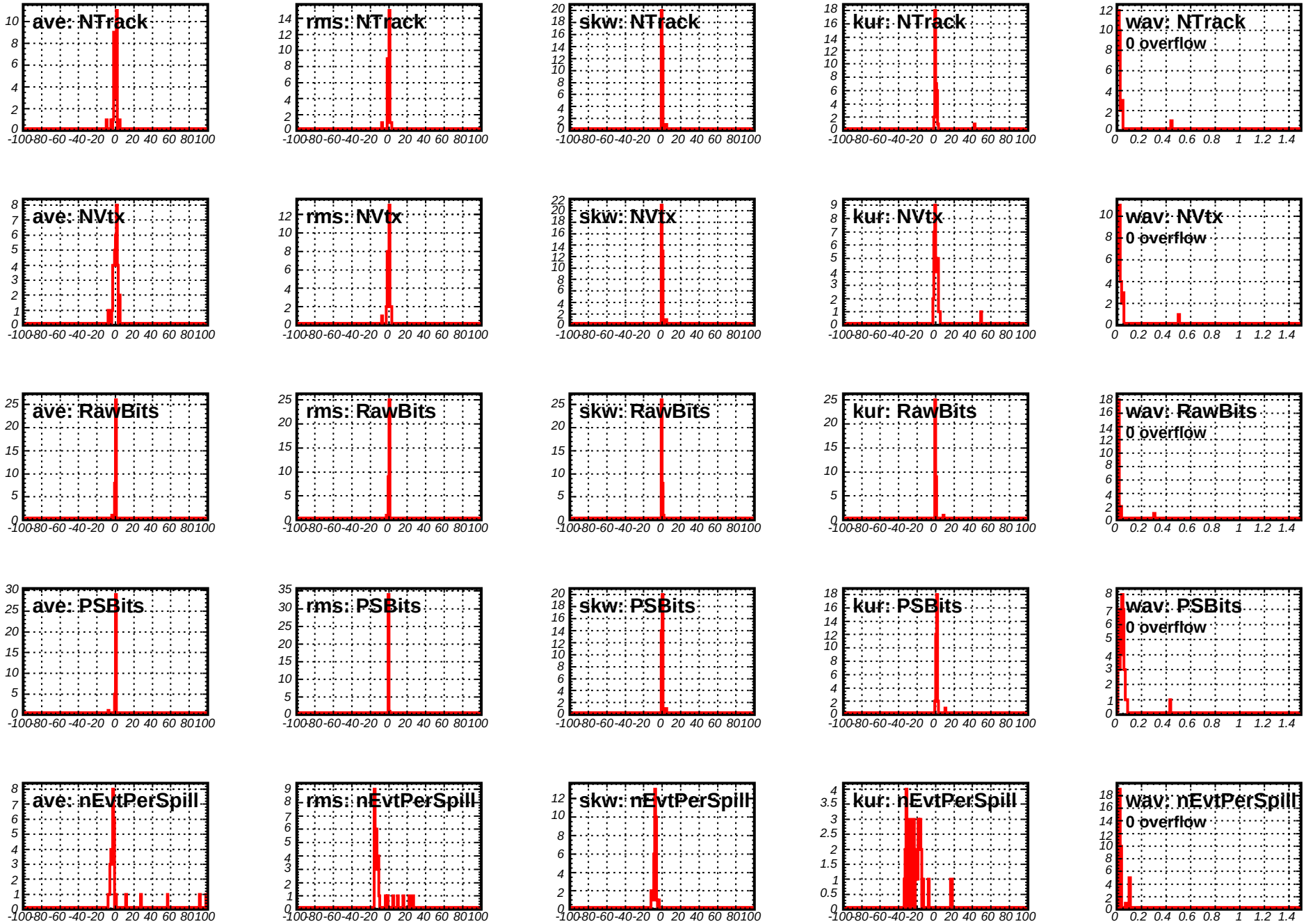
rms: NTrack
skw: NTrack
kur: NTrack
mxb: NTrack
ave: NVtx
rms: NVtx
skw: NVtx
kur: NVtx
mxb: NVtx
ave: RawBits
rms: RawBits
skw: RawBits
kur: RawBits
mxb: RawBits
ave: PSBits
rms: PSBits
skw: PSBits
kur: PSBits
mxb: PSBits
ave: nEvtPerSpill
rms: nEvtPerSpill
skw: nEvtPerSpill
kur: nEvtPerSpill
mxb: nEvtPerSpill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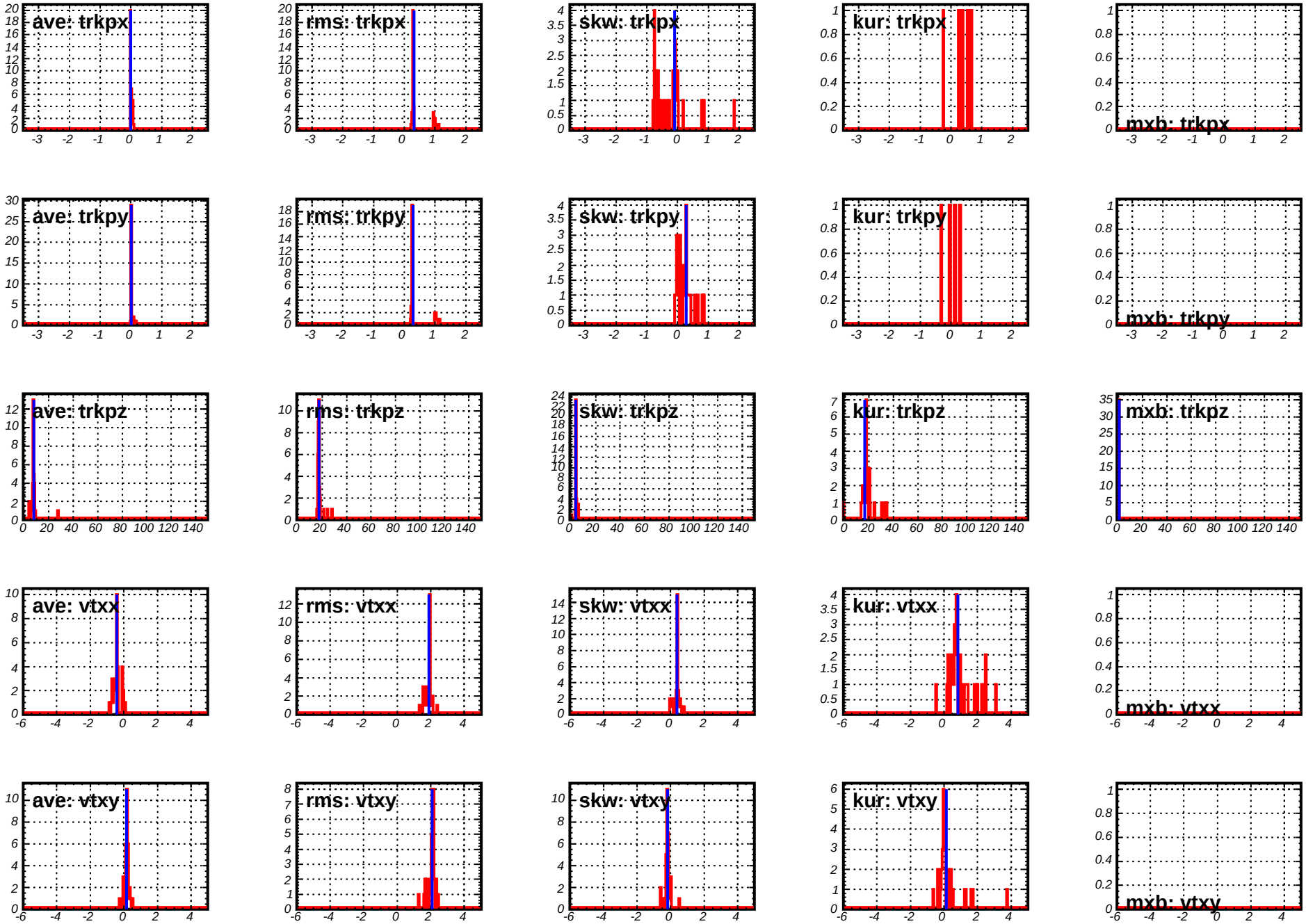
rms: NTrack
skw: NTrack
kur: NTrack
wav: NTrack
0 overflow
ave: NVtx
rms: NVtx
skw: NVtx
kur: NVtx
wav: NVtx
0 overflow
ave: RawBits
rms: RawBits
skw: RawBits
kur: RawBits
wav: RawBits
0 overflow
ave: PSBits
rms: PSBits
skw: PSBits
kur: PSBits
wav: PSBits
0 overflow
ave: nEvtPerSpill
rms: nEvtPerSpill
skw: nEvtPerSpill
kur: nEvtPerSpill
wav: nEvtPerSpill
0 overflow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mxb: trkpy
ave: trkpz
rms: trkpz
skw: trkpz
kur: trkpz
mxb: trkpz
ave: vtxx
rms: vtxx
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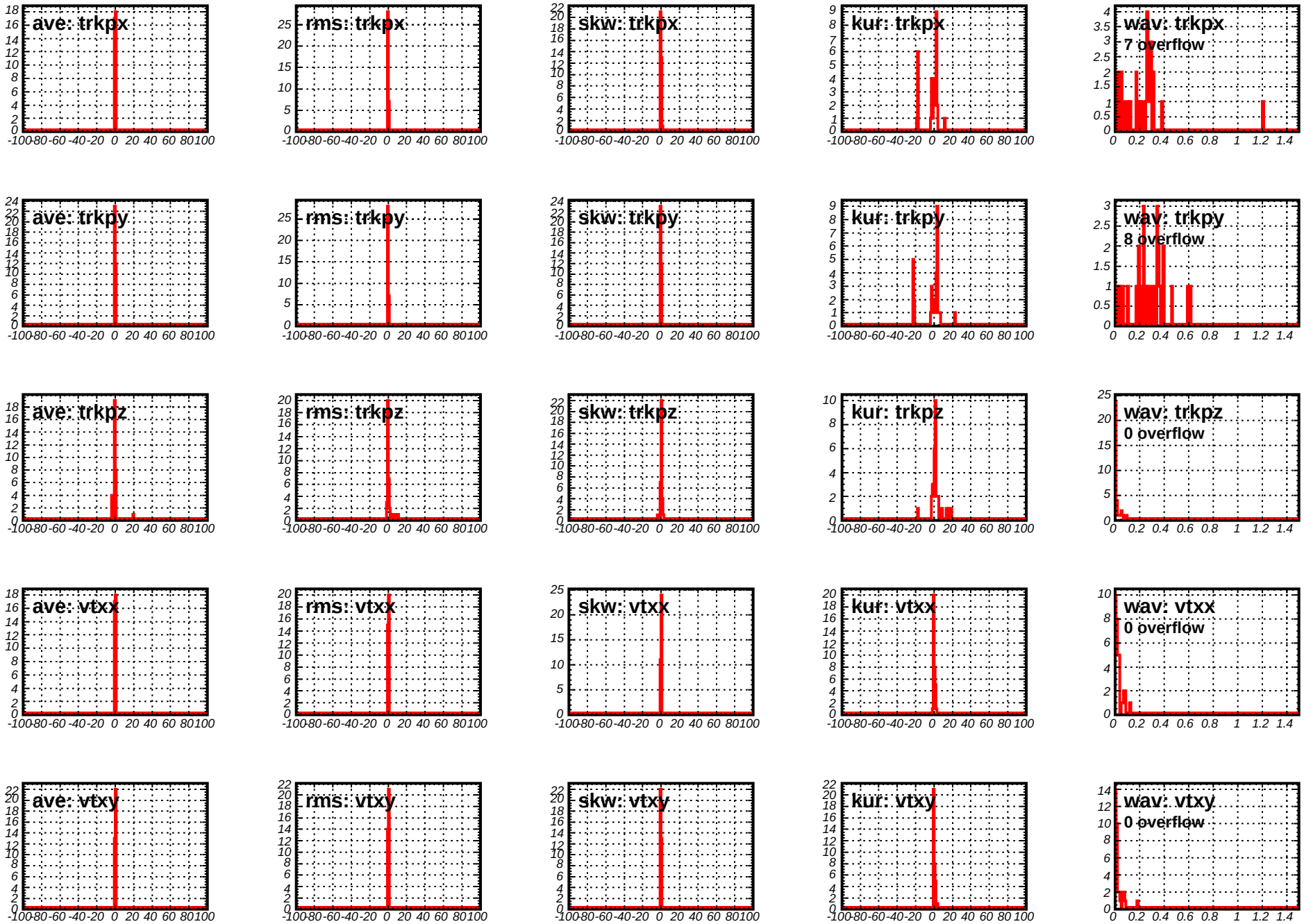
mxb: vtxy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rms: trkpx
skw: trkpx
kur: trkpx
wav: trkpx
7 overflow
ave: trkpy
rms: trkpy
skw: trkpy
kur: trkpy
wav: trkpy
8 overflow
ave: trkpz
rms: trkpz
skw: trkpz
kur: trkpz
wav: trkpz
0 overflow
ave: vtxx
rms: vtxx
skw: vtxx
kur: vtxx
wav: vtxx
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rms: vtxy
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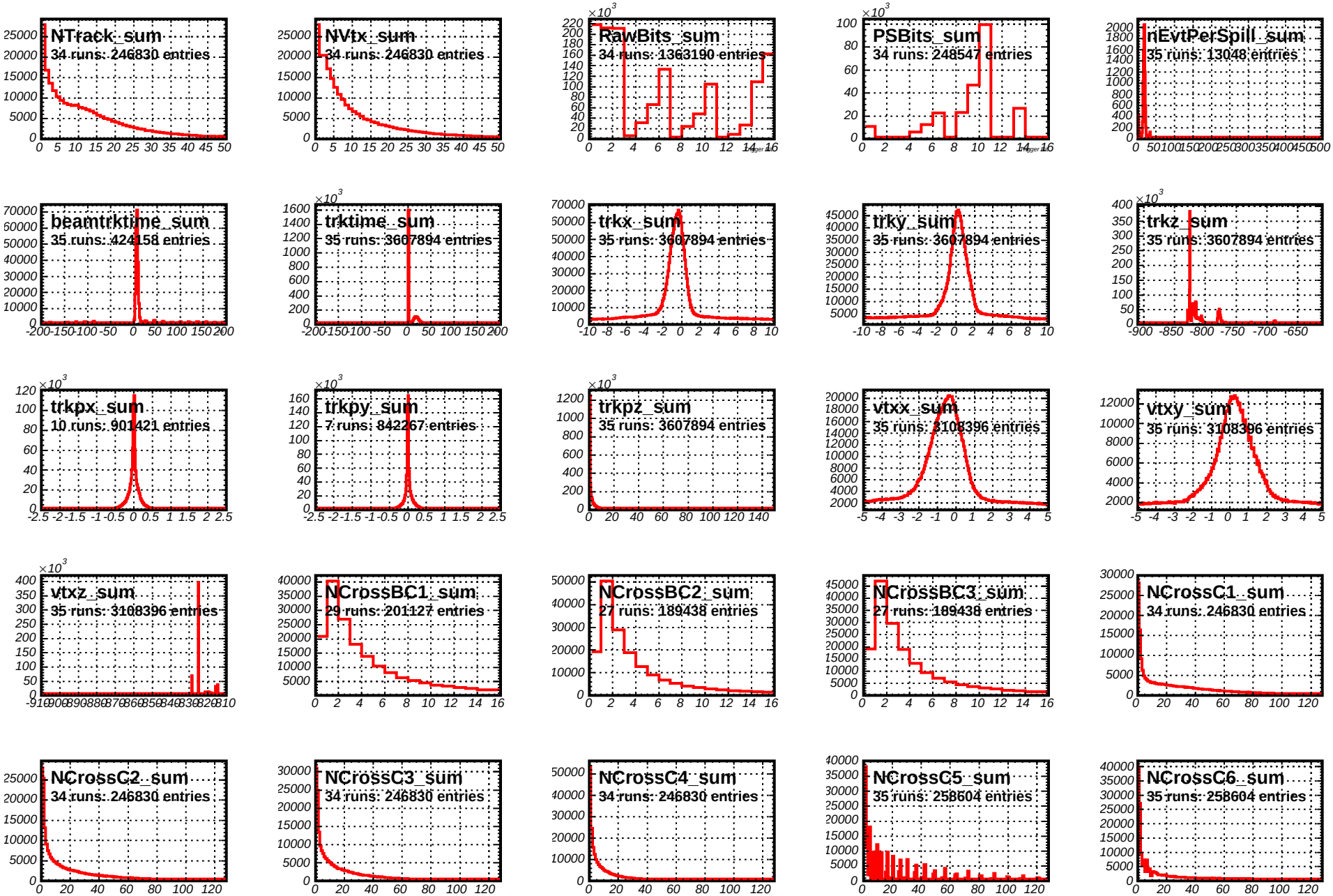
kur: vtxy
wav: vtxy
0 overflow

58 Gev/c on C targets: Summed Histograms



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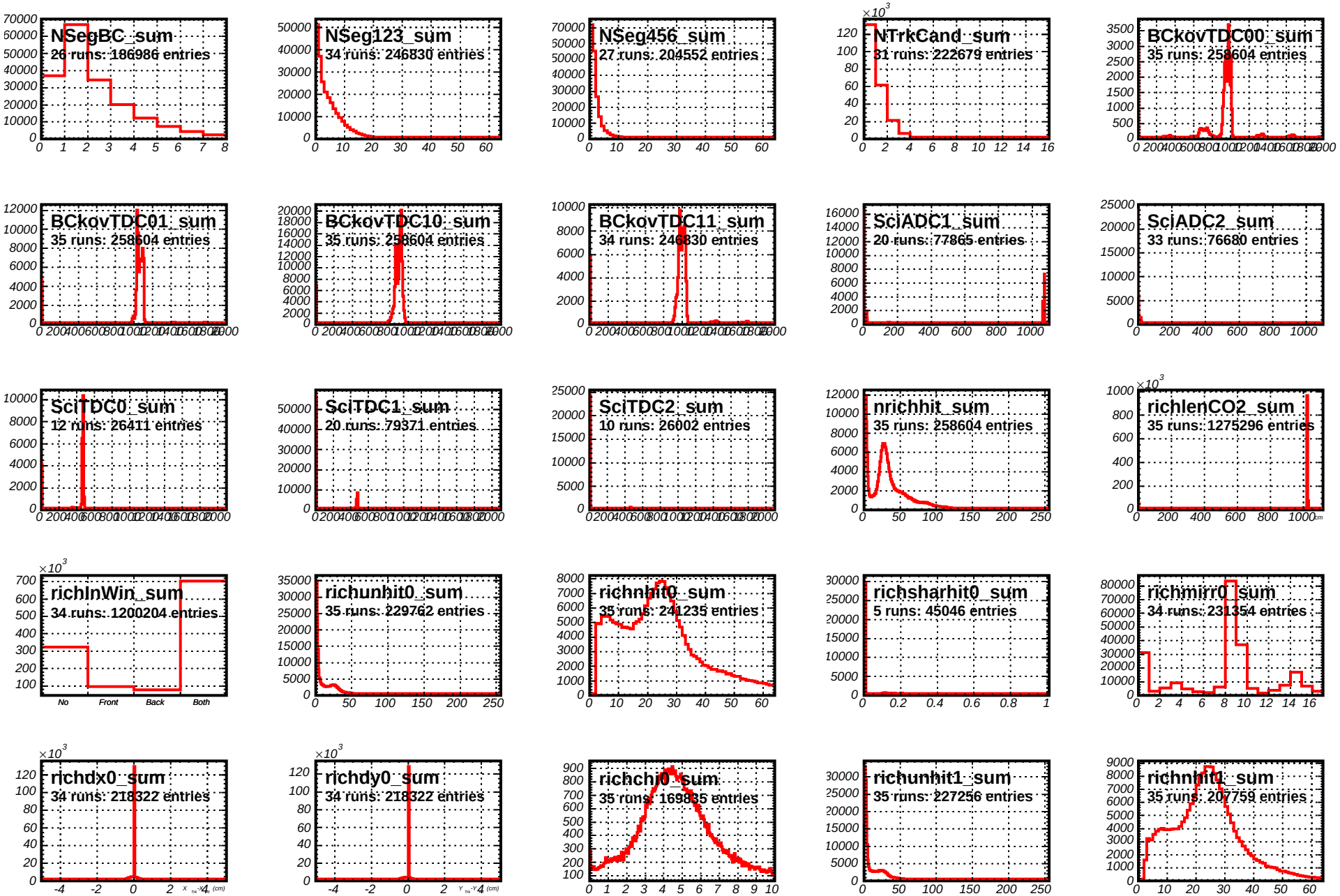

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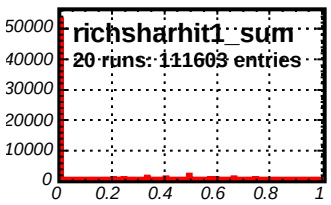
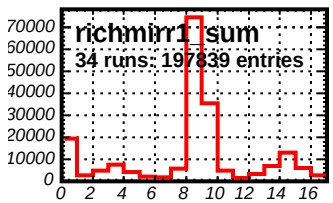
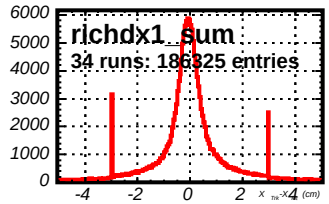
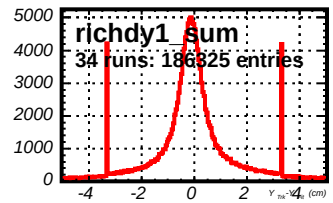
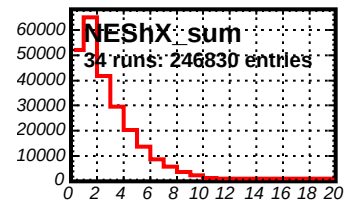
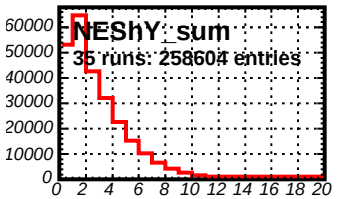


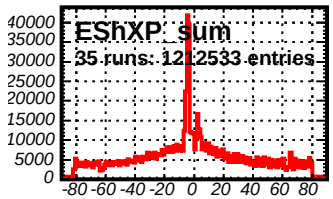


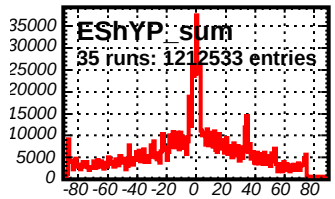


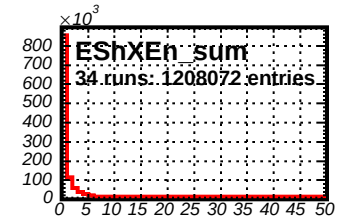


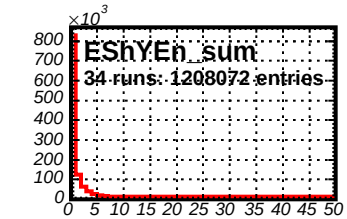


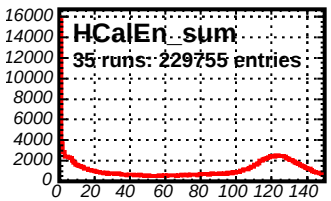


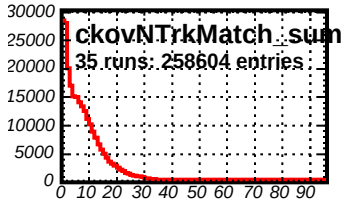


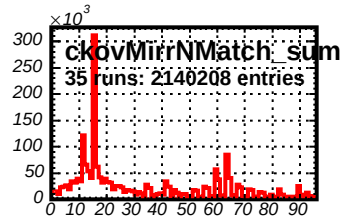


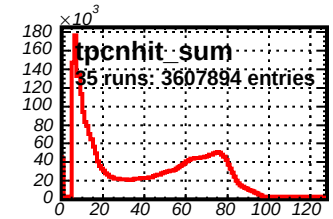


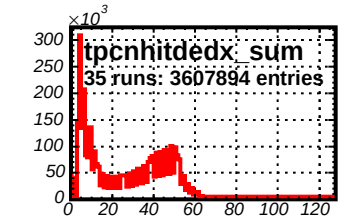




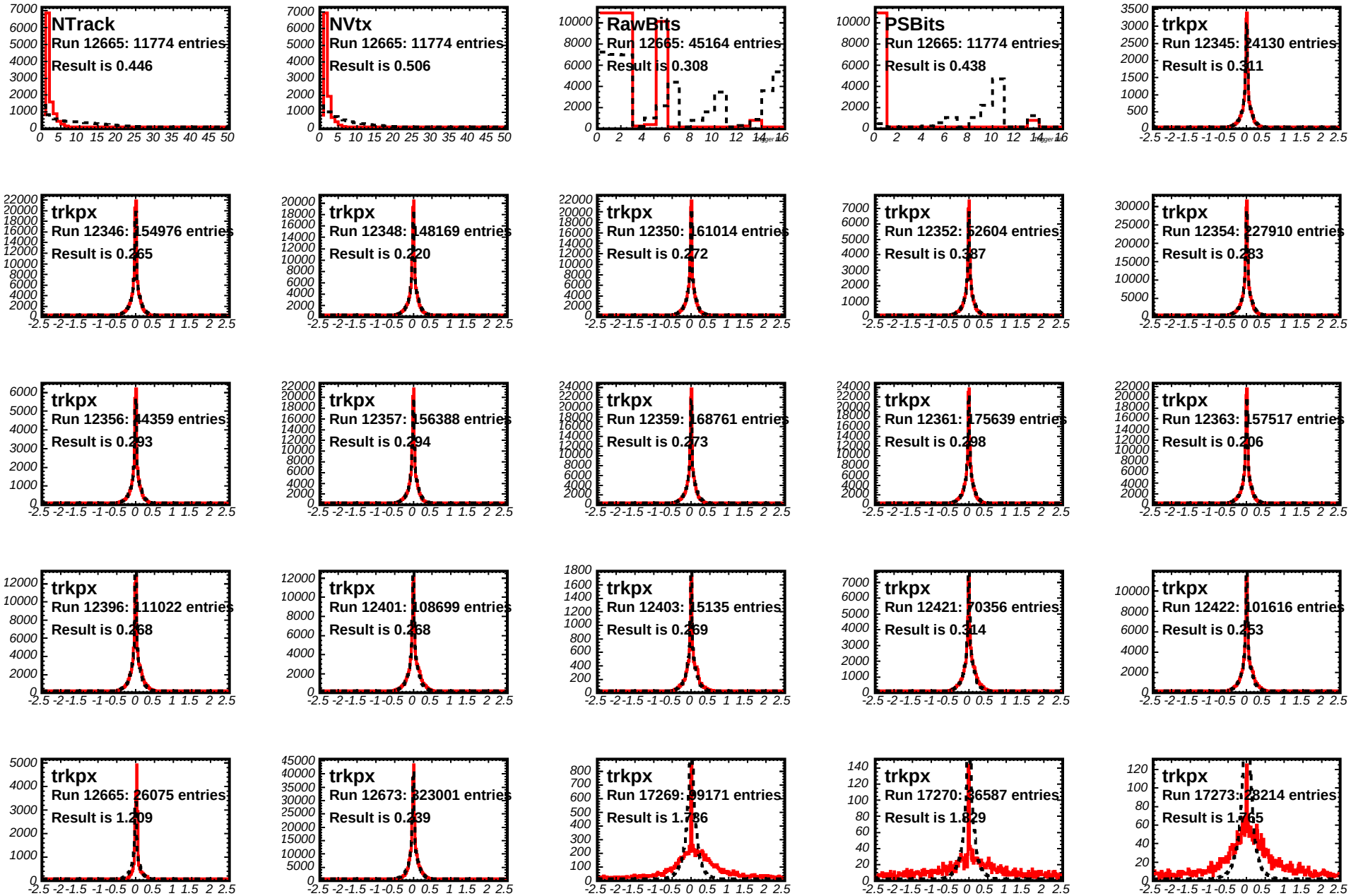








58 Gev/c on C targets: Rejected Histograms



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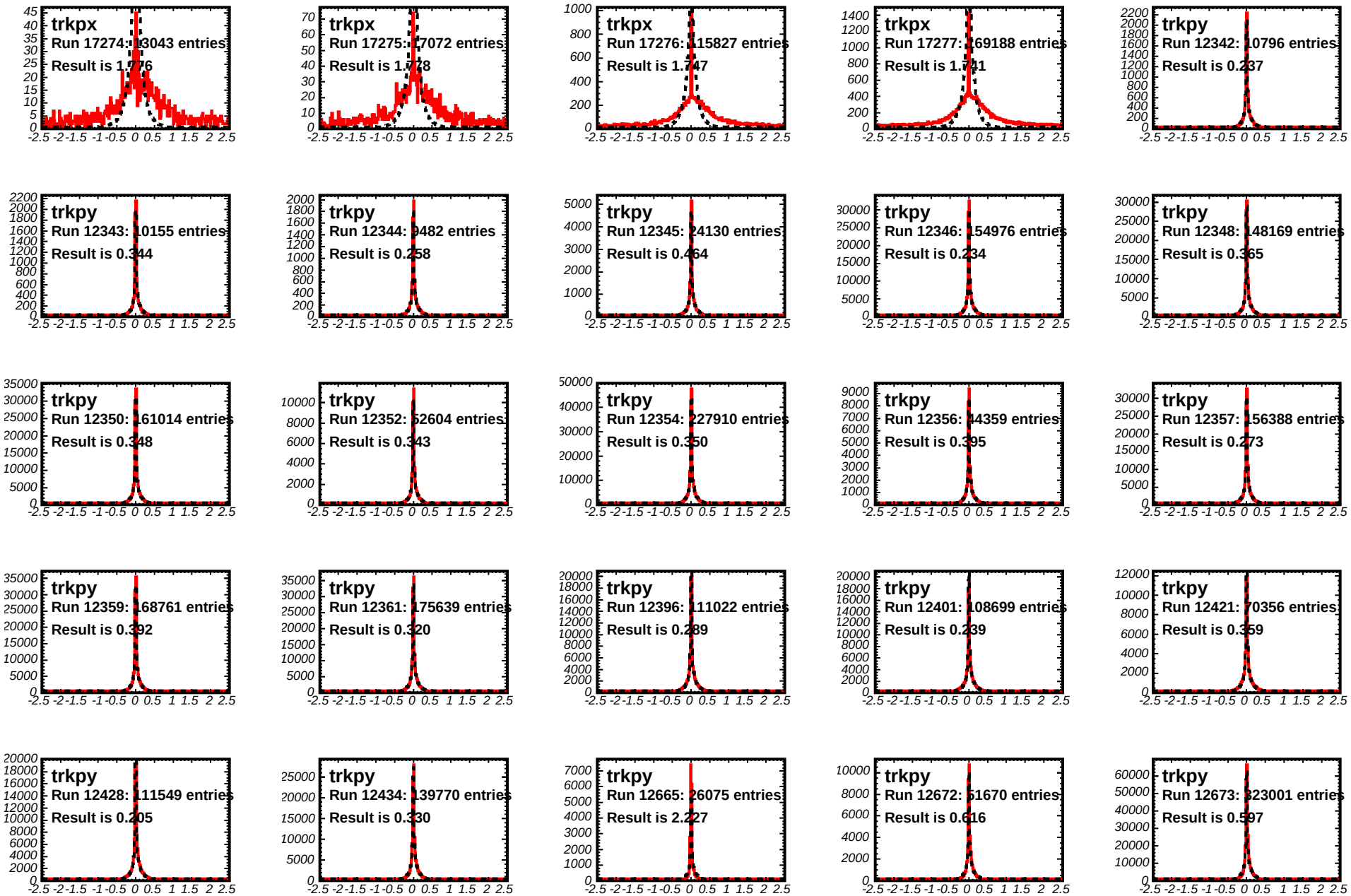

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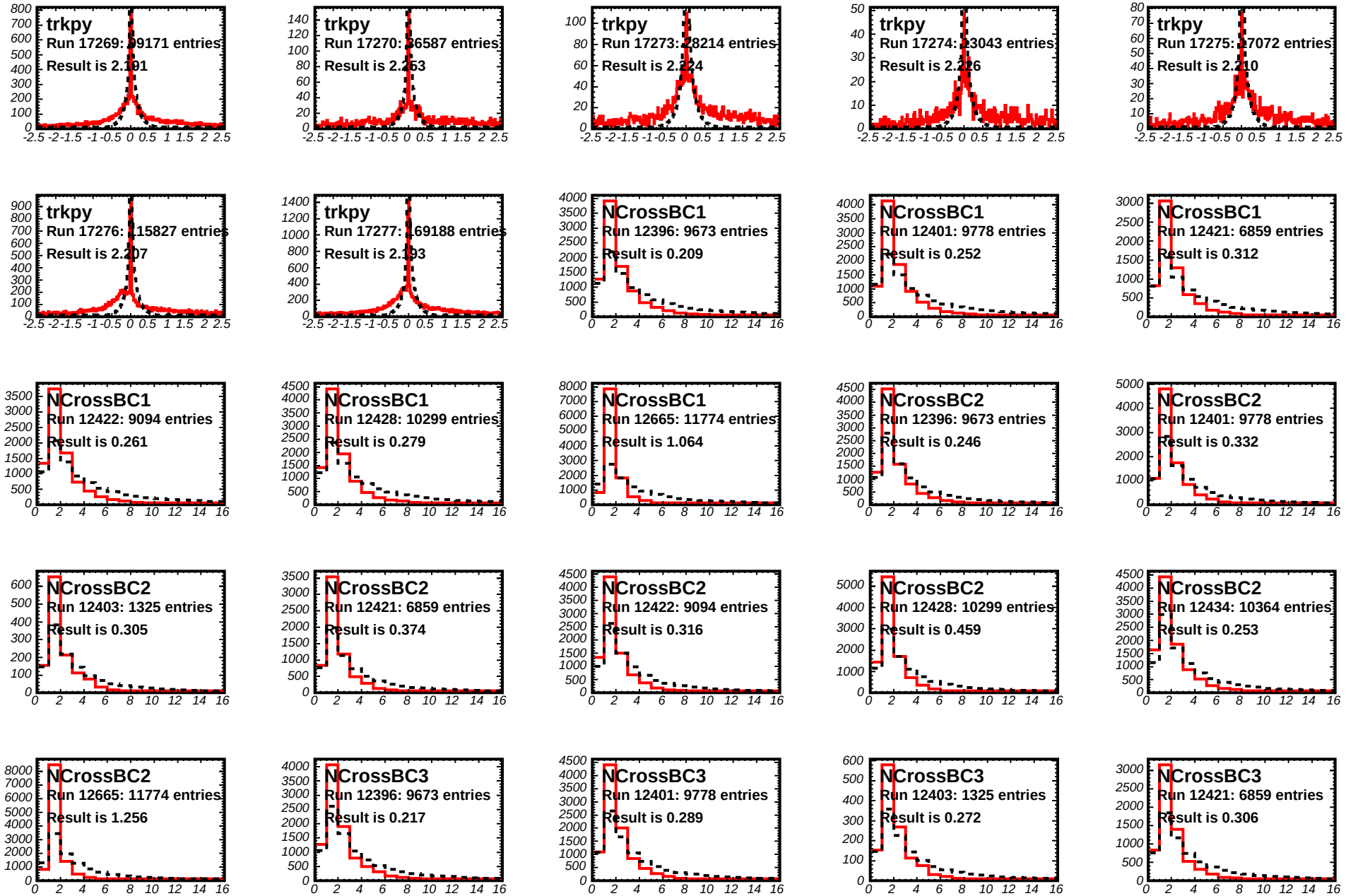

II. **Completed**

- File selection
- Plotting and discriminating
- Verifying discriminator

III. **Still To Do**

- Tune discriminator - ignore mean and rms?
- Move to newer DSTs (add new histograms) - thought I did
- Complete processing
- Add 2D histograms - use profiles?
- Fill database