Proposed Changes to the MIPP DST

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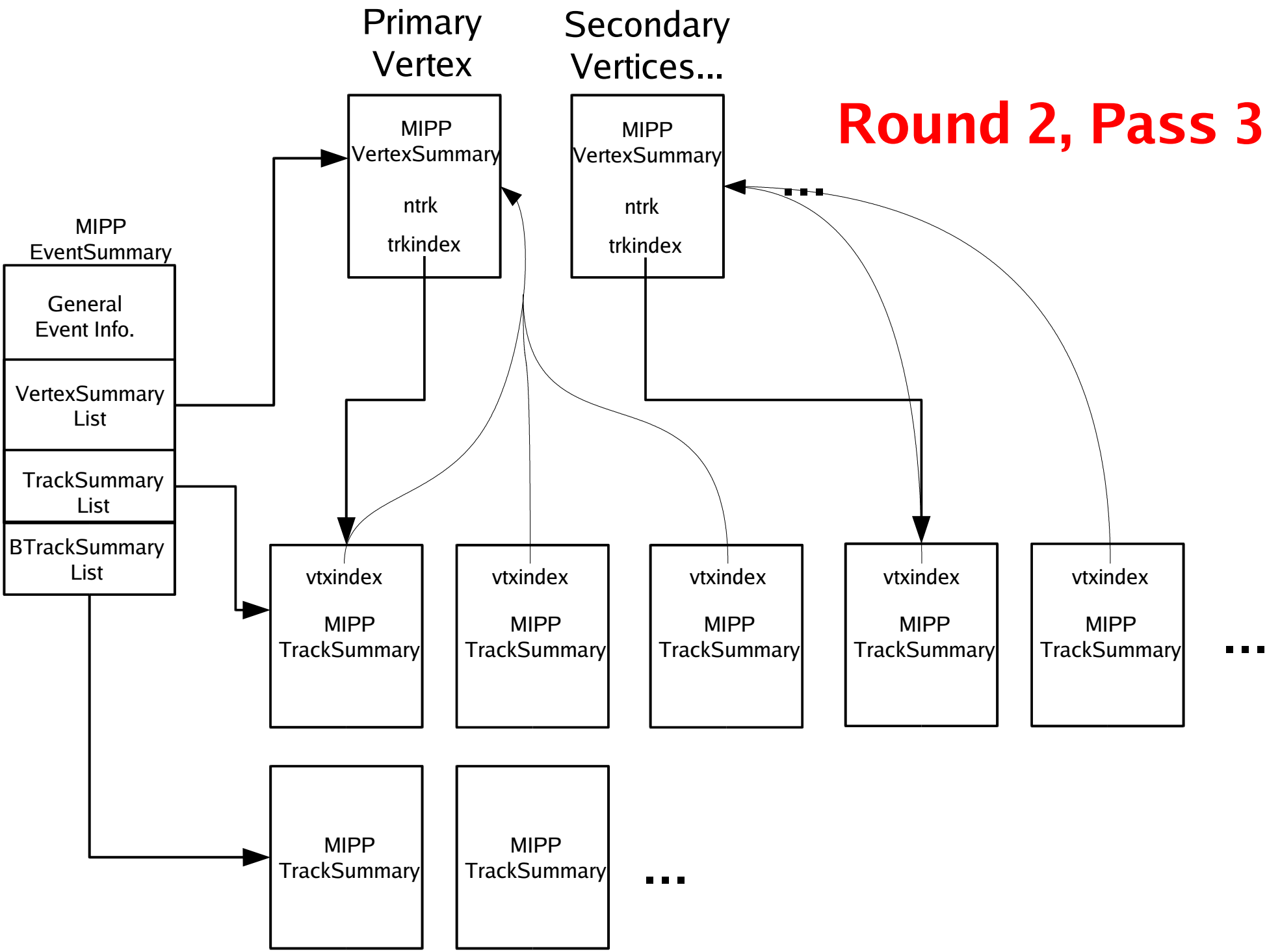
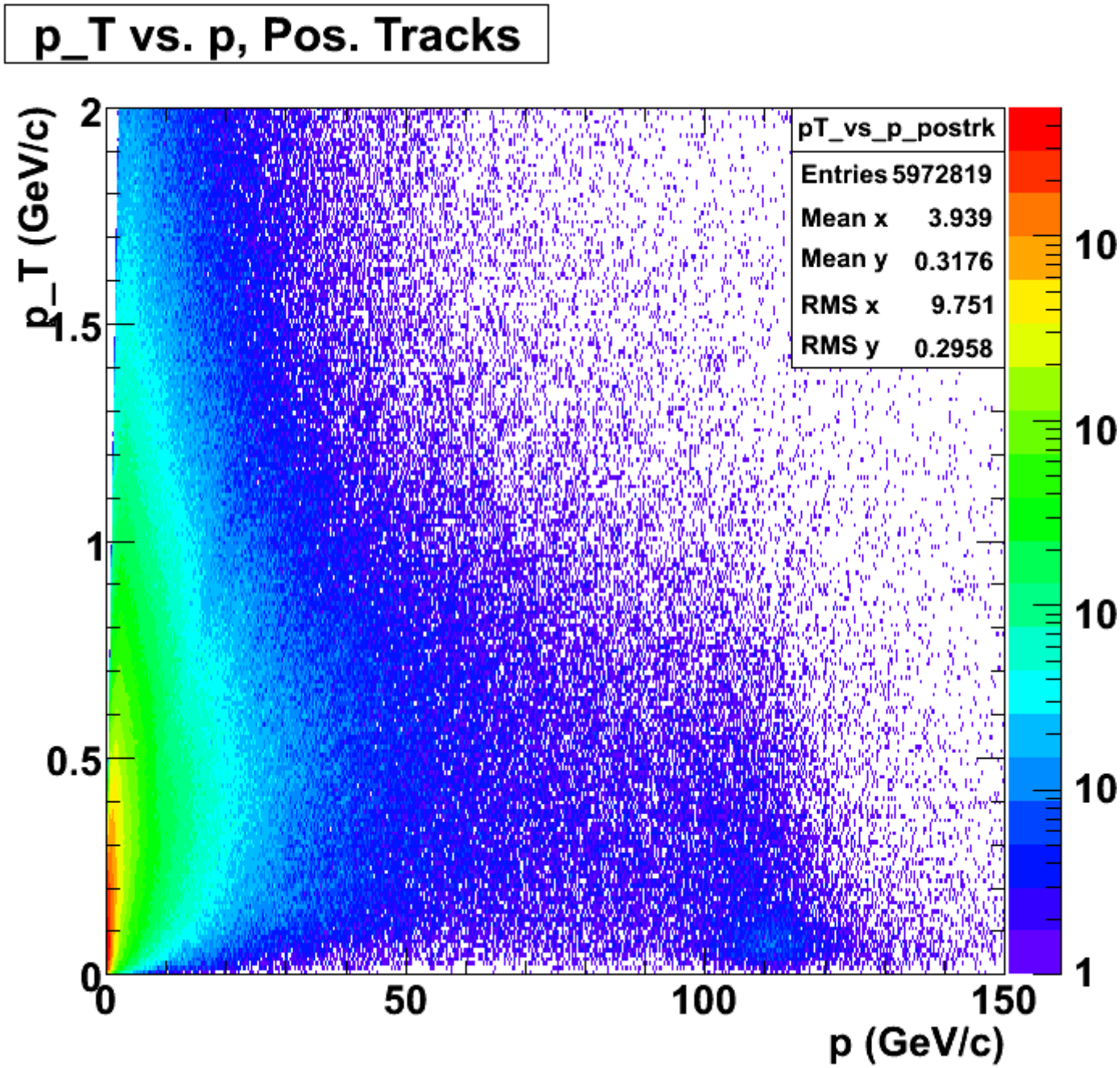
What the DST Is:

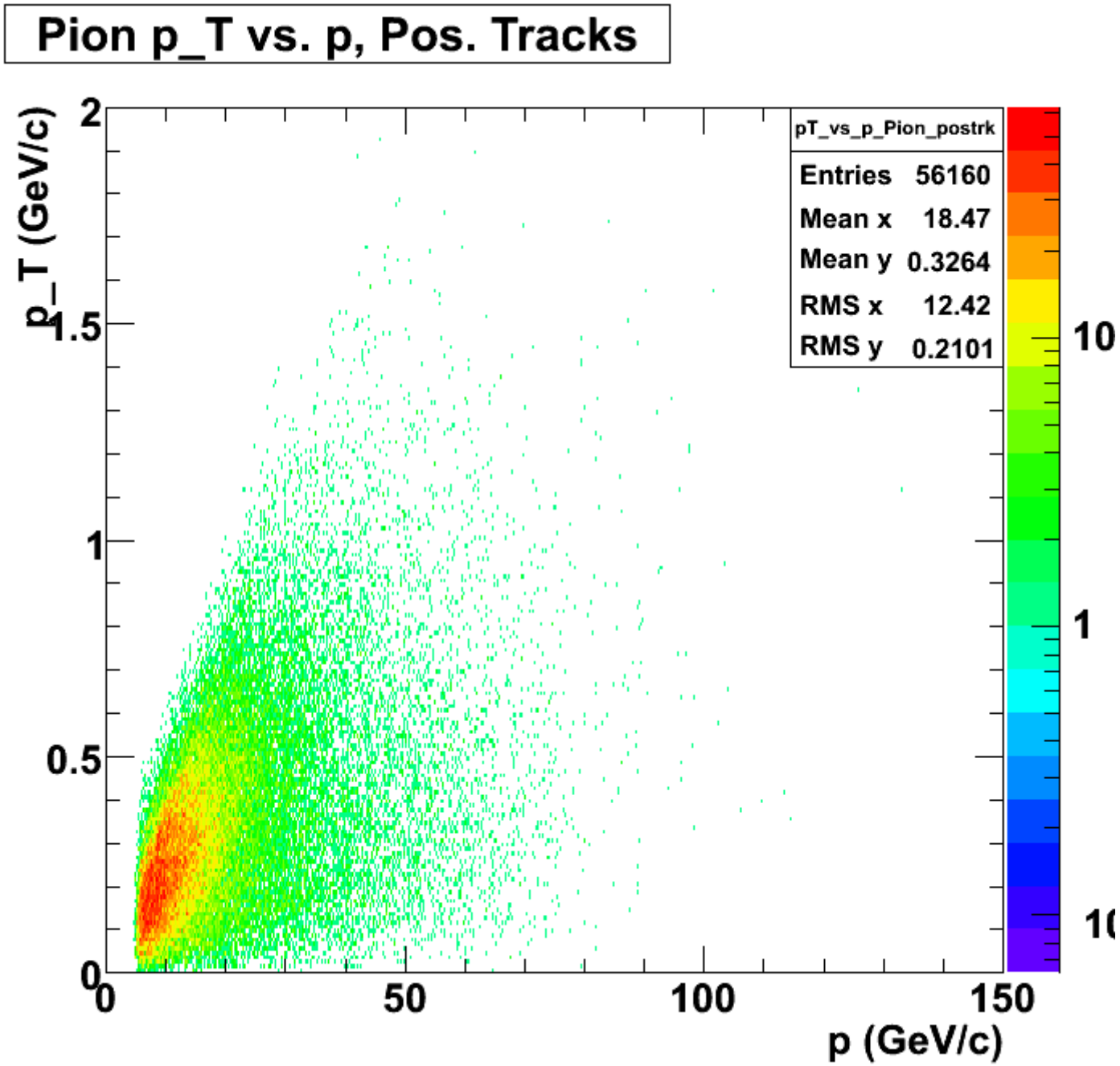
- a *summary* of the reconstructed event
- supposedly *simple*
- supposedly *small*
- a means to do *most* analyses
- documented
  - Offline User's Manual
  - header files in MIPPEventSummary package

What the DST Is *NOT*:

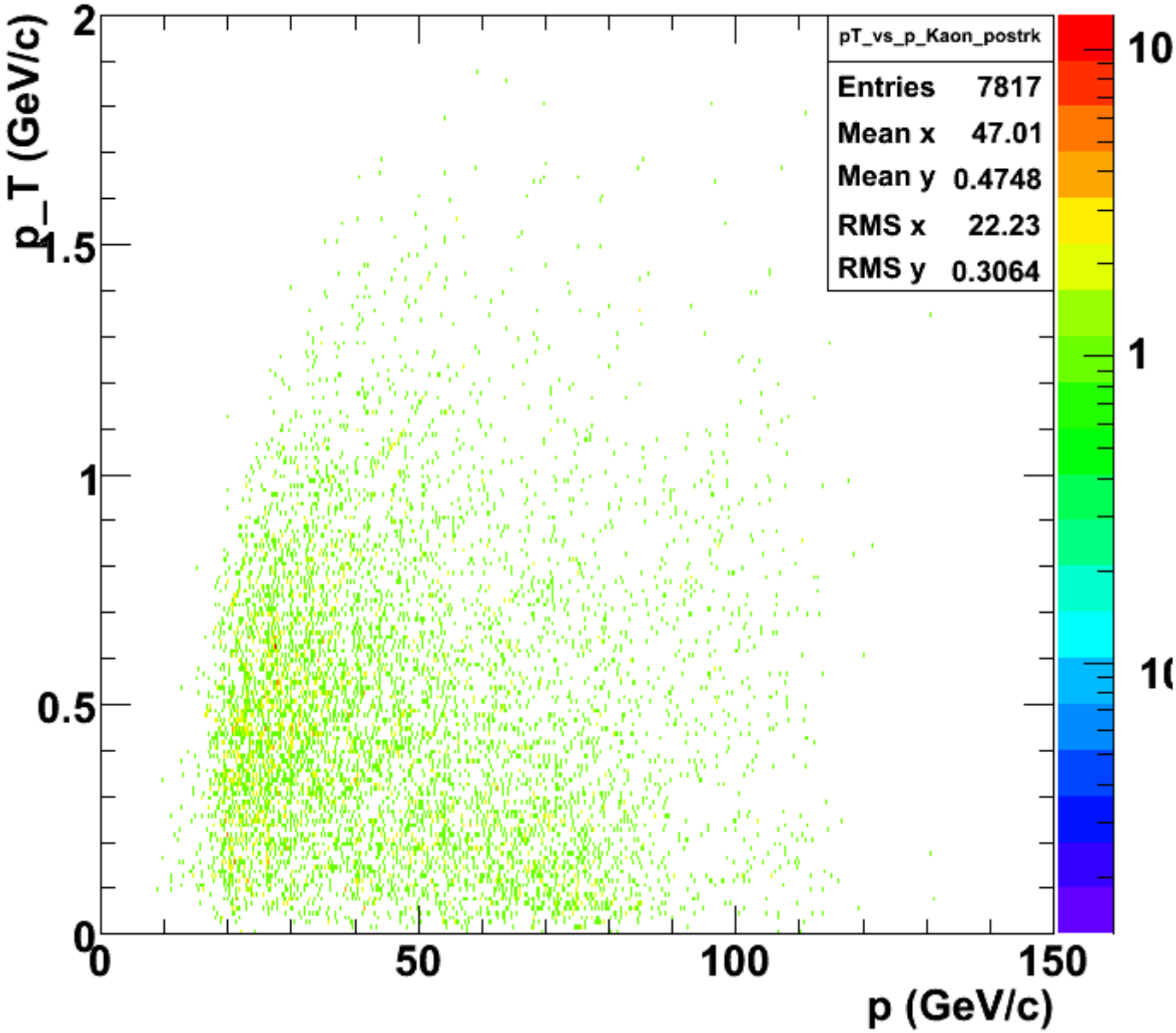
- a means to do *every* kind of study
- complete


Primary Vertex
Secondary Vertices...
Round 2, Pass 3
MIPP VertexSummary
ntrk
trkindex
MIPP VertexSummary
ntrk
trkindex
...
MIPP EventSummary
General Event Info.
VertexSummary List
TrackSummary List
BTrackSummary List
vtxindex
MIPP TrackSummary
vtxindex
MIPP TrackSummary
vtxindex
MIPP TrackSummary
vtxindex
MIPP TrackSummary
vtxindex
MIPP TrackSummary
...
MIPP TrackSummary
MIPP TrackSummary
...


p_T vs. p, Pos. Tracks
pT_vs_p_postrk
Entries 5972819
Mean x 3.939
Mean y 0.3176
RMS x 9.751
RMS y 0.2958
p_T (GeV/c)
p (GeV/c)
0
0.5
1
1.5
2
0
50
100
150
1
10
10
10
10


Pion p_T vs. p, Pos. Tracks
pT_vs_p_Pion_postrk
Entries 56160
Mean x 18.47
Mean y 0.3264
RMS x 12.42
RMS y 0.2101
p_T (GeV/c)
p (GeV/c)
0
0.5
1
1.5
2
0
50
100
150
10
1

Kaon p_T vs. p, Pos. Tracks



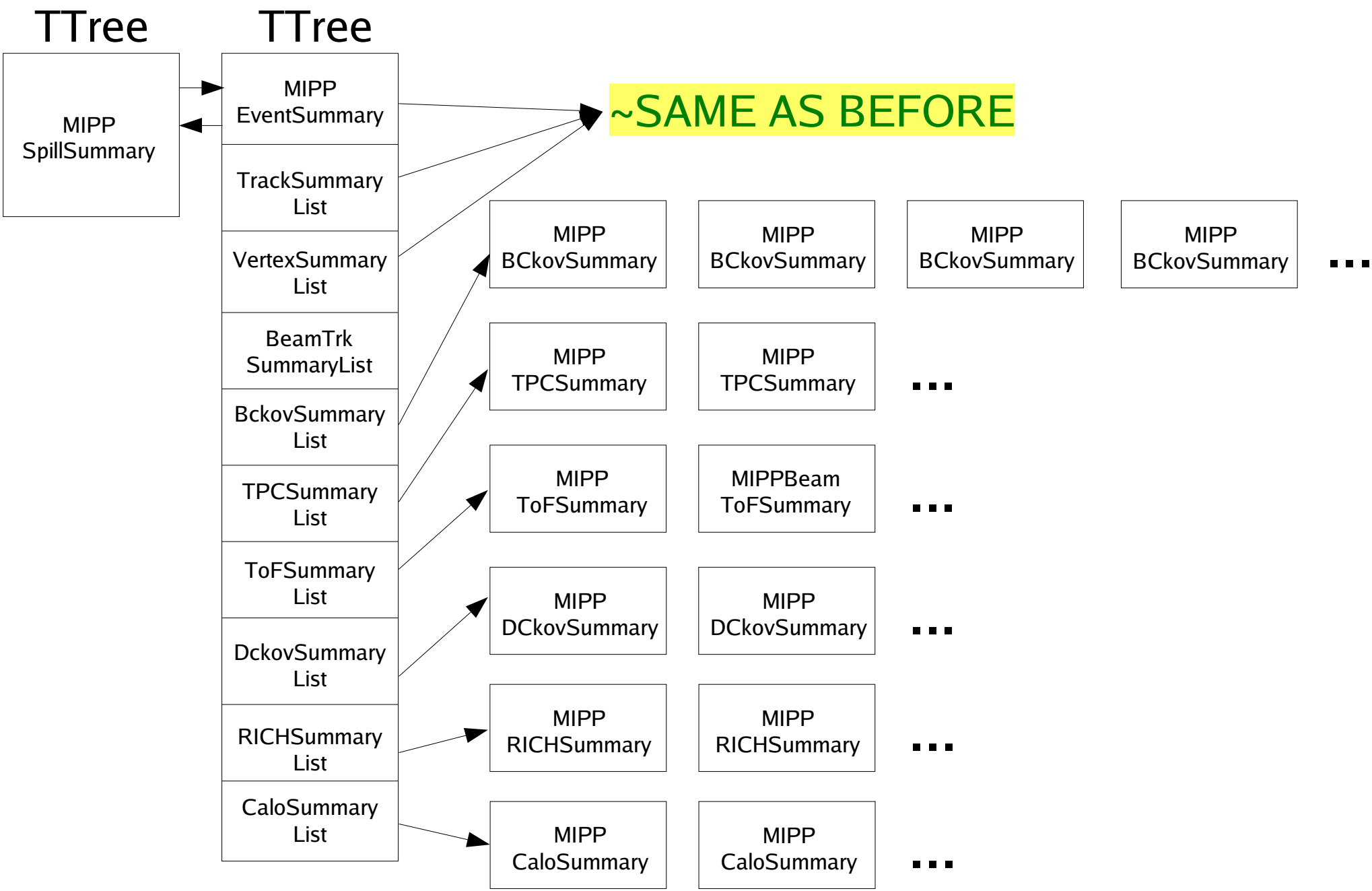
What's Missing:
(besides reconstruction)

- Spill Information (eg, scalars!)
- Calorimeter information
- Some PID detector information

Proposed Changes:

- Separate spill information tree; events will know which spill they belong to, vice-versa.
- Separate (variable-sized) arrays for each PID detector; method of “getting” these objects will be the same as for tracks, vertices, etc.

Round 3, Pass 3



- Each detector summary object will have the index of the track it is associated to (if there is one).

- Each track will have the index of the detector summary (if there is one).

- This will save some space (eg, tracks that don't reach the RICH will not need to hold RICH ring information).

Questions? Comments?