

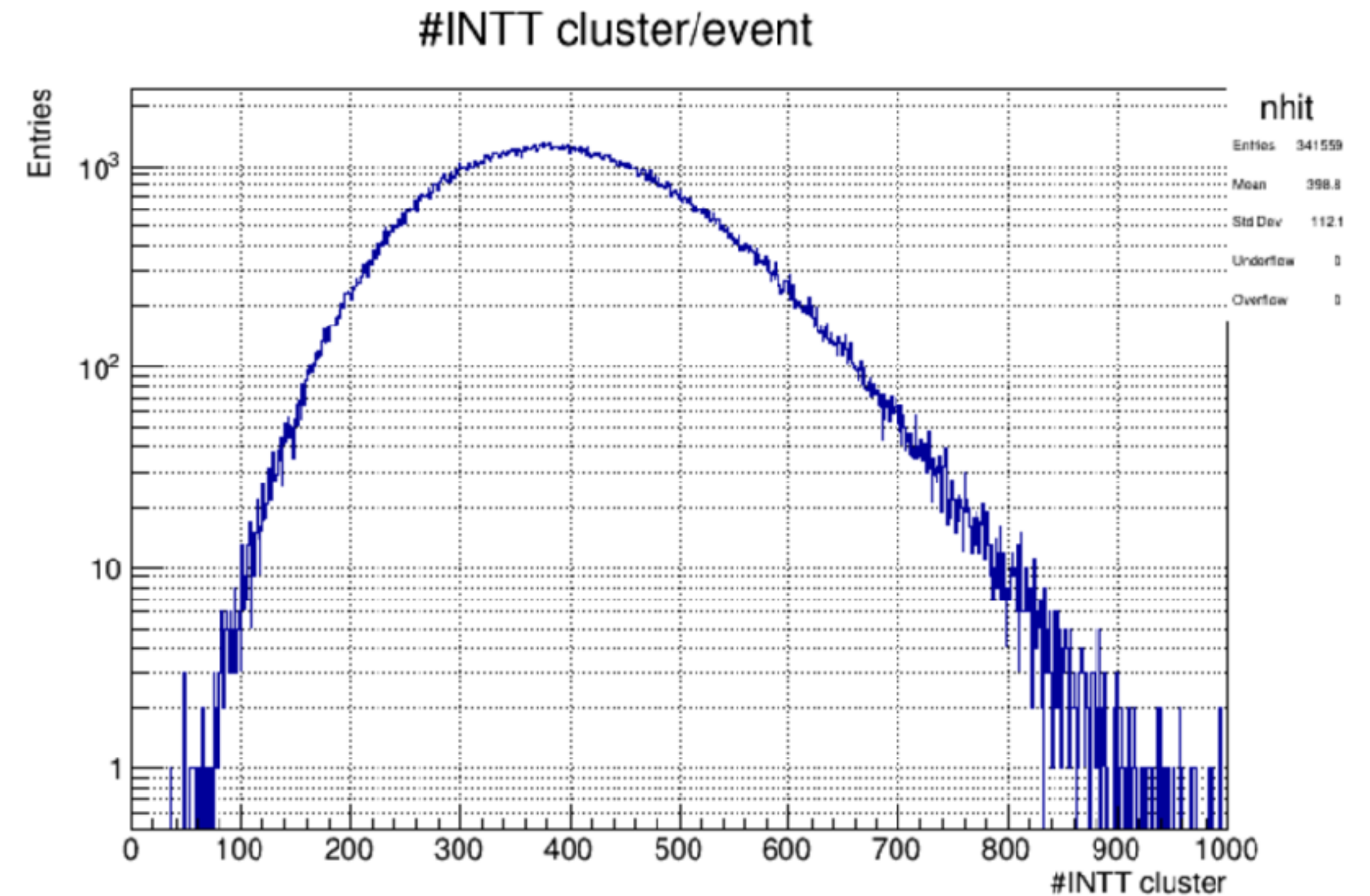
# #INTT cluster distribution using MDC2 minimum bias MC data –Part 2–

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• [Part 1](#)

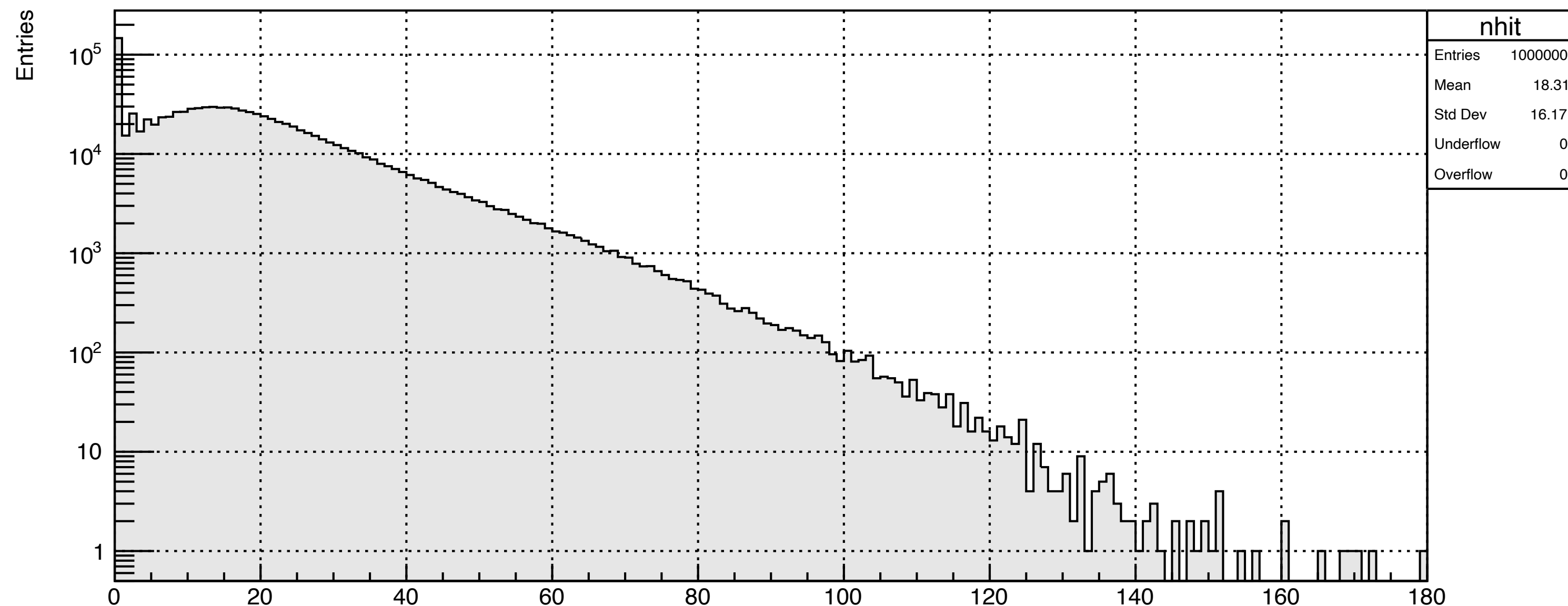
# About the MC data

- `/sphenix/lustre01/sphnxpro/mdc2/pythia8_pp_mb/trkrcluster/run0011/` was used in the previous analysis.
- Chris confirmed that the data
  - includes 3 MHz pileup
  - simulates for  $-13 \text{ us} - +20 \text{ us} = 33 \text{ us}$ , which was optimized for TPC
- $33 \text{ us} \times 33 \text{ MHz} = 99$  collisions. 400 clusters / 99 collisions = 4 clusters/collision. It's questionable...
- `TrkrCluster::getTime()` of the clusters returned nan. Removing pileup events in the analysis is not easy.



# Another MC data

- I found minimum bias MC data without pileup  
/sphenix/lustre01/sphnxpro/mdc2/pythia8\_pp\_mb/nopileup/trkrcluster/run0011
- 1M events were checked for #INTT cluster/event



- The average value is 18.3. It means 9 tracks/event. It looks reasonable.
- The ratio of events without INTT cluster is 14.7%. It looks too high.