#INTT cluster distribution using MDC2 minimum bias MC data

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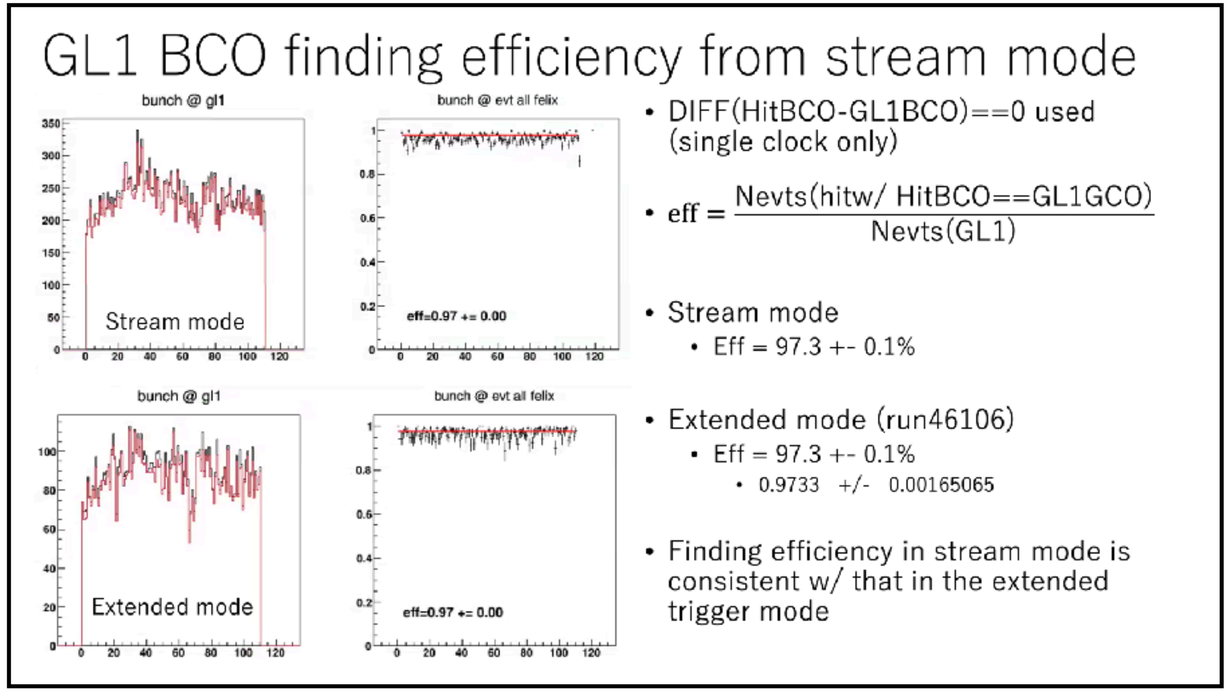
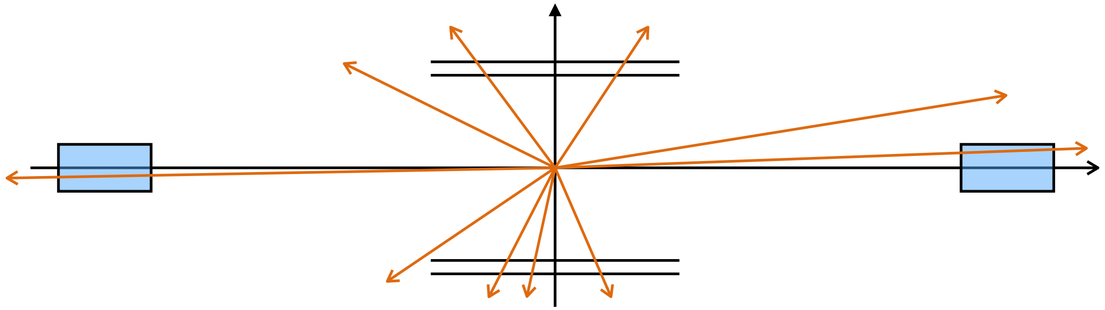
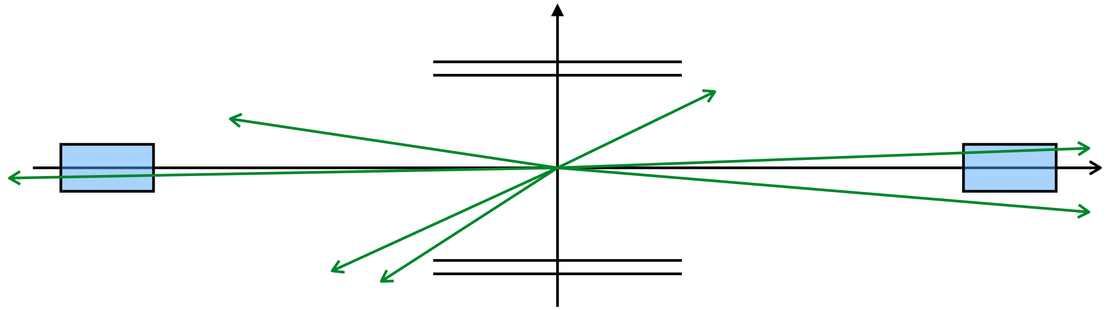
Why does INTT take 97% of minimum bias trigger events?

- Takashi showed GL1 BCO finding efficiency for the trigger+extended readout data and the streaming readout data. Both were 97.3%.
- It's good to check MC data whether (a part of) the inefficiency comes from physics.







MC data

- MDC2 (mock data challenge) pythia8 minimum bias data was used.
  - /sphenix/lustre01/sphnxpro/mdc2/pythia8_pp_mb/trkrcluster/run0011/
  - 1M DSTs are available.
  - Each DST contains about 650 events.
  - The first 500 DSTs were analyzed.

Analysis and the result

- I just counted the number of TrkrCluster on INTT in an event.
- About 340k events were analyzed.
- I didn’t find an events without a cluster on INTT.
- The minimum #INTT cluster/event was 36.
- #INTT cluster/event was typically 400. It corresponds to 200/$size_{cluster}$ tracks. Is it OK?