INTT chip saturation issue

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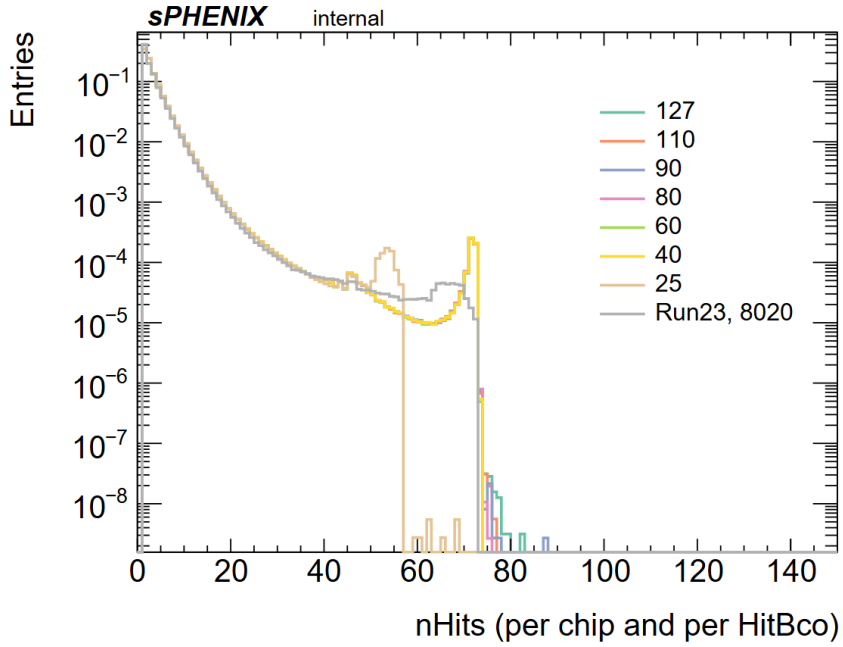
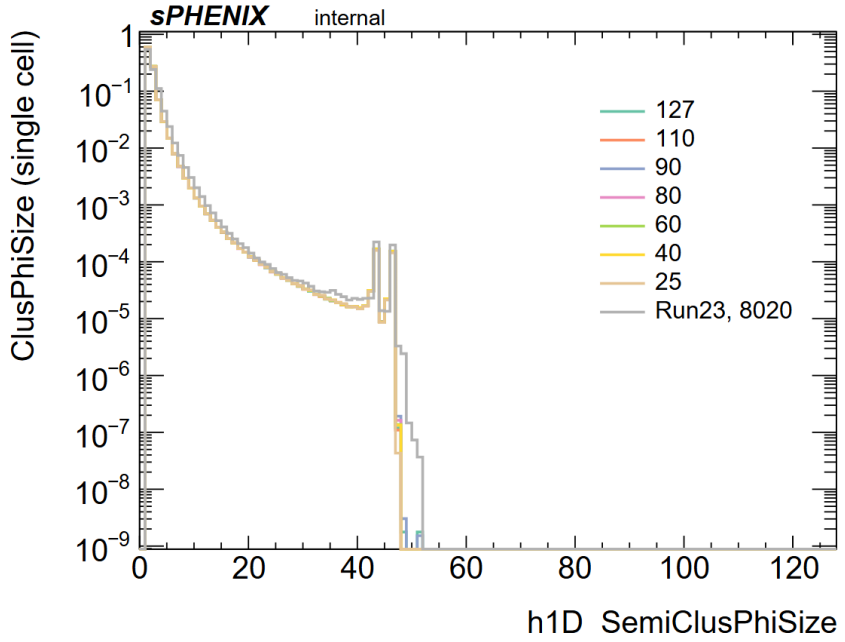
Recall

- n_coll and open_time seem to have nothing to do with the saturation issue and the cluster phi size distribution
- The problem is down to chip level

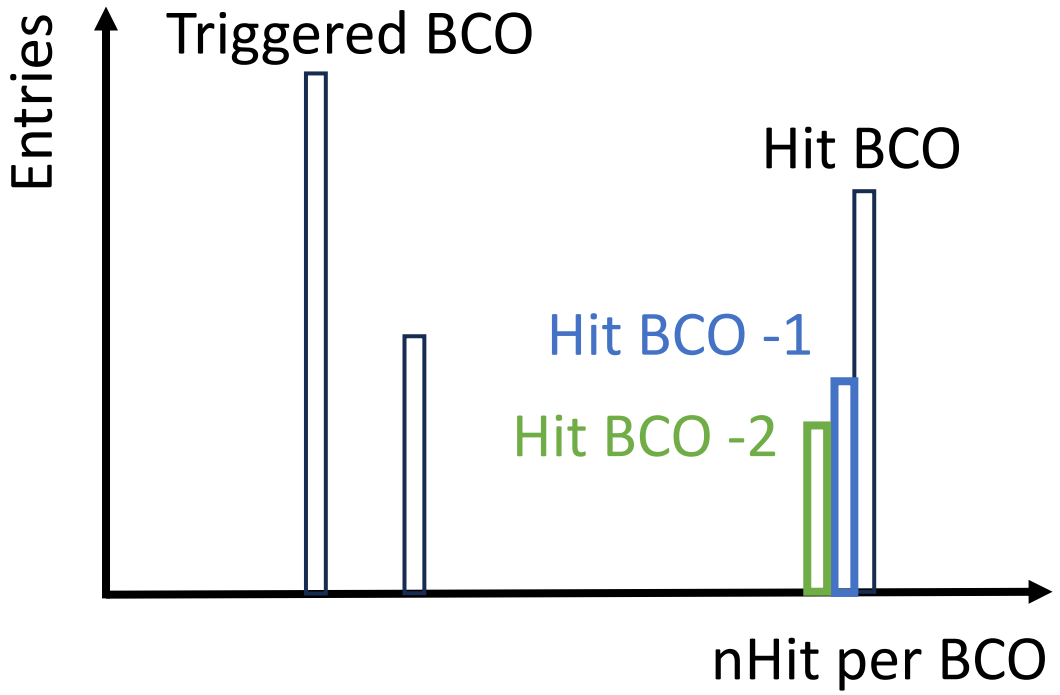




nHit per chip for previous BCO

- Context: Would it be possible that the chip saturation happens because of heavy event activity in the previous BCO?

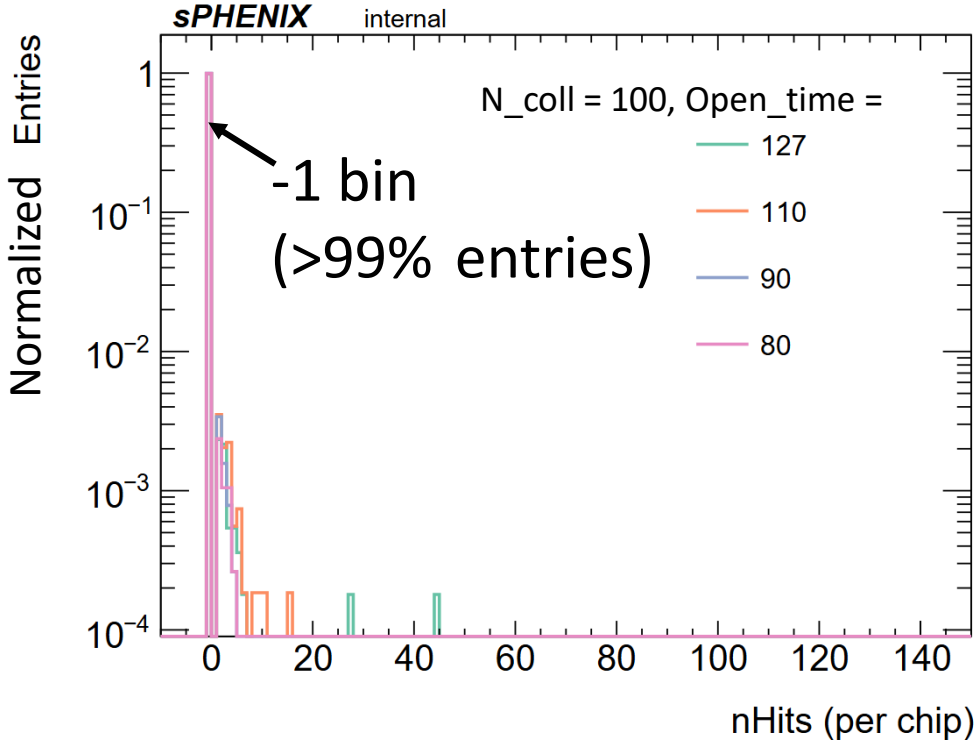
- In one event:
  - If there is nHit > 68 (current definition of saturation) on a chip in Hit BCO (except triggered BCO), then we check the nHit of this chip in Hit BCO -1 and -2



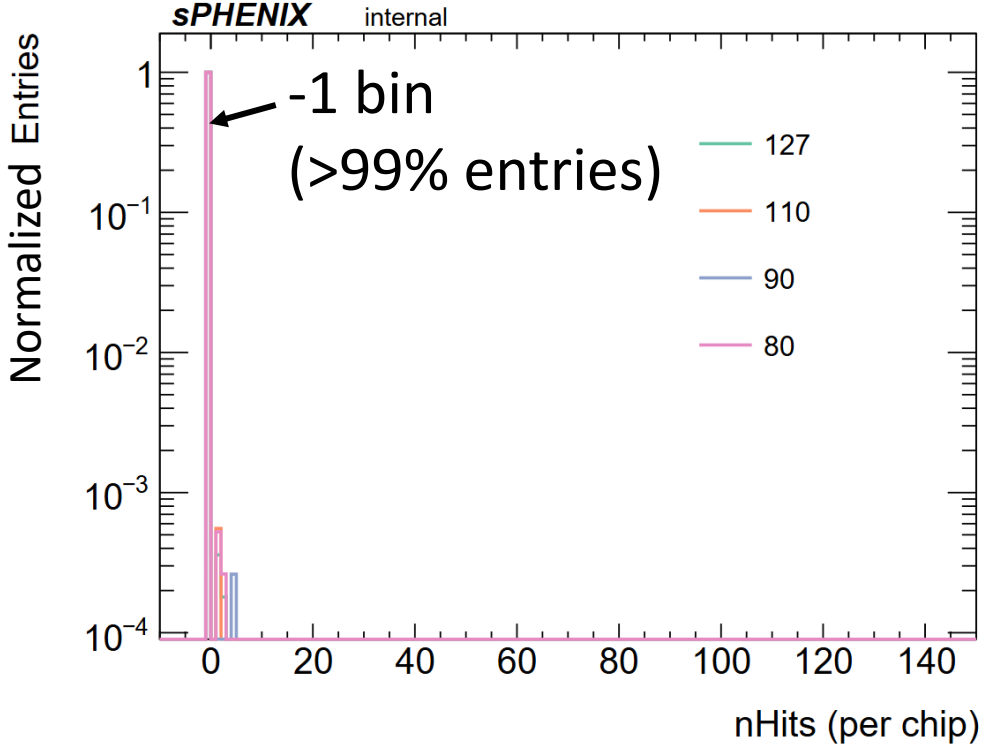
nHit per chip for previous BCO

- -1 bin: there is no hit for this chip in Hit BCO -1 (or -2)
  → saturation issue is not caused by nHit for previous BCO

Hit BCO -1



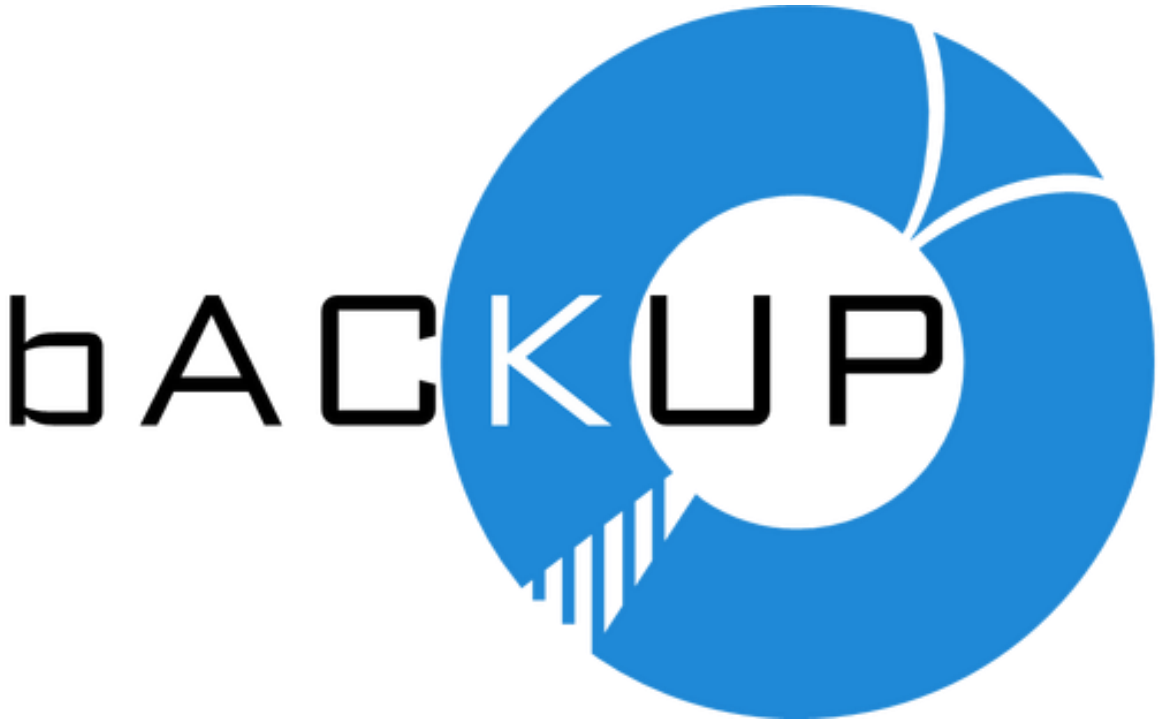
Hit BCO -2



Summary

- As > 99% of entries are at -1 bin, it is concluded that there is no correlation observed between the event activity of previous BCO and the present one with saturation issue

- In the other words, the mechanism leading to the saturation issue is still not yet identified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