INTT 日本語ミーティング
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Carried-Over Hits Study

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- **Carried-over hits のスキャンデータ見てみました**
  - 魚の骨構造は見えなかった
- **次は数えてみようと思います**
  - 今後の進め方について少し相談

Scan for carried-over hits

- 4 settings × 2 times each

Date/Time	Run#	Run Type	Mag	Link	Duration (min)	MBD-NS [kHz]	Active Felix List	DAC0	L1 Delay	n_coll	open time
2025/06/20 20:11	**68007**	beam	On	plot	2min	15kHz(MBD NS + MBD NS z <150cm	All Felix	35	108	**100**	**60**
2025/06/20 20:15	**68008**	beam	On	plot	2min	15kHz(MBD NS + MBD NS z <150cm	All Felix	35	108	**127**	**127**
2025/06/20 20:20	**68009**	beam	On	plot	2min	15kHz(MBD NS + MBD NS z <150cm	All Felix	35	108	**3**	**127**
2025/06/20 20:23	**68010**	beam	On	plot	2min	15kHz(MBD NS + MBD NS z <150cm	All Felix	35	108	**3**	**60**
2025/06/20 20:28	**68012**	beam	On	plot	2min	15kHz(MBD NS + MBD NS z <150cm	All Felix	35	108	**100**	**60**
2025/06/20 20:32	**68013**	beam	On	plot	2min	15kHz(MBD NS + MBD NS z <150cm	All Felix	35	108	**127**	**127**
2025/06/20 20:35	**68014**	beam	On	plot	2min	15kHz(MBD NS + MBD NS z <150cm	All Felix	35	108	**3**	**127**
2025/06/20 20:37	**68015**	beam	On	plot	2min	15kHz(MBD NS + MBD NS z <150cm	All Felix	35	108	**3**	**60**

Condition

- **Up to 1M events processed.**

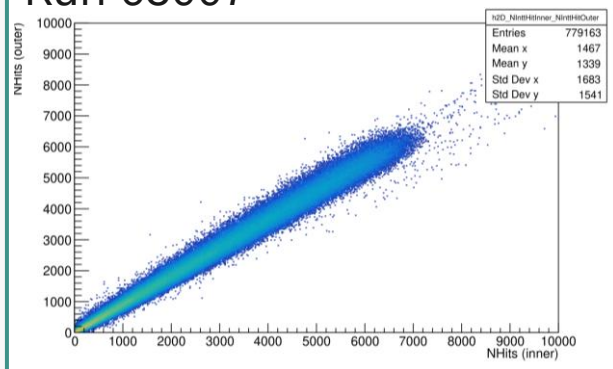
  The number of events which passed filters in the analysis were less than 1M events (~750k) for most of the runs.

Raw Hit Inner/Outer Correlation

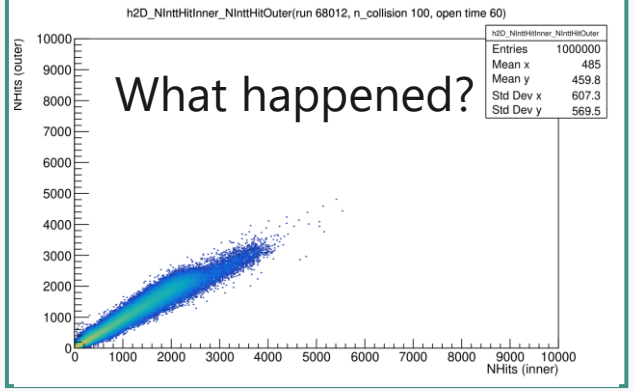
- **No fishbone-like structure in all settings … (?)**

N_coll=100
Open_time=60

Run 68007

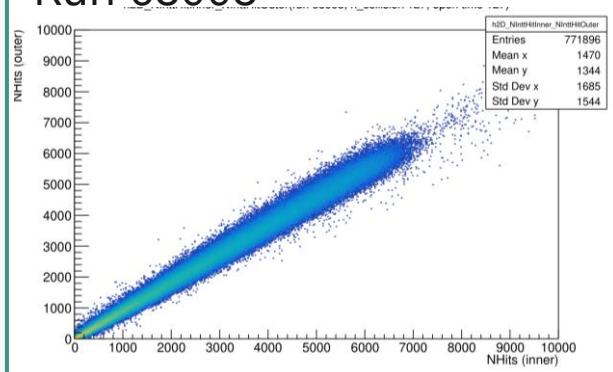


Run 68012

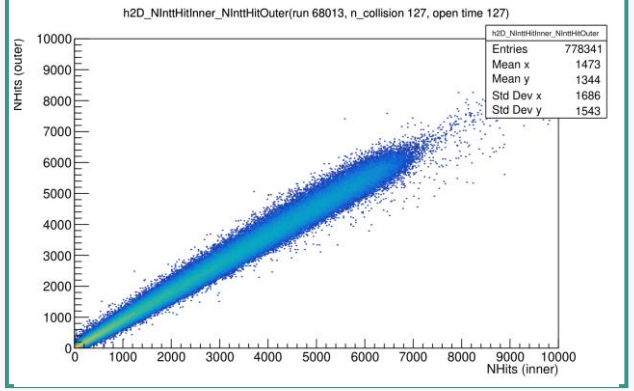


N_coll=127
Open_time=127

Run 68008

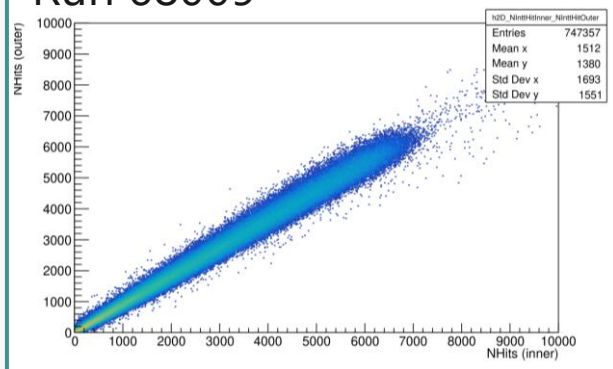


Run 68013

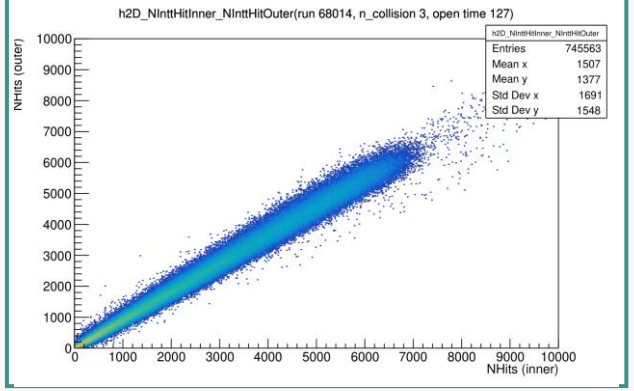


N_coll=3
Open_time=127

Run 68009

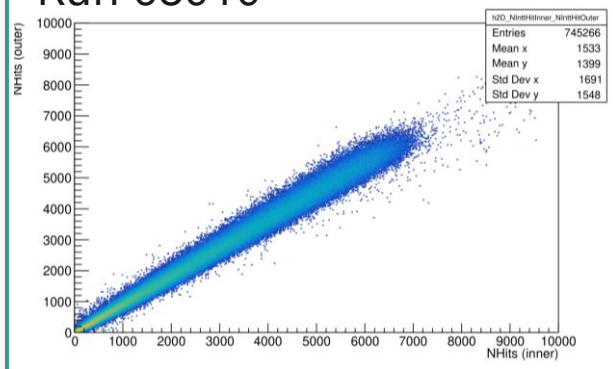


Run 68014

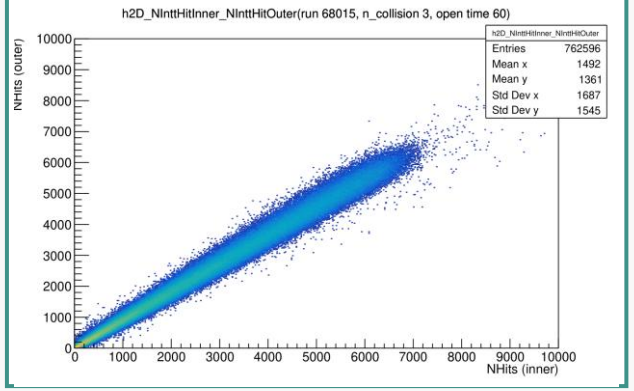


N_coll=3
Open_time=60

Run 68010



Run 68015

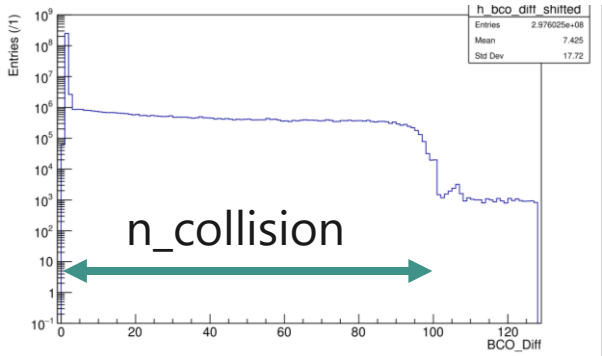


Check (BCO diff plots)

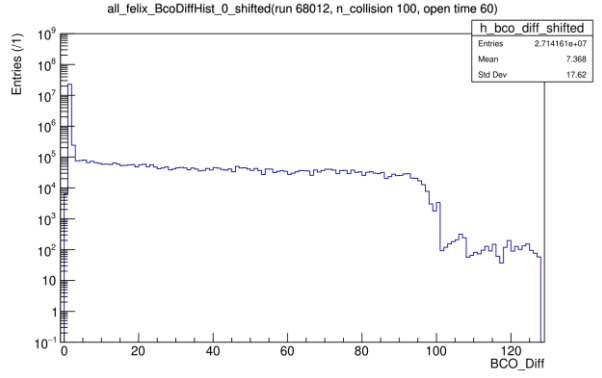
- At least n_collision is set as we intended to.

n_coll=100
Open_time=60

Run 68007

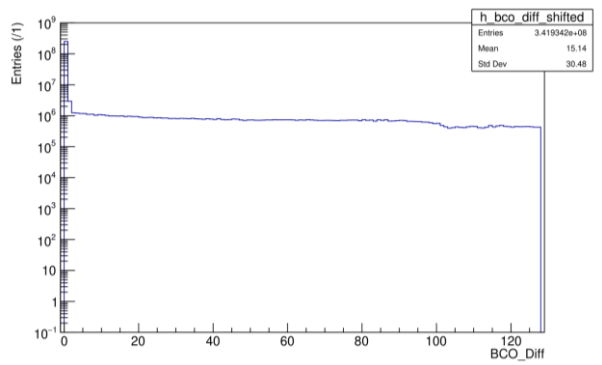


Run 68012

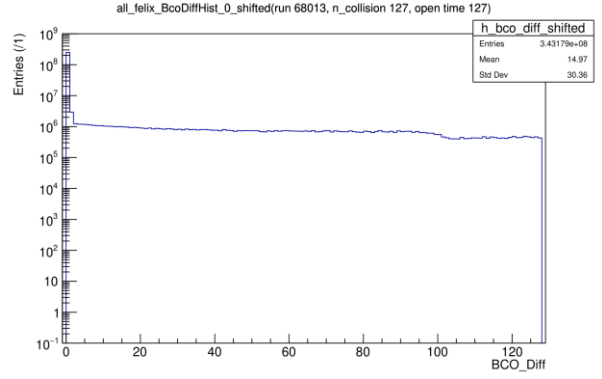


n_coll=127
Open_time=127

Run 68008

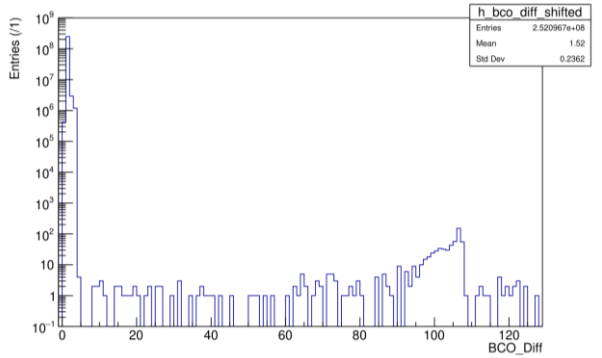


Run 68013

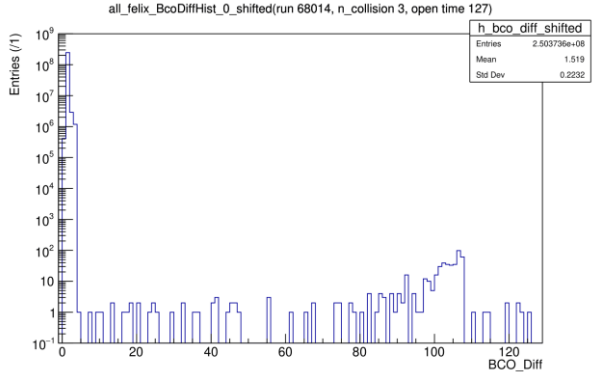


n_coll=3
Open_time=127

Run 68009

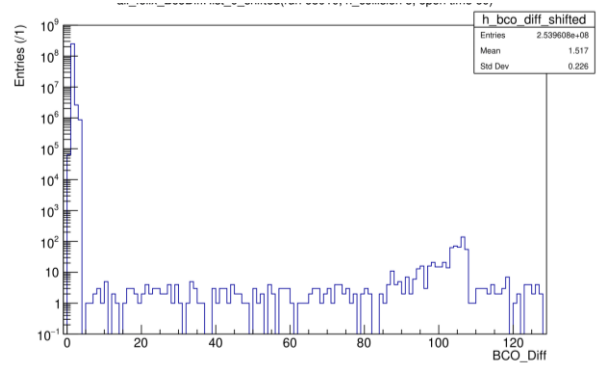


Run 68014

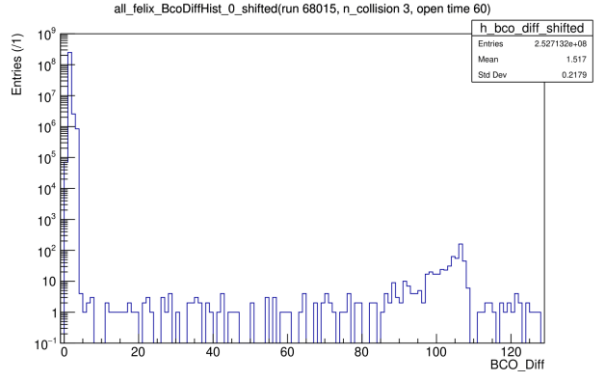


n_coll=3
Open_time=60

Run 68010



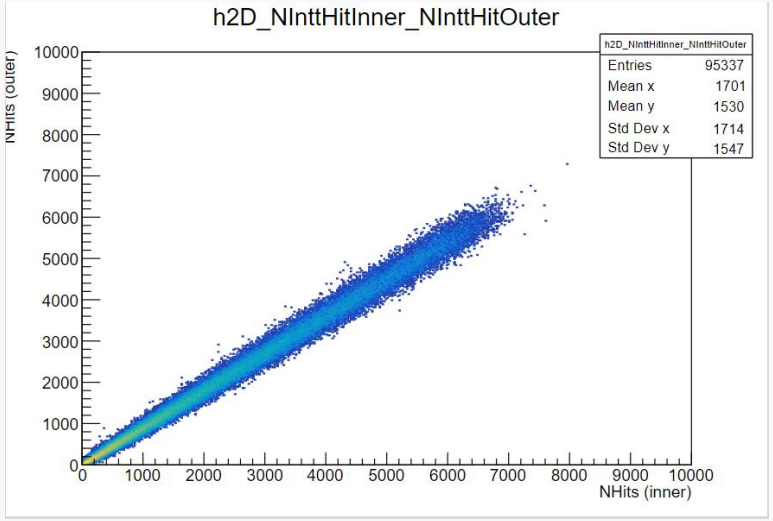
Run 68015



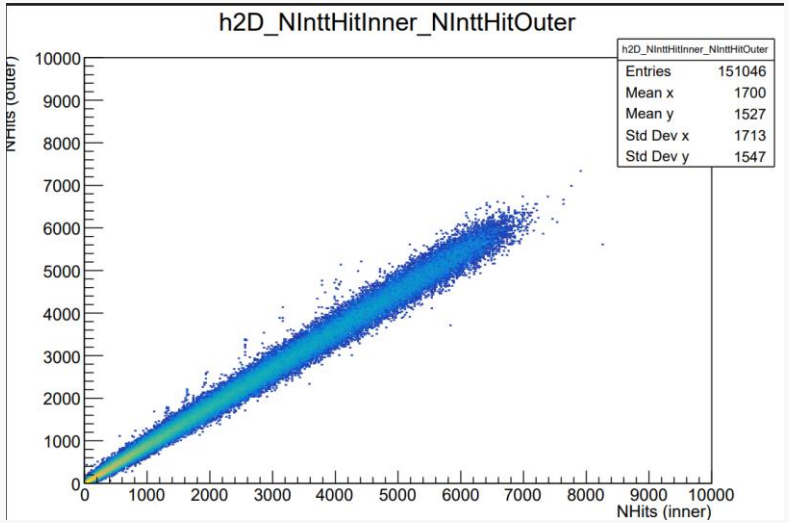
Comparison with physics run this year

- The distribution in run 68007 is broader than the earlier runs.
- The broad base cover over carried-over hits?

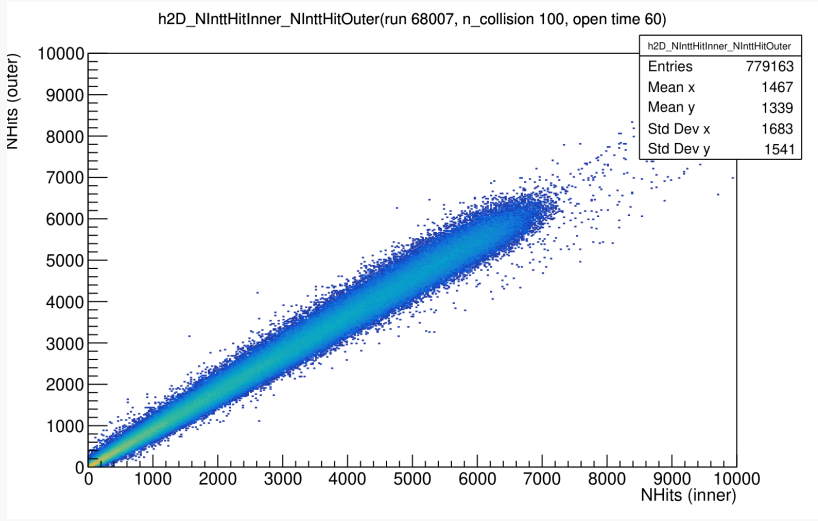
Run 66522
Filling: 6x6



Run 66682
Filling: 56x56



Run 68007



n_coll=100, Open_time=60 for all

Next step

- Count number of carried-over hits by checking raw data.
- open_time の意味の確認
- InttRawHit / TrkrHitSet
- とりあえず現状どの程度の数の carried-over hit があるか確認？

ローカルモードで取ったデータについては、この図が作られないので自分でモジュールorマクロを書く。