RYOTA SHISHIKURA

REPORT 1 IN TAIWAN WORK SHOP

Data QA for noise with Bean On/Off
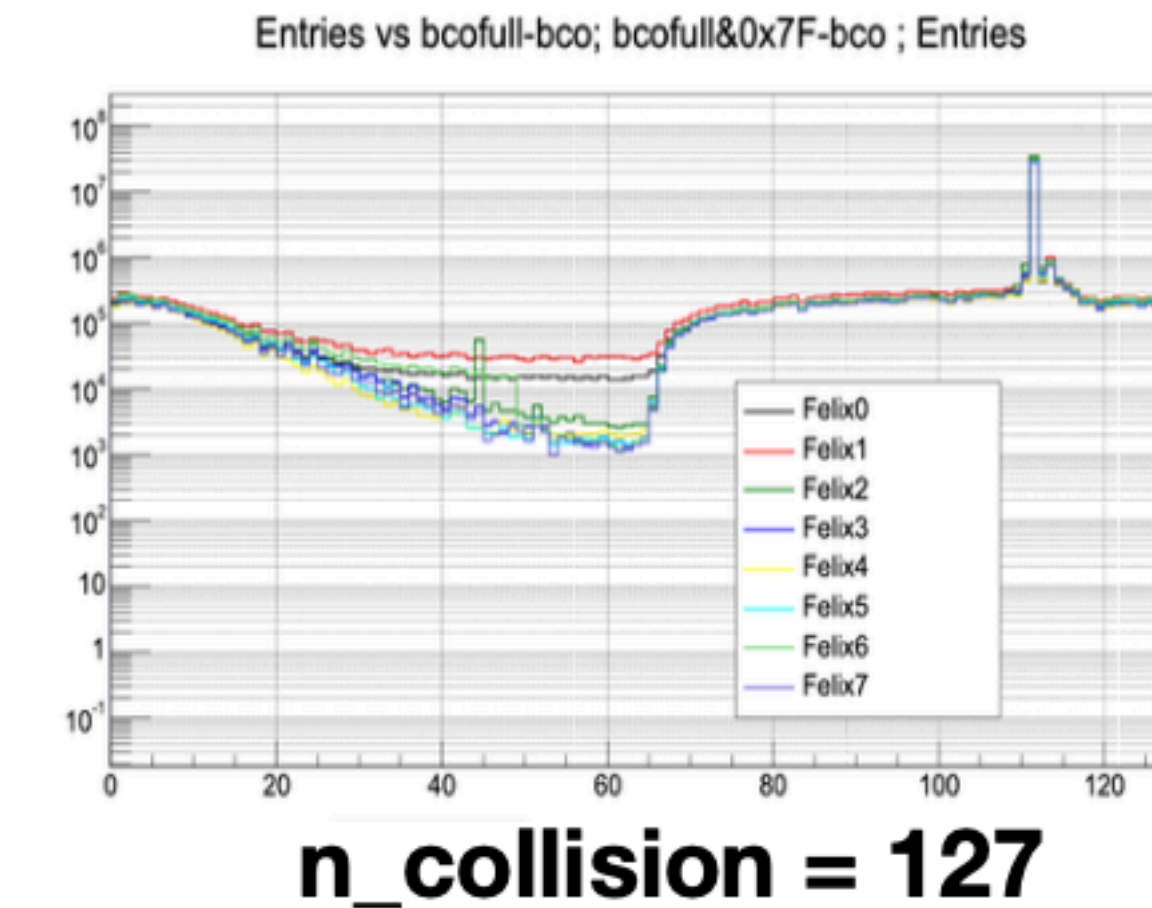
Ryota Shishikura
(Rikkyo University)

For estimating the ratio of Signal/Noise, investigating noise features

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Goal in this workshop: Analyzing data, find new noise features and understand noise more

My To-Do List

- Comparing cosmic and signal data

  - ADC / Cluster size / channel distribution

- Investigating mystery of bcofull-bco plot

  - Understanding the sharp increase of background.

  - Checking Run by Run.

- Run Log update

  - Summarizing the current state and write down about how to make. (Highest priority)

  - Checking day/time of data from time-stamp of data

  - Checking the state of Magnet from the log data given by Nukazuka-san

New Run Log URL :
https://docs.google.com/spreadsheets/d/1dkvDEc5iUQd_xskGzAvR5JQ_Hzxxxe
JfPXEdy0TMKas/edit#gid=1459536224

Entries vs bcofull-bco; bcofull&0x7F-bco ; Entries

n_collision = 127

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- Run Log update
  - ~~Summarizing the current state and write down about how to make. (Highest priority)~~
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▸ 1. Run Log Upgrade

▸ 2. Mystery of Bcofull-Bco plot

1.RUN LOG UPGRADE

New Run Log was uploaded

▶ Location

INTT→Data→2023→Run Log/List

information of Run Log

▶ Information of current status

  ▶ Name/Explanation of Line

  ▶ How to upgrade

  ▶ Caution to use Run Log

▶ Revision history

Next Step

‣ Adding information of Magnet

‣ Adding information of Date/Time

‣ Upgrade Run Log before 6/28

2. MYSTERY OF BCOFULL–BCO PLOT

Mystery

▸ The rapidly increase at some point

→ I already checked many data and
I could see this increase from all of the
data

Entries vs bcofull-bco; bcofull&0x7F-bco ; Entries

Increase

Felix0
Felix1
Felix2
Felix3
Felix4
Felix5
Felix6
Felix7
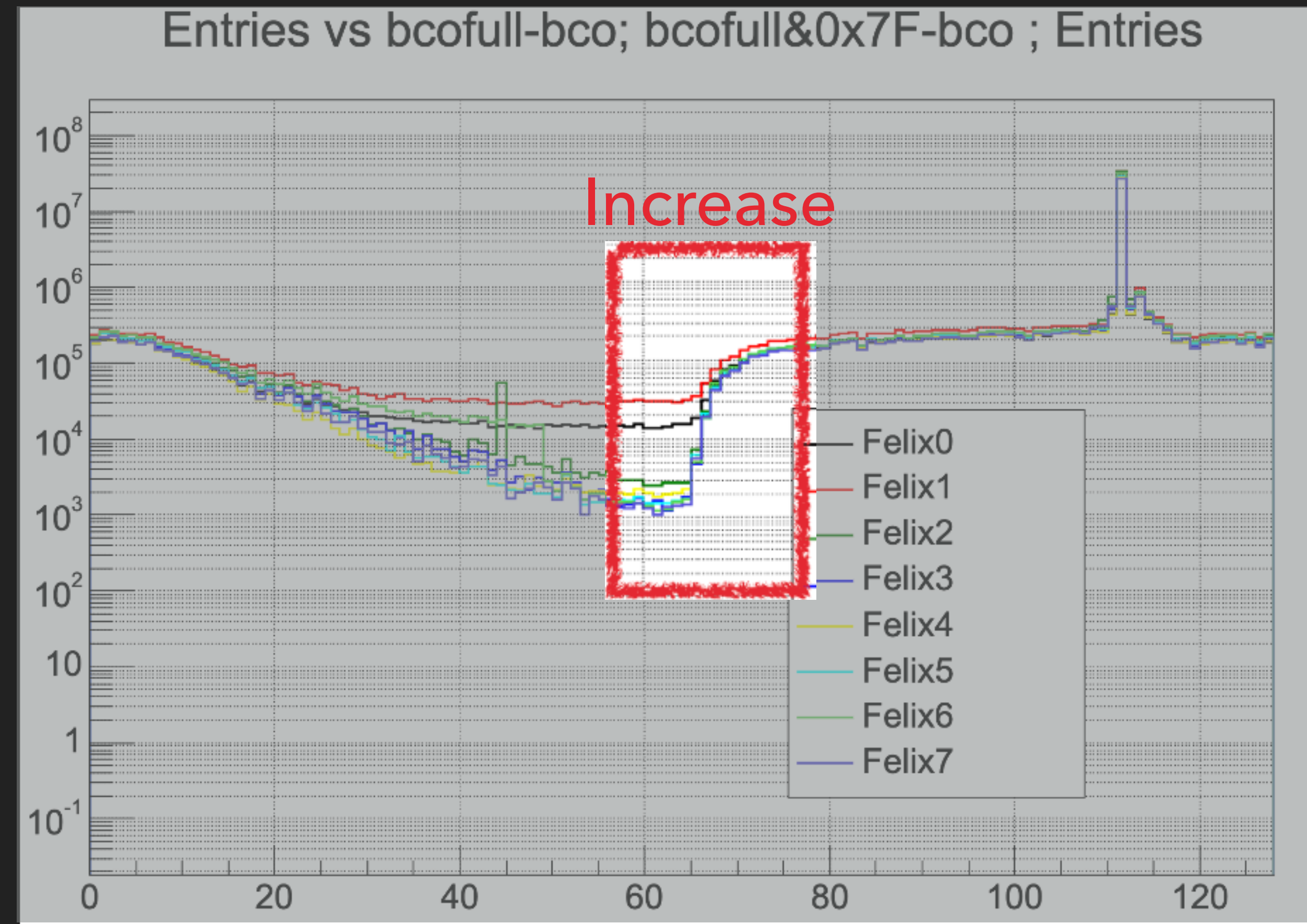
Mystery

▸ The sharp increase of background

I Did

▸ Check the time
between peak and sharp increase
Run by Run
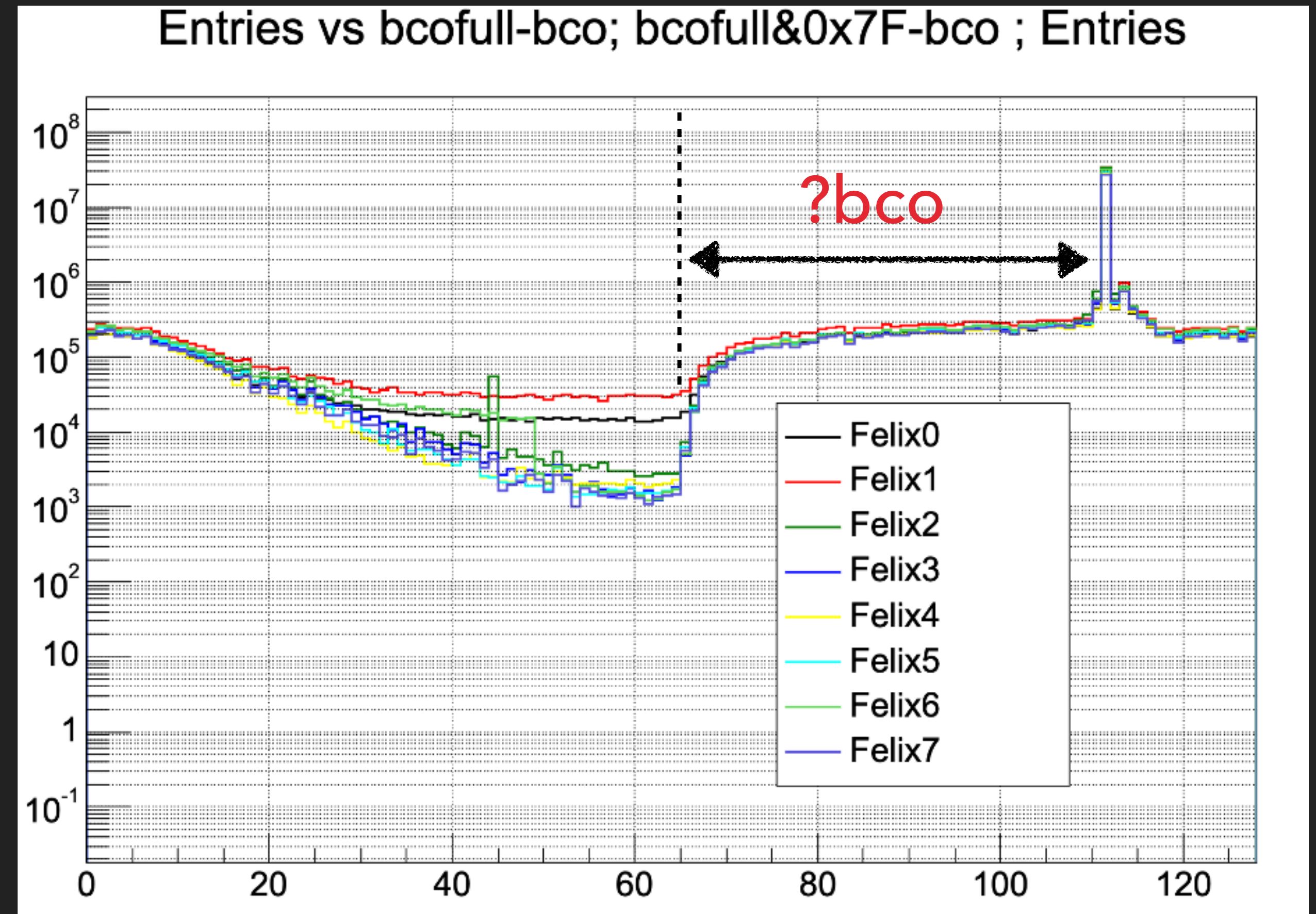
Modebits Dependence

Modebits = 79

Modebits = 95

Other setting

L1 Delay = 21, Open time = 35, n_collision = 127

L1 Delay Dependence

L1 Delay = 21
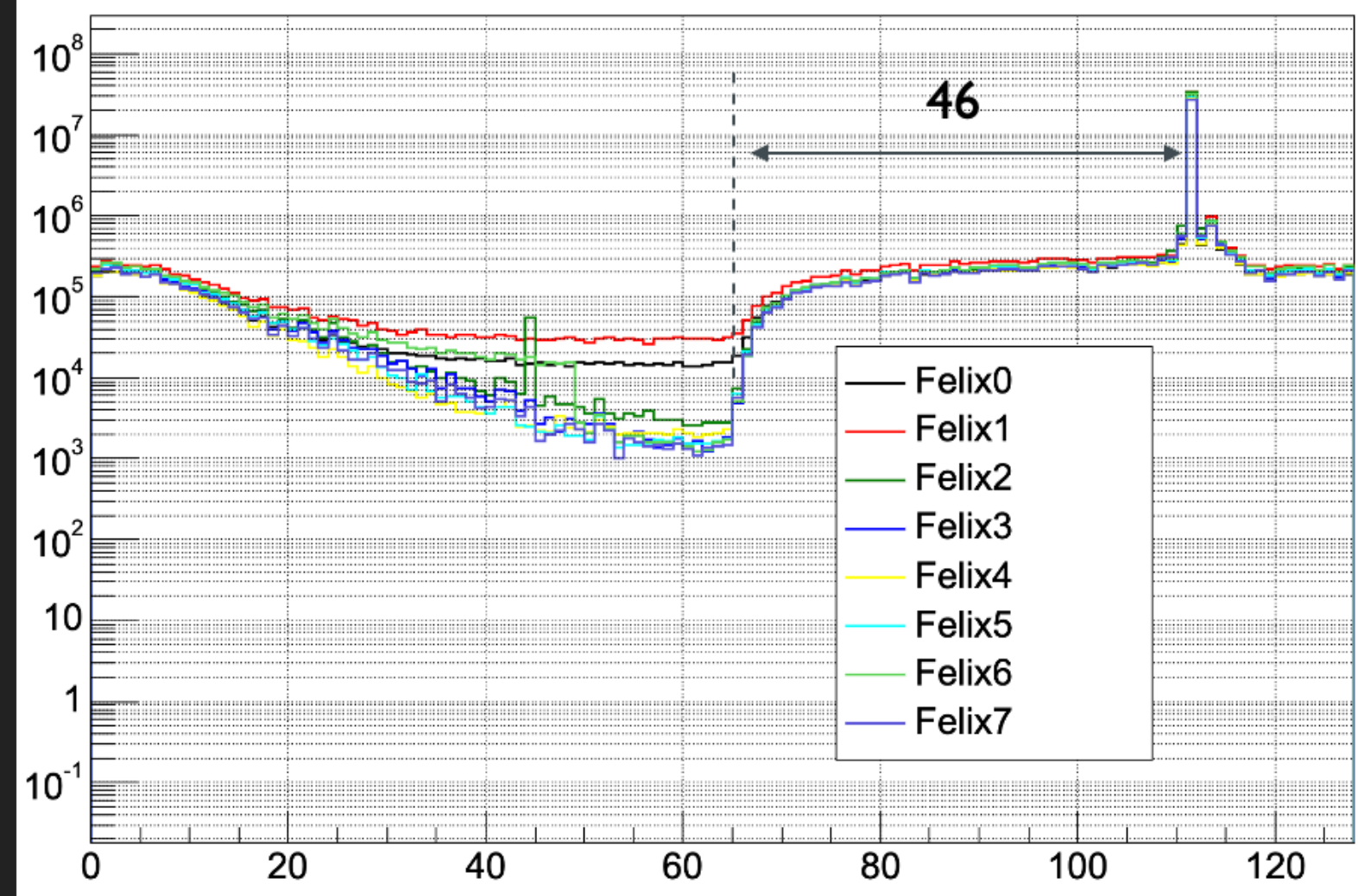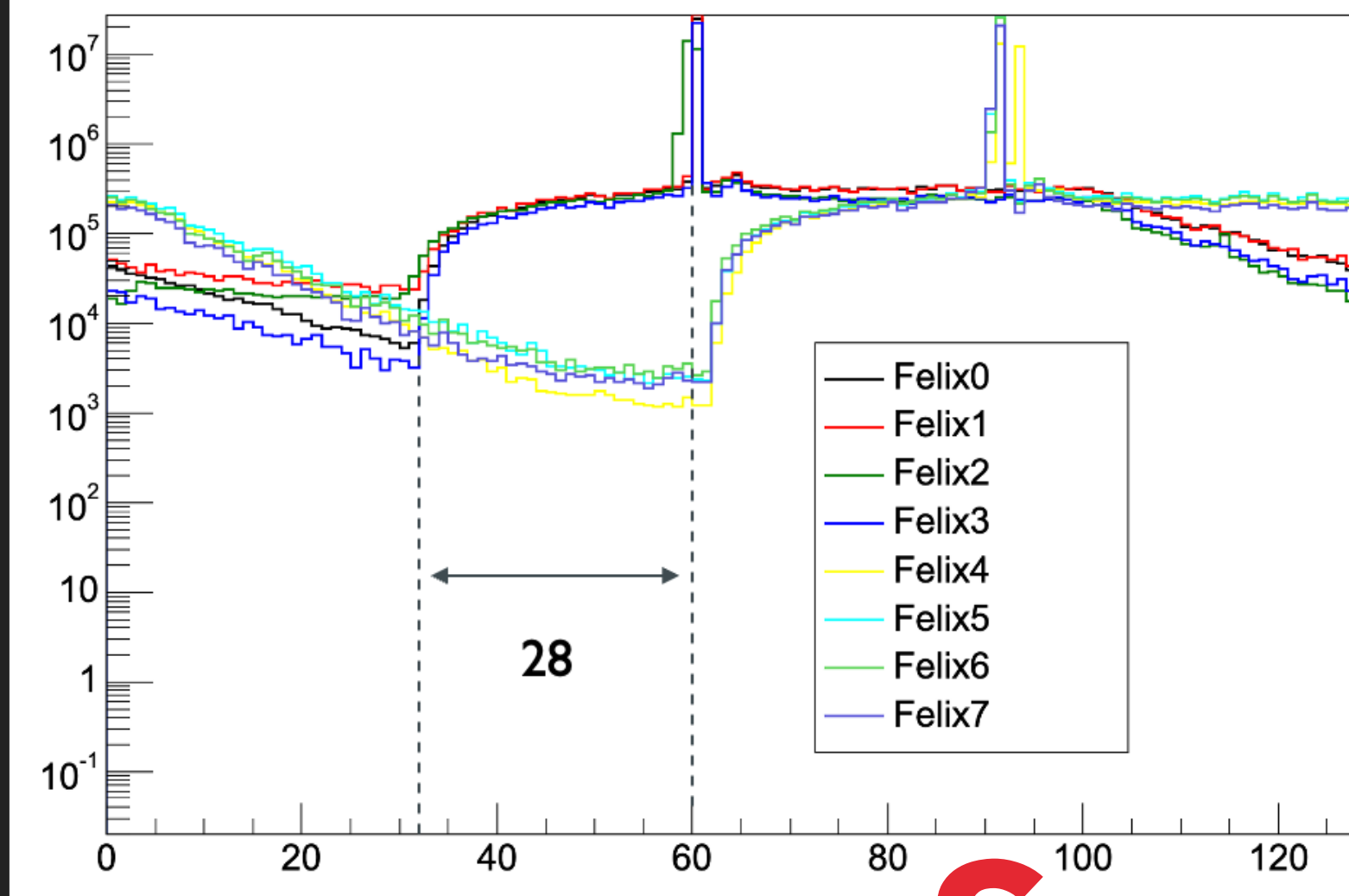
L1 Delay = 25

L1 Delay = 0

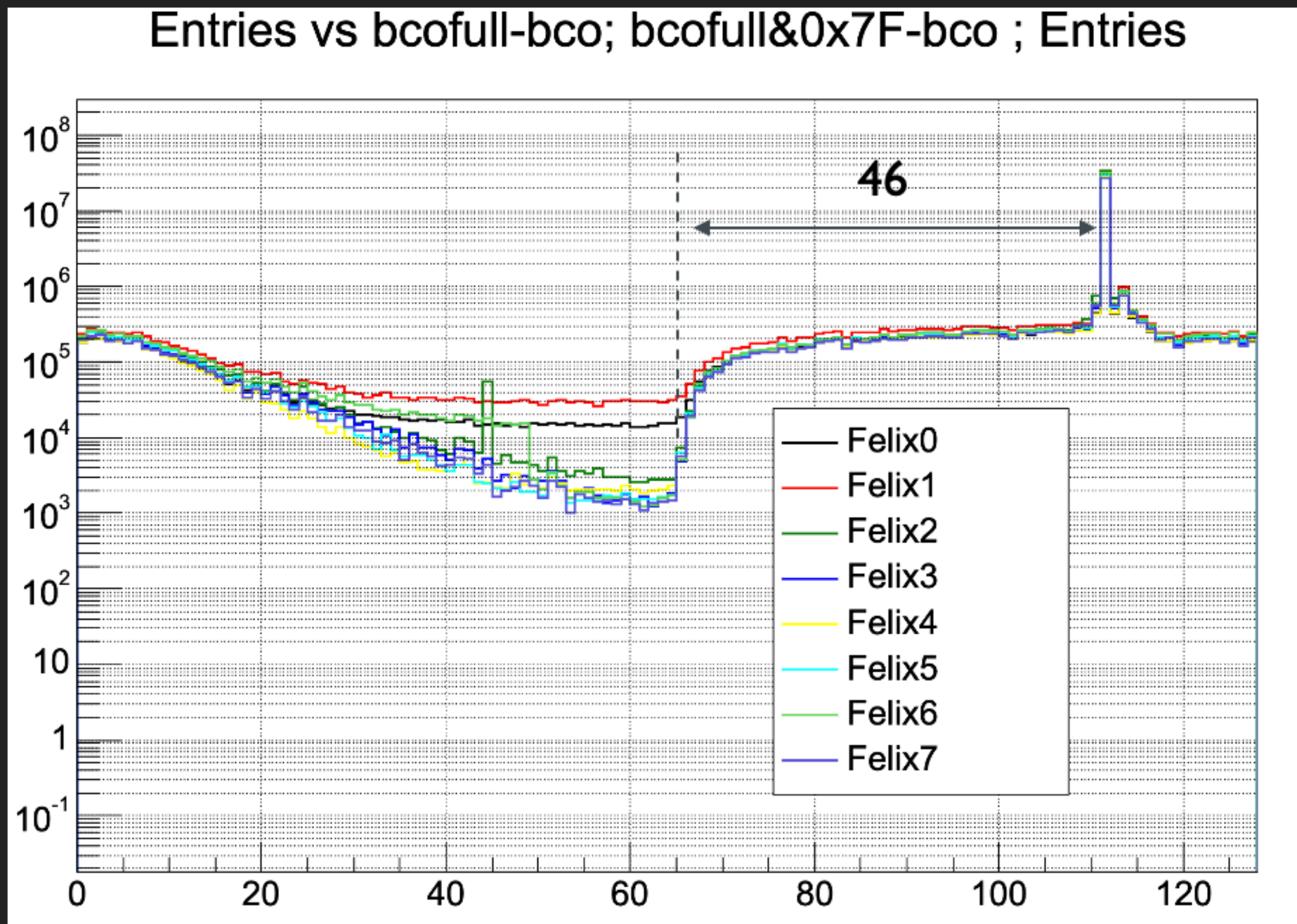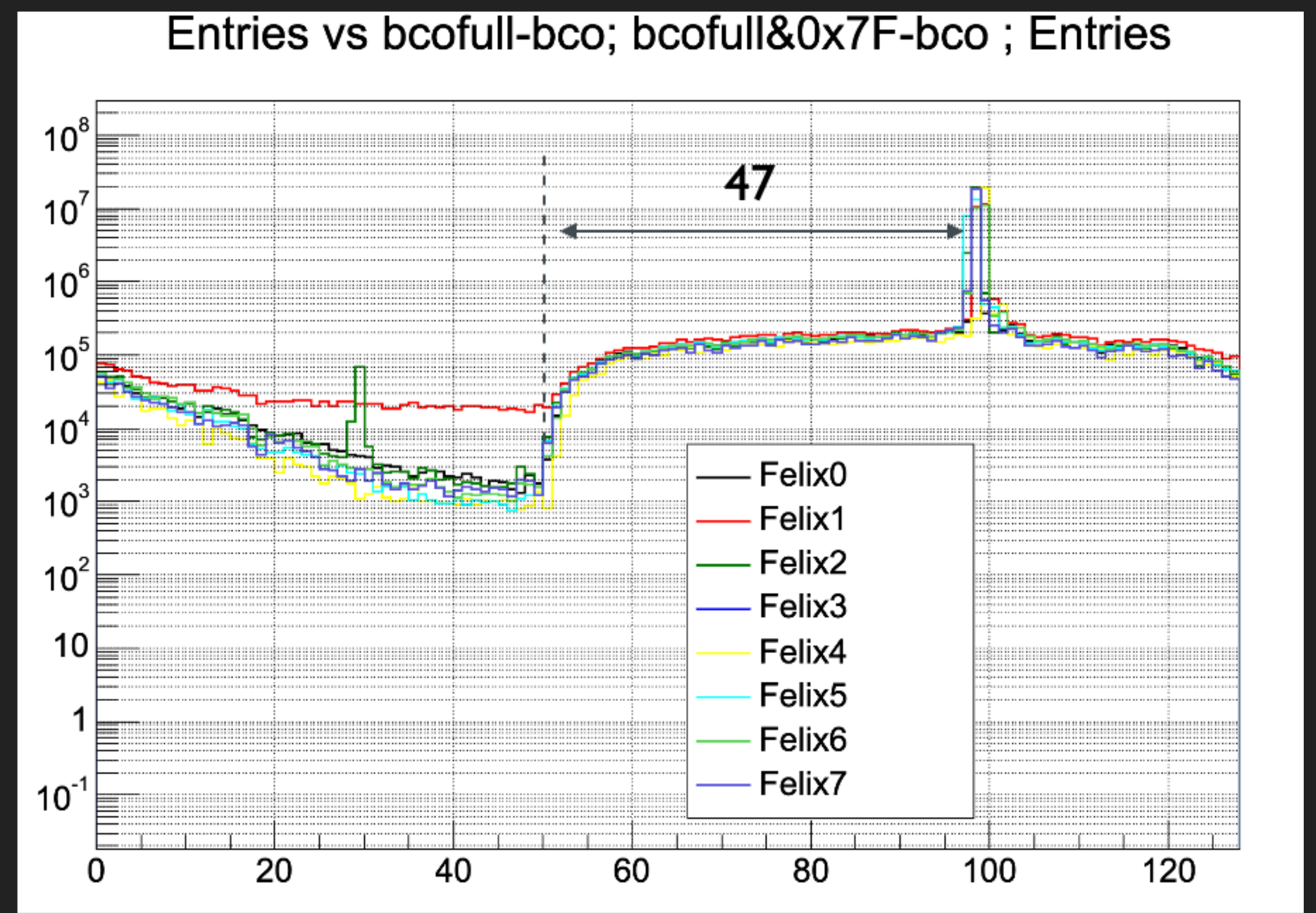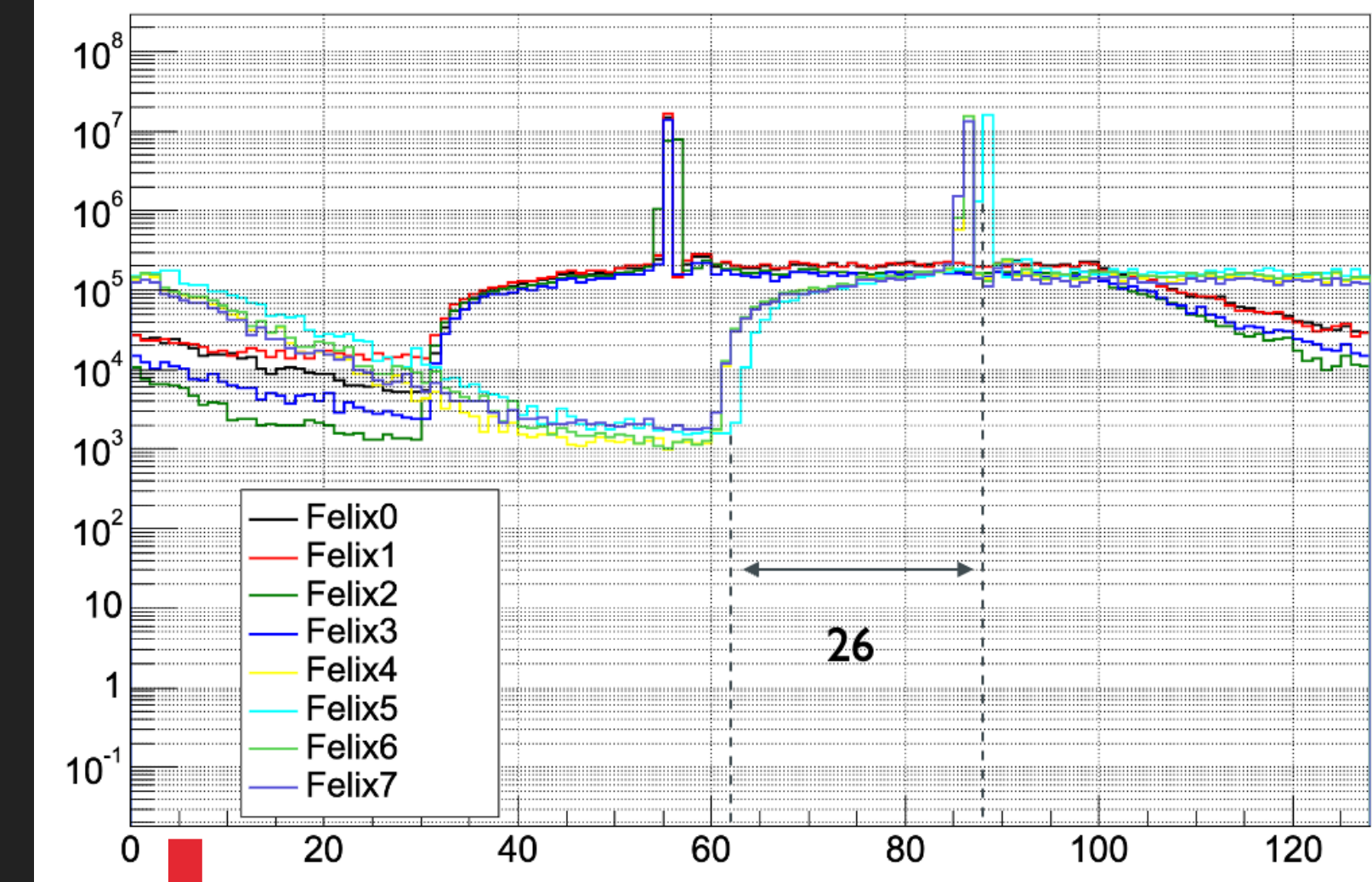**Same day**

Other setting

Open time = 35, n_collision = 127, Modebits =79

2. MYSTERY OF BCOFULL–BCO PLOT

6/19,21
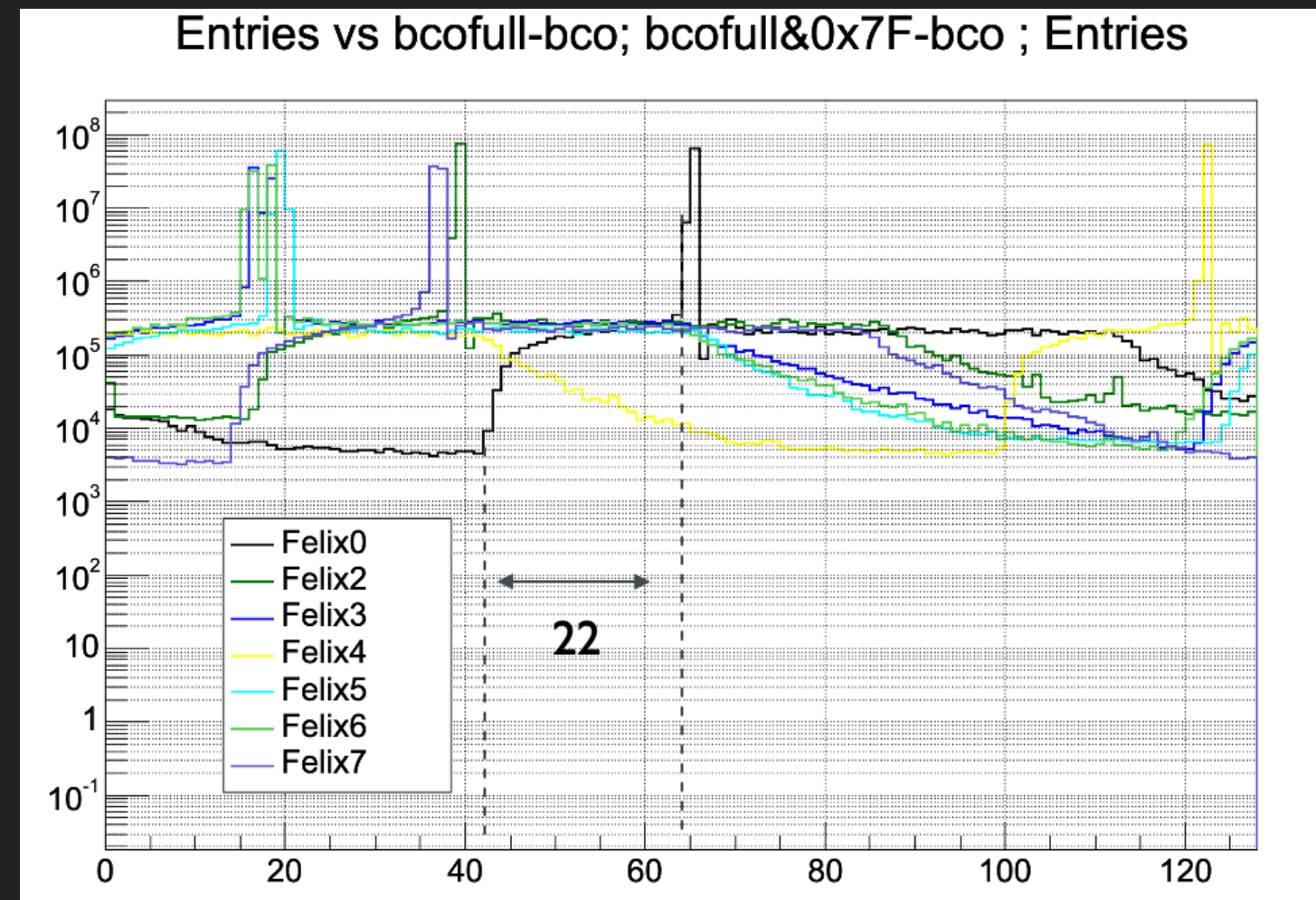
7/20
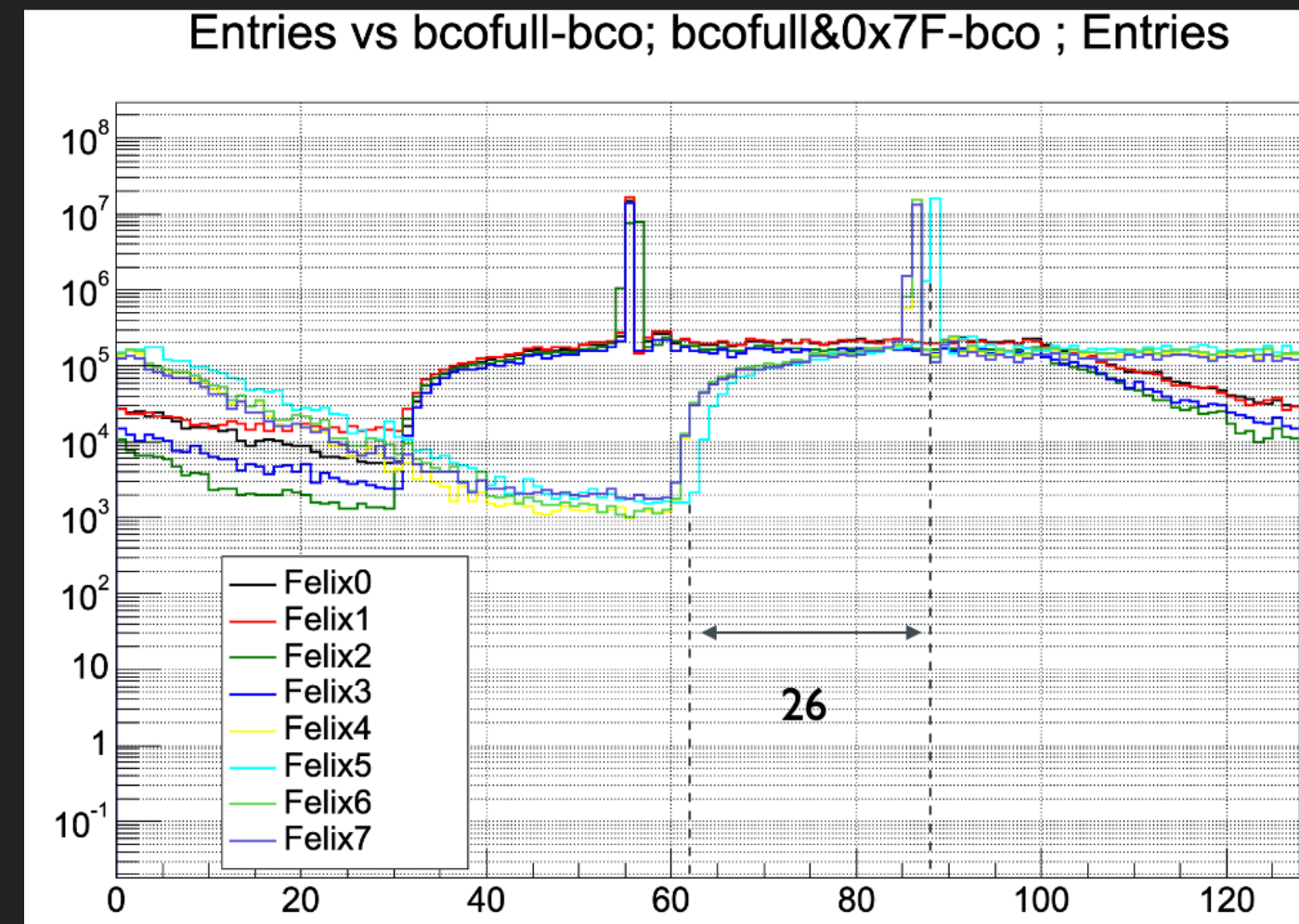
7/31
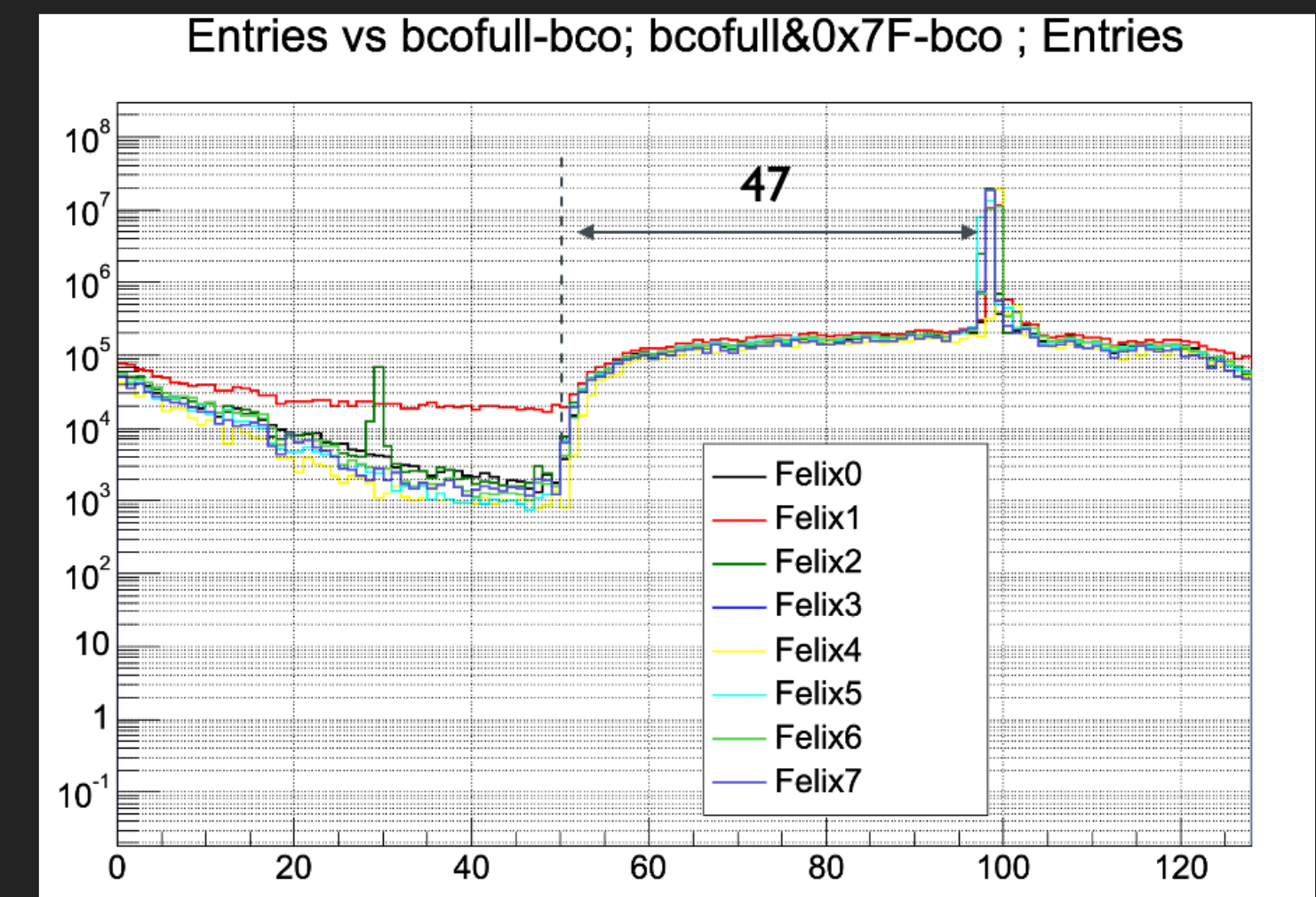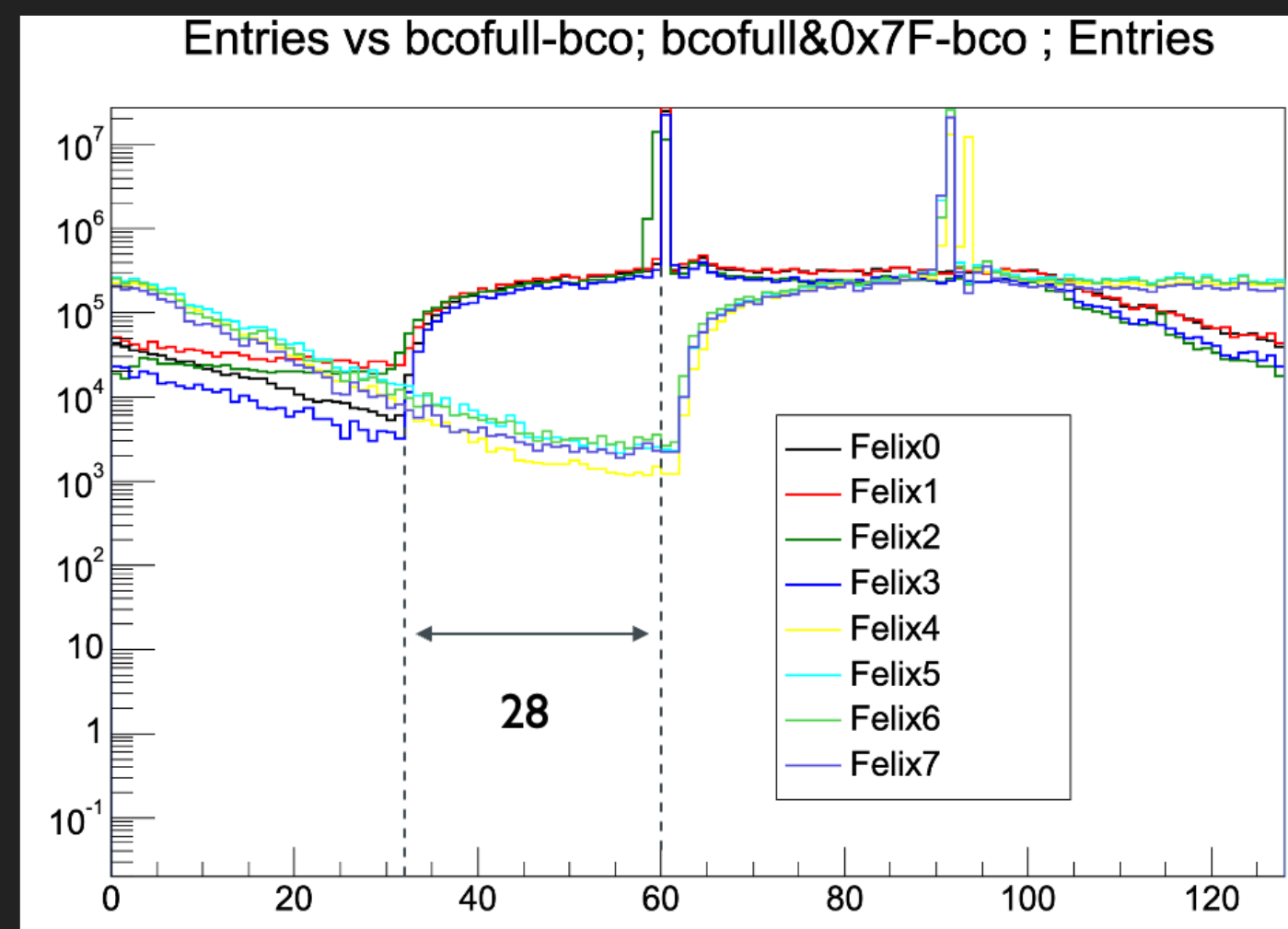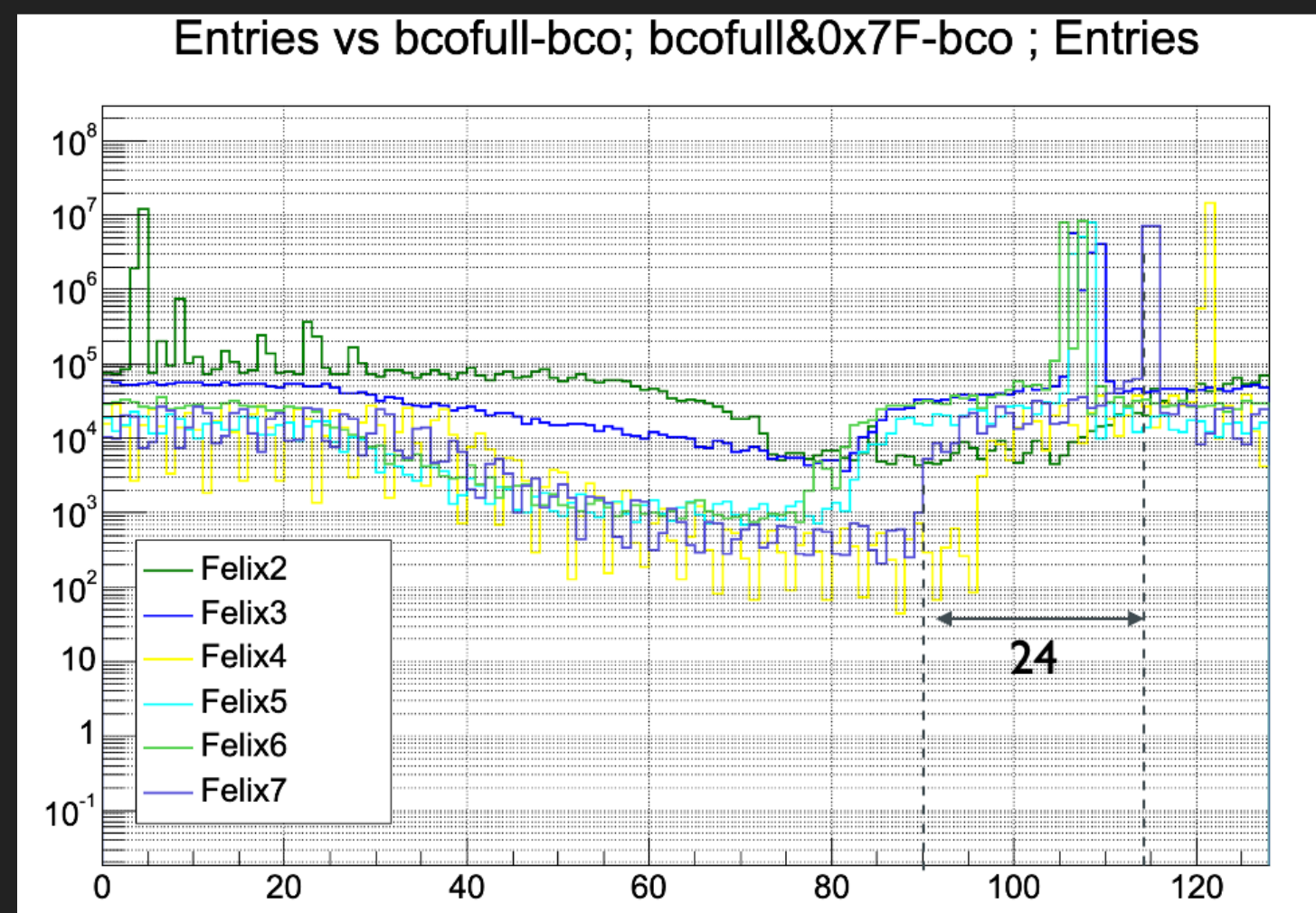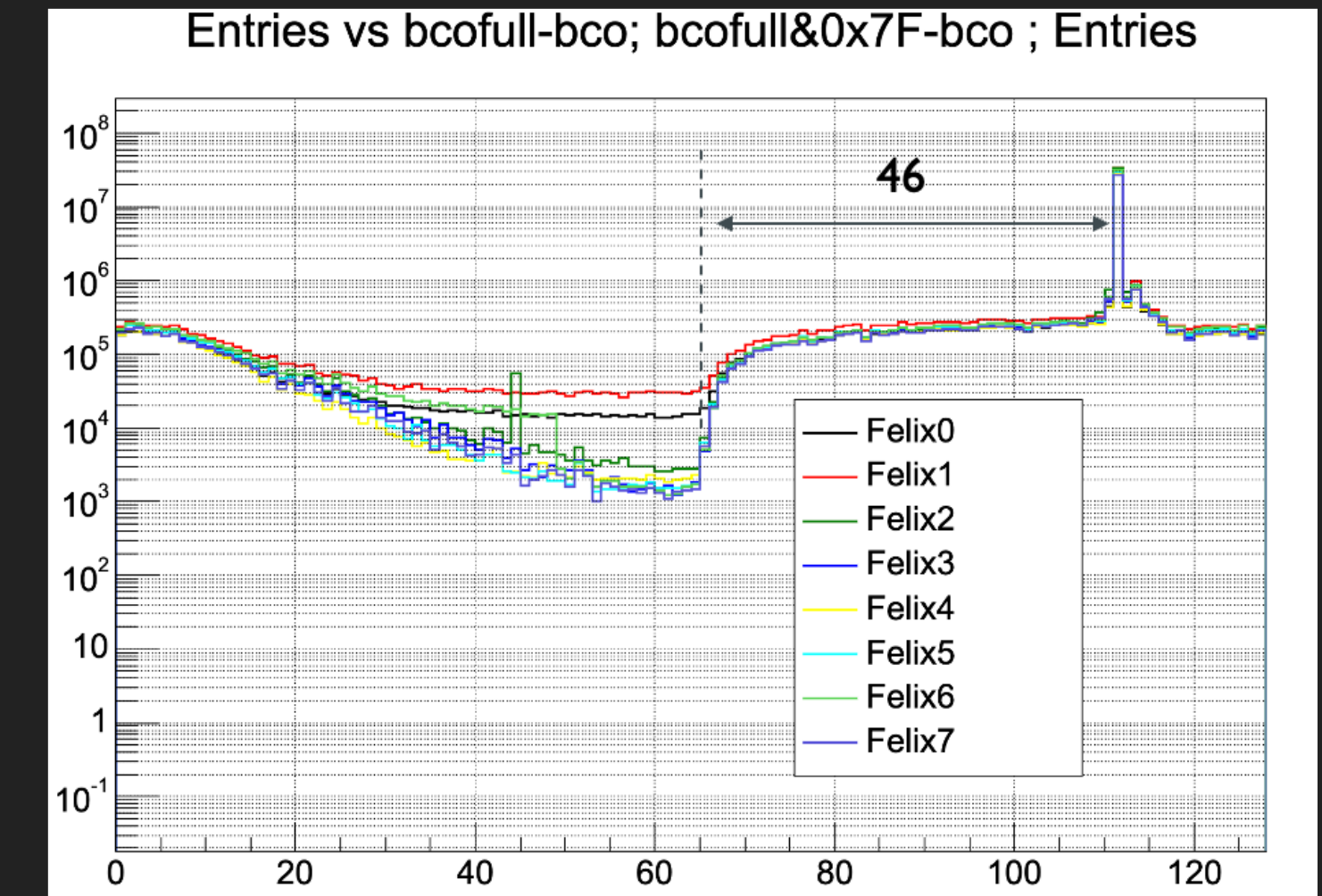
Summary

RUN LOG UPGRADE

▸ Run Log was uploaded to wiki

Location
INTT→Data→2023→Run Log/List

MYSTERY OF BCOFULL-BCO PLOT

▸ I checked Run by Run

I think It is not related to parameters now.

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New

- Estimating the amount of Noise without clone hits.

- Barrel dependence of Noise

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n_collision = 127