Offline QA and.

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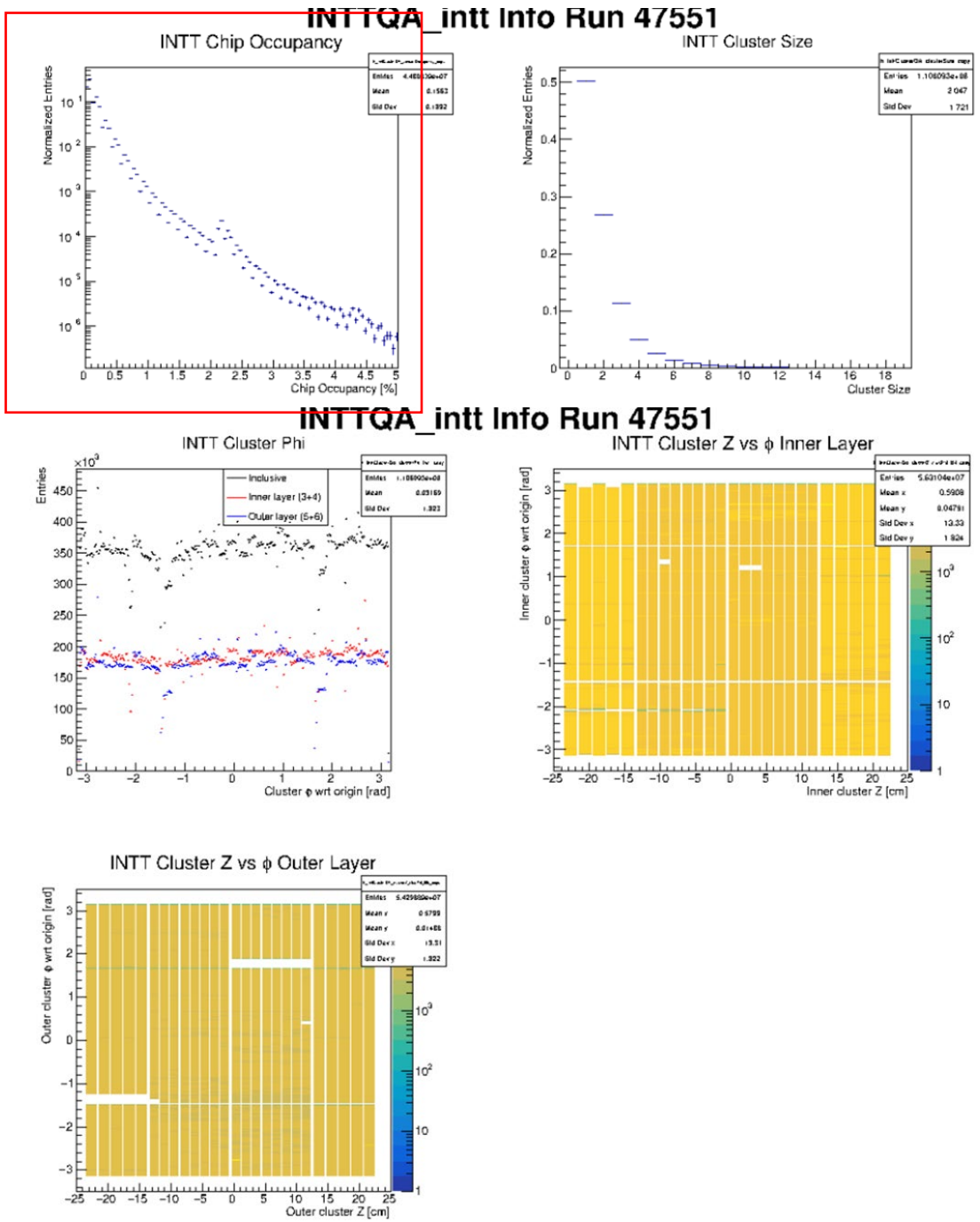
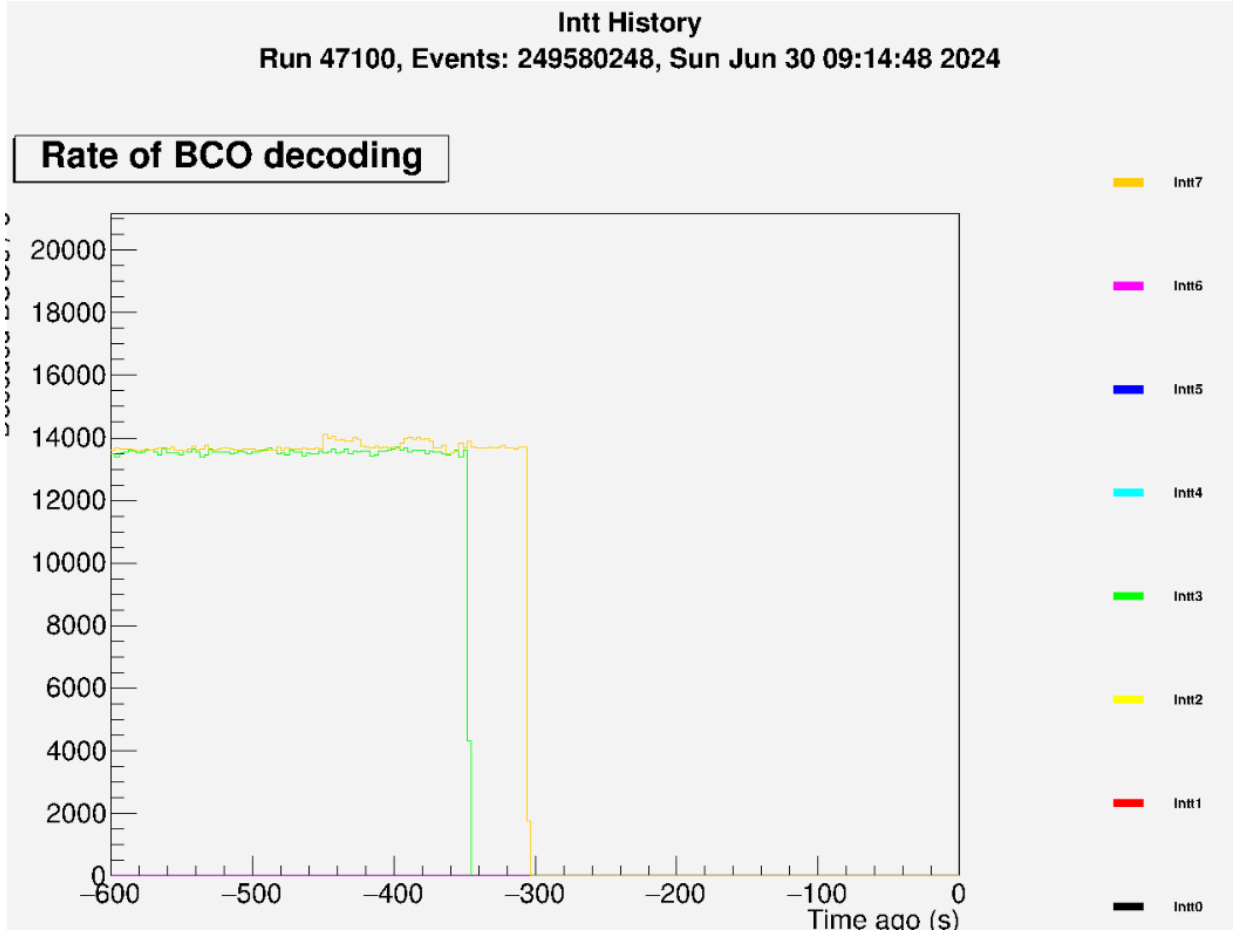
OFFLINE QA

- Offline QA is under development
  - Right after DST production
- QA Status
  - 1st version is implemented by tracking people
- 2 pages
  - Chip QA
    - Hitrate made by TrkrHitSet
    - Cluster size by Cluster
  - Cluster QA
    - Ncluster vs Phi
  - Cluster Hit Map (phi vs z) for inner & outer layer
- Rawhit QA is implemented by Xudong but not shown yet
  - Many plots showing raw hitQA are prepared but not easy to check all. It is good to think about a few summary plots
- No further plot implemented yet
  - Decoding rate plot are also important
- Strange peak at 2.2 in hit occupancy



Decoding rate plot from online monitor

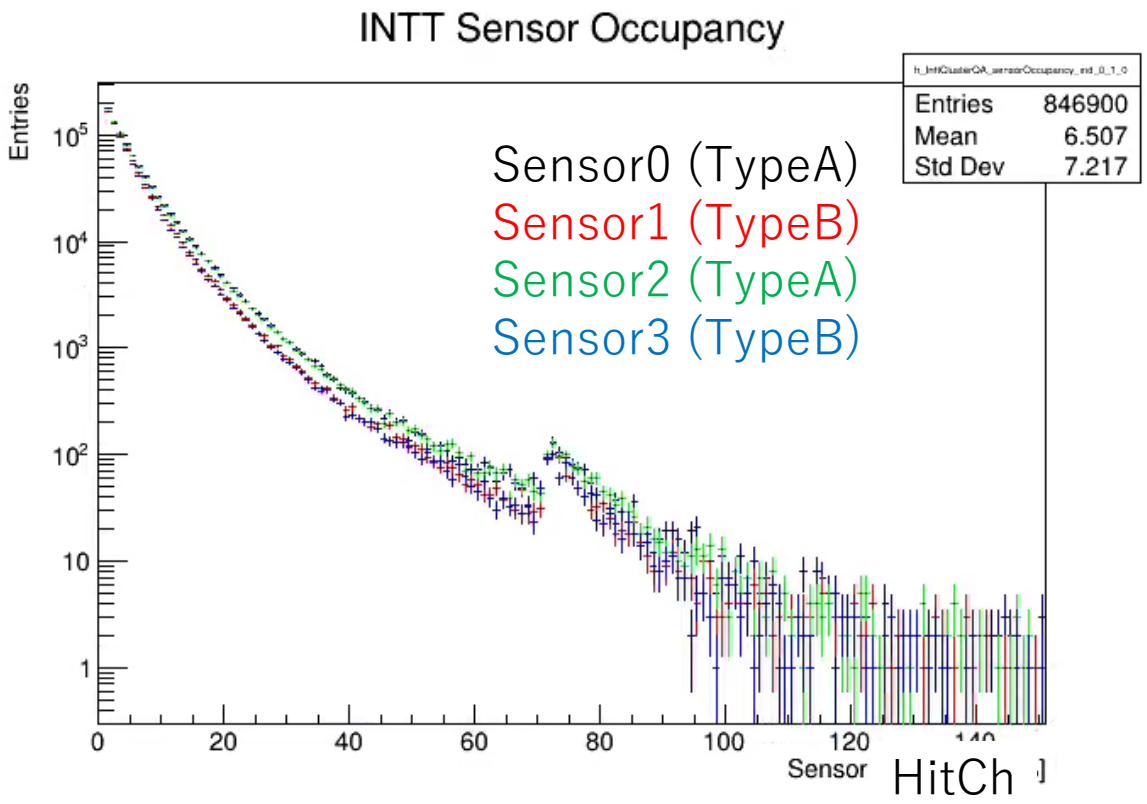
- This plot is from the online monitor. Similar plots is needed
  - I think Duration time can be calculated by GL1BCO
- I asked Joseph to implement this in offline QA



More detailed

- Occupancy : TrkrHitSet (hit level)
- occupancy = sensor_hits / (128. * 26.)

- Type A / B should be defferent

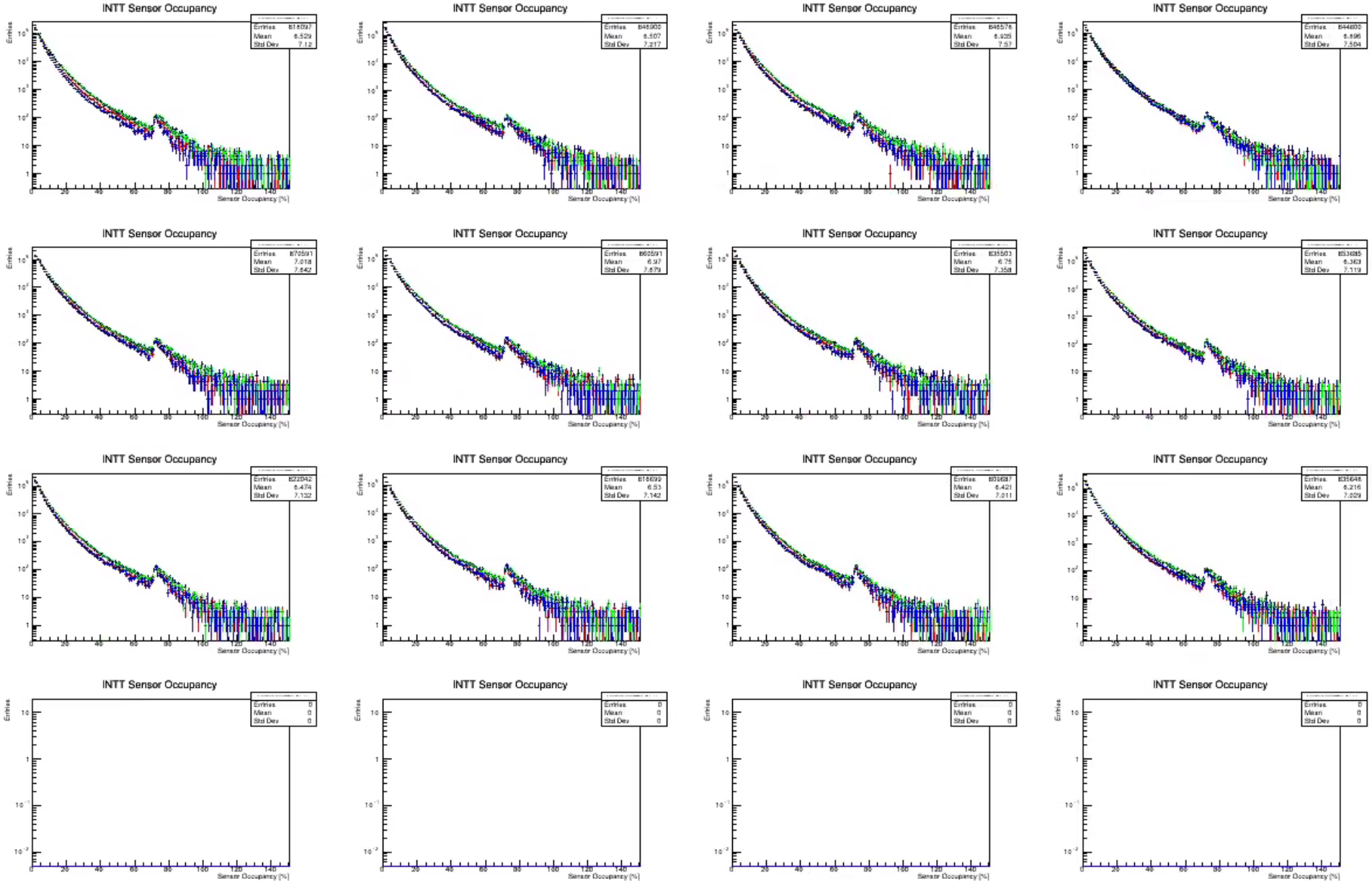


- For TypeA/B, a peak at 73 is appeared for all the sensors. Any ideas?

QA code checking for run

Sensor0 (TypeA)
Sensor1 (TypeB)
Sensor2 (TypeA)
Sensor3 (TypeB)

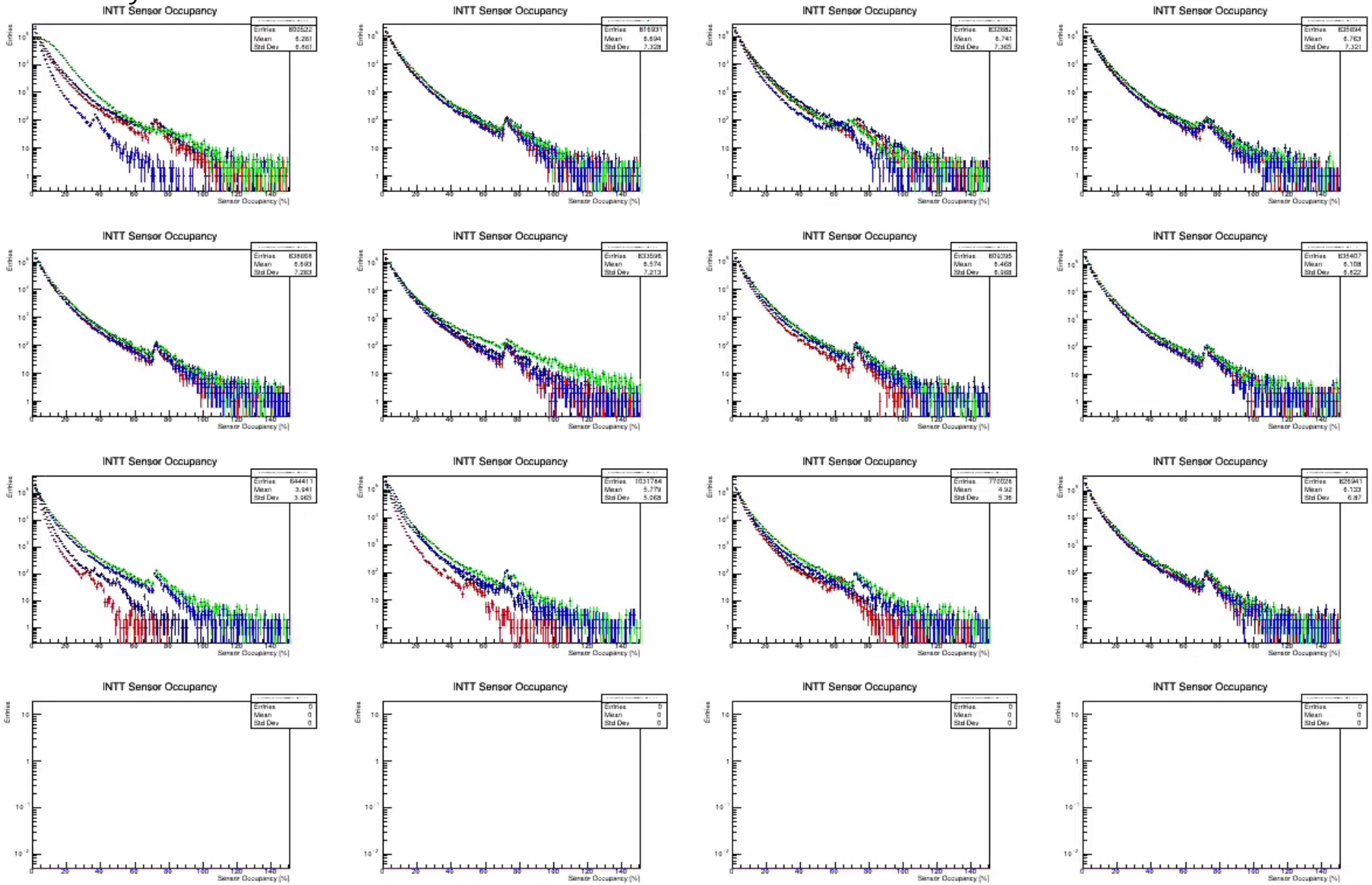
Layer0



QA code checking for run

Sensor0 (TypeA)
Sensor1 (TypeB)
Sensor2 (TypeA)
Sensor3 (TypeB)

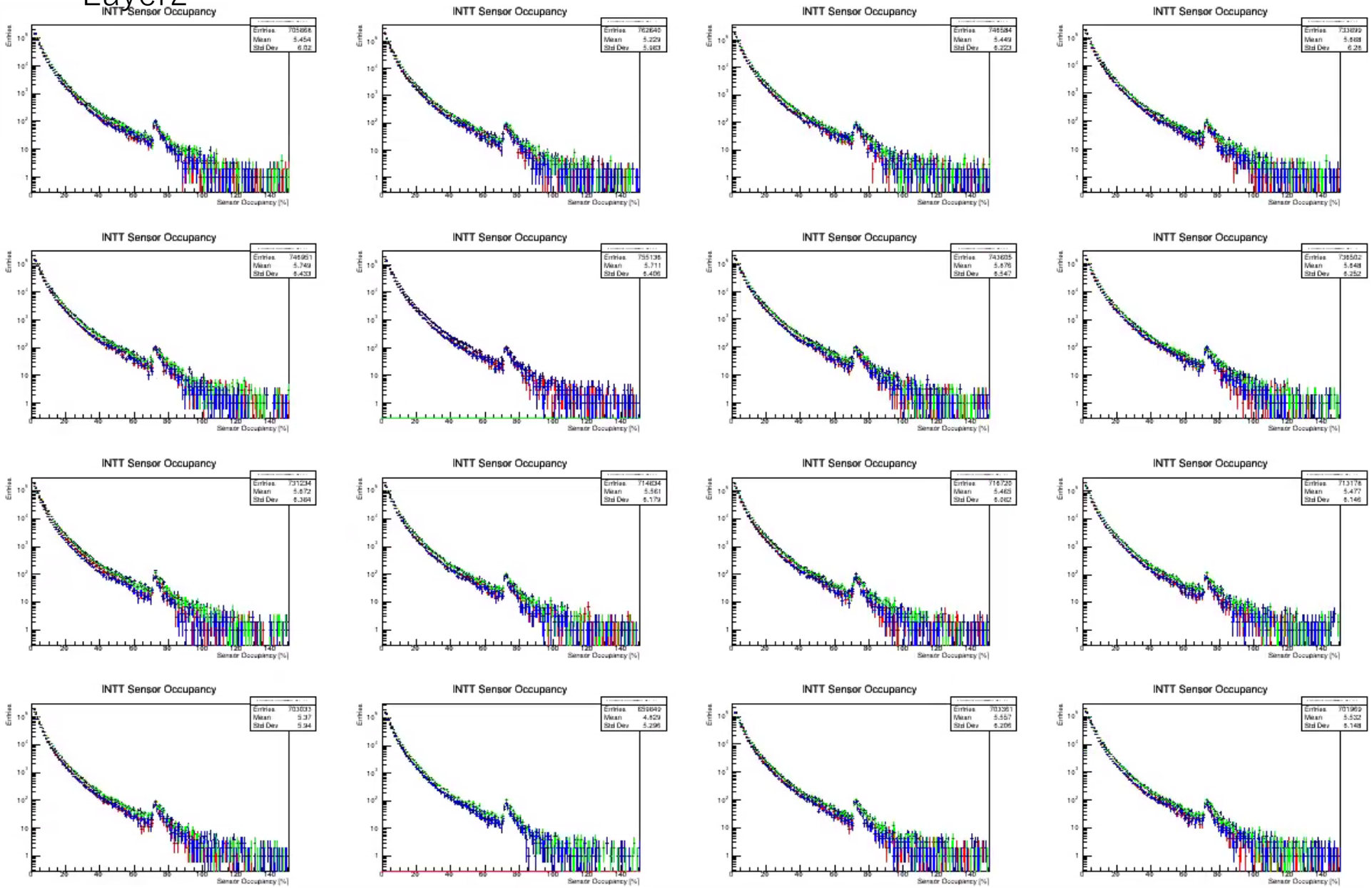
Layer1



QA code checking for run

Sensor0 (TypeA)
Sensor1 (TypeB)
Sensor2 (TypeA)
Sensor3 (TypeB)

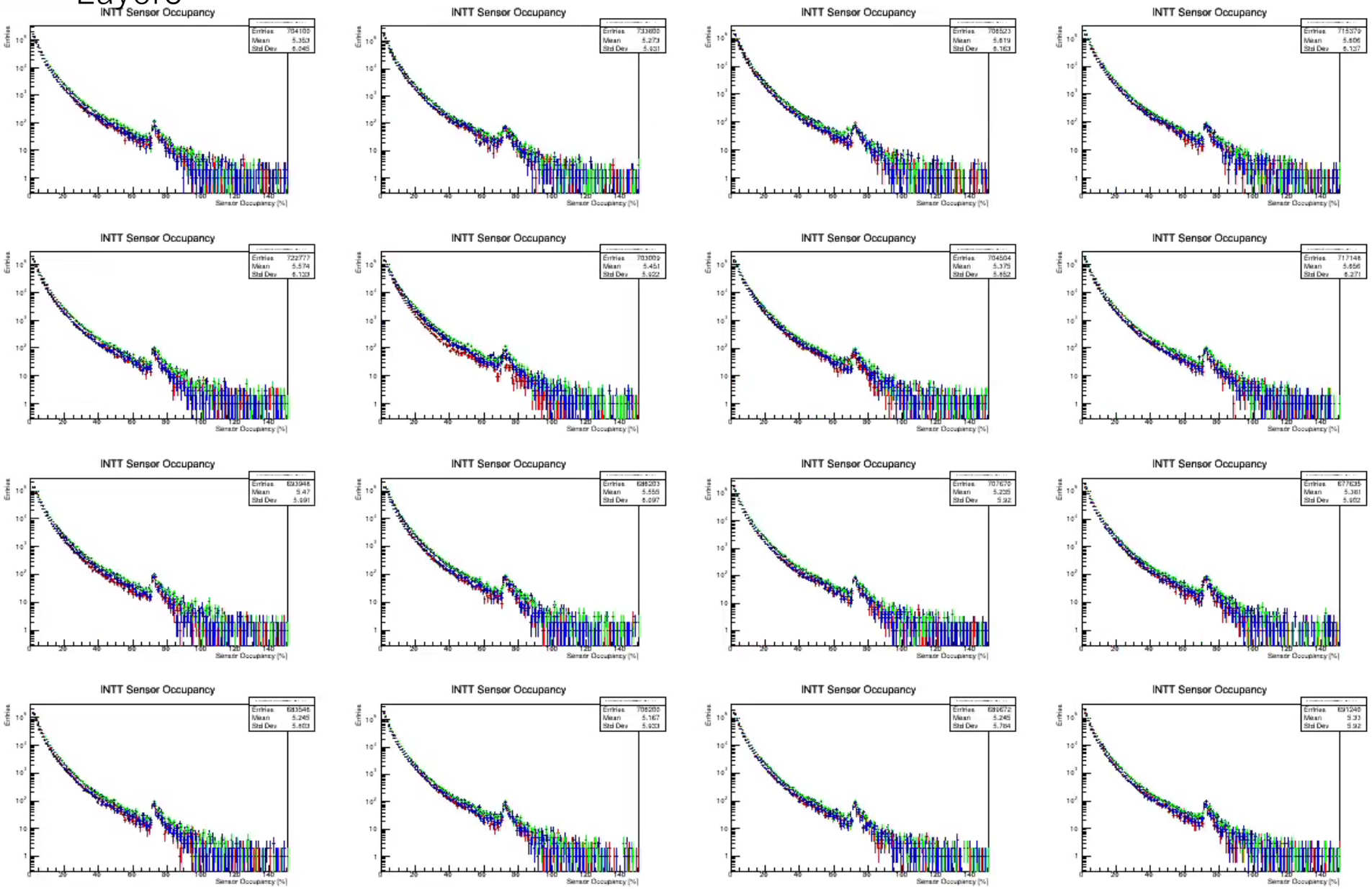
Layer2



QA code checking for run

Sensor0 (TypeA)
Sensor1 (TypeB)
Sensor2 (TypeA)
Sensor3 (TypeB)

Layer3



OFFLINE QA

- We are asked to prepare the offline QA plots from the DST production
  - Some people from tracking group are working on this topics
  - Good / Bad examples are also needed as reference.

- Genki's QA list
  - InttRawHit level
    - Hit rate: per FELIX or per ladder after clone hit rejection
    - Clone hitrate
    - BCO timing (Peak position of time timing plot (GTM BCO%0x7f - FPHX BCO) per ladder
    - Nbad channel per run
  - Trkr_hit level
    - Hit rate after bad channel rejection
    - ADC per ladder
    - Ratio of the number of Trkr_hit between the inner and the outer layer, South and north side
  - Trkr_cluster level
    - Ncluster rate per ladder
    - Cluster size, ADC distribution

- Some additional plots
  - INTT zvertex, INTT X-Y vertex (DCAxy)
  - INTT Ntracklets phi, theta
  - Correlations with other detectors
    - Nclusters with MVTX, EMC

Some raw level are ready
but cluster and higher level QA are not implemented