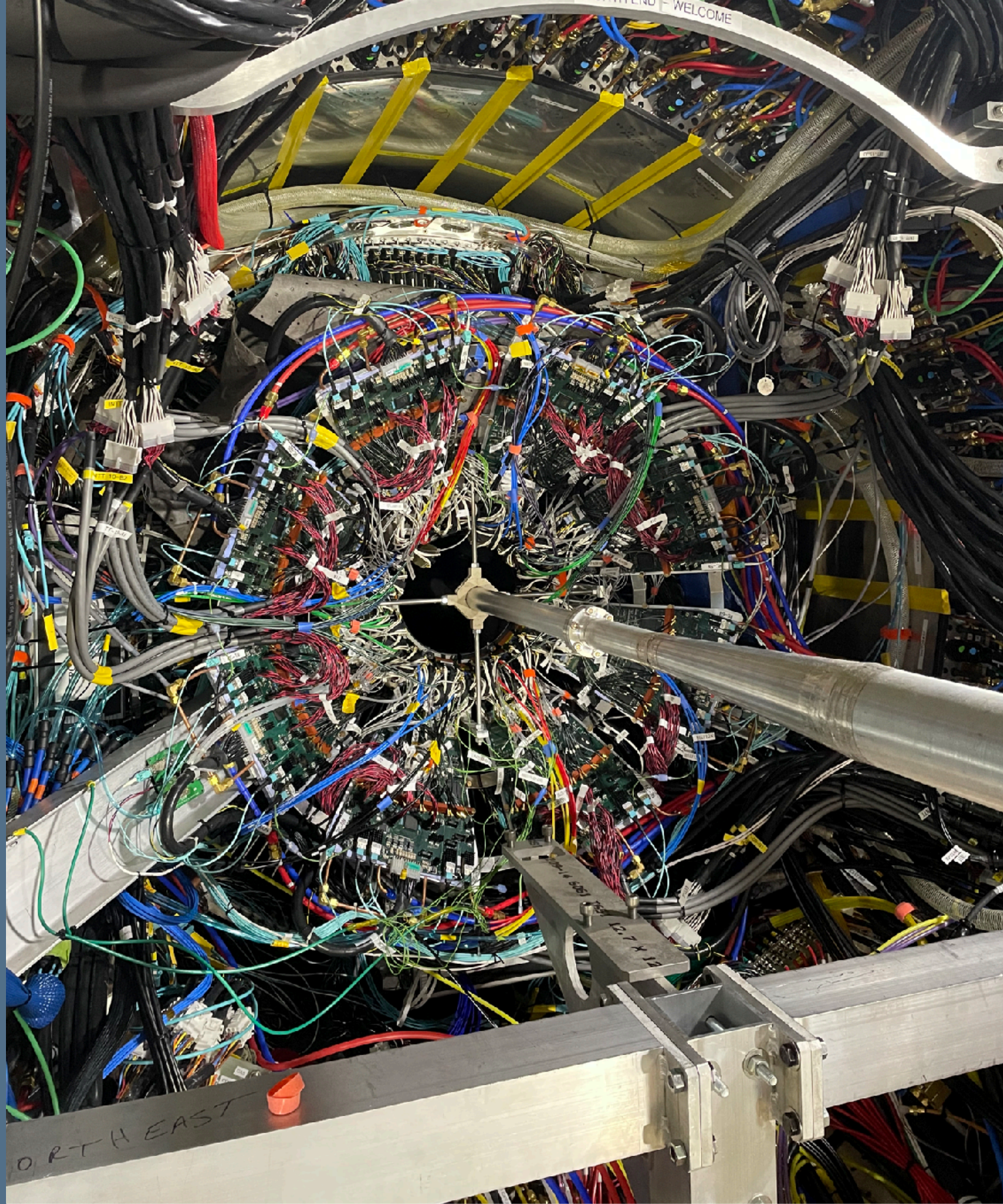


sPHENIX INTT - calibration analyzer

Cheng-Wei Shih
National Central University



2023/04/13 INTT meeting

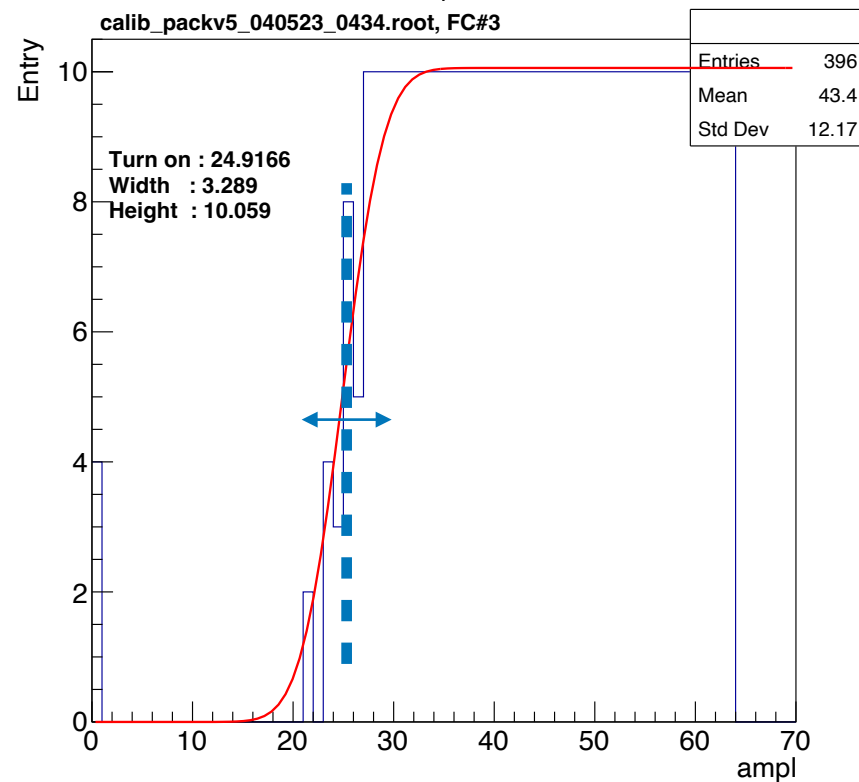


- 1st commissioning is kind of done.
 - North side : 16 chips don't have bias, RC-3N & one chip not functional
 - South side : 10 chips don't have bias, RC-7S & one chip not functional
- Roughly speaking : 2884 / 2912

- Calibration at IR, with Felix readout
 - Goal : ladder inspections & calibration-data based dead-channel map
 - Threshold : high (threshold 28 or 30 for some of the runs)
 - Classification → rough (currently classify the channel by checks 4 aspects)

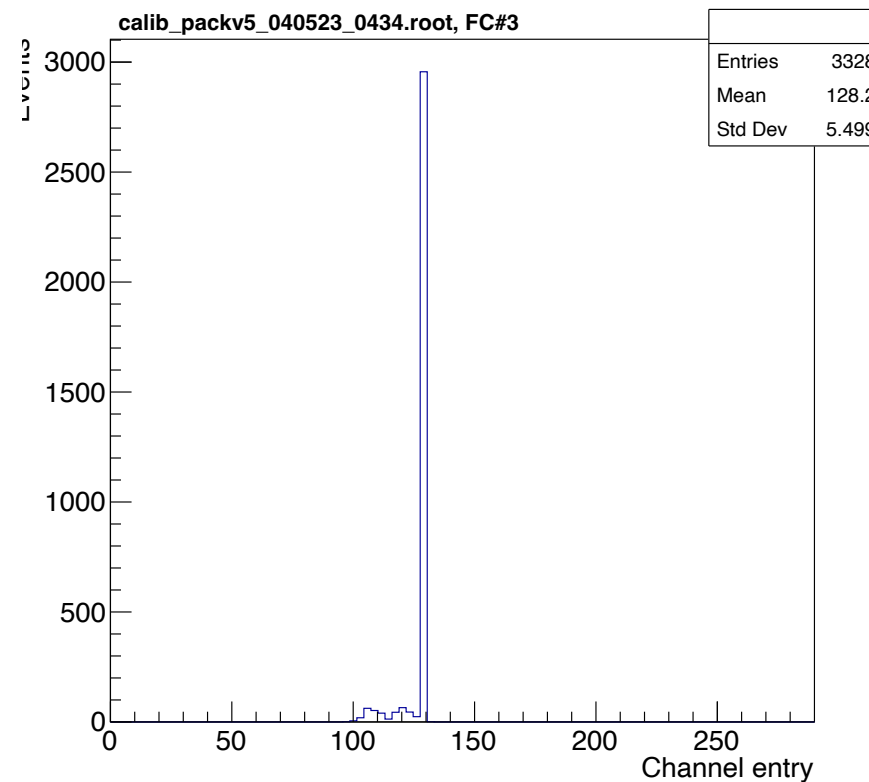
Threshold position & width

B1L002S, U26-ch0



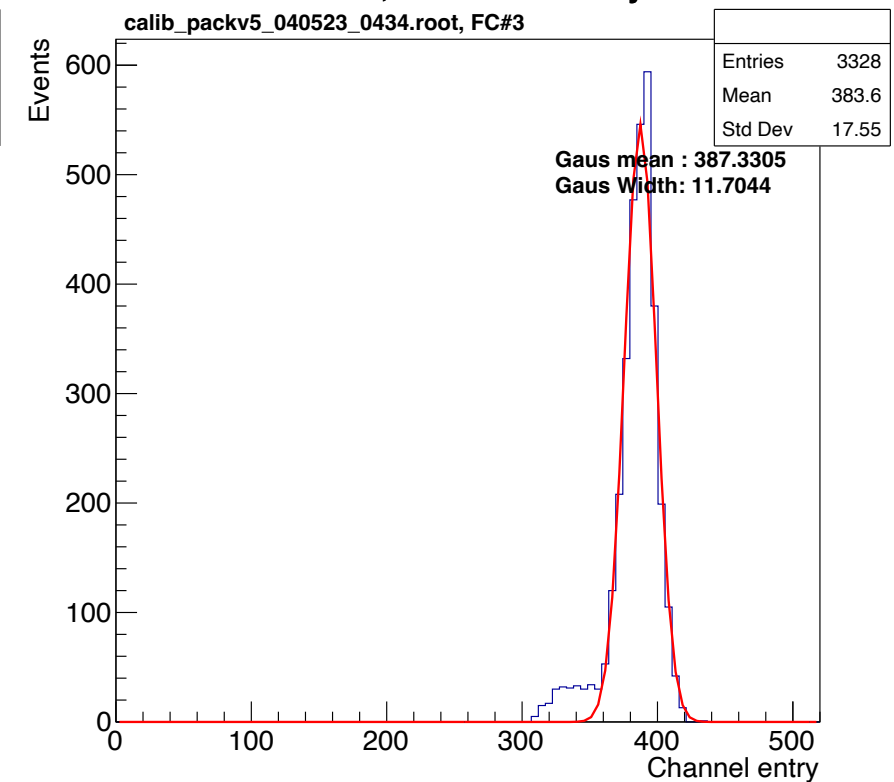
Channel entry w/ ampl cut

B1L002S, channel entry distribution (ampl > 50)



Channel entry

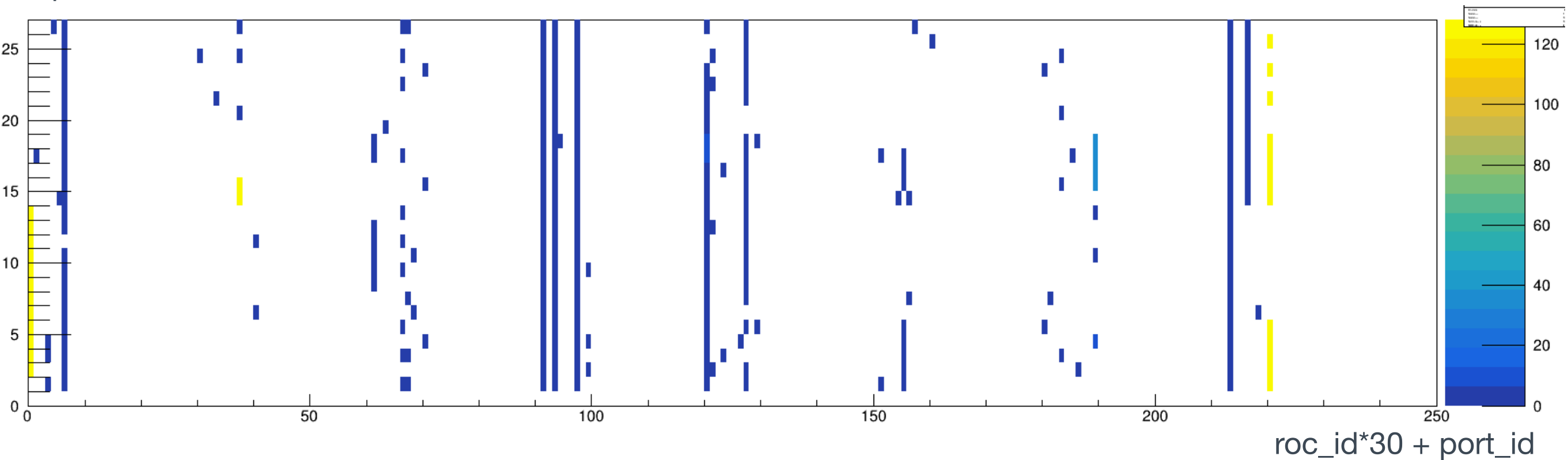
B1L002S, channel entry dist



Total bad channels : 3938

Bad channel map

Chip



ROC ID : 0 to 7

Port ID :

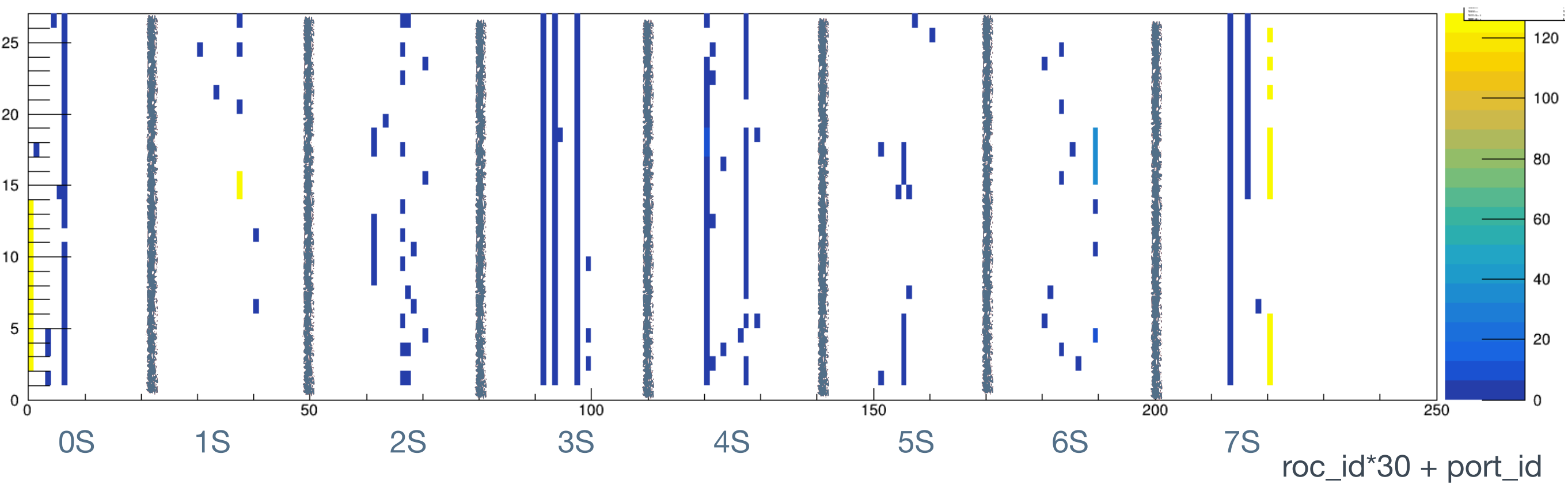
A1 -> 0, A2 -> 1, A3 -> 2

B1 -> 3, B2 -> 4, B3 -> 5

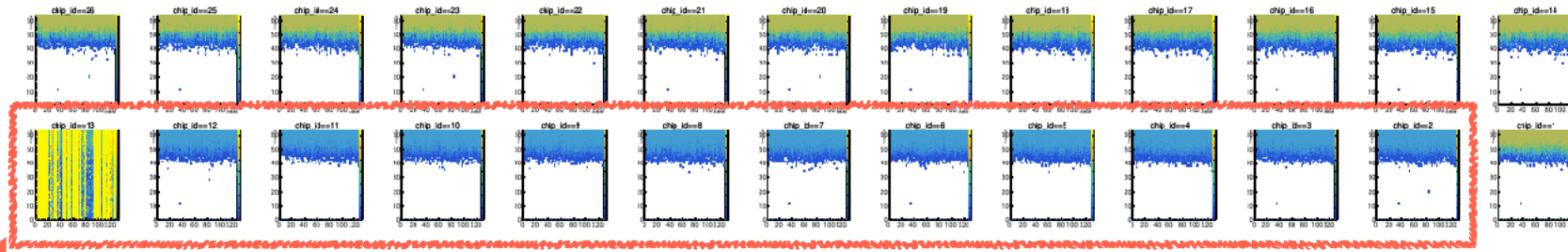
C1 -> 6, C2 -> 7, C3 -> 8

D1 -> 9, D2 -> 10, D3 -> 11

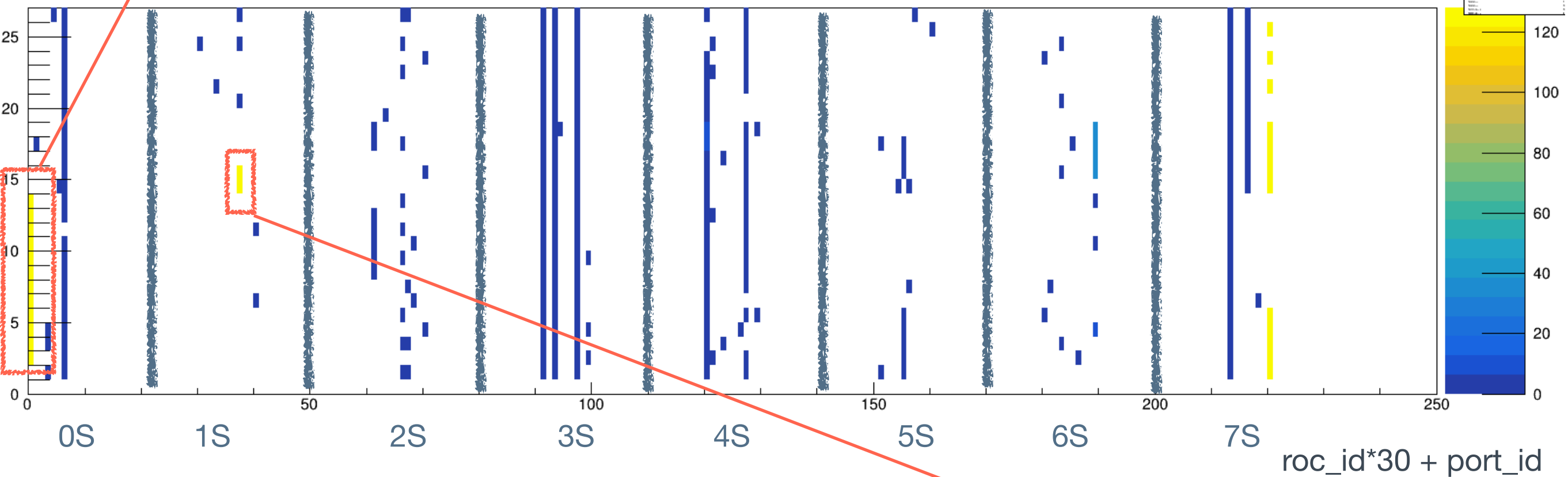
Chip



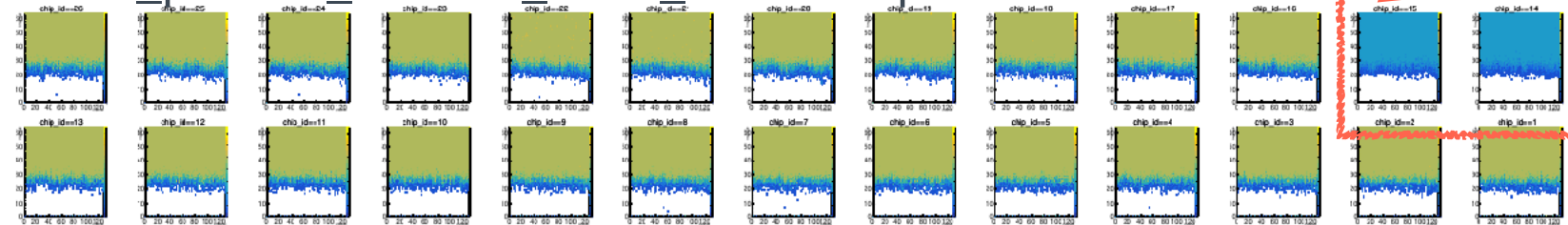
calib_packv5_032323_2225_module5.pdf



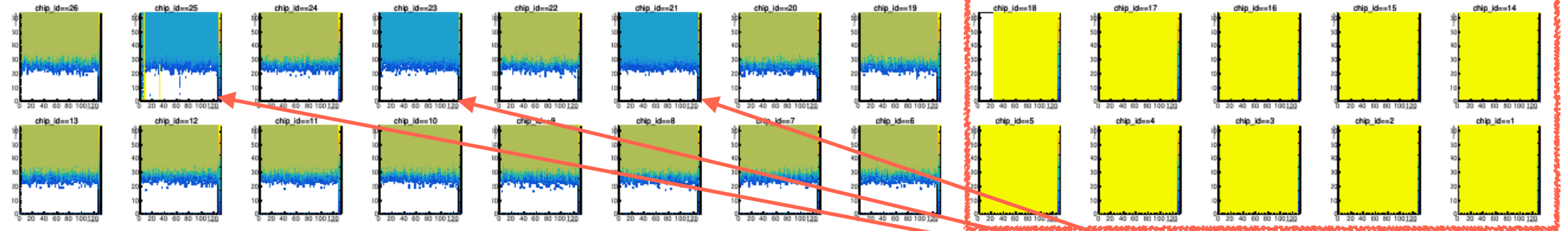
Chip



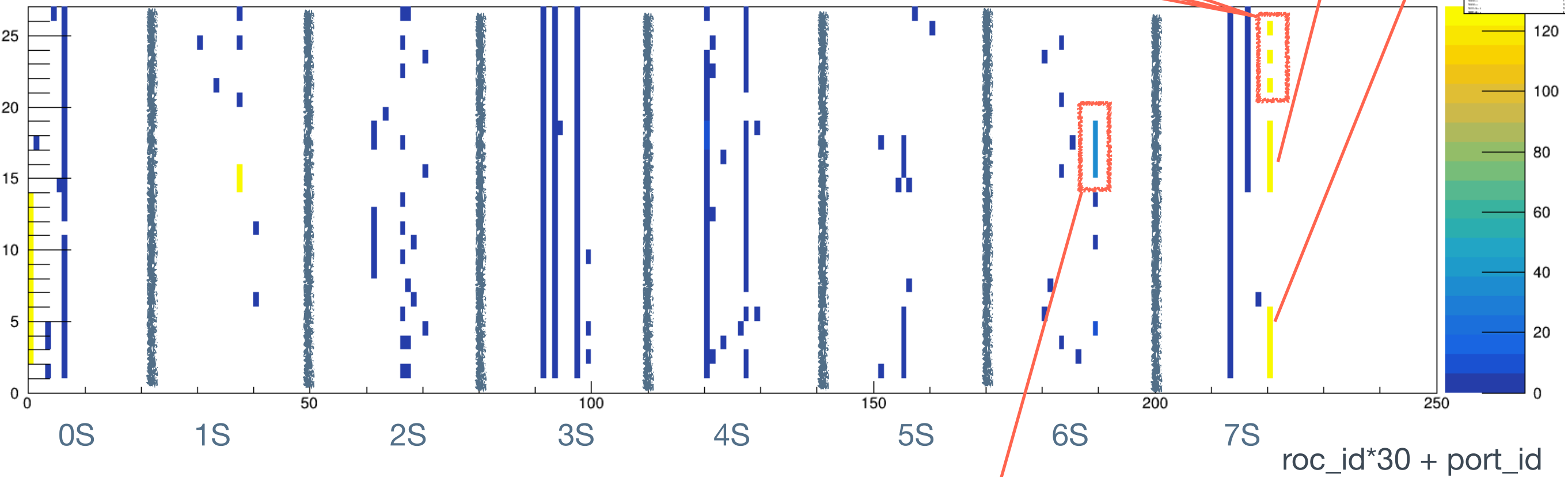
calib_packv5_032123_0259_module7.pdf



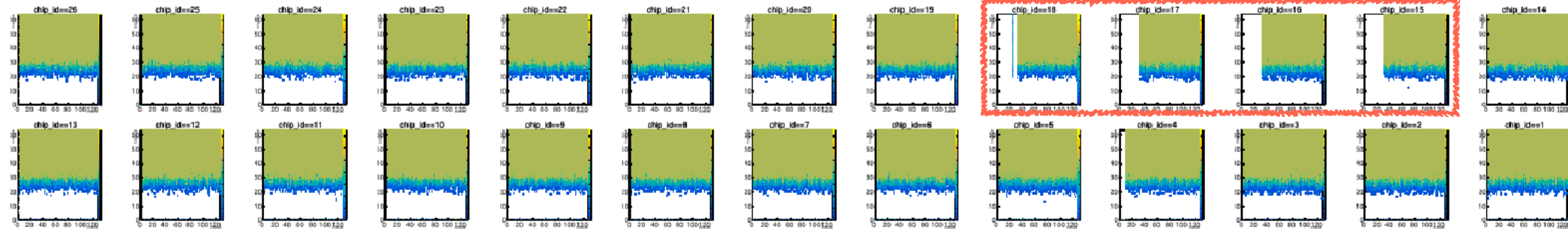
calib_packv5_032323_0518_module13.pdf



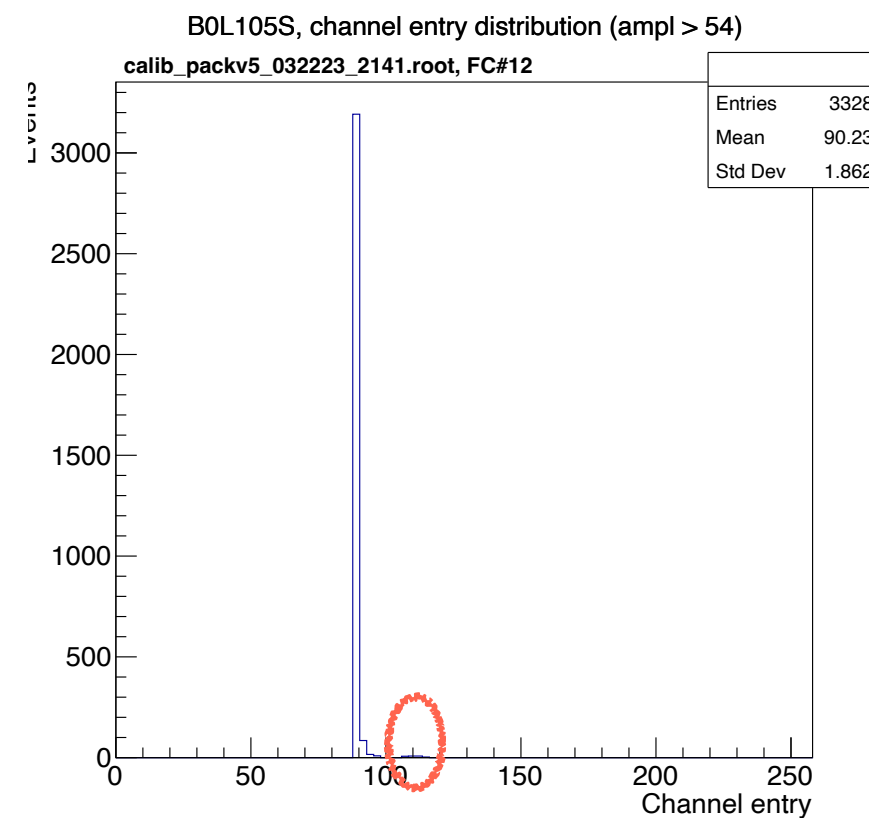
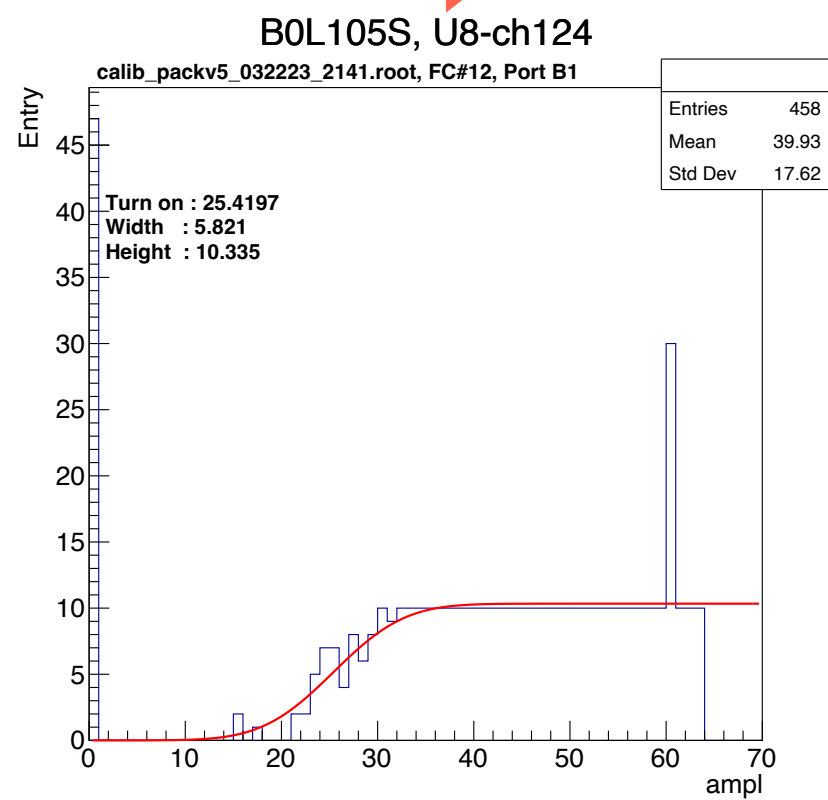
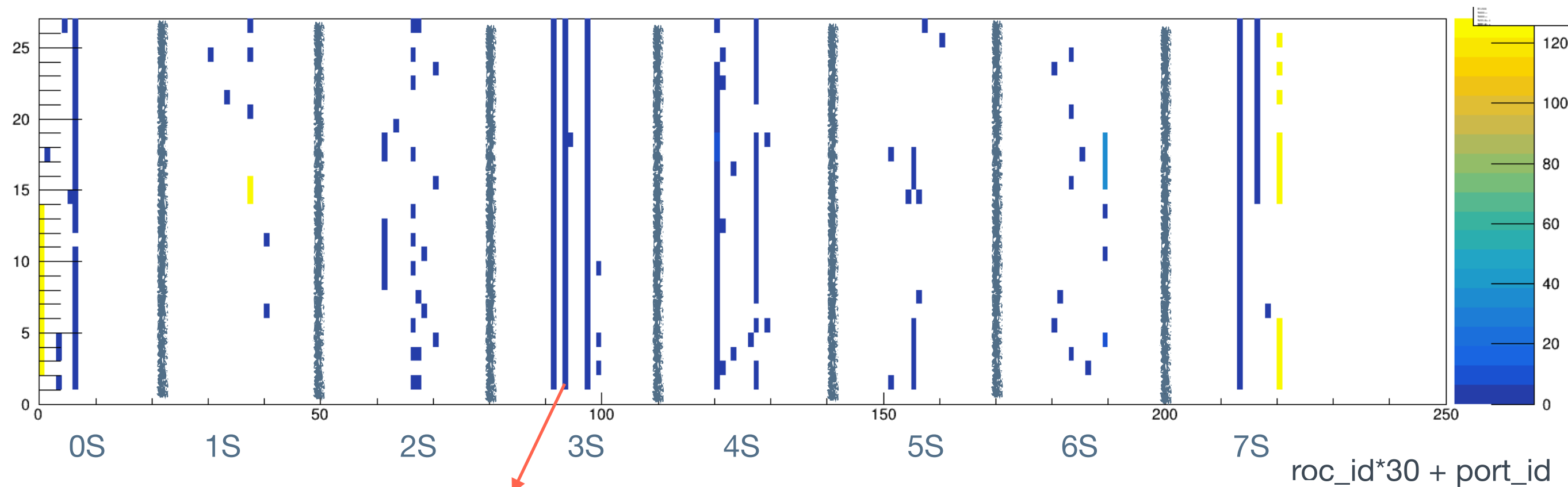
Chip



calib_packv5_032323_0602_module5.pdf

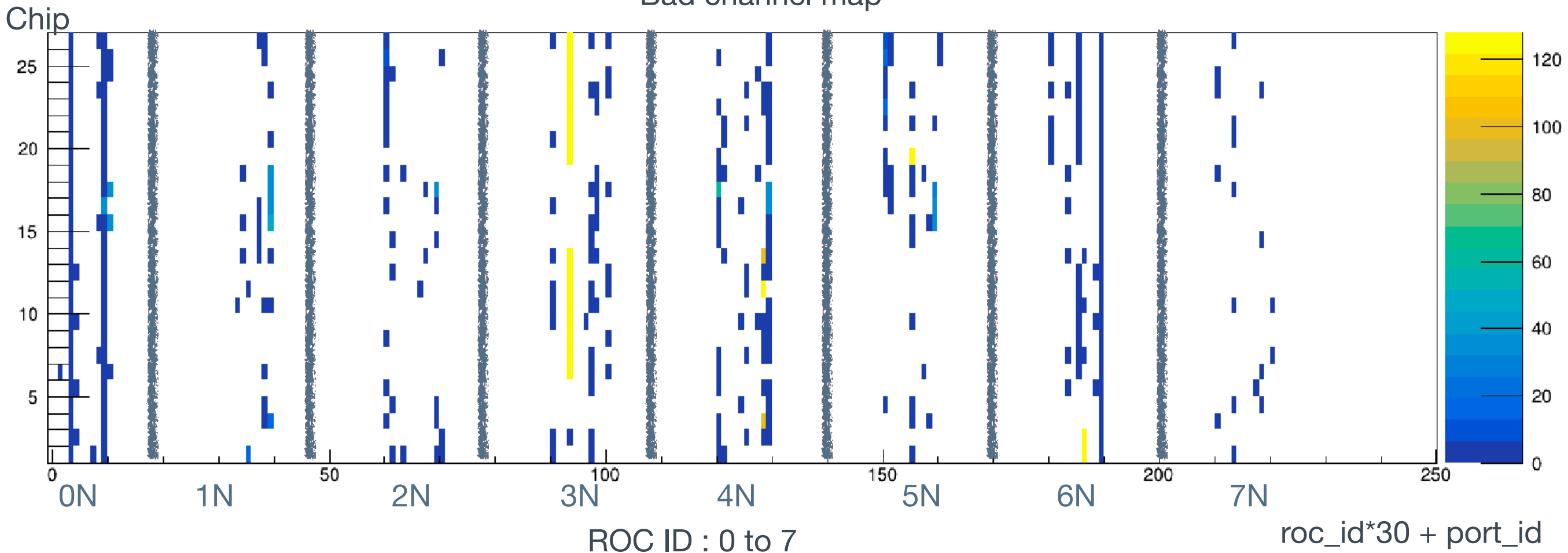


Chip



Total bad channels : 3760

Bad channel map



Port ID :

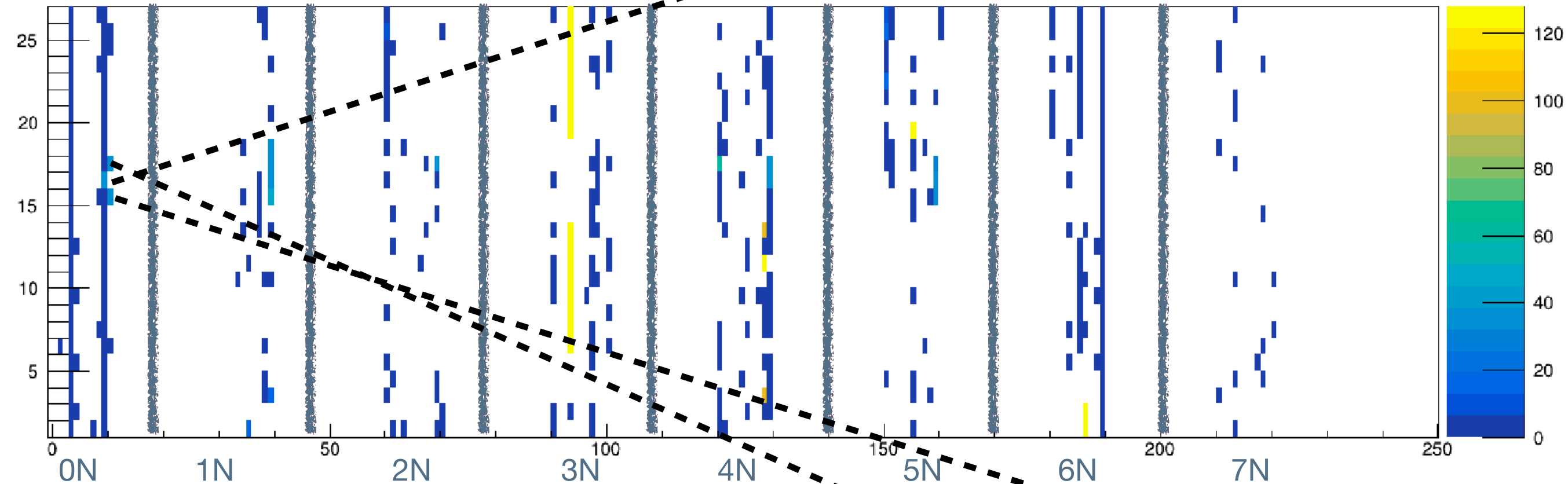
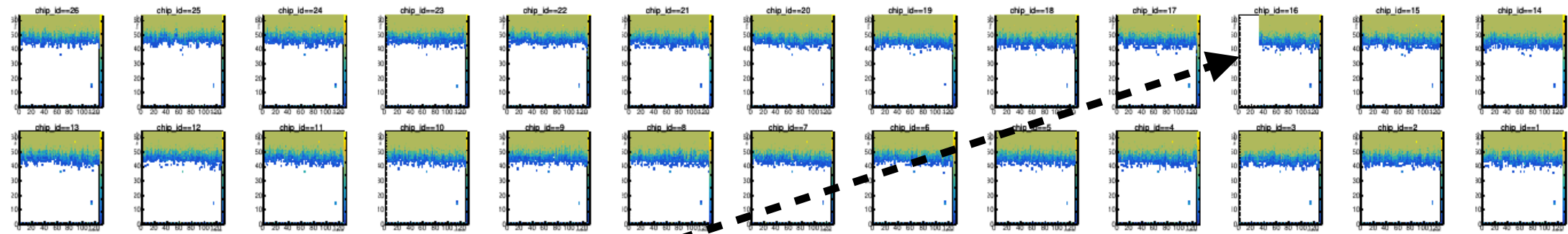
A1 -> 0, A2 -> 1, A3 -> 2

B1 -> 3, B2 -> 4, B3 -> 5

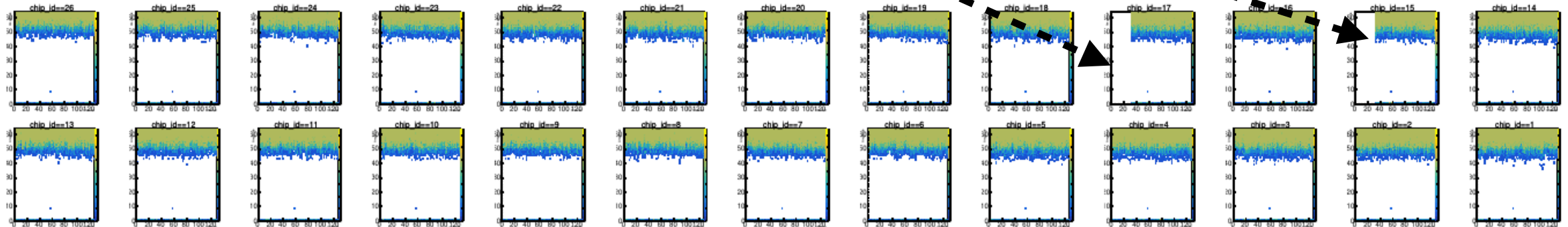
C1 -> 6, C2 -> 7, C3 -> 8

D1 -> 9, D2 -> 10, D3 -> 11

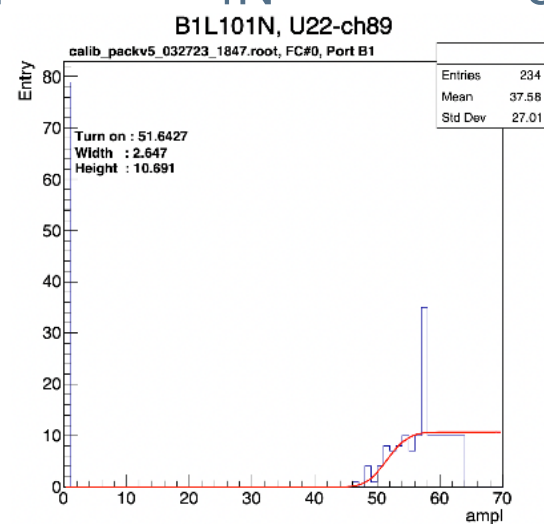
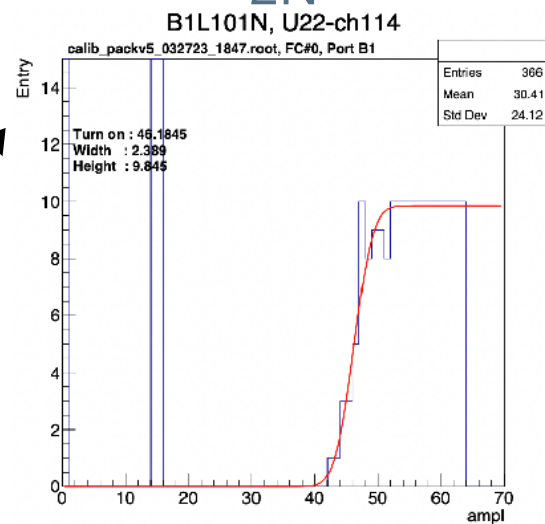
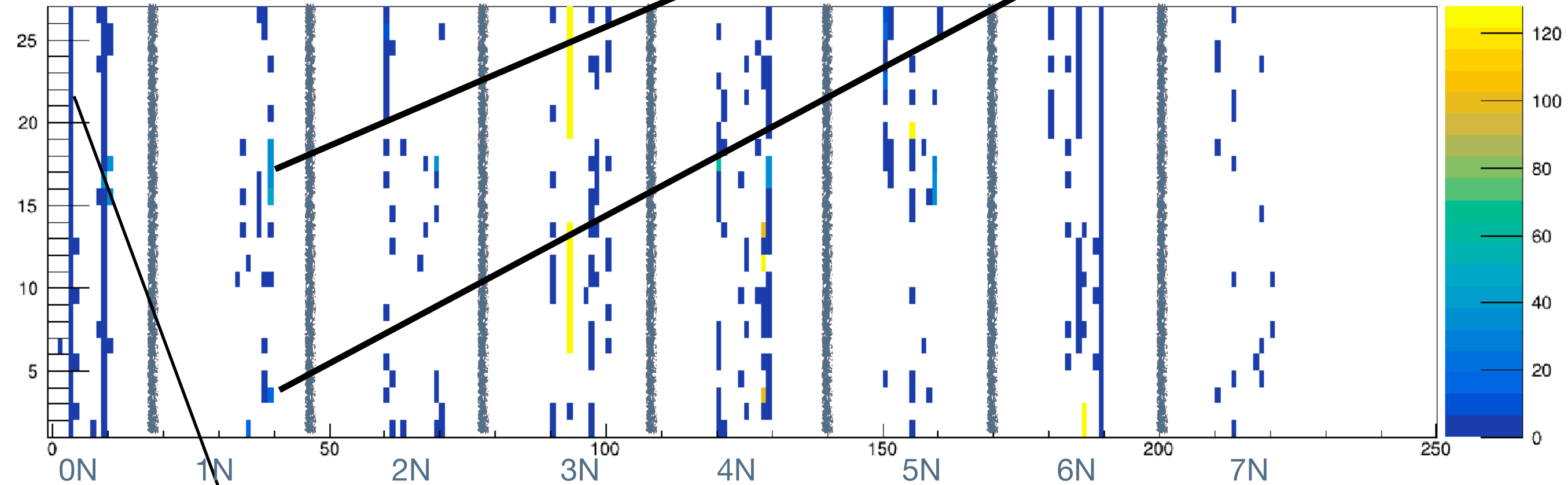
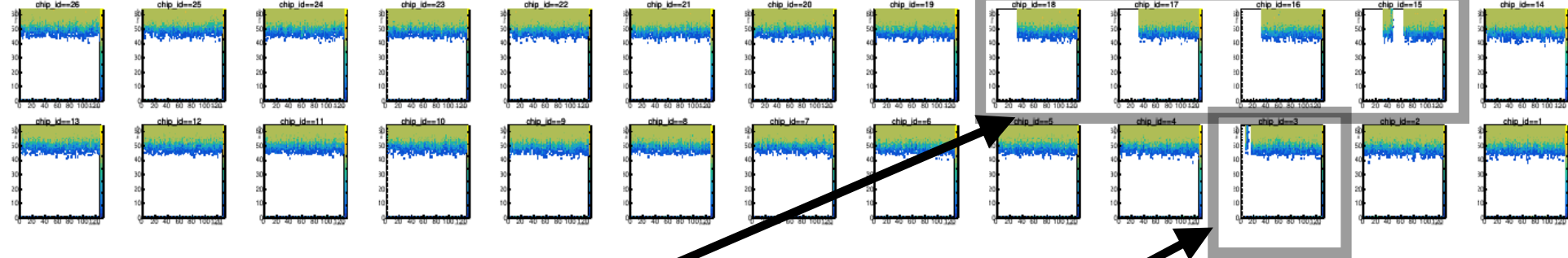
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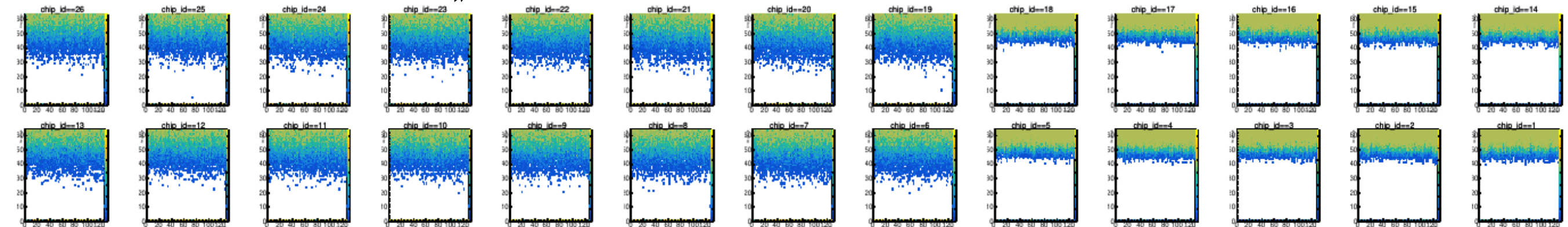
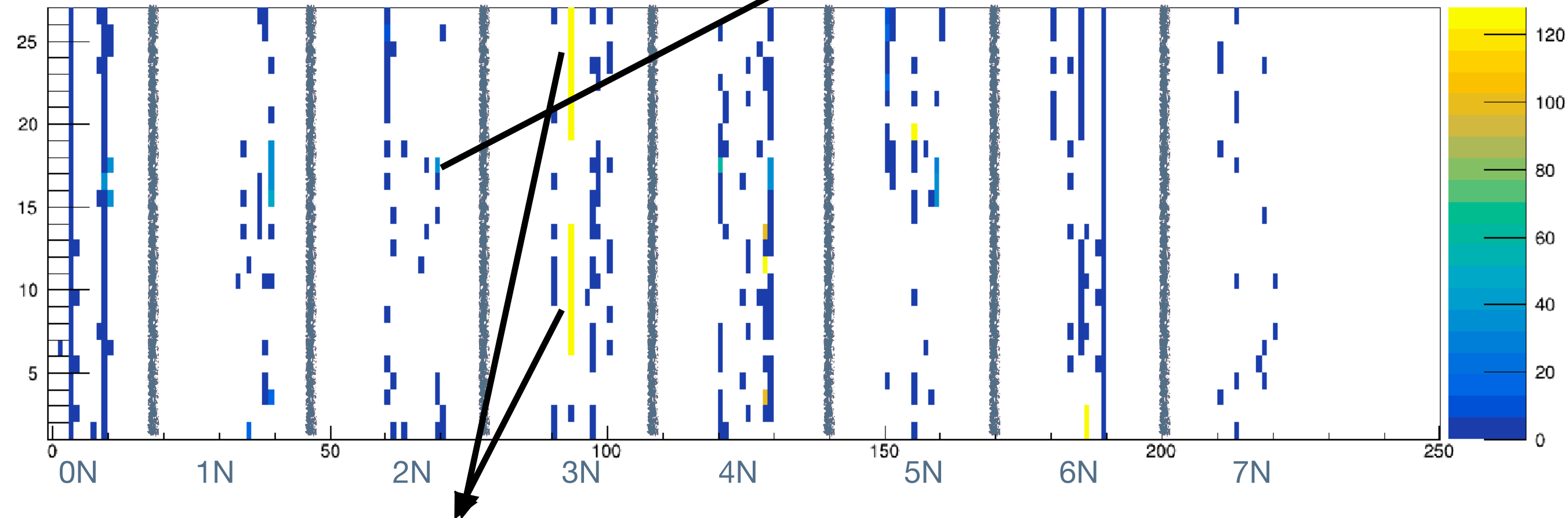
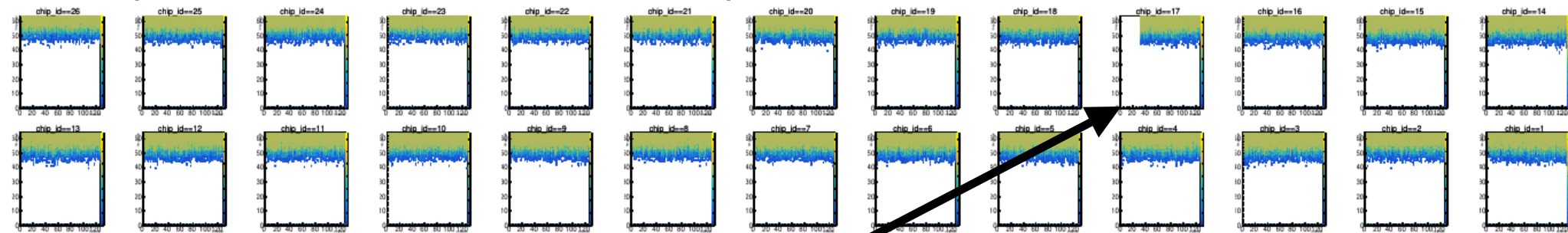
calib_packv5_032723_1847_module6.pdf



calib_packv5_032723_2119_module2.pdf

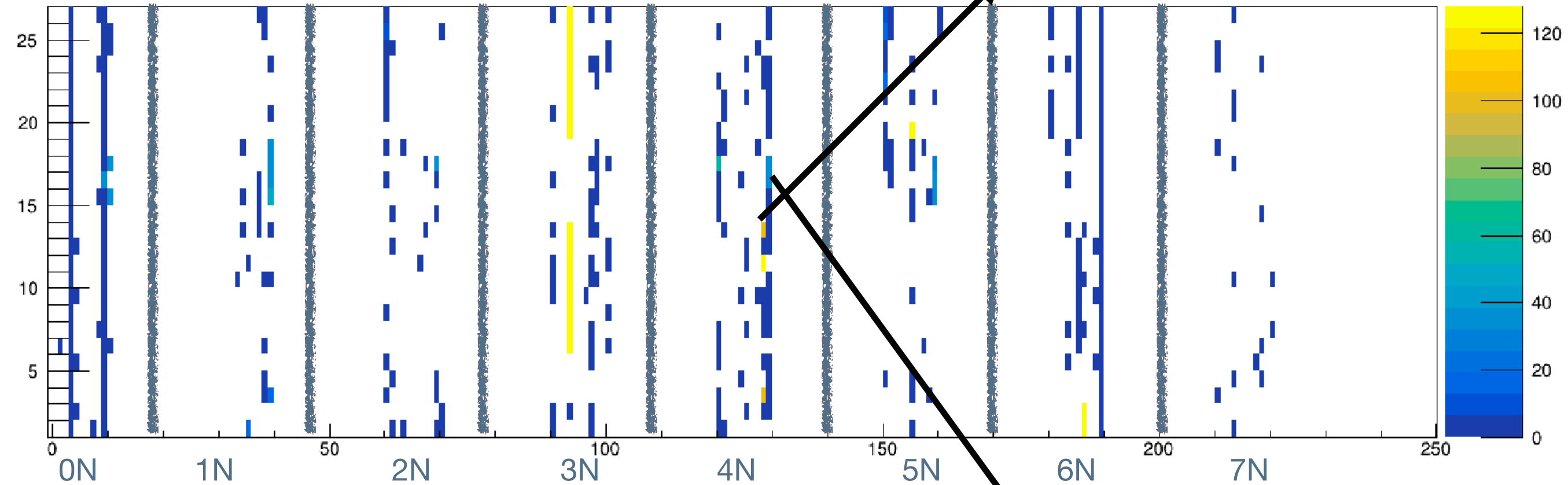
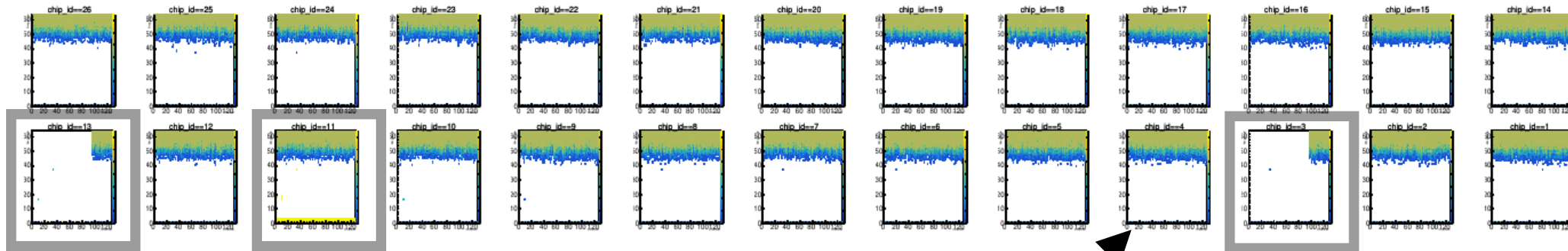


calib_packv5_032823_0032_module3.pdf

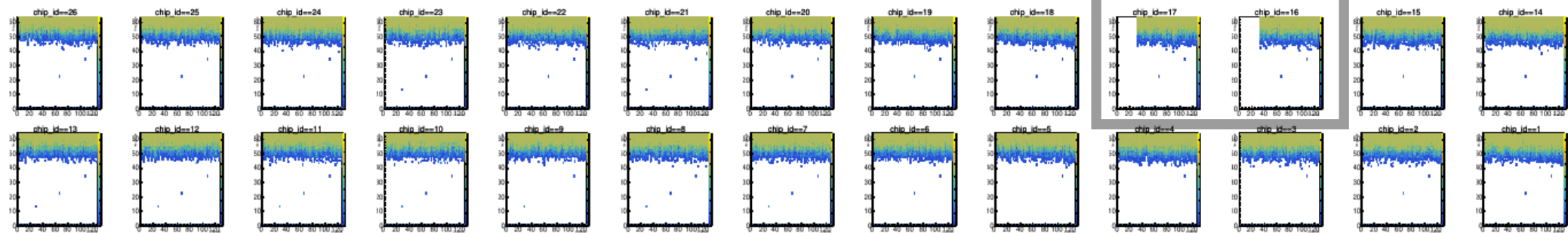


calib_packv5_032923_0116_module1.pdf

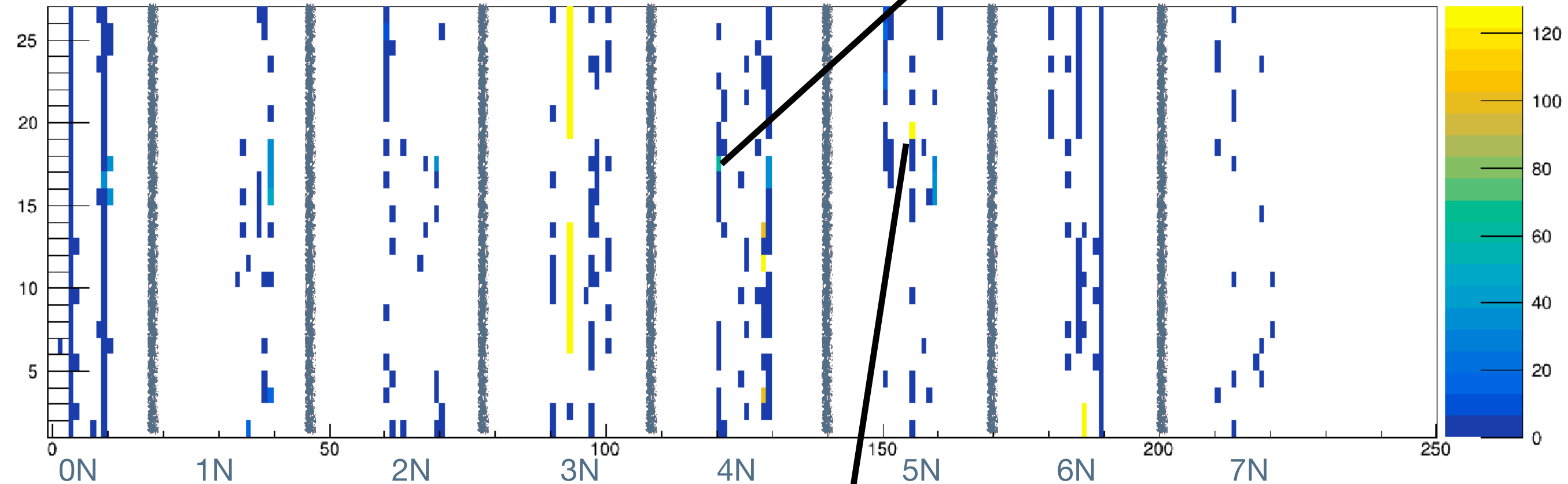
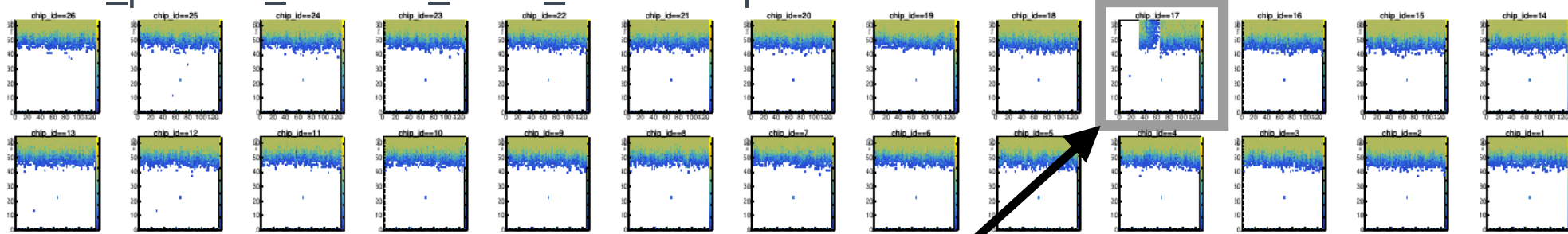
calib_packv5_032823_1745_module1.pdf



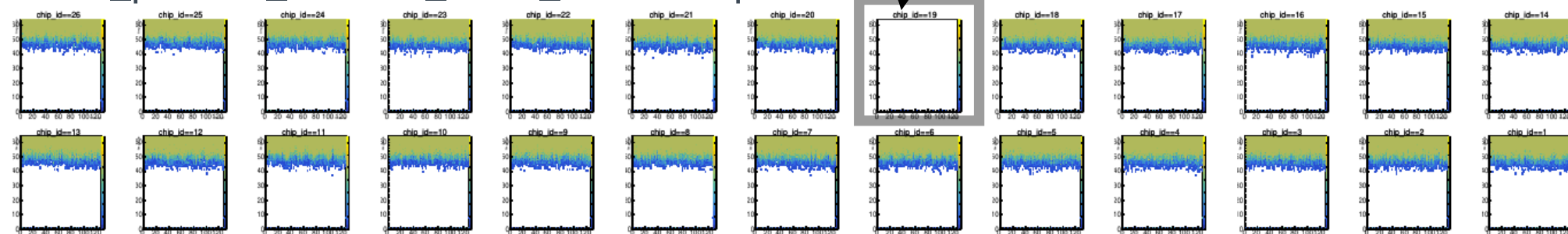
calib_packv5_032823_1745_module3.pdf



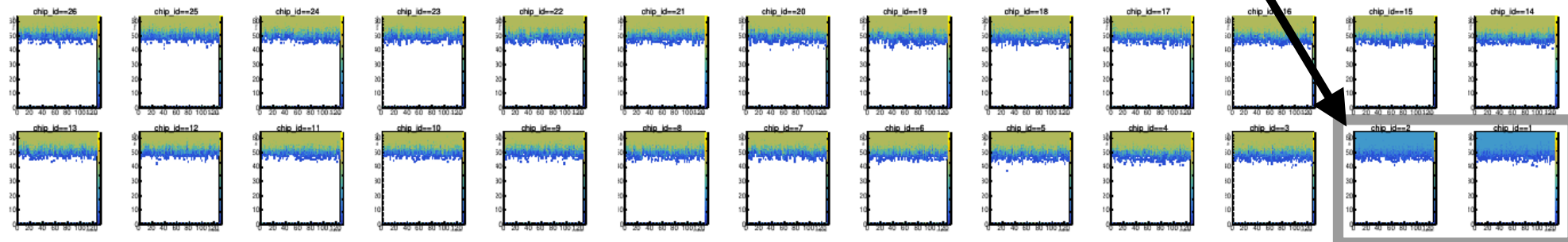
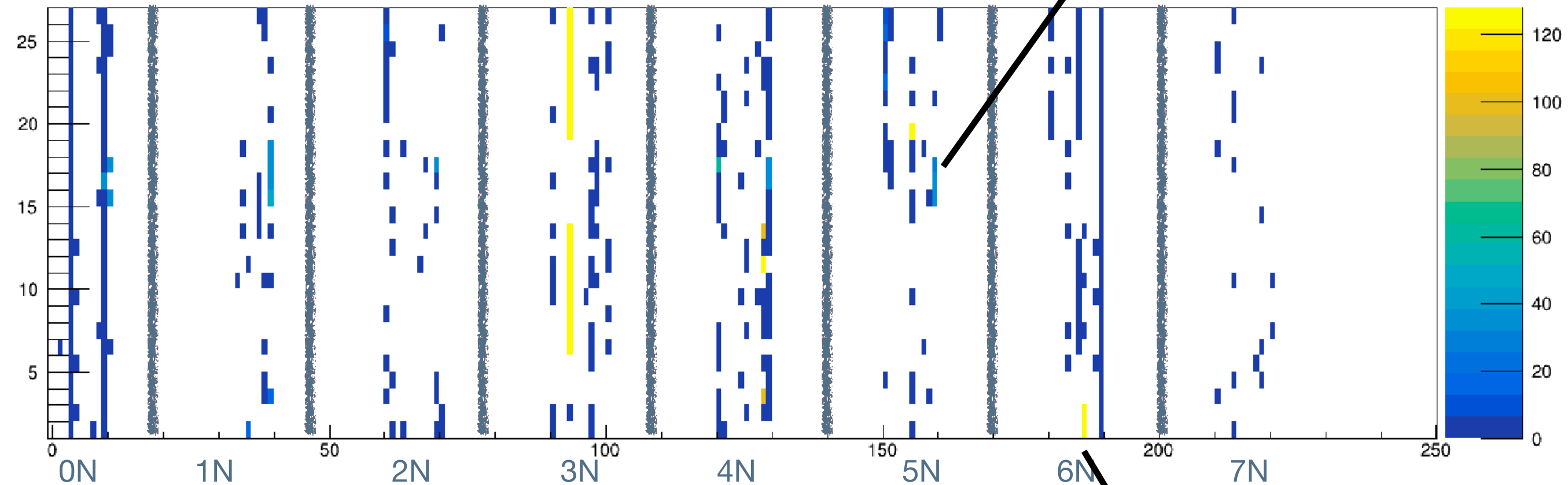
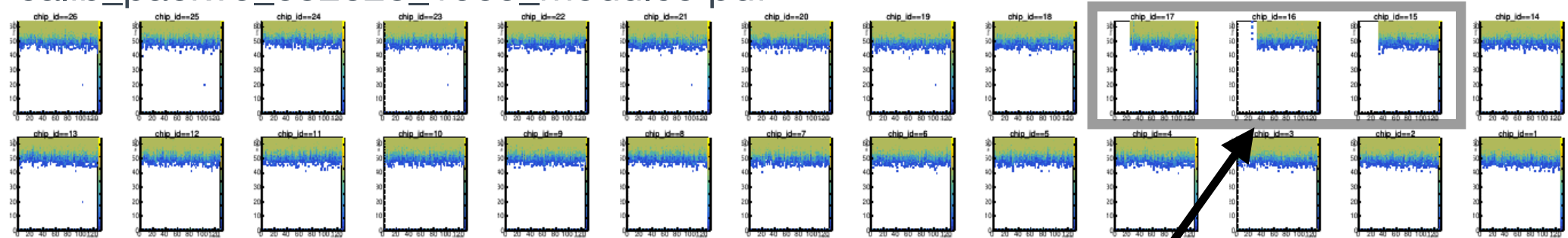
calib_packv5_032823_1745_module0.pdf



calib_packv5_032823_1505_module5.pdf



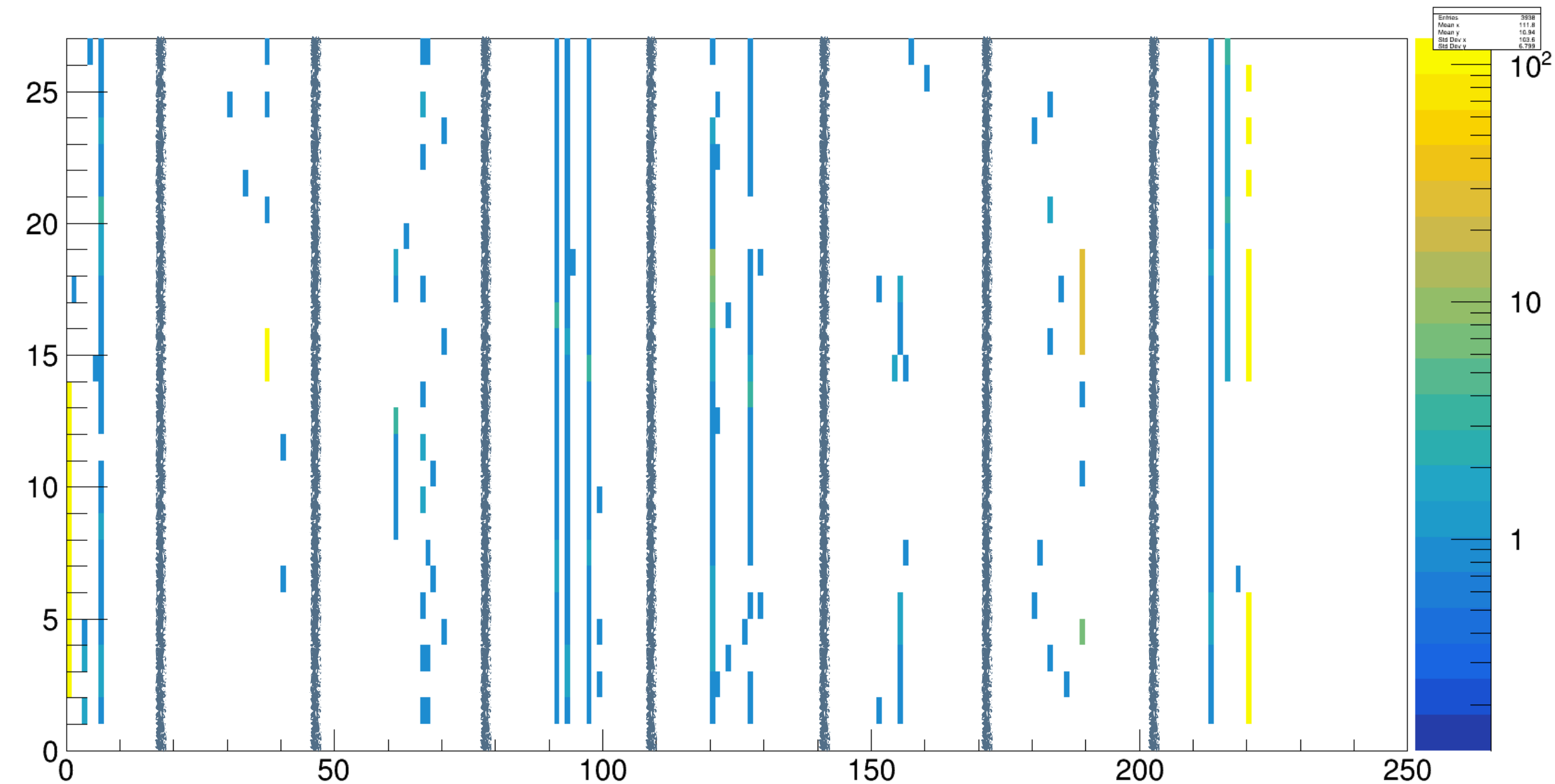
calib_packv5_032823_1505_module0.pdf

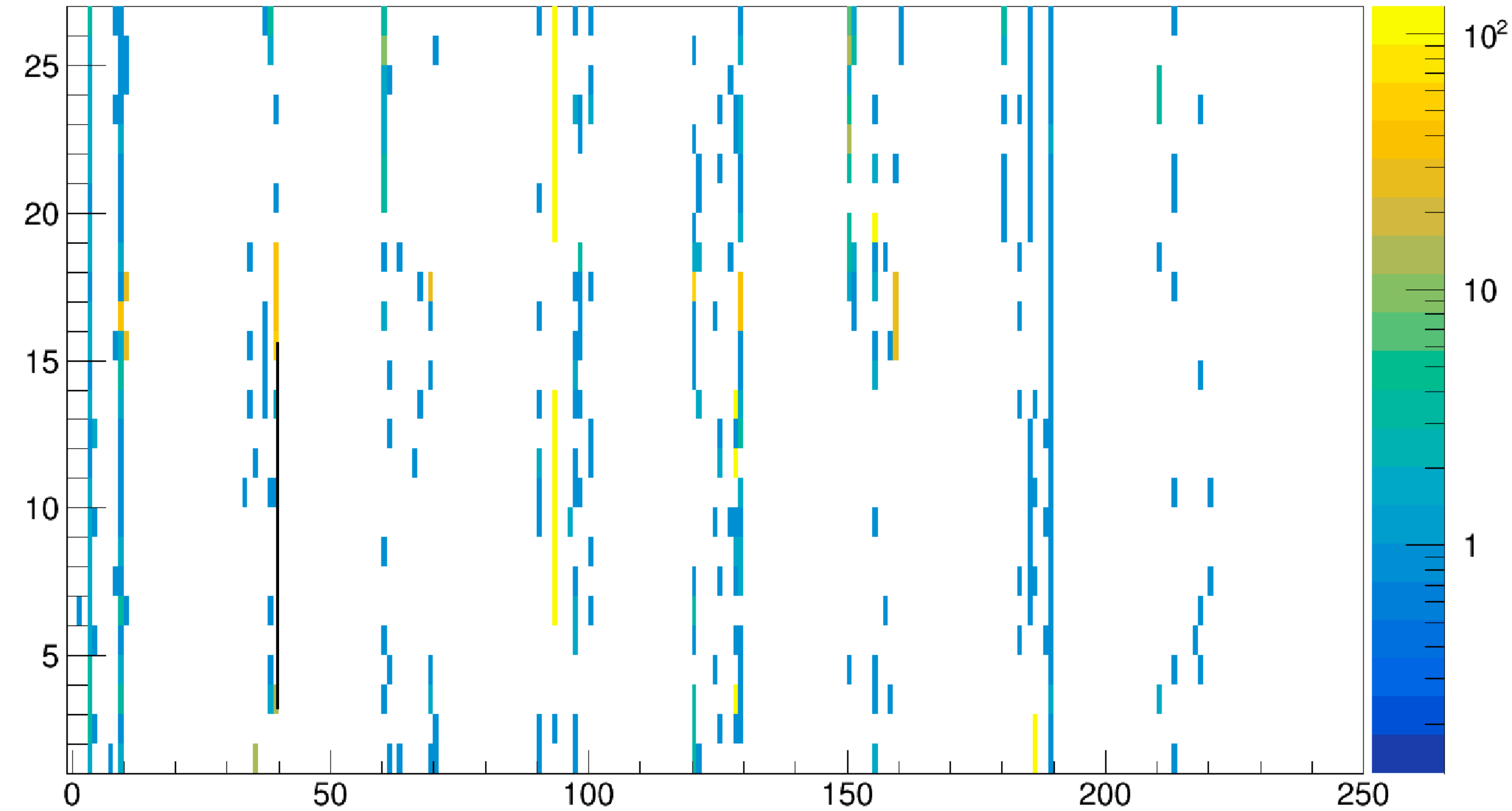


calib_packv5_032723_1719_module1.pdf

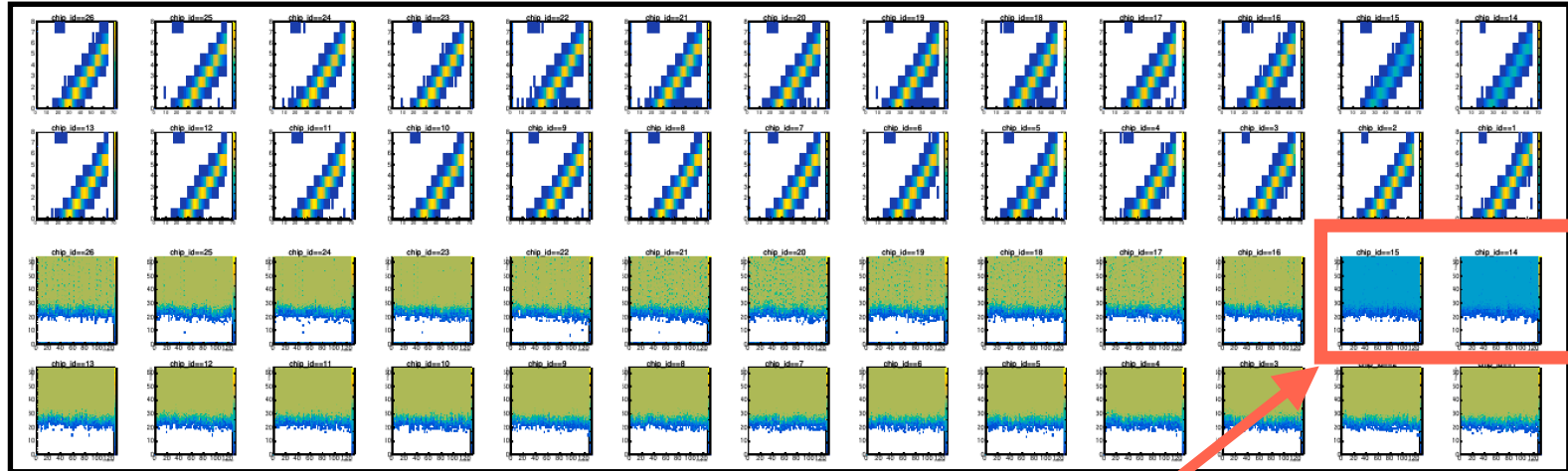
- If consider 4 cuts
 - North : 3760
 - South : 3938
- If only consider the “ch entry cut” and “ch entry with ampl cut”
 - North : 3598
 - South : 3887
- Missing-channel chips is promising to be fixed

Backup

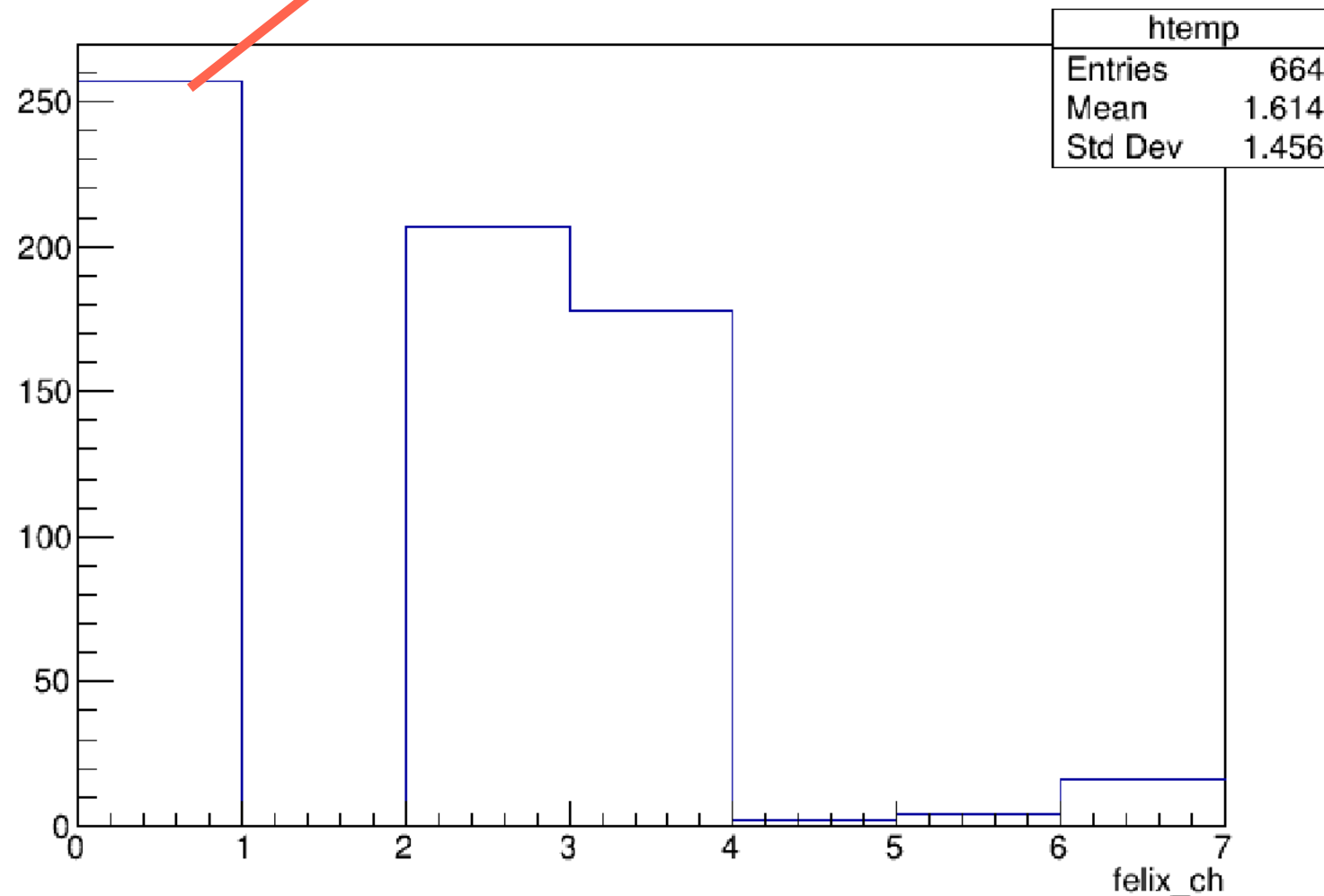


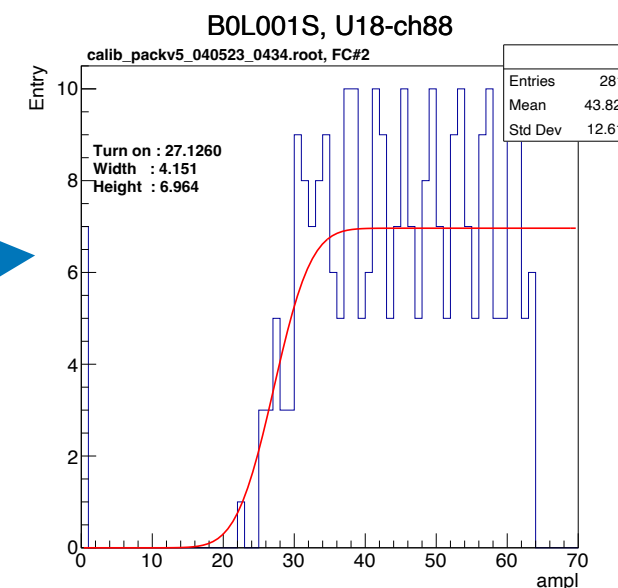
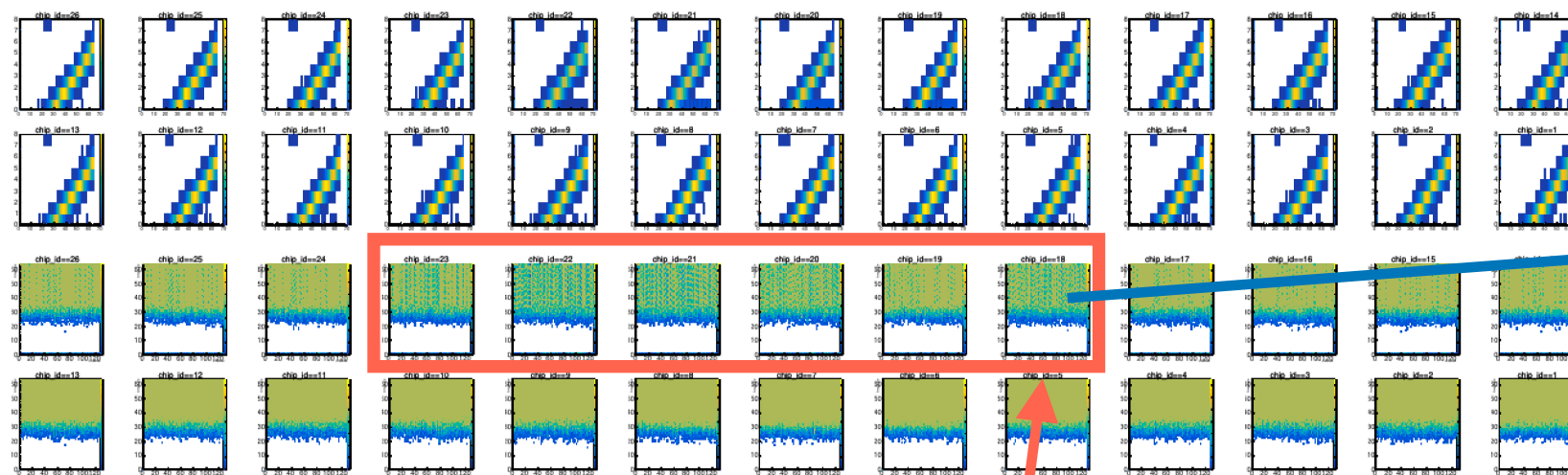


RC-1S, felix channel 0

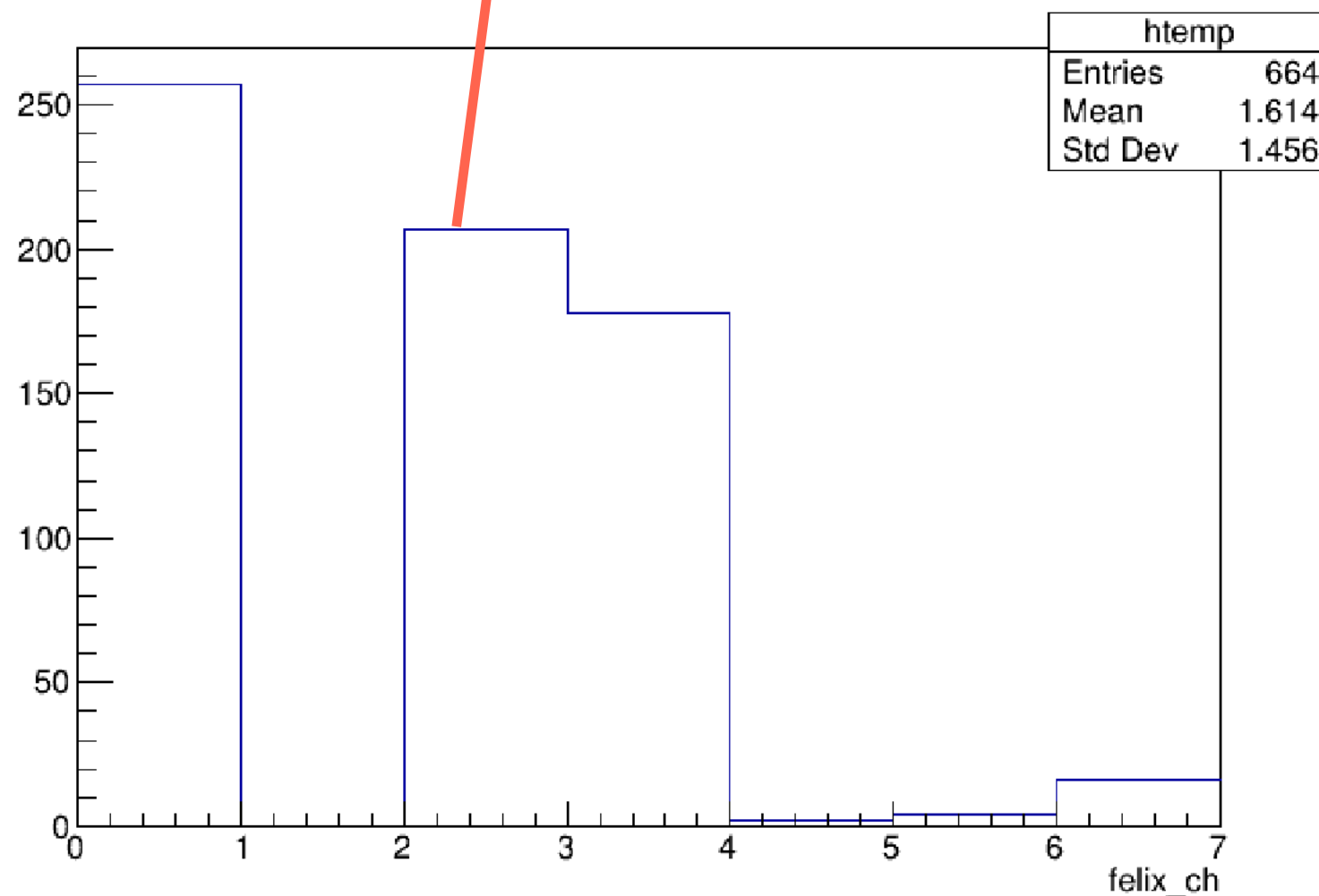


Number of bad channels of RC-1S
based on the file : calib_packv5_040523_0434, threshold : 15





Number of bad channels of RC-1S
based on the file : calib_packv5_040523_0434, threshold : 15



sPHENIX INTT - calibration Analyzer

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2023/03/20 INTT meeting

