LED Monitoring Update
Calorimetry meeting Apr 16 2020

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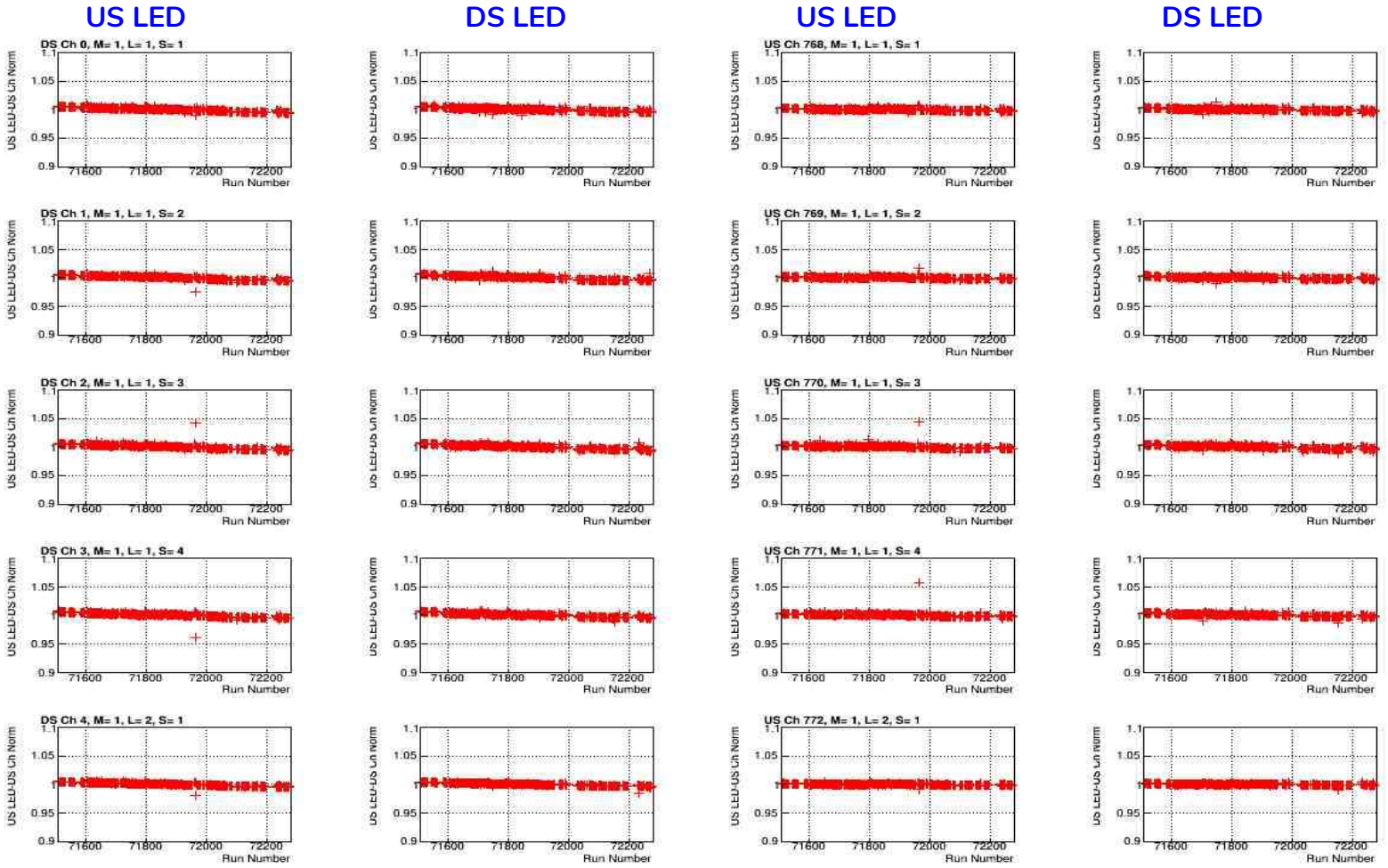
Normal Plots

Y Axis
0.9
To
1.1

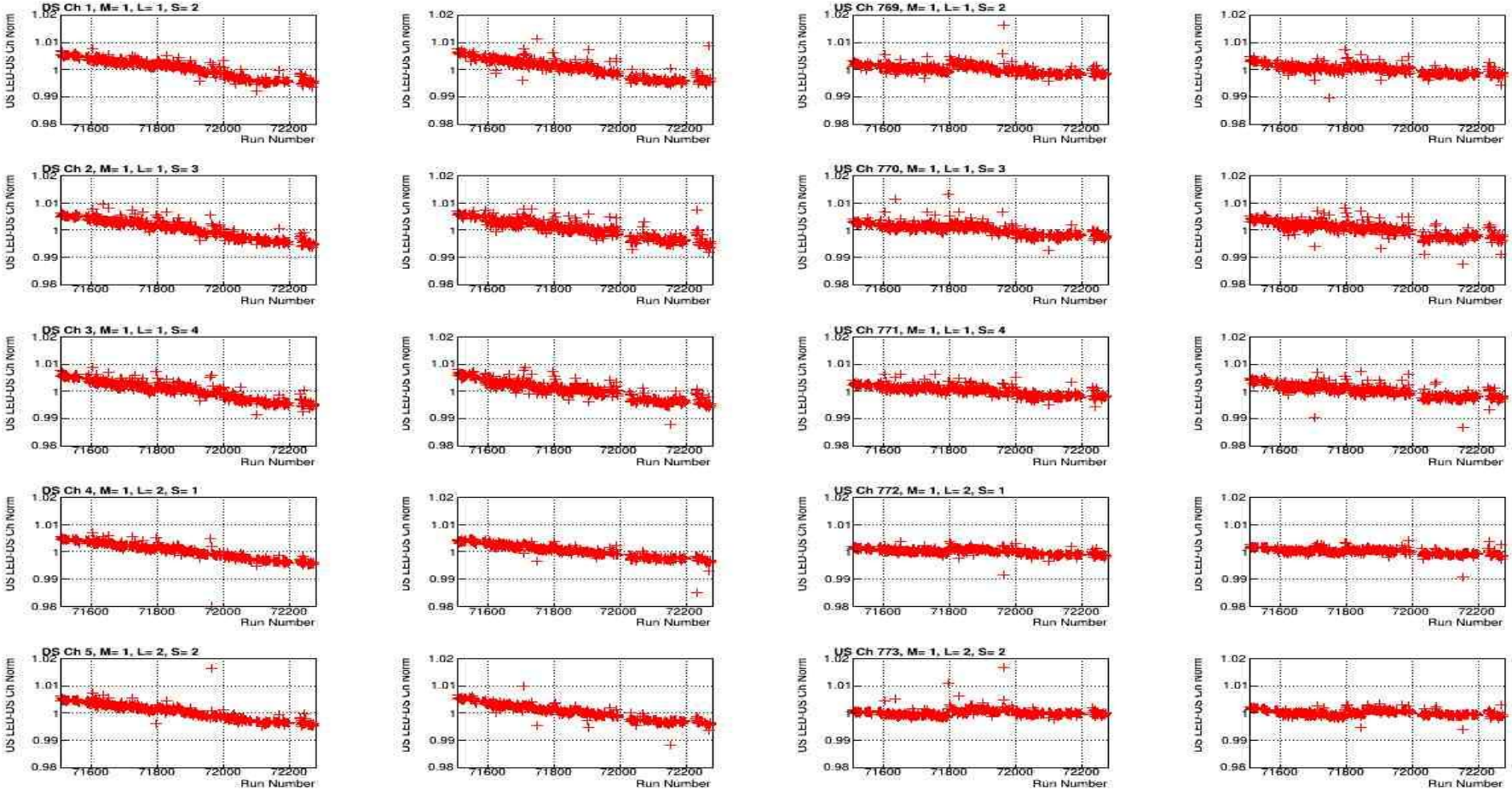
Slight Slope detected as a function of Run number

Run Number



Zoomed plots (0.98 to 1.02)

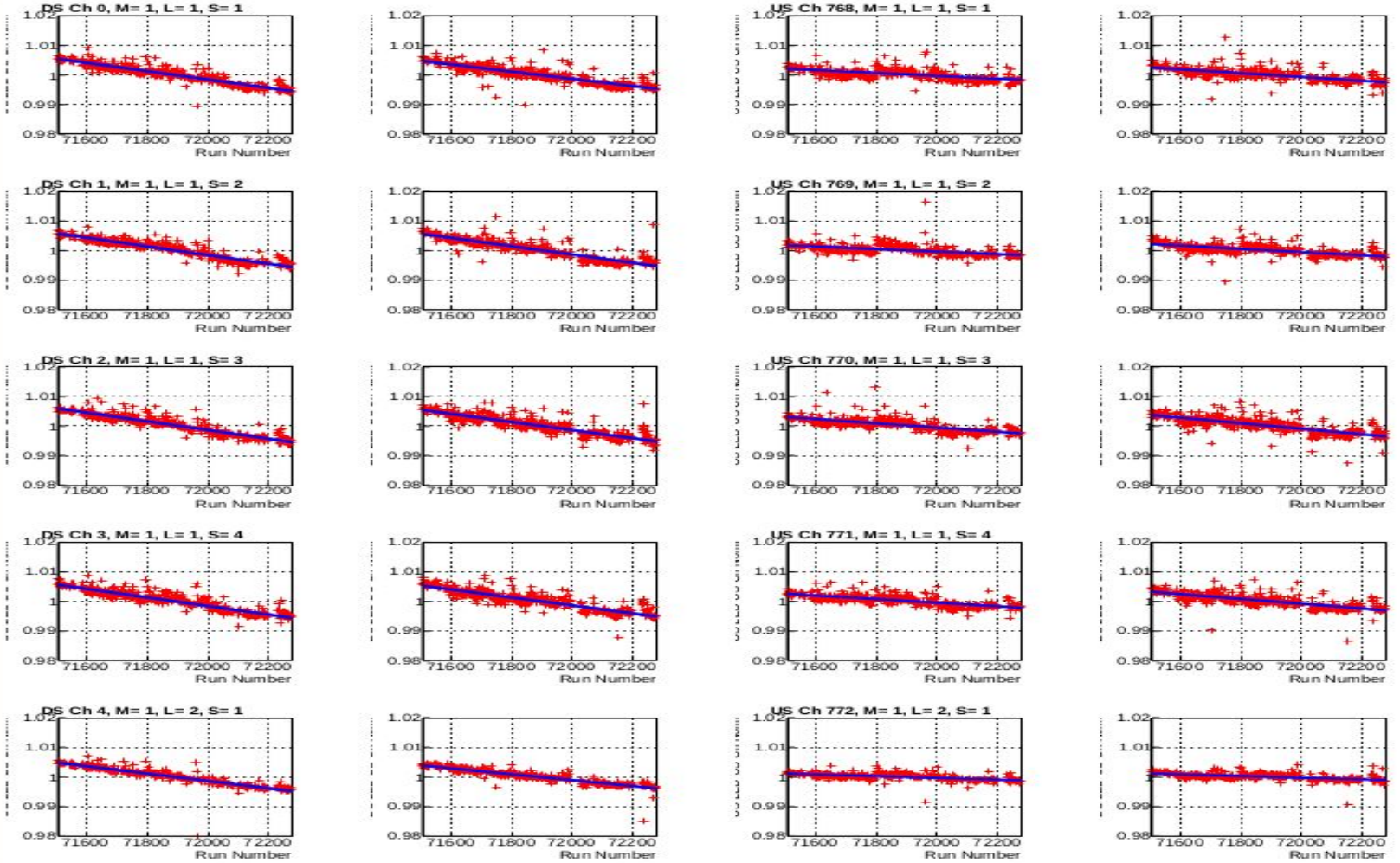
Slopes are different for DS and US SiPMs



Downstream SiPMs

Upstream SiPMs

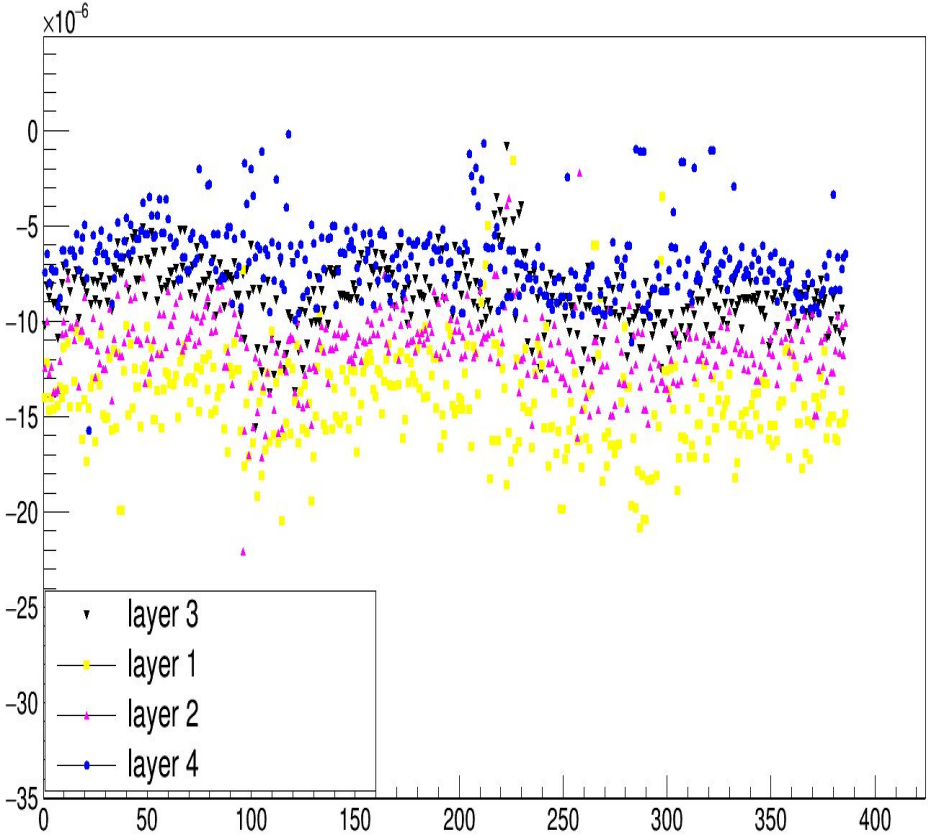
Fits to get the slope



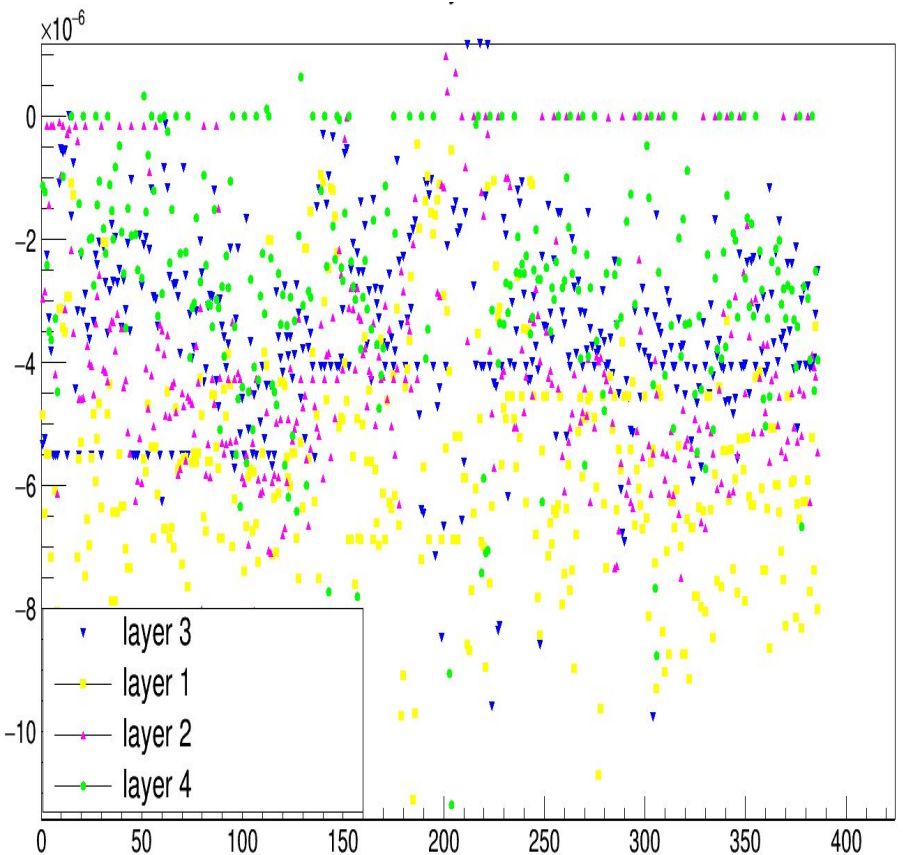
Downstream SiPMs

Upstream SiPMs

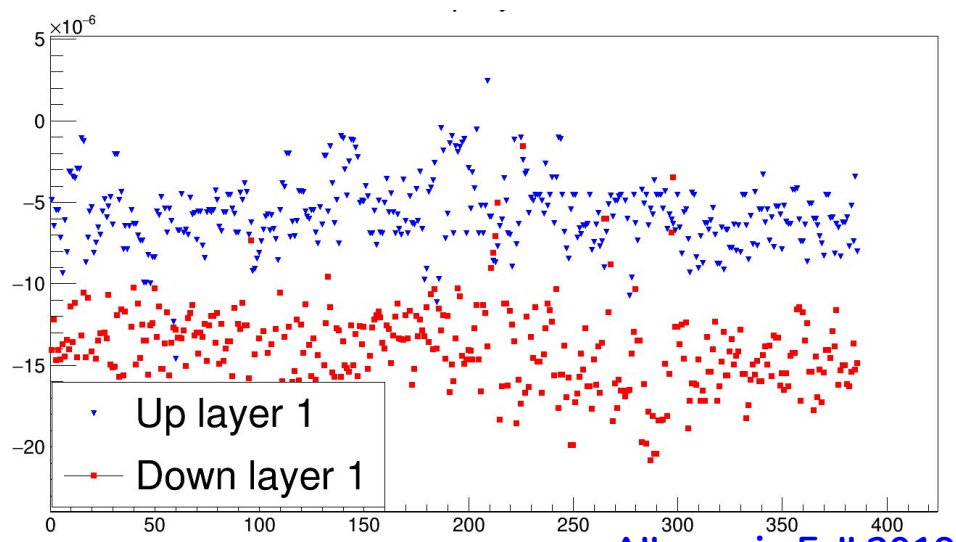
Downstream Layers

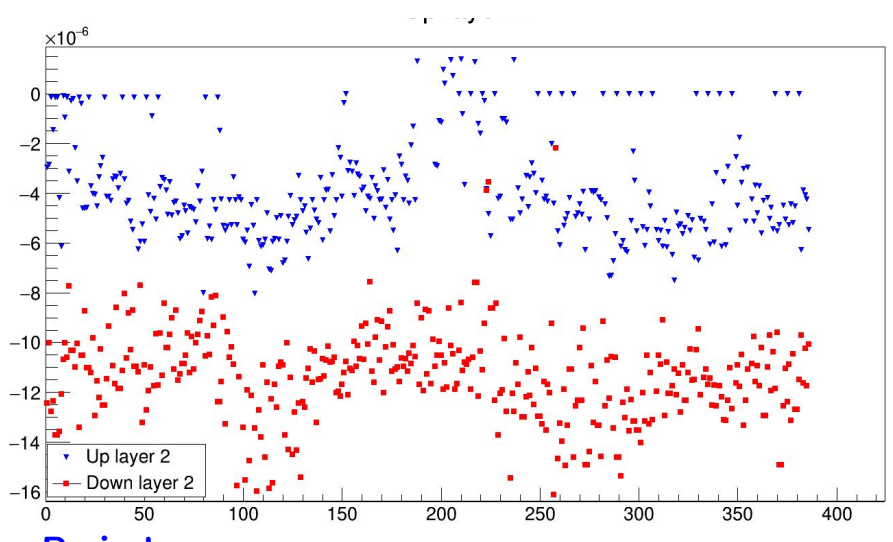


Upstream Layers

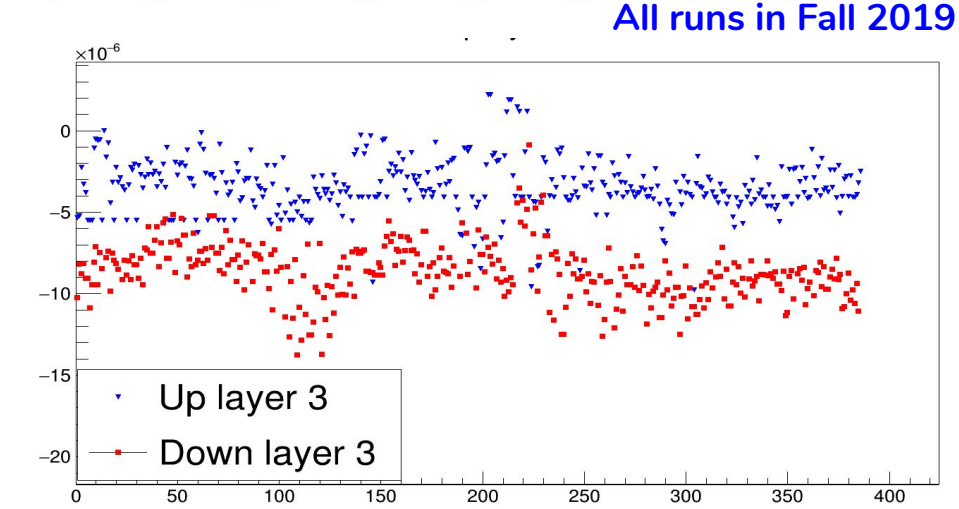


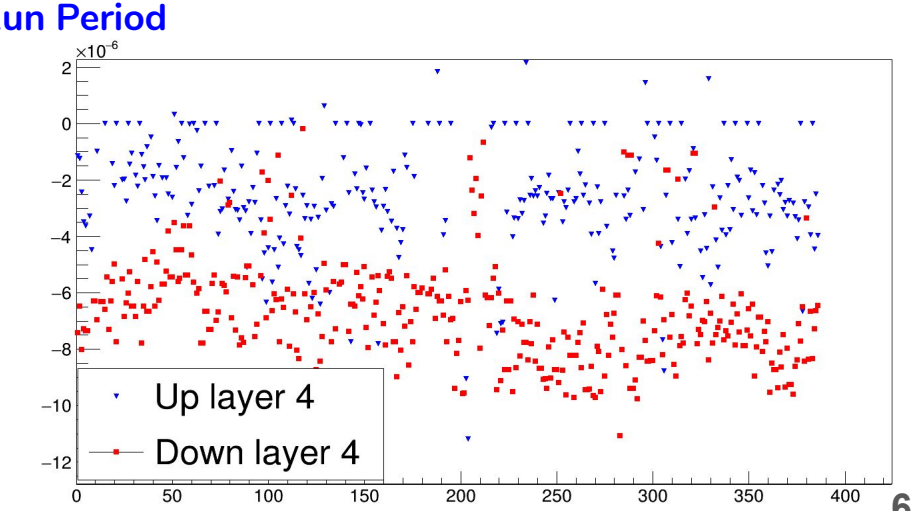
All runs in Fall 2019 Run Period





All runs in Fall 2019 Run Period

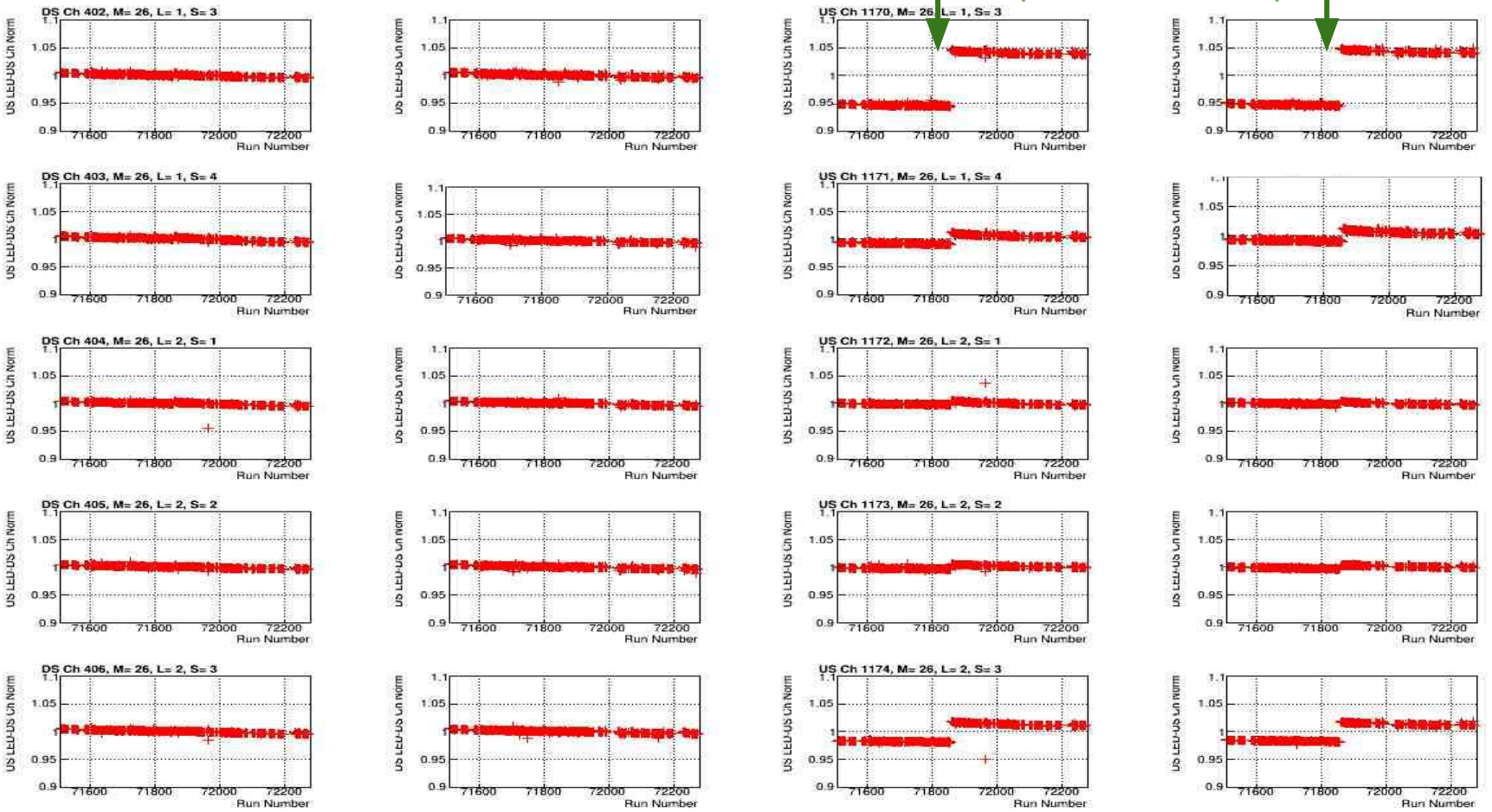


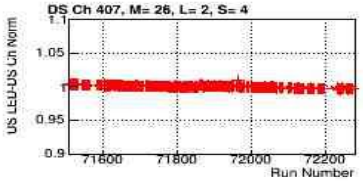


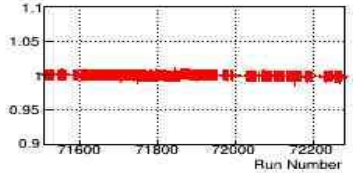
Module 26 Channels

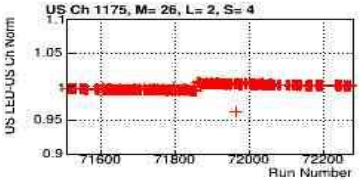
Survey ball/bullet
(next three slides)

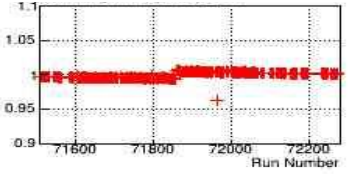
Y Axis 0.9 To 1.1

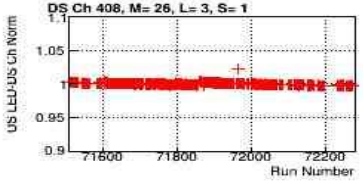


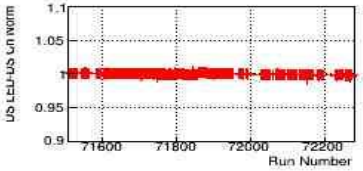

DS Ch 407, M= 26, L= 2, S= 4
US LED-US Ch Norm
Run Number

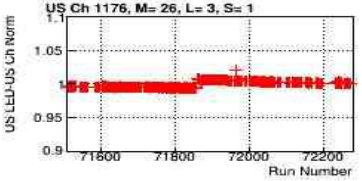

US LED-US Ch Norm
Run Number

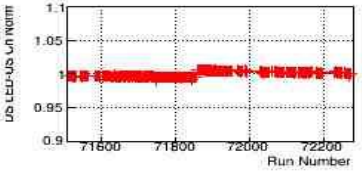

US Ch 1175, M= 26, L= 2, S= 4
US LED-US Ch Norm
Run Number

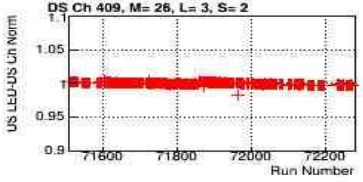

US LED-US Ch Norm
Run Number

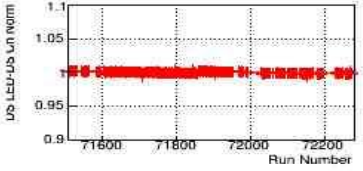

DS Ch 408, M= 26, L= 3, S= 1
US LED-US Ch Norm
Run Number

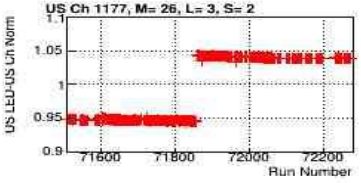

US LED-US Ch Norm
Run Number

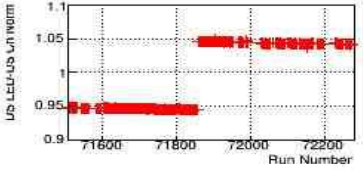

US Ch 1176, M= 26, L= 3, S= 1
US LED-US Ch Norm
Run Number

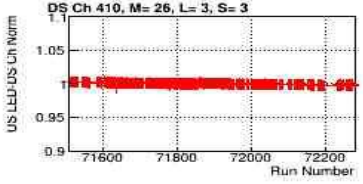

US LED-US Ch Norm
Run Number

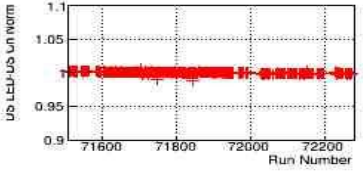

DS Ch 409, M= 26, L= 3, S= 2
US LED-US Ch Norm
Run Number

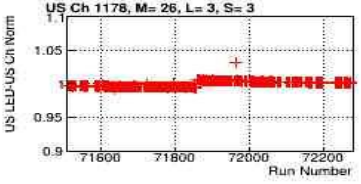

US LED-US Ch Norm
Run Number

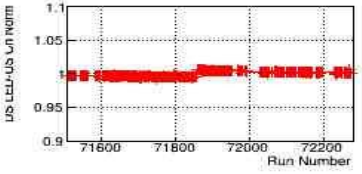

US Ch 1177, M= 26, L= 3, S= 2
US LED-US Ch Norm
Run Number

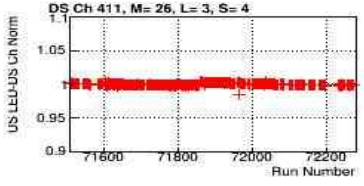

US LED-US Ch Norm
Run Number

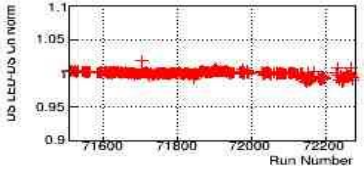

DS Ch 410, M= 26, L= 3, S= 3
US LED-US Ch Norm
Run Number

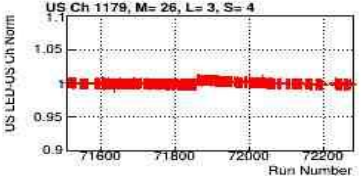

US LED-US Ch Norm
Run Number


US Ch 1178, M= 26, L= 3, S= 3
US LED-US Ch Norm
Run Number


US LED-US Ch Norm
Run Number


DS Ch 411, M= 26, L= 3, S= 4
US LED-US Ch Norm
Run Number


US LED-US Ch Norm
Run Number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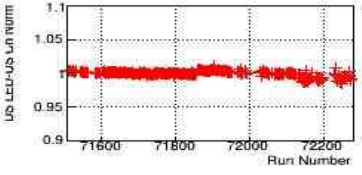
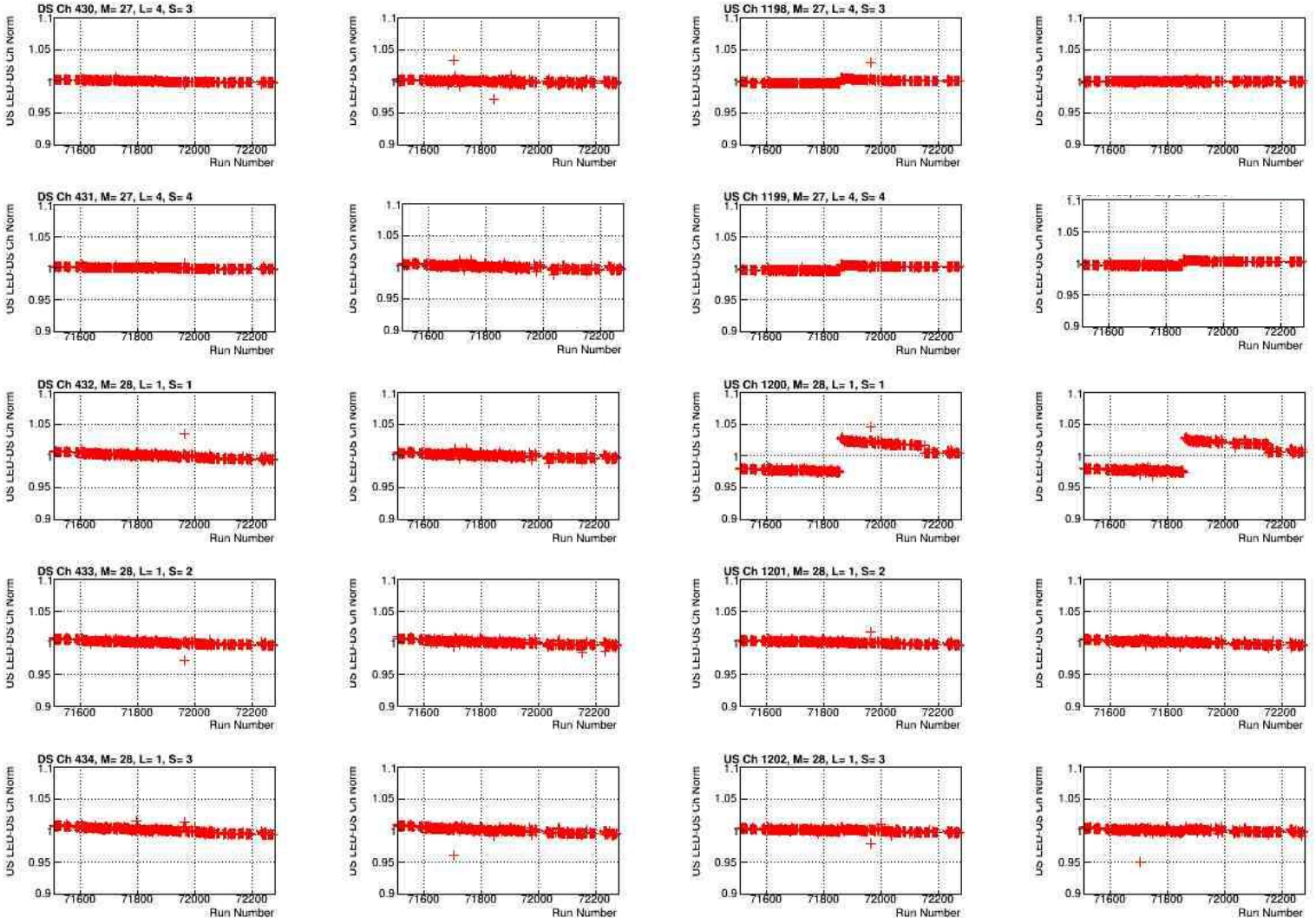
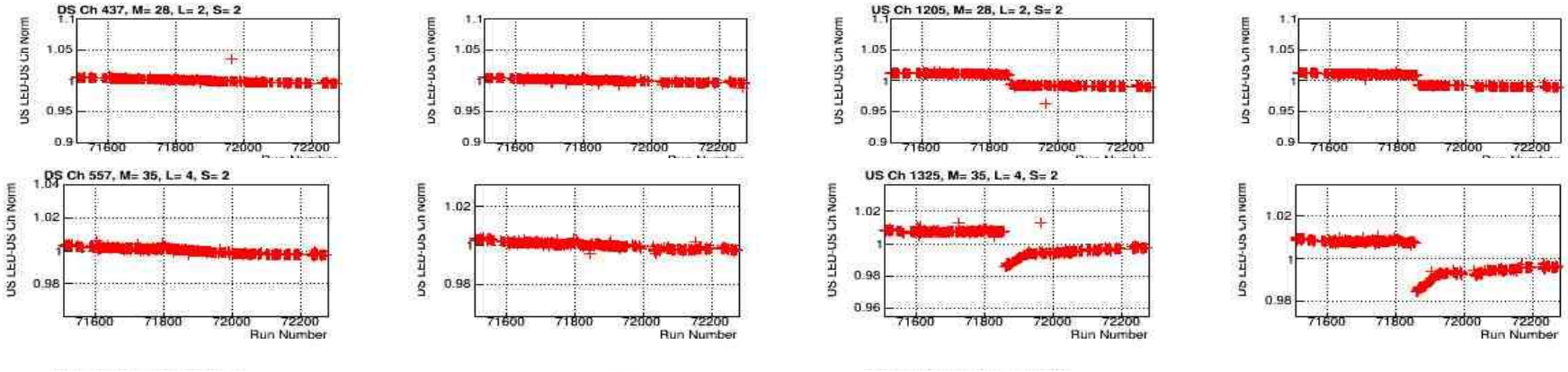
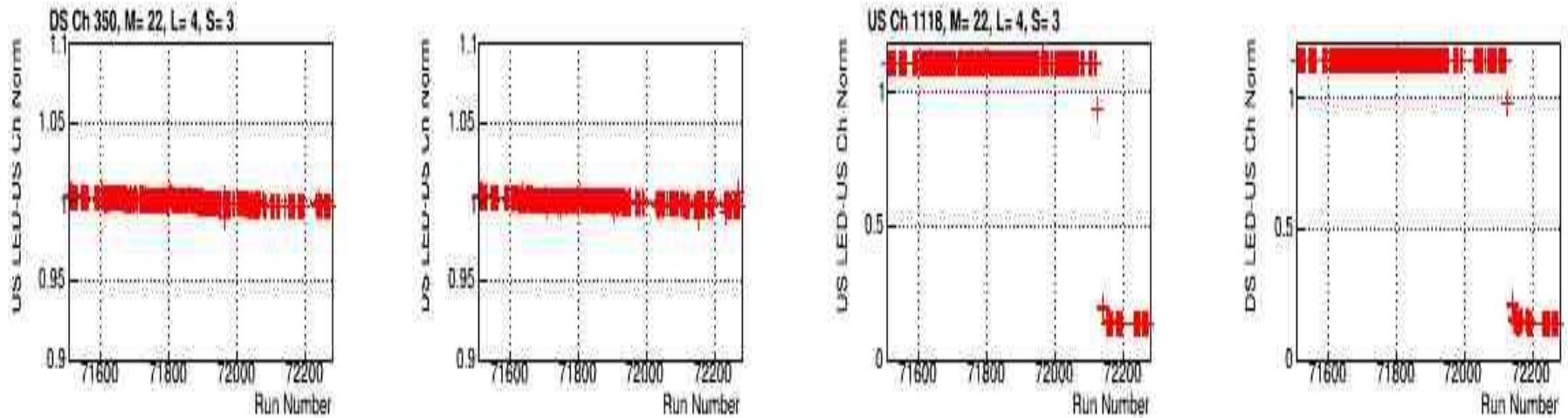
US LED-US Ch Norm
Run Number


US LED-US Ch Norm
Run Number

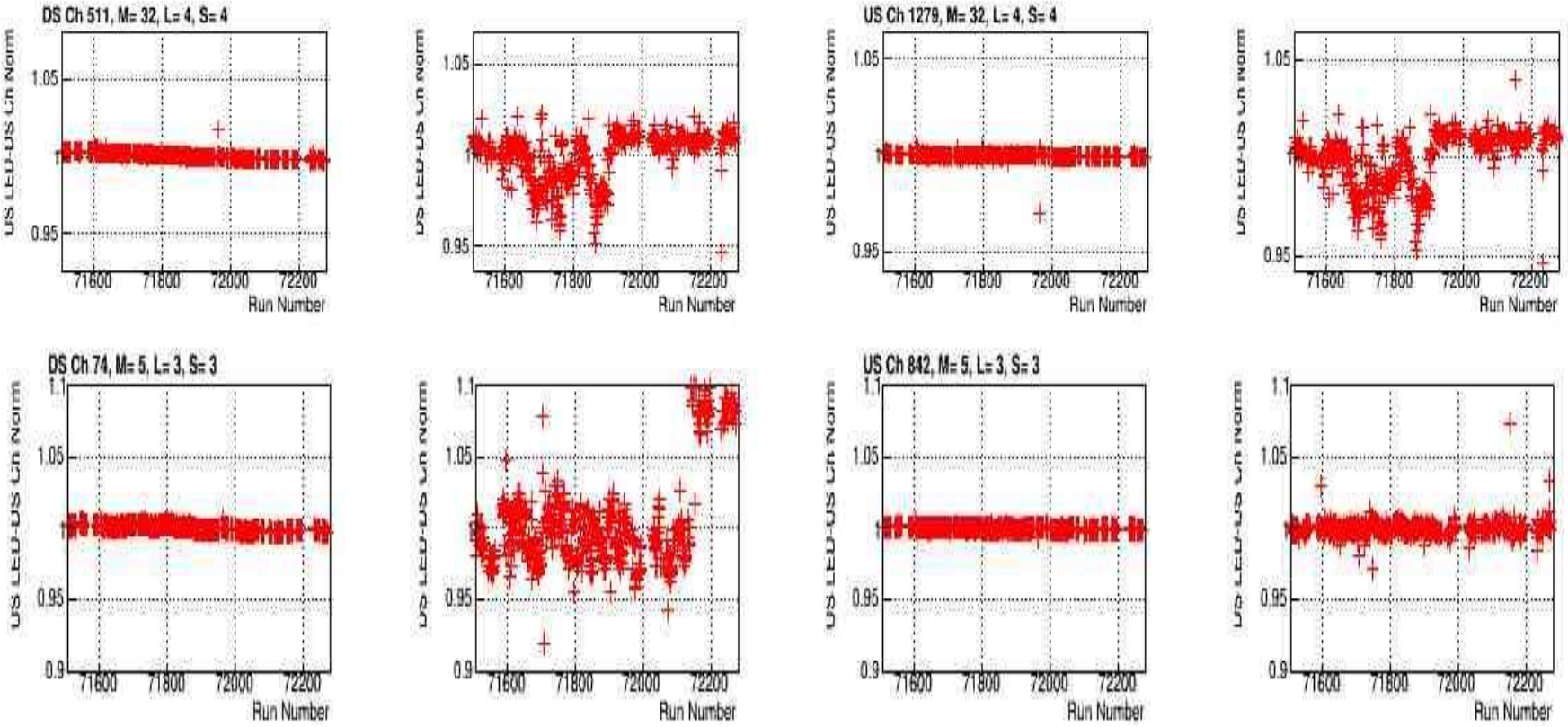

DS Ch 430, M= 27, L= 4, S= 3
US Ch 1198, M= 27, L= 4, S= 3
DS Ch 431, M= 27, L= 4, S= 4
US Ch 1199, M= 27, L= 4, S= 4
DS Ch 432, M= 28, L= 1, S= 1
US Ch 1200, M= 28, L= 1, S= 1
DS Ch 433, M= 28, L= 1, S= 2
US Ch 1201, M= 28, L= 1, S= 2
DS Ch 434, M= 28, L= 1, S= 3
US Ch 1202, M= 28, L= 1, S= 3
US LED-US Ch Norm
Run Number
0.9
0.95
1
1.05
1.1
71600
71800
72000
72200



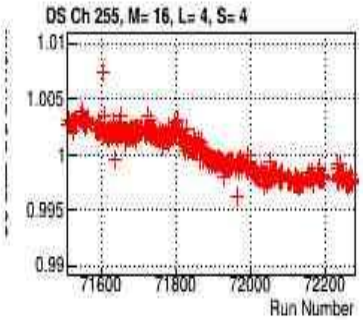
Ch 1118 Hot Channel (after Run No. 72120) Reported

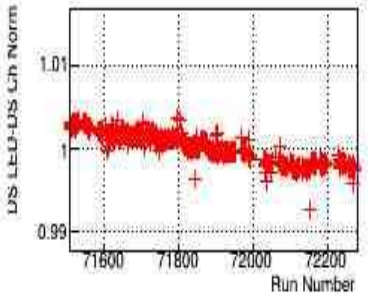


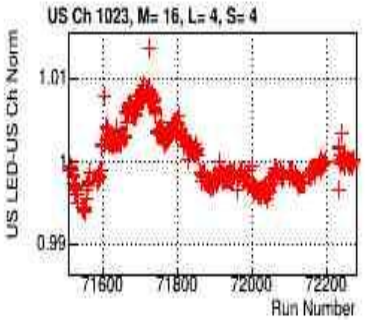
LED fluctuations ?

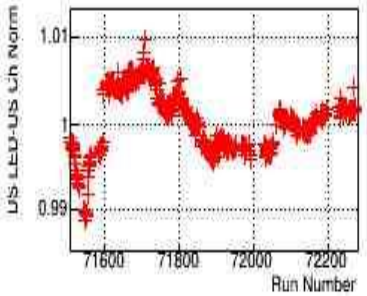


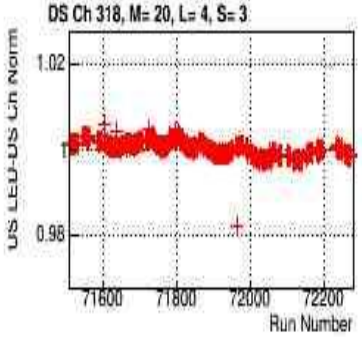
Upstream SiPM issue ?

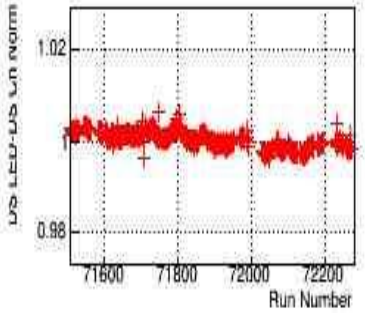


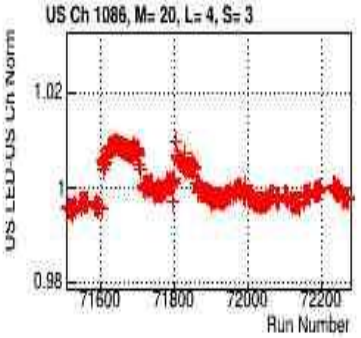


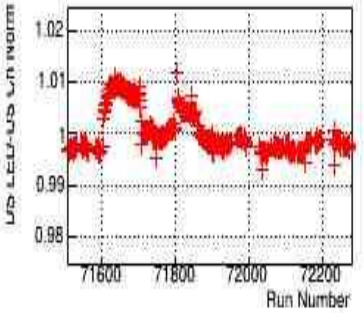












Next Steps :

- Examined code with previous run period . Looks OK.
- Looking batches separately