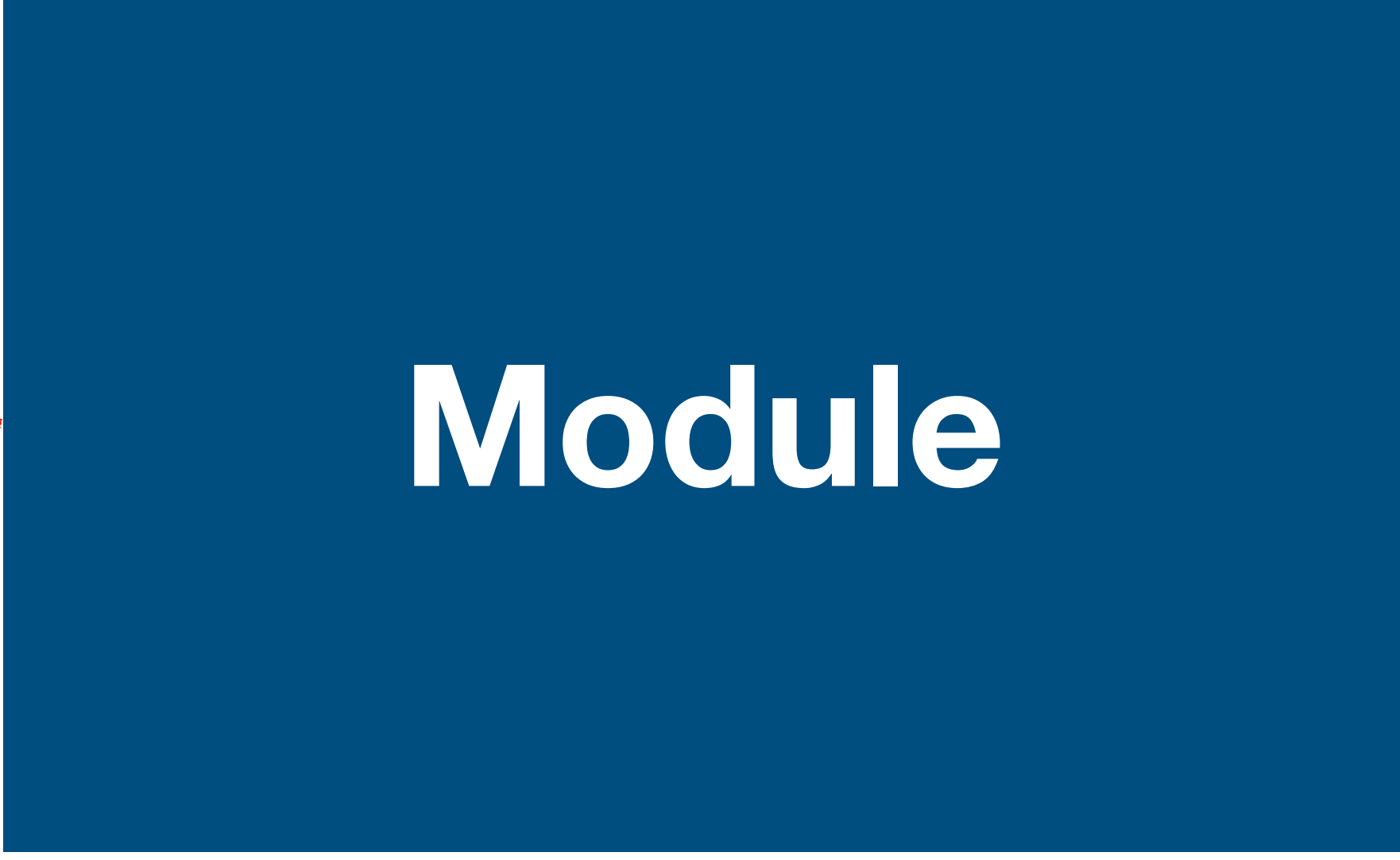
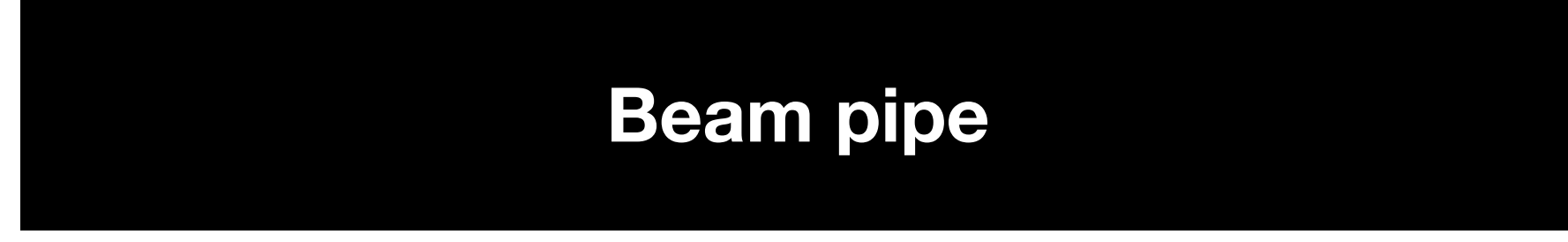


# DQM manual

# Upstream



# Downstream

M1-T1-C	M1-T2-C	M2-T1-C	M2-T2-C	M3-T1-C	M3-T2-C
19-1	19-2	19-21	19-22	19-17	19-18
M1-T1-S	M1-T2-S	M2-T1-S	M2-T2-S	M3-T1-S	M3-T2-S
18-1	18-2	18-21	18-22	18-17	18-18
M1-T3-C	M1-T4-C	M2-T3-C	M2-T4-C	M3-T3-C	M3-T4-C
19-3	19-4	19-23	19-24	19-19	19-20
M1-T3-S	M1-T4-S	M2-T3-S	M2-T4-S	M3-T3-S	M3-T4-S
18-3	18-4	18-23	18-24	18-19	18-20
M4-T1-C	M4-T2-C	M5-T1-C	M5-T2-C	M6-T1-C	M6-T2-C
19-5	19-6	13-14	13-15	19-25	19-26
M4-T1-S	M4-T2-S	M5-T1-S	M5-T2-S	M6-T1-S	M6-T2-S
18-5	18-6	13-9	13-10	18-25	18-26
M6-T3-C	M4-T4-C	M5-T3-C	M5-T4-C	M6-T3-C	M6-T4-C
19-27	19-8	13-19 MCP-PMT	13-16	19-27	19-28
M4-T3-S	M4-T4-S	M5-T3-S	M5-T4-S	M6-T3-S	M6-T4-S
18-7	18-8	13-17 MCP-PMT	13-11	18-27	18-28
M7-T1-C	M7-T2-C	M8-T1-C	M8-T2-C	M9-T1-C	M9-T2-C
19-9	19-10	19-13	19-14	19-29	19-30
M7-T1-S	M7-T2-S	M8-T1-S	M8-T2-S	M9-T1-S	M9-T2-S
18-9	18-10	18-13	18-14	18-29	18-30
M7-T3-C	M7-T4-C	M8-T3-C	M8-T4-C	M9-T3-C	M9-T4-C
19-11	19-12	19-15	19-16	19-31	19-32
M7-T3-S	M7-T4-S	M8-T3-S	M8-T4-S	M9-T3-S	M9-T4-S
18-11	18-12	18-15	18-16	18-31	18-32

M11-T1-C	M11-T2-C	M11-T3-C	M10-T1-C	M10-T2-C
11-25	11-26	11-27		
M11-T1-S	M11-T2-S	M11-T3-S	11-13	11-14
11-1	11-2	11-3	M10-T1-S	M10-T2-S
M11-T4-C	M11-T5-C	M11-T6-C		
11-28	sipm	11-29	11-9	11-10
M11-T4-S	M11-T5-S	M11-T6-S	M10-T3-C	M10-T4-C
11-4	sipm	11-5		
M11-T7-C	M11-T8-C	M11-T9-C	11-15	11-16
11-30	11-31	11-32	M10-T3-S	M10-T4-S
M11-T7-S	M11-T8-S	M11-T9-S		
11-6	11-7	11-8	11-11	11-12

	fiber #																			
plate #	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
40	40-21	40-22	40-23	40-24	40-25	40-26	40-27	40-28	40-29	40-30	40-31	40-32	40-33	40-34	40-35	40-36	40-37	40-38	40-39	40-40
	5-9	9-20	5-10	9-21	5-1	9-22	5-2	9-23	5-3	9-24	5-4	9-12	5-5	9-13	5-6	9-14	5-7	9-15	5-8	9-16
39	39-21	39-22	39-23	39-24	39-25	39-26	39-27	39-28	39-29	39-30	39-31	39-32	39-33	39-34	39-35	39-36	39-37	39-38	39-39	39-40
	7-22	5-17	7-23	5-18	7-23	5-19	7-24	5-20	7-24	5-11	7-14	5-12	7-15	5-13	7-15	5-14	7-16	5-15	7-16	5-16
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34	34-21	34-22	34-23	34-24	34-25	34-26	34-27	34-28	34-29	34-30	34-31	34-32	34-33	34-34	34-35	34-36	34-37	34-38	34-39	34-40
	3-17	10-17	3-18	10-18	3-19	10-19	3-20	10-20	3-21	10-11	3-9	10-12	3-10	10-13	3-11	10-14	3-12	10-15	3-13	10-16
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	8-25	6-17	8-26	6-18	8-17	6-19	8-18	6-20	8-19	6-11	8-9	6-12	8-10	6-13	8-11	6-14	8-2	6-15	8-3	6-16
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## S Channel

Front side (Up Stream)

<b>1</b> 16-8	<b>2</b> 16-6	<b>3</b> 16-4	<b>4</b> 16-2	<b>5</b> 16-16	<b>6</b> 16-14	<b>7</b> 16-12	<b>8</b> 16-10
<b>9</b> 16-7	<b>10</b> 16-5	<b>11</b> 16-3	<b>12</b> 16-1	<b>13</b> 16-15	<b>14</b> 16-13	<b>15</b> 16-11	<b>16</b> 16-9
<b>17</b> 16-24	<b>18</b> 16-22	<b>19</b> 16-20	<b>20</b> 16-18	<b>21</b> 16-32	<b>22</b> 16-30	<b>23</b> 16-28	<b>24</b> 16-26
<b>25</b> 16-23	<b>26</b> 16-21	<b>27</b> 16-19	<b>28</b> 16-17	<b>29</b> 16-31	<b>30</b> 16-29	<b>31</b> 16-27	<b>32</b> 16-25
<b>33</b> 17-1	<b>34</b> 17-3	<b>35</b> 17-5	<b>36</b> 17-7	<b>37</b> 17-9	<b>38</b> 17-11	<b>39</b> 17-13	<b>40</b> 17-15
<b>41</b> 17-2	<b>42</b> 17-4	<b>43</b> 17-6	<b>44</b> 17-8	<b>45</b> 17-10	<b>46</b> 17-12	<b>47</b> 17-14	<b>48</b> 17-16
<b>49</b> 17-17	<b>50</b> 17-19	<b>51</b> 17-21	<b>52</b> 17-23	<b>53</b> 17-25	<b>54</b> 17-27	<b>55</b> 17-29	<b>56</b> 17-31
<b>57</b> 17-18	<b>58</b> 17-20	<b>59</b> 17-22	<b>60</b> 17-24	<b>61</b> 17-26	<b>62</b> 17-28	<b>63</b> 17-30	<b>64</b> 17-32

Module ch #

DAQ mid-ch

## C Channel

Front side (Up Stream)

<b>1</b> 14-16	<b>2</b> 14-14	<b>3</b> 14-12	<b>4</b> 14-10	<b>5</b> 14-8	<b>6</b> 14-6	<b>7</b> 14-4	<b>8</b> 14-2
<b>9</b> 14-15	<b>10</b> 14-13	<b>11</b> 14-11	<b>12</b> 14-9	<b>13</b> 14-7	<b>14</b> 14-5	<b>15</b> 14-3	<b>16</b> 14-1
<b>17</b> 14-32	<b>18</b> 14-30	<b>19</b> 14-28	<b>20</b> 14-26	<b>21</b> 14-24	<b>22</b> 14-22	<b>23</b> 14-20	<b>24</b> 14-18
<b>25</b> 14-31	<b>26</b> 14-29	<b>27</b> 14-27	<b>28</b> 14-25	<b>29</b> 14-23	<b>30</b> 14-21	<b>31</b> 14-19	<b>32</b> 14-17
<b>33</b> 15-9	<b>34</b> 15-11	<b>35</b> 15-13	<b>36</b> 15-15	<b>37</b> 15-1	<b>38</b> 15-3	<b>39</b> 15-5	<b>40</b> 15-7
<b>41</b> 15-10	<b>42</b> 15-12	<b>43</b> 15-14	<b>44</b> 15-16	<b>45</b> 15-2	<b>46</b> 15-4	<b>47</b> 15-6	<b>48</b> 15-8
<b>49</b> 15-25	<b>50</b> 15-27	<b>51</b> 15-29	<b>52</b> 15-31	<b>53</b> 15-17	<b>54</b> 15-19	<b>55</b> 15-21	<b>56</b> 15-23
<b>57</b> 15-26	<b>58</b> 15-28	<b>59</b> 15-30	<b>60</b> 15-32	<b>61</b> 15-18	<b>62</b> 15-20	<b>63</b> 15-22	<b>64</b> 15-24

Module ch #

DAQ mid-ch

```
./monit --RunNumber 9679 --type single --method IntADC --module M1-T4-C --LIVE --AUX --AUXcut
```

--RunNumber: Run that you want to draw **\*\*should be specified!\*\***

```
./monit --RunNumber 9679 --type single --method IntADC --module M1-T4-C --LIVE --AUX --AUXcut
```

--type: Plot type you want to draw (options: single, heatmap, module) **\*\*should be specified!\*\***

```
./monit --RunNumber 9679 --type single --method IntADC --module M1-T4-C --LIVE --AUX --AUXcut
```

--method: Which method you want to use to fill the plot **\*\*should be specified!\*\***

with `--type single`, --method options are IntADC, PeakADC, Avg, Overlay

with `--type heatmap`, --method options are IntADC, PeakADC

with `--type module`, --method options are IntADC, PeakADC

```
./monit --RunNumber 9679 --type single --method IntADC --module M1-T4-C --LIVE --AUX --AUXcut
```

--module: Which module you want to draw **\*\*should be specified!!\*\***

with `--type single`, all single channels are available (eg. M1-T4-C DWC1R MC S30 35-31)

with `--type heatmap`, 'SiPM' and 'MCPMT' are available

with `--type module`, modules are available ('M1' ~ 'M11')

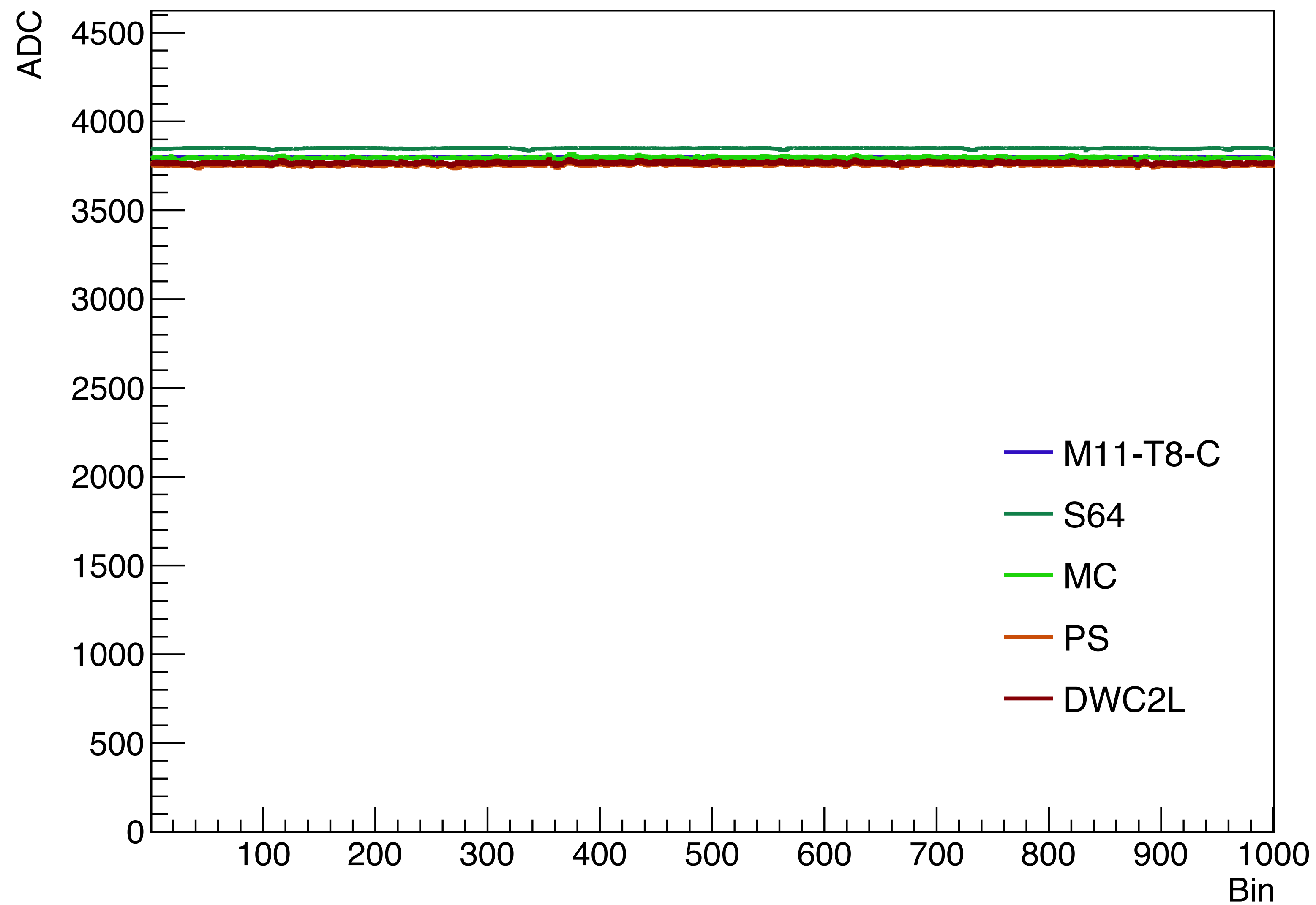
```
./monit --RunNumber 9679 --type single --method IntADC --module M1-T4-C --LIVE --AUX --AUXcut
```

--LIVE: LIVE monitoring flag

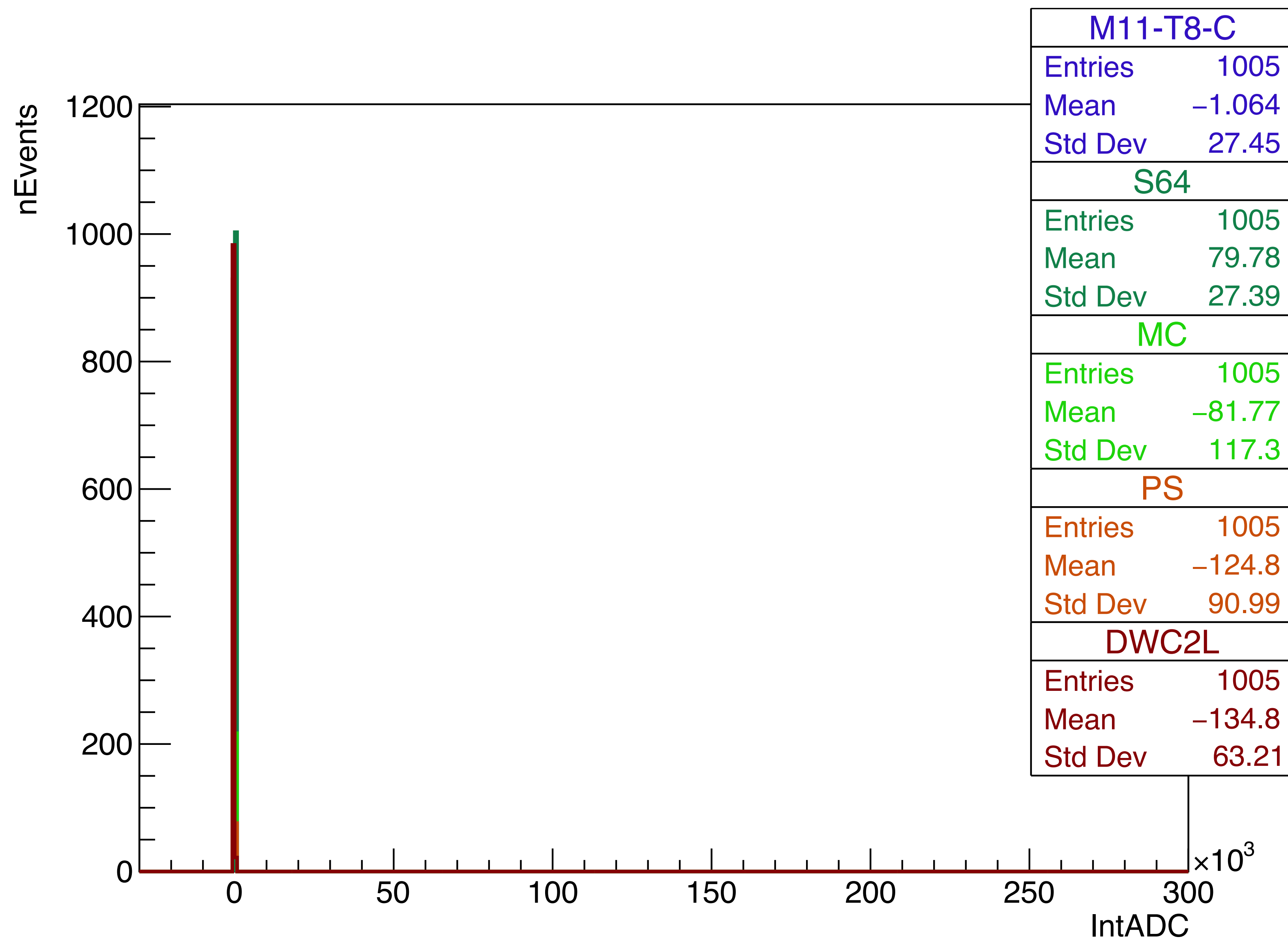
--AUX: Aux detector plotting flag

--AUXcut: Event selection based on aux. flat (not yet updated)

```
./monit --RunNumber 9679 --type single --method Avg --module M11-T8-C S64 MC PS DWC2L
```

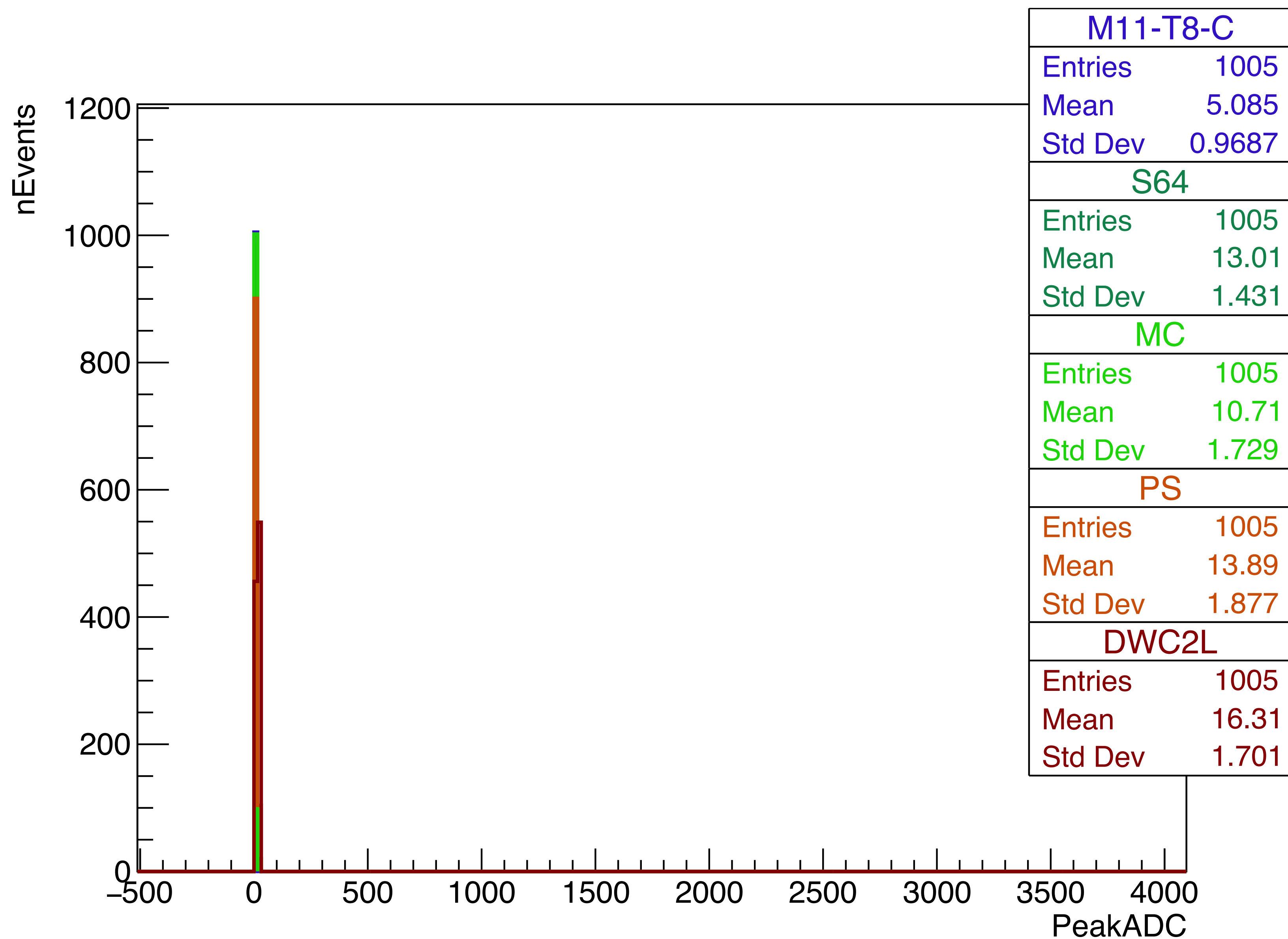


```
./monit --RunNumber 9679 --type single --method IntADC --module M11-T8-C S64 MC PS DWC2L
```



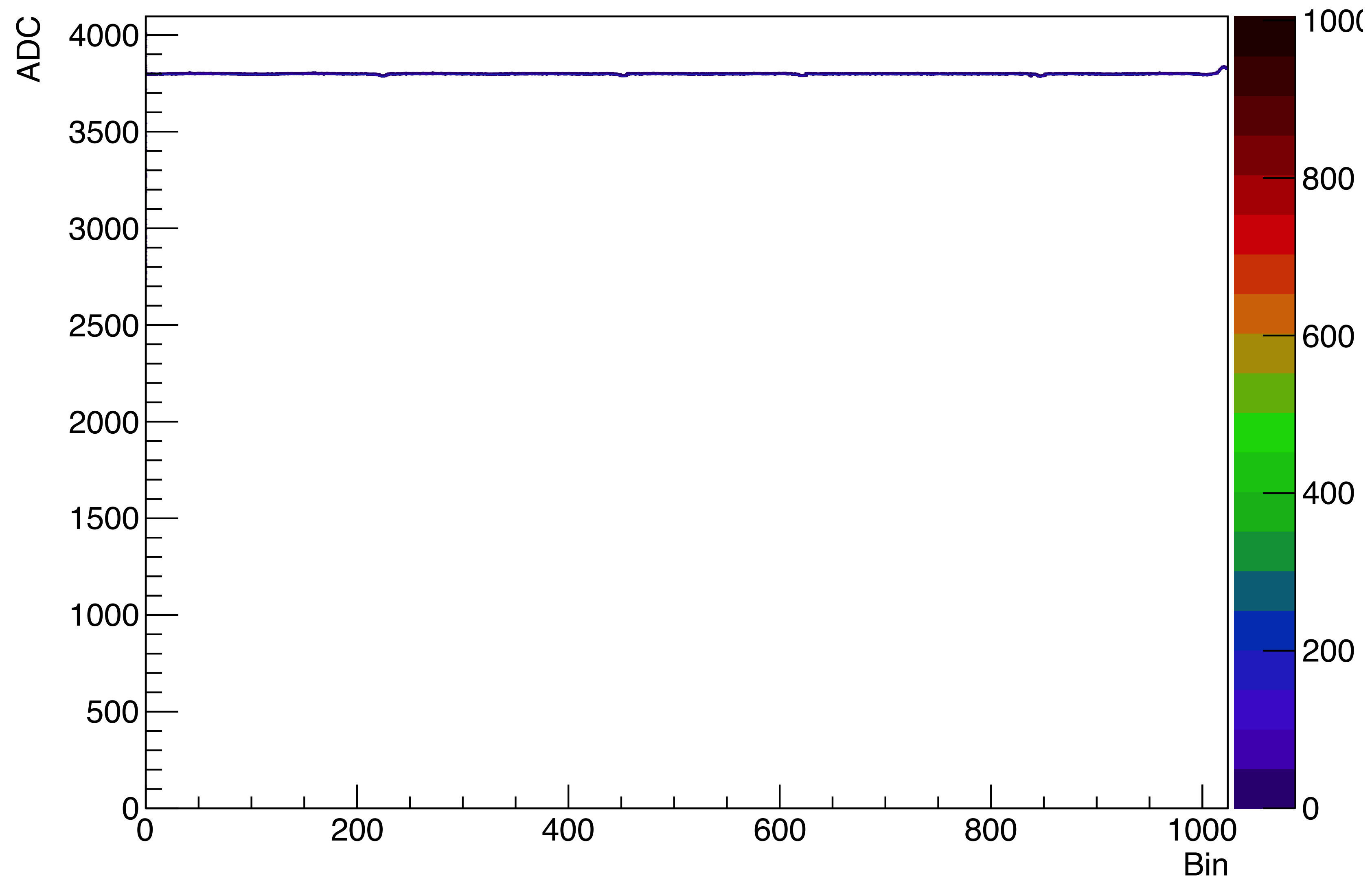


```
./monit --RunNumber 9679 --type single --method PeakADC --module M11-T8-C S64 MC PS DWC2L
```

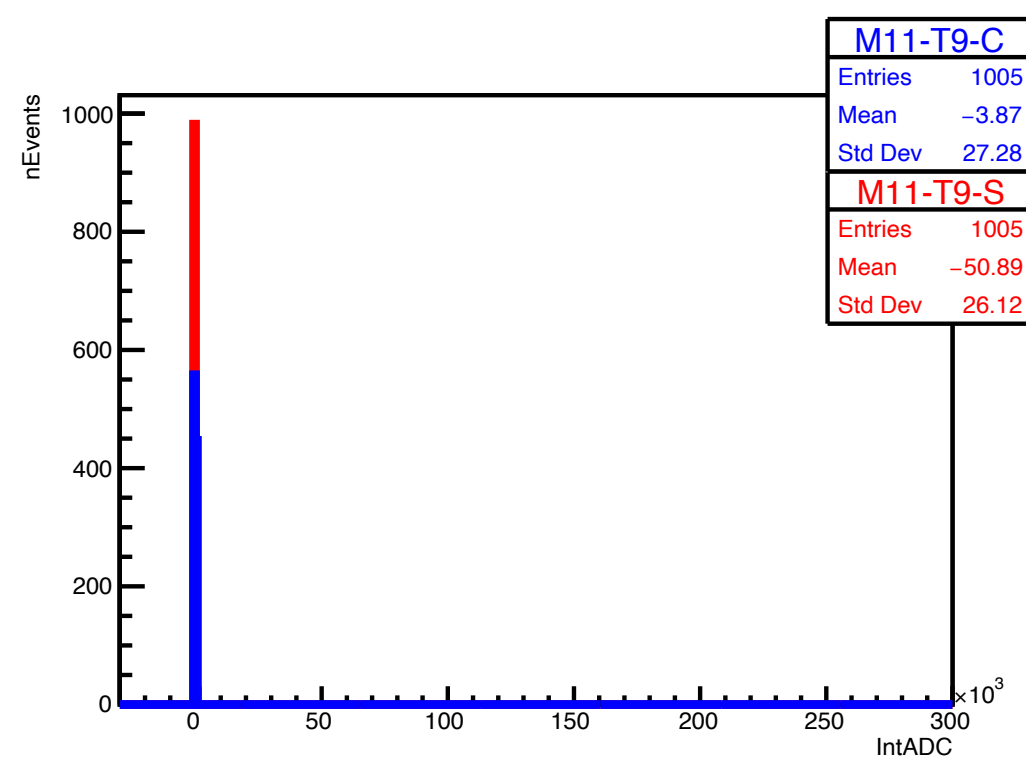
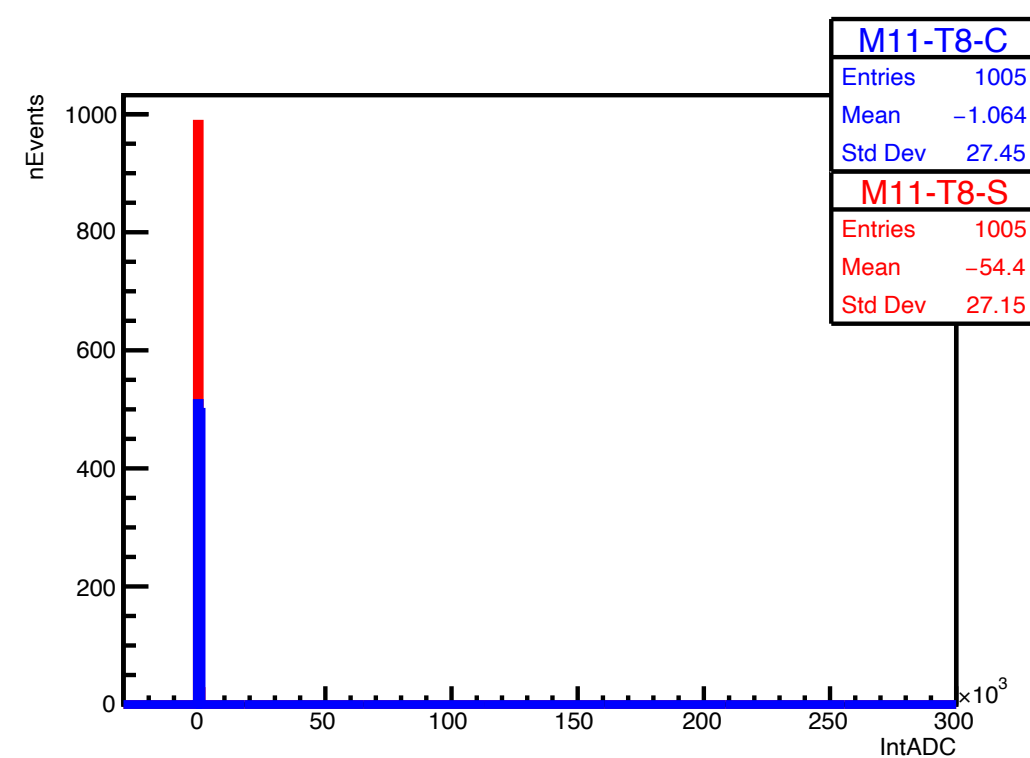
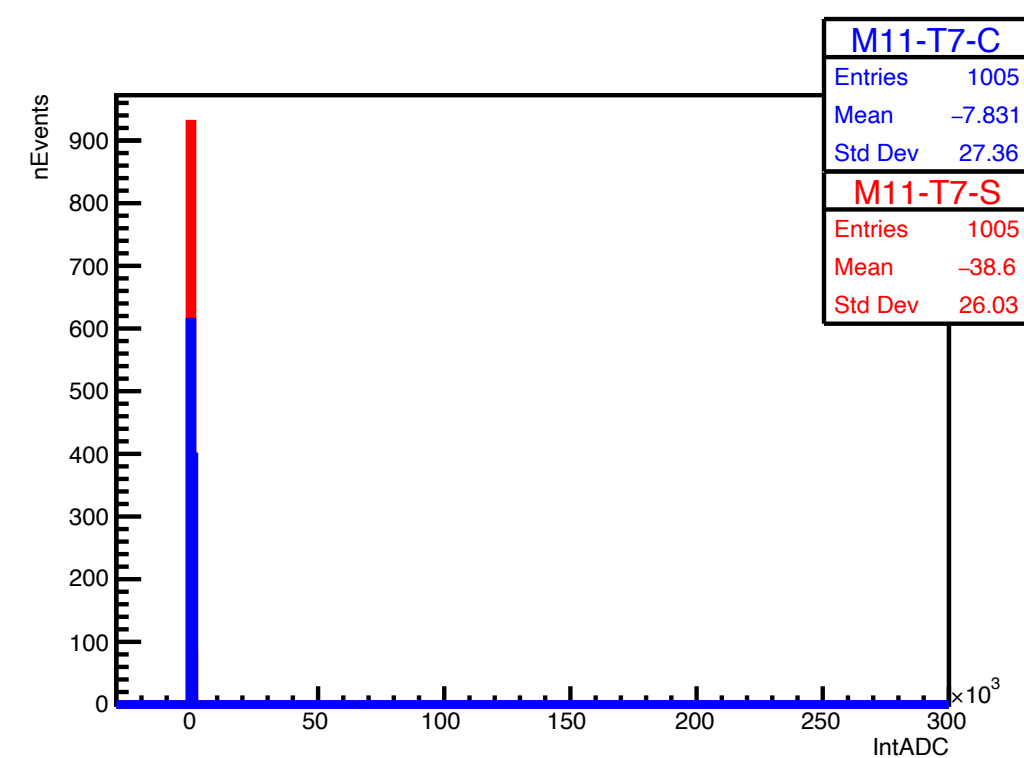
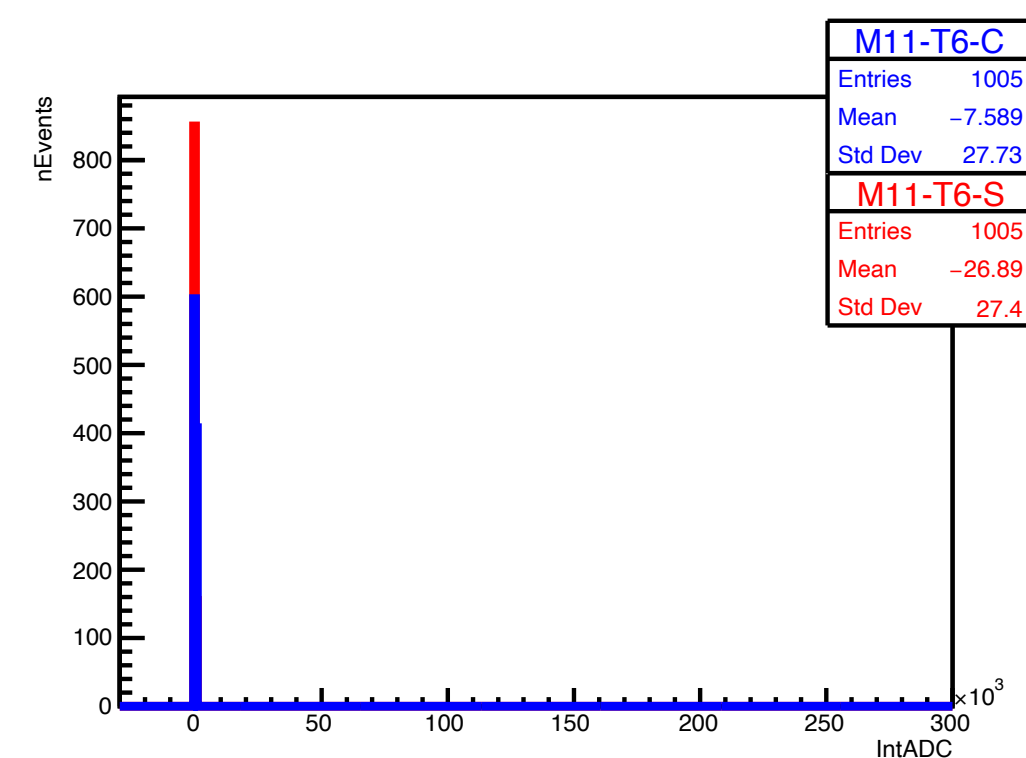
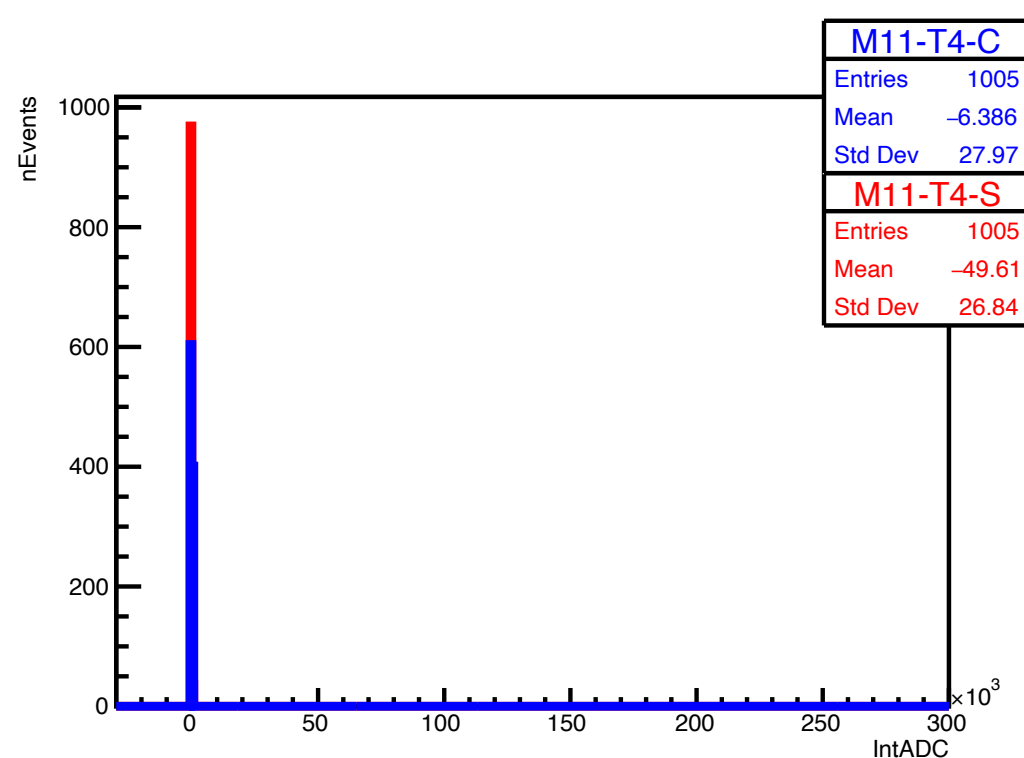
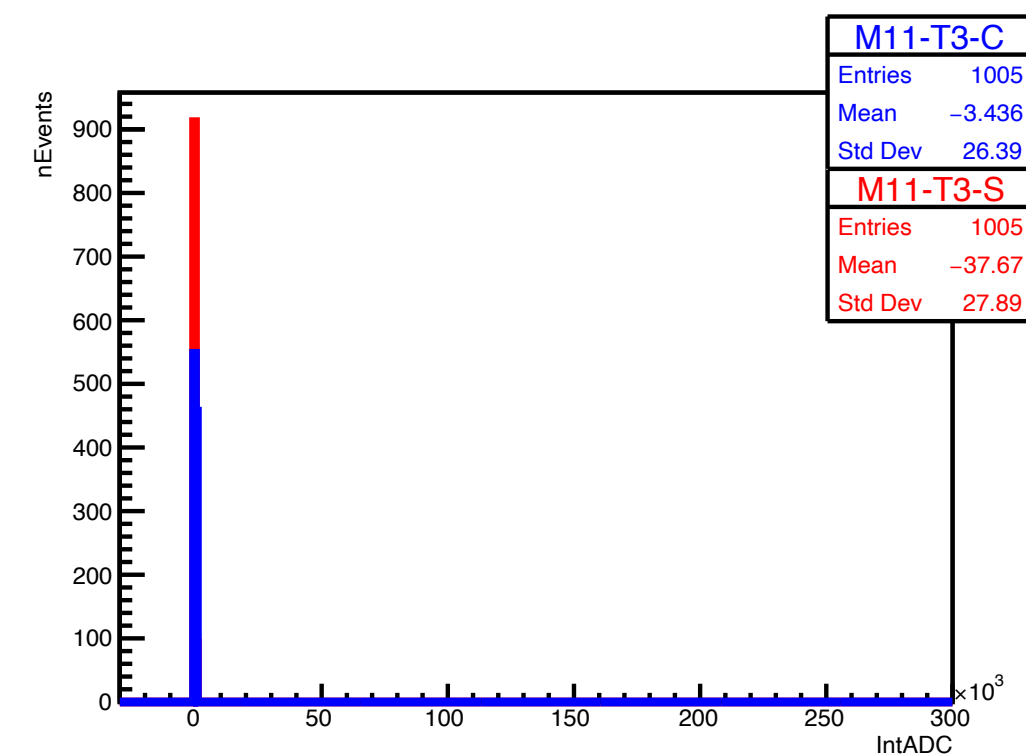
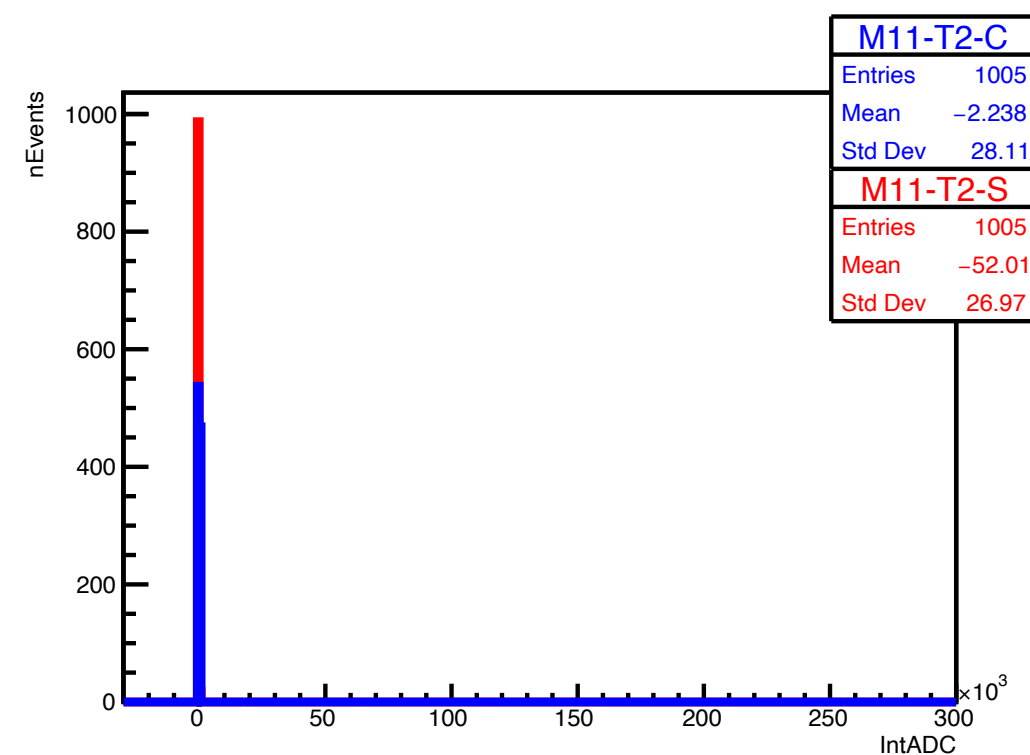
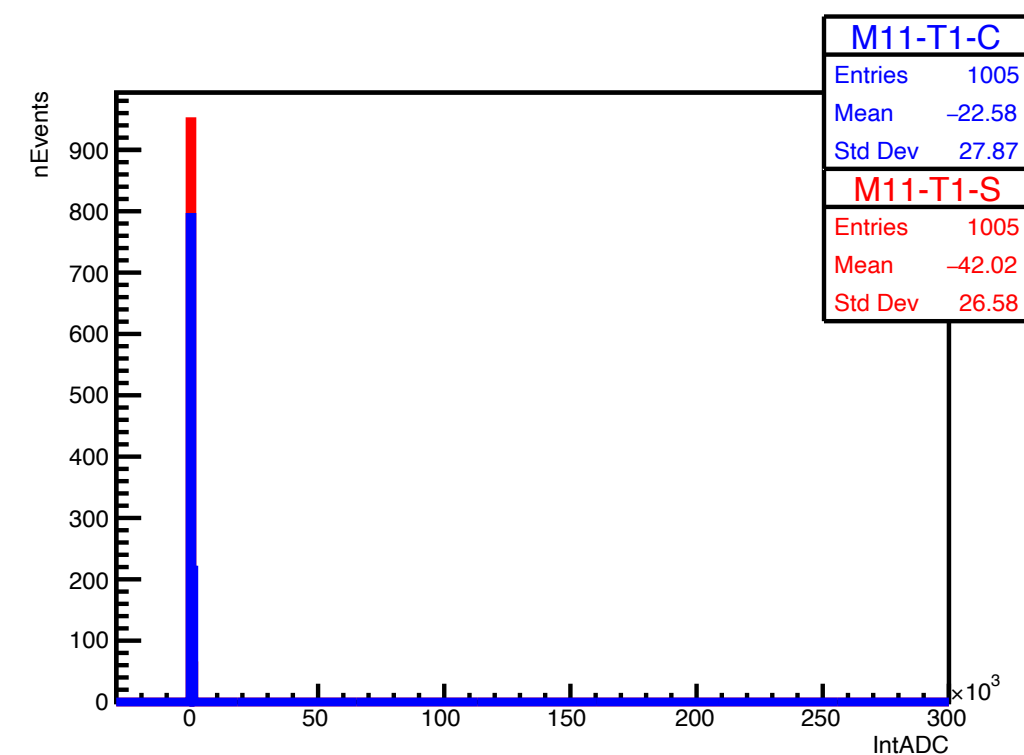


```
./monit --RunNumber 9679 --type single --method Overlay --module M11-T8-C S64 MC PS DWC2L
```

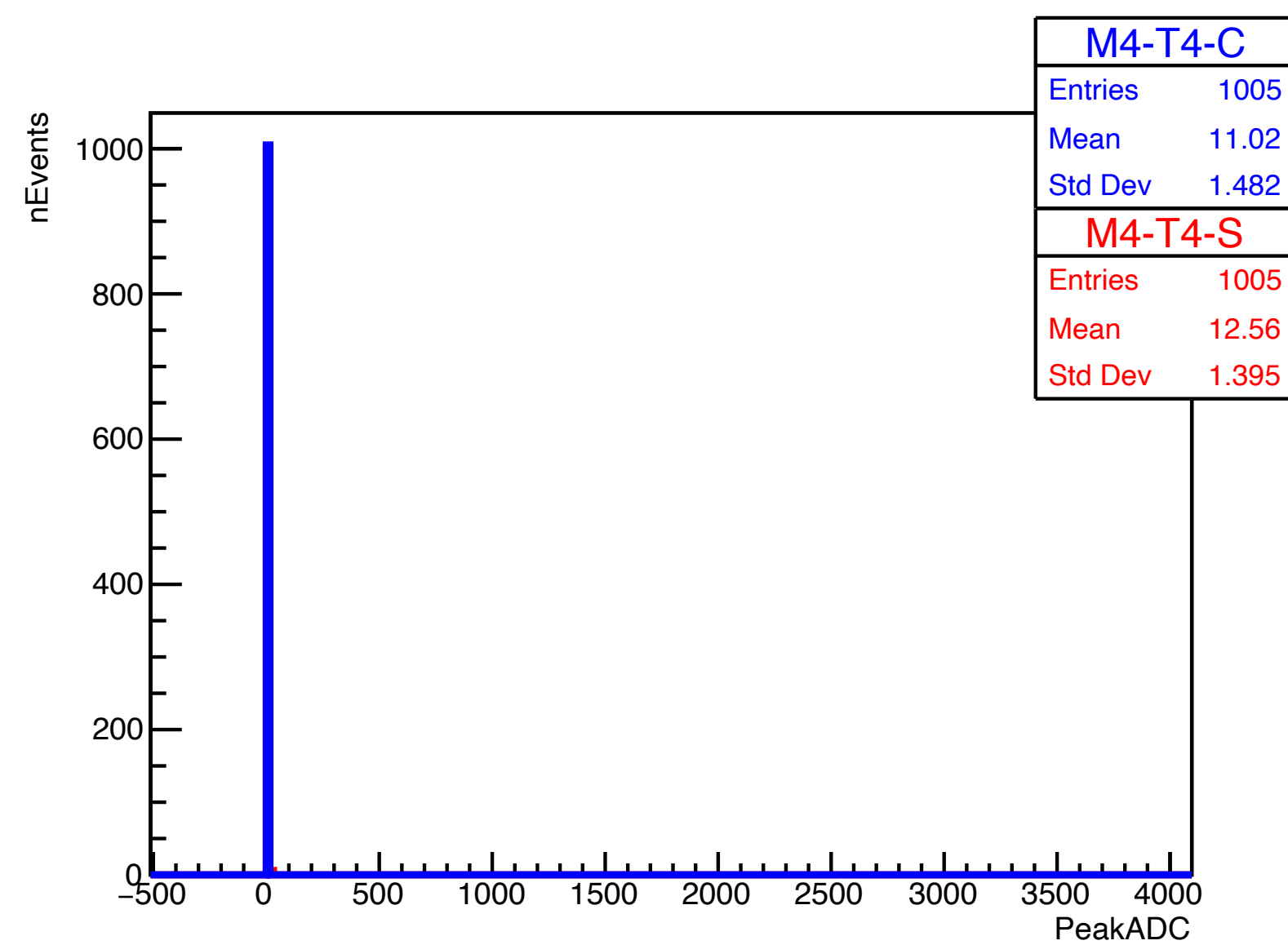
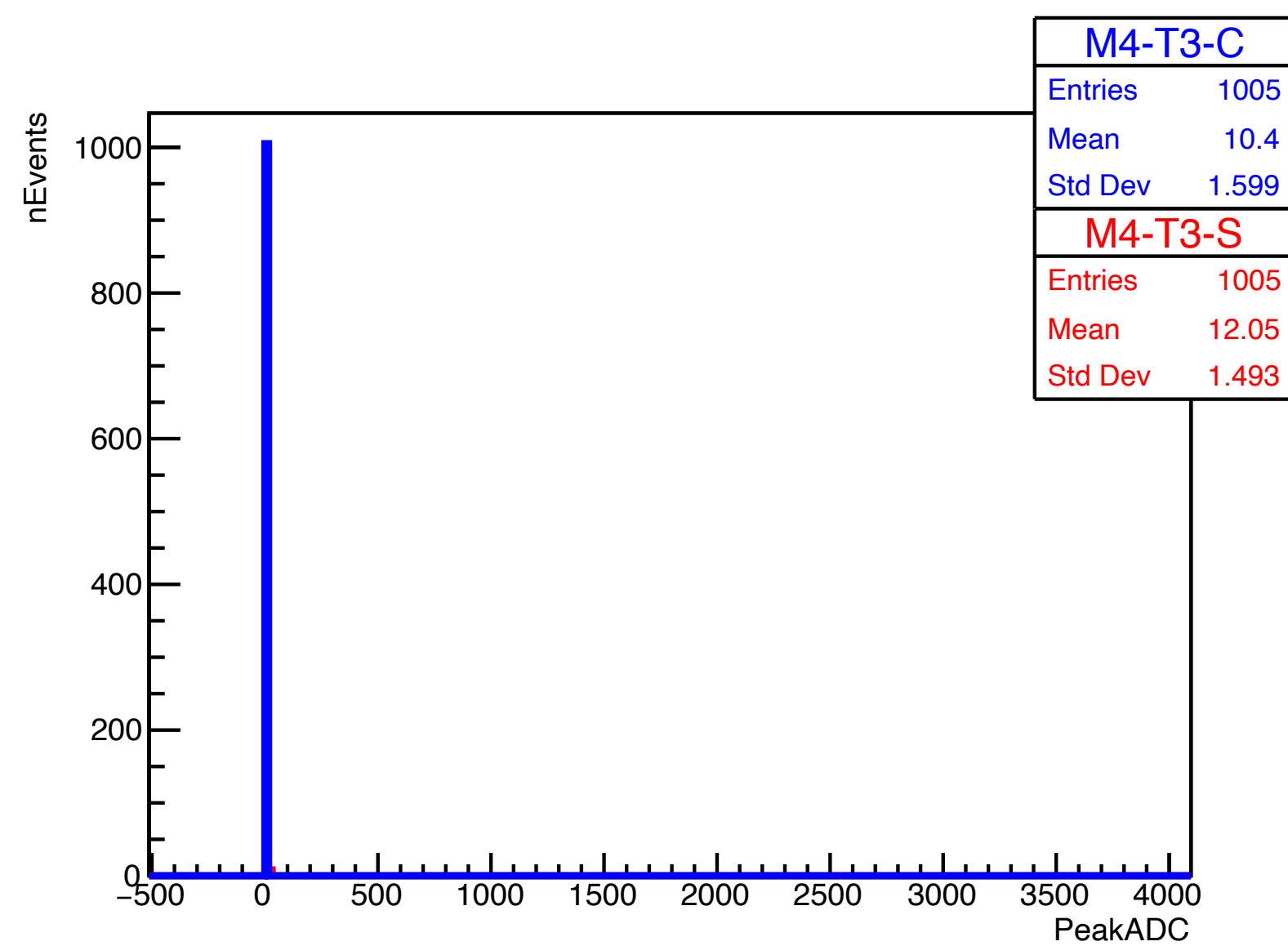
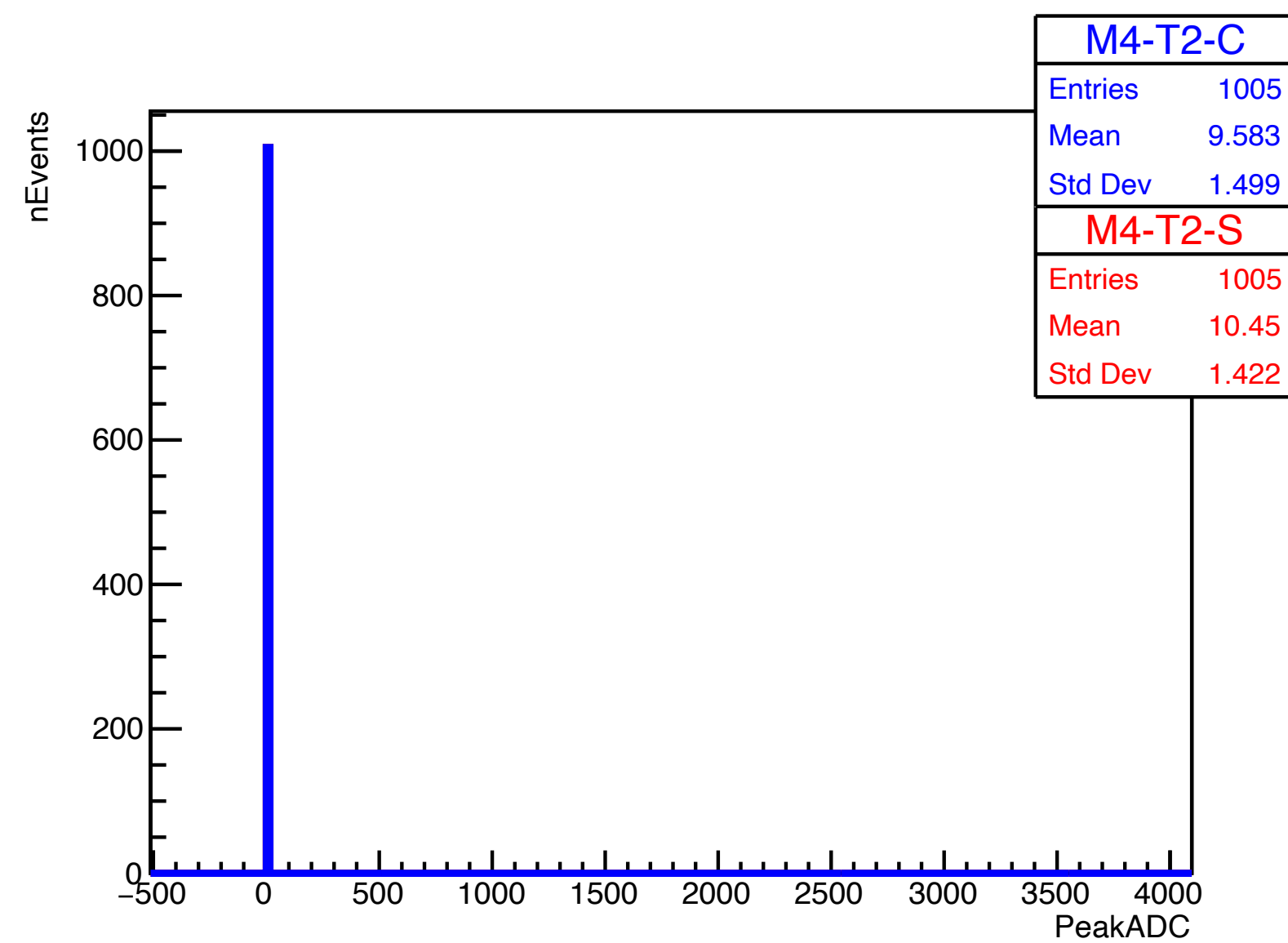
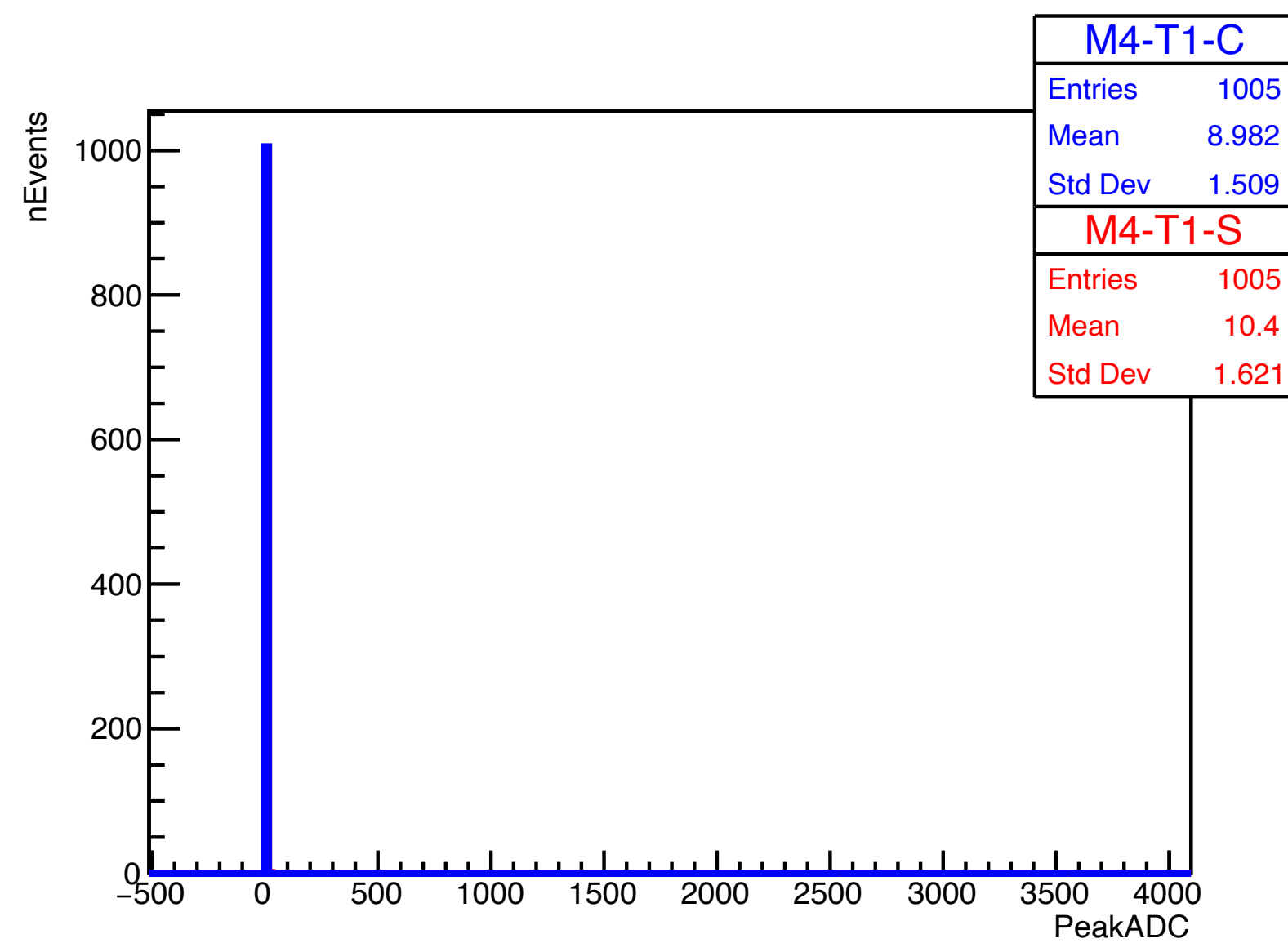
**\*\*NOTE:** for "--type single --method Overlay", --module should be set with one module



```
./monit --RunNumber 9679 --type module --method IntADC --module M11
```

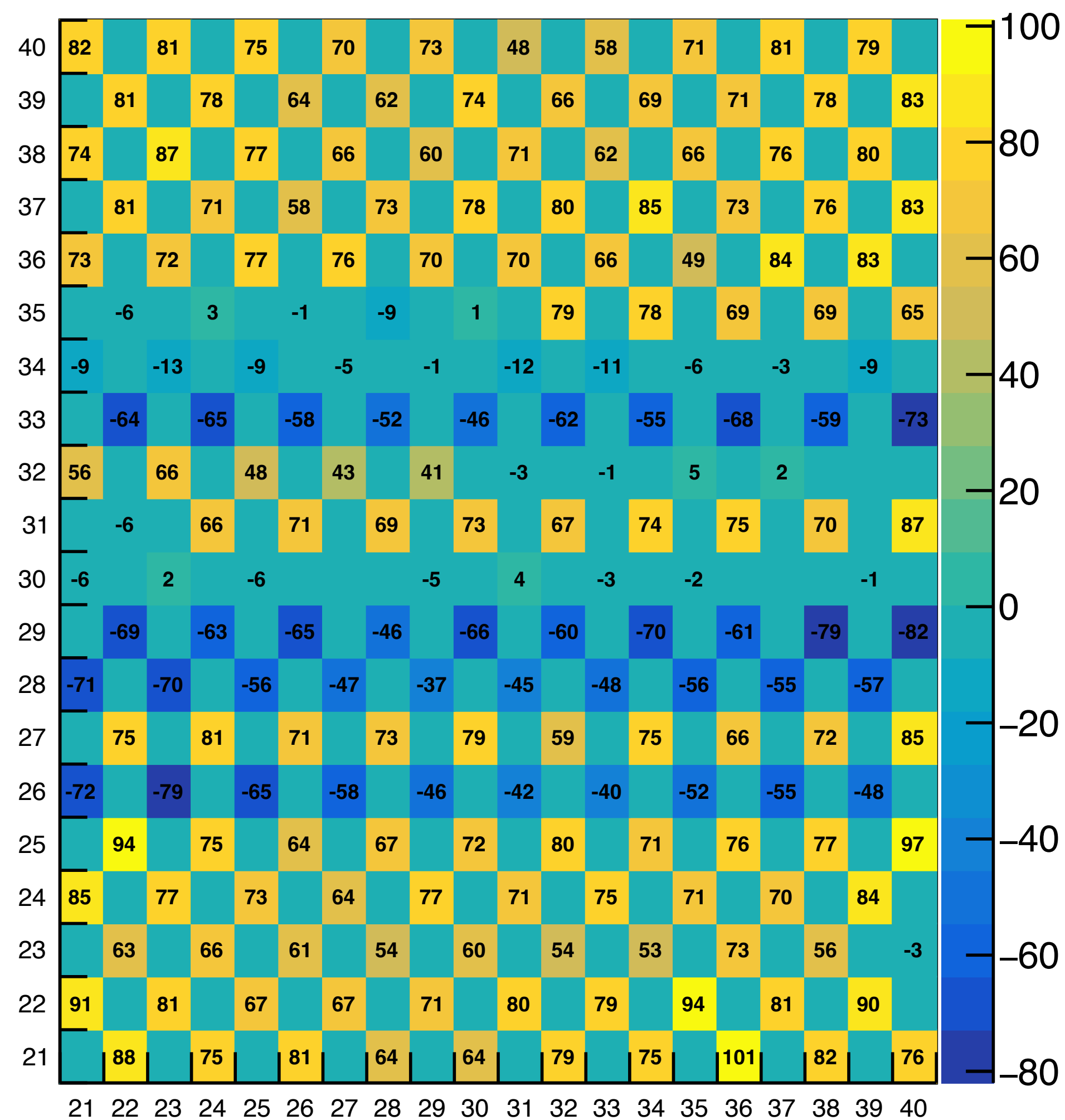


```
./monit --RunNumber 9679 --type module --method PeakADC --module M4
```



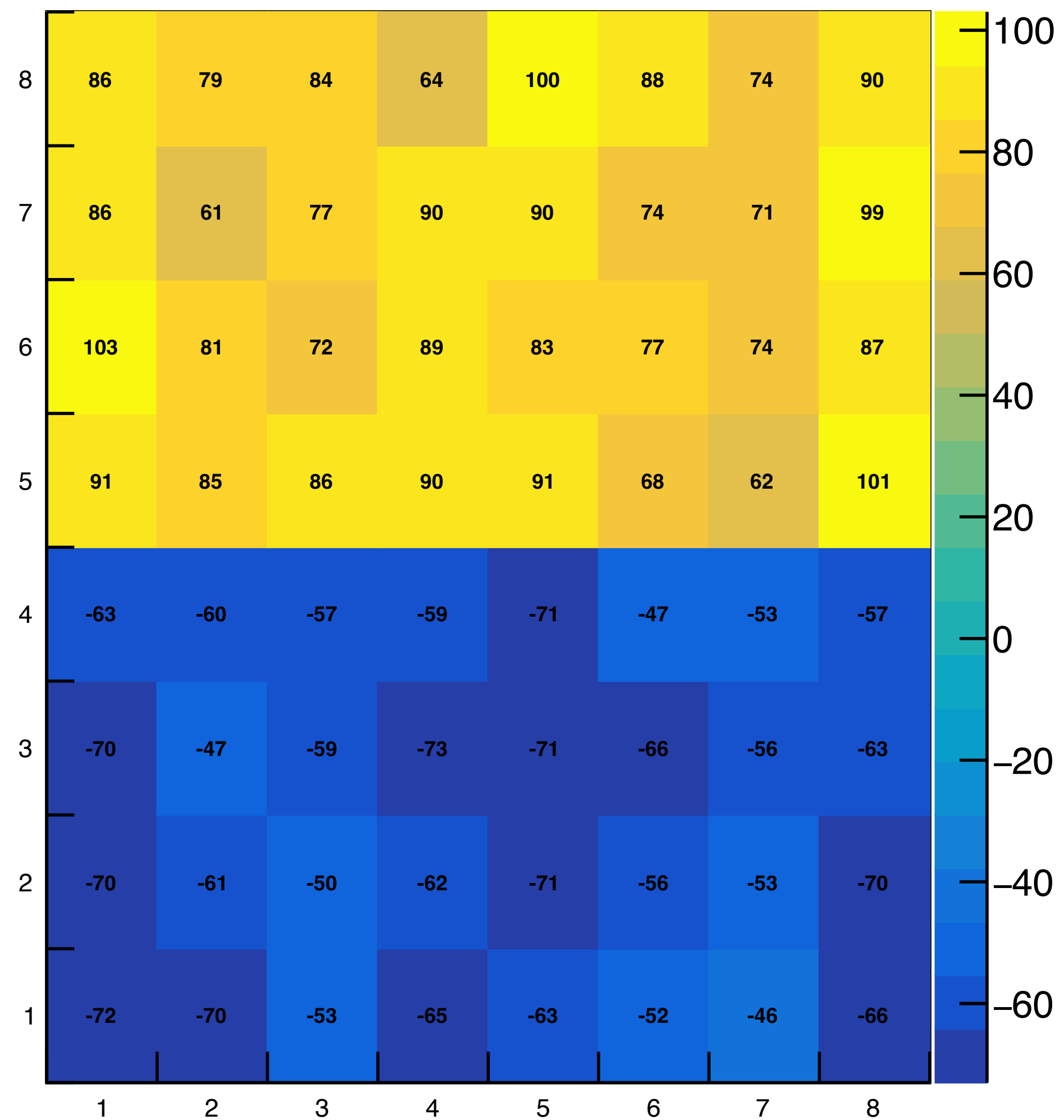


# SCINTILLATION

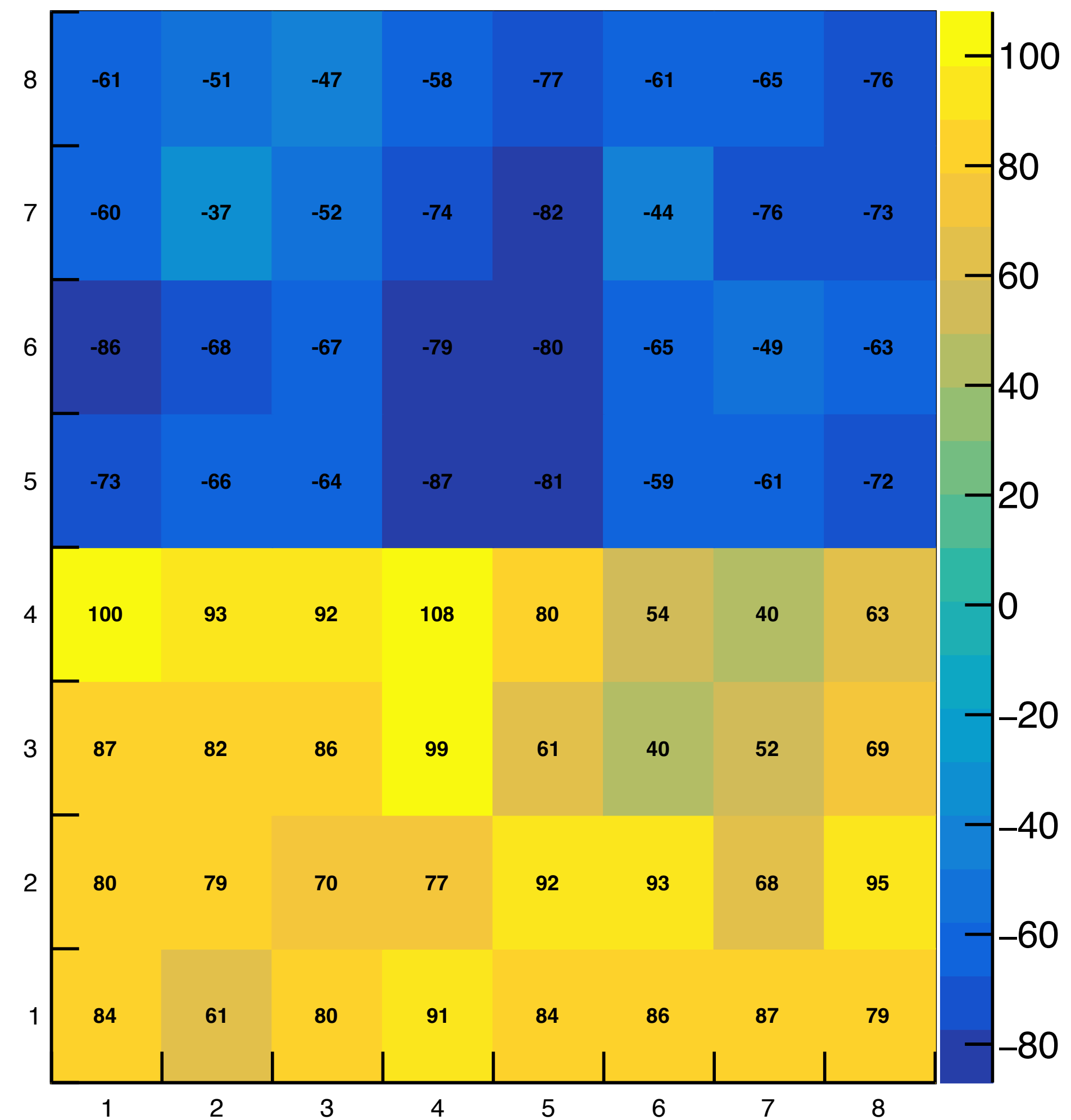


```
./monit --RunNumber 9679 --type heatmap --method IntADC --module MCPMT
```

CERENKOV

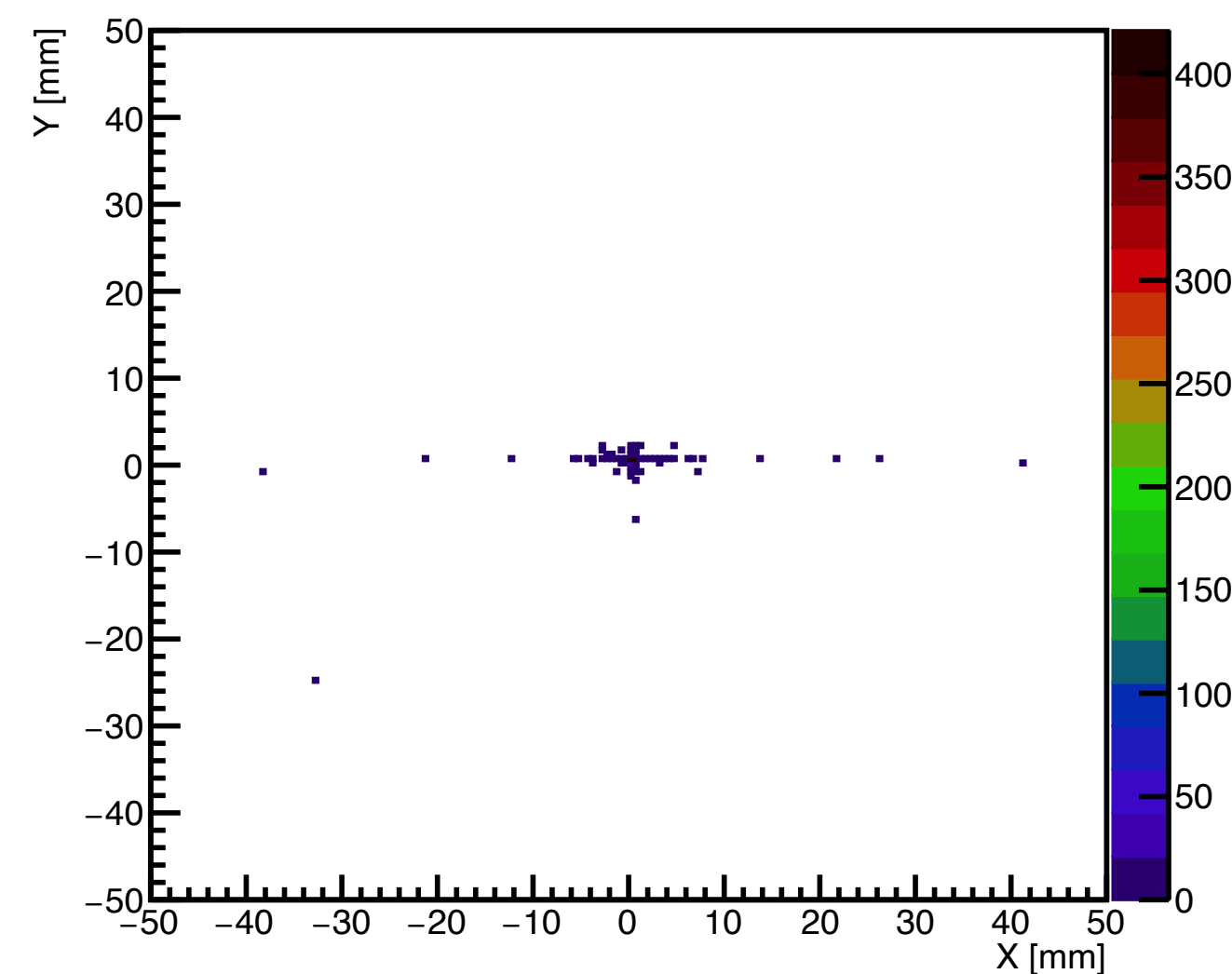


SCINTILLATION

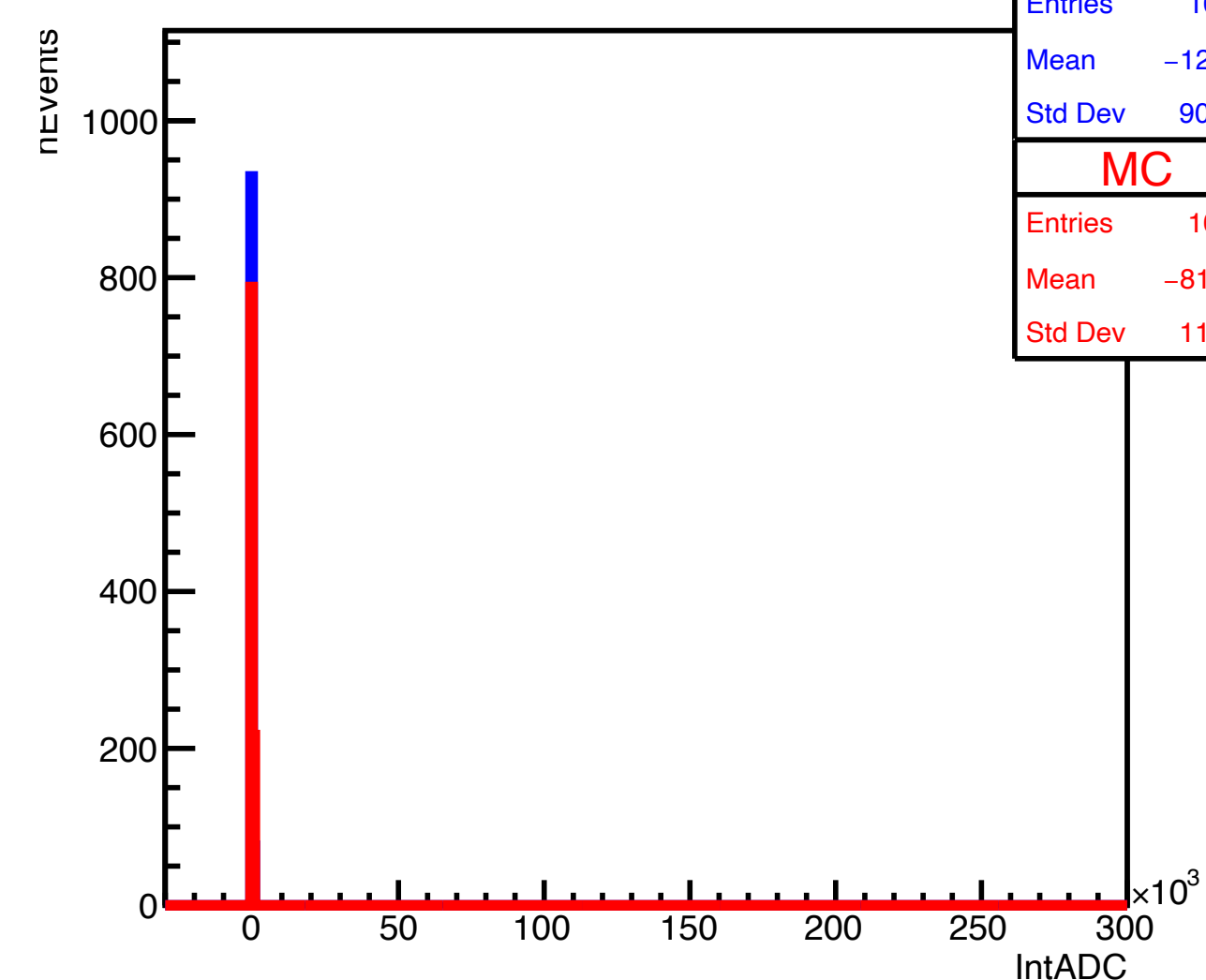
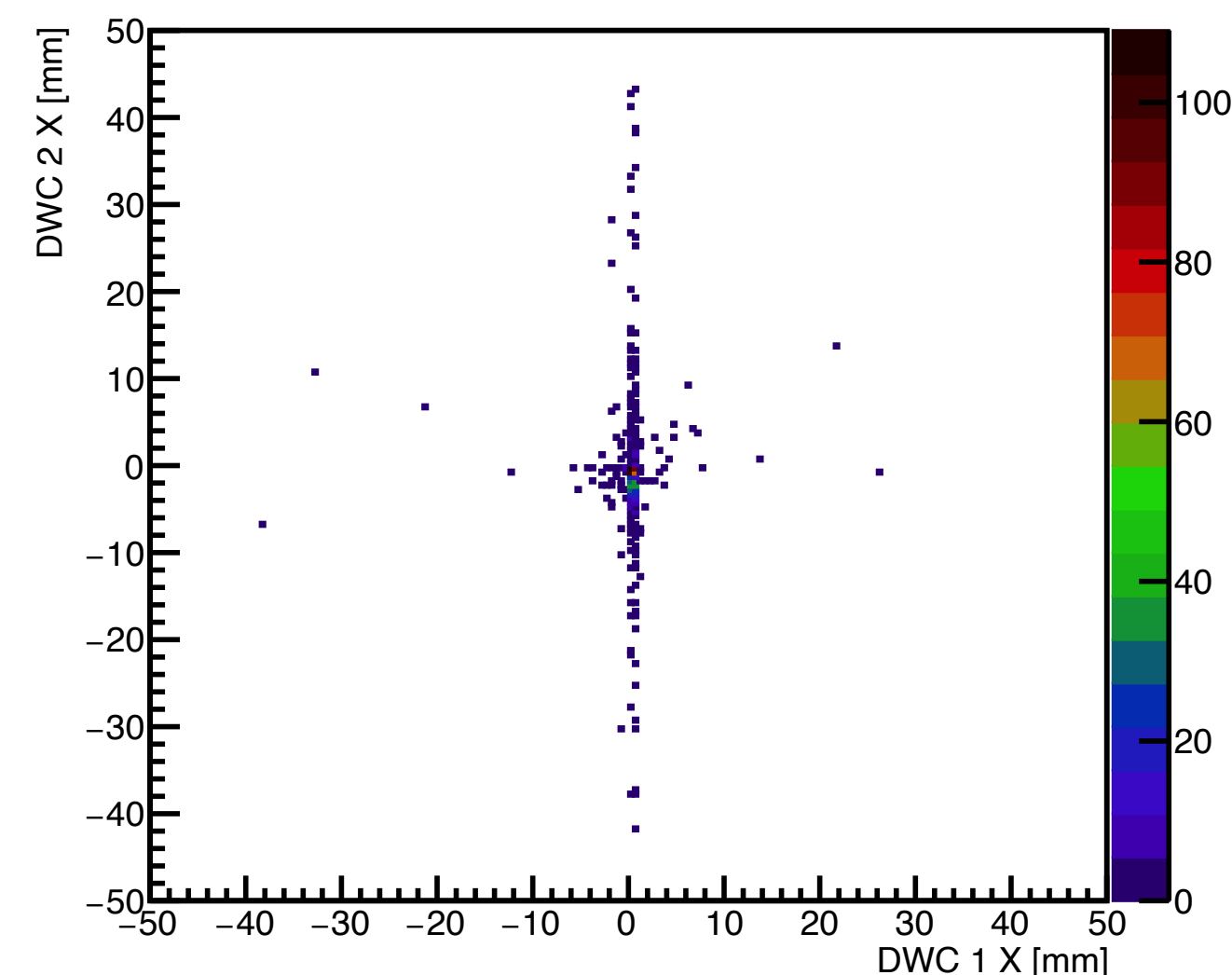


`./monit --RunNumber 9679 --type single --method IntADC --module M11-T8-C S64 MC PS DWC2L --AUX`

DWC 1 position

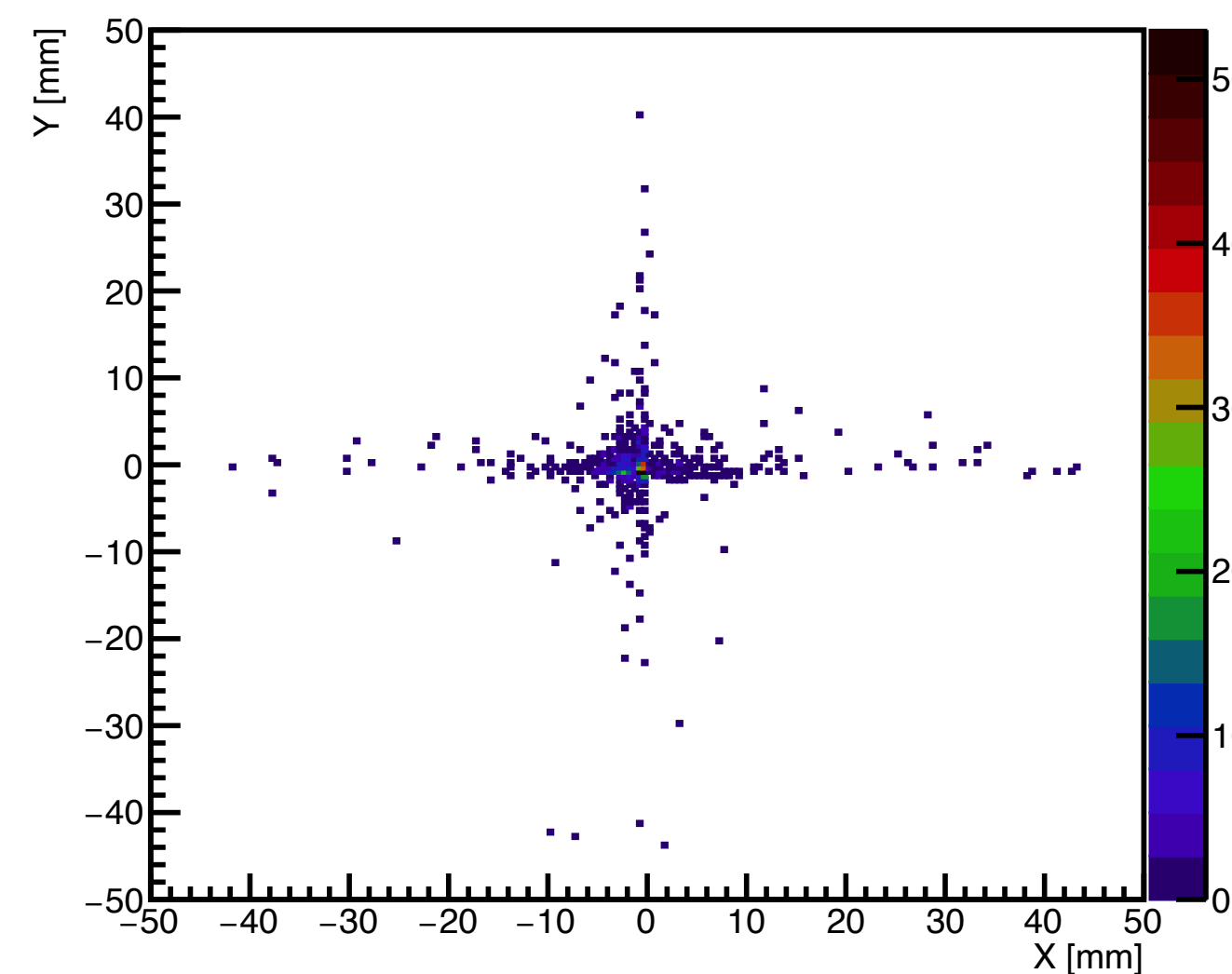


DWC X corr

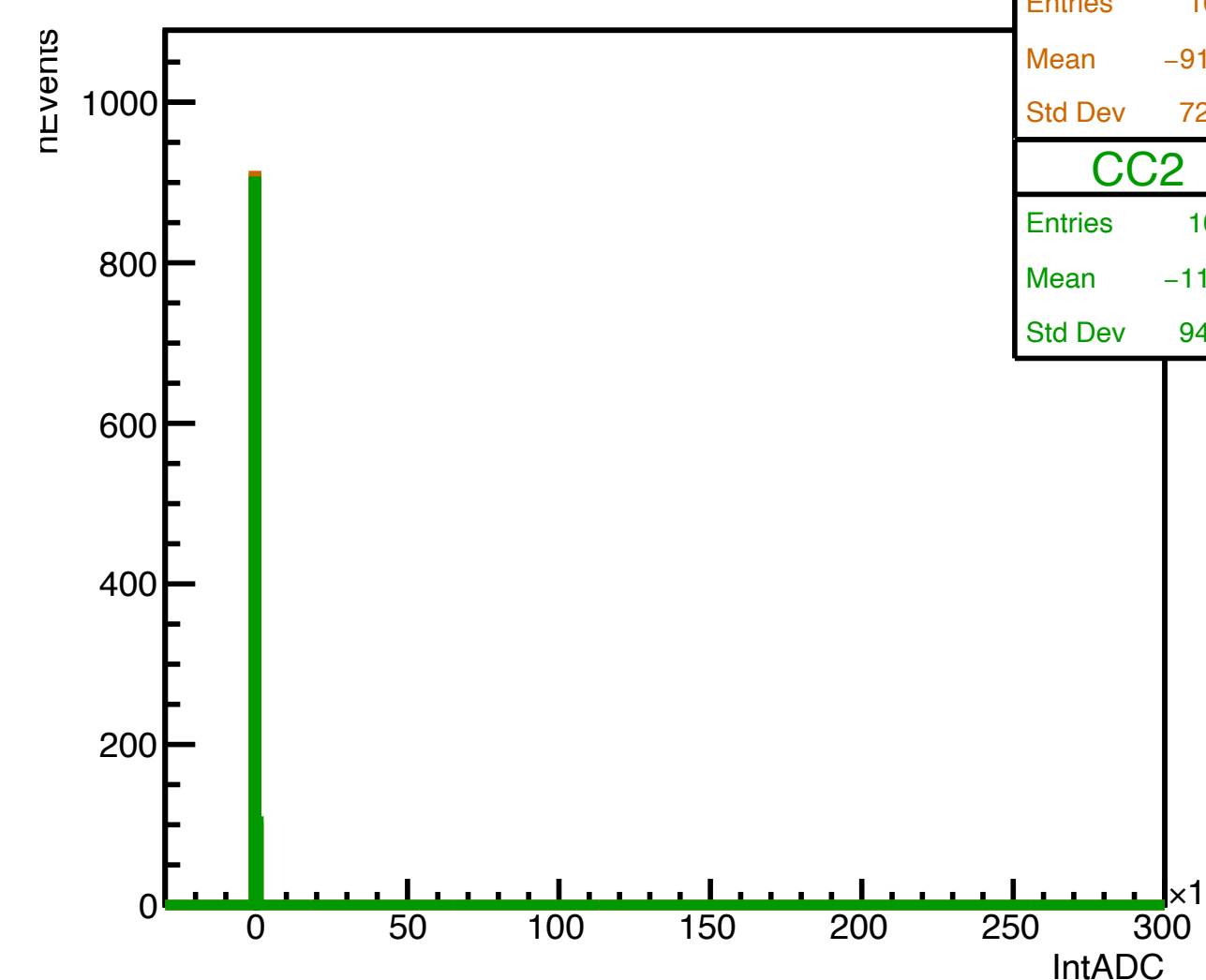
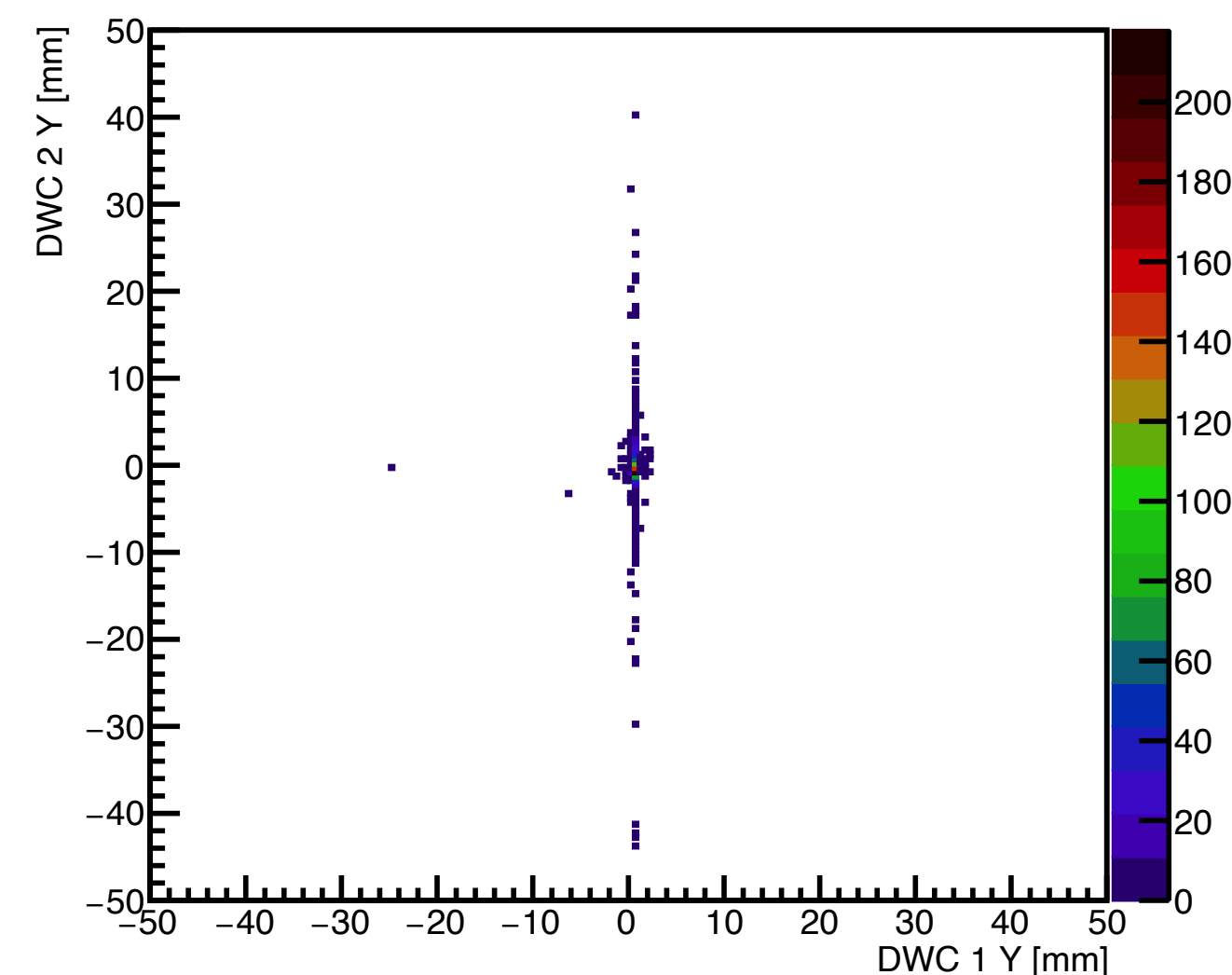


PS	
Entries	1005
Mean	-124.8
Std Dev	90.99
MC	
Entries	1005
Mean	-81.77
Std Dev	117.3

DWC 2 position



DWC Y corr



CC1	
Entries	1005
Mean	-91.59
Std Dev	72.48
CC2	
Entries	1005
Mean	-111.5
Std Dev	94.78

```
./monit --RunNumber 9679 --type single --method IntADC --module M11-T8-C S64 MC PS DWC2L --LIVE
```

```
Loading mapping file : ../mapping/mapping_TB2024_v1.root
```

	MID 8	MID 9	MID 7	MID12	MID13	MID10	MID 1	MID 2	MID 3	MID 6	MID 4	MID 5
Waiting for file : 2024-08-14 14:46:22	X	X	X	X	X	X	X	X	X	X	X	X
Waiting for file : 2024-08-14 14:46:27	X	X	X	X	X	X	X	X	X	X	X	X
Waiting for file : 2024-08-14 14:46:32	X	X	X	X	X	X	X	X	X	X	X	X
Waiting for file : 2024-08-14 14:46:37	X	X	X	X	X	X	X	X	X	X	X	X

With `--LIVE`, it will automatically load newly stored data and update plots



## TROUBLE SHOOTING

1. close the terminal (with command-W or command-Q) and re-load iTerm

DQM (for entering the server)

DQM (for setup the server)

./monit ~~~~

2. if it dose not work or need help, call KY