15/03/2017 Adam Knoetze

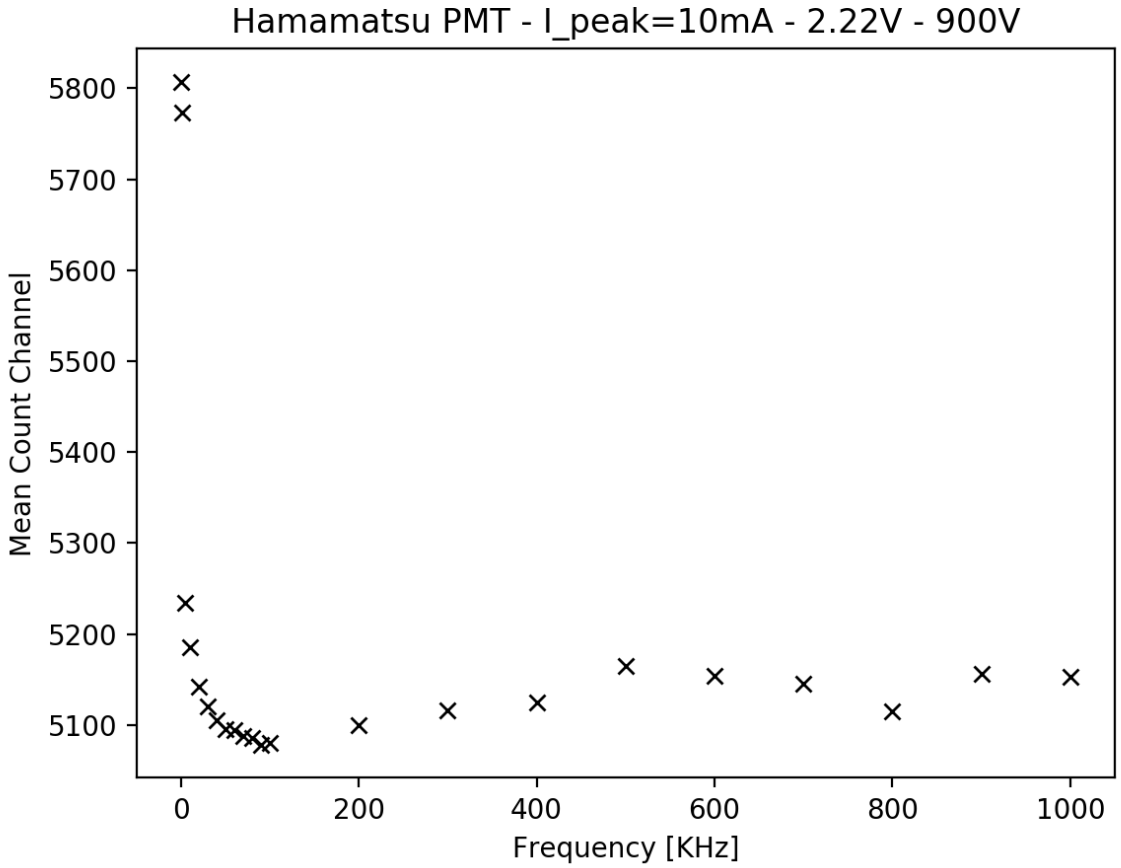
- Measurements over a range of LED frequencies with set peak current (I = 10mA)

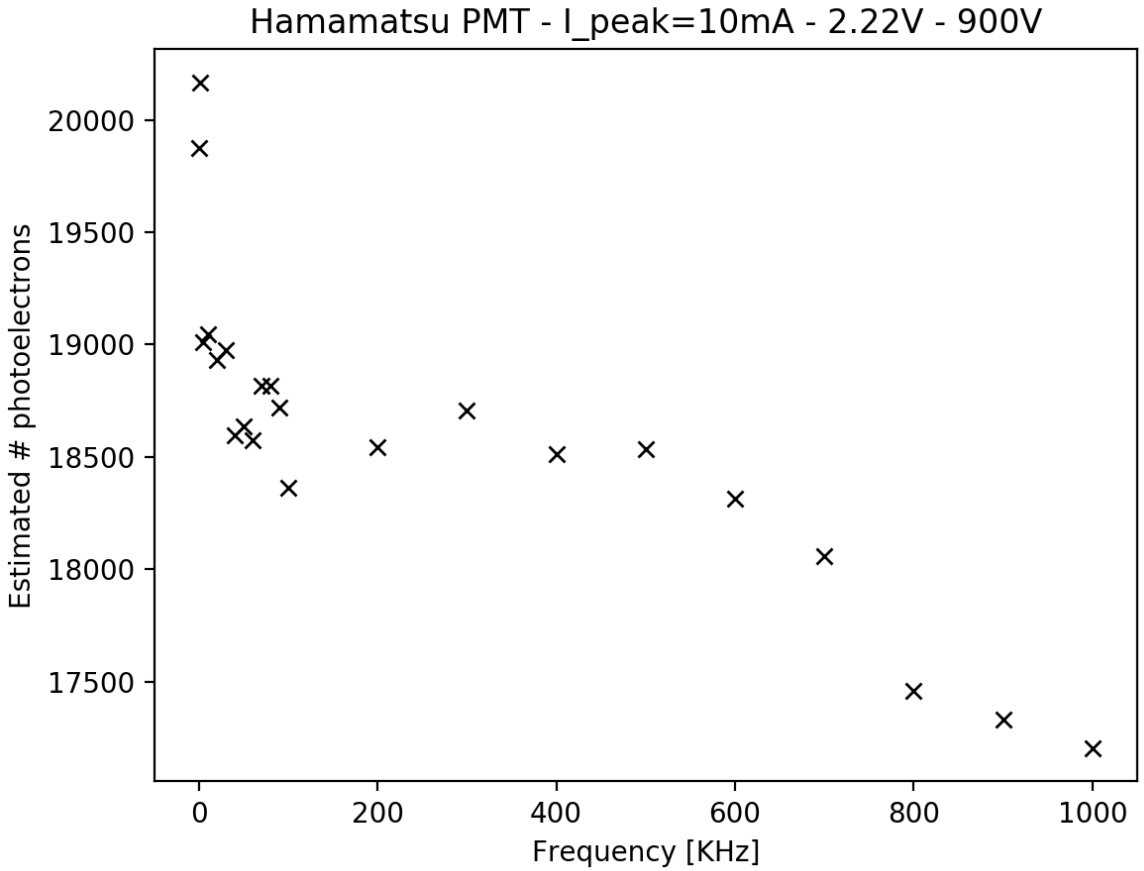
- Collected some emulator data for talk and report

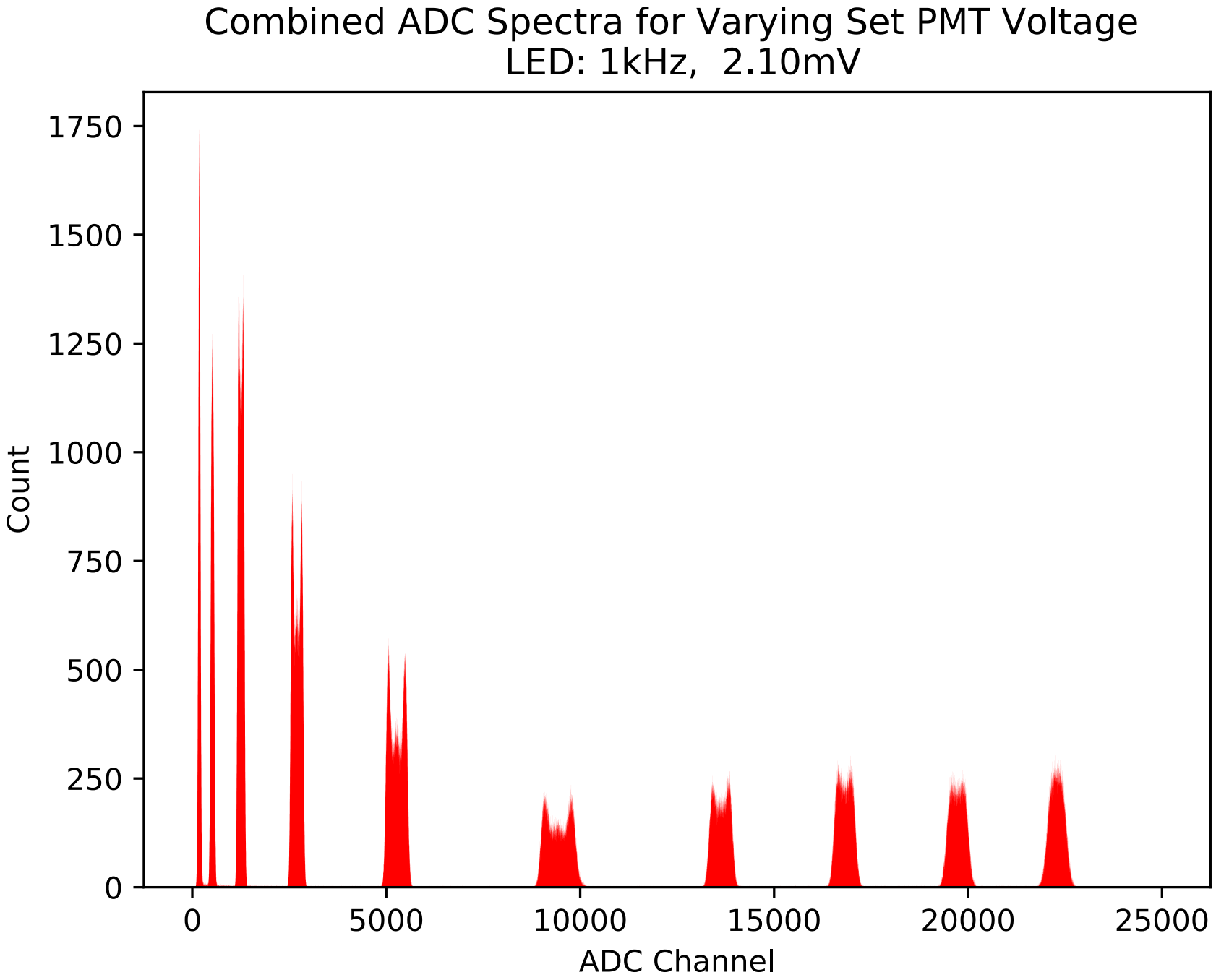
- Tried to take data with UCL base at low frequencies
  - Not working in the same manner as before pins added to last dynode and ground
  - Double peaked (Gaussian?) rather than a single Gaussian peak

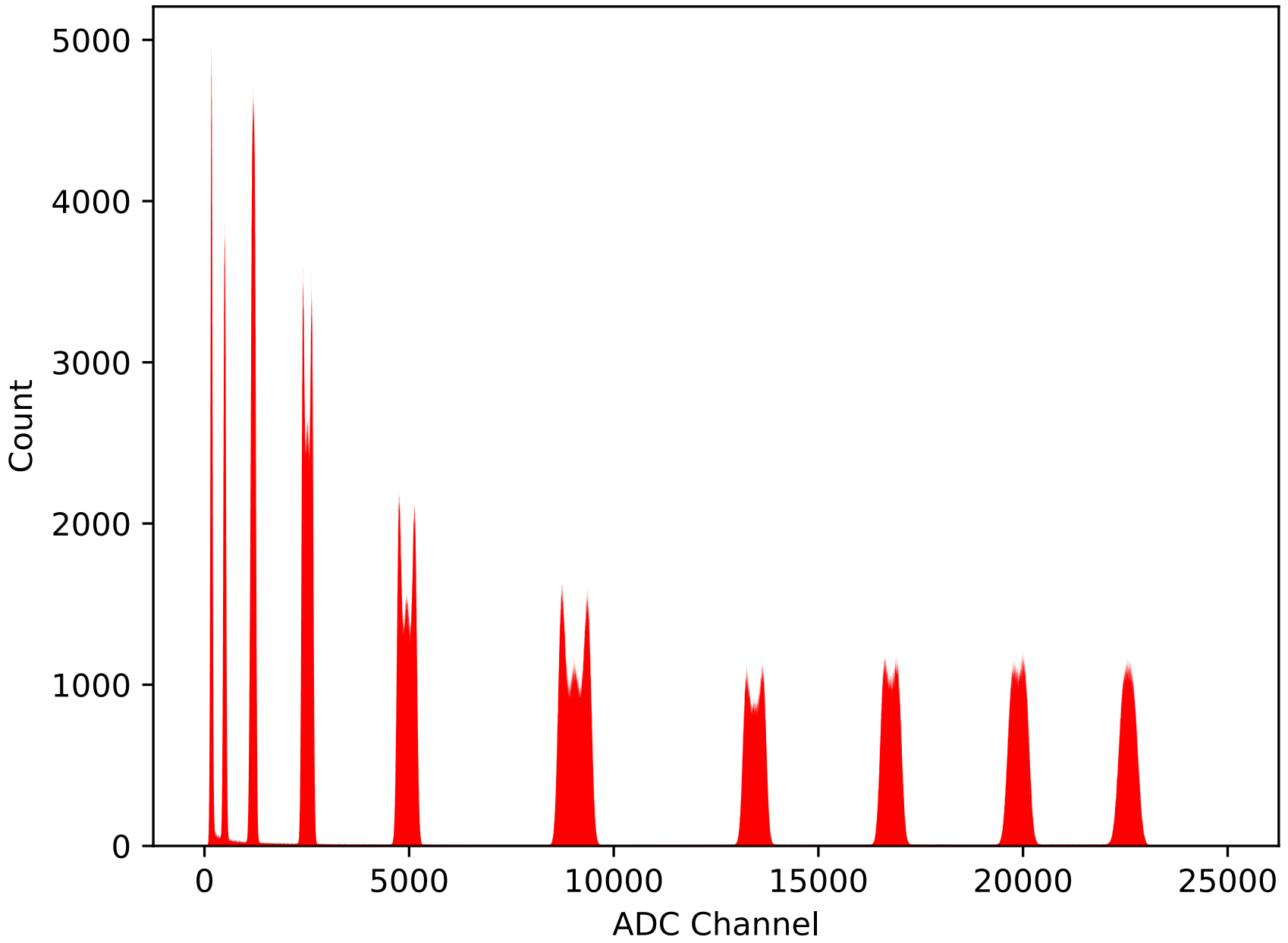
- Took using UCL base at 1kHz, 10kHz and 500kHz to show change in single/double peak at different PMT voltages
  - 500V + in 100V steps

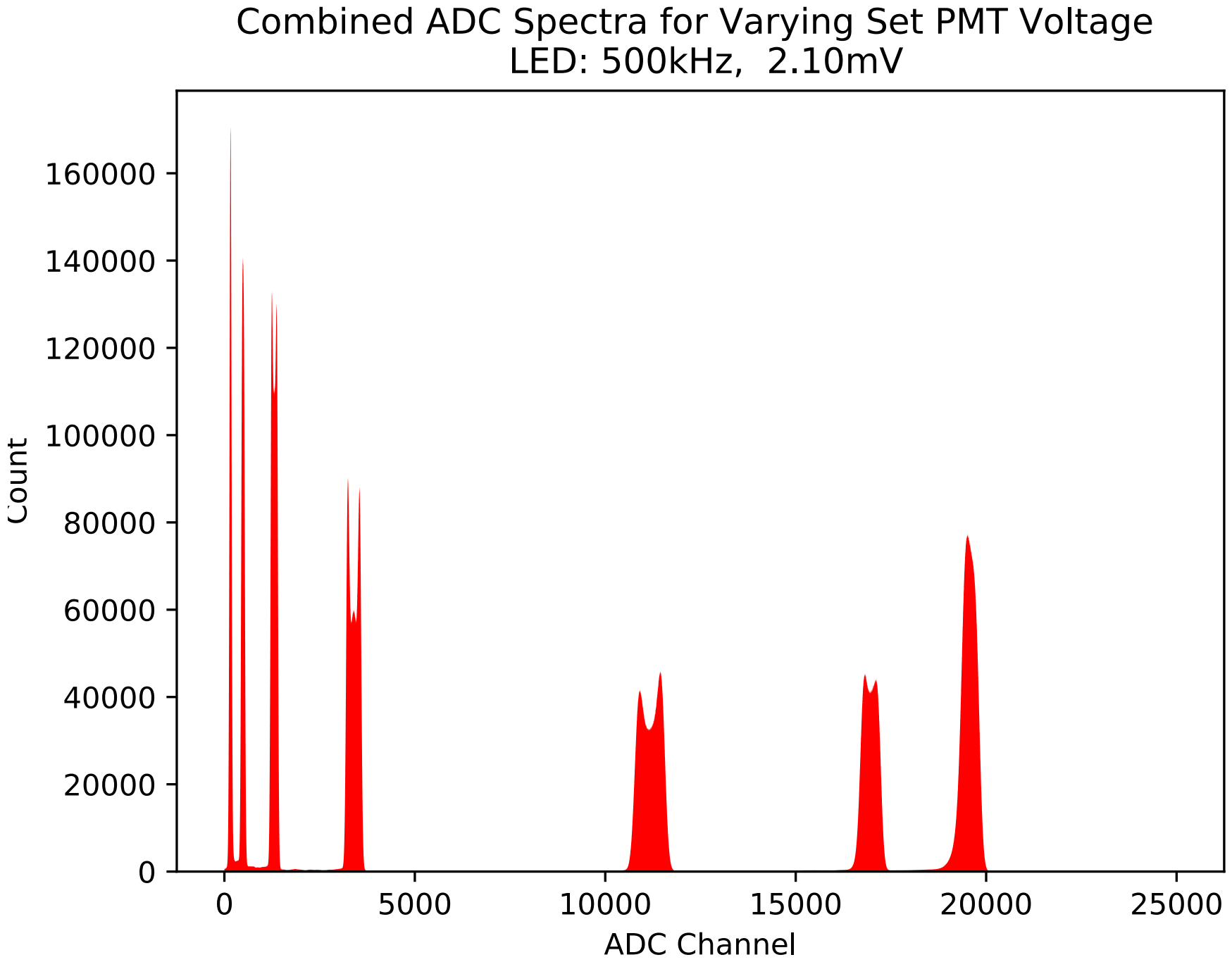
With I_p = 10mA


Hamamatsu PMT - I_peak=10mA - 2.22V - 900V
Mean Count Channel
Frequency [KHz]
5800
5700
5600
5500
5400
5300
5200
5100
0
200
400
600
800
1000


Hamamatsu PMT - I_peak=10mA - 2.22V - 900V
Estimated # photoelectrons
Frequency [KHz]
20000
19500
19000
18500
18000
17500
0
200
400
600
800
1000


Combined ADC Spectra for Varying Set PMT Voltage
LED: 1kHz, 2.10mV
Count
ADC Channel
0
250
500
750
1000
1250
1500
1750
0
5000
10000
15000
20000
25000


Combined ADC Spectra for Varying Set PMT Voltage
LED: 10kHz, 2.10mV
Count
ADC Channel
0
1000
2000
3000
4000
5000
0
5000
10000
15000
20000
25000


Combined ADC Spectra for Varying Set PMT Voltage
LED: 500kHz, 2.10mV
Count
160000
140000
120000
100000
80000
60000
40000
20000
0
0
5000
10000
15000
20000
25000
ADC Channel