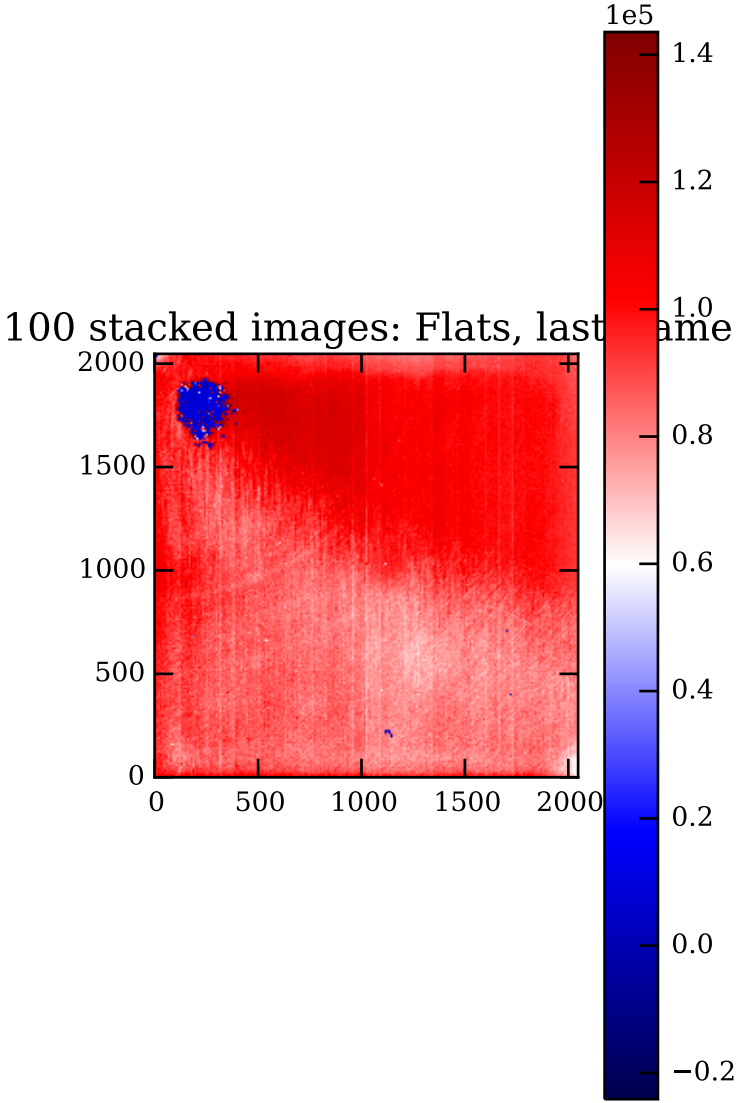
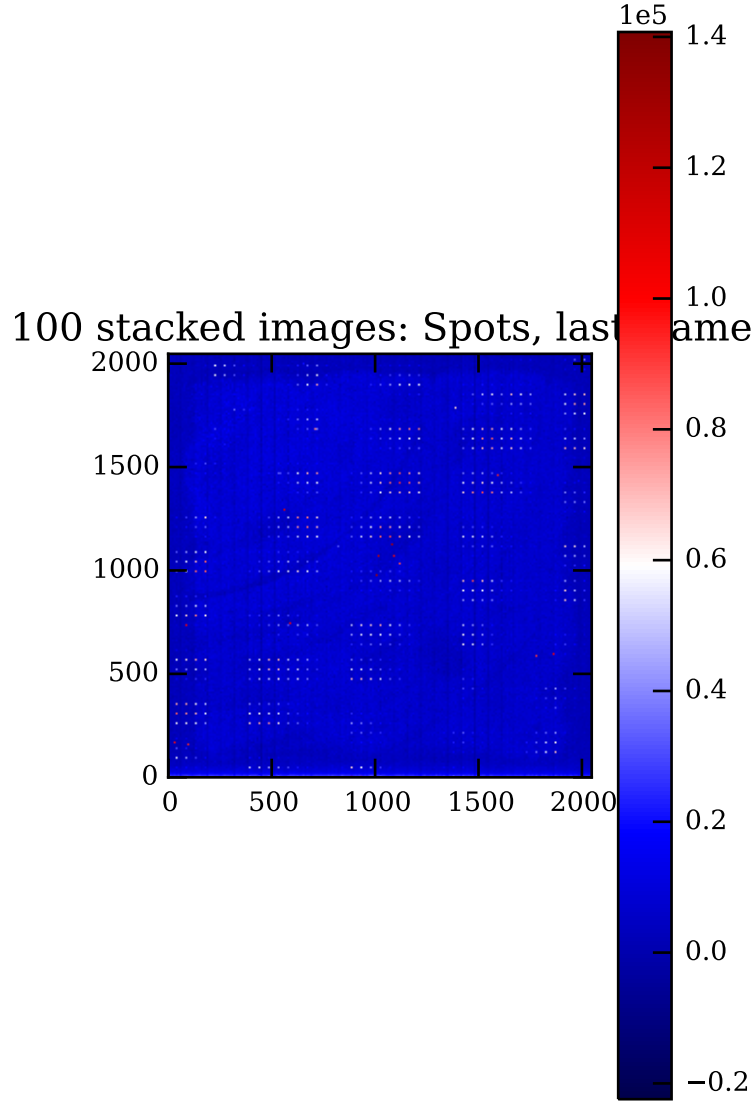
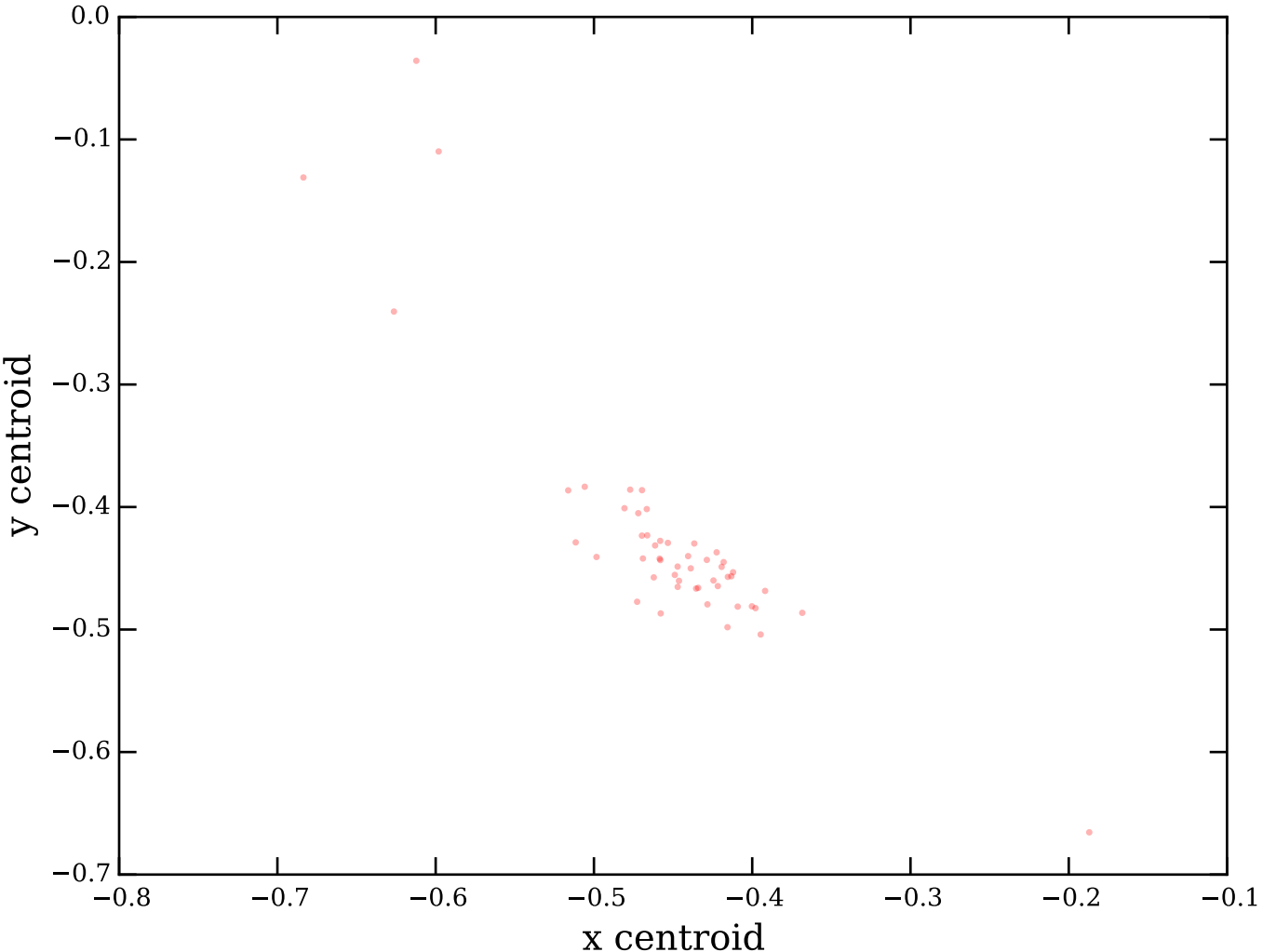
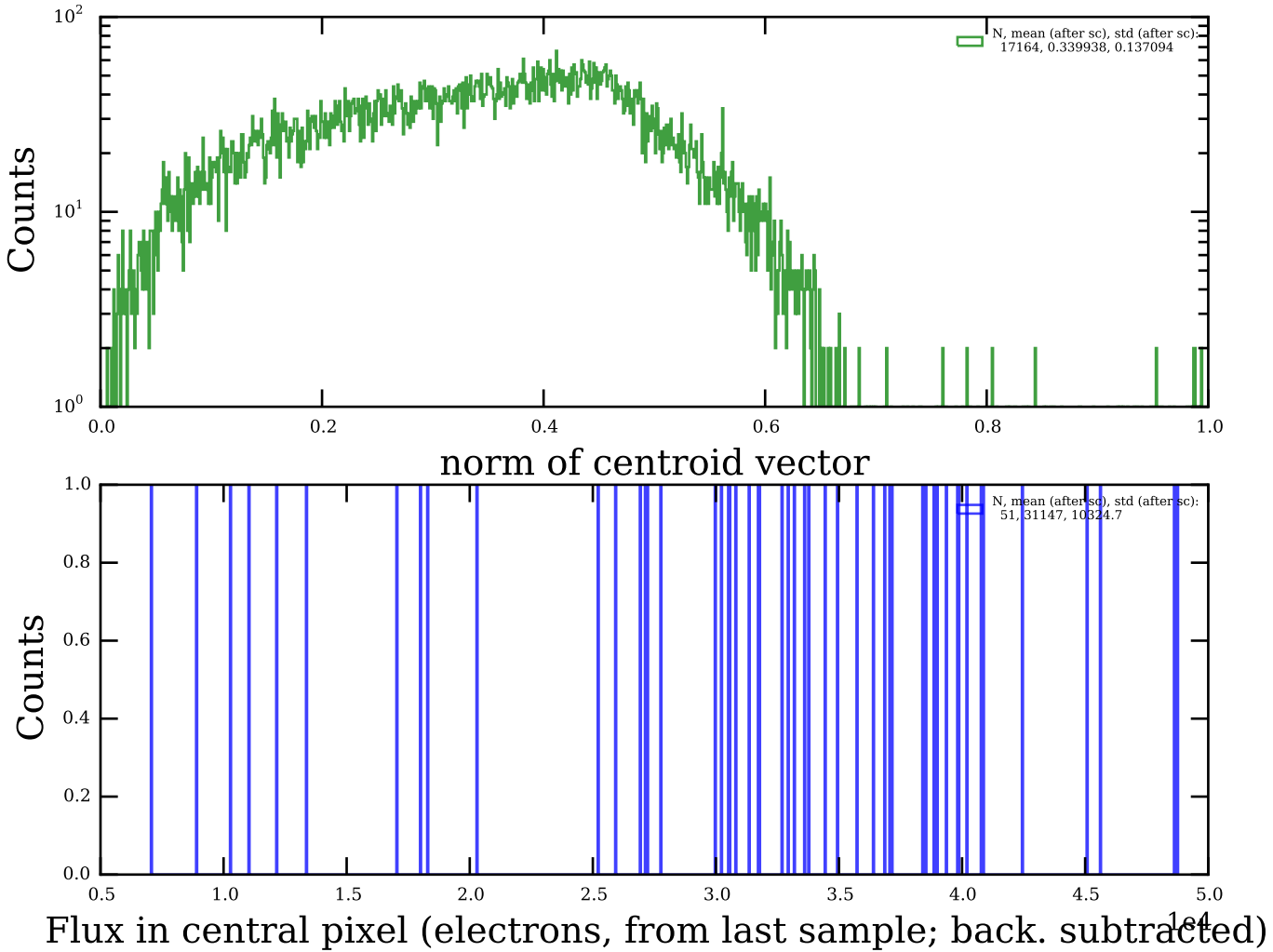
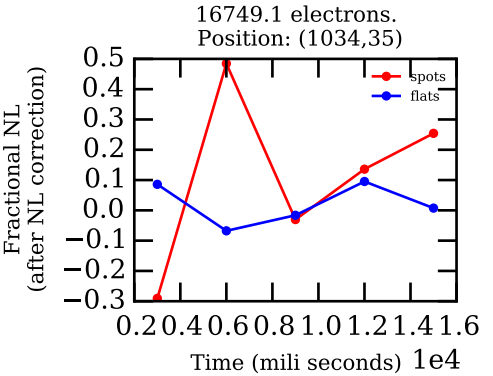
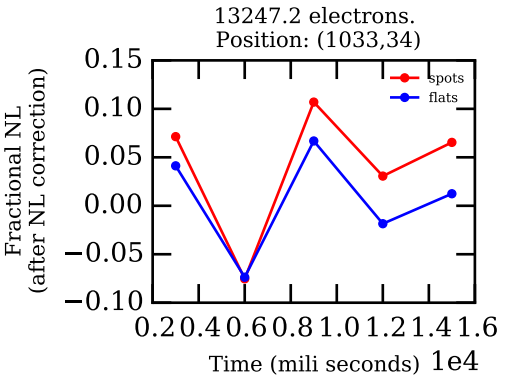

100 stacked images: Flats, last frame
1e5
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
2000
1500
1000
500
0
0
500
1000
1500
2000

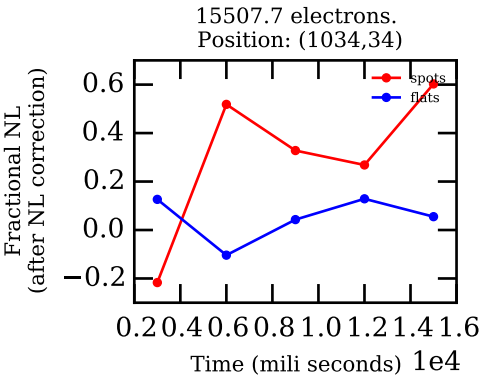

100 stacked images: Spots, last frame
1e5
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
2000
1500
1000
500
0
0
500
1000
1500
2000

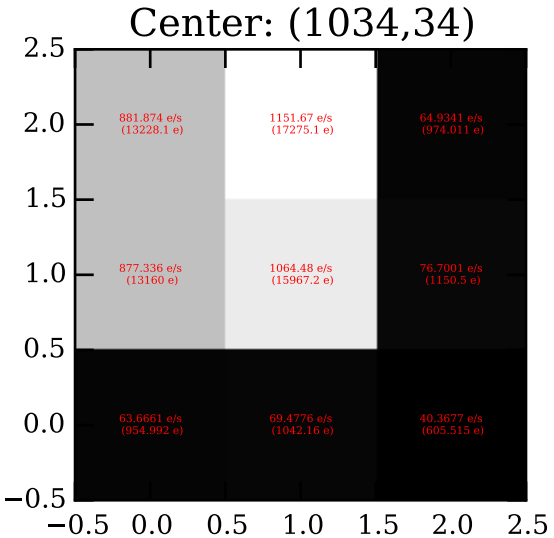

0.0
−0.1
−0.2
−0.3
−0.4
−0.5
−0.6
−0.7
y centroid
−0.8
−0.7
−0.6
−0.5
−0.4
−0.3
−0.2
−0.1
x centroid

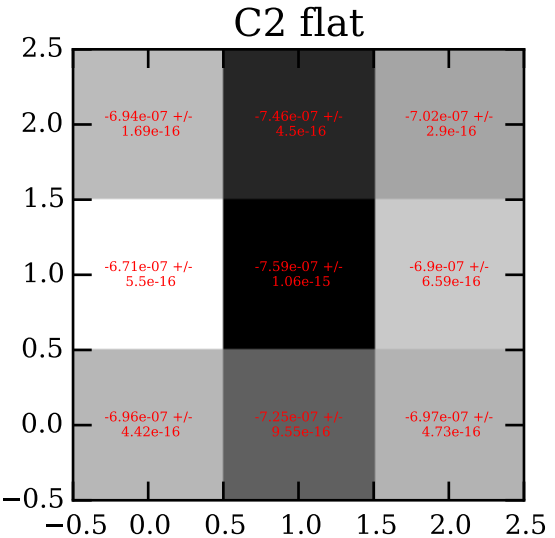

Counts
N, mean (after sc), std (after sc):
17164, 0.339938, 0.137094
norm of centroid vector
Counts
N, mean (after sc), std (after sc):
51, 31147, 10324.7
1e4
Flux in central pixel (electrons, from last sample; back. subtracted)

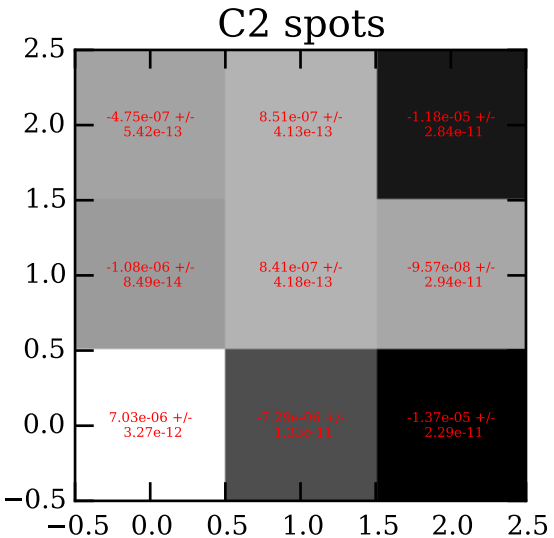

16749.1 electrons.
Position: (1034,35)
Fractional NL
(after NL correction)
spots
flats
0.5
0.4
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

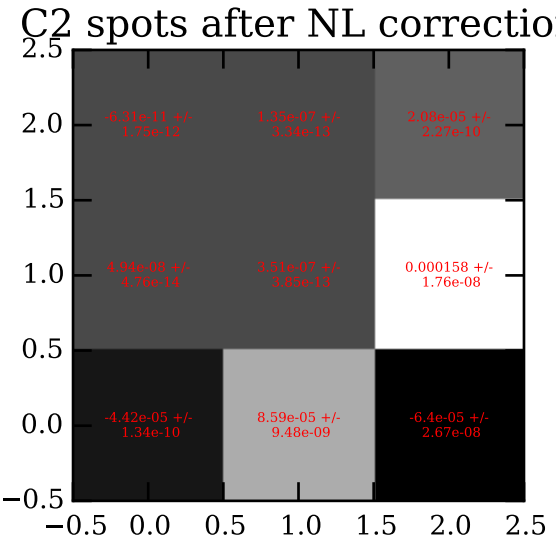

13247.2 electrons.
Position: (1033,34)
Fractional NL
(after NL correction)
spots
flats
0.15
0.10
0.05
0.00
−0.05
−0.10
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

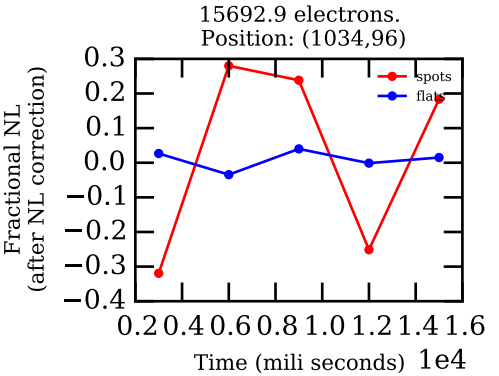

15507.7 electrons.
Position: (1034,34)
Fractional NL
(after NL correction)
spots
flats
0.6
0.4
0.2
0.0
−0.2
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

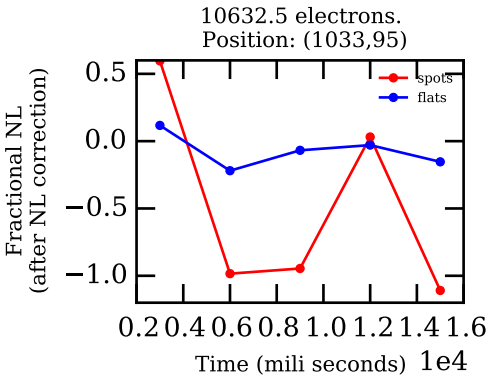

Center: (1034,34)
881.874 e/s
(13228.1 e)
1151.67 e/s
(17275.1 e)
64.9341 e/s
(974.011 e)
877.336 e/s
(13160 e)
1064.48 e/s
(15967.2 e)
76.7001 e/s
(1150.5 e)
63.6661 e/s
(954.992 e)
69.4776 e/s
(1042.16 e)
40.3677 e/s
(605.515 e)
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

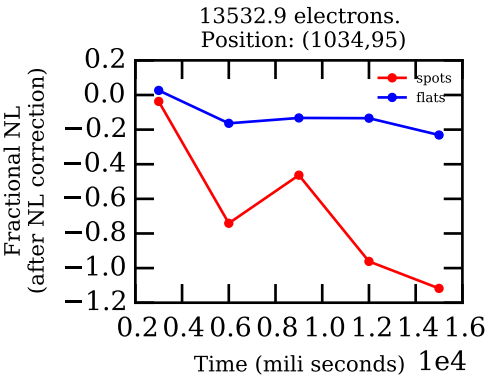

C2 flat
-6.94e-07 +/-
1.69e-16
-7.46e-07 +/-
4.5e-16
-7.02e-07 +/-
2.9e-16
-6.71e-07 +/-
5.5e-16
-7.59e-07 +/-
1.06e-15
-6.9e-07 +/-
6.59e-16
-6.96e-07 +/-
4.42e-16
-7.25e-07 +/-
9.55e-16
-6.97e-07 +/-
4.73e-16
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

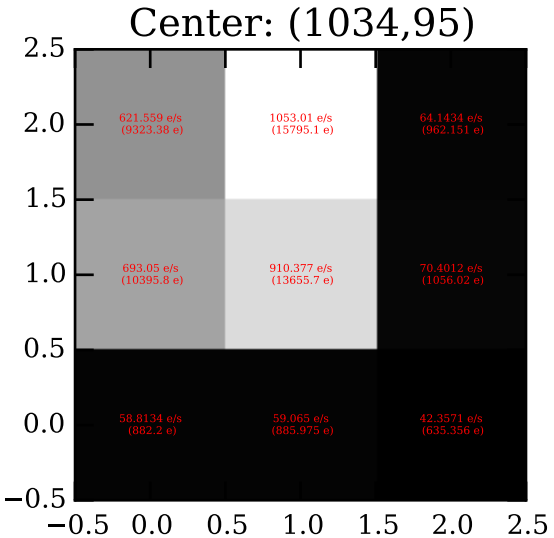

C2 spots
-4.75e-07 +/-
5.42e-13
8.51e-07 +/-
4.13e-13
-1.18e-05 +/-
2.84e-11
-1.08e-06 +/-
8.49e-14
8.41e-07 +/-
4.18e-13
-9.57e-08 +/-
2.94e-11
7.03e-06 +/-
3.27e-12
-1.37e-05 +/-
2.29e-11
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

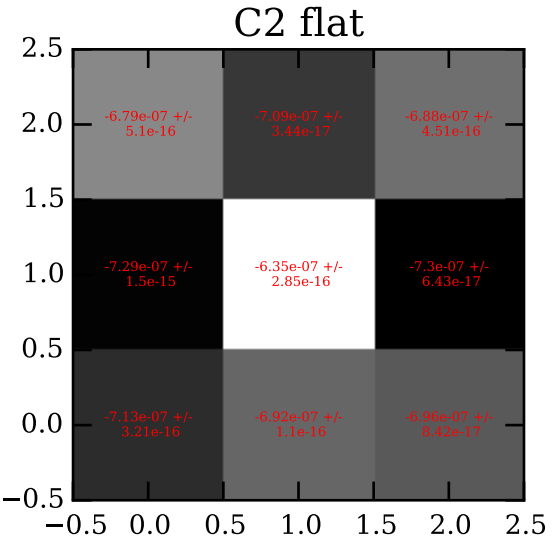

C2 spots after NL correction
-6.31e-11 +/-
1.75e-12
1.35e-07 +/-
3.34e-13
2.08e-05 +/-
2.27e-10
4.94e-08 +/-
4.76e-14
3.51e-07 +/-
3.85e-13
0.000158 +/-
1.76e-08
-4.42e-05 +/-
1.34e-10
8.59e-05 +/-
9.48e-09
-6.4e-05 +/-
2.67e-08
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

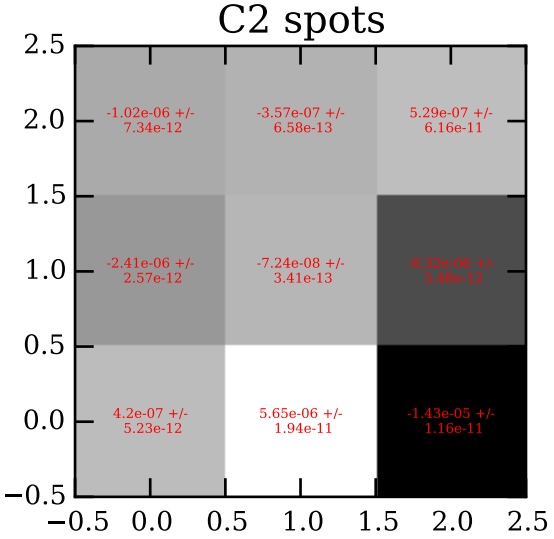

15692.9 electrons.
Position: (1034,96)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

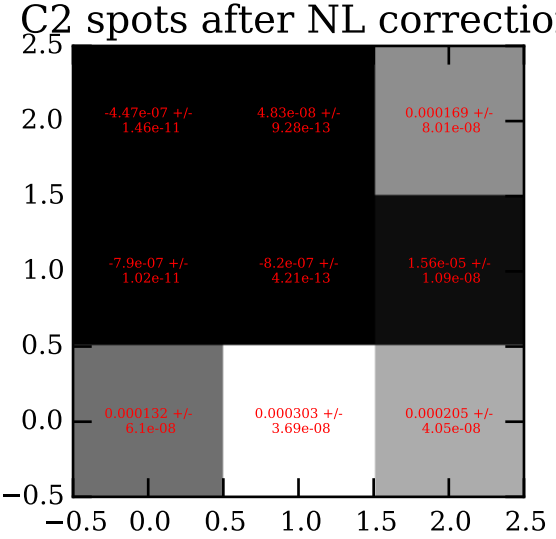

10632.5 electrons.
Position: (1033,95)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

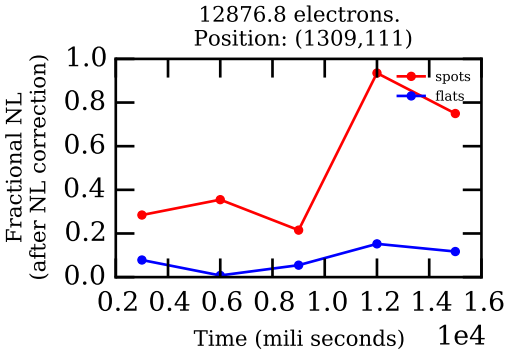

13532.9 electrons.
Position: (1034,95)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

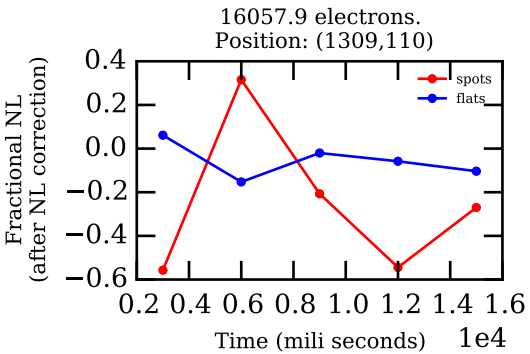

Center: (1034,95)
621.559 e/s
(9323.38 e)
1053.01 e/s
(15795.1 e)
64.1434 e/s
(962.151 e)
693.05 e/s
(10395.8 e)
910.377 e/s
(13655.7 e)
70.4012 e/s
(1056.02 e)
58.8134 e/s
(882.2 e)
59.065 e/s
(885.975 e)
42.3571 e/s
(635.356 e)
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

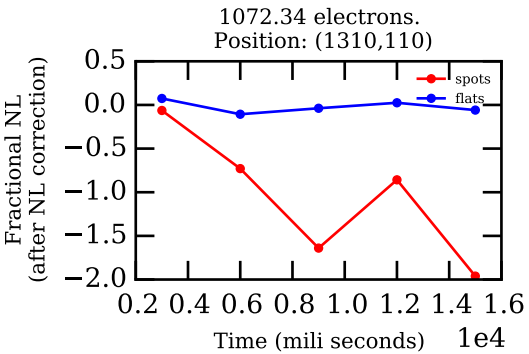

C2 flat
-6.79e-07 +/-
5.1e-16
-7.09e-07 +/-
3.44e-17
-6.88e-07 +/-
4.51e-16
-7.29e-07 +/-
1.5e-15
-6.35e-07 +/-
2.85e-16
-7.3e-07 +/-
6.43e-17
-7.13e-07 +/-
3.21e-16
-6.92e-07 +/-
1.1e-16
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

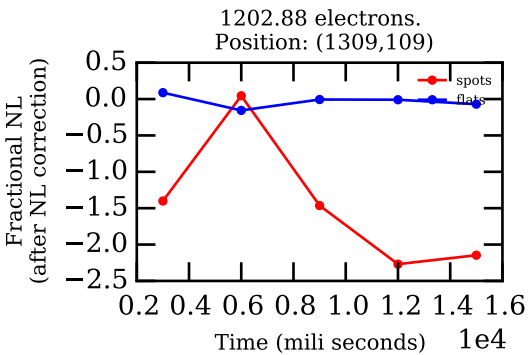

C2 spots
-1.02e-06 +/-
7.34e-12
-3.57e-07 +/-
6.58e-13
5.29e-07 +/-
6.16e-11
-2.41e-06 +/-
2.57e-12
-7.24e-08 +/-
3.41e-13
4.2e-07 +/-
5.23e-12
5.65e-06 +/-
1.94e-11
-1.43e-05 +/-
1.16e-11
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

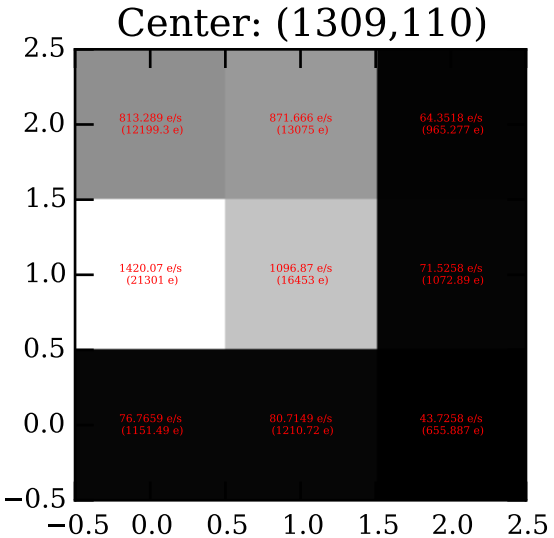

C2 spots after NL correction
-4.47e-07 +/-
1.46e-11
4.83e-08 +/-
9.28e-13
0.000169 +/-
8.01e-08
-7.9e-07 +/-
1.02e-11
-8.2e-07 +/-
4.21e-13
1.56e-05 +/-
1.09e-08
0.000132 +/-
6.1e-08
0.000303 +/-
3.69e-08
0.000205 +/-
4.05e-08
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

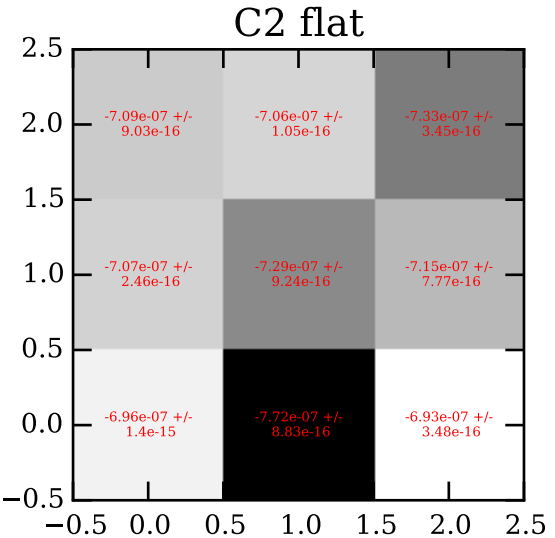

12876.8 electrons.
Position: (1309,111)
Fractional NL
(after NL correction)
1.0
0.8
0.6
0.4
0.2
0.0
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds)
1e4

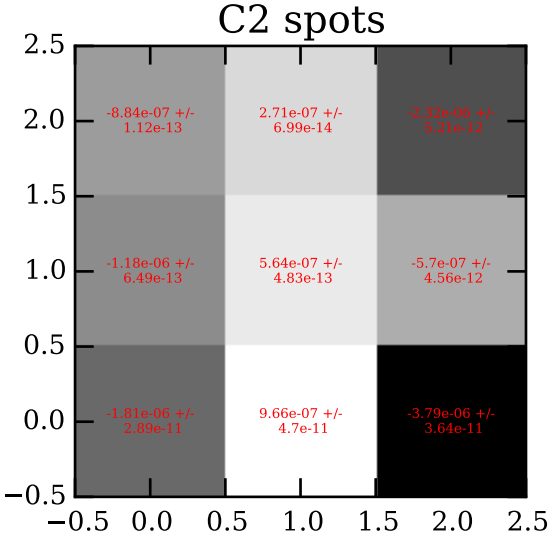

16057.9 electrons.
Position: (1309,110)
Fractional NL
(after NL correction)
0.4
0.2
0.0
−0.2
−0.4
−0.6
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds)
1e4

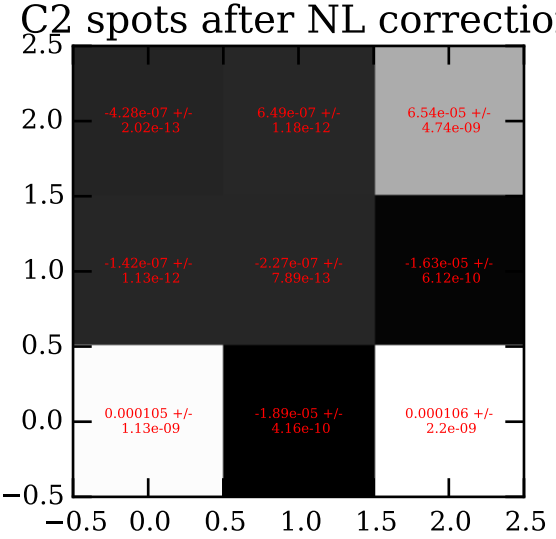

1072.34 electrons.
Position: (1310,110)
Fractional NL
(after NL correction)
0.5
0.0
−0.5
−1.0
−1.5
−2.0
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds)
1e4

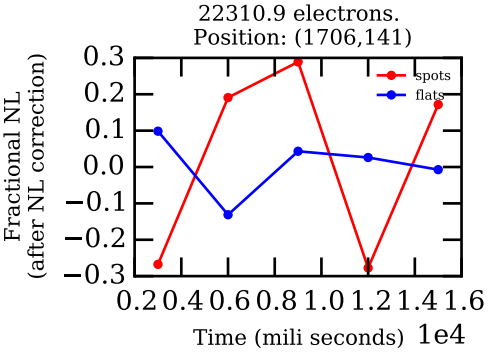

1202.88 electrons.
Position: (1309,109)
Fractional NL
(after NL correction)
0.5
0.0
−0.5
−1.0
−1.5
−2.0
−2.5
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds)
1e4

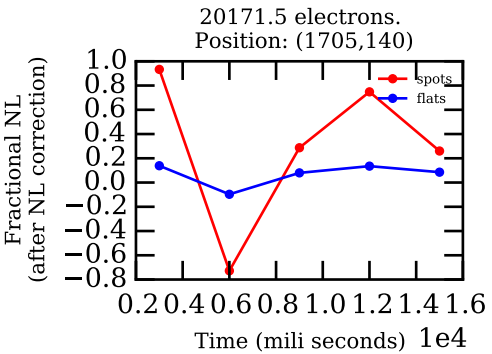

Center: (1309,110)
813.289 e/s
(12199.3 e)
871.666 e/s
(13075 e)
64.3518 e/s
(965.277 e)
1420.07 e/s
(21301 e)
1096.87 e/s
(16453 e)
71.5258 e/s
(1072.89 e)
76.7659 e/s
(1151.49 e)
80.7149 e/s
(1210.72 e)
43.7258 e/s
(655.887 e)
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

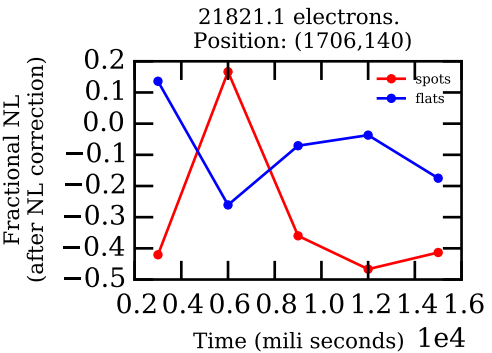

C2 flat
-7.09e-07 +/-
9.03e-16
-7.06e-07 +/-
1.05e-16
-7.33e-07 +/-
3.45e-16
-7.07e-07 +/-
2.46e-16
-7.29e-07 +/-
9.24e-16
-7.15e-07 +/-
7.77e-16
-6.96e-07 +/-
1.4e-15
-7.72e-07 +/-
8.83e-16
-6.93e-07 +/-
3.48e-16
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

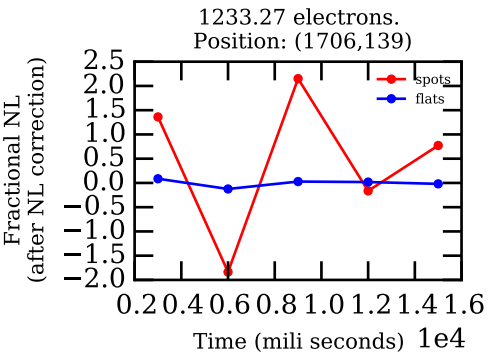

C2 spots
-8.84e-07 +/-
1.12e-13
2.71e-07 +/-
6.99e-14
-2.32e-06 +/-
3.21e-12
-1.18e-06 +/-
6.49e-13
5.64e-07 +/-
4.83e-13
-5.7e-07 +/-
4.56e-12
-1.81e-06 +/-
2.89e-11
9.66e-07 +/-
4.7e-11
-3.79e-06 +/-
3.64e-11
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

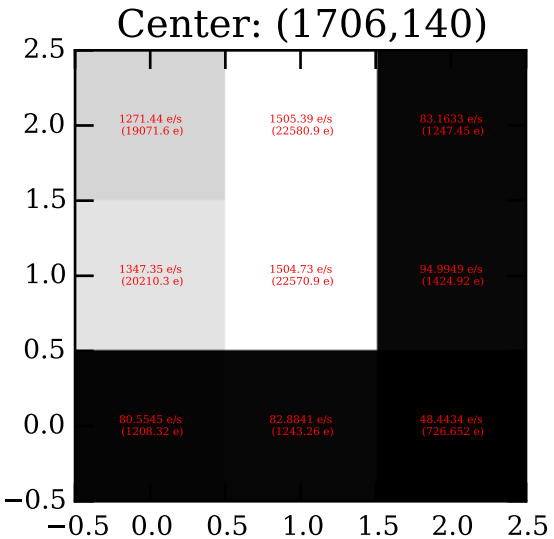

C2 spots after NL correction
-4.28e-07 +/-
2.02e-13
6.49e-07 +/-
1.18e-12
6.54e-05 +/-
4.74e-09
-1.42e-07 +/-
1.13e-12
-2.27e-07 +/-
7.89e-13
-1.63e-05 +/-
6.12e-10
0.000105 +/-
1.13e-09
-1.89e-05 +/-
4.16e-10
0.000106 +/-
2.2e-09
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

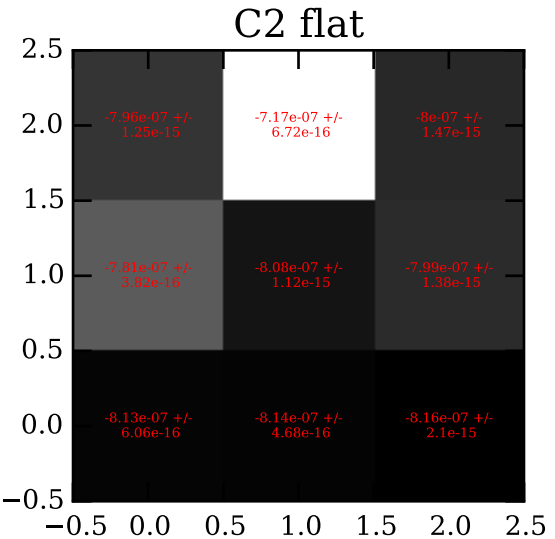

22310.9 electrons.
Position: (1706,141)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

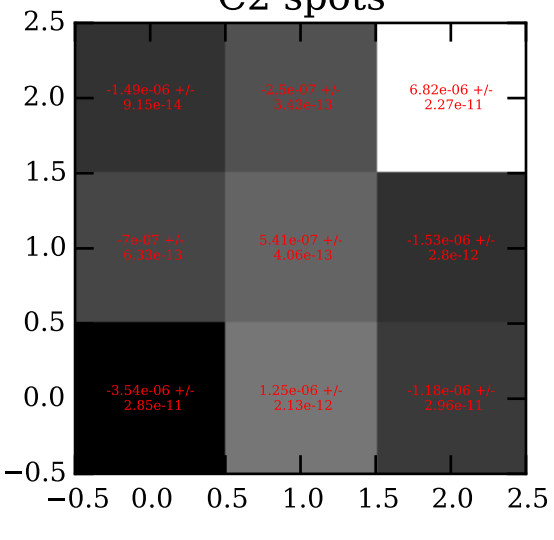

20171.5 electrons.
Position: (1705,140)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

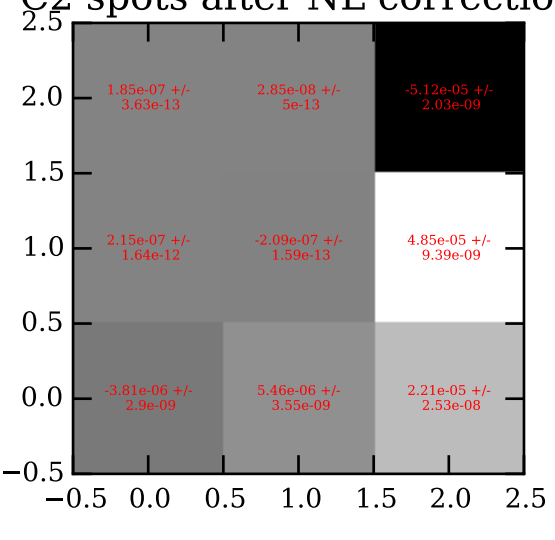

21821.1 electrons.
Position: (1706,140)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

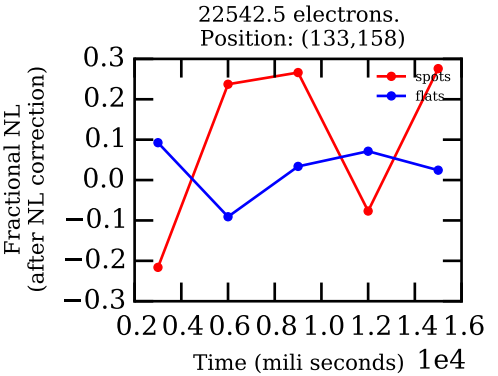

1233.27 electrons.
Position: (1706,139)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

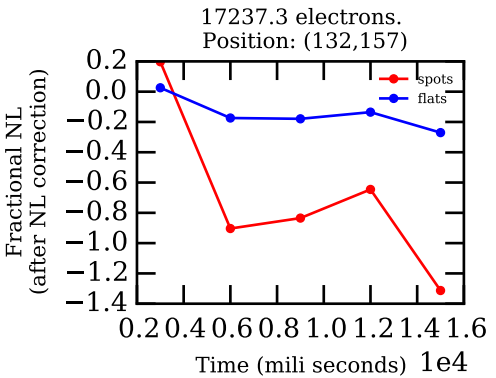

Center: (1706,140)
1271.44 e/s
(19071.6 e)
1505.39 e/s
(22580.9 e)
83.1633 e/s
(1247.45 e)
1347.35 e/s
(20210.3 e)
1504.73 e/s
(22570.9 e)
94.9949 e/s
(1424.92 e)
80.5545 e/s
(1208.32 e)
82.8841 e/s
(1243.26 e)
48.4434 e/s
(726.652 e)
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

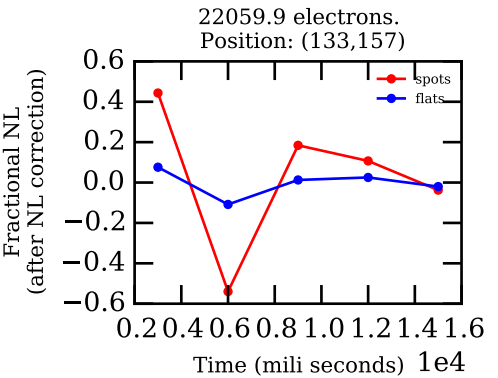

C2 flat
-7.96e-07 +/-
1.25e-15
-7.17e-07 +/-
6.72e-16
-8e-07 +/-
1.47e-15
-7.81e-07 +/-
3.82e-16
-8.08e-07 +/-
1.12e-15
-7.99e-07 +/-
1.38e-15
-8.13e-07 +/-
6.06e-16
-8.14e-07 +/-
4.68e-16
-8.16e-07 +/-
2.1e-15
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

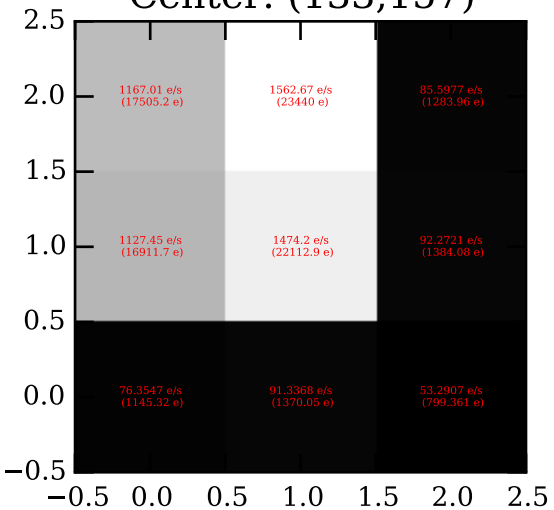

C2 spots
-1.49e-06 +/-
9.15e-14
-2.5e-07 +/-
3.43e-13
6.82e-06 +/-
2.27e-11
-7e-07 +/-
6.33e-13
5.41e-07 +/-
4.06e-13
-1.53e-06 +/-
2.8e-12
-3.54e-06 +/-
2.85e-11
1.25e-06 +/-
2.13e-12
-1.18e-06 +/-
2.96e-11
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

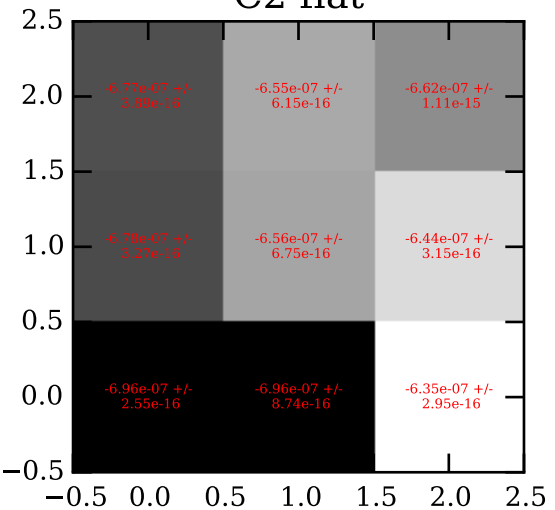

C2 spots after NL correction
1.85e-07 +/-
3.63e-13
2.85e-08 +/-
5e-13
-5.12e-05 +/-
2.03e-09
2.15e-07 +/-
1.64e-12
-2.09e-07 +/-
1.59e-13
4.85e-05 +/-
9.39e-09
-3.81e-06 +/-
2.9e-09
5.46e-06 +/-
3.55e-09
2.21e-05 +/-
2.53e-08
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

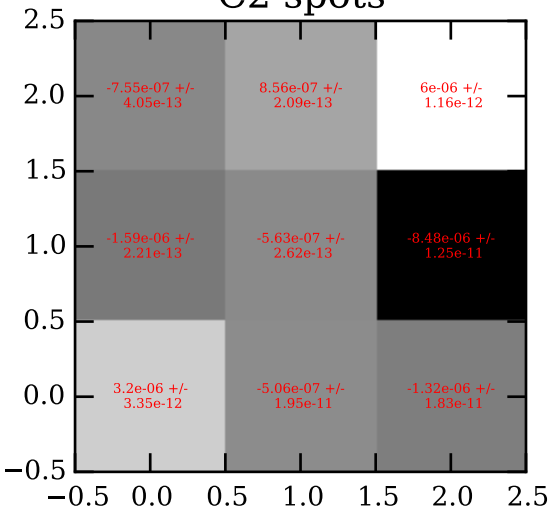

22542.5 electrons.
Position: (133,158)
Fractional NL
(after NL correction)
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

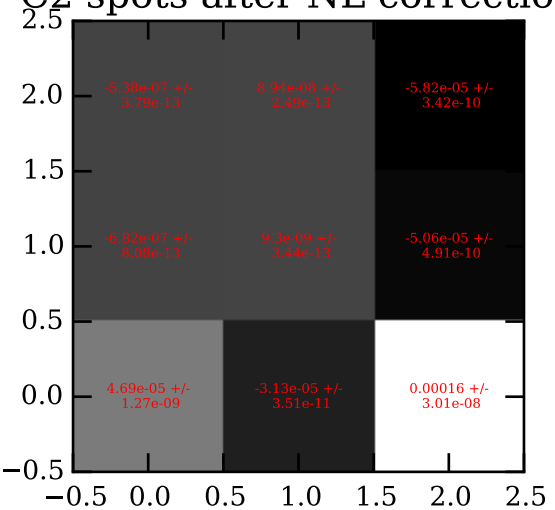

17237.3 electrons.
Position: (132,157)
Fractional NL
(after NL correction)
0.2
0.0
−0.2
−0.4
−0.6
−0.8
−1.0
−1.2
−1.4
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

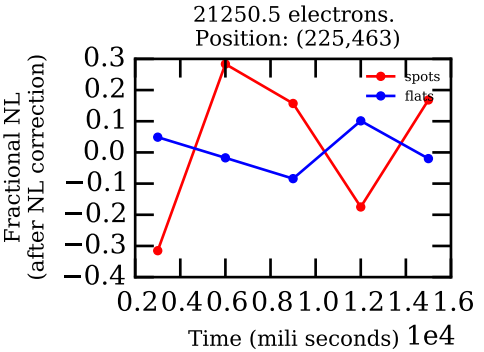

22059.9 electrons.
Position: (133,157)
Fractional NL
(after NL correction)
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

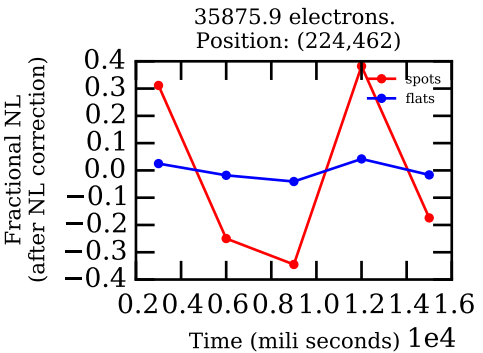

Center: (133,157)
1167.01 e/s
(17505.2 e)
1562.67 e/s
(23440 e)
85.5977 e/s
(1283.96 e)
1127.45 e/s
(16911.7 e)
1474.2 e/s
(22112.9 e)
92.2721 e/s
(1384.08 e)
76.3547 e/s
(1145.32 e)
91.3368 e/s
(1370.05 e)
53.2907 e/s
(799.361 e)
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

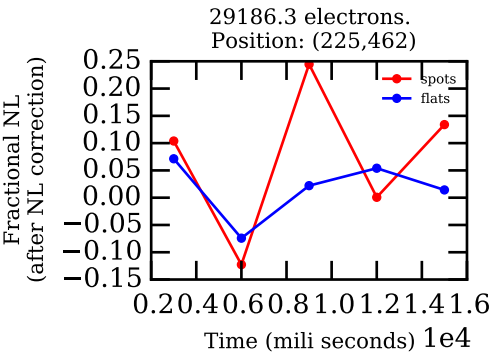

C2 flat
-6.77e-07 +/-
3.29e-16
-6.55e-07 +/-
6.15e-16
-6.62e-07 +/-
1.11e-15
-6.78e-07 +/-
3.27e-16
-6.56e-07 +/-
6.75e-16
-6.44e-07 +/-
3.15e-16
-6.96e-07 +/-
2.55e-16
-6.96e-07 +/-
8.74e-16
-6.35e-07 +/-
2.95e-16
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

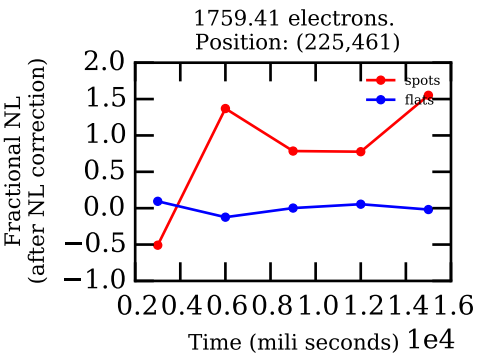

C2 spots
-7.55e-07 +/-
4.05e-13
8.56e-07 +/-
2.09e-13
6e-06 +/-
1.16e-12
-1.59e-06 +/-
2.21e-13
-5.63e-07 +/-
2.62e-13
-8.48e-06 +/-
1.25e-11
3.2e-06 +/-
3.35e-12
-5.06e-07 +/-
1.95e-11
-1.32e-06 +/-
1.83e-11
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

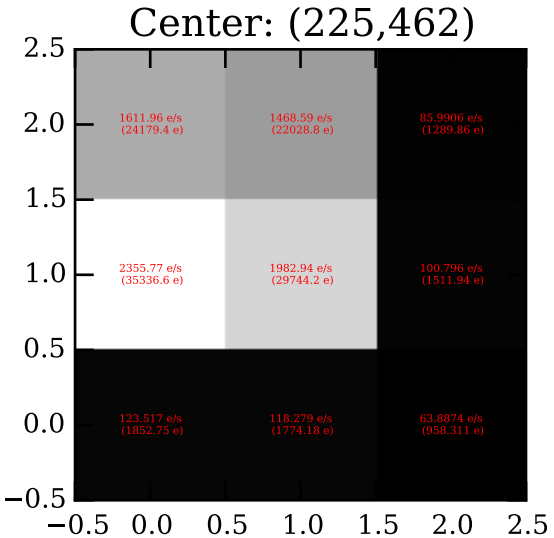

C2 spots after NL correction
-5.38e-07 +/-
3.79e-13
8.94e-08 +/-
2.49e-13
-5.82e-05 +/-
3.42e-10
-6.82e-07 +/-
8.08e-13
9.3e-09 +/-
3.44e-13
-5.06e-05 +/-
4.91e-10
4.69e-05 +/-
1.27e-09
-3.13e-05 +/-
3.51e-11
0.00016 +/-
3.01e-08
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

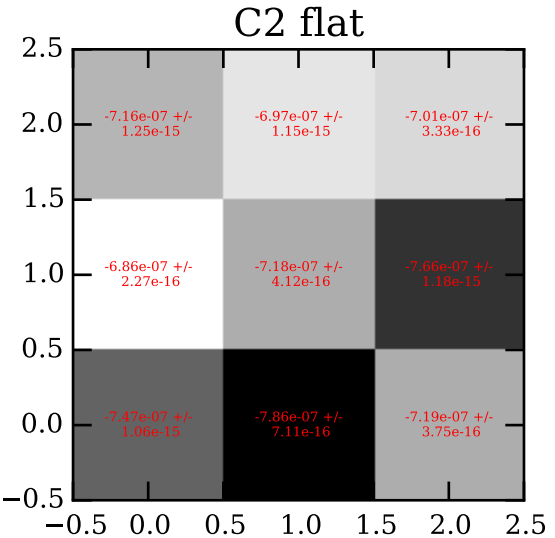

21250.5 electrons.
Position: (225,463)
Fractional NL
(after NL correction)
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

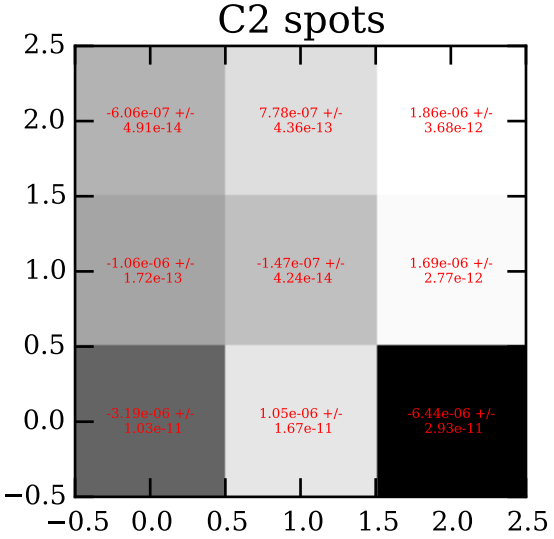

35875.9 electrons.
Position: (224,462)
Fractional NL
(after NL correction)
0.4
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

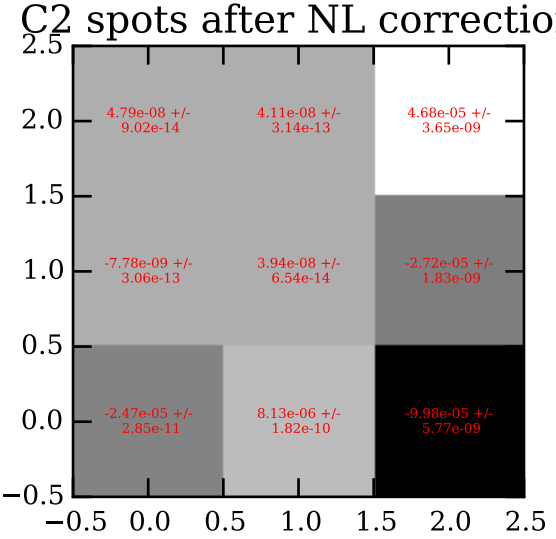

29186.3 electrons.
Position: (225,462)
Fractional NL
(after NL correction)
0.25
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

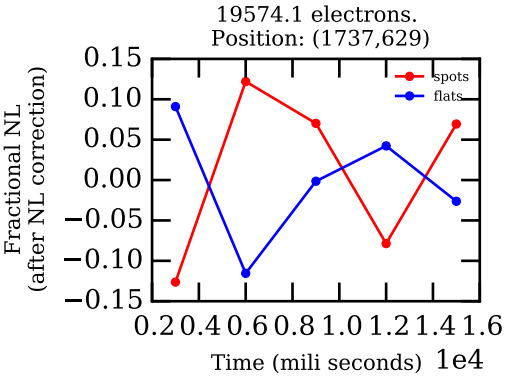

1759.41 electrons.
Position: (225,461)
Fractional NL
(after NL correction)
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

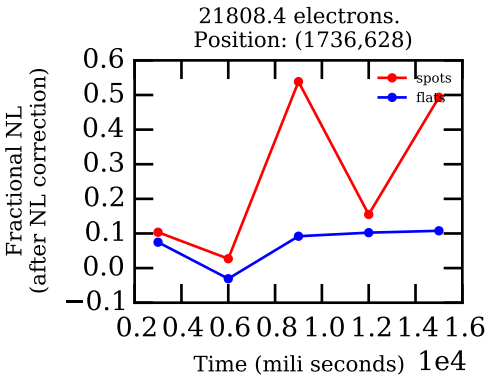

Center: (225,462)
1611.96 e/s
(24179.4 e)
1468.59 e/s
(22028.8 e)
85.9906 e/s
(1289.86 e)
2355.77 e/s
(35336.6 e)
1982.94 e/s
(29744.2 e)
100.796 e/s
(1511.94 e)
123.517 e/s
(1852.75 e)
118.279 e/s
(1774.18 e)
63.8874 e/s
(958.311 e)
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

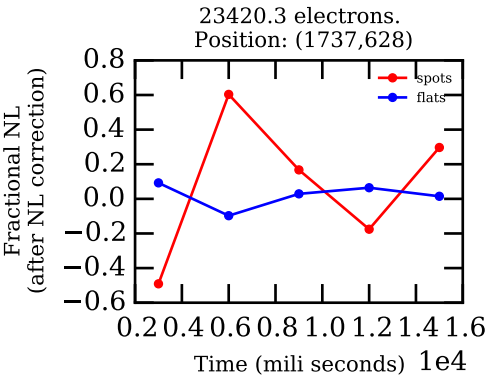

C2 flat
-7.16e-07 +/-
1.25e-15
-6.97e-07 +/-
1.15e-15
-7.01e-07 +/-
3.33e-16
-6.86e-07 +/-
2.27e-16
-7.18e-07 +/-
4.12e-16
-7.66e-07 +/-
1.18e-15
-7.47e-07 +/-
1.06e-15
-7.86e-07 +/-
7.11e-16
-7.19e-07 +/-
3.75e-16
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

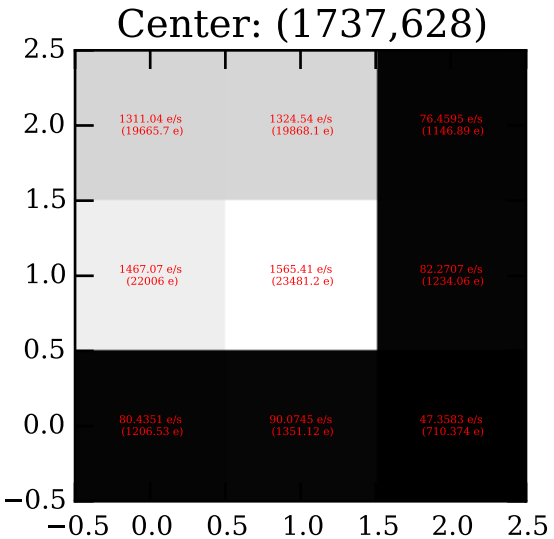

C2 spots
-6.06e-07 +/-
4.91e-14
7.78e-07 +/-
4.36e-13
1.86e-06 +/-
3.68e-12
-1.06e-06 +/-
1.72e-13
-1.47e-07 +/-
4.24e-14
1.69e-06 +/-
2.77e-12
-3.19e-06 +/-
1.03e-11
1.05e-06 +/-
1.67e-11
-6.44e-06 +/-
2.93e-11
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

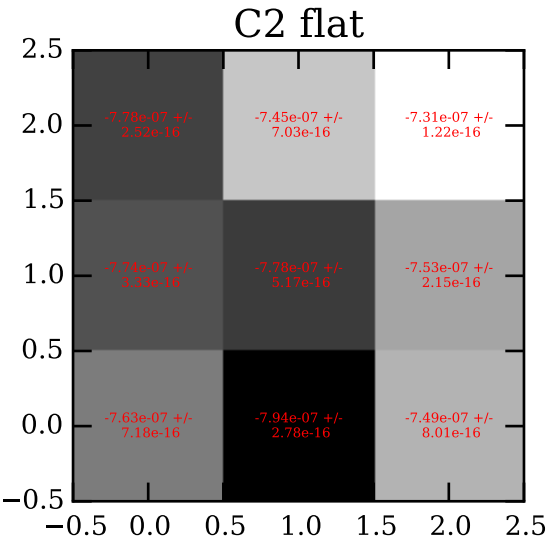

C2 spots after NL correction
4.79e-08 +/-
9.02e-14
4.11e-08 +/-
3.14e-13
4.68e-05 +/-
3.65e-09
-7.78e-09 +/-
3.06e-13
3.94e-08 +/-
6.54e-14
-2.72e-05 +/-
1.83e-09
-2.47e-05 +/-
2.85e-11
8.13e-06 +/-
1.82e-10
-9.98e-05 +/-
5.77e-09
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

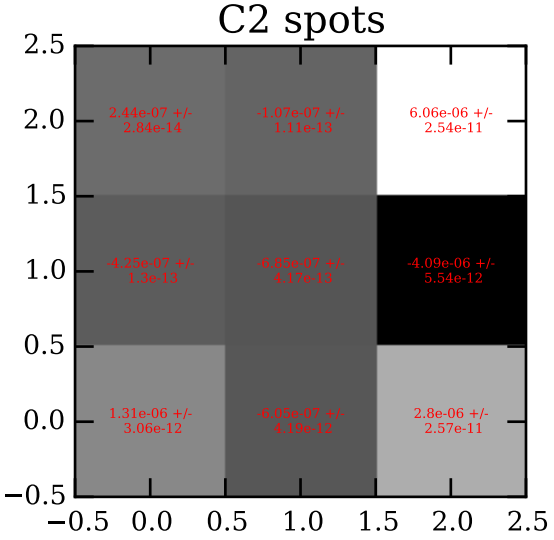

19574.1 electrons.
Position: (1737,629)
Fractional NL
(after NL correction)
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds)
1e4

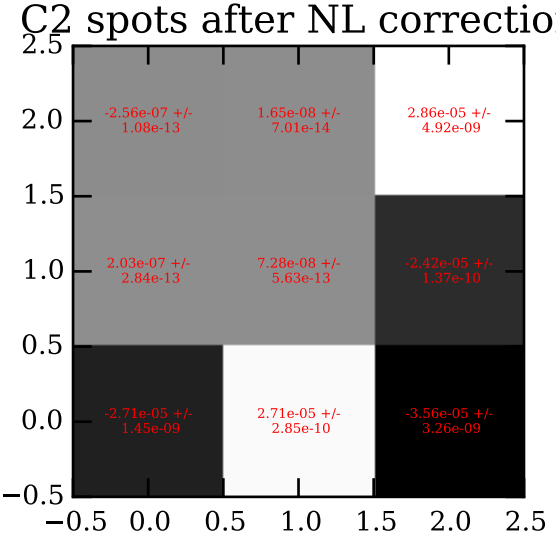

21808.4 electrons.
Position: (1736,628)
Fractional NL
(after NL correction)
0.6
0.5
0.4
0.3
0.2
0.1
0.0
−0.1
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds)
1e4

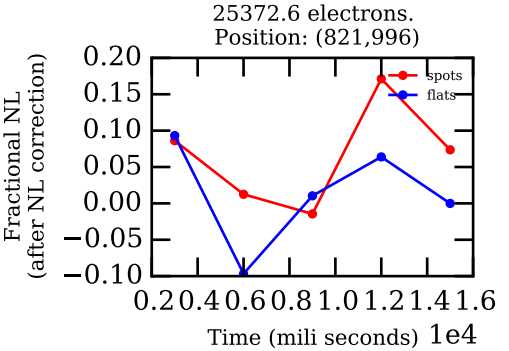

23420.3 electrons.
Position: (1737,628)
Fractional NL
(after NL correction)
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds)
1e4

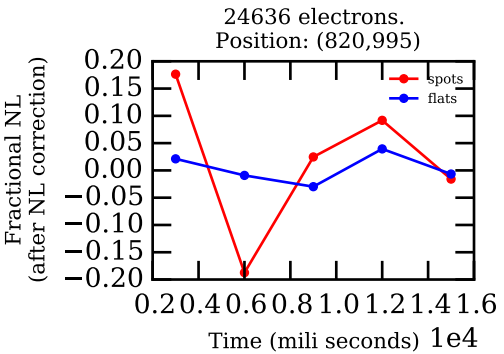

Center: (1737,628)
1311.04 e/s
(19665.7 e)
1324.54 e/s
(19868.1 e)
76.4595 e/s
(1146.89 e)
1467.07 e/s
(22006 e)
1565.41 e/s
(23481.2 e)
82.2707 e/s
(1234.06 e)
80.4351 e/s
(1206.53 e)
90.0745 e/s
(1351.12 e)
47.3583 e/s
(710.374 e)
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

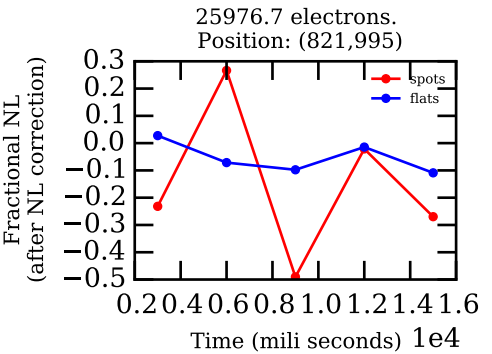

C2 flat
-7.78e-07 +/-
2.52e-16
-7.45e-07 +/-
7.03e-16
-7.31e-07 +/-
1.22e-16
-7.74e-07 +/-
3.33e-16
-7.78e-07 +/-
5.17e-16
-7.53e-07 +/-
2.15e-16
-7.63e-07 +/-
7.18e-16
-7.94e-07 +/-
2.78e-16
-7.49e-07 +/-
8.01e-16
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

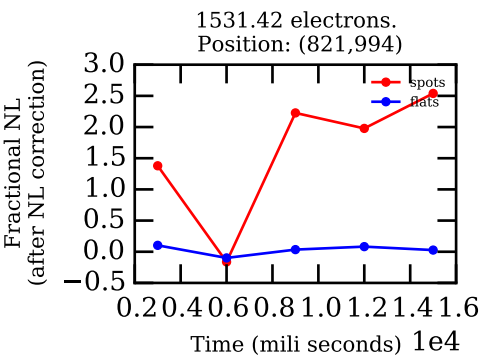

C2 spots
2.44e-07 +/-
2.84e-14
-1.07e-07 +/-
1.11e-13
6.06e-06 +/-
2.54e-11
-4.25e-07 +/-
1.3e-13
-6.85e-07 +/-
4.17e-13
-4.09e-06 +/-
5.54e-12
1.31e-06 +/-
3.06e-12
-6.05e-07 +/-
4.19e-13
2.8e-06 +/-
2.57e-11
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

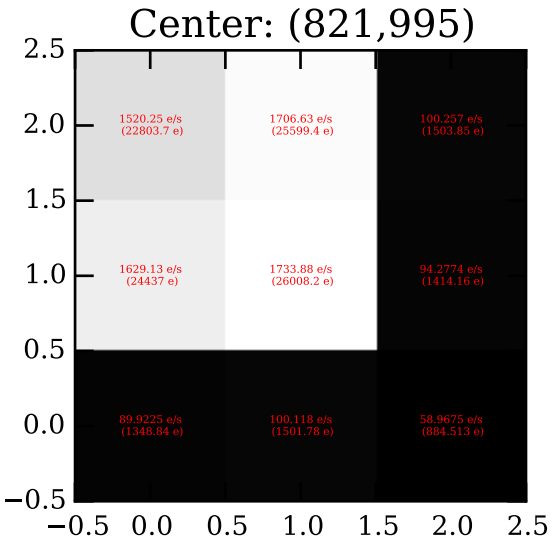

C2 spots after NL correction
-2.56e-07 +/-
1.08e-13
1.65e-08 +/-
7.01e-14
2.86e-05 +/-
4.92e-09
2.03e-07 +/-
2.84e-13
7.28e-08 +/-
5.63e-13
-2.42e-05 +/-
1.37e-10
-2.71e-05 +/-
1.45e-09
2.71e-05 +/-
2.85e-10
-3.56e-05 +/-
3.26e-09
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

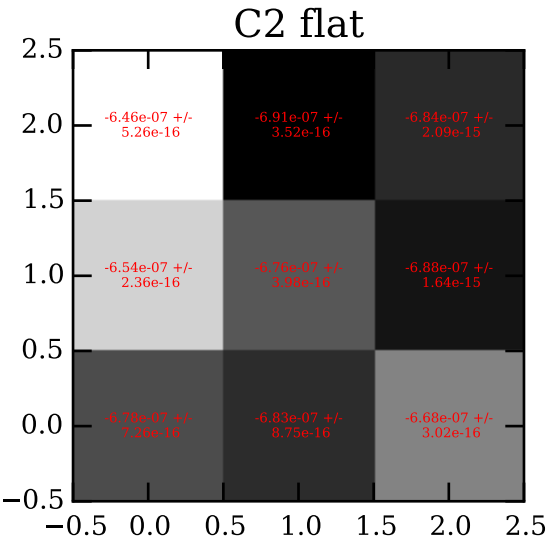

25372.6 electrons.
Position: (821,996)
Fractional NL
(after NL correction)
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

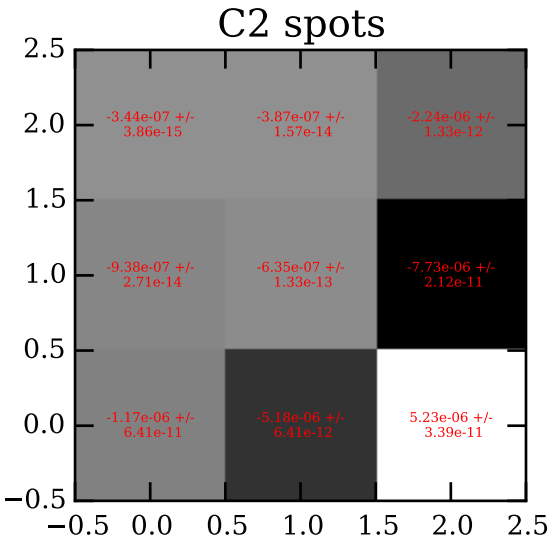

24636 electrons.
Position: (820,995)
Fractional NL
(after NL correction)
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
−0.20
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

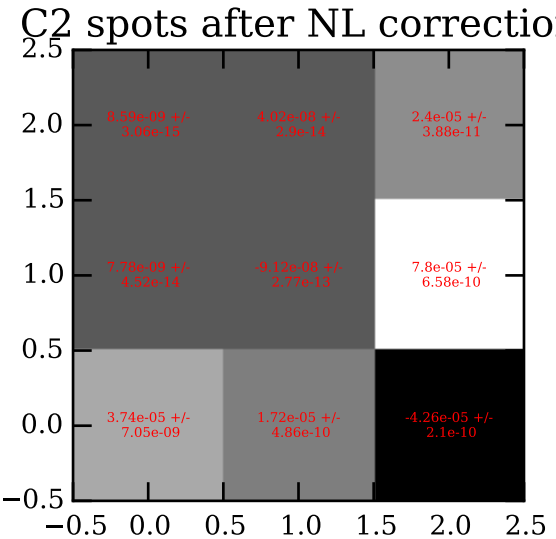

25976.7 electrons.
Position: (821,995)
Fractional NL
(after NL correction)
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
−0.5
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

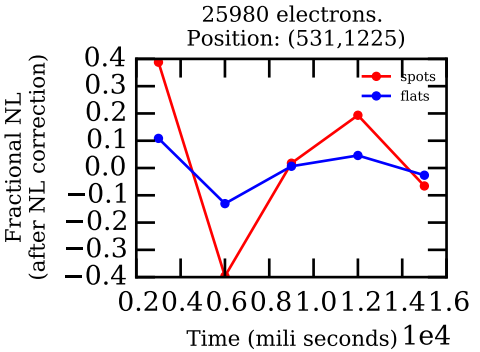

1531.42 electrons.
Position: (821,994)
Fractional NL
(after NL correction)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

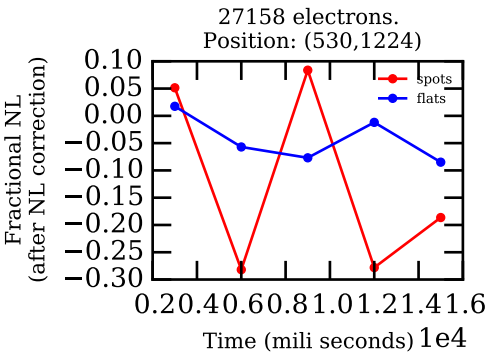

Center: (821,995)
1520.25 e/s
(22803.7 e)
1706.63 e/s
(25599.4 e)
100.257 e/s
(1503.85 e)
1629.13 e/s
(24437 e)
1733.88 e/s
(26008.2 e)
94.2774 e/s
(1414.16 e)
89.9225 e/s
(1348.84 e)
100.118 e/s
(1501.78 e)
58.9675 e/s
(884.513 e)
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

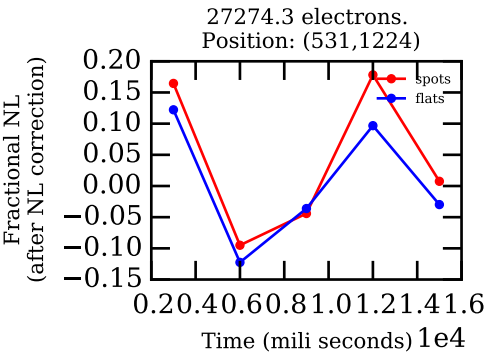

C2 flat
-6.46e-07 +/-
5.26e-16
-6.91e-07 +/-
3.52e-16
-6.84e-07 +/-
2.09e-15
-6.54e-07 +/-
2.36e-16
-6.88e-07 +/-
1.64e-15
-6.83e-07 +/-
8.75e-16
-6.68e-07 +/-
3.02e-16
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

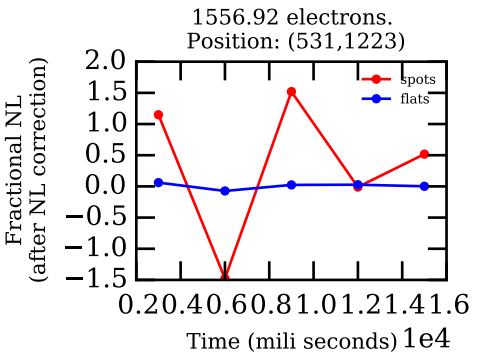

C2 spots
-3.44e-07 +/-
3.86e-15
-3.87e-07 +/-
1.57e-14
-2.24e-06 +/-
1.33e-12
-9.38e-07 +/-
2.71e-14
-6.35e-07 +/-
1.33e-13
-7.73e-06 +/-
2.12e-11
-1.17e-06 +/-
6.41e-11
-5.18e-06 +/-
6.41e-12
5.23e-06 +/-
3.39e-11
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

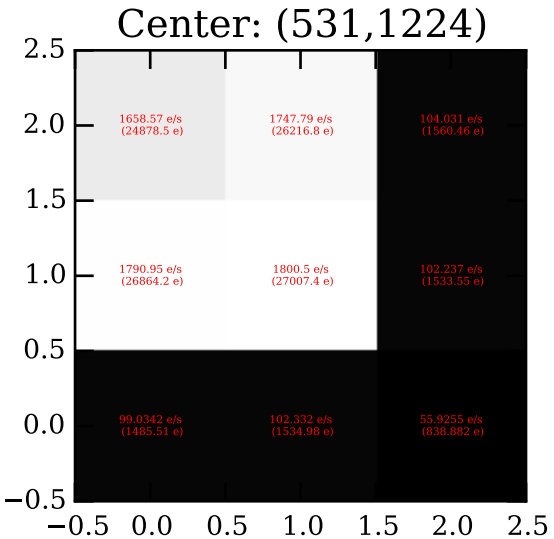

C2 spots after NL correction
8.59e-09 +/-
2.06e-15
4.32e-08 +/-
2.9e-14
2.4e-05 +/-
3.88e-11
7.78e-09 +/-
4.52e-14
-9.12e-08 +/-
2.77e-13
7.8e-05 +/-
6.58e-10
3.74e-05 +/-
7.05e-09
1.72e-05 +/-
4.86e-10
-4.26e-05 +/-
2.1e-10
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

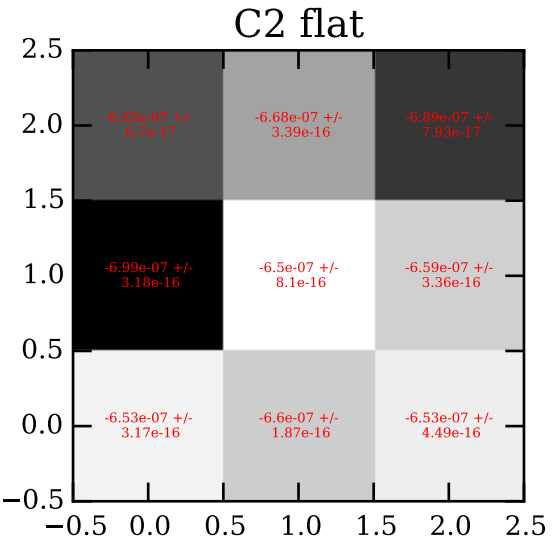

25980 electrons.
Position: (531,1225)
Fractional NL
(after NL correction)
0.4
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

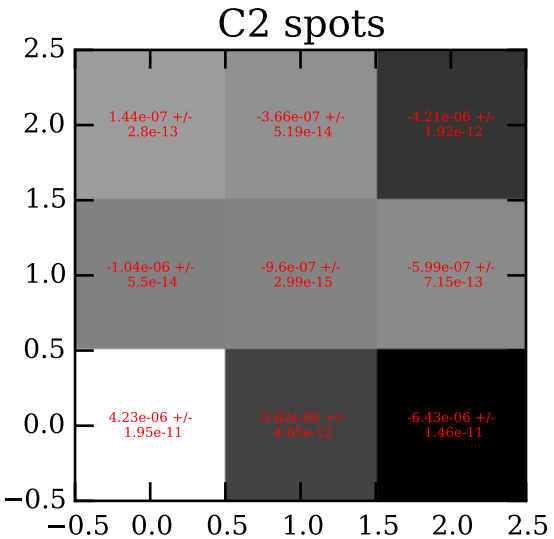

27158 electrons.
Position: (530,1224)
Fractional NL
(after NL correction)
0.10
0.05
0.00
−0.05
−0.10
−0.15
−0.20
−0.25
−0.30
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

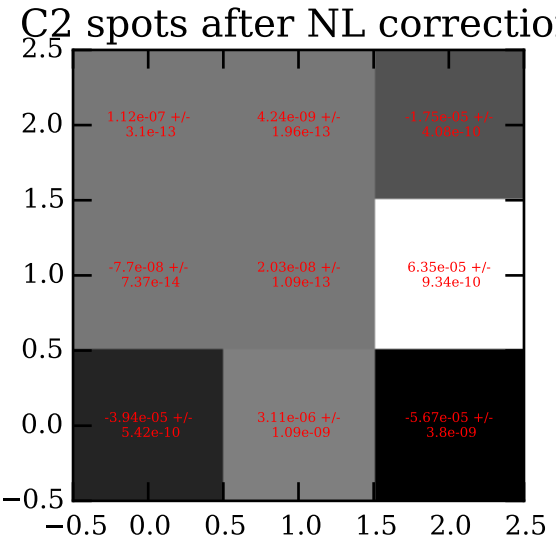

27274.3 electrons.
Position: (531,1224)
Fractional NL
(after NL correction)
0.20
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

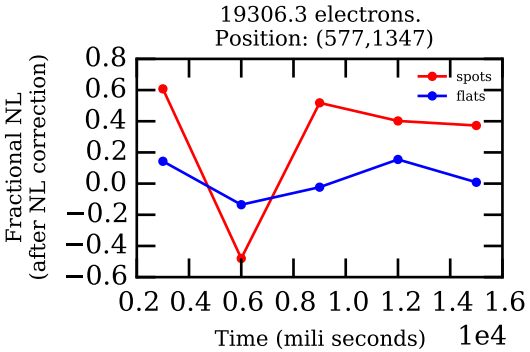

1556.92 electrons.
Position: (531,1223)
Fractional NL
(after NL correction)
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds) 1e4

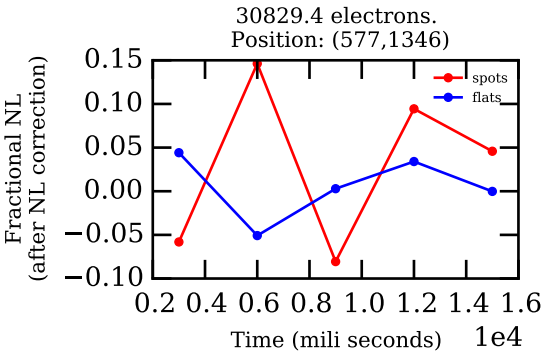

Center: (531,1224)
1658.57 e/s
(24878.5 e)
1747.79 e/s
(26216.8 e)
104.031 e/s
(1560.46 e)
1790.95 e/s
(26864.2 e)
1800.5 e/s
(27007.4 e)
102.237 e/s
(1533.55 e)
99.0342 e/s
(1485.51 e)
102.332 e/s
(1534.98 e)
55.9255 e/s
(838.882 e)

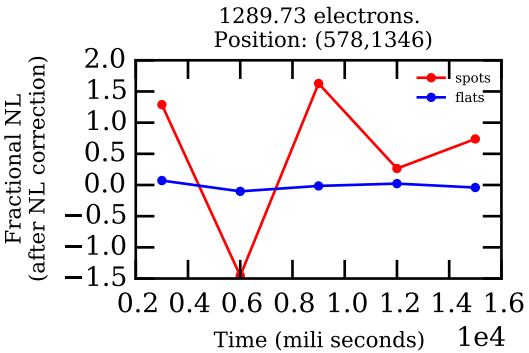

C2 flat
-6.82e-07 +/-
6.7e-17
-6.68e-07 +/-
3.39e-16
-6.89e-07 +/-
7.93e-17
-6.99e-07 +/-
3.18e-16
-6.5e-07 +/-
8.1e-16
-6.59e-07 +/-
3.36e-16
-6.53e-07 +/-
3.17e-16
-6.6e-07 +/-
1.87e-16
-6.53e-07 +/-
4.49e-16

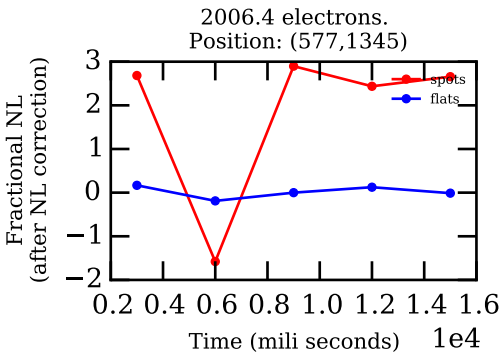

C2 spots
1.44e-07 +/-
2.8e-13
-3.66e-07 +/-
5.19e-14
-4.21e-06 +/-
1.92e-12
-1.04e-06 +/-
5.5e-14
-9.6e-07 +/-
2.99e-15
-5.99e-07 +/-
7.15e-13
4.23e-06 +/-
1.95e-11
-3.62e-06 +/-
4.65e-12
-6.43e-06 +/-
1.46e-11

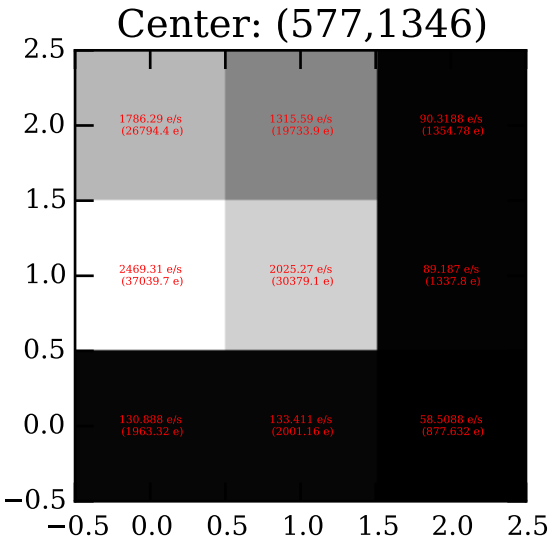

C2 spots after NL correction
1.12e-07 +/-
3.1e-13
4.24e-09 +/-
1.96e-13
-1.75e-05 +/-
4.08e-10
-7.7e-08 +/-
7.37e-14
2.03e-08 +/-
1.09e-13
6.35e-05 +/-
9.34e-10
-3.94e-05 +/-
5.42e-10
3.11e-06 +/-
1.09e-09
-5.67e-05 +/-
3.8e-09

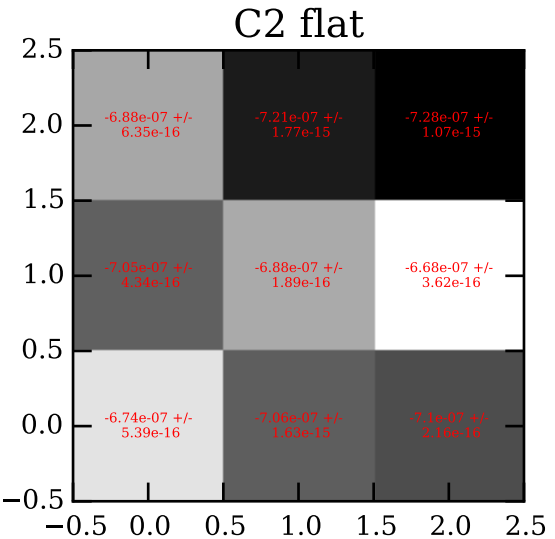

19306.3 electrons.
Position: (577,1347)
Fractional NL
(after NL correction)
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds)
1e4

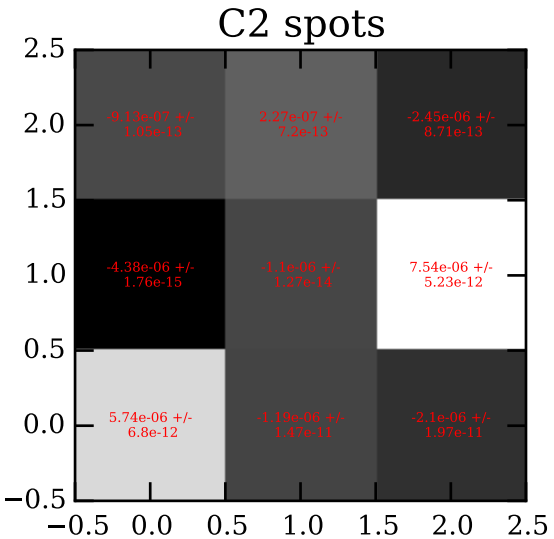

30829.4 electrons.
Position: (577,1346)
Fractional NL
(after NL correction)
0.15
0.10
0.05
0.00
−0.05
−0.10
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds)
1e4

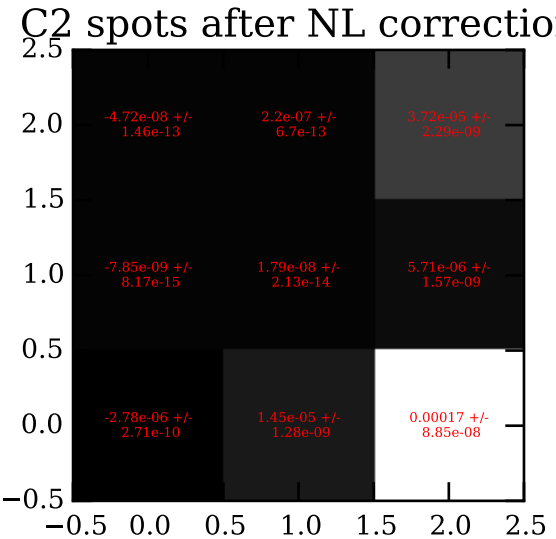

1289.73 electrons.
Position: (578,1346)
Fractional NL
(after NL correction)
2.0
1.5
1.0
0.5
0.0
−0.5
−1.0
−1.5
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds)
1e4

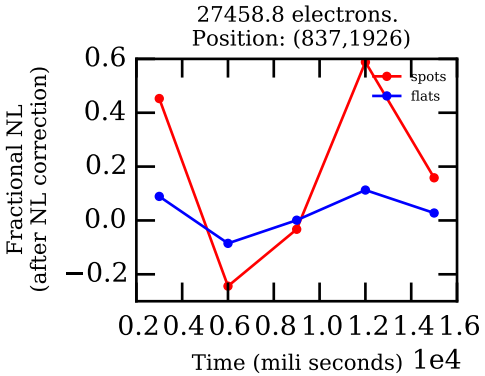

2006.4 electrons.
Position: (577,1345)
Fractional NL
(after NL correction)
3
2
1
0
−1
−2
spots
flats
0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6
Time (mili seconds)
1e4

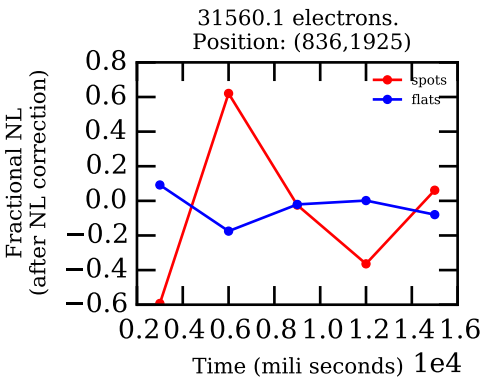

Center: (577,1346)
1786.29 e/s
(26794.4 e)
1315.59 e/s
(19733.9 e)
90.3188 e/s
(1354.78 e)
2469.31 e/s
(37039.7 e)
2025.27 e/s
(30379.1 e)
89.187 e/s
(1337.8 e)
130.888 e/s
(1963.32 e)
133.411 e/s
(2001.16 e)
58.5088 e/s
(877.632 e)

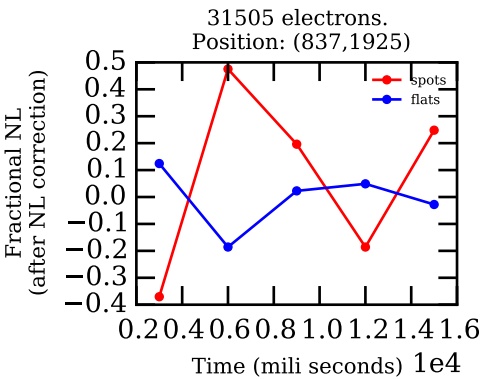

C2 flat
-6.88e-07 +/-
6.35e-16
-7.21e-07 +/-
1.77e-15
-7.28e-07 +/-
1.07e-15
-7.05e-07 +/-
4.34e-16
-6.88e-07 +/-
1.89e-16
-6.68e-07 +/-
3.62e-16
-6.74e-07 +/-
5.39e-16
-7.06e-07 +/-
1.63e-15
-7.1e-07 +/-
2.16e-16

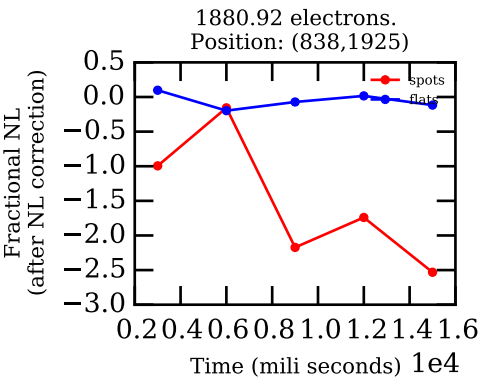

C2 spots
-9.13e-07 +/-
1.05e-13
2.27e-07 +/-
7.2e-13
-2.45e-06 +/-
8.71e-13
-4.38e-06 +/-
1.76e-15
-1.1e-06 +/-
1.27e-14
7.54e-06 +/-
5.23e-12
5.74e-06 +/-
6.8e-12
-1.19e-06 +/-
1.47e-11
-2.1e-06 +/-
1.97e-11

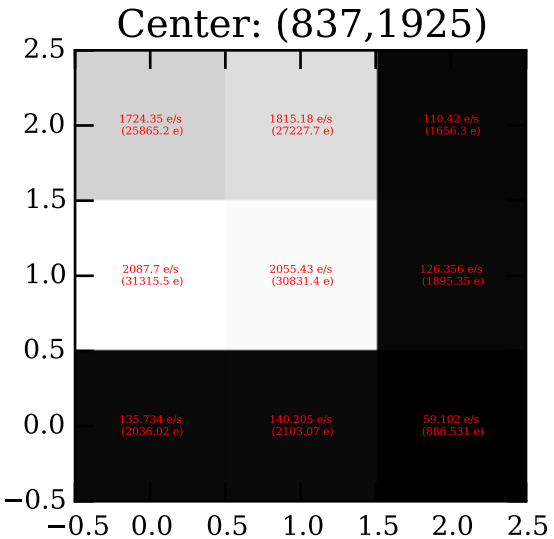

C2 spots after NL correction
-4.72e-08 +/-
1.46e-13
2.2e-07 +/-
6.7e-13
3.72e-05 +/-
2.29e-09
-7.85e-09 +/-
8.17e-15
1.79e-08 +/-
2.13e-14
5.71e-06 +/-
1.57e-09
-2.78e-06 +/-
2.71e-10
1.45e-05 +/-
1.28e-09
0.00017 +/-
8.85e-08

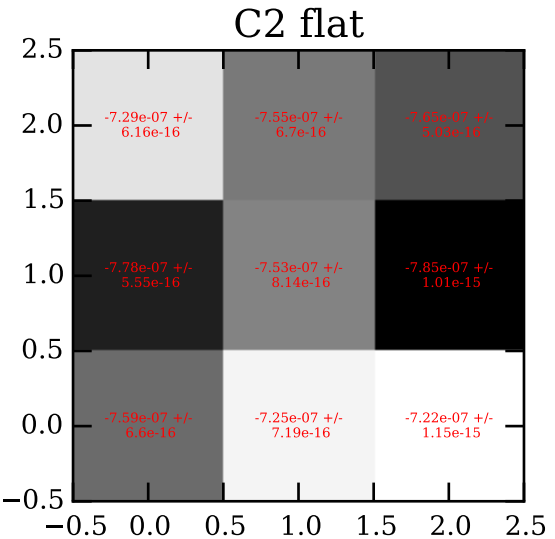

27458.8 electrons.
Position: (837,1926)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

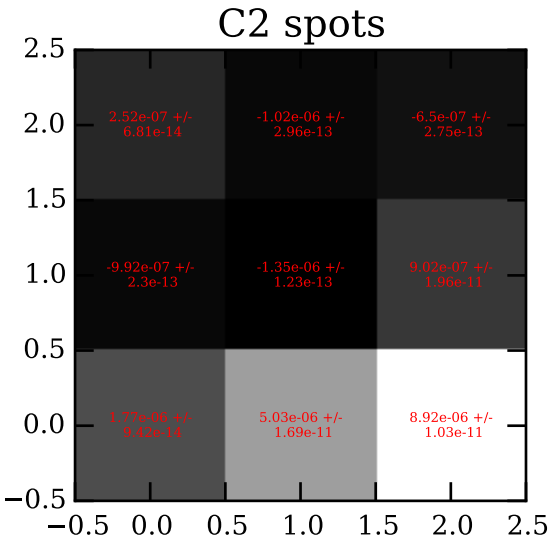

31560.1 electrons.
Position: (836,1925)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

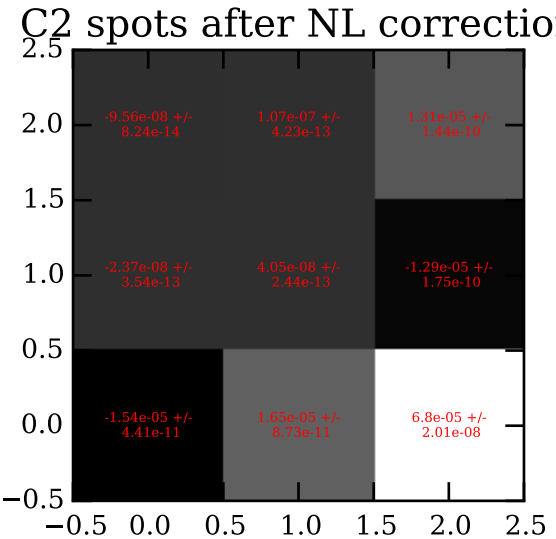

31505 electrons.
Position: (837,1925)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

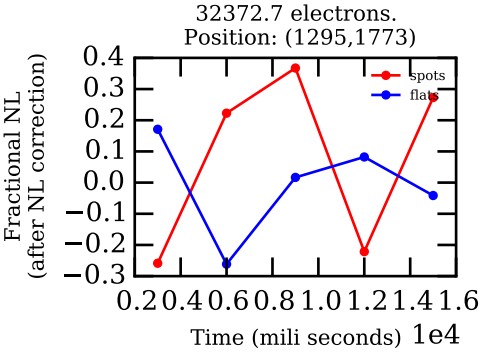

1880.92 electrons.
Position: (838,1925)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

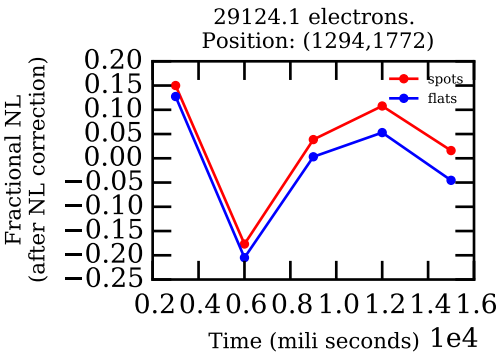

Center: (837,1925)
1724.35 e/s
(25865.2 e)
1815.18 e/s
(27227.7 e)
110.42 e/s
(1656.3 e)
2087.7 e/s
(31315.5 e)
2055.43 e/s
(30831.4 e)
126.356 e/s
(1895.35 e)
135.734 e/s
(2036.02 e)
140.205 e/s
(2103.07 e)
59.102 e/s
(886.531 e)
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

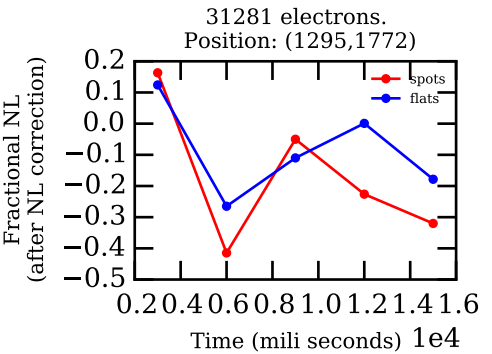

C2 flat
-7.29e-07 +/-
6.16e-16
-7.55e-07 +/-
6.7e-16
-7.85e-07 +/-
5.02e-16
-7.78e-07 +/-
5.55e-16
-7.53e-07 +/-
8.14e-16
-7.85e-07 +/-
1.01e-15
-7.59e-07 +/-
6.6e-16
-7.25e-07 +/-
7.19e-16
-7.22e-07 +/-
1.15e-15
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

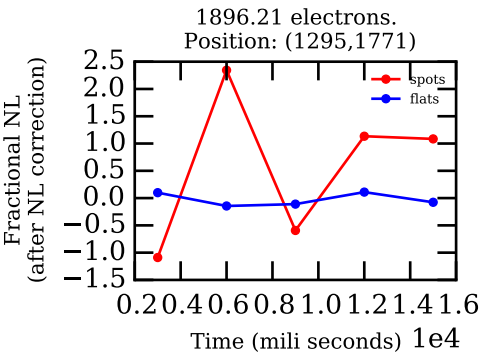

C2 spots
2.52e-07 +/-
6.81e-14
-1.02e-06 +/-
2.96e-13
-6.5e-07 +/-
2.75e-13
-9.92e-07 +/-
2.3e-13
-1.35e-06 +/-
1.23e-13
9.02e-07 +/-
1.96e-11
1.77e-06 +/-
9.42e-14
5.03e-06 +/-
1.69e-11
8.92e-06 +/-
1.03e-11
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

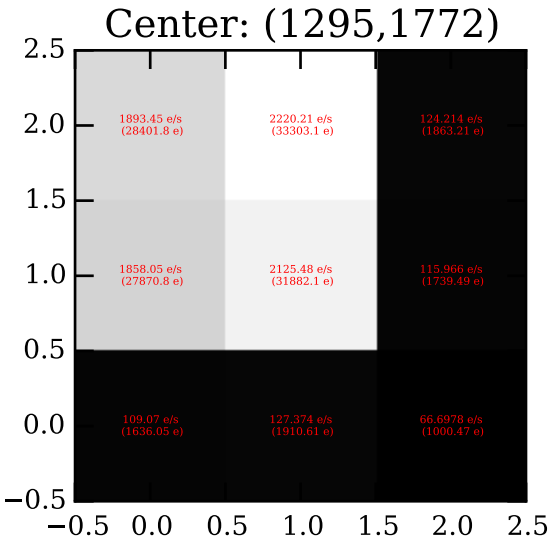

C2 spots after NL correction
-9.56e-08 +/-
8.24e-14
1.07e-07 +/-
4.23e-13
1.31e-05 +/-
1.44e-10
-2.37e-08 +/-
3.54e-13
4.05e-08 +/-
2.44e-13
-1.29e-05 +/-
1.75e-10
-1.54e-05 +/-
4.41e-11
1.65e-05 +/-
8.73e-11
6.8e-05 +/-
2.01e-08
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

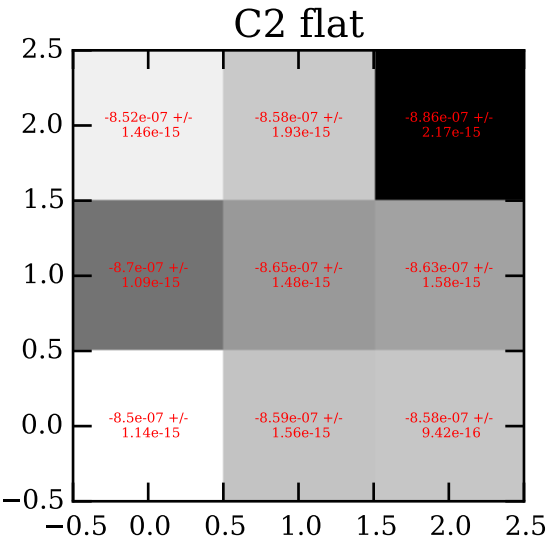

32372.7 electrons.
Position: (1295,1773)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

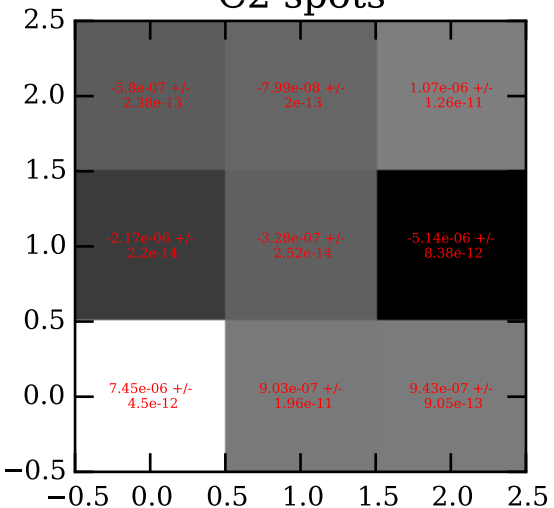

29124.1 electrons.
Position: (1294,1772)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

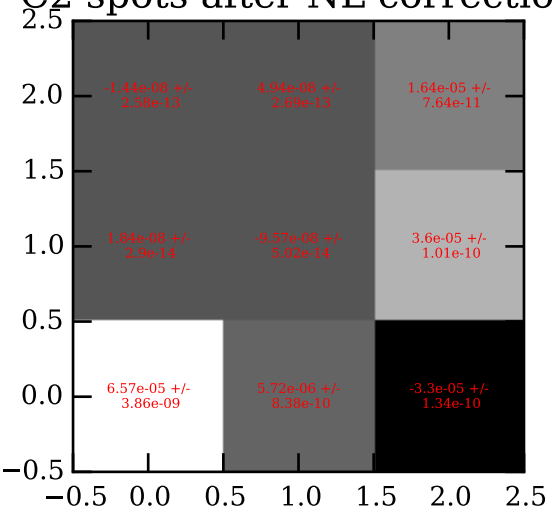

31281 electrons.
Position: (1295,1772)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

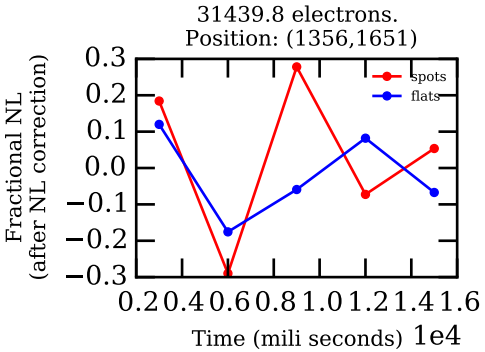

1896.21 electrons.
Position: (1295,1771)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

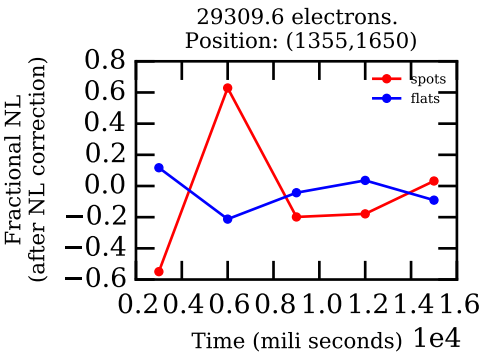

Center: (1295,1772)
1893.45 e/s
(28401.8 e)
2220.21 e/s
(33303.1 e)
124.214 e/s
(1863.21 e)
1858.05 e/s
(27870.8 e)
2125.48 e/s
(31882.1 e)
115.966 e/s
(1739.49 e)
109.07 e/s
(1636.05 e)
127.374 e/s
(1910.61 e)
66.6978 e/s
(1000.47 e)
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

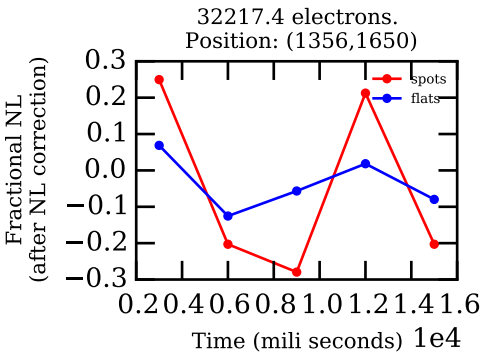

C2 flat
-8.52e-07 +/-
1.46e-15
-8.58e-07 +/-
1.93e-15
-8.86e-07 +/-
2.17e-15
-8.7e-07 +/-
1.09e-15
-8.65e-07 +/-
1.48e-15
-8.63e-07 +/-
1.58e-15
-8.5e-07 +/-
1.14e-15
-8.59e-07 +/-
1.56e-15
-8.58e-07 +/-
9.42e-16
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

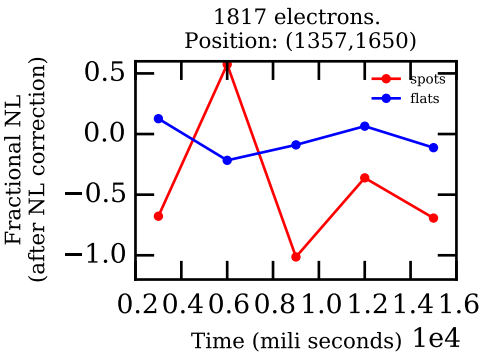

C2 spots
-5.8e-07 +/-
2.38e-13
-7.99e-08 +/-
2e-13
1.07e-06 +/-
1.26e-11
-2.17e-06 +/-
2.2e-14
-3.28e-07 +/-
2.52e-14
-5.14e-06 +/-
8.38e-12
7.45e-06 +/-
4.5e-12
9.03e-07 +/-
1.96e-11
9.43e-07 +/-
9.05e-13
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

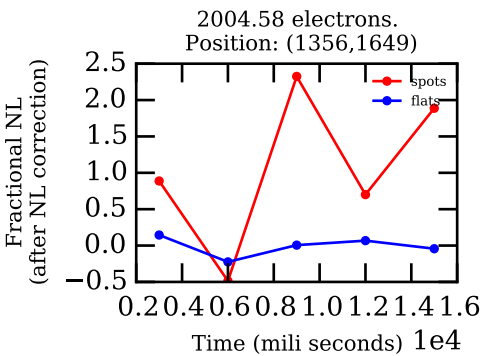

C2 spots after NL correction
-1.44e-08 +/-
2.38e-13
4.94e-08 +/-
2.69e-13
1.64e-05 +/-
7.64e-11
1.84e-08 +/-
2.9e-14
-9.57e-08 +/-
3.42e-14
3.6e-05 +/-
1.01e-10
6.57e-05 +/-
3.86e-09
5.72e-06 +/-
8.38e-10
-3.3e-05 +/-
1.34e-10
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
−0.5 0.0 0.5 1.0 1.5 2.0 2.5

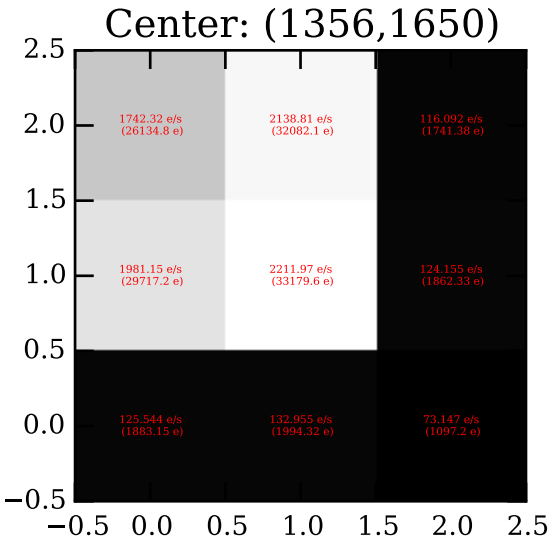

31439.8 electrons.
Position: (1356,1651)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

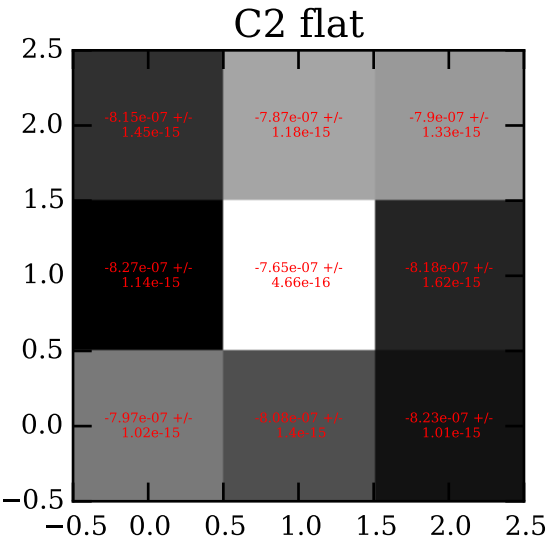

29309.6 electrons.
Position: (1355,1650)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

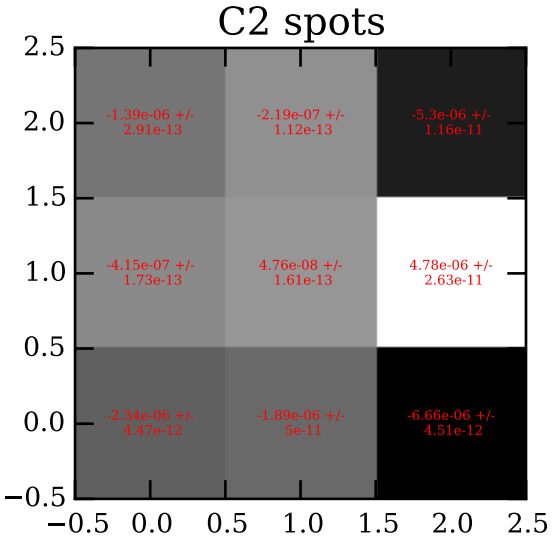

32217.4 electrons.
Position: (1356,1650)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

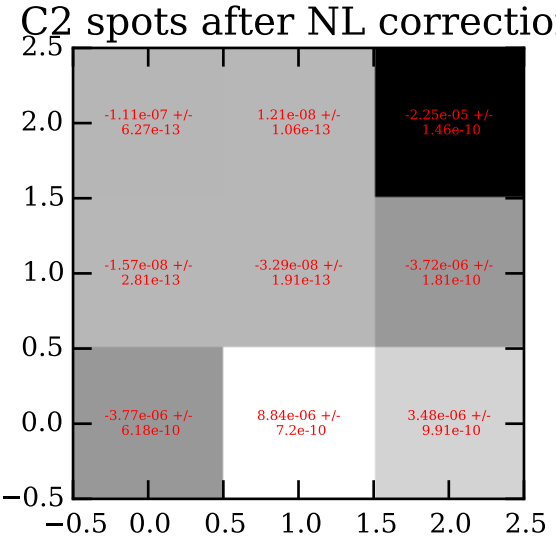

1817 electrons.
Position: (1357,1650)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

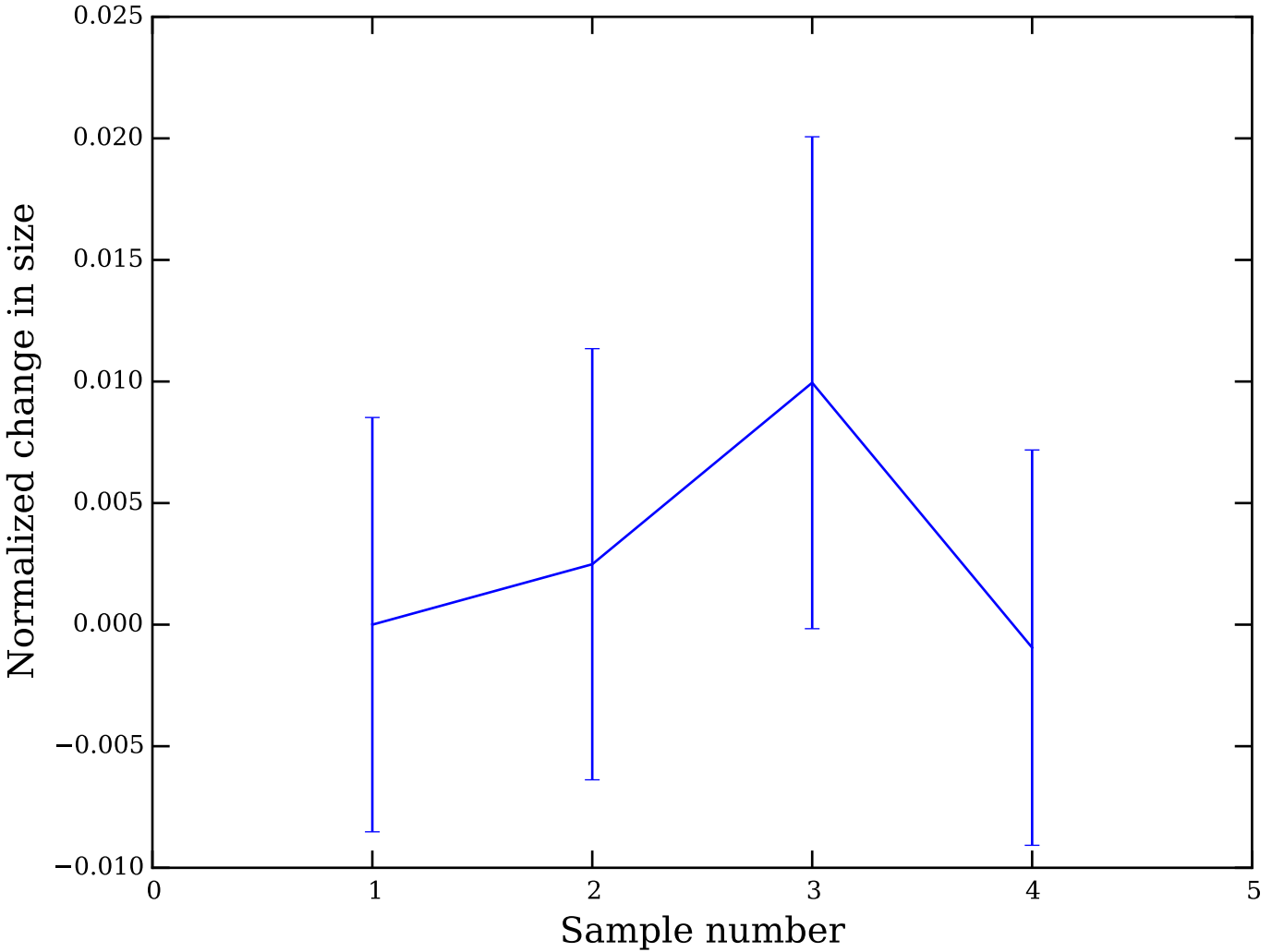

2004.58 electrons.
Position: (1356,1649)
Fractional NL
(after NL correction)
spots
flats
Time (mili seconds)
1e4

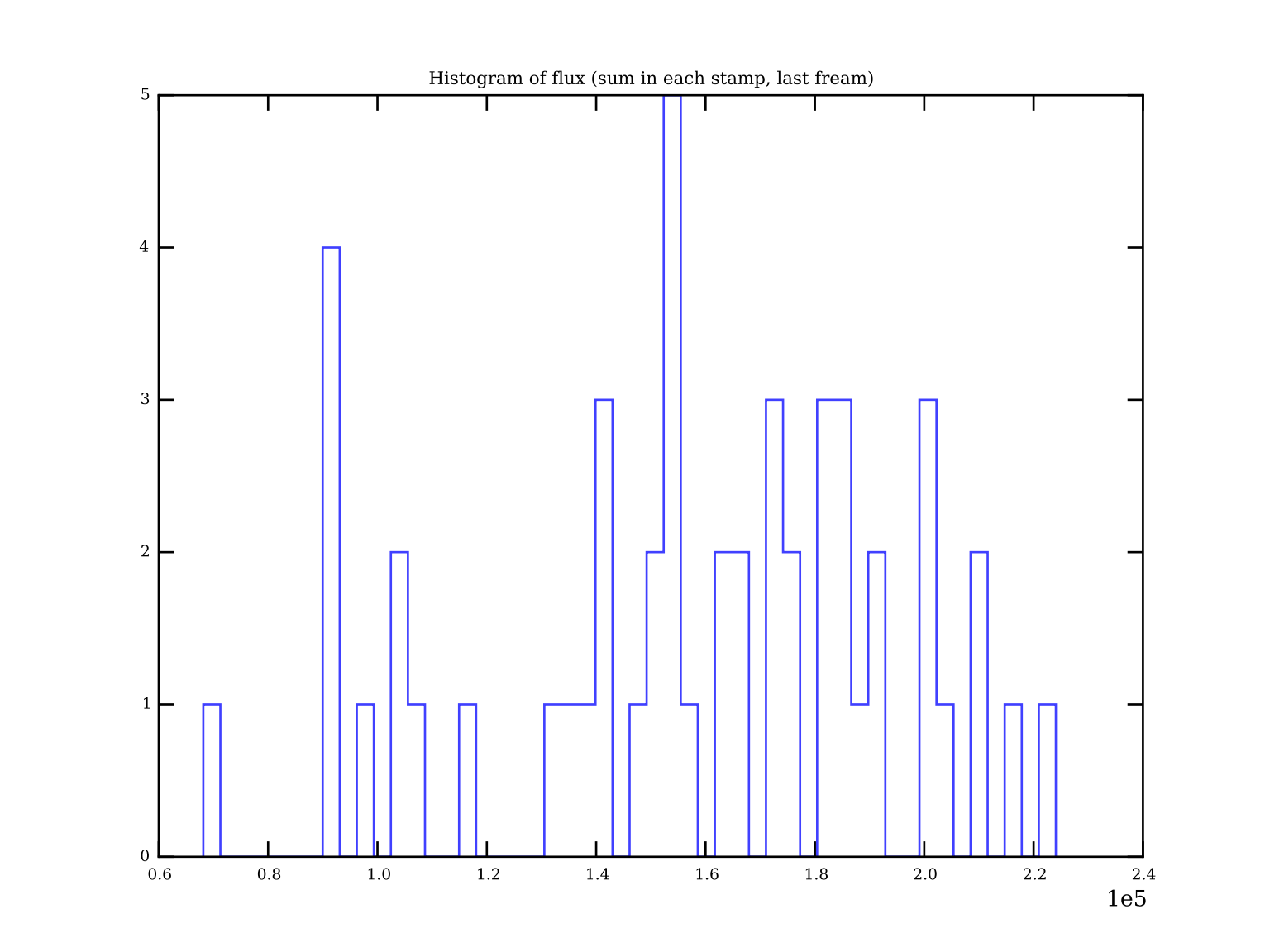

Center: (1356,1650)
1742.32 e/s
(26134.8 e)
2138.81 e/s
(32082.1 e)
116.092 e/s
(1741.38 e)
1981.15 e/s
(29717.2 e)
2211.97 e/s
(33179.6 e)
124.155 e/s
(1862.33 e)
125.544 e/s
(1883.15 e)
132.955 e/s
(1994.32 e)
73.147 e/s
(1097.2 e)

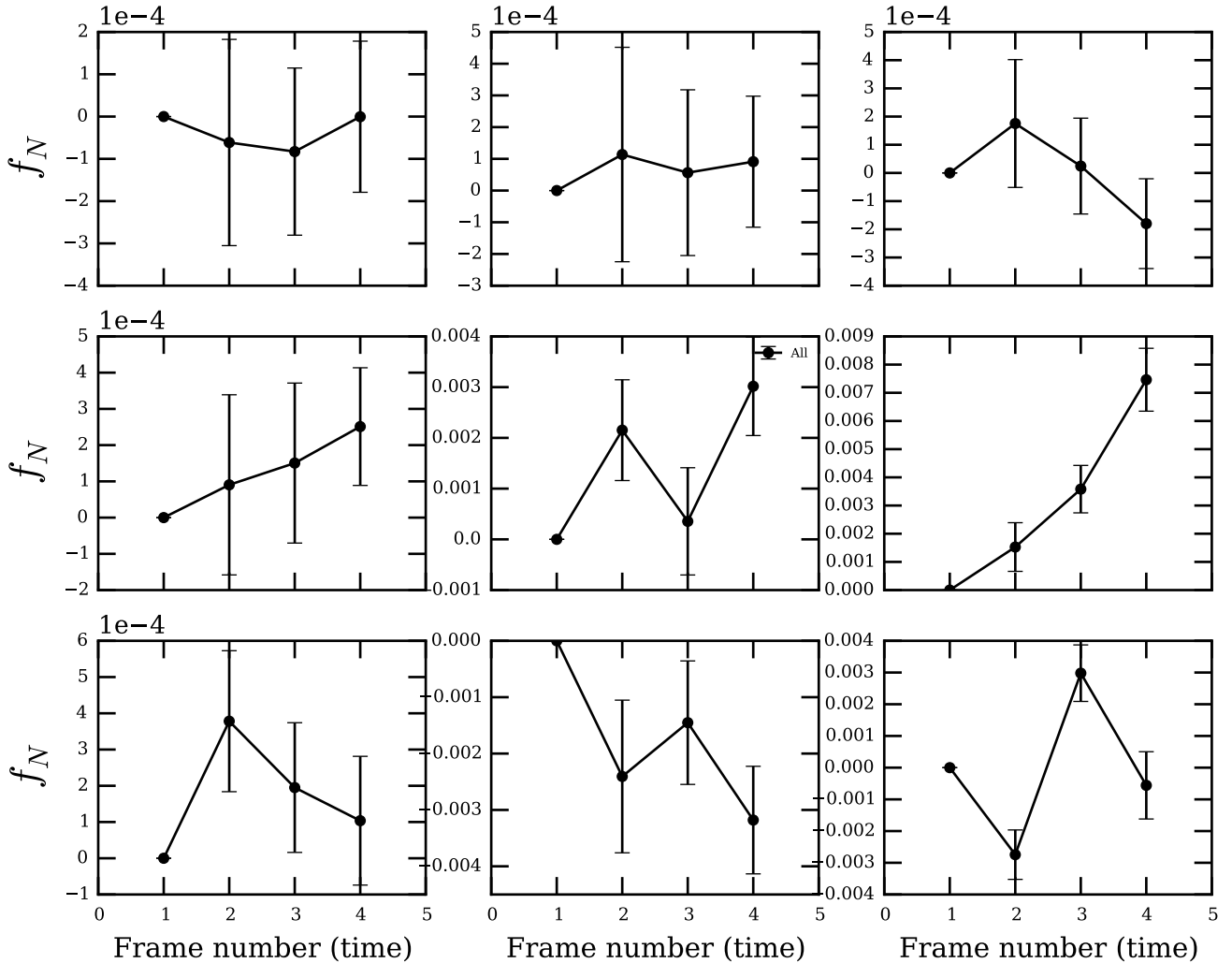

C2 flat
-8.15e-07 +/-
1.45e-15
-7.87e-07 +/-
1.18e-15
-7.9e-07 +/-
1.33e-15
-8.27e-07 +/-
1.14e-15
-7.65e-07 +/-
4.66e-16
-8.18e-07 +/-
1.62e-15
-7.97e-07 +/-
1.02e-15
-8.23e-07 +/-
1.01e-15

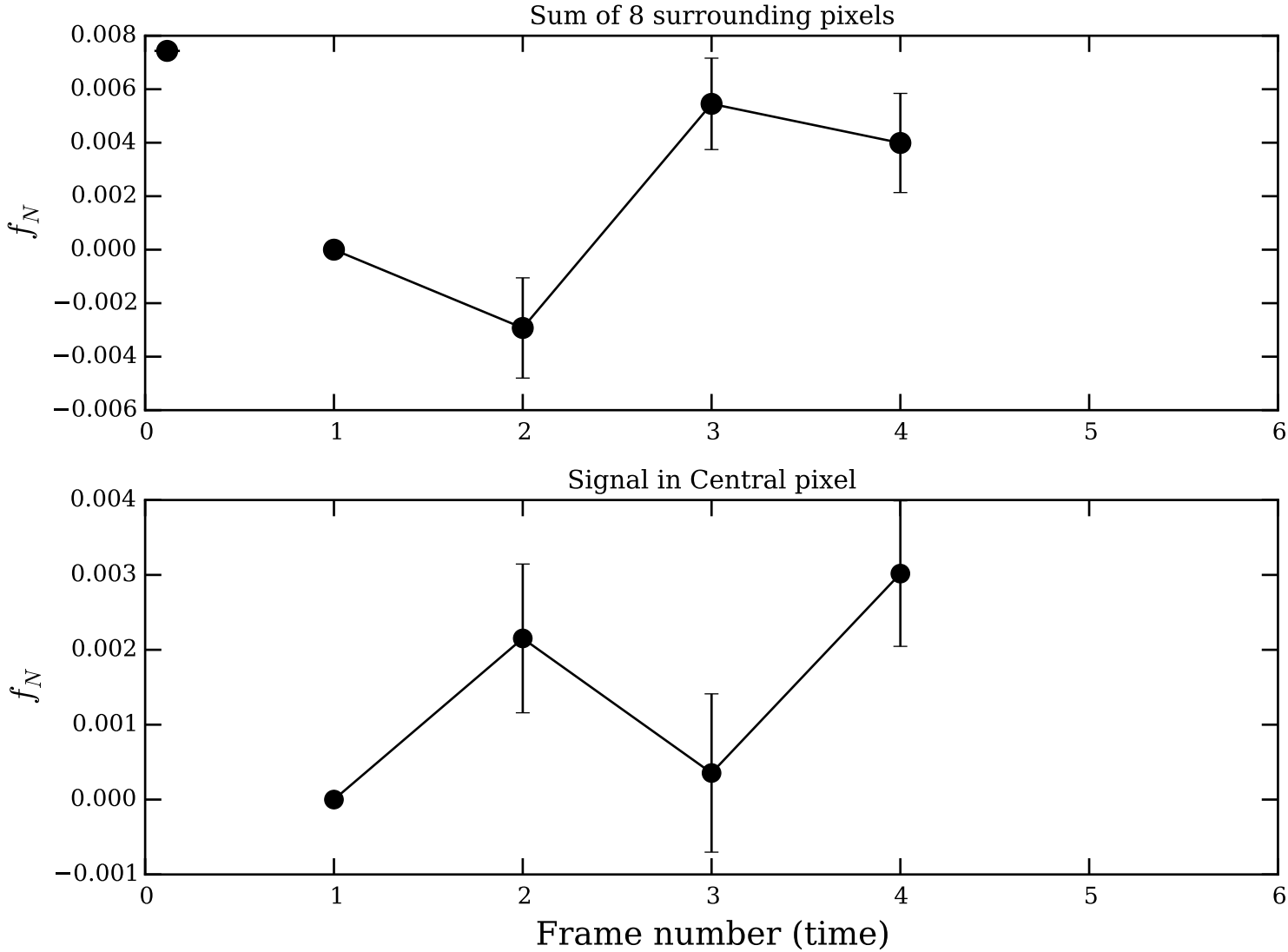

C2 spots
-1.39e-06 +/-
2.91e-13
-2.19e-07 +/-
1.12e-13
-5.3e-06 +/-
1.16e-11
-4.15e-07 +/-
1.73e-13
4.76e-08 +/-
1.61e-13
4.78e-06 +/-
2.63e-11
-2.34e-06 +/-
4.47e-12
-1.89e-06 +/-
5e-11
-6.66e-06 +/-
4.51e-12

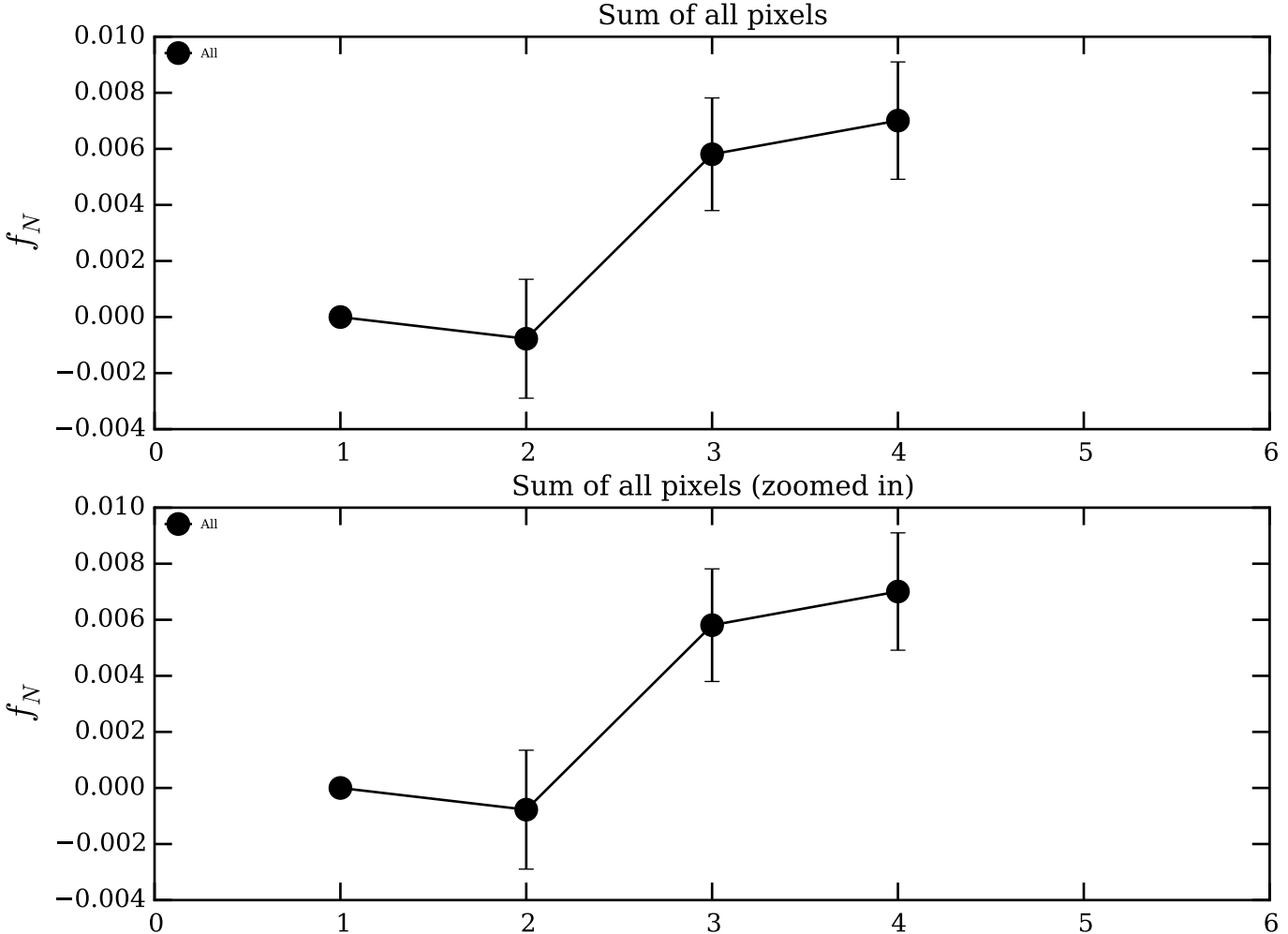

C2 spots after NL correction
-1.11e-07 +/-
6.27e-13
1.21e-08 +/-
1.06e-13
-2.25e-05 +/-
1.46e-10
-1.57e-08 +/-
2.81e-13
-3.29e-08 +/-
1.91e-13
-3.72e-06 +/-
1.81e-10
-3.77e-06 +/-
6.18e-10
8.84e-06 +/-
7.2e-10
3.48e-06 +/-
9.91e-10


0.025
0.020
0.015
0.010
0.005
0.000
−0.005
−0.010
Normalized change in size
0
1
2
3
4
5
Sample number


Histogram of flux (sum in each stamp, last fream)
5
4
3
2
1
0
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
1e5


1e−4
1e−4
1e−4
1e−4
1e−4
1e−4
f_N
f_N
f_N
All
Frame number (time)
Frame number (time)
Frame number (time)


Sum of 8 surrounding pixels
f_N
0.008
0.006
0.004
0.002
0.000
−0.002
−0.004
−0.006
0
1
2
3
4
5
6
Signal in Central pixel
f_N
0.004
0.003
0.002
0.001
0.000
−0.001
0
1
2
3
4
5
6
Frame number (time)


Sum of all pixels
All
0.010
0.008
0.006
0.004
0.002
0.000
−0.002
−0.004
f_N
0
1
2
3
4
5
6
Sum of all pixels (zoomed in)
All
0.010
0.008
0.006
0.004
0.002
0.000
−0.002
−0.004
f_N
0
1
2
3
4
5
6