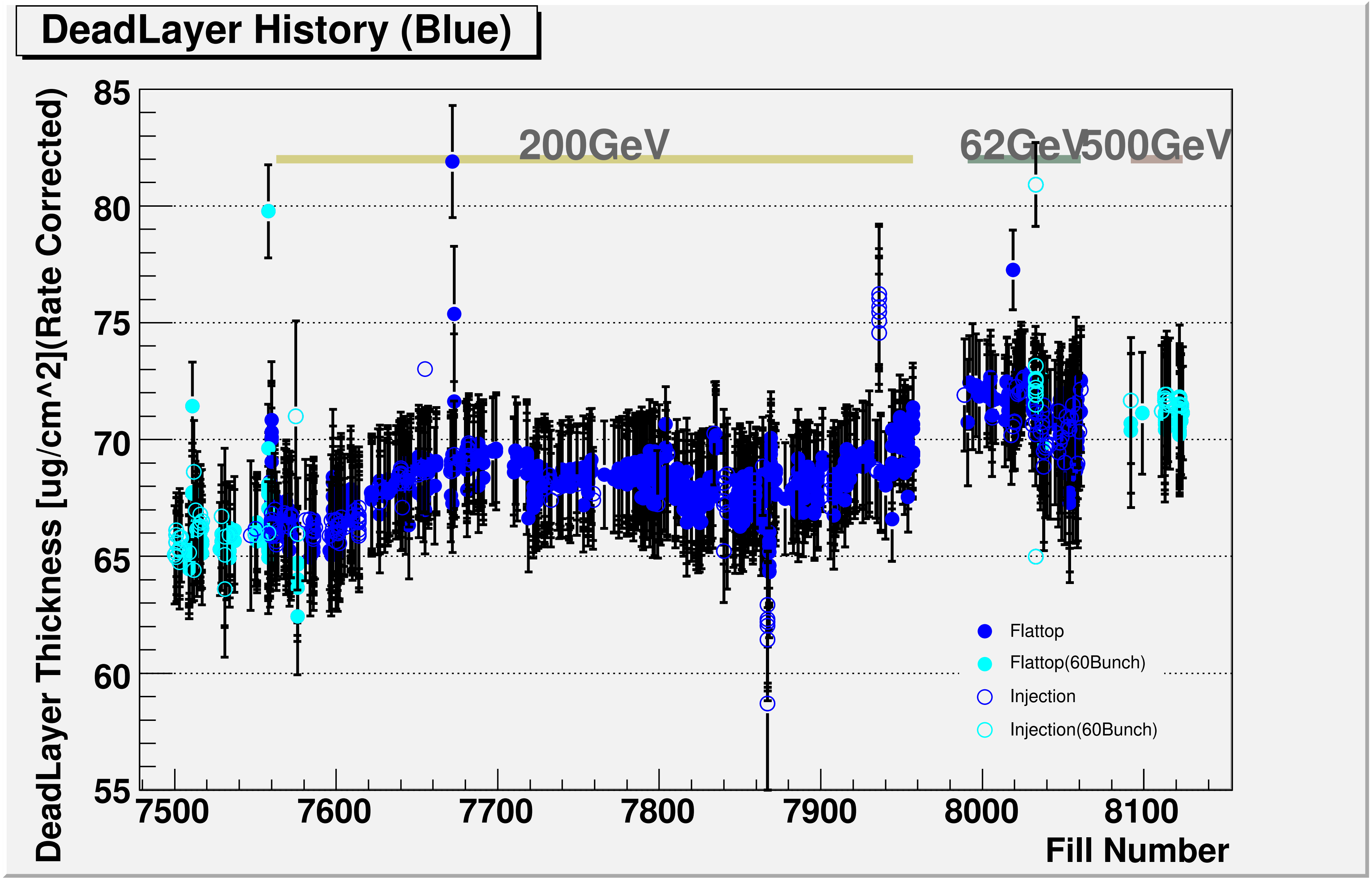
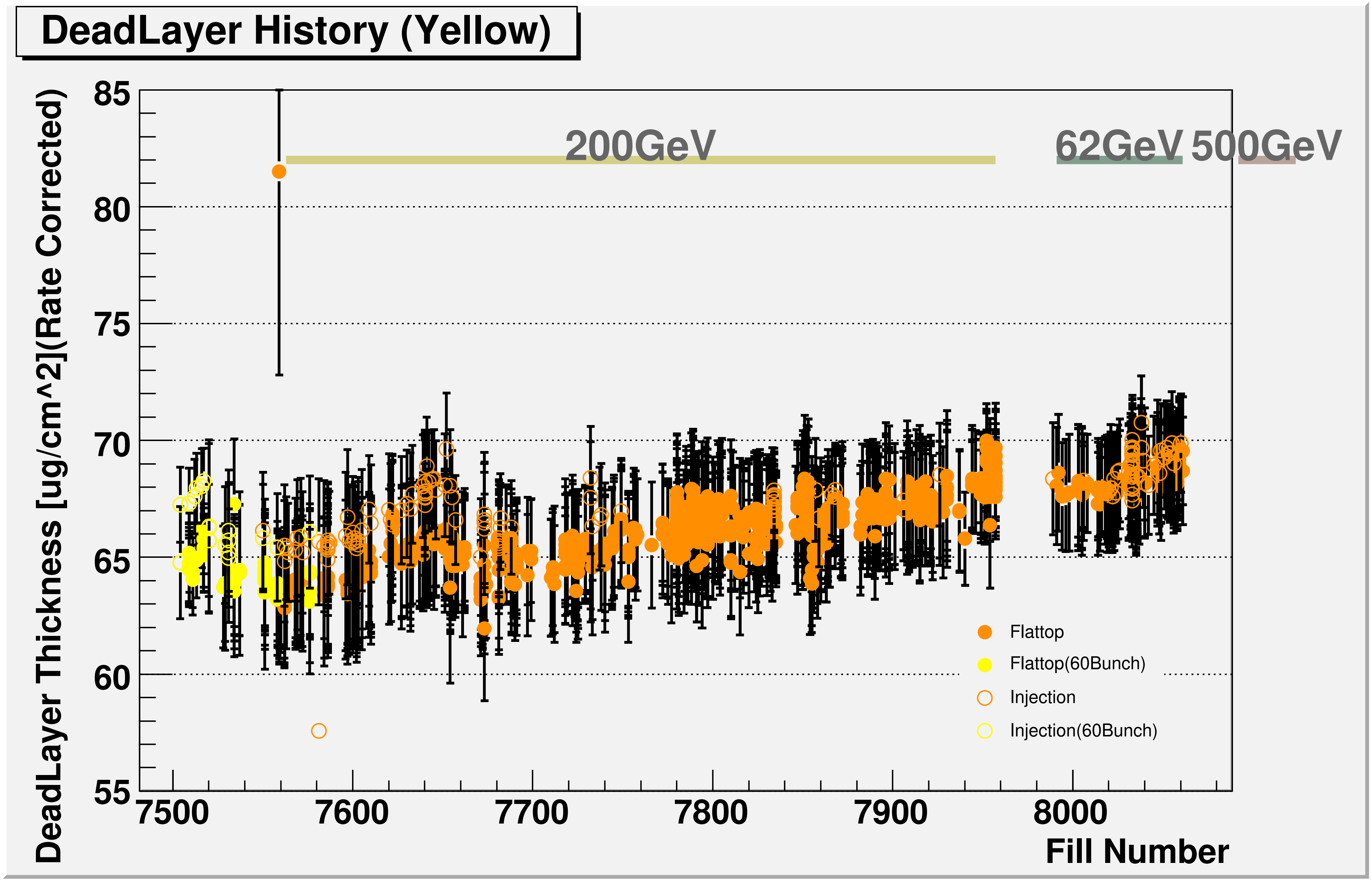
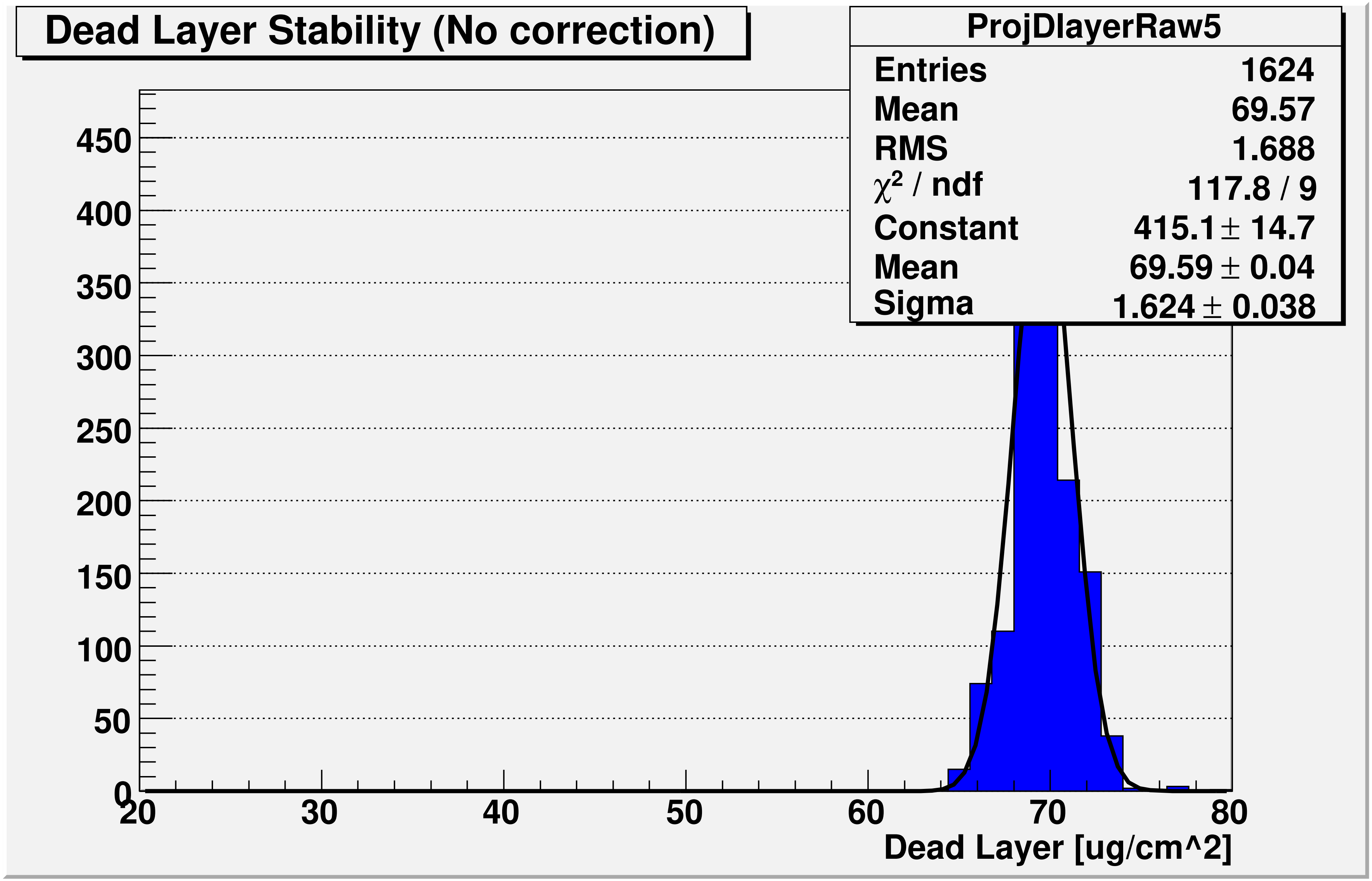
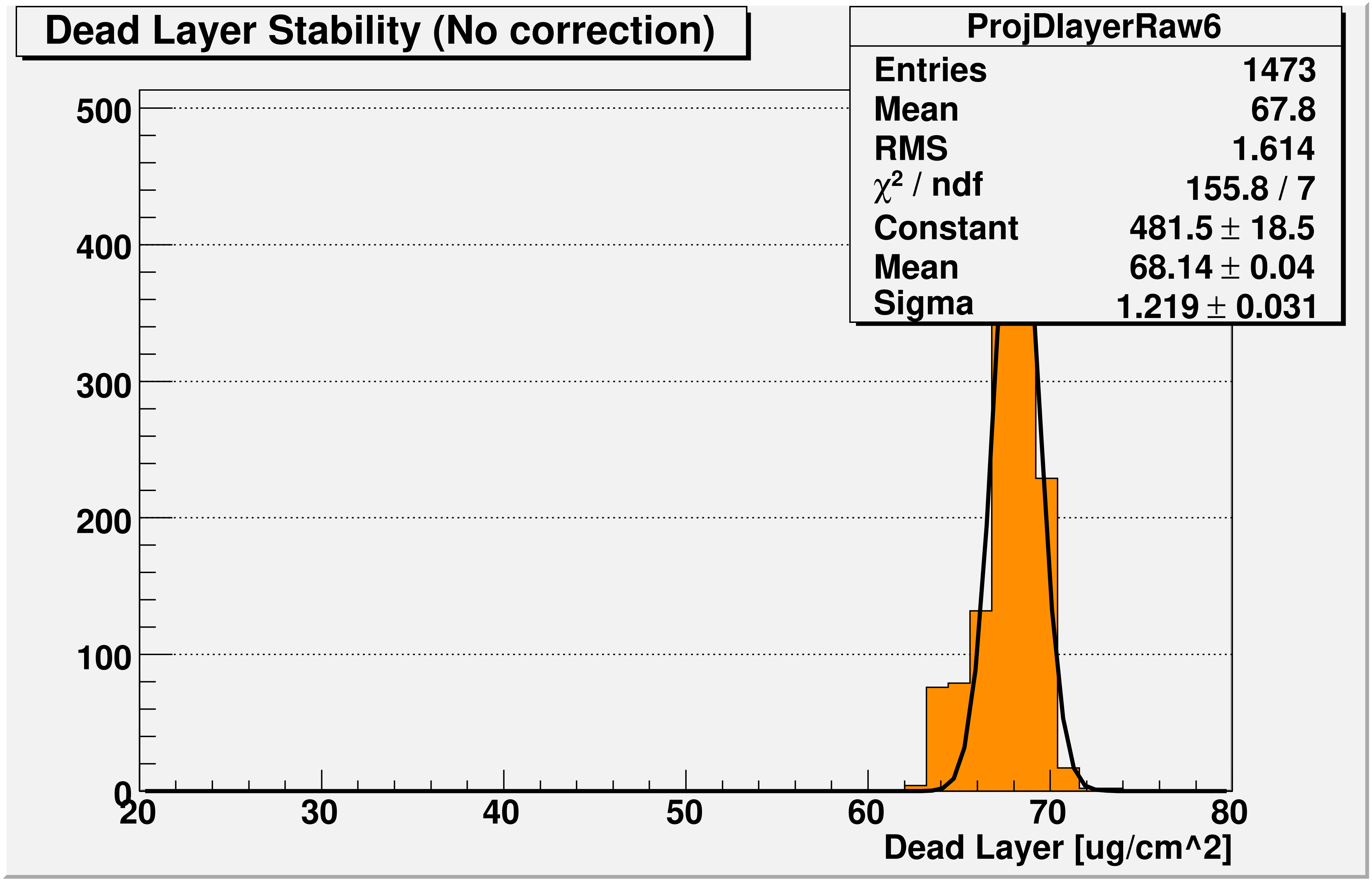


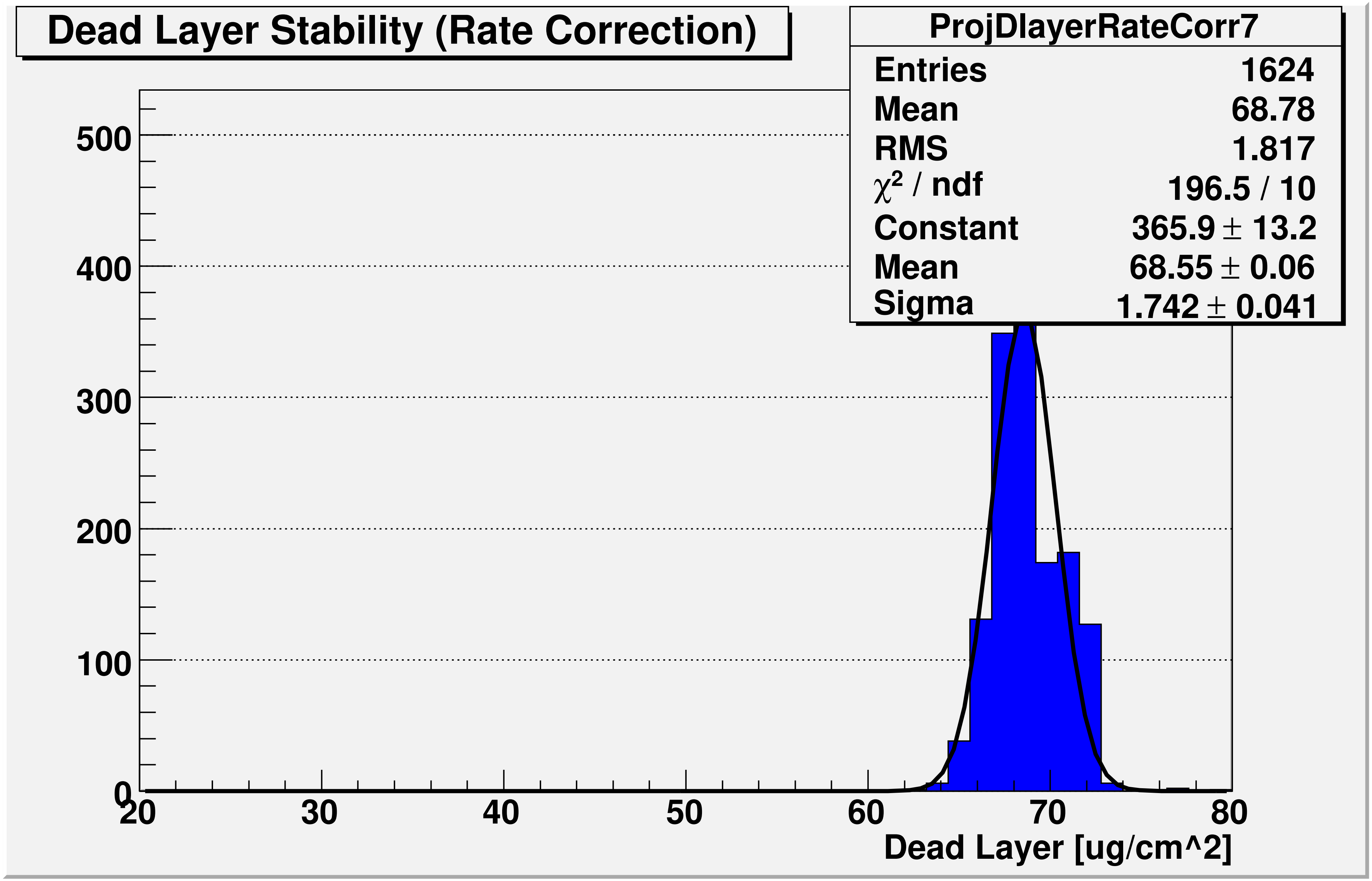
DeadLayer History (Blue)
DeadLayer Thickness [ug/cm^2](Rate Corrected)
Fill Number
200GeV
62GeV
500GeV
Flattop
Flattop(60Bunch)
Injection
Injection(60Bunch)
85
80
75
70
65
60
55
7500
7600
7700
7800
7900
8000
8100


DeadLayer History (Yellow)
200GeV
62GeV
500GeV
DeadLayer Thickness [ug/cm^2](Rate Corrected)
Fill Number
85
80
75
70
65
60
55
7500
7600
7700
7800
7900
8000
Flattop
Flattop(60Bunch)
Injection
Injection(60Bunch)

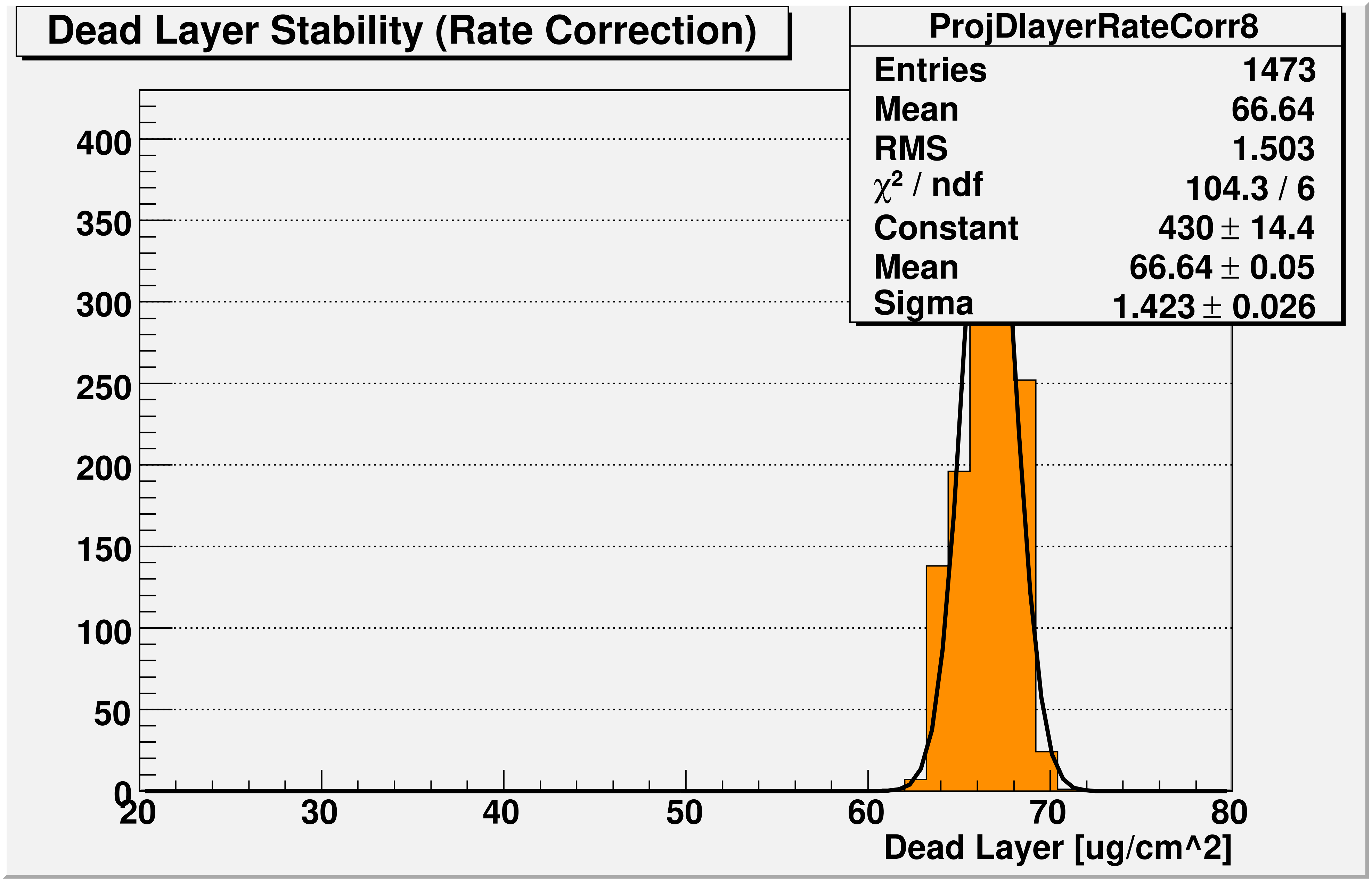

Dead Layer Stability (No correction)
ProjDlayerRaw5
Entries 1624
Mean 69.57
RMS 1.688
χ^2 / ndf 117.8 / 9
Constant 415.1 ± 14.7
Mean 69.59 ± 0.04
Sigma 1.624 ± 0.038
Dead Layer [ug/cm^2]



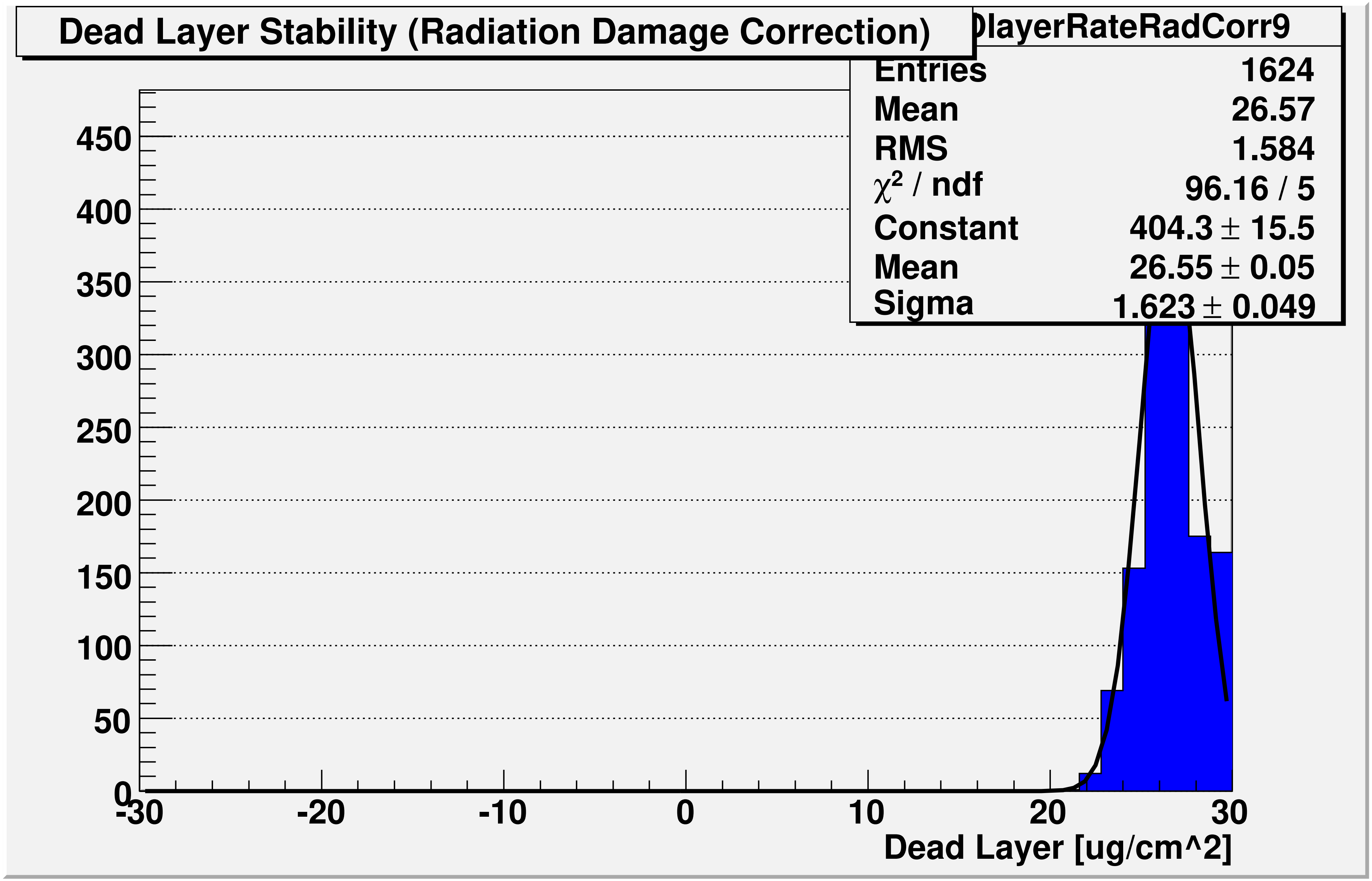
Dead Layer Stability (No correction)
ProjDlayerRaw6
Entries 1473
Mean 67.8
RMS 1.614
χ^2 / ndf 155.8 / 7
Constant 481.5 ± 18.5
Mean 68.14 ± 0.04
Sigma 1.219 ± 0.031
0
100
200
300
400
500
20
30
40
50
60
70
80
Dead Layer [ug/cm^2]



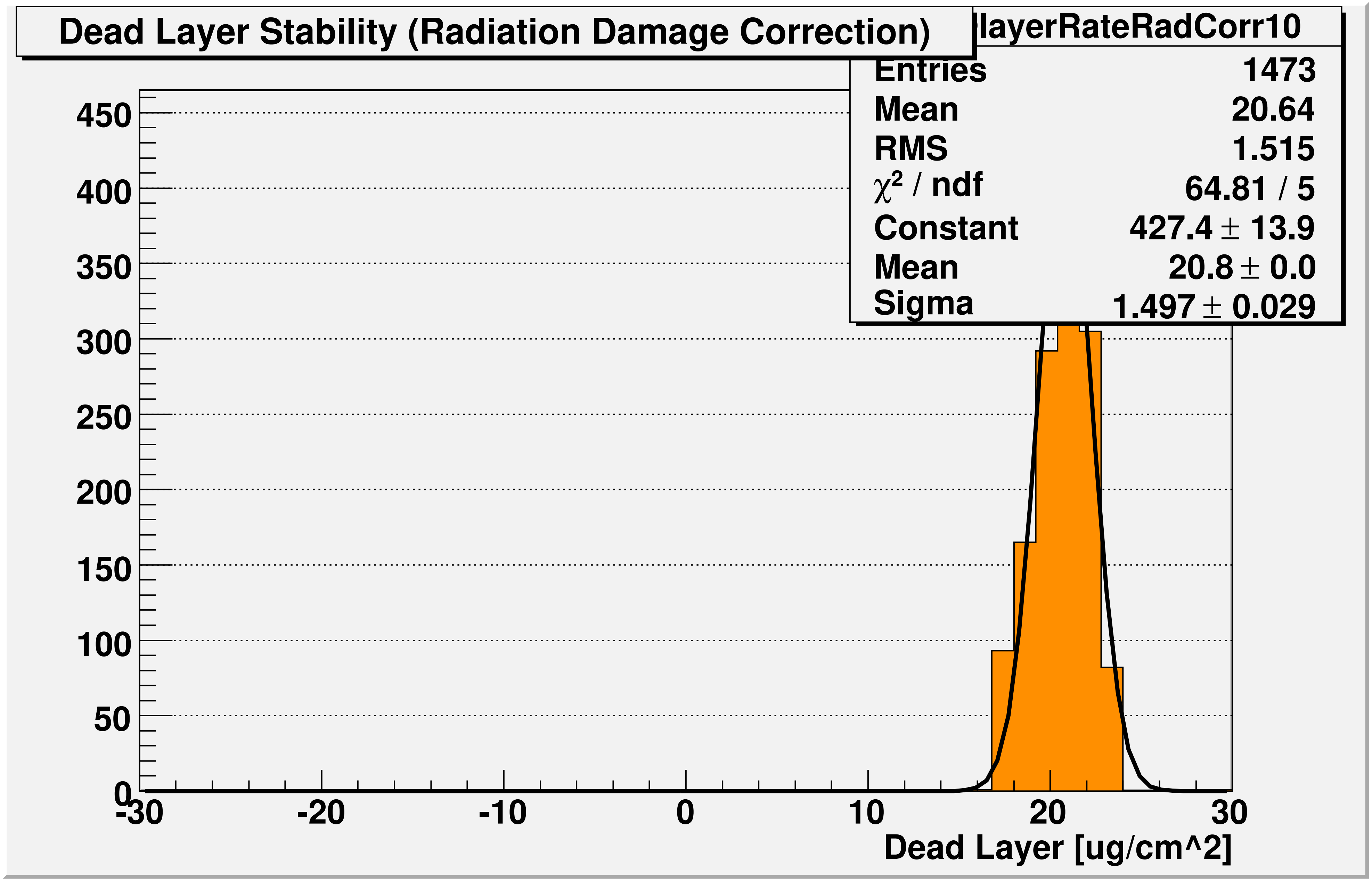
Dead Layer Stability (Rate Correction)
ProjDlayerRateCorr7
Entries 1624
Mean 68.78
RMS 1.817
χ2 / ndf 196.5 / 10
Constant 365.9 ± 13.2
Mean 68.55 ± 0.06
Sigma 1.742 ± 0.041
0
100
200
300
400
500
20
30
40
50
60
70
80
Dead Layer [ug/cm^2]



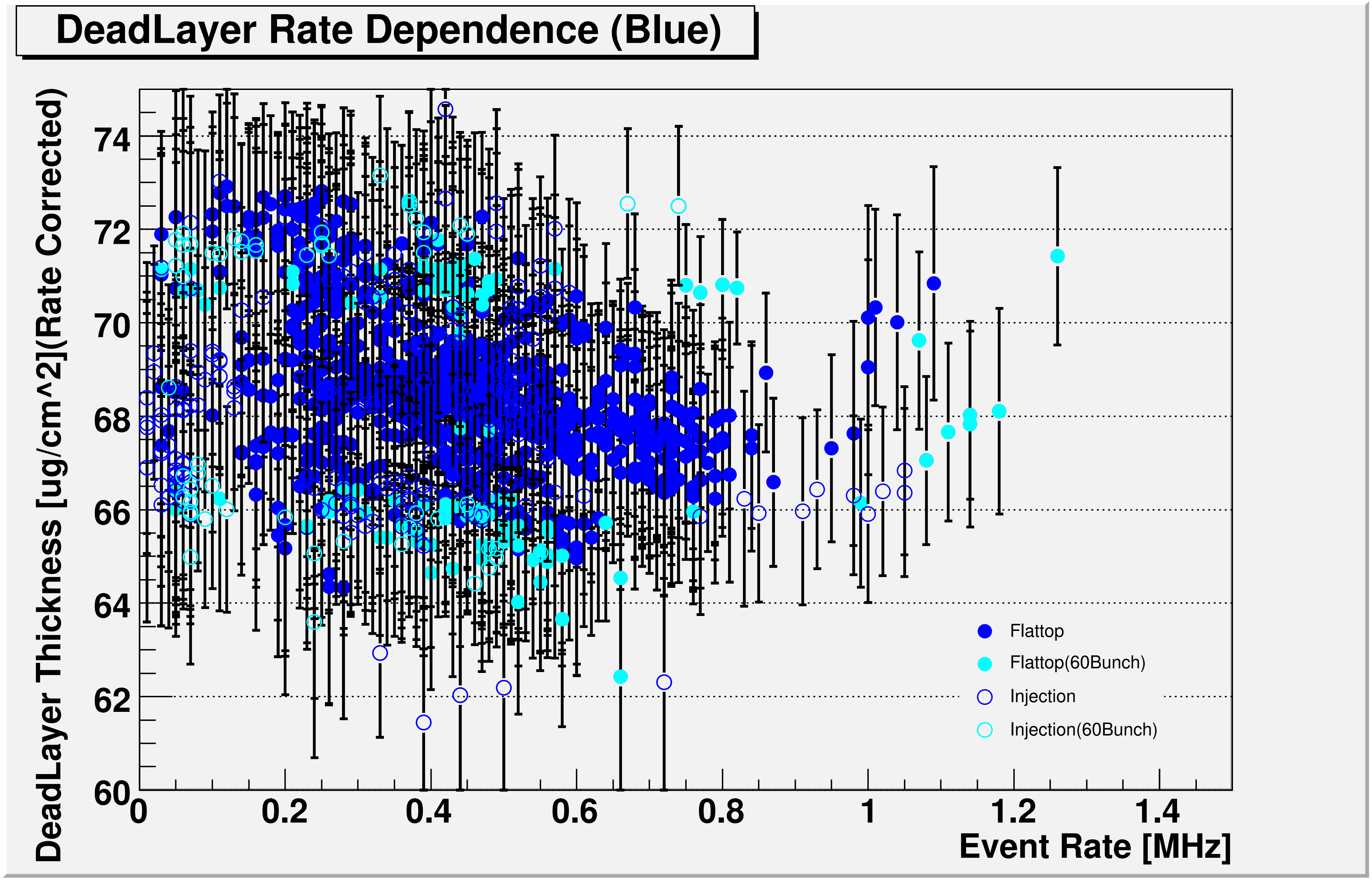
Dead Layer Stability (Rate Correction)
ProjDlayerRateCorr8
Entries 1473
Mean 66.64
RMS 1.503
χ² / ndf 104.3 / 6
Constant 430 ± 14.4
Mean 66.64 ± 0.05
Sigma 1.423 ± 0.026
0
50
100
150
200
250
300
350
400
20
30
40
50
60
70
80
Dead Layer [ug/cm^2]



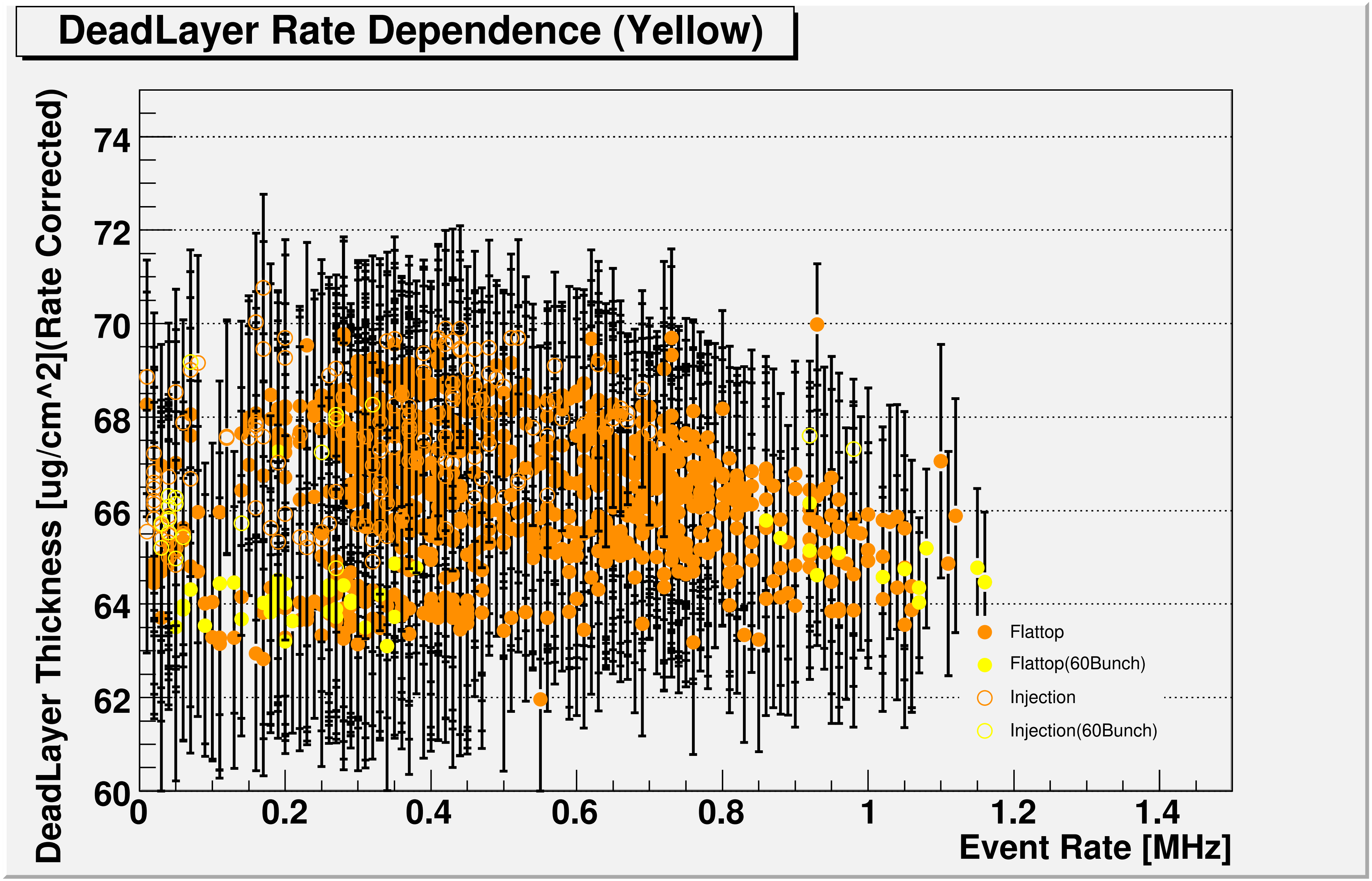
Dead Layer Stability (Radiation Damage Correction)
DlayerRateRadCorr9
Entries 1624
Mean 26.57
RMS 1.584
χ² / ndf 96.16 / 5
Constant 404.3 ± 15.5
Mean 26.55 ± 0.05
Sigma 1.623 ± 0.049
450
400
350
300
250
200
150
100
50
0
-30
-20
-10
0
10
20
30
Dead Layer [ug/cm^2]



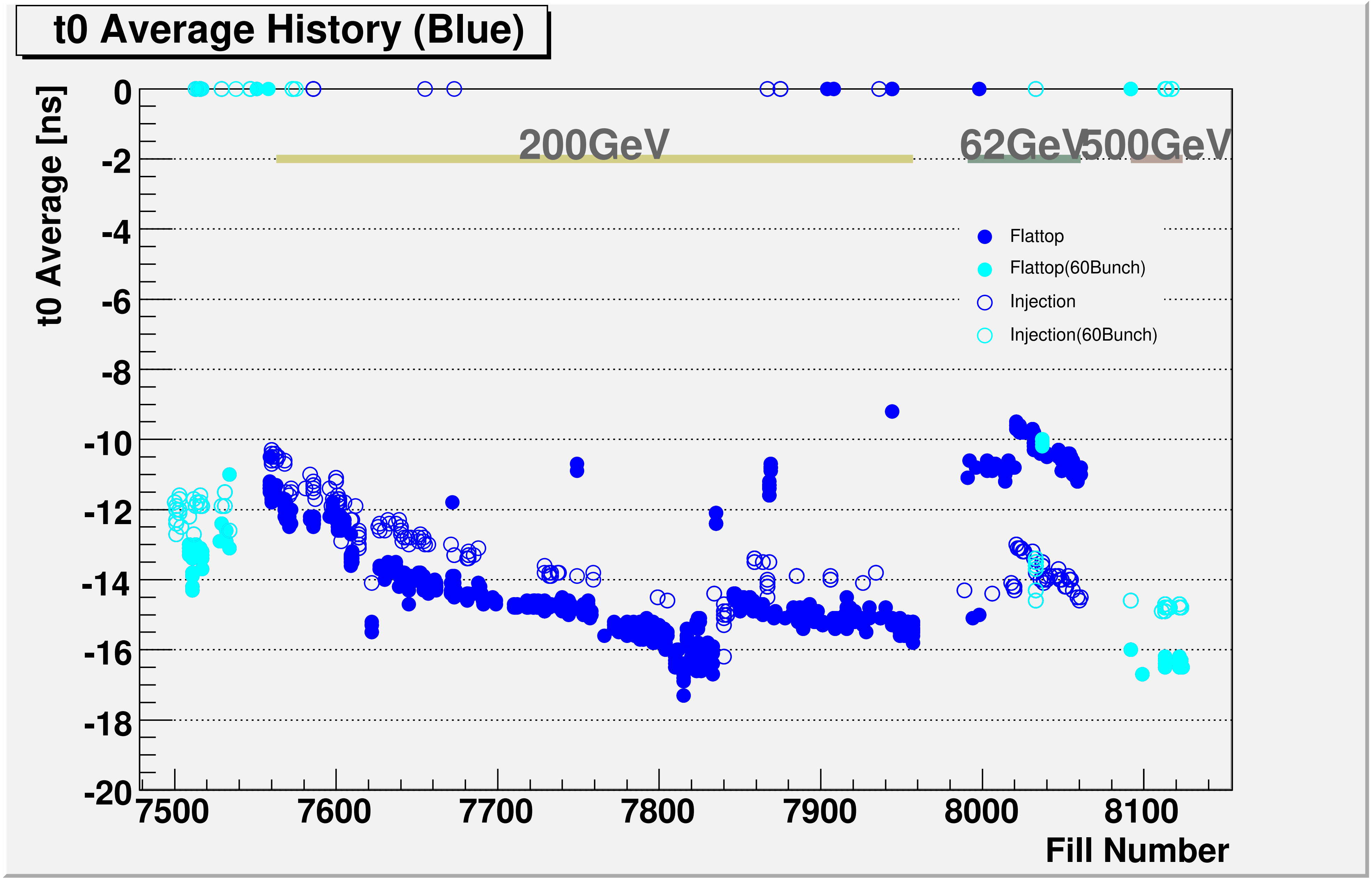
Dead Layer Stability (Radiation Damage Correction)
llayerRateRadCorr10
Entries 1473
Mean 20.64
RMS 1.515
χ2 / ndf 64.81 / 5
Constant 427.4 ± 13.9
Mean 20.8 ± 0.0
Sigma 1.497 ± 0.029
0
50
100
150
200
250
300
350
400
450
-30
-20
-10
0
10
20
30
Dead Layer [ug/cm^2]



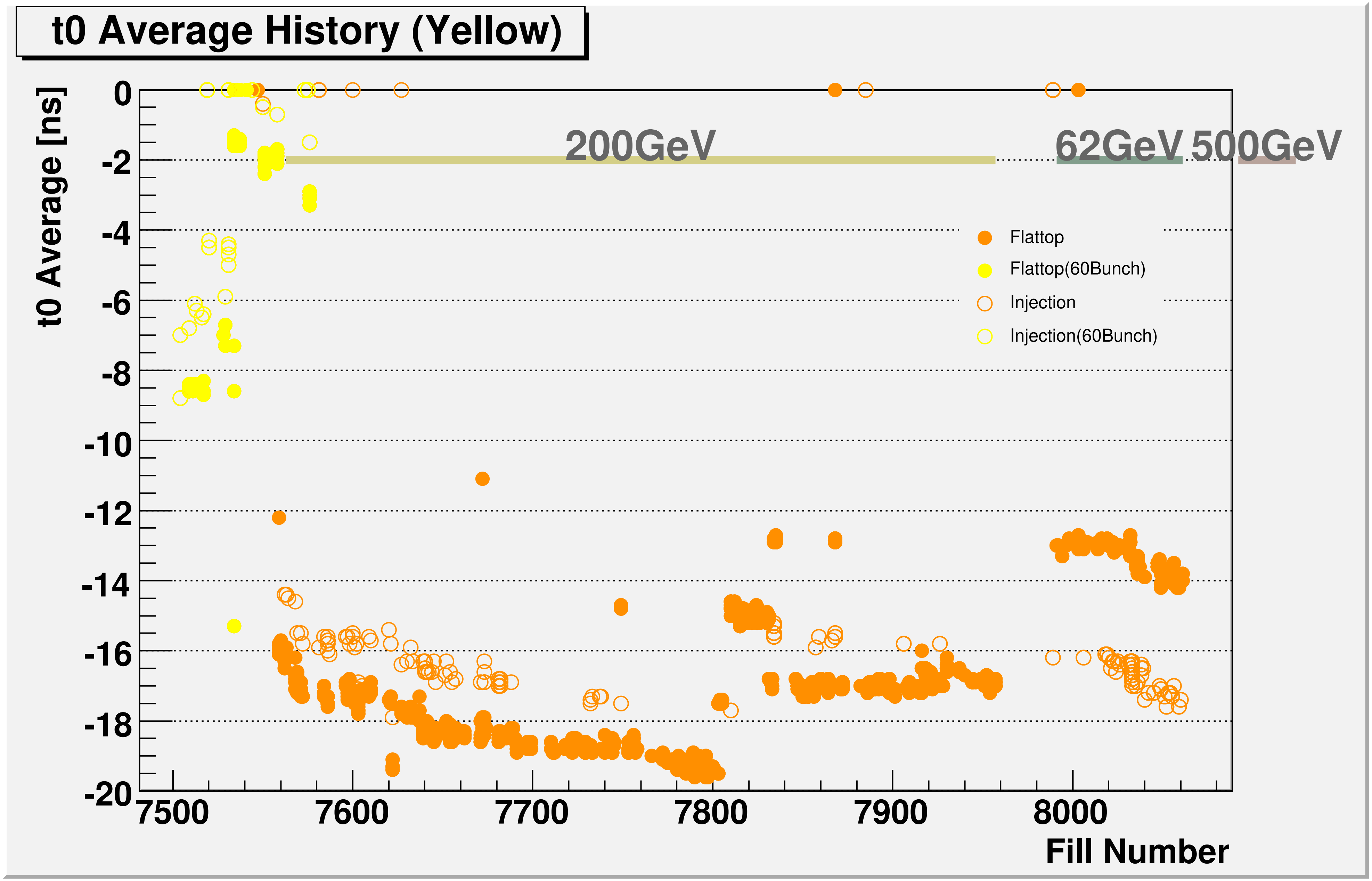
DeadLayer Rate Dependence (Blue)
DeadLayer Thickness [ug/cm^2](Rate Corrected)
Event Rate [MHz]
60
62
64
66
68
70
72
74
0
0.2
0.4
0.6
0.8
1
1.2
1.4
Flattop
Flattop(60Bunch)
Injection
Injection(60Bunch)



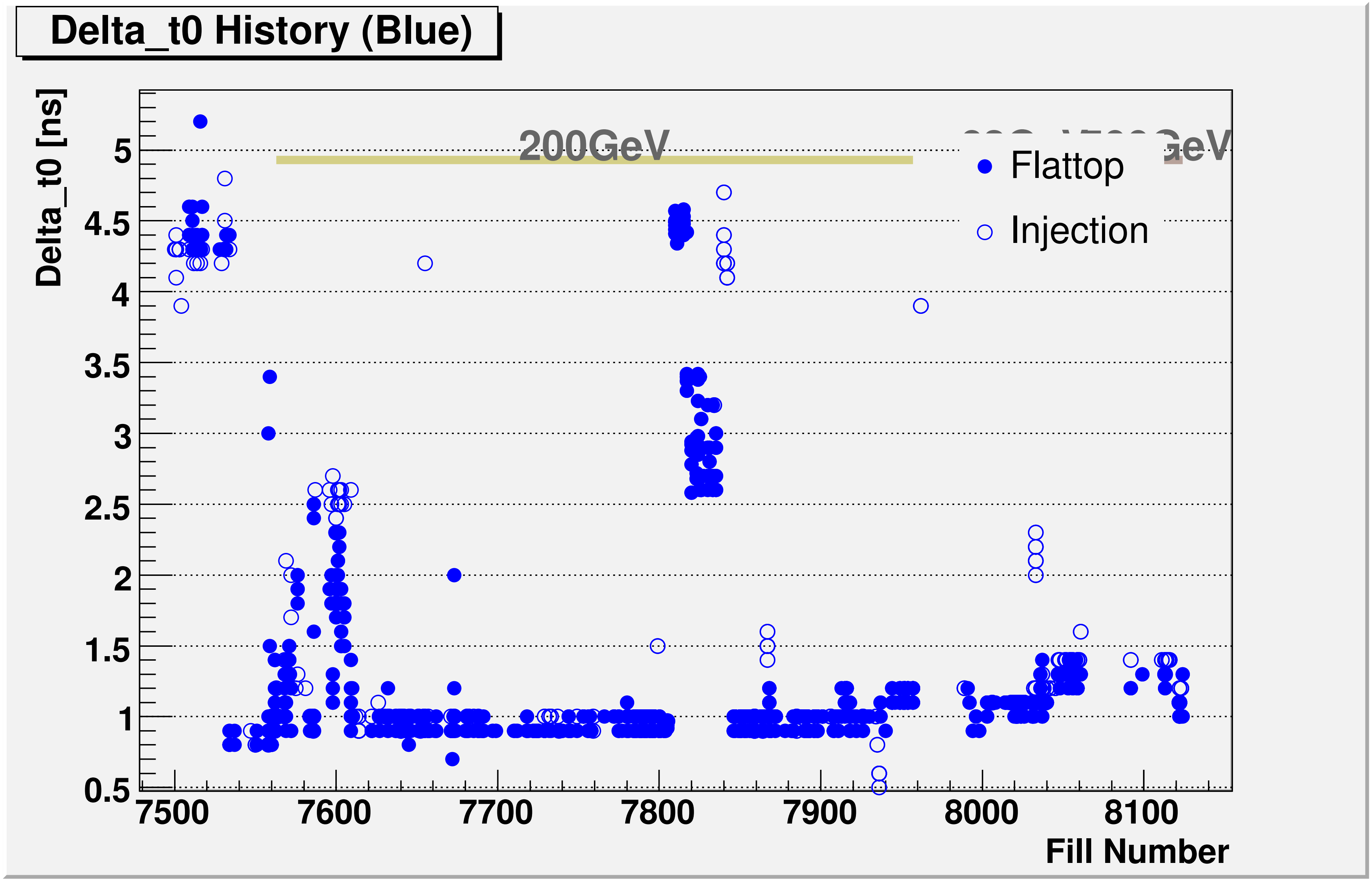
DeadLayer Rate Dependence (Yellow)
DeadLayer Thickness [ug/cm^2](Rate Corrected)
Event Rate [MHz]
74
72
70
68
66
64
62
60
0
0.2
0.4
0.6
0.8
1
1.2
1.4
Flattop
Flattop(60Bunch)
Injection
Injection(60Bunch)



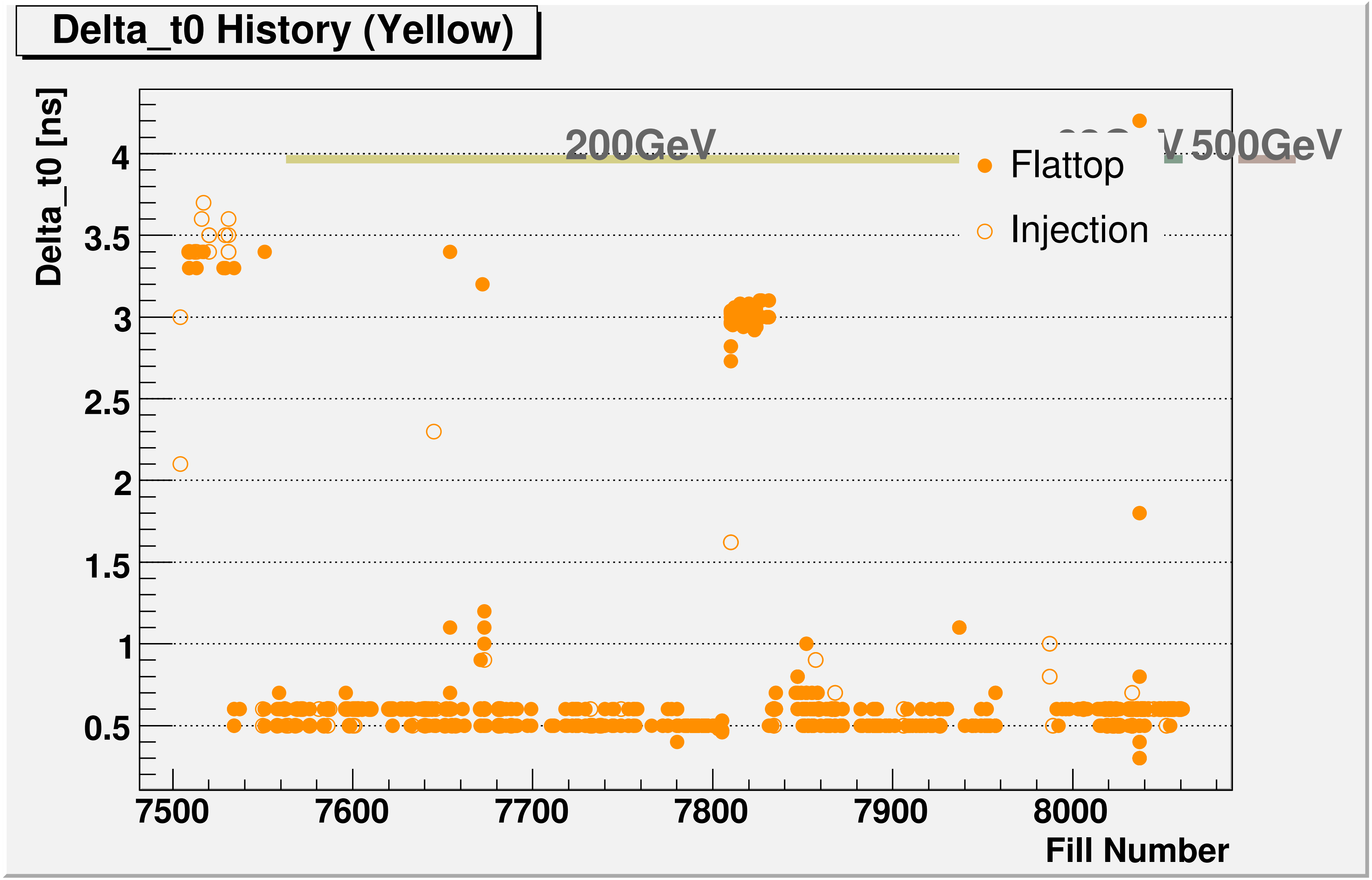
t0 Average History (Blue)
t0 Average [ns]
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
7500
7600
7700
7800
7900
8000
8100
Fill Number
200GeV
62GeV
500GeV
Flattop
Flattop(60Bunch)
Injection
Injection(60Bunch)



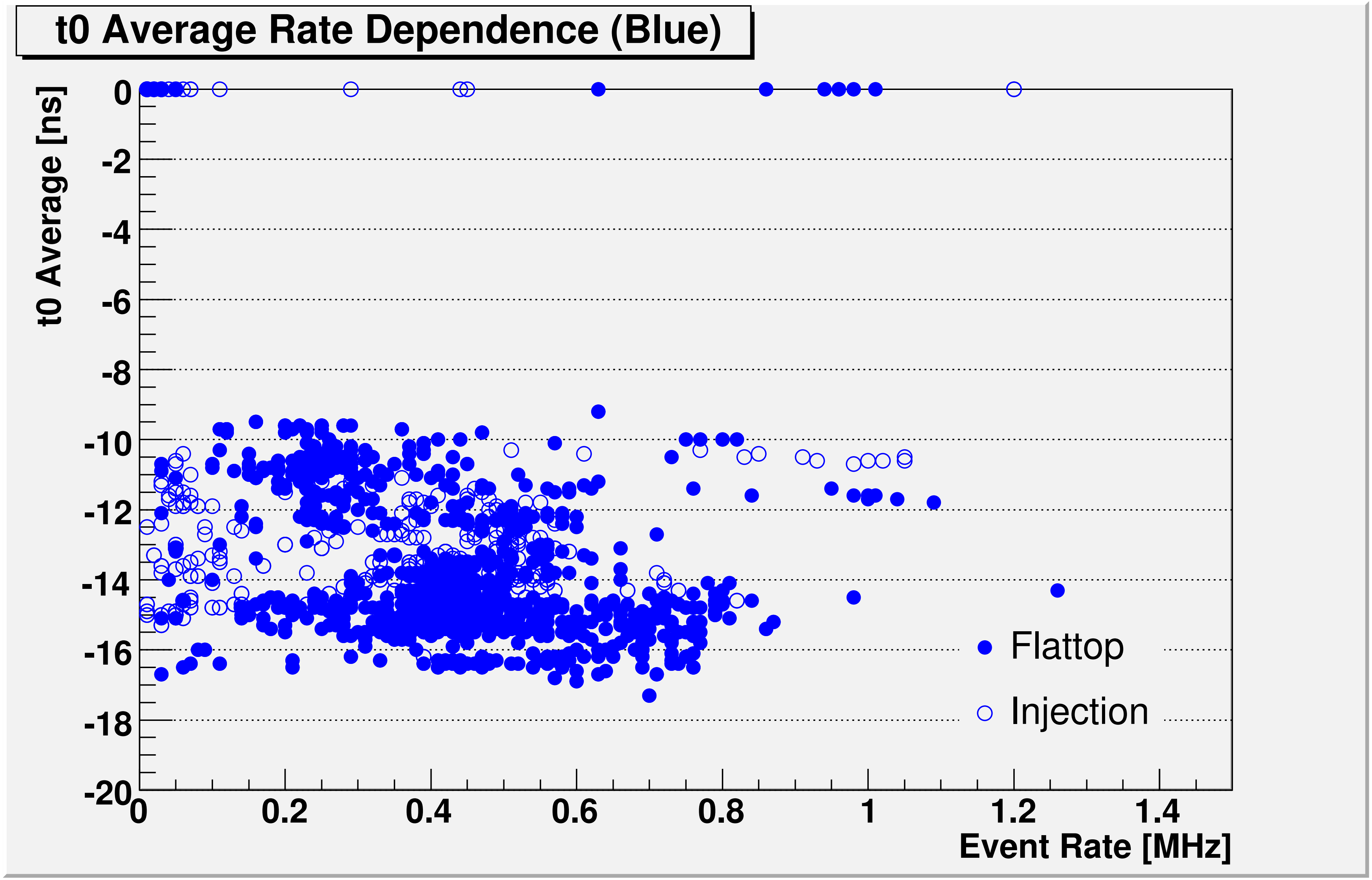
t0 Average History (Yellow)
t0 Average [ns]
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
7500
7600
7700
7800
7900
8000
Fill Number
200GeV
62GeV
500GeV
Flattop
Flattop(60Bunch)
Injection
Injection(60Bunch)



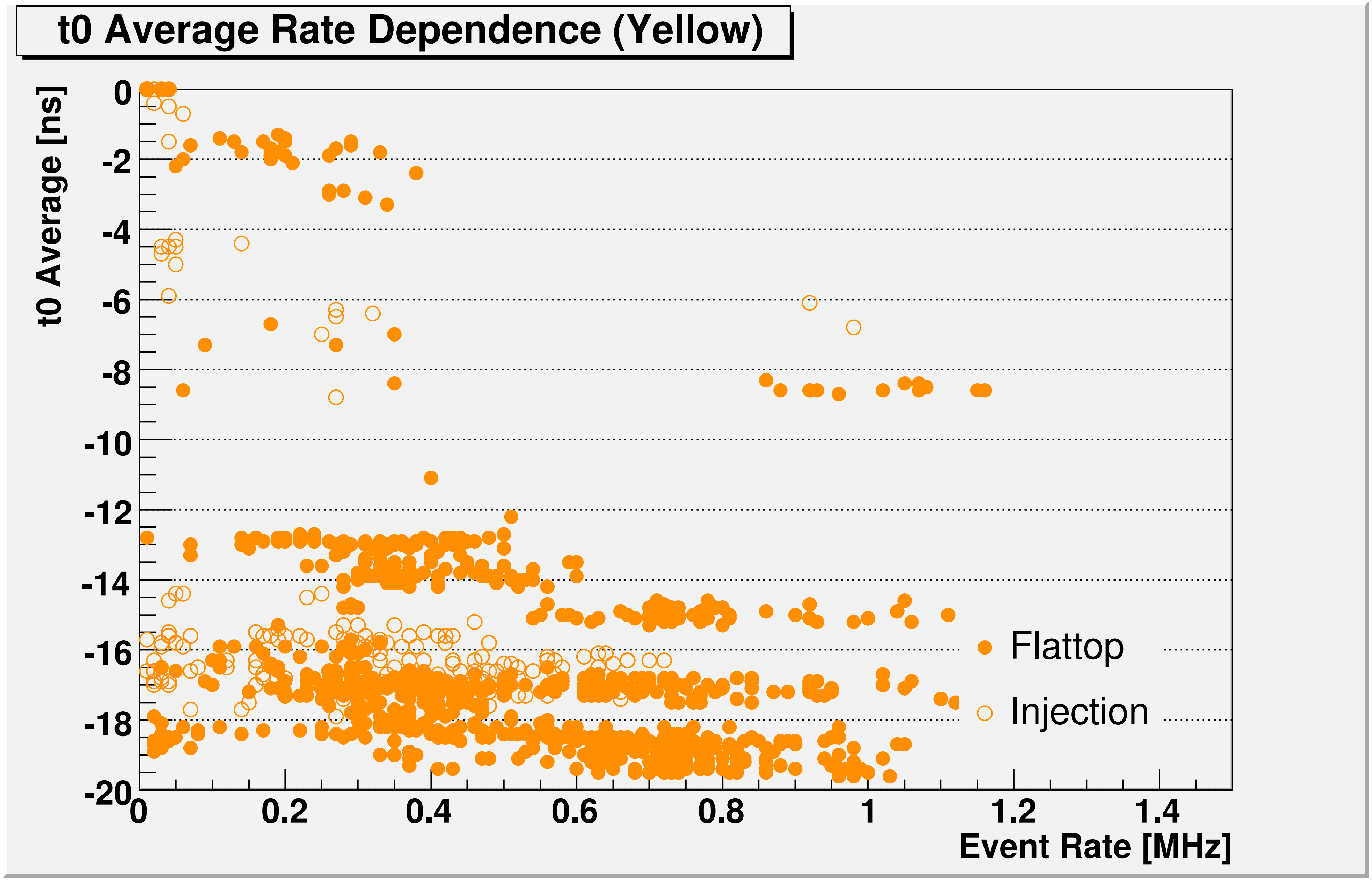
Delta_t0 History (Blue)
Delta_t0 [ns]
200GeV
Flattop
Injection
Fill Number
7500
7600
7700
7800
7900
8000
8100
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5

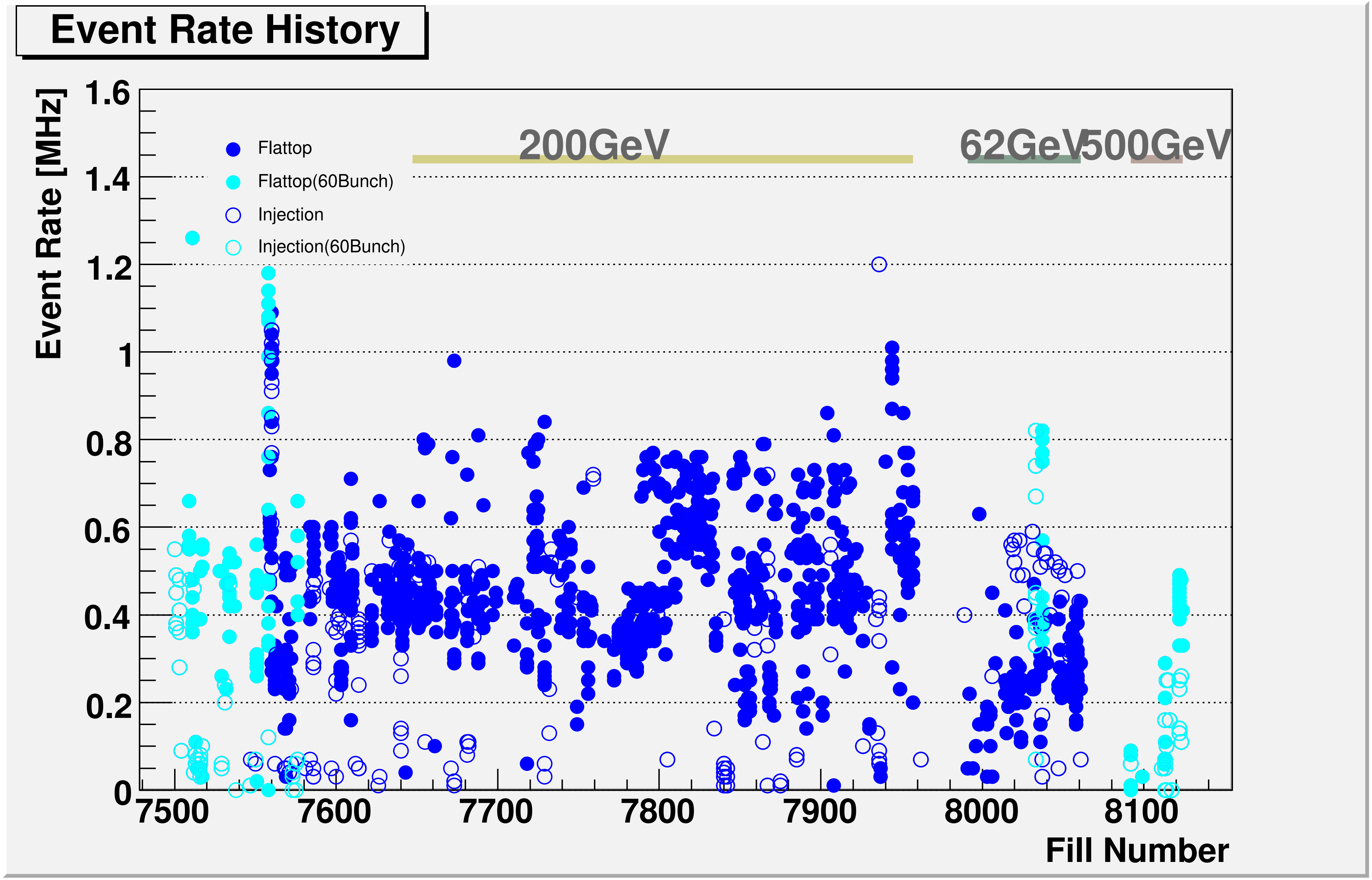


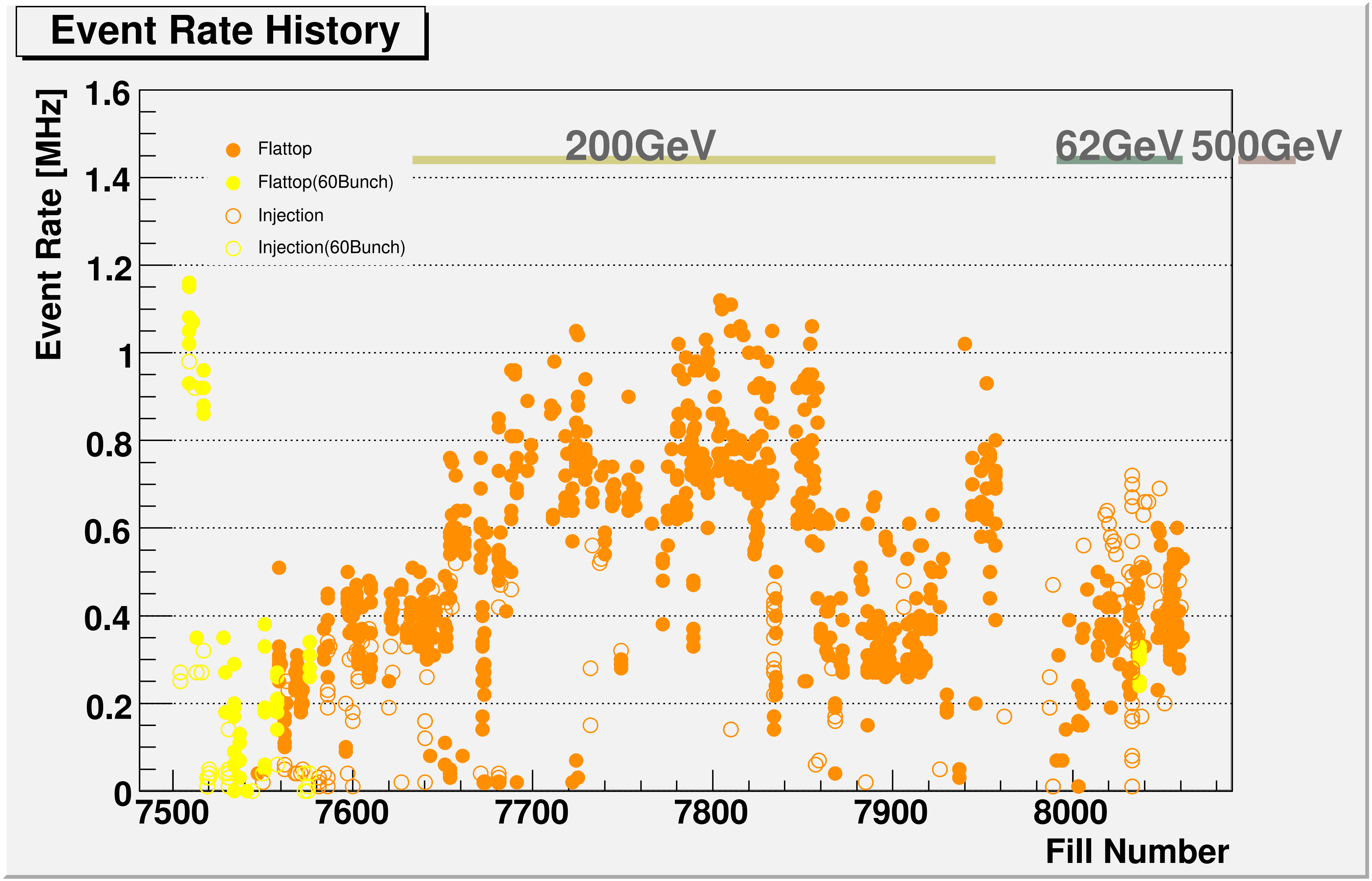
Delta_t0 History (Yellow)
Delta_t0 [ns]
200GeV
500GeV
Flattop
Injection
4
3.5
3
2.5
2
1.5
1
0.5
7500
7600
7700
7800
7900
8000
Fill Number



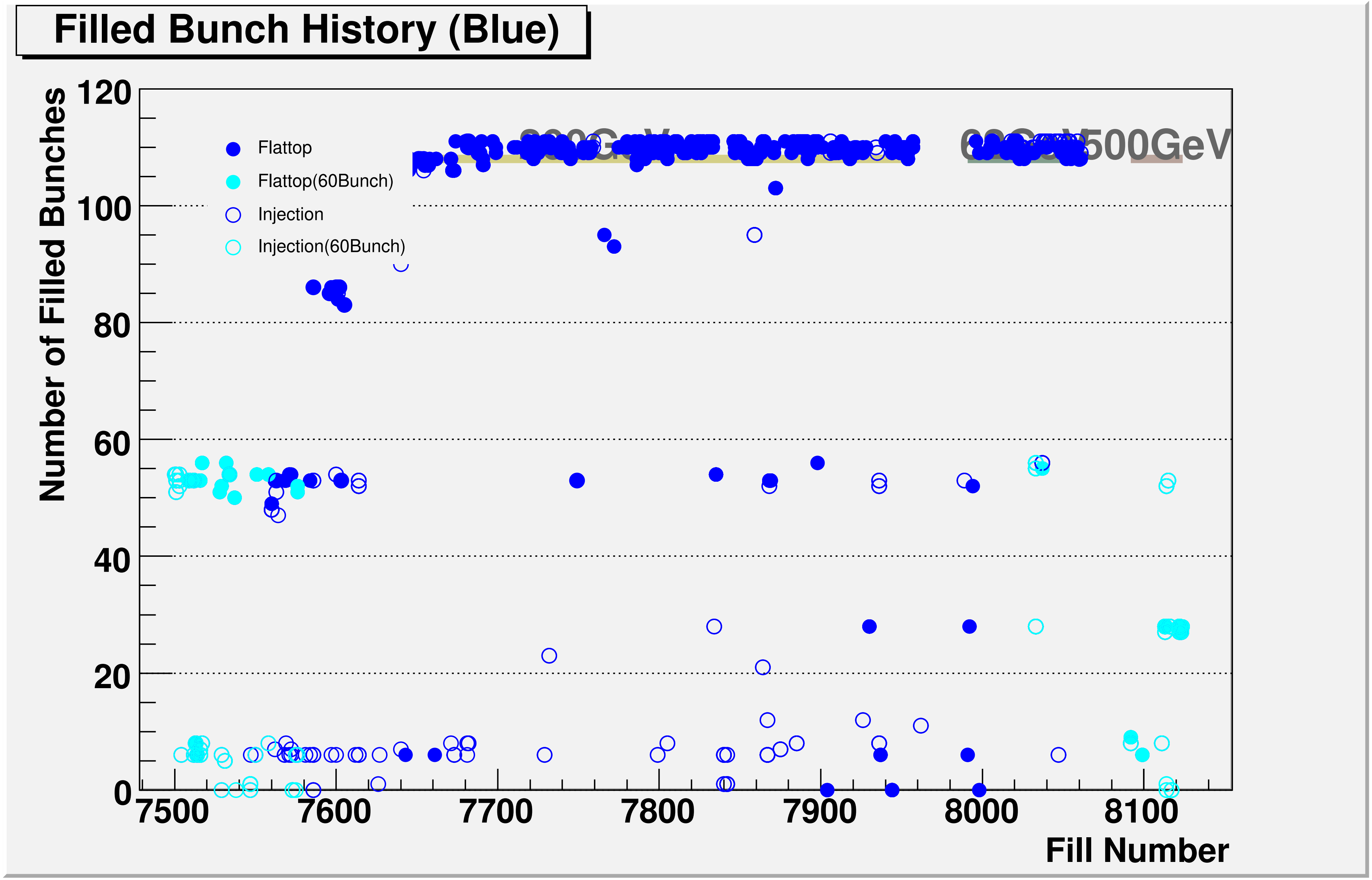
t0 Average Rate Dependence (Blue)
t0 Average [ns]
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
0
0.2
0.4
0.6
0.8
1
1.2
1.4
Event Rate [MHz]
Flattop
Injection


t0 Average Rate Dependence (Yellow)
t0 Average [ns]
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
0
0.2
0.4
0.6
0.8
1
1.2
1.4
Event Rate [MHz]
Flattop
Injection

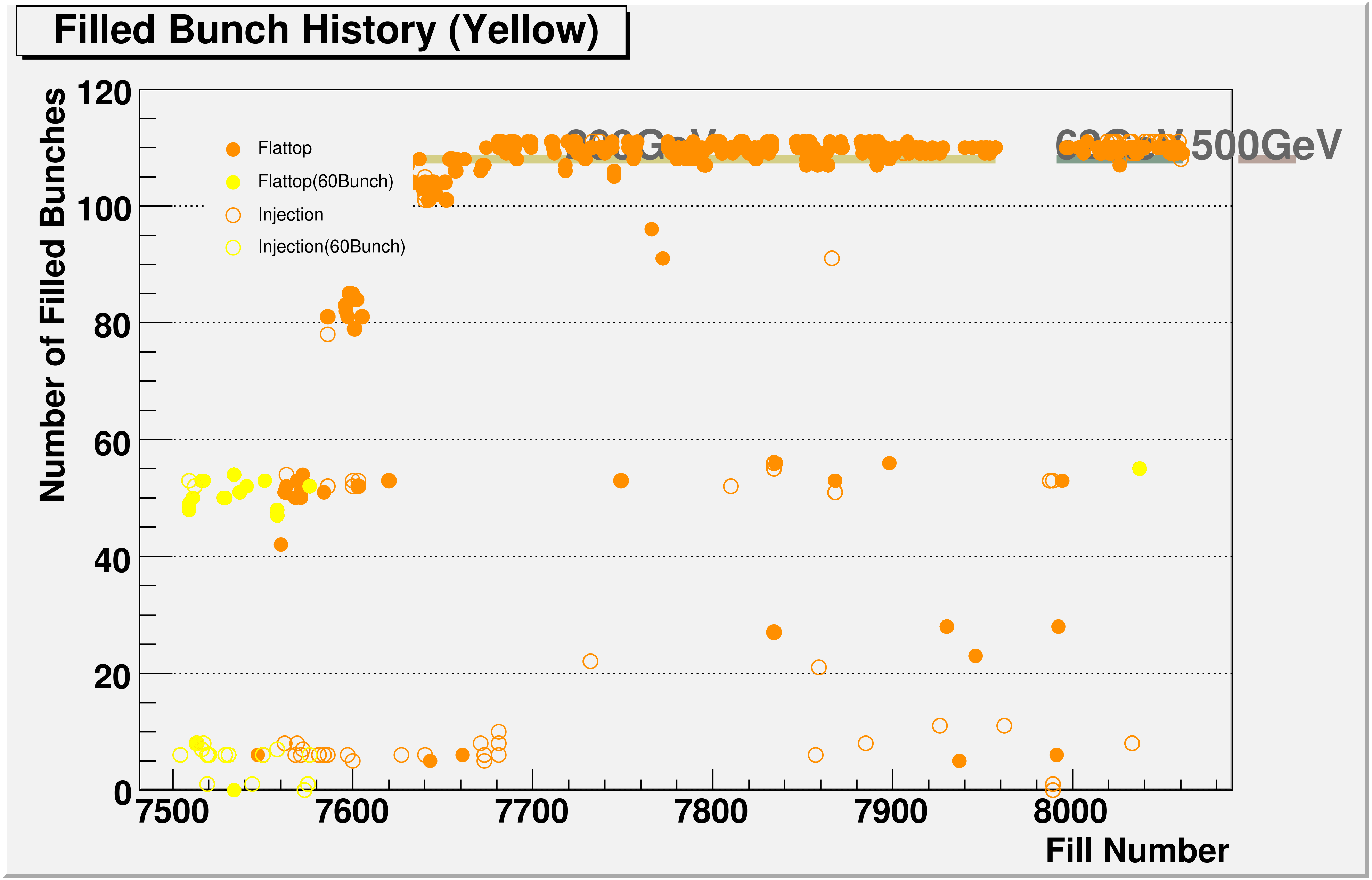

Event Rate History
Event Rate [MHz]
Fill Number
200GeV
62GeV
500GeV
Flattop
Flattop(60Bunch)
Injection
Injection(60Bunch)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
7500
7600
7700
7800
7900
8000
8100

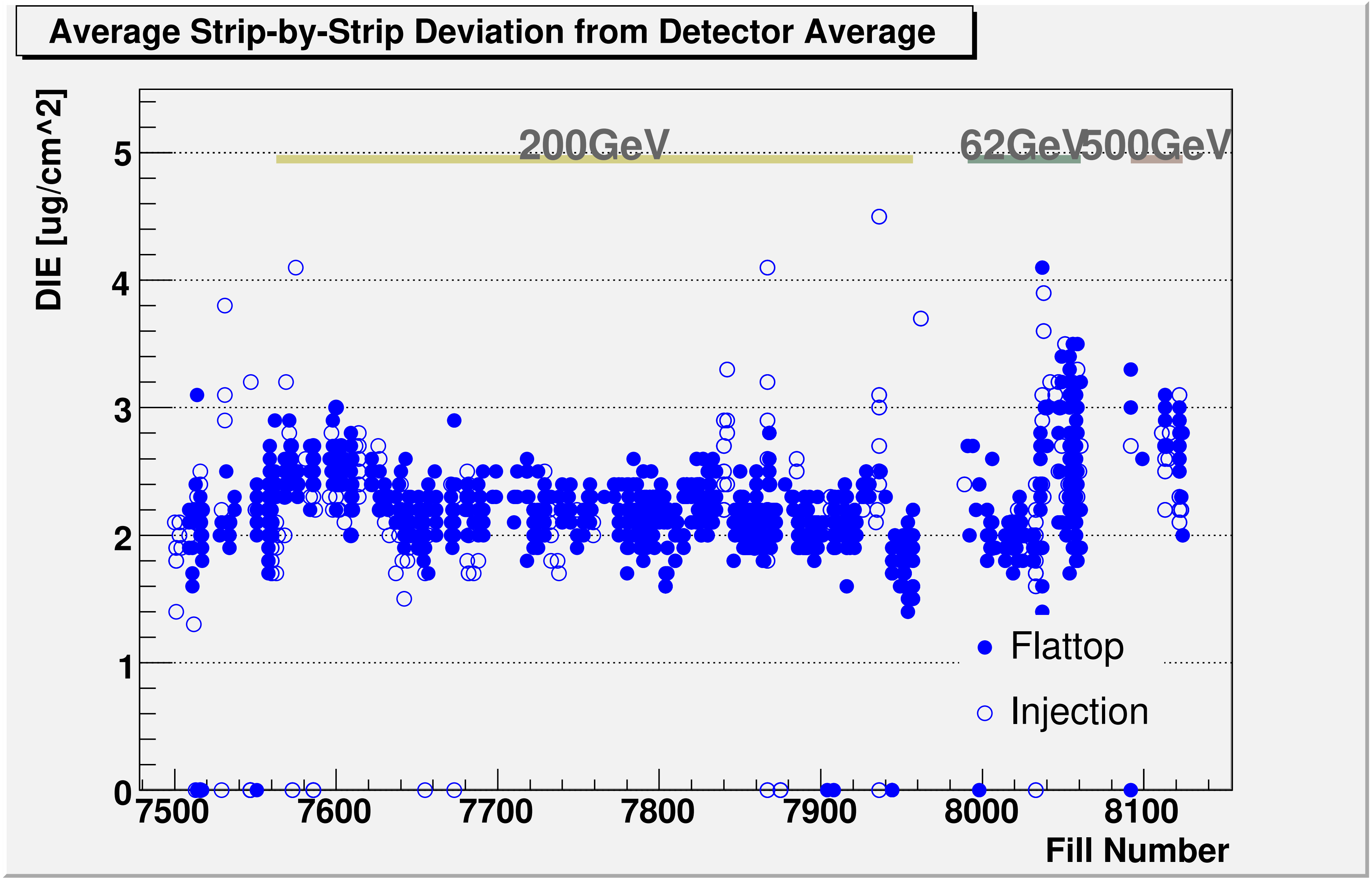


Event Rate History
Event Rate [MHz]
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
7500
7600
7700
7800
7900
8000
Fill Number
Flattop
Flattop(60Bunch)
Injection
Injection(60Bunch)
200GeV
62GeV
500GeV

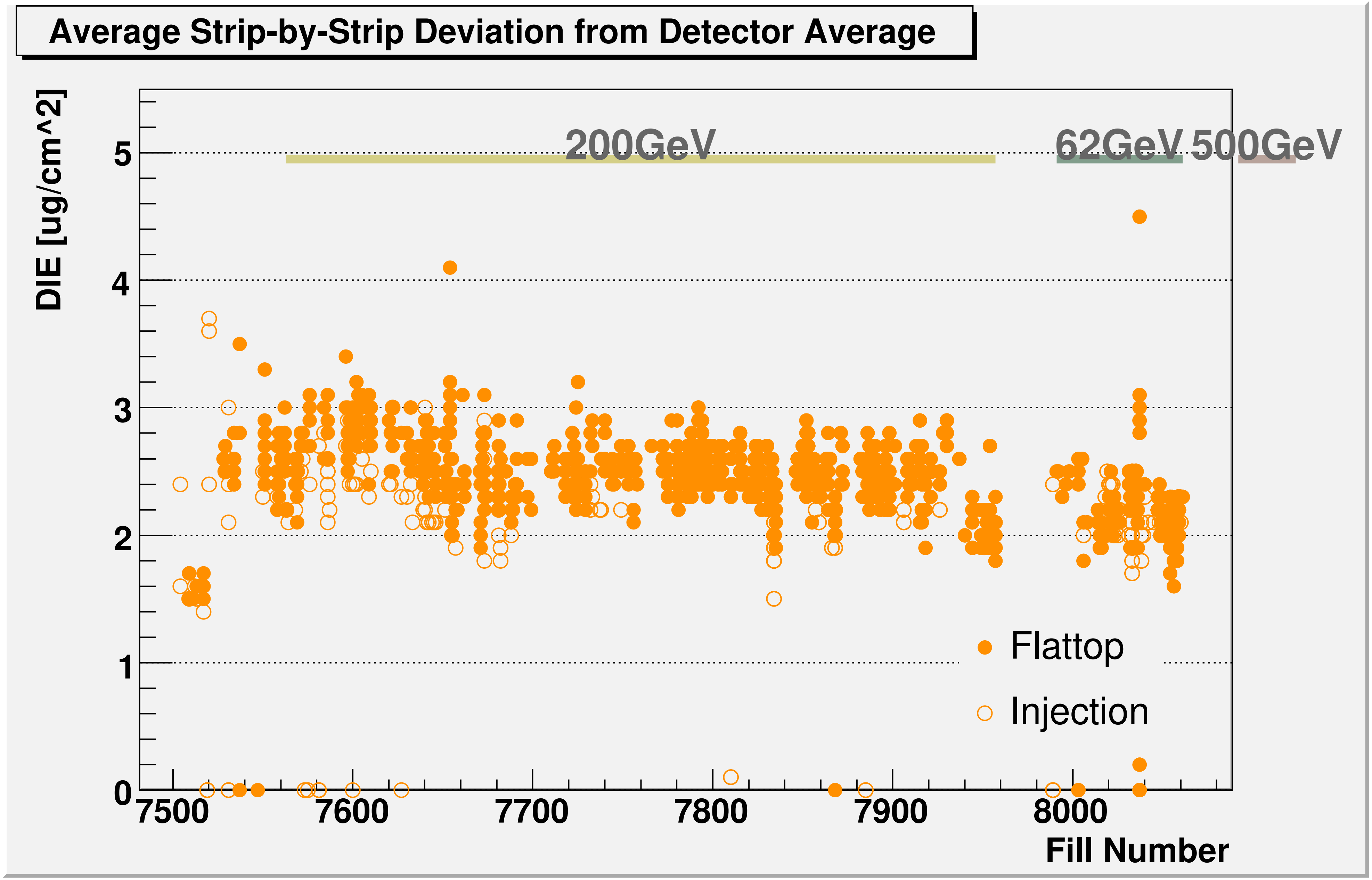


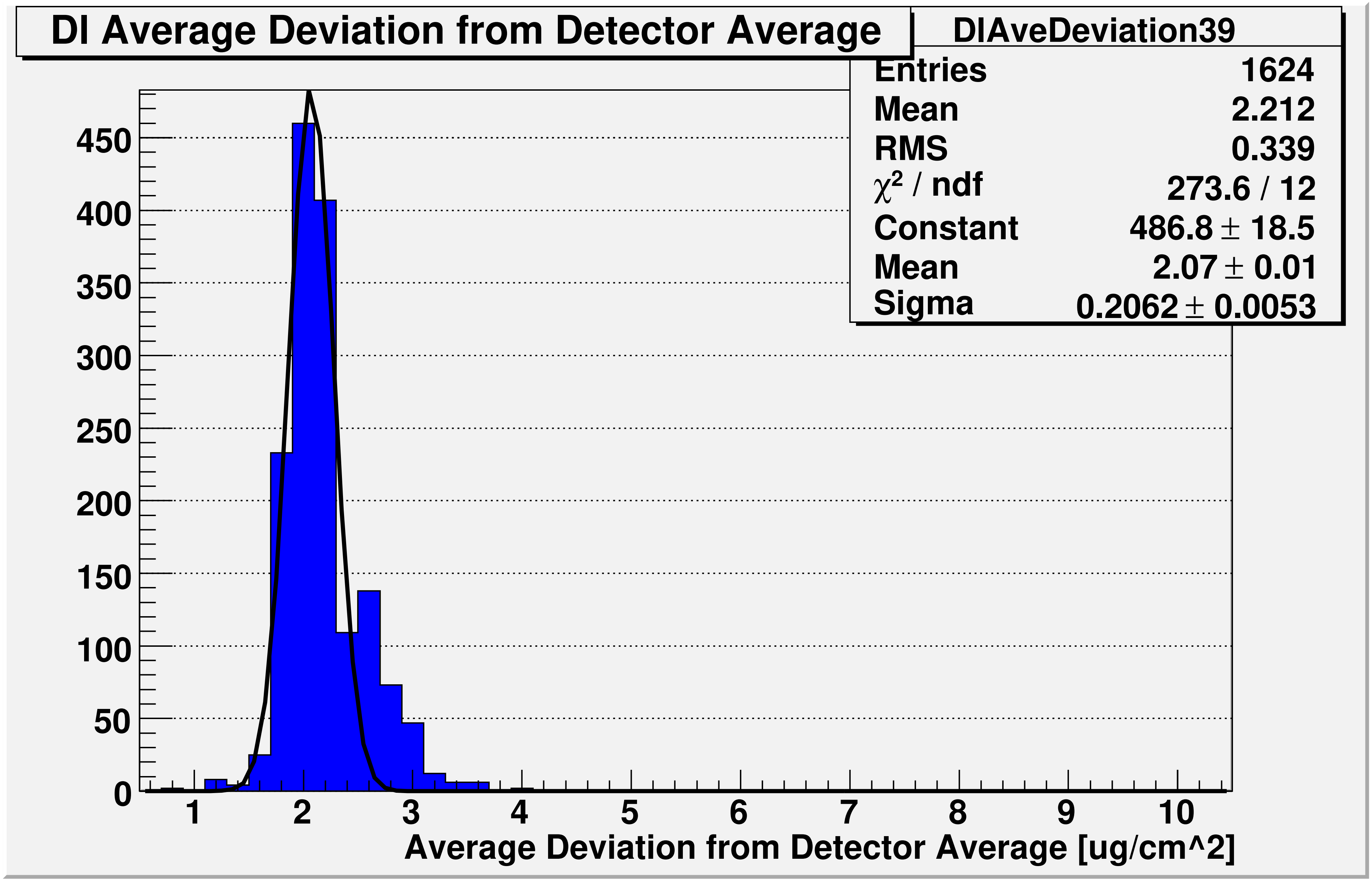
Filled Bunch History (Blue)
Number of Filled Bunches
120
100
80
60
40
20
0
7500
7600
7700
7800
7900
8000
8100
Fill Number
Flattop
Flattop(60Bunch)
Injection
Injection(60Bunch)
500GeV


Filled Bunch History (Yellow)
Number of Filled Bunches
Fill Number
Flattop
Flattop(60Bunch)
Injection
Injection(60Bunch)
500GeV
0
20
40
60
80
100
120
7500
7600
7700
7800
7900
8000

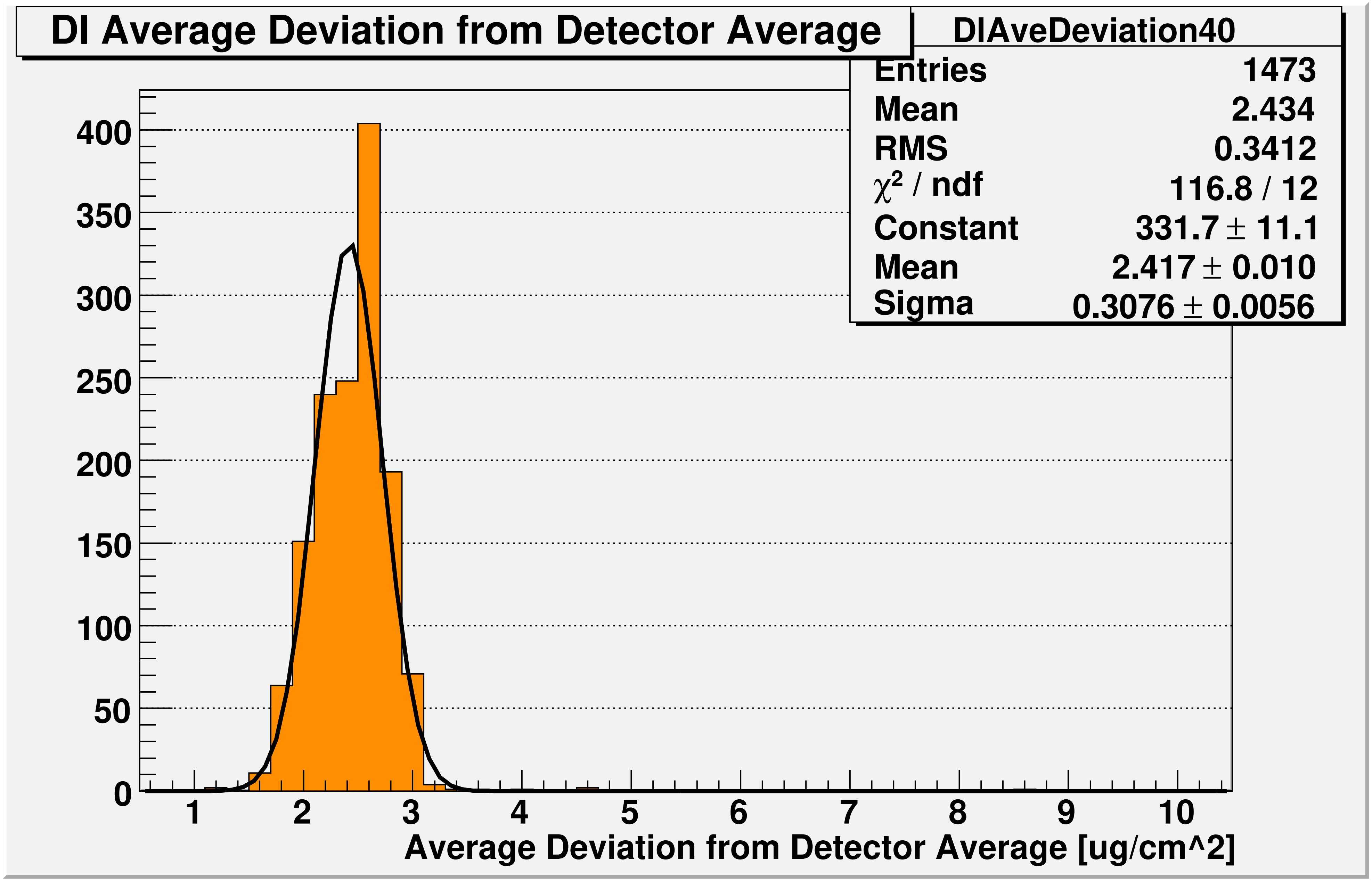


Average Strip-by-Strip Deviation from Detector Average
DIE [ug/cm^2]
200GeV
62GeV
500GeV
Flattop
Injection
0
1
2
3
4
5
7500
7600
7700
7800
7900
8000
8100
Fill Number

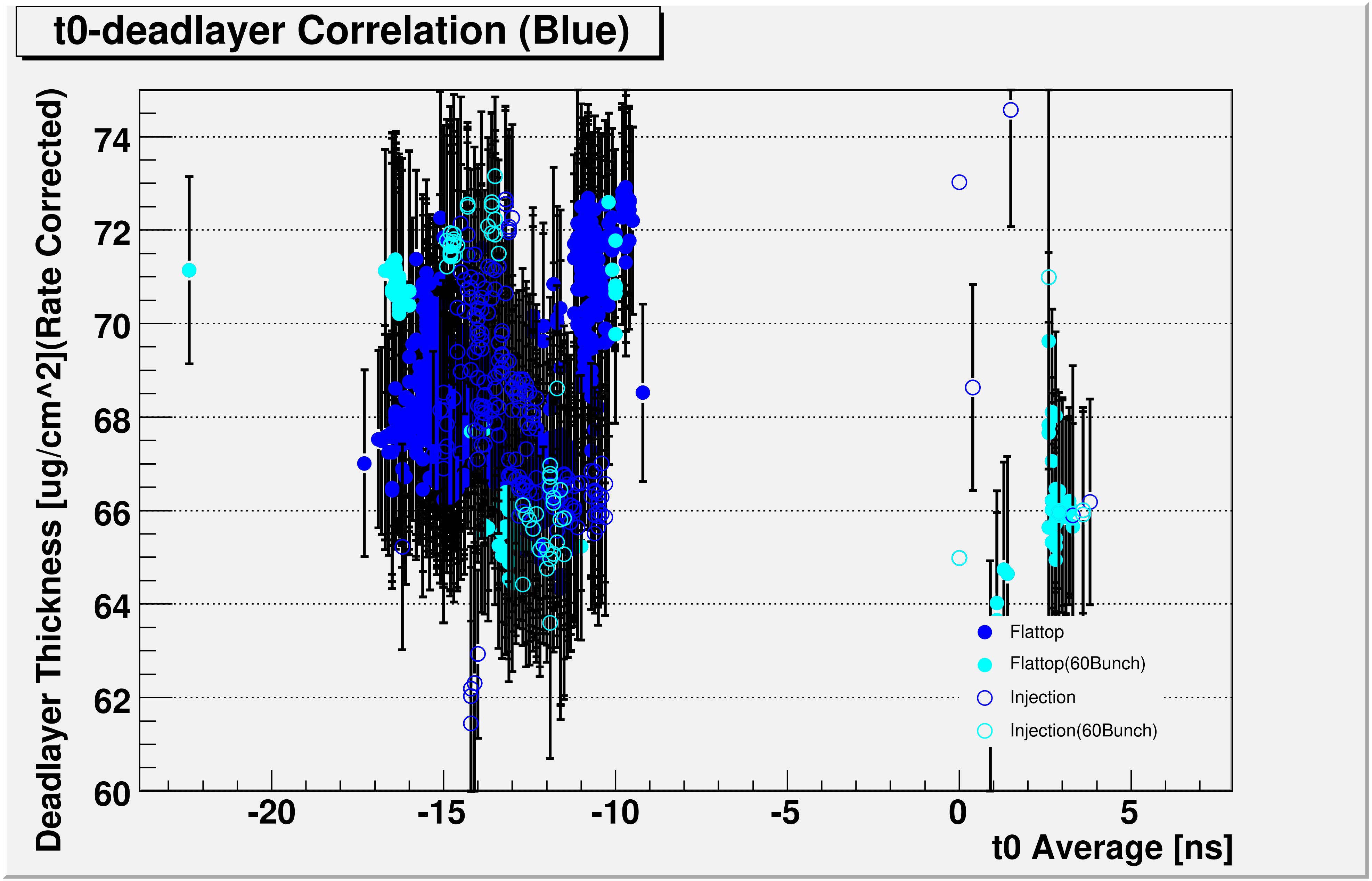

Average Strip-by-Strip Deviation from Detector Average
DIE [ug/cm^2]
Fill Number
200GeV
62GeV
500GeV
Flattop
Injection
0
1
2
3
4
5
7500
7600
7700
7800
7900
8000



DI Average Deviation from Detector Average
DIAveDeviation39
Entries 1624
Mean 2.212
RMS 0.339
χ^2 / ndf 273.6 / 12
Constant 486.8 ± 18.5
Mean 2.07 ± 0.01
Sigma 0.2062 ± 0.0053
0
50
100
150
200
250
300
350
400
450
1
2
3
4
5
6
7
8
9
10
Average Deviation from Detector Average [ug/cm^2]



DI Average Deviation from Detector Average
DIAveDeviation40
Entries 1473
Mean 2.434
RMS 0.3412
χ^2 / ndf 116.8 / 12
Constant 331.7 ± 11.1
Mean 2.417 ± 0.010
Sigma 0.3076 ± 0.0056
0
50
100
150
200
250
300
350
400
1
2
3
4
5
6
7
8
9
10
Average Deviation from Detector Average [ug/cm^2]



t0-deadlayer Correlation (Blue)
Deadlayer Thickness [ug/cm^2](Rate Corrected)
t0 Average [ns]
74
72
70
68
66
64
62
60
-20
-15
-10
-5
0
5
Flattop
Flattop(60Bunch)
Injection
Injection(60Bunch)

t0-deadlayer Correlation (Yellow)