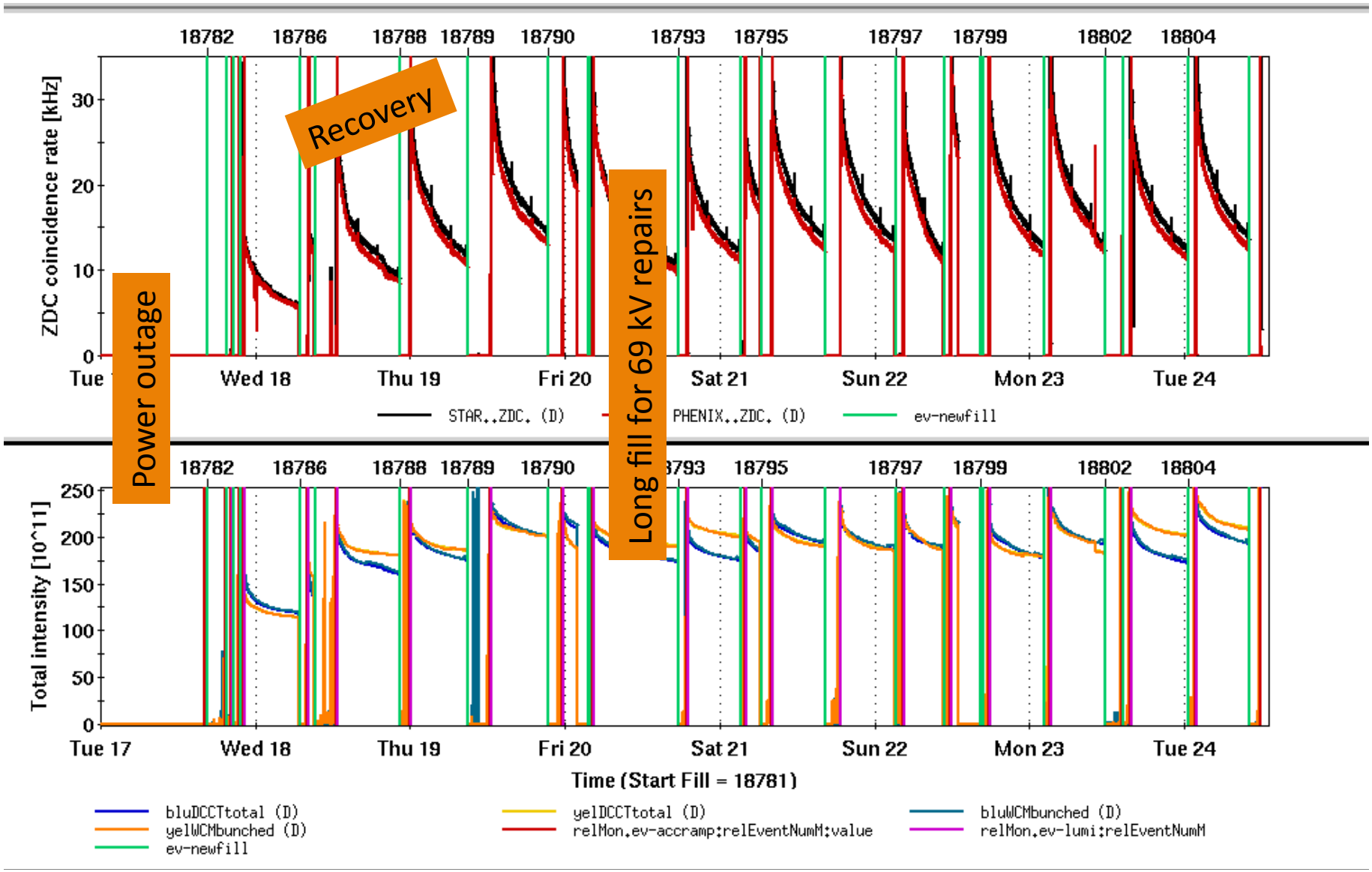
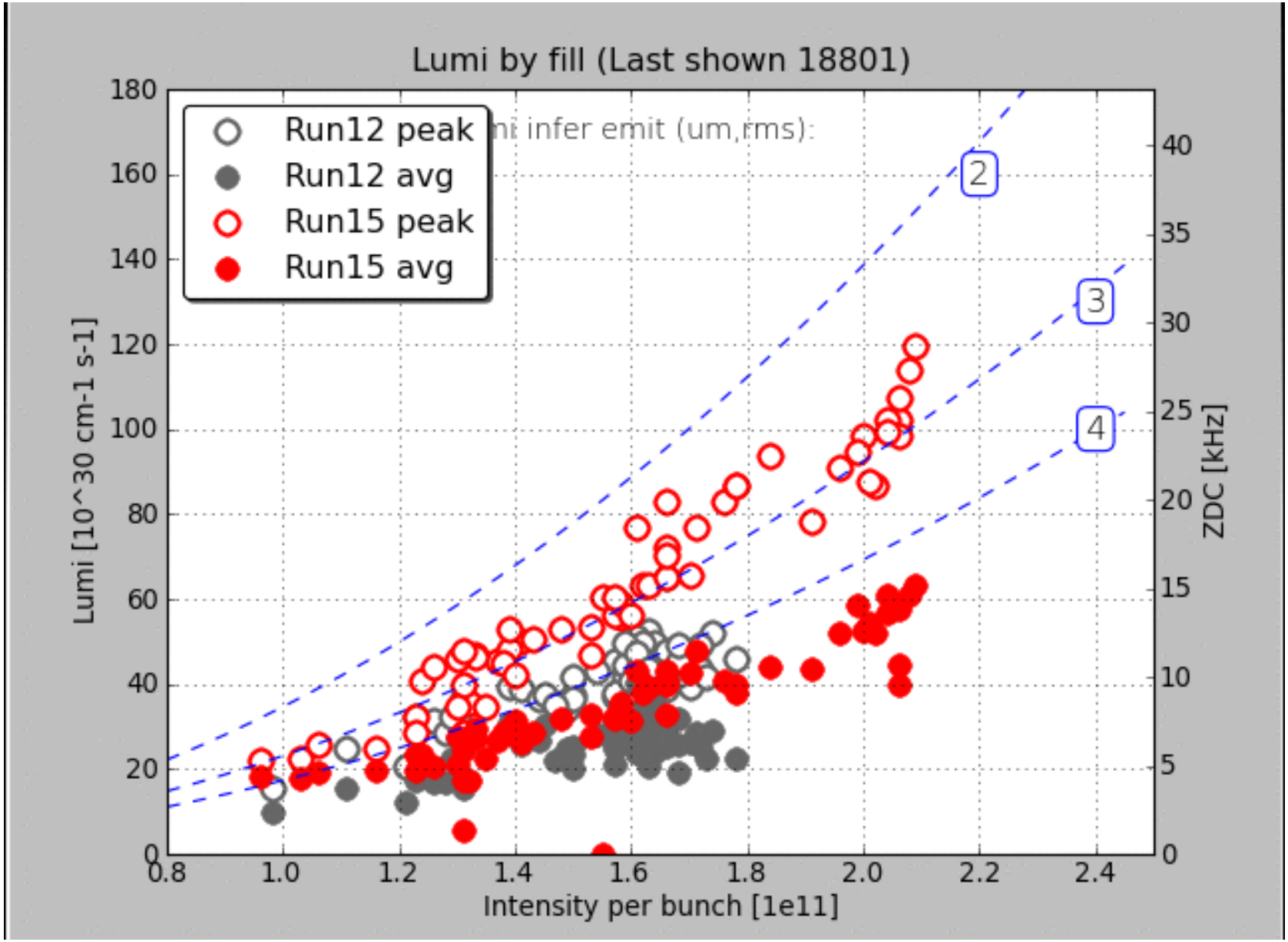
RHIC Status Update

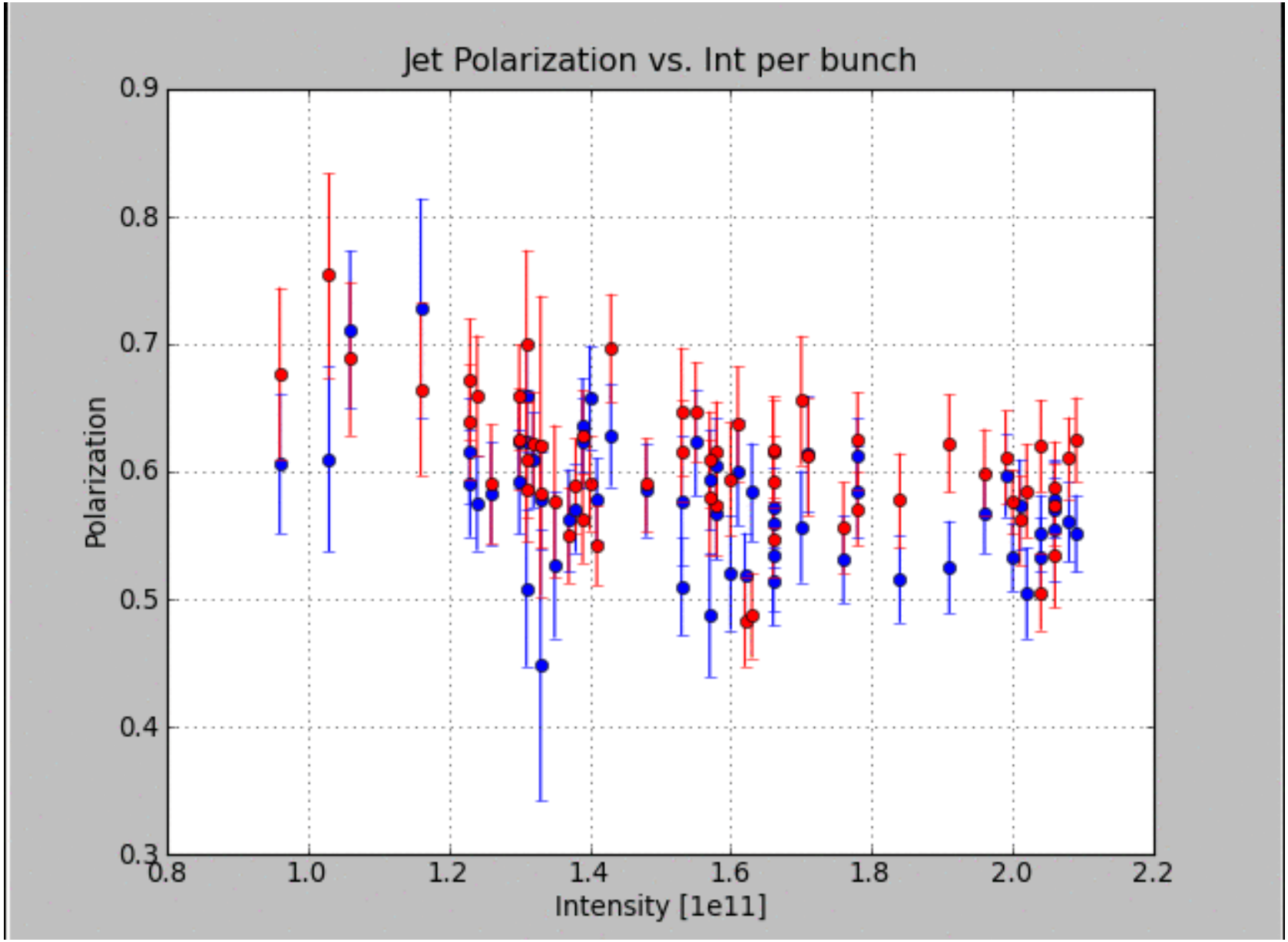
Time Meeting 3/24/15

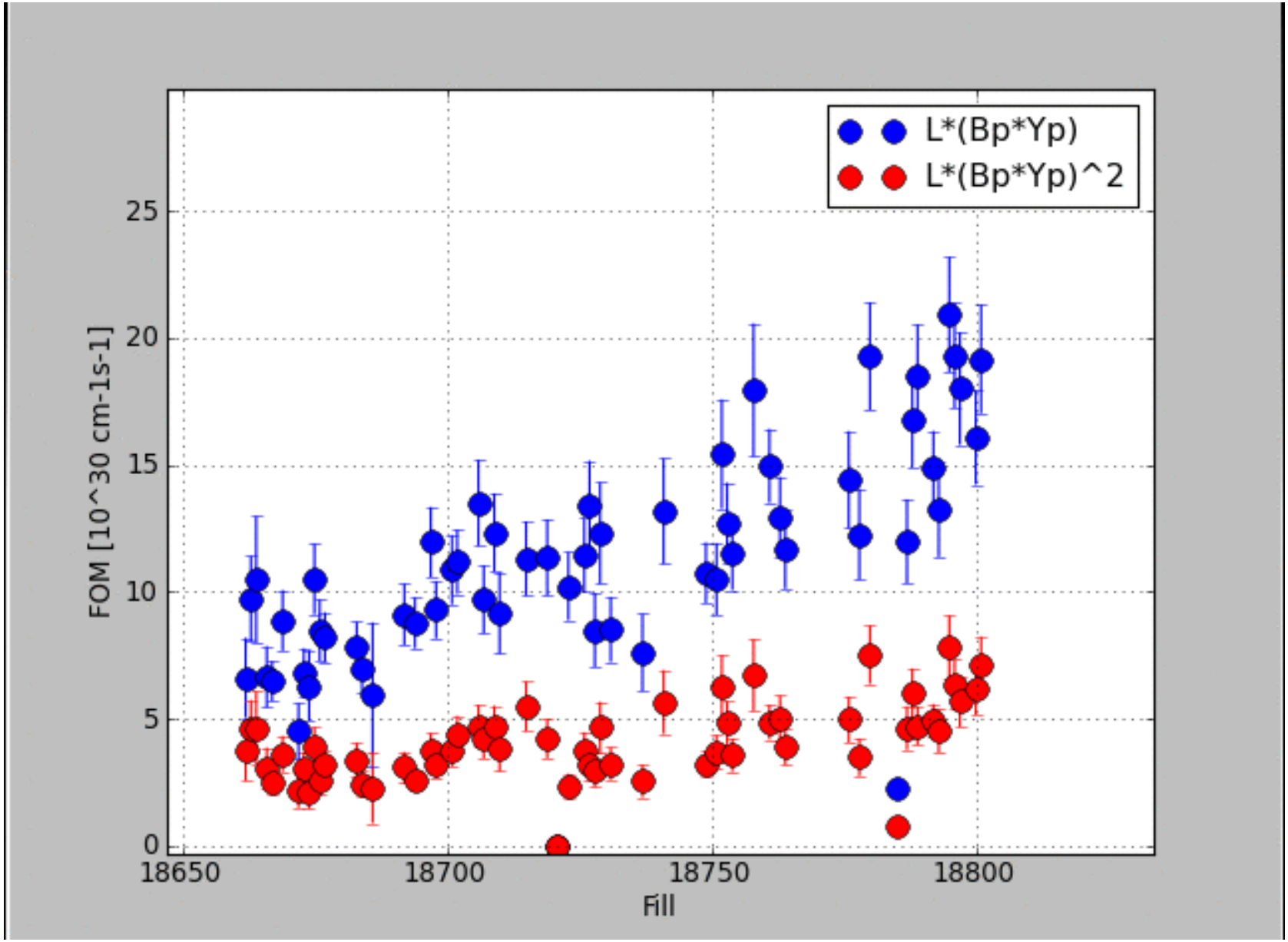
RHIC Status

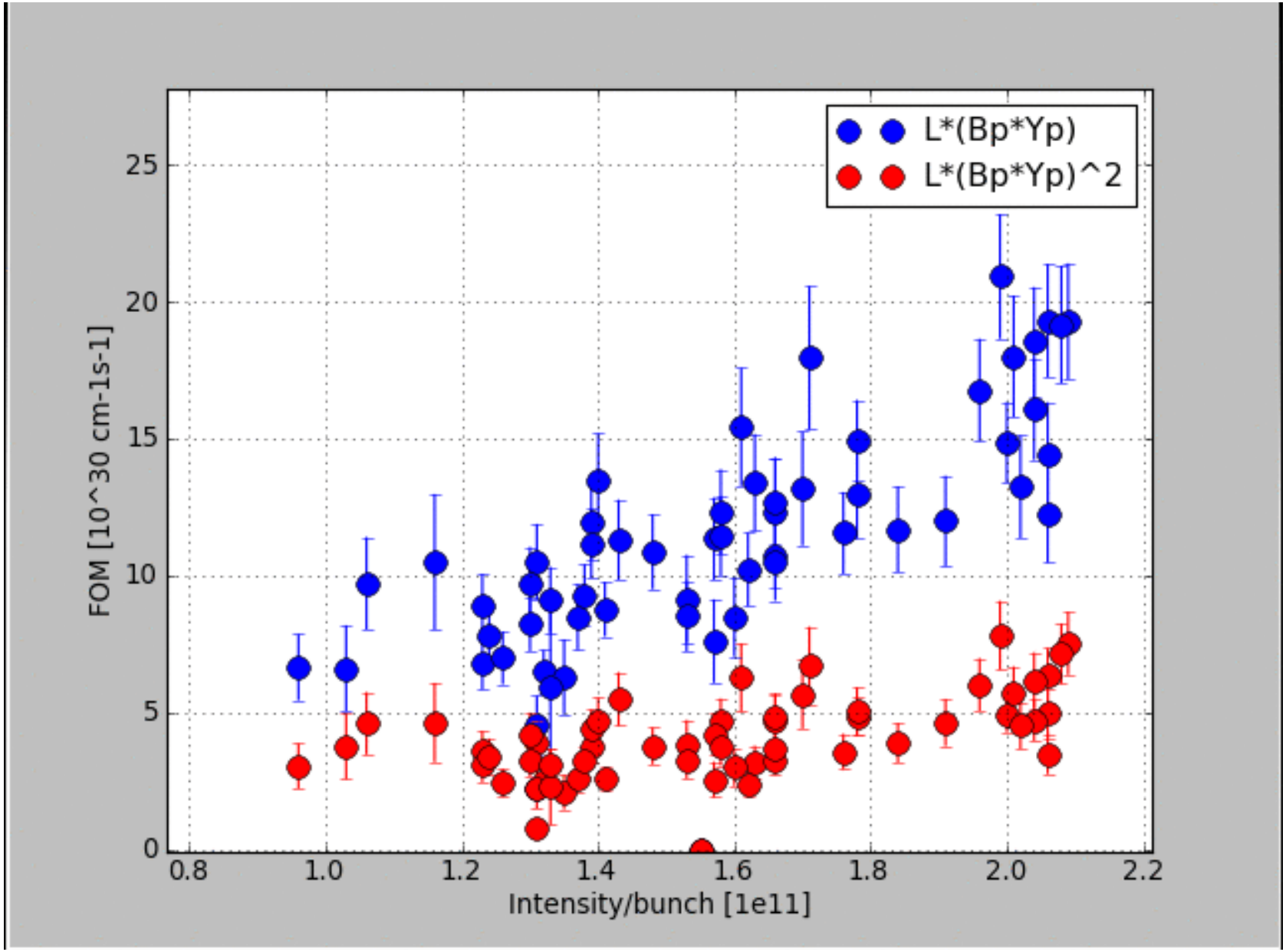
- Recovery from power outage took several days
- Stores now at 2.3e11/bunch intensity
- Injector emittance still good and consistent with overall trend
  - RHIC emittance performance still not completely recovered to pre-outage conditions


18782
18786
18788
18789
18790
18793
18795
18797
18799
18802
18804
ZDC coincidence rate [kHz]
Recovery
Power outage
Long fill for 69 kV repairs
Tue
Wed 18
Thu 19
Fri 20
Sat 21
Sun 22
Mon 23
Tue 24
STAR.,ZDC. (D)
PHENIX.,ZDC. (D)
ev-newfill
Total intensity [10^11]
Tue 17
Time (Start Fill = 18781)
bluDCCTtotal (D)
yelWCMbunched (D)
ev-newfill
yelDCCTtotal (D)
relMon.ev-accramp:relEventNumM:value
bluWCMbunched (D)
relMon.ev-lumi:relEventNumM


Lumi by fill (Last shown 18801)
Run12 peak
Run12 avg
Run15 peak
Run15 avg
infer emit (um,rms):
2
3
4
Lumi [10^30 cm-1 s-1]
ZDC [kHz]
Intensity per bunch [1e11]
0
20
40
60
80
100
120
140
160
180
0
5
10
15
20
25
30
35
40
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4


Jet Polarization vs. Int per bunch
Polarization
Intensity [1e11]
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2


L*(Bp*Yp)
L*(Bp*Yp)^2
FOM [10^30 cm-1s-1]
0
5
10
15
20
25
18650
18700
18750
18800
Fill


L*(Bp*Yp)
L*(Bp*Yp)^2
FOM [10^30 cm-1s-1]
Intensity/bunch [1e11]
0
5
10
15
20
25
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2