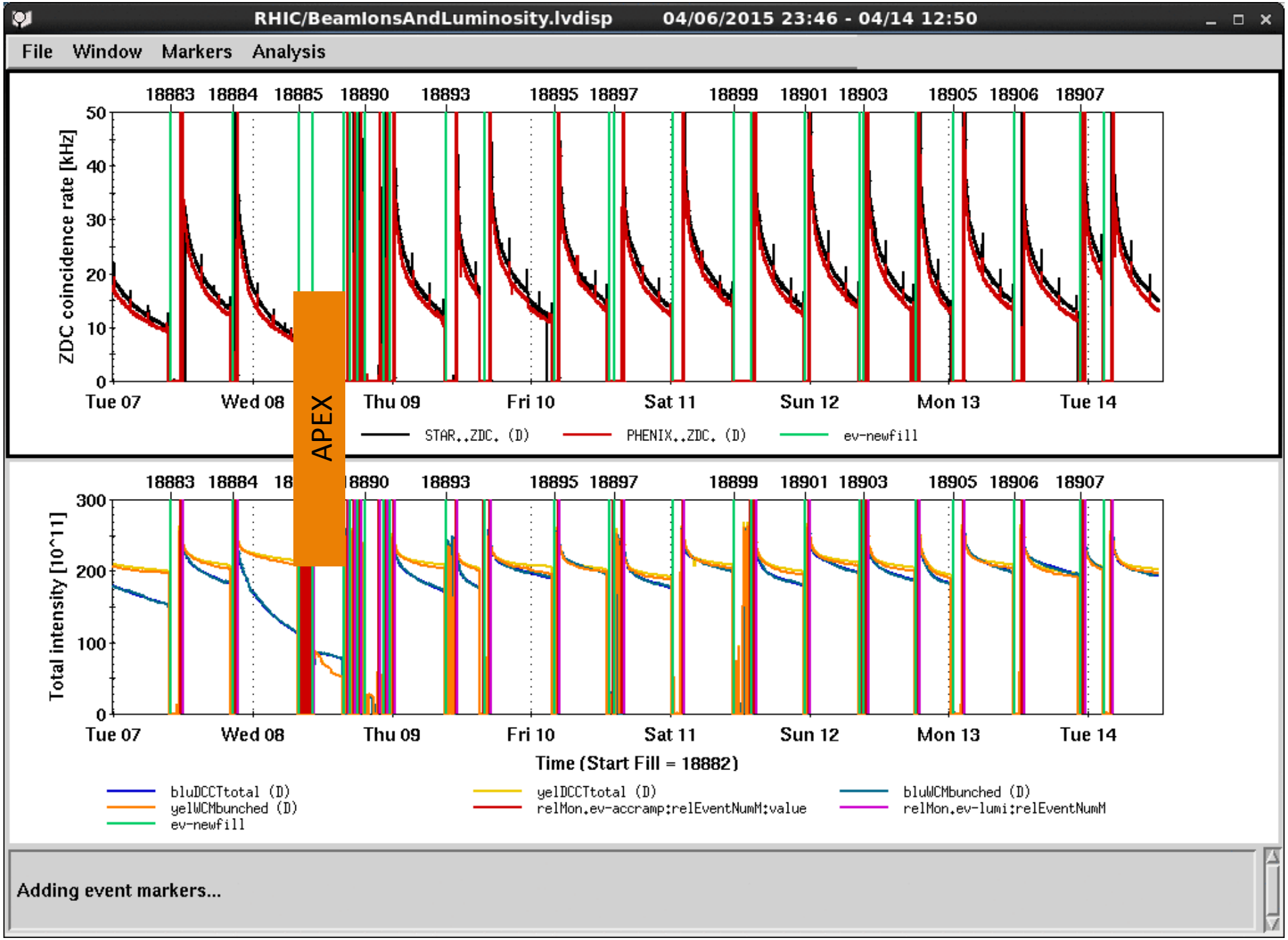
RHIC Status Update

Time Meeting 4/14/15

RHIC Status

- Blue polarization decay at store still high
  - Orbit angle at STAR, snake angle changes not effective (maybe destructive)
  - Average store polarization ~50% since coming to longitudinal
- Blue intensity lifetime considerably better in recent stores


RHIC/BeamIonsAndLuminosity.lvdisp 04/06/2015 23:46 - 04/14 12:50
File Window Markers Analysis
18883 18884 18885 18890 18893 18895 18897 18899 18901 18903 18905 18906 18907
ZDC coincidence rate [kHz]
Tue 07 Wed 08 Thu 09 Fri 10 Sat 11 Sun 12 Mon 13 Tue 14
STAR.,.ZDC. (D)
PHENIX.,.ZDC. (D)
ev-newfill
APEX
Total intensity [10^11]
Time (Start Fill = 18882)
bluDCCTtotal (D)
yelWCMbunched (D)
ev-newfill
yelDCCTtotal (D)
relMon.ev-accramp:relEventNumM:value
bluWCMbunched (D)
relMon.ev-lumi:relEventNumM
Adding event markers...

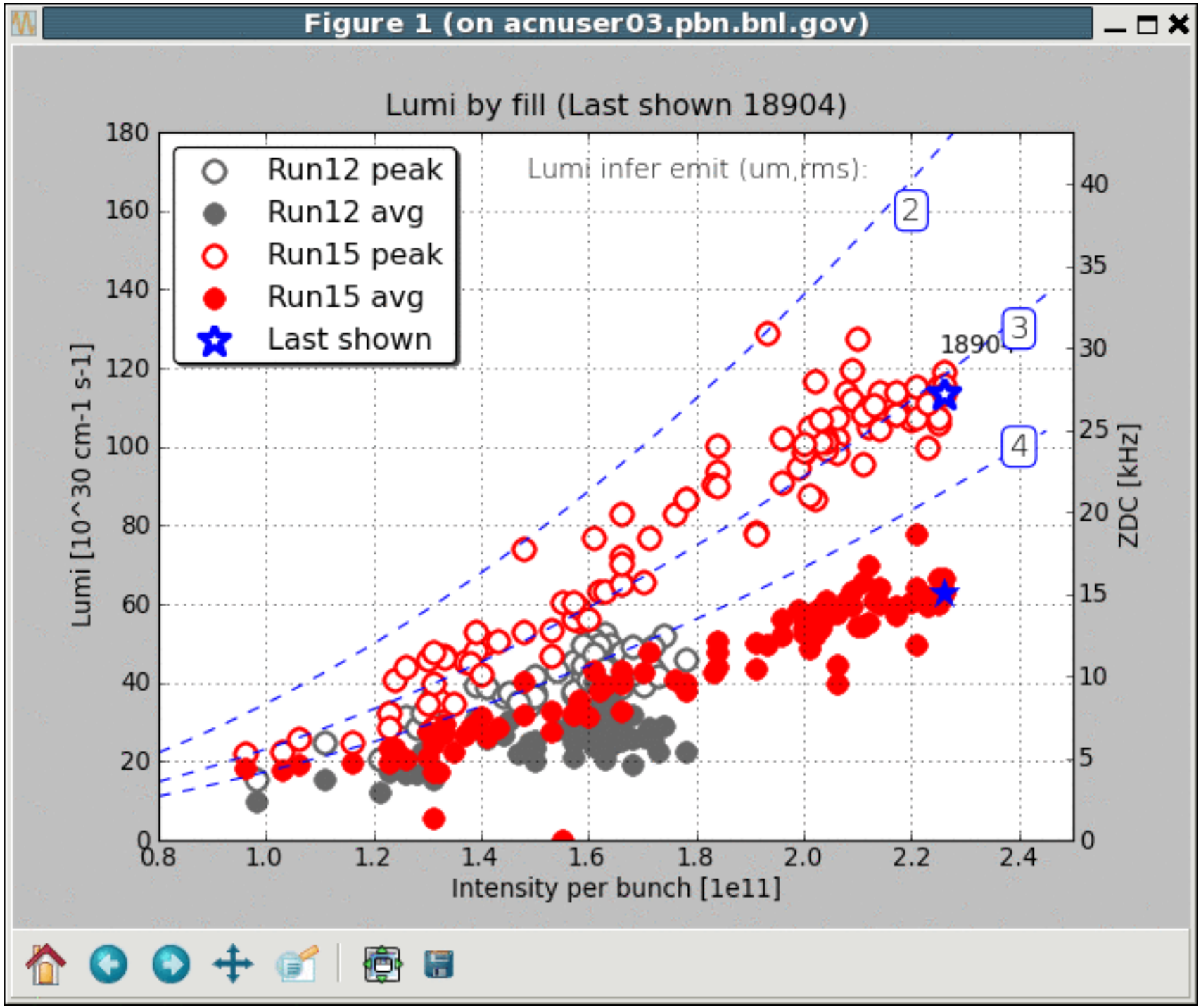


Figure 1 (on acnuser03.pbn.bnl.gov)
Lumi by fill (Last shown 18904)
Run12 peak
Run12 avg
Run15 peak
Run15 avg
Last shown
Lumi infer emit (um,rms):
2
3
4
1890
Lumi [10^30 cm-1 s-1]
ZDC [kHz]
Intensity per bunch [1e11]
0
20
40
60
80
100
120
140
160
180
0
5
10
15
20
25
30
35
40
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4

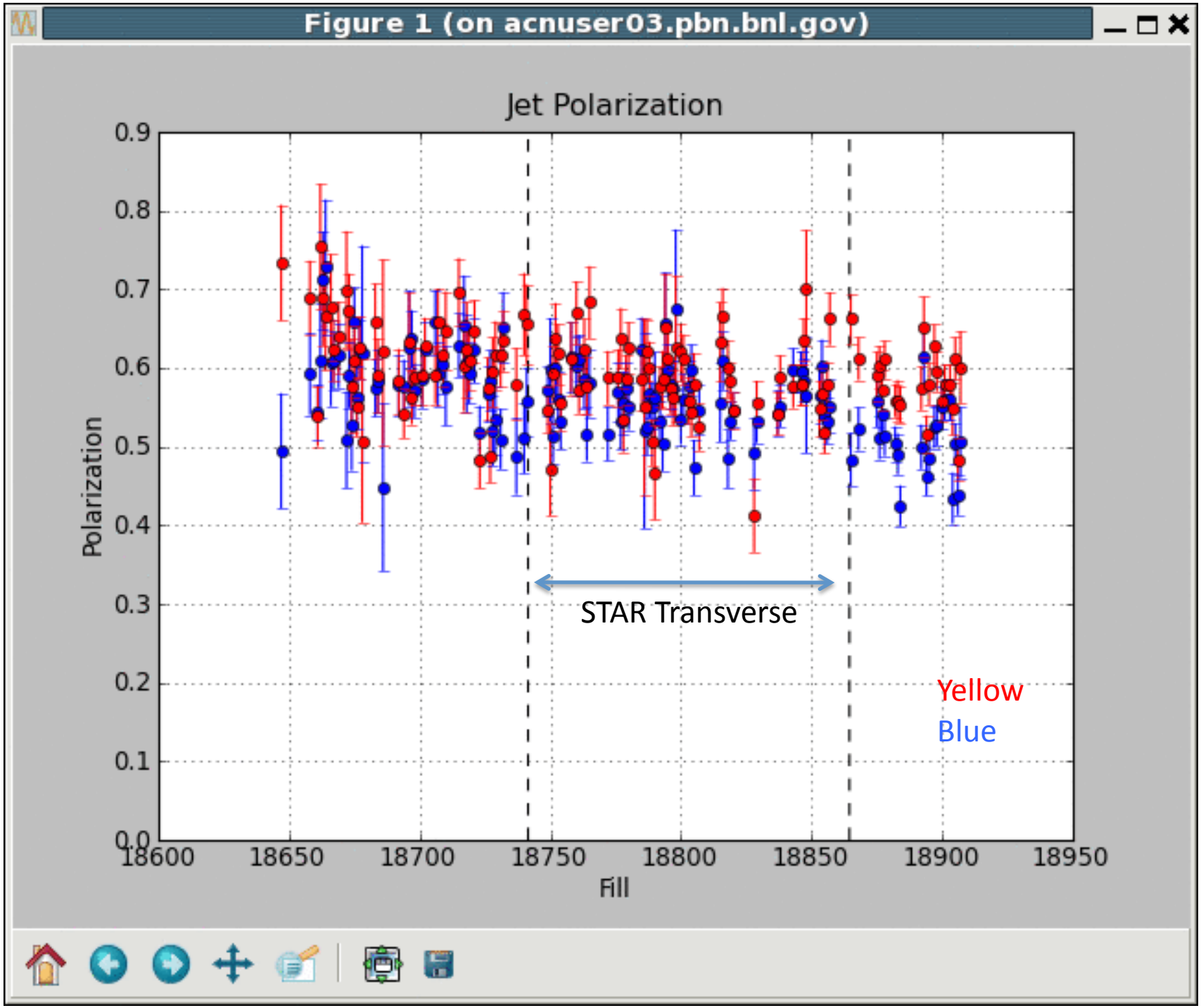


Figure 1 (on acnuser03.pbn.bnl.gov)
Jet Polarization
Polarization
Fill
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
18600
18650
18700
18750
18800
18850
18900
18950
STAR Transverse
Yellow
Blue

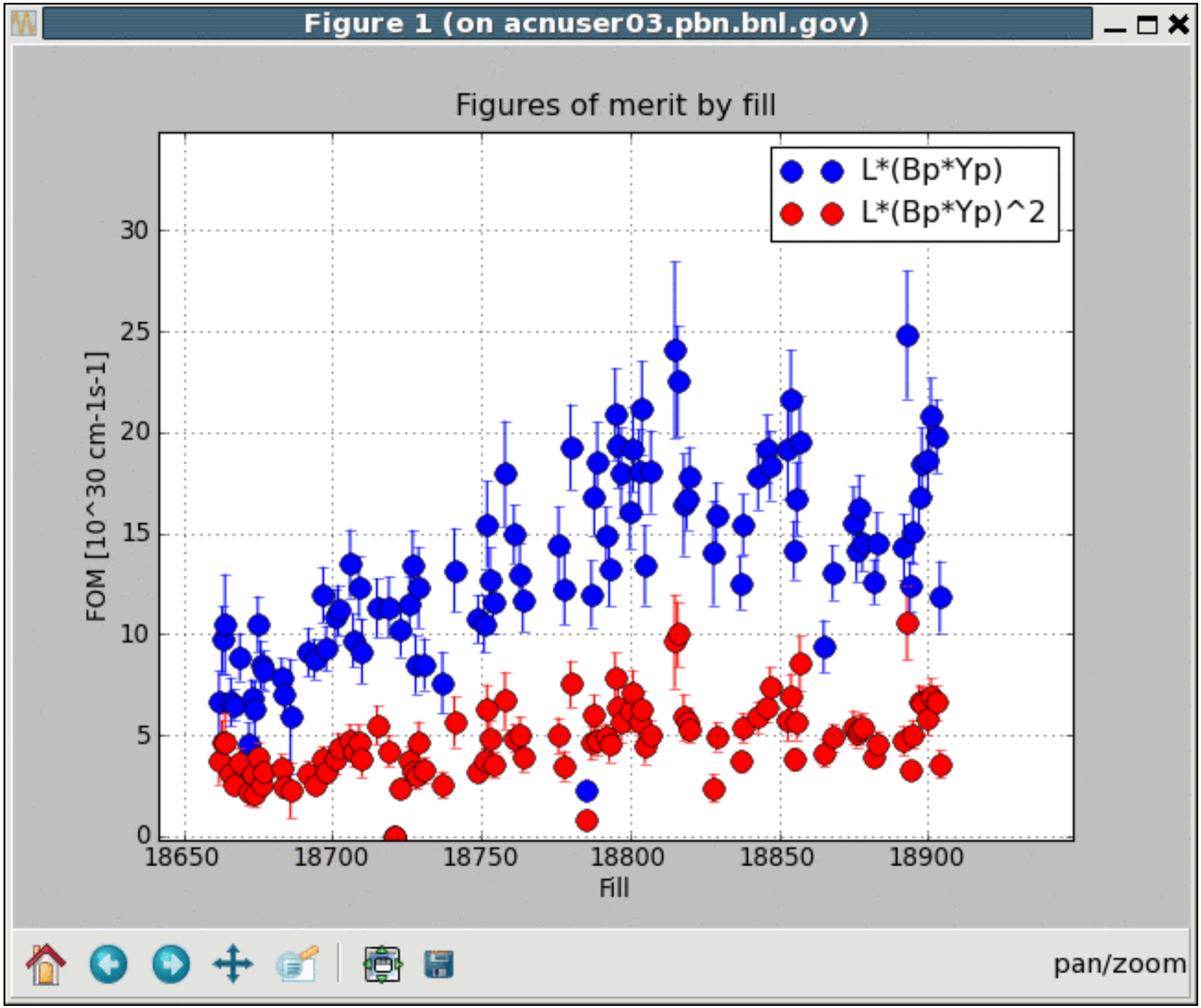


Figure 1 (on acnuser03.pbn.bnl.gov)
Figures of merit by fill
L*(Bp*Yp)
L*(Bp*Yp)^2
FOM [10^30 cm-1s-1]
0
5
10
15
20
25
30
18650
18700
18750
18800
18850
18900
Fill
pan/zoom