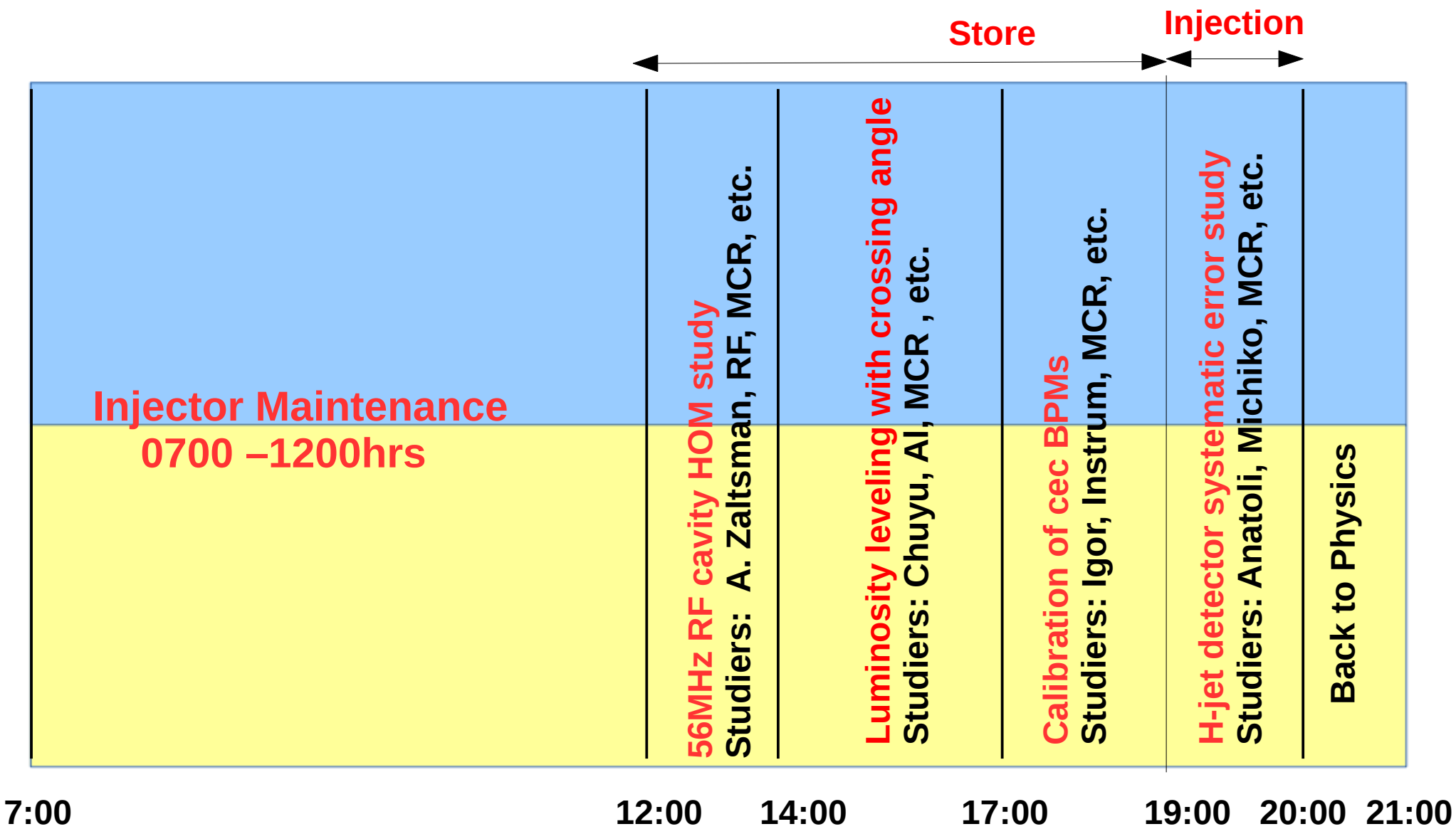
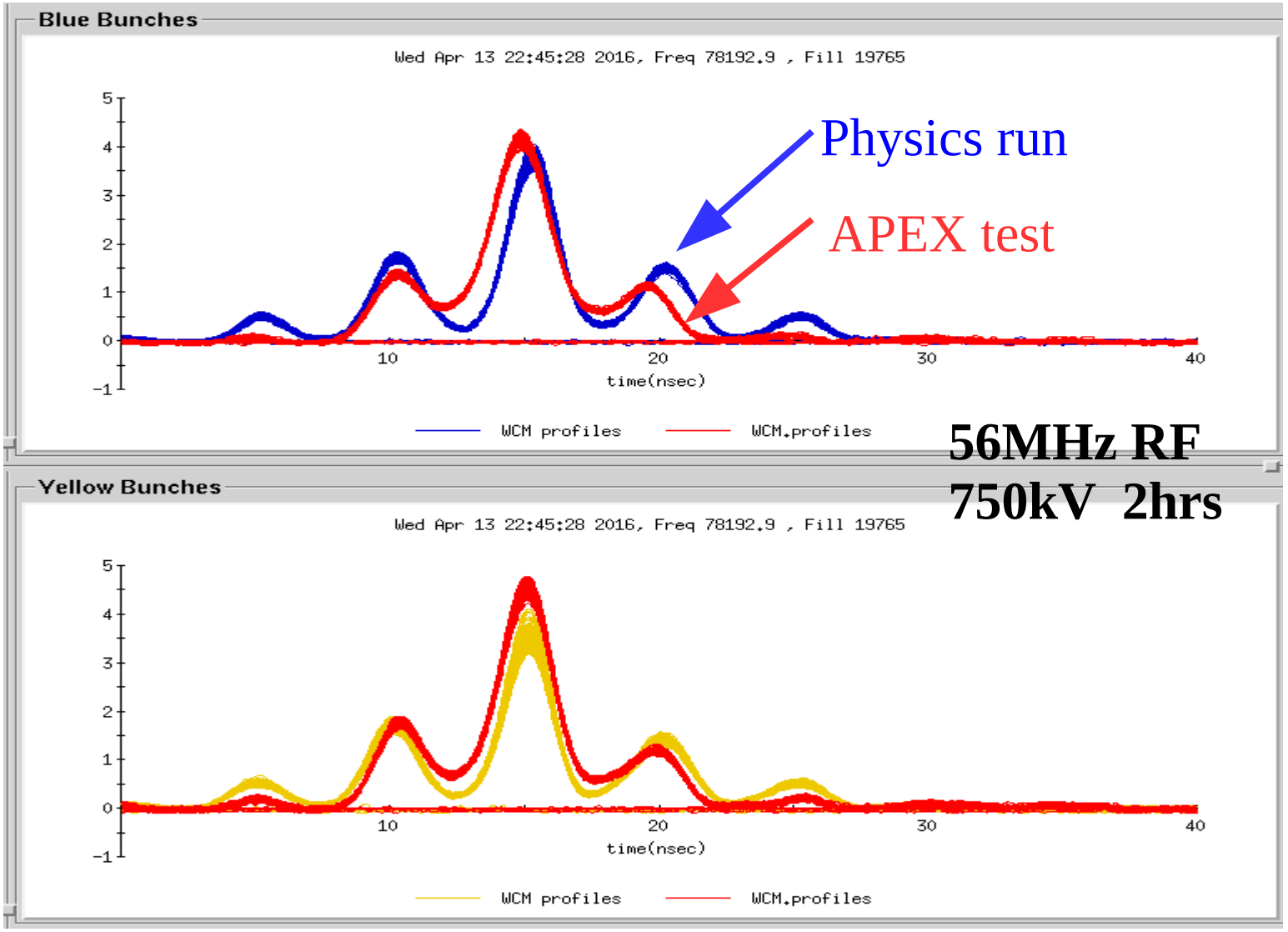
APEX Schedule for April 13, 2016



56MHz RF HOM Study (RF group)



Apr 14 18:30 kjm

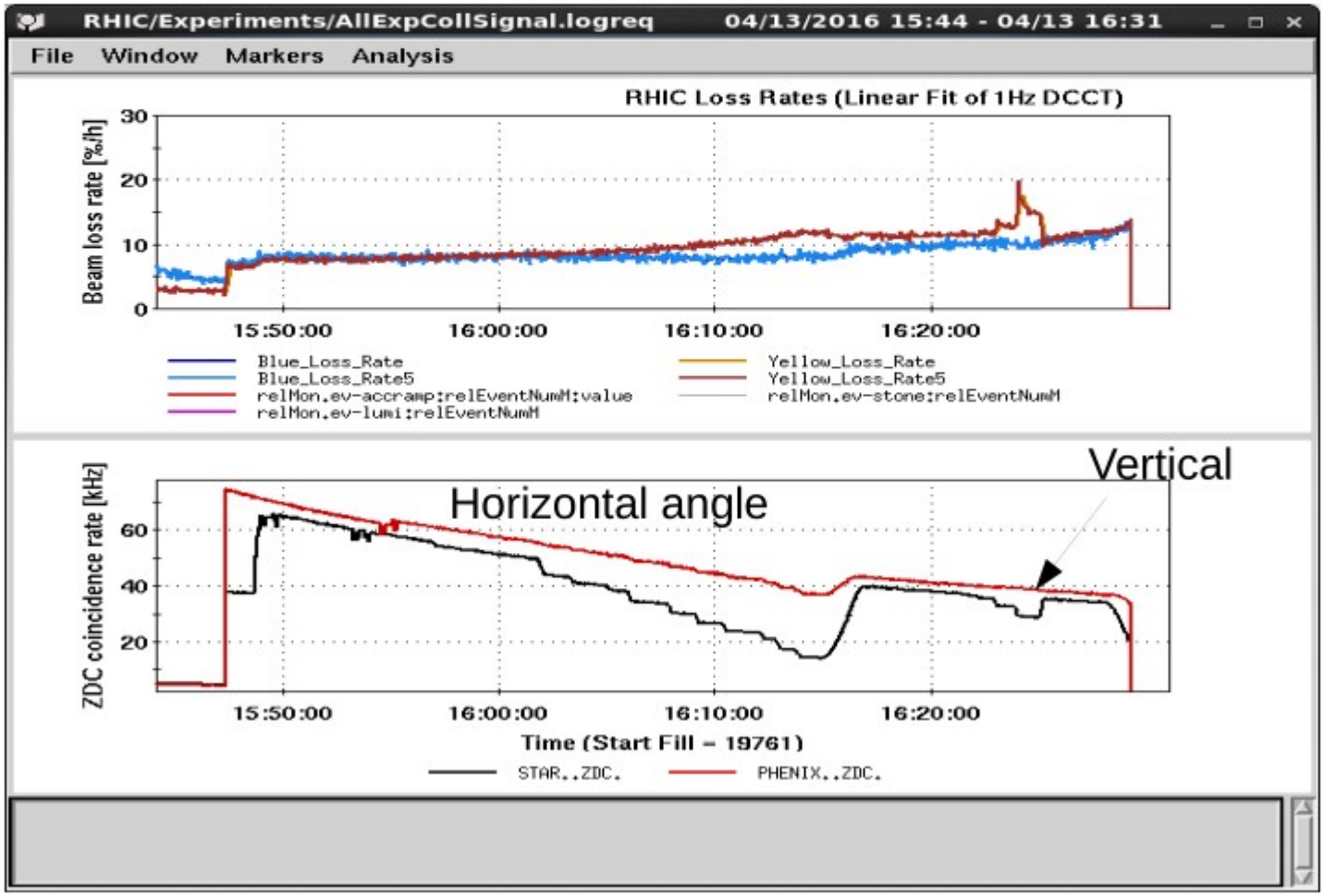
The second picture shows the bunch profiles about one hour and 50 minutes after rebucketing for the first physics store last night (the blue and yellow traces) and for the MD store (in red in both plots). The peak current in the center of the bunches is higher and the second satellite is significantly reduced with the 56 MHz on.

Lumi leveling with crossing-angle:Chuyu

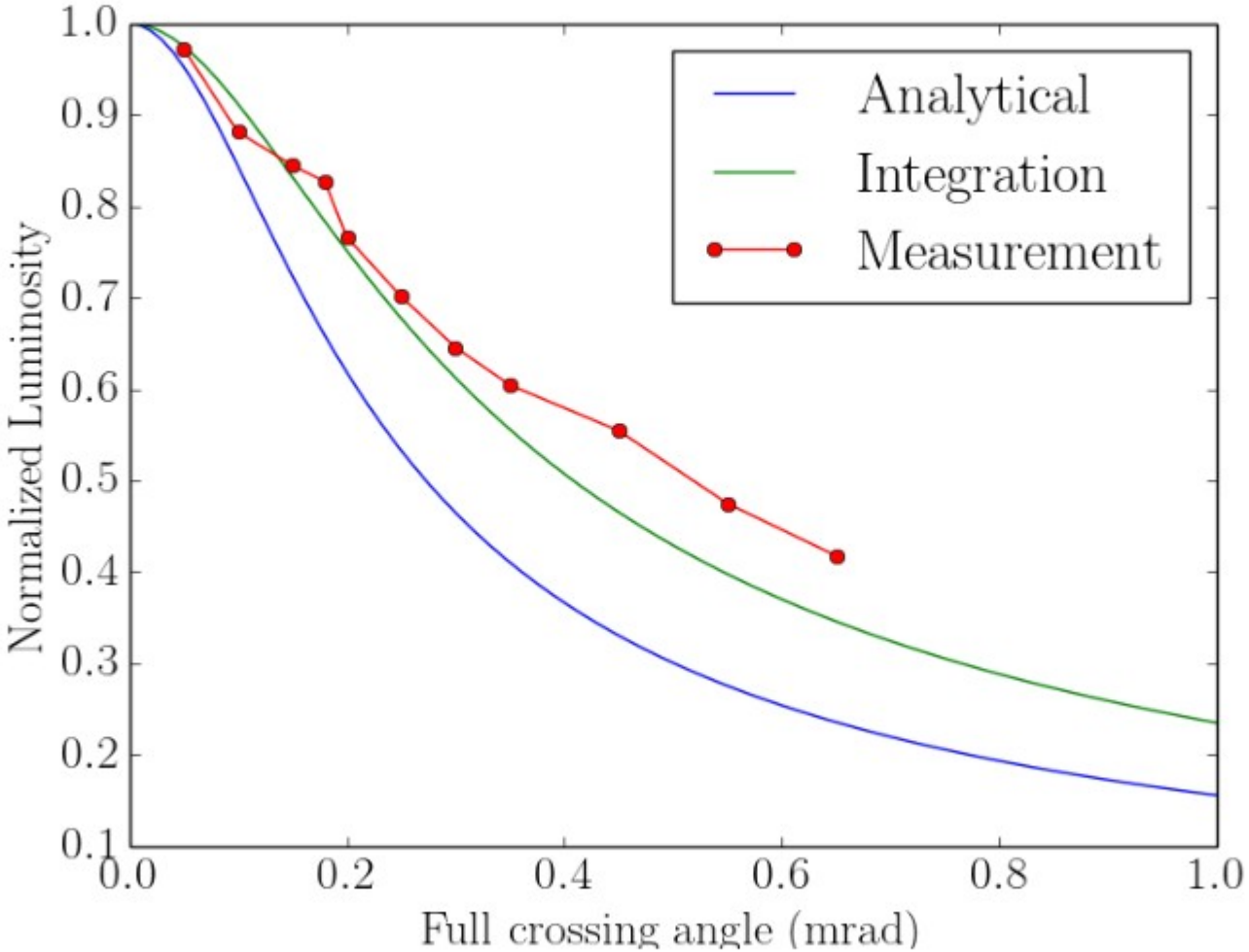
Experiment settings:

- 56*56 bunches, 2E9 ppb.
- Turn off re-bucketing, SC cooling, periodical orbit feedback and leveling with offset.
- Dial in horizontal crossing angle by DX D0 magnets.
- Dial in vertical crossing angle by dipole corrector magnets.

Rate and beam loss



Comparison

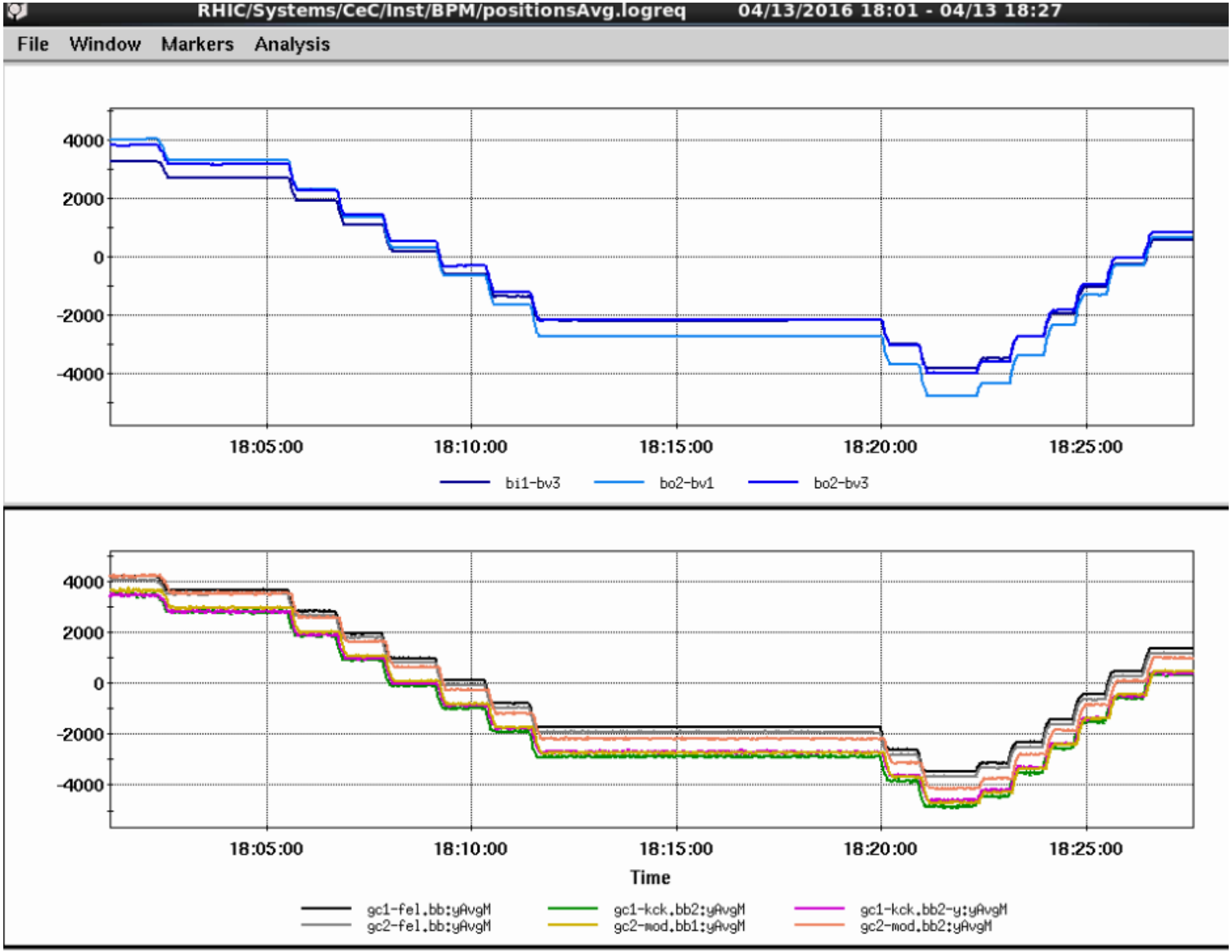


ZDC rate is not proportional to Lumi (Wolfram), further analysis is required.

Calibrate cec-pop electron BPMs: Igor

Experiment setup:

- 6 bunches in the blue ring
- Gold ions at store energy, rebucketed
- Beam was steered in the vertical plane
- Orbit was monitored using two hadrons BPMs (9.38 MHz) and six electron BPMs (500 MHz) in the common section
- Third order polynomial was used for position calculations


RHIC/Systems/CeC/Inst/BPM/positionsAvg.logreq 04/13/2016 18:01 - 04/13 18:27
File Window Markers Analysis
4000
2000
0
-2000
-4000
18:05:00
18:10:00
18:15:00
18:20:00
18:25:00
bi1-bv3
bo2-bv1
bo2-bv3
4000
2000
0
-2000
-4000
18:05:00
18:10:00
18:15:00
18:20:00
18:25:00
Time
gc1-fel.bb:yAvgM
gc2-fel.bb:yAvgM
gc1-kck.bb2:yAvgM
gc2-mod.bb1:yAvgM
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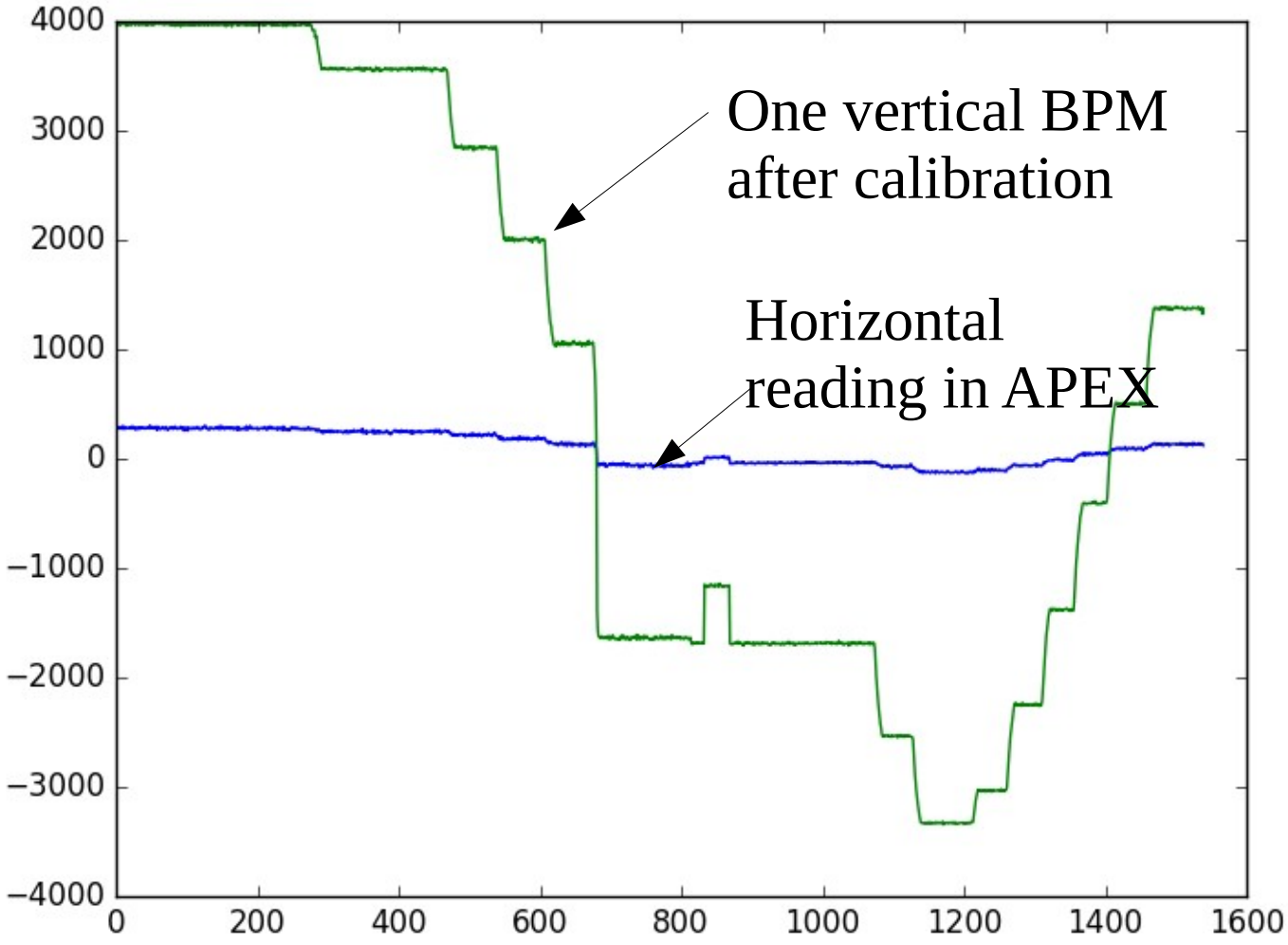
gc2-mod.bb2:yAvgM

Recalculated Position