

2/3 resonance correction

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1. Totally 4.0 hrs. Blue beam experiment time

1.7 hrs. for injection adjustment and
Todd's driving term measurement(test/taking data)

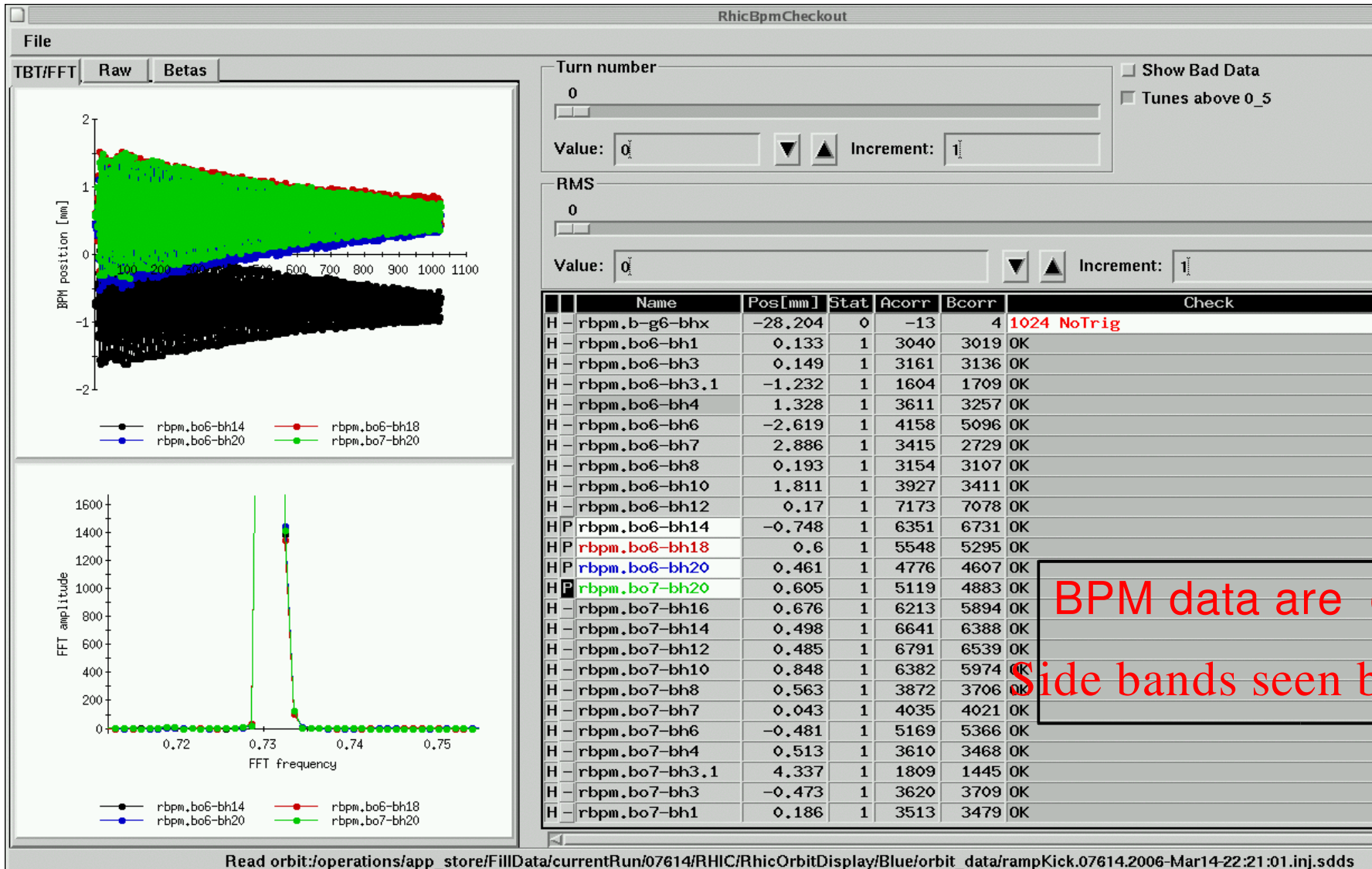
2.3 hrs. for separated Qx and Qy scans to 2/3
and injections close to 2/3 resonance

1.0 hrs. borrowed from P. Cameron (thanks but no payment)

Detuning measurement deferred

2. Driving term measurements with diagonal Artus kicking

first we did decoupling and chromaticity adjusting



BPM data are good.
Side bands seen by FFT

Todd's data taking

Tunes: 0.735/0.720

[ae 23:56](#) Data tables for chromaticity/sextupole scans for 2/3 driving terms. Chrom settings (2.0,0.0) are near zero positive chroms at injection.

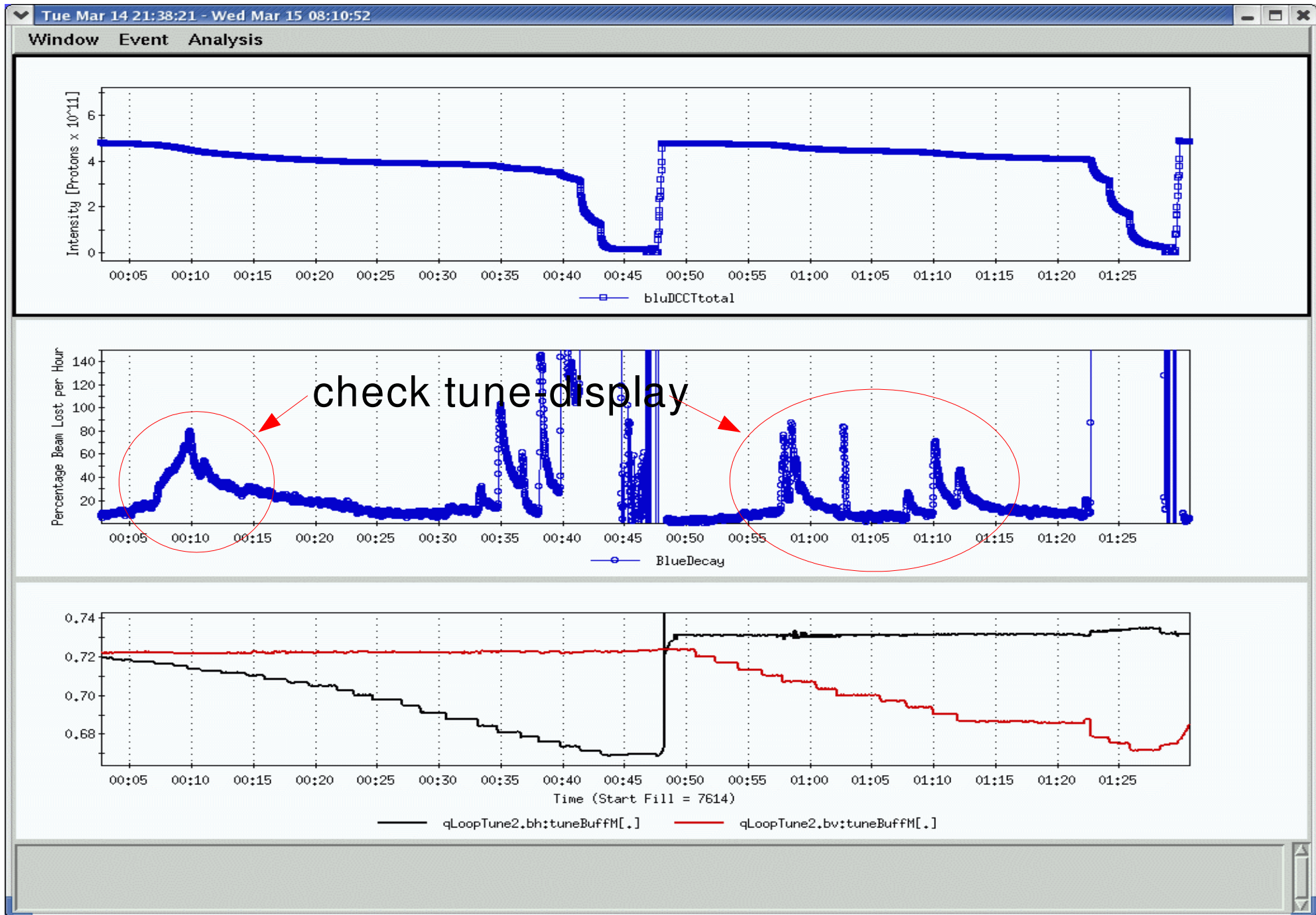
chrom_x	chrom_y	time	hkick/vkick_turn
2.0	0.0	22:52:38	5/512
2.5	0.0	22:53:34	5/512
3.0	0.0	22:54:18	5/512
3.5	0.0	22:55:15	5/512
4.0	0.0	22:55:53	5/512
4.5	0.0	22:57:00	5/512
4.5	0.0	22:59:14	5/5
4.0	0.0	23:01:01	5/5
3.5	0.0	23:01:58	5/5
3.0	0.0	23:02:35	5/5
2.5	0.0	23:03:40	5/5
2.0	0.0	23:04:19	5/5
2.0	0.5	23:05:01	5/5
2.0	1.0	23:05:34	5/5
2.0	1.5	23:06:20	5/5
2.0	2.0	23:06:58	5/5
2.0	2.5	23:07:31	5/5
2.0	3.0	23:08:09	5/5
2.0	0.5	23:09:23	5/5

bo6-sxf10	time
0.00024	23:10:56
0.00124	23:20:31
0.00224	23:21:15
0.00324	23:24:19
0.00424	23:25:00
0.00624	23:25:47
0.00824	23:26:21
0.01024	23:26:59
0.00024	23:28:04

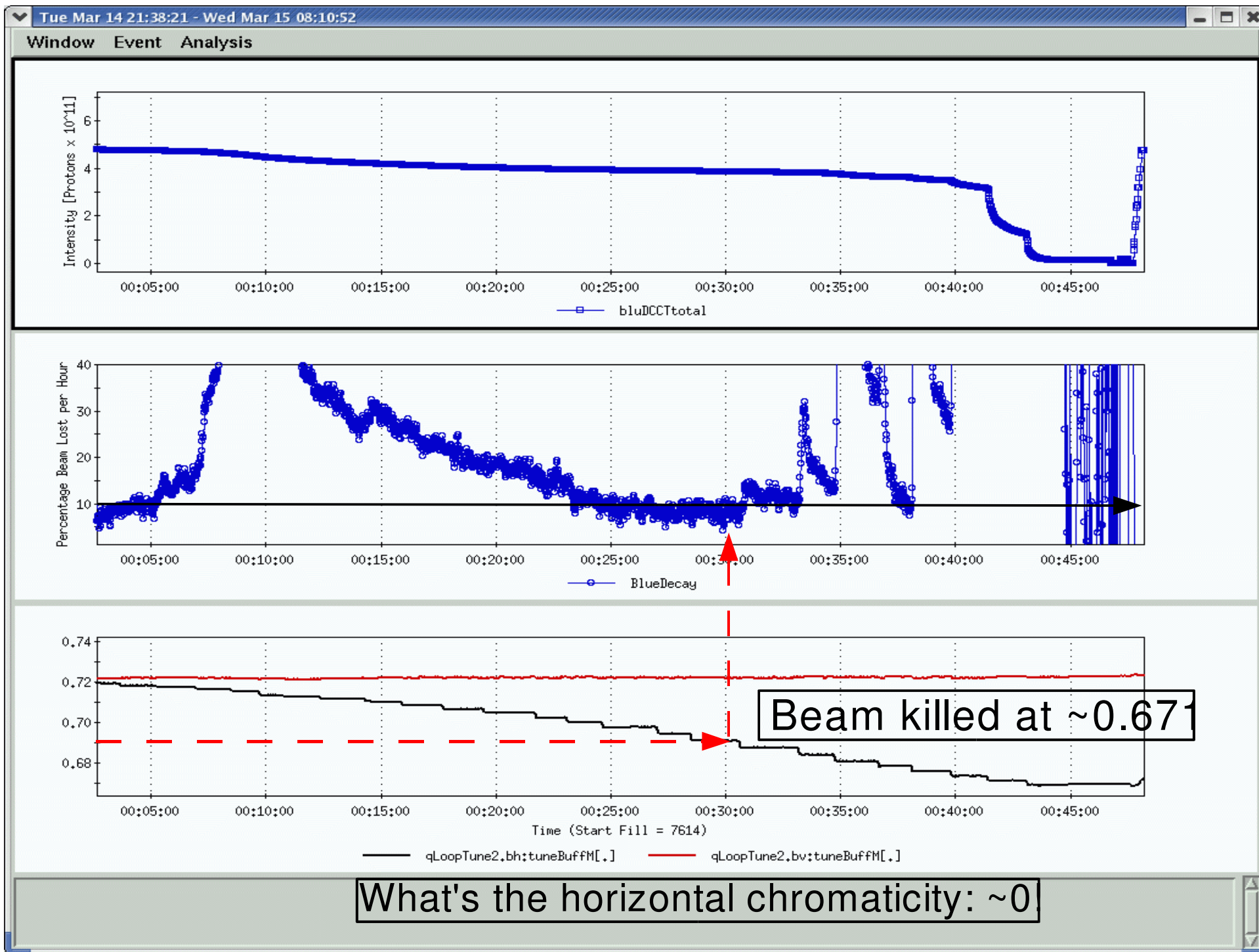
bo6-sxd11	time
0.00477	23:29:20
0.00677	23:30:02
0.00877	23:30:40
0.01077	23:31:16
0.01277	23:31:53
0.01477	23:32:30
0.01677	23:33:27
0.01877	23:33:56
0.02077	23:34:43
0.00477	23:35:16
0.00477	23:35:28
0.00477	23:35:45

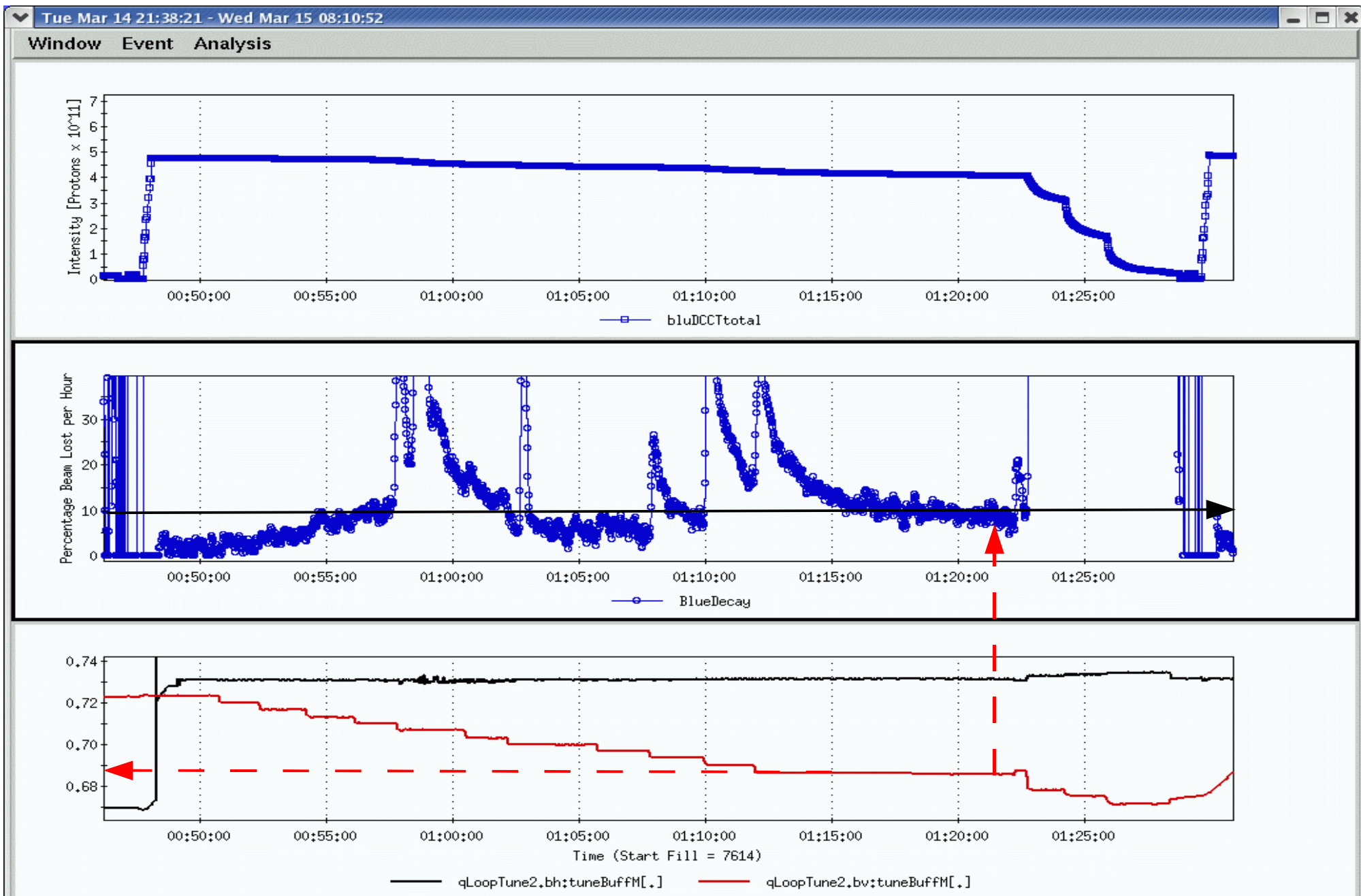
Valuable data, need quick and careful annalysis
Who responsible: Todd + (Johan /Yun)

3. Qx and Qy scans to 0.6666666666.....



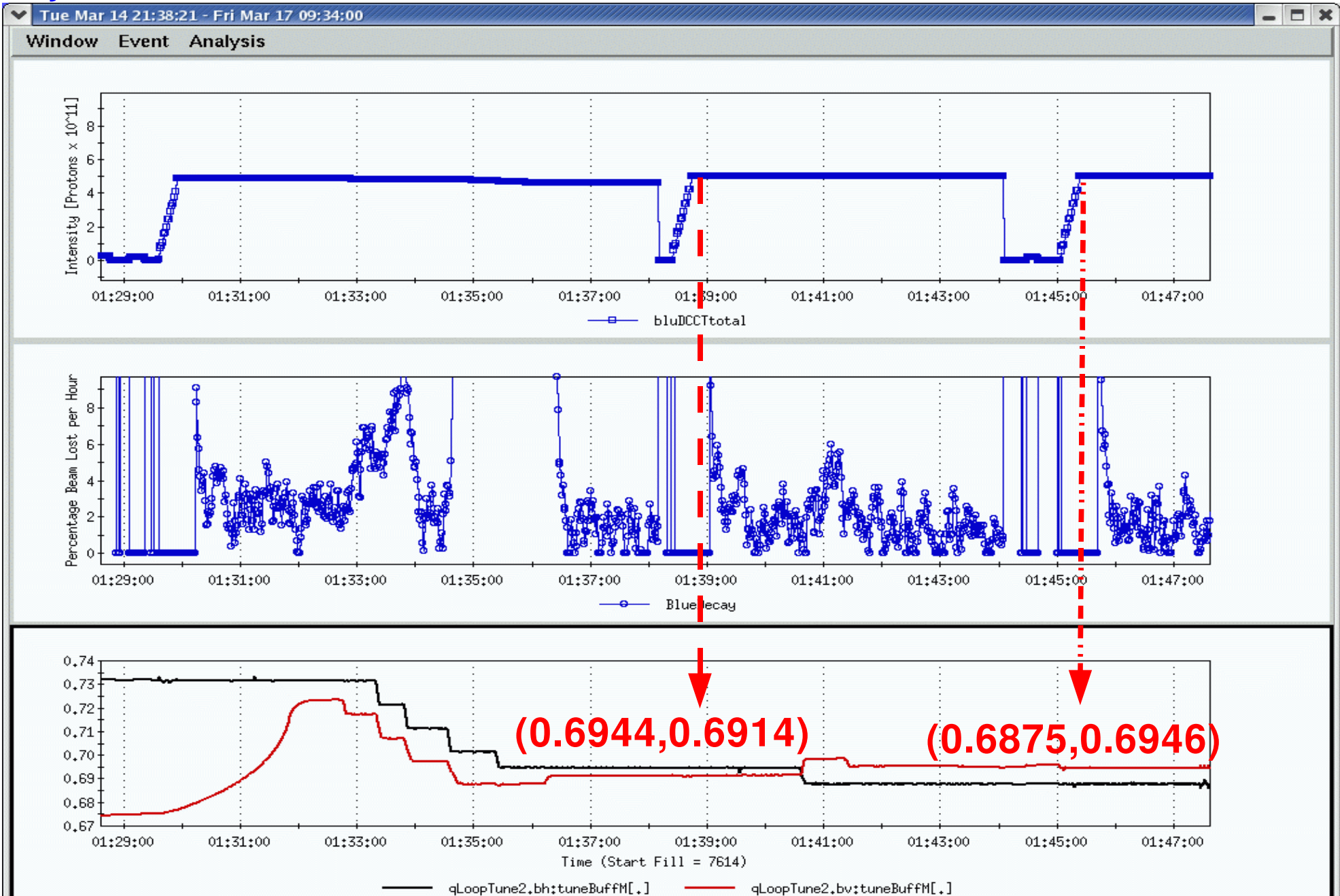
Qx scan





Beam killed ~0.672, vertical chromaticity ~2, lifetime quickly worsen below 0.685

4. Injection close to 2/3 resonance



$Q'_x \sim 0, Q'_y \sim 2$ during the above

5. Summary

- 1) Driving term measurement procedure verified.
- 2) Stop-band of $3Q_{x,y}$ measured, about 0.0034.
- 3) close-to- $2/3$ injection obtained.
- 4) No conclusion to $3Q_x / 3Q_y$ puzzle?

6. Plan for next session

- 1) Detuning measurement: mismatching / Artus kicking
- 2) Close Johan's loop

what's Johan's loop?

- 3) Request: 2.5 hrs.

BTW, sextupole polarity check **closing session**: 3.0 hrs.