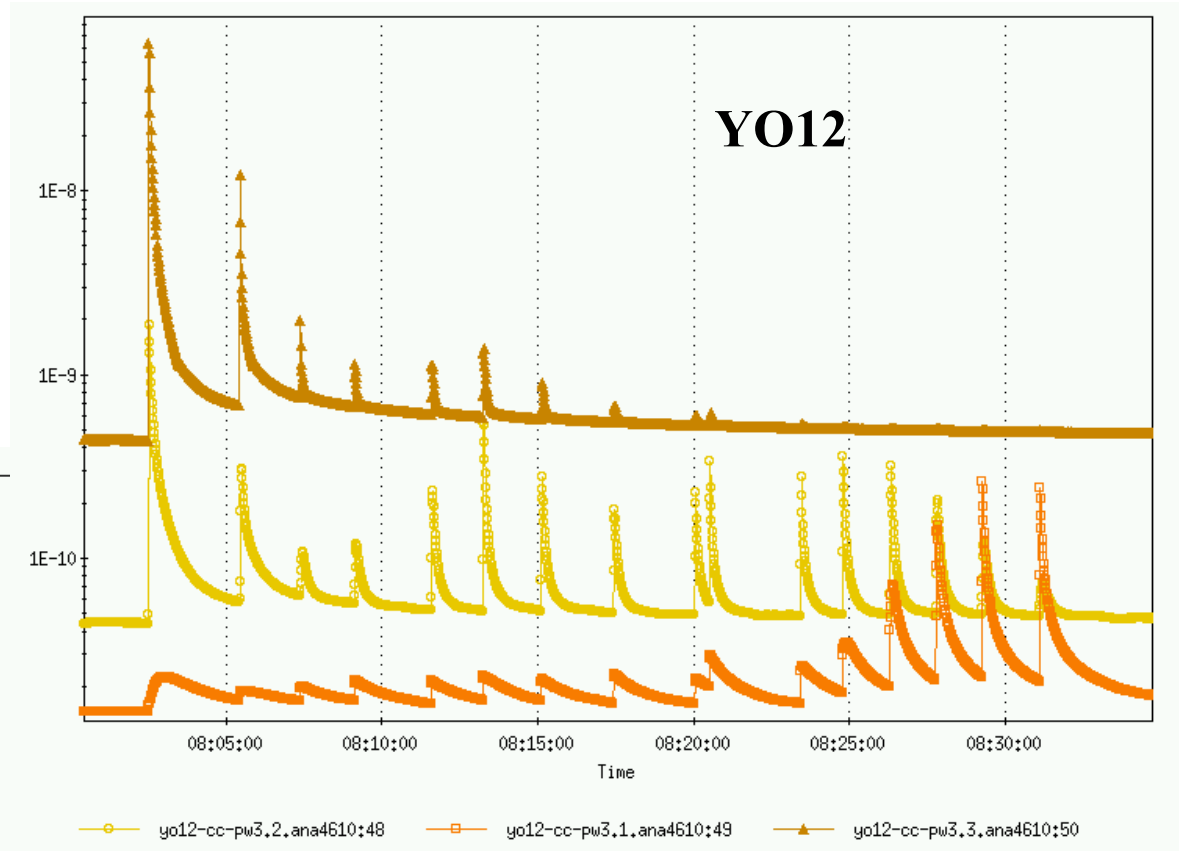
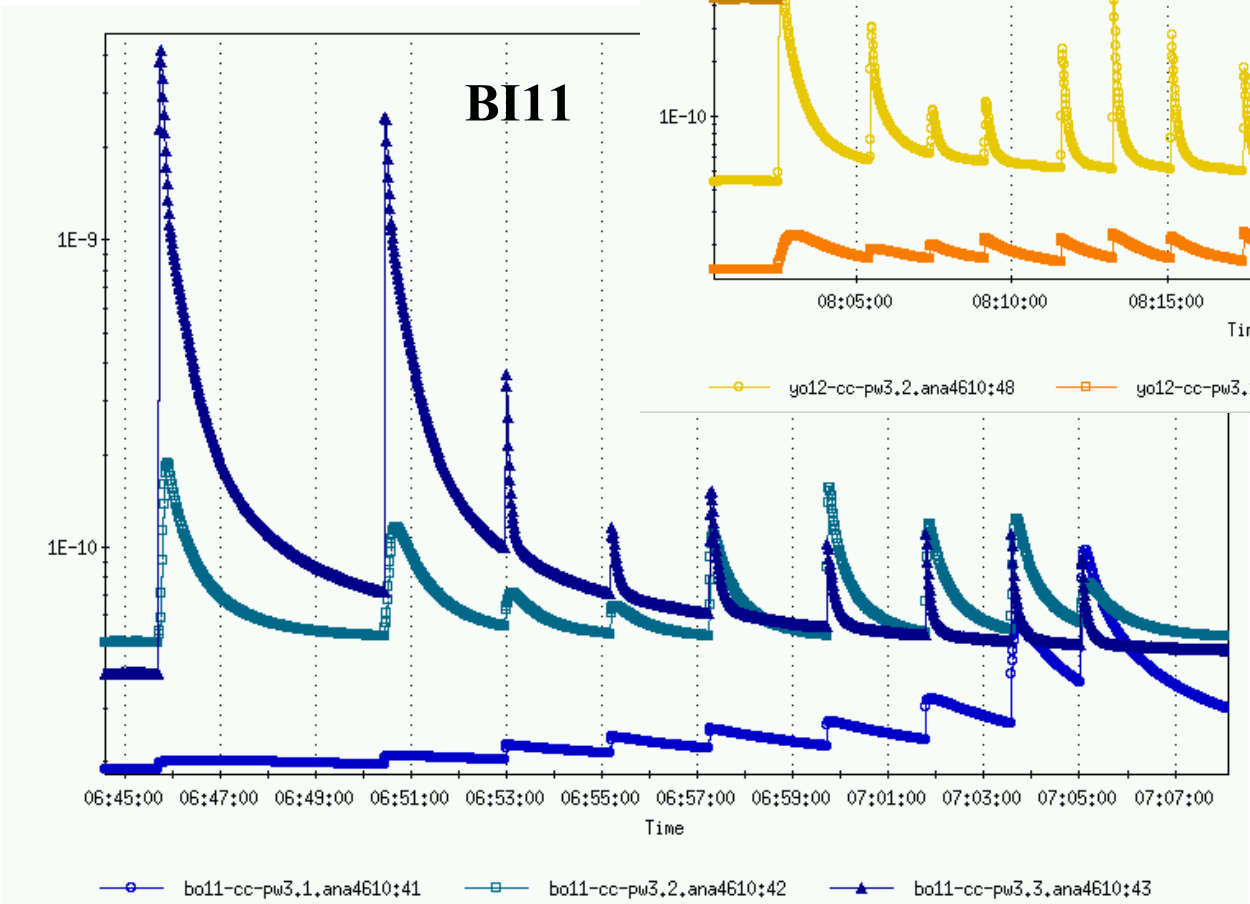
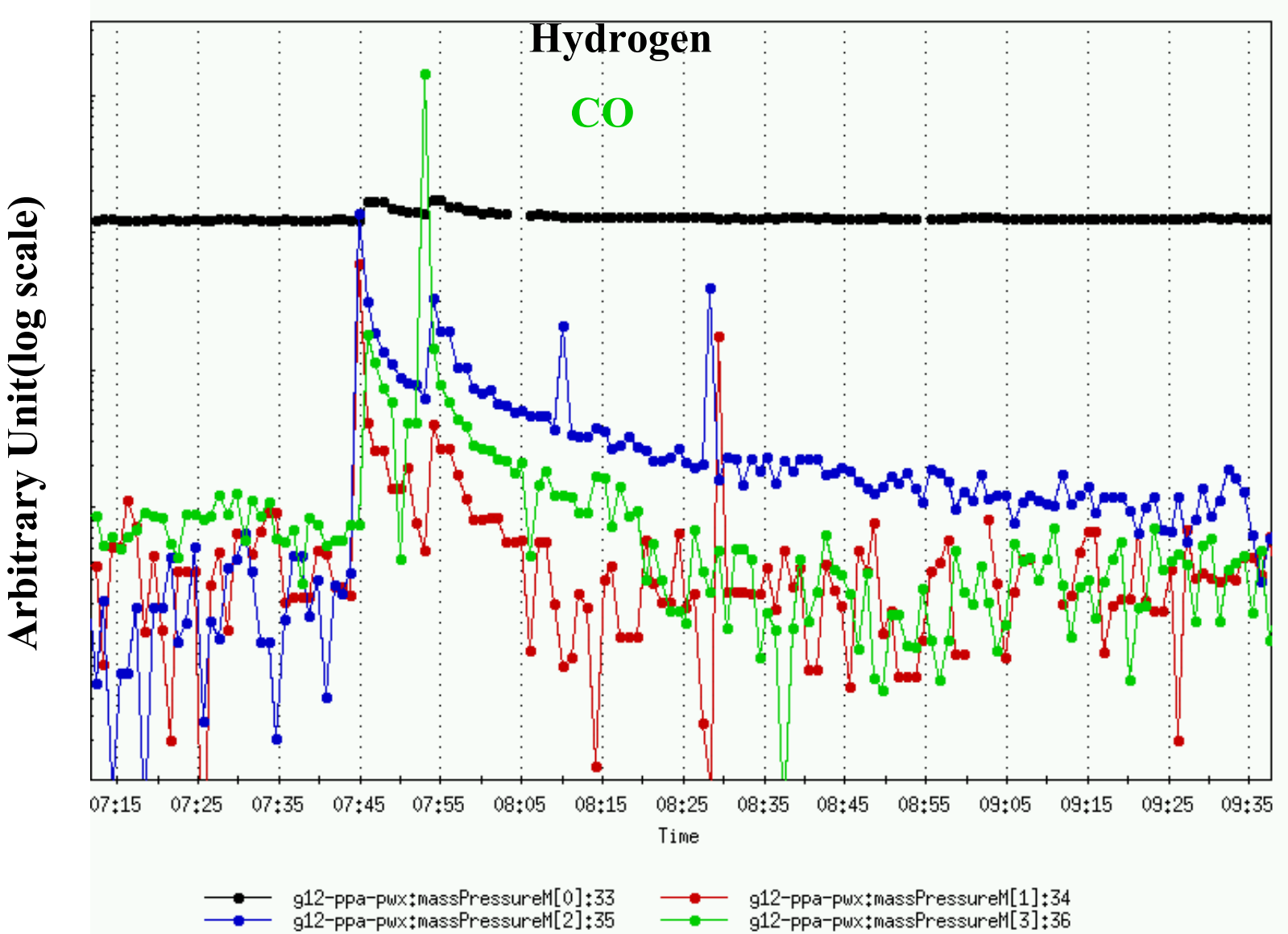




Similar patterns in the two regions.

BROOKHAVEN NATIONAL LABORATORY

Signature of beam loss

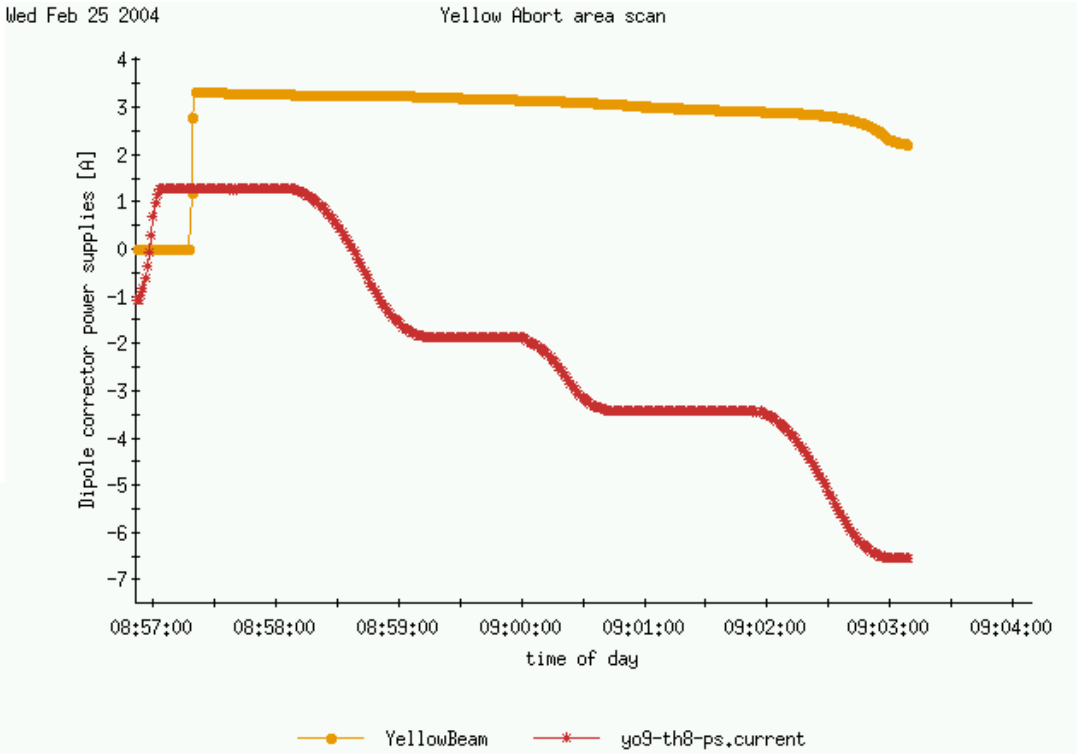


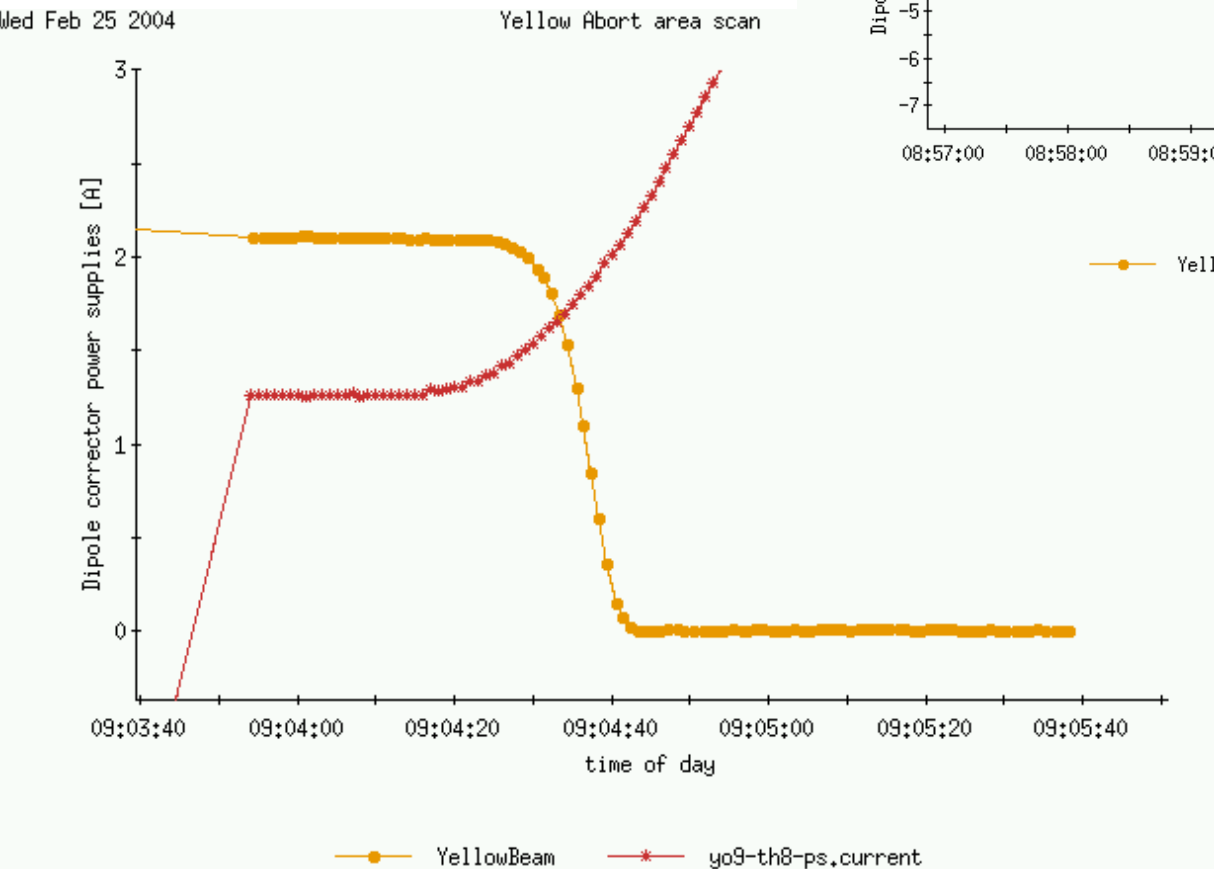
Time	Location	I (10^9)	h	
BO2 - kicker: bo2-tv3 at 2592.32 m (36.42 m away from IP2)				
6:19:44	56.4m	2.483	8.2E+03	
6:29:34	63.5m	3.241	4.0E+03	NEG
6:30:04	63.5m	3.419	3.4E+03	NEG
6:34:10	59.0m	3.61	1.6E+04	
	NEG - 61-66m			
BO11 - kicker: bo11-tv5 at 1833.60 m (82.85 m away from IP				
6:45:50	66.5m	3.424	9.6E+05	
6:50:34	66.5m	3.532	5.7E+05	
6:53:17	65.5m	3.382	2.9E+04	
6:55:18	62.9m	3.287	6.0E+03	
6:57:28	60.3m	3.299	8.1E+03	
6:59:57	55.5m	3.14	1.5E+04	
7:01:54	50.2m	3.358	6.3E+03	
7:03:42	45.2m	3.478	1.2E+04	
7:05:15	39.9m	3.226	1.7E+04	

Preliminary

YO12 - kicker yo12-tv5 at 2000.24 m (83.79m away from IP1			
8:02:43	68.9m	2.641	1.3E+07
8:05:34	67.4m	2.51	1.2E+06
8:07:35	65.8m	2.671	8.9E+04
8:09:14	64.4m	2.729	5.6E+04
8:11:42	62.7m	2.821	7.0E+04
8:13:28	61.3m	2.679	1.1E+05
8:15:14	59.8m	2.137	6.8E+04
8:17:44	58.2m	2.878	2.8E+04
8:20:10	56.7m	2.202	1.4E+04
8:20:43	56.7m	2.974	1.7E+04
8:23:26	53.8m	2.864	1.6E+04
8:24:59	50.5m	2.631	2.1E+04
8:26:31	47.7m	3.065	2.4E+04
8:28:04	44.5m	2.871	3.1E+04
8:29:22	40.4m	2.898	4.7E+04
8:31:14	37.5m	2.978	4.4E+04

Preliminary





BROOKHAVEN
NATIONAL LABORATORY

RhicLossMonitor

Setup Data Display Diagnostics Help

Dataset Name	Source	Info	Graph	Data	Lock
Acq. 500 – 09:18:15	Live	No	Yes	No	No
Acq. 499 – 09:18:13	Live	No	No	No	No
Acq. 498 – 09:18:11	Live	No	No	No	No

Fill: 4610

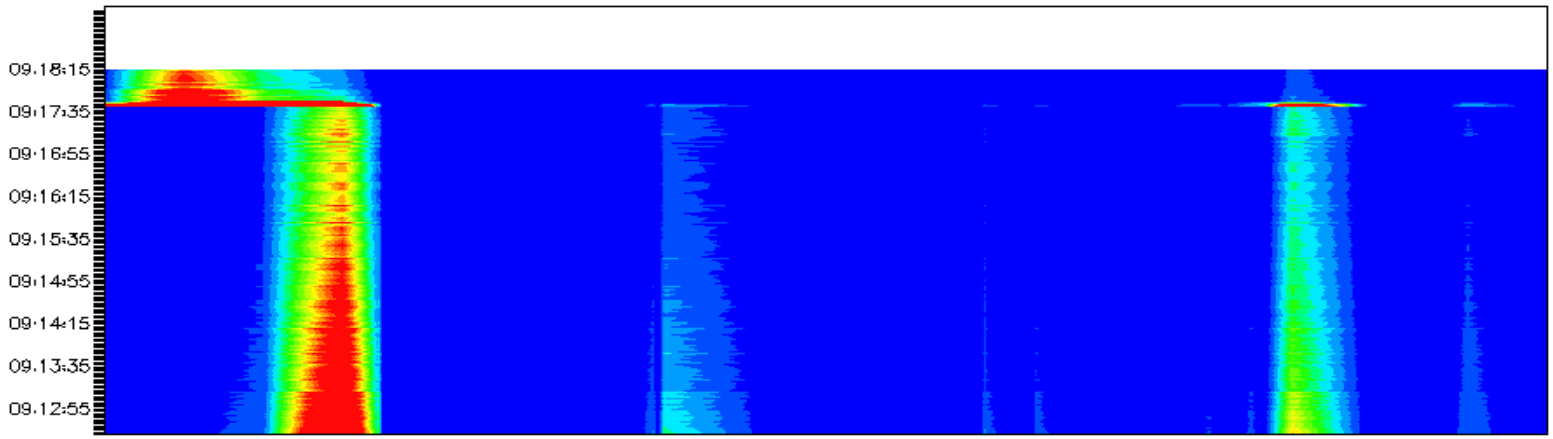
Max for Plots: 10

Acquire Once

Acquire Continuous

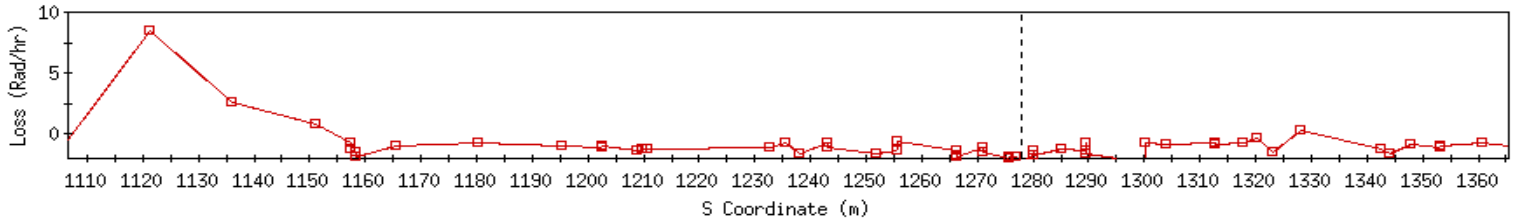
Acquire From:/To:

STOP



RHIC (circ. avg.)

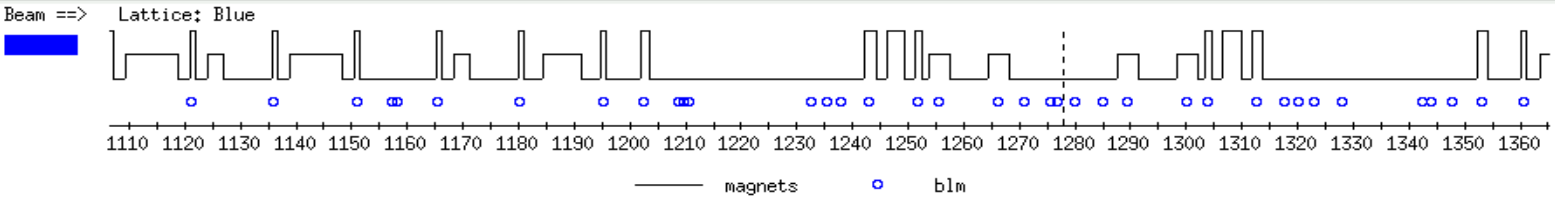
- Sector 6
- Sector 7
- Sector 8
- Sector 9
- Sector 10
- Sector 11
- Sector 12
- Sector 1
- Sector 2
- Sector 3
- Sector 4
- Sector 5



XF Avg Current

wxf1	6.78e+02
xxf1	-6.52e+00
yxf1	6.69e+02

45



Smoothing has been turned on in 3D graph (Feb 25 09:09:37)
Smoothing has been turned on in 3D graph (Feb 25 09:09:38)

NEG Pipe Study (2/25/04)

- First two and half hours spent on fast loss at bo2, bo11, ip12 and yo12. Map out pressure rises with beam loss location by changing steering angle. The angle is between 0.8 mrad to 3 mrad.
- These data can be used to develop dynamic model for beam loss induced pressure rise.
- Some preliminary analysis shows the desorption rate was in the order of 10^4 for regular pipe and the numbers for NEG pipe are 2~3 times smaller. For some angles, the desorption rate is as high as 10^7. The beam loss situation is less clear in IP12.
- Spent last 40 minutes on warm dipole. Scan the aperture at 1150m. The aperture is larger than 50mm.
- We would like to repeat fast loss study at IP10, IP2 and Bi9.