RHIC Status

Xiaofeng Gu

Time Meeting 1/5/2016

BROOKHAVEN NATIONAL LABORATORY
a passion for discovery
Office of Science
U.S. DEPARTMENT OF ENERGY

RHIC Status: To Do List

To Do List:

1. **Hardware installations: CeC, LeRHIC …**

2. **Dry run: items to be finished**

3. **New Lattice: (0.7m, 0.7m) and (0.7m, 0.4m); simulation for pre-fire scenarios, squeeze ramp …**

4. **AGS extraction to W-dump**

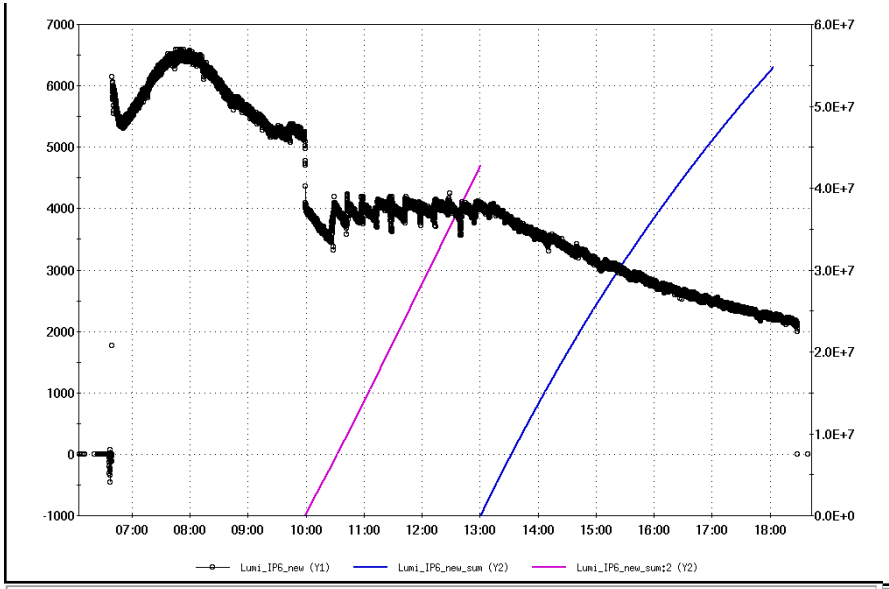
Estimated Average Integral Luminosity

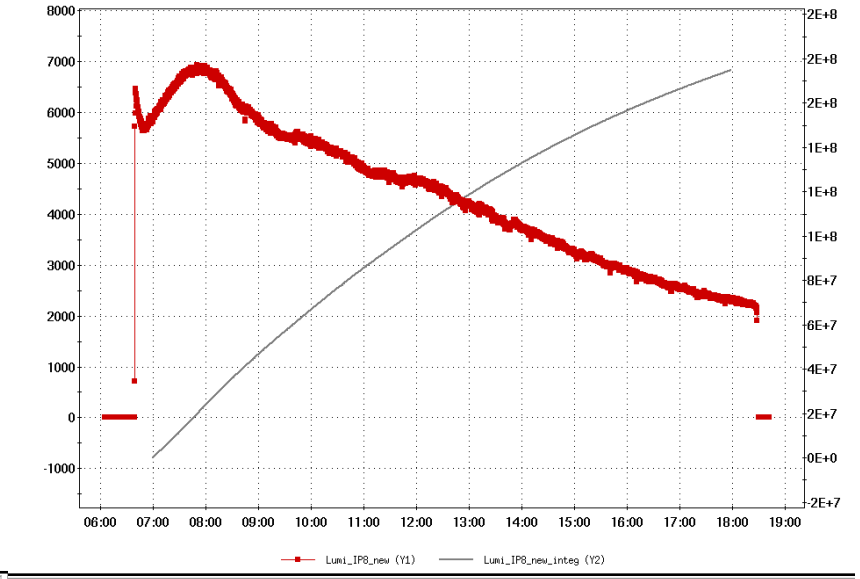
STAR: ~1.6 [nb^{-1}/week]
~14 [nb^{-1} Total] 10 weeks

1. Assume 20% more luminosity than Run14 (50 kHz-> 60kHz);
2. Total store length = 11 hours
3. 60 kHz store length = 6 hours
4. 65% store time (Run11: 59%, Run14: 68%)
5. Estimated by one store data of Run 14

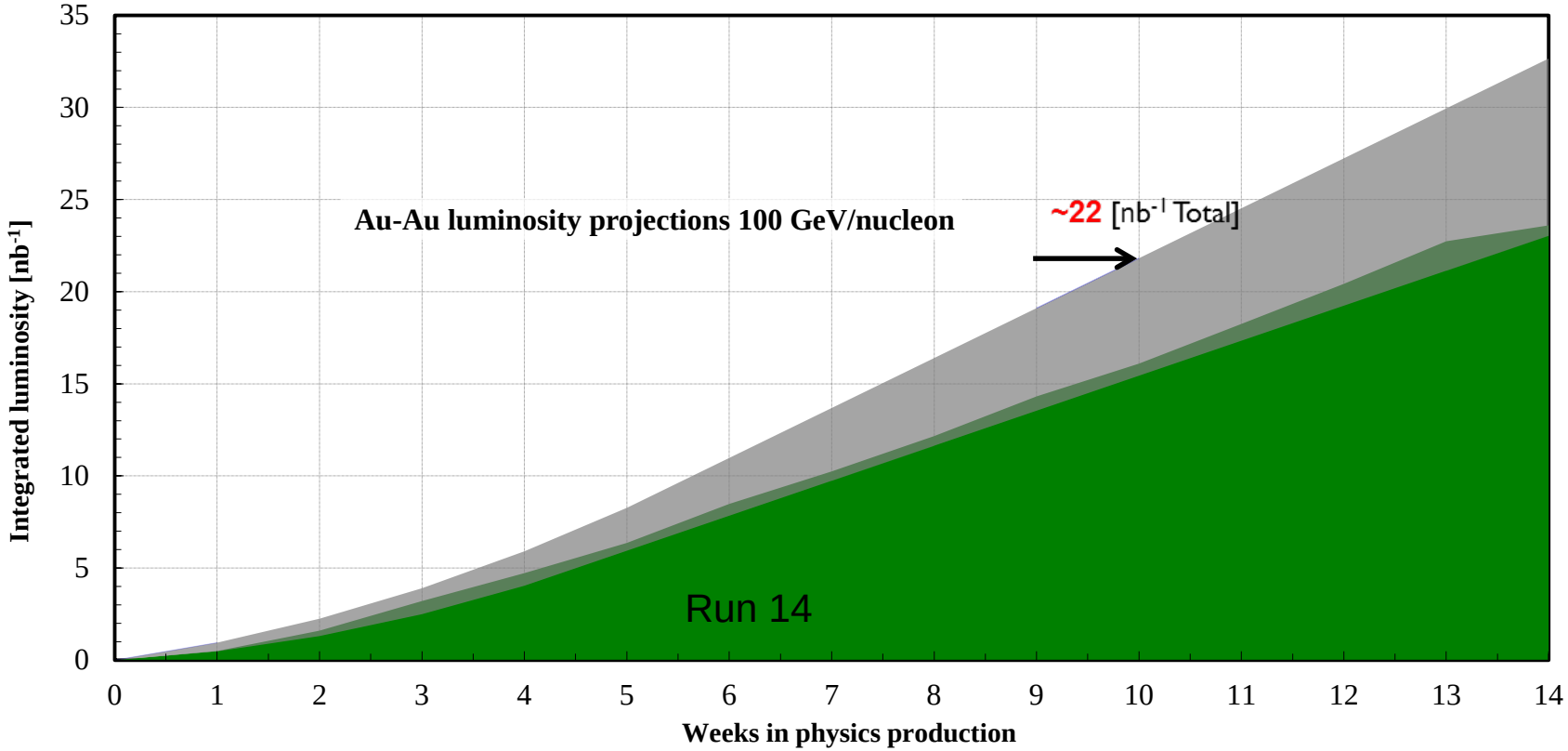
PHENIX: 2.5~2.8 [nb^{-1}/week]
~22 [nb^{-1} Total] 10 weeks

1. Assume 20% more intensity than Run14 nominal;
2. Total store length = 11 hours;
3. **2.8** [nb^{-1}/week] is calculated If beta* = 0.4m lattice can be used;
4. 65% store time (Run11: 59%, Run14: 68%)
5. Estimated by one store data of Run 14
6. 56 MHz is not included





2014 Integrated luminosity compared to projections



Schedule

◄ December 2016 — January 2016 — February 2016 ►

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19 **Cool Down**	20 **Cool Down** **PS Testing** **AGS setup**	21 **4 K** **PS Testing (DAY/EVE)** **Injection beam/capture**	22	23 **PS Ramp Testing** **DX training** **Injection beam**
24 **PS Ramp Testing** **DX training** **Injection beam**	25 **Beam work(EVE/OWL)** **PS work/access (DAY)**	26	27	28	29 Ramping and store setup	30
31 Stores Intensity	Notes:					

Schedule

◄ January 2016 — **February 2016** — March 2016 ►

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	Notes:				

Stores(OWL/EVE)
Intensity, mop-up (DAY)

Target physics date

Potential speed bumps

- **Apertures: smaller IR2 vacuum chamber**
- **Installation: delay and access**
- **Squeeze Ramp**

Website of Run 16

Dry Run:

- http://www.cadops.bnl.gov/Controls/ControlsWiki/index.php/RHIC_Dry_Run_FY16

Run 16:

- http://www.cadops.bnl.gov/AP/RHIC2016/

Run Planning To Do List:

- http://www.cadops.bnl.gov/AGS/Operations/OpsWiki/index.php/FY16_Run_Planning_To_Do_List

Schedule update:

- http://www.rhichome.bnl.gov/AGS/Accel/Maintenance/Schedules/This_week.htm#sched1