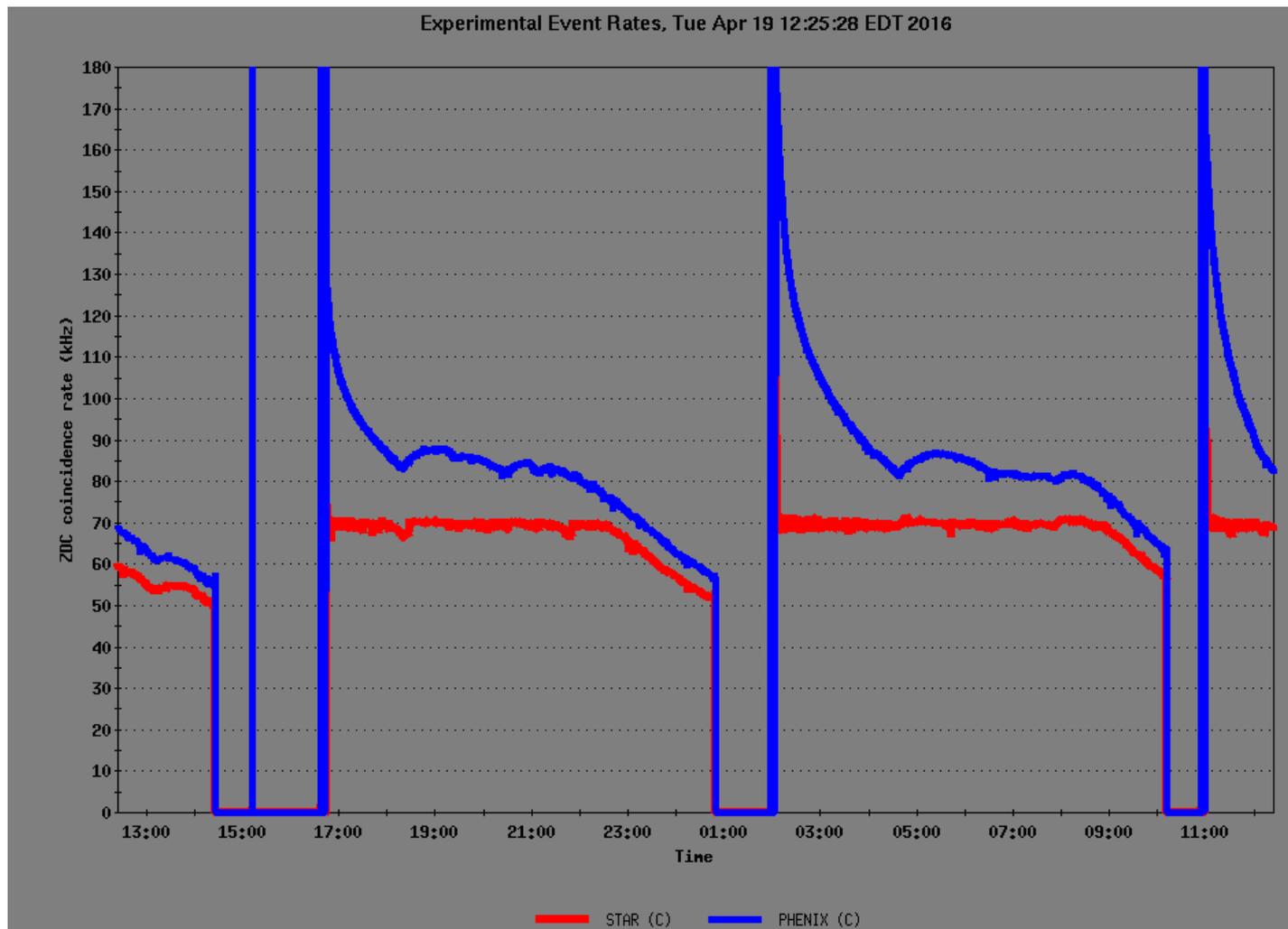


# Time Meeting

April 19, 2016.

W. Christie



# Run 16 plan based on 20 weeks cryo operation

and Fischer et.al. RHIC Collider Projections (FY 2016 – FY 2022), 19 April 2015

## Today, April 12<sup>th</sup>

- 19 Jan, Begin cool-down to 4.5K
- 25 Jan, Beam in Yellow
- ~~22~~ 26 Jan, Beam in Blue
- ~~29~~ Jan, Feb 3, First Collisions
- ~~5~~ 7 Feb, Begin 10 week  $\sqrt{s}=200$  GeV/n AuAu physics run
- 7 am March 18<sup>th</sup>, RHIC Operations halted for Blue ring Diode issue
- 7 pm April 6<sup>th</sup>, RHIC Operations resumed (19.5 days offline)
- Decision made to add 19.5 days to the AuAu running to account for the Diode related down time
- ~~15~~ 18 April, End 10 week  $\sqrt{s}=200$  GeV/n AuAu physics run
- ~~16~~ 19 April, Begin 1.4 week  $\sqrt{s}=20$  GeV/n dAu physics run
- ~~26~~ 29 April, End 1.4 week  $\sqrt{s}=20$  GeV/n dAu physics run
- 29 April, Begin 1.4 week  $\sqrt{s}=39$  GeV/n dAu physics run
- 9 May, End 1.4 week  $\sqrt{s}=39$  GeV/n dAu physics run
- 12 May, Begin 0.9 week  $\sqrt{s}=62$  GeV/n dAu physics run
- 18 May, End 0.9 week  $\sqrt{s}=62$  GeV/n dAu physics run
- 21 May, Begin 0.9 week  $\sqrt{s}=200$  GeV/n dAu physics run
- 27 May, End 0.9 week  $\sqrt{s}=200$  GeV/n dAu physics run
- 29 May, Begin 5 day  $E=40$  GeV/n Au CEC physics run
- 3 June, End 5 day  $E=40$  GeV/n Au CEC physics run
- 3 June, begin cryo warm-up
- 7 June, cryo warm-up complete, 20.0 cryo weeks of operation

dAu schedule as proposed by PHENIX,  
scaled to 4.7 total physics weeks

- Actual physics time for each energy is TBD

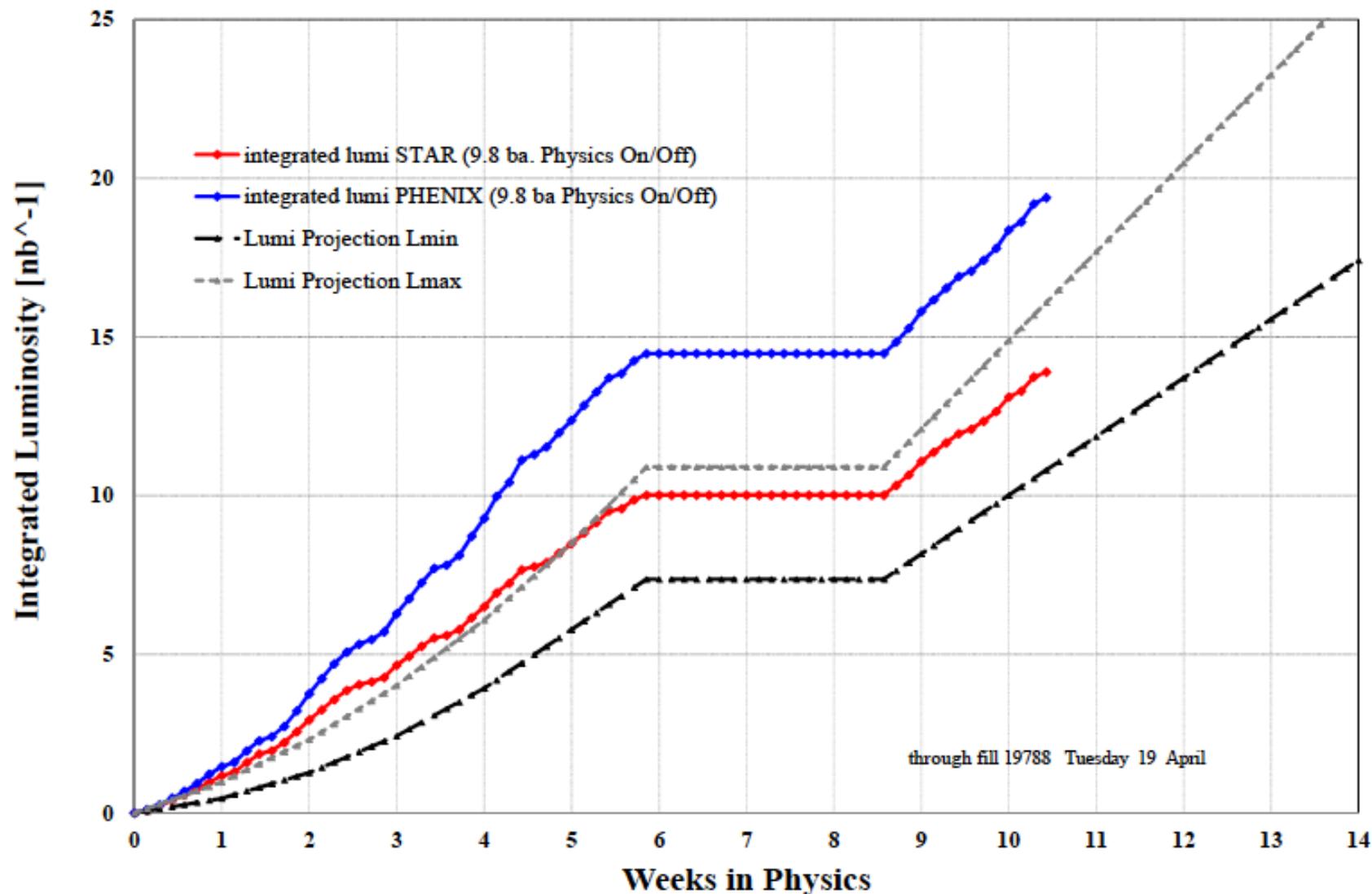
Schedule in Orange  
text not updated yet

Note that the Plan and Schedule for beam use for the remainder of Run 16 is expected to be set at or before the RHIC Coordination mtg on April 26th.

See <http://www.rhichome.bnl.gov/AP/RHIC2016/> for the Run Coordinator's detailed plan

# Run16 Delivered Luminosity

## Au x Au $\sqrt{s} = 200$ GeV



## SCHEDULE FOR WEEK FROM MONDAY April 18<sup>TH</sup> – SUNDAY April 24<sup>th</sup>

- **Monday:**
  - Physics running
- **Tuesday:**
  - Physics Running
- **Wednesday:**
  - Physics Running until 7:45 am
  - Scheduled Access from 8 am to 4 pm
  - Physics running rest of day
- **Thursday:**
  - Physics Running until 9:45 am
  - Beam Development from 10 am to 6 or 7 pm
    - 2 to 3 hours for Beta squeeze at PHENIX
    - 6 hours for 56 MHz
  - Physics running rest of day
- **Friday and through the rest of the week (until Monday):**
  - Physics running.

## Outcome from the April 12<sup>th</sup> RHIC Coordination meeting

- A decision that was taken at the meeting was that the earliest end date for the AuAu running would be pushed from April 17<sup>th</sup> (original end date for 10 weeks of physics running) to the vicinity of May 7<sup>th</sup>. This accounts for the 19.5 days that RHIC was offline for the diode repair.
- Extending Run 16. Given the funds saved from the reduced power load during the three weeks that RHIC was offline, and the lower cost for power through February of this year (March Power costs not yet known), the funds were deemed to be available to extend the run by at least two weeks.
- Depending on the power cost for March, it may be possible to add an additional week to the run, making for a total of a three week extension. It is expected that the power cost for March will be known soon (this week) and thus a final decision of the length of a possible run extension will be made by/at the RHIC Coordination meeting on April 26<sup>th</sup>.
- To better understand the implications of the possible options for allocating the RHIC beam time between May 7<sup>th</sup> (earliest end of AuAu running) and the end date for the run, Berndt asked both collaborations to provide him with input to specific questions.
- The date for detailing all aspects of the plan for the remainder of Run 16 is by or on April 26<sup>th</sup>.

# The Calendar

January						
Su	Mo	Tu	We	Th	Fr	Sa
					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	30
31						

February						
Su	Mo	Tu	We	Th	Fr	Sa
	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					

March						
Su	Mo	Tu	We	Th	Fr	Sa
		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	30	31		

April						
Su	Mo	Tu	We	Th	Fr	Sa
					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	30

May						
Su	Mo	Tu	We	Th	Fr	Sa
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	30	31				

June						
Su	Mo	Tu	We	Th	Fr	Sa
			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	30		

- Cool down to 4.5K starts on January 19<sup>th</sup>.
- Physics Running Declared on Sunday February 7<sup>th</sup>.
- Physics Running halted by Diode at 7 am on Friday March 18<sup>th</sup>
- ~ 5 5/7's weeks
- Physics running restarted on Wednesday evening, April 6<sup>th</sup>.
- Gap of ~ 19.5 days
- Original "10 wks" of AuAu physics running would have been concluded on Sunday April 17<sup>th</sup>.
- If one adds 19.5 days to this original end date, one land on Saturday May 7<sup>th</sup>.
- Without any extension, the Cryo warm up completes on June 7<sup>th</sup>.
- *Shown in Magenta is where the CeC running would fall with A TWO WEEK EXTENSION.*
- Original date for the start of the Cryo warm up was Friday, June 3<sup>rd</sup>.
- 20 Cryo weeks total.

Archive

PHENIX goals: 10 weeks,  $1.8 \text{ nb}^{-1}$  with 12 billion MB events recorded within  $|z| < 10 \text{ cm}$  vertex, request dynamic  $\beta^*$  squeeze.

STAR goals: 13 weeks  $10 \text{ nb}^{-1}$  sampled for MTD and 2 billion MB events recorded within  $|z| < 6 \text{ cm}$  for HFT

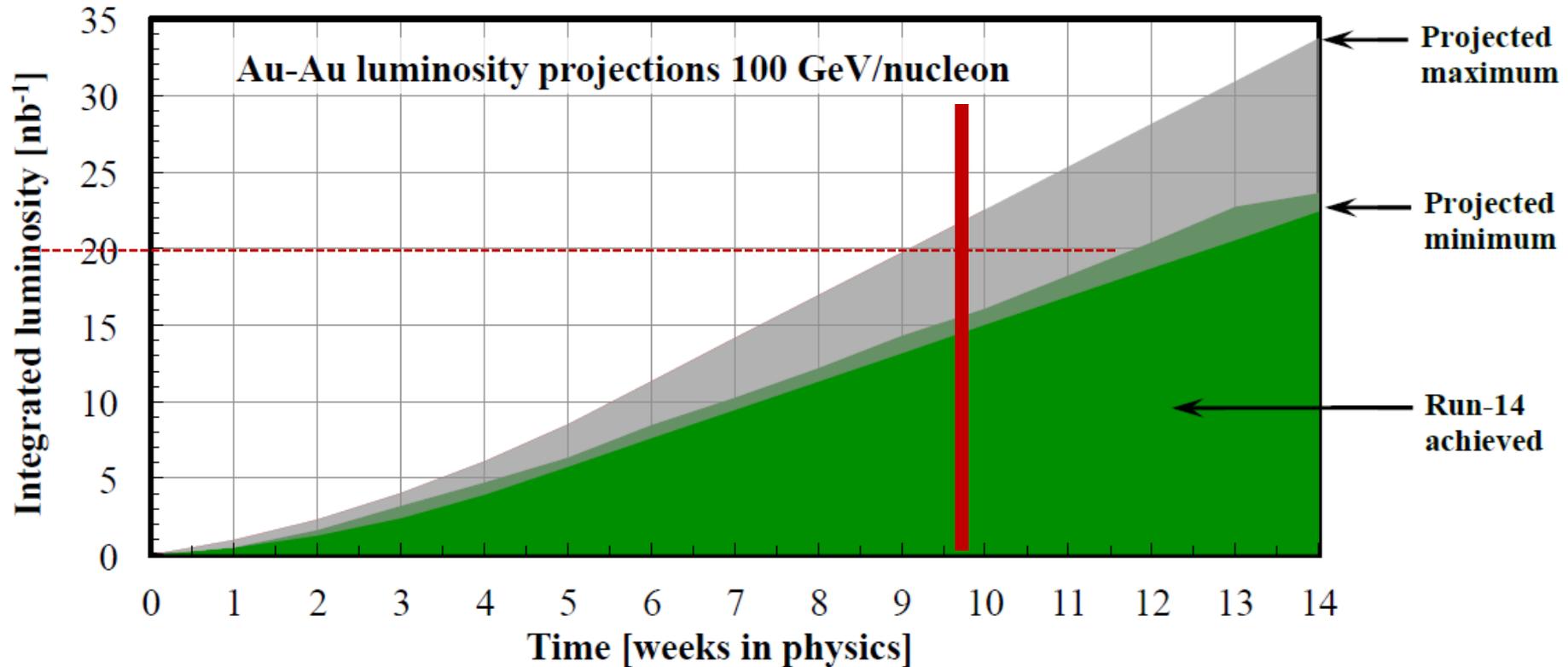


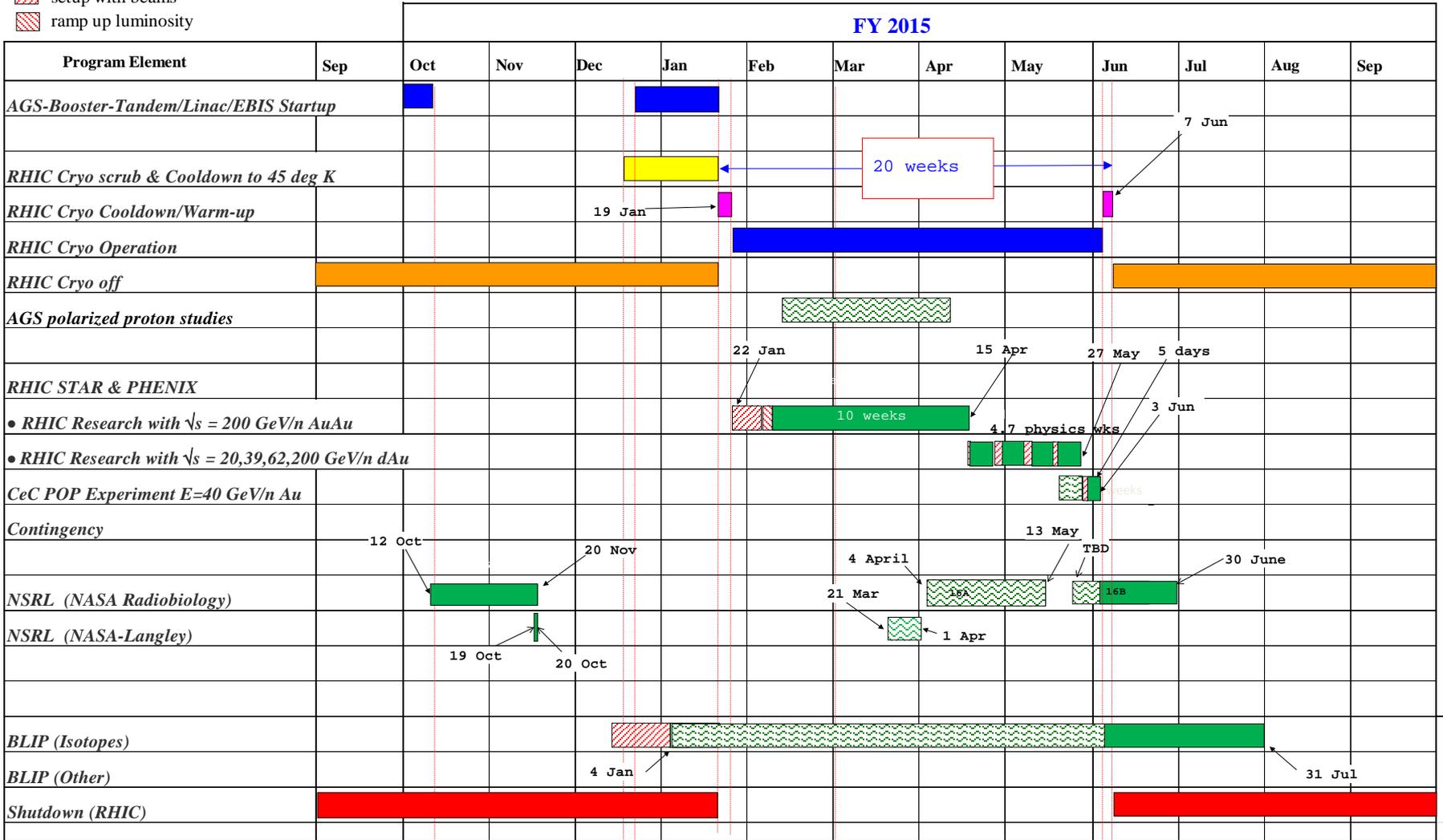
Figure 3: Projected minimum and maximum integrated luminosities for Au+Au collisions at 100 GeV/nucleon beam energy, assuming linear weekly luminosity ramp-up in 6 weeks.

From Fischer et. al., RHIC Collider Projections (FY 2016 – FY 2022), 19 April 2015

# C-A Operations-FY16

*planned*

-  concurrent with RHIC
-  setup with beams
-  ramp up luminosity



## Who's Who for 2016

RHIC 100 x 100 GeV AuAu:

**Run Coordinator:** Xiaofeng Gu, [xgu@bnl.gov](mailto:xgu@bnl.gov) , 631-344-4724

RHIC dAu Energy Scan:

**Run Coordinator:** Chuyu Liu, [cliu1@bnl.gov](mailto:cliu1@bnl.gov) , 631-344-4431

RHIC CeC POP Experiment:

**Run Coordinator:** TBD

**Scheduling Physicist:** Bill Christie, [christie@bnl.gov](mailto:christie@bnl.gov), 631-344-7137 (x4643 after 29 Jan)

**AGS Liaison:**

Haixin Huang, [huanghai@bnl.gov](mailto:huanghai@bnl.gov) , 631-344-5446