

# Run 22 RHIC Machine/Experiments Meeting

*December 14, 2021*

## Agenda:

- Welcome and Overall schedule for the FY 22 RHIC run - W. Christie
- STAR status, schedule, and update - J.H. Lee
- CeC status, schedule, and update - V. Litvinenko
- RHIC status, schedule, and update - V. Schoefer
- All Other Business (AOB)

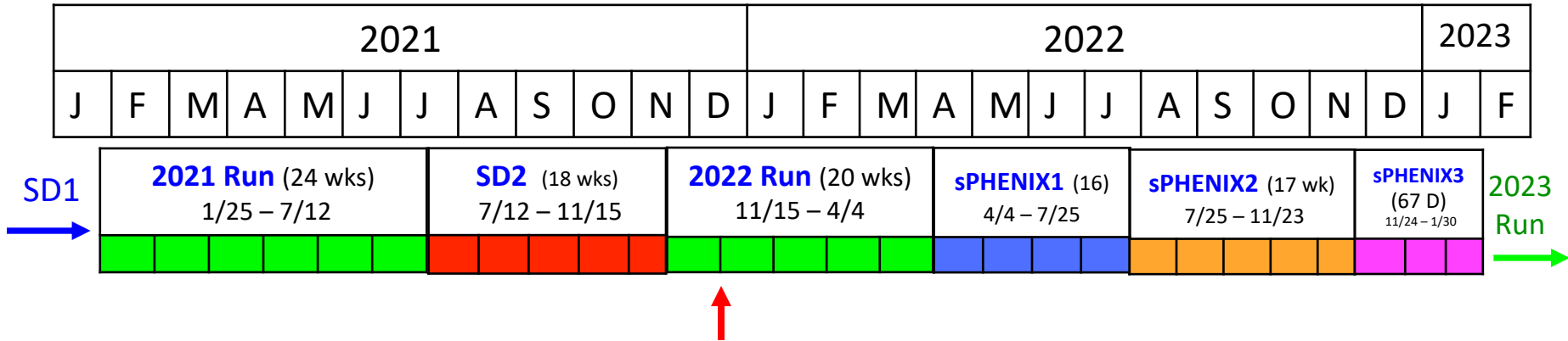
# Emergency meeting to discuss the situation with the 2022 RHIC run

*December 13, 2022*

## Agenda:

- Discuss the status of the damaged Blue snake magnet – Wolfram
- Discuss the prospects for Blue beam polarization in the situation where the damaged Blue snake magnet can't be used – Huan, Moet, Ranjbar
- Discuss if there is a STAR physics program if the Blue beam can not be polarized – Elke, Lijuan, Helen
- Discuss repair/replace options for the damaged Blue snake for the current 2022 RHIC run – Joe
- Discuss the options for the other components of the 2022 RHIC run (i.e. the CeC program, the EIC related APEX program, the non-EIC related APEX program) – Vincent, Yun
- Discussion of the next step in determining the path forward for the 2022 RHIC run - All

# Rough Look at Long Term Schedule



N.B. Whereas STAR was asked to submit a BUR for the 2021 run for 24 and 28 Cryo weeks, the baseline schedule above assumes 24 weeks for the 2021 run.

*N.B. This Schedule was the result of meetings that were held in late summer of 2020 to discuss the longer-term schedule.*

# A calendar for the remainder of Calendar 2021

November						
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				

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December						
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	

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Today's date



Scheduled start of Helium cooldown. With schedule issue that arose three weeks ago, the cooldown started for only the Blue ring.



Yellow ring cooldown started.



First collisions for STAR.

Discussion topic: With today's news about the possible return to a partial snake in the Blue ring, discuss near term strategy and plans. Key question is the polarization that can be achieved for Blue beam, and whether magnet will remain operational.

## All Other Business (AOB)

- AOB

# Program Advisory Committee (PAC) recommendations on the 2022 RHIC Run

## 2.2 Discussion and Recommendations for RHIC Run 22

The Run 22 BUR of a transversely polarized  $pp$  run at 510 GeV with the STAR Forward Upgrade represents a unique opportunity to address important issues in spin physics and will allow exploration of the regimes of low and high- $x$  physics with unprecedented precision. New results anticipated for Run 22 with the Forward Upgrade can have important impacts on the planning for EIC, as well as on the interpretation of EIC data. *The PAC strongly endorses the STAR Run 22 BUR.*

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If Run 22 were to be reduced from 20 to 18 weeks that would result in at least a 15% reduction of the integrated luminosity and have a very detrimental effect on the prospects of achieving all the physics goals. Given that the CeC beam time would additionally reduce the STAR run by 2.6 weeks, this would have further negative effects on the physics programme. C-AD is strongly encouraged to optimize RHIC operations to fulfill the goals of both CeC and STAR.

*What is shown here are the first and eighth paragraphs from the PAC report concerning the 2022 RHIC run. The other paragraphs of the section deal with physics, as opposed to operations topics.*