

# Run plan

**G. Nukazuka (RIKEN/RBRC)**

# Current status of INTT

See [the slides shown in the shift change meeting on Apr/10](#) for more details.

- Ladder tests were completed by pedestal measurements with DAC0=10
- LV/HV systems are working well.
- Cosmic data was taken for weeks. INTT was operated stably by shifters.
- The north side has more noise than the south side.

# Beam Schedule

## RHIC Schedule (Week April 15<sup>th</sup> – 21<sup>st</sup>)

### Monday (4/15)

- Cryo: Blue 4k wave begins
- PSG: continue hipot and unlock supplies;
- possibly begin power supply testing

### Tuesday (4/16)

- Cryo: Blue 4k wave continues; LHe delivery
- PSG: Power supply testing and Helium lead flow testing

### Wednesday (4/17)

- Cryo: Yellow 4k wave begins; Blue 4k wave continues
- PSG: Power supply testing
- AOS: Maintenance (Booster AM; AGS/LINAC until 1500)

### Thursday (4/18)

- Cryo: Blue and Yellow 4k wave continues
- PSG: Power supply testing and Helium lead flow testing (26 GeV ramp)
- Ops: Injection checkout

### Friday (4/19)

- Cryo: Yellow 4k wave continues
- PSG: Power supply testing and Helium lead flow testing (100GeV pp ramp)
- Ops: Blue injection

### Saturday (4/20)

- Ops: Blue injection
- Cryo: Yellow 4k wave continues
- PSG: Yellow power supply testing

### Sunday (4/21)

- Ops: Yellow injection

\*Please note: Schedule is subject to change based on power supply/Helium lead flow testing result. Check into RHIC Status Meeting (9AM) for updates



# Onsite crew

Month		4					5					6					7				
Week		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Event		QCD DIS KPS							CPOD		Col Mtg	SQM RHIC						ICHEP			
RHIC projection pp→AuAu→pp		pp, 7 weeks								AuAu, 5.5 weeks (timing tbd)											
Latest scenario			Preparation					pp, 7 weeks									AuAu, 5.5 weeks (timing tbd)				
BNL	Rachid																				
BNL	Raul																				
Purdue	Wei																				
Purdue	Milan																				
Purdue	Joseph																				
RIKEN	Yasuyuki																				
RIKEN	Itaru																				
RIKEN	Genki																				
RIKEN	Akitomo																				
NWU	Takashi																				
NWU	Maya																				
NWU	Yuka																				
NWU	Misaki																				
NWU	Mai Watanabe																				
NWU	Manami																				
NWU	Mai Kano																				
NWU	Hinako																				
NWU	Mahiro																				
NWU	Kan																				
NWU	Nao																				
NWU	Yuri																				
Rikkyo	Ryota																				
Rikkyo	Tomoya																				
Rikkyo	Kazuma																				
Rikkyo	Takahiro																				
JAEA	Shoichi																				
NCU	Chia-Ming																				
NCU	Kai-Yu																				
NCU	Cheng-Wei																				
NCU	Wei-Che																				
NTU	Rong-Shyang																				
NTU	Lian-Sheng																				
NTU	Yu-Chen																				
NTU	Tzu-Chuan																				
Korea Univ	Byungsik																				
Korea Univ	Jaein																				

- Rachid (all time)
- Raul (all time)
- Genki (All time)
- Wei-Che (Apr/14 — May/8)
- Takashi (Apr/16 — July/4?)
- Hinako (Apr/16 — July/4)
- Jaein (Apr/22 — June/21)
- Akitomo (Apr/23 — May/22)
- Mahiro (May/13? — July/4)
- Tomoya (May/13? — July?)
- \* Itaru (Apr/15 — June/21): mainly work for ZDC/SMD
- \* Cheng-Wei (June/2 — Aug/16): mainly work for ZDC/SMD

onsite before beam

# Things to be done with beam

- Time-in (all)
- Coarse clock alignment investigation (Raul, Rachid, Genki)
- Fine delay scan (Raul, Rachid, Genki)
- Beam position determination (Takashi, Hinako, Mahiro)
- Event-mixing study (Raul, Mai)
- Parameter scans
  - DAC
  - DAC scan
  - L1Delay, Modebits, (open\_time; no need?)
- Ch0 mask tests (Jaein)
- Background study (large cluster in z-direction) (Tomoya)
- Streaming readout (Raul, Genki)
-

# Beam: week 1

- According to Jamie's plan, we are required to be timed in.

## What we are going to do

1. Apply the same configuration as last year:

FPHX parameter: see right

- n\_collisions: 128
- open\_time: 35
- modebits: see right
- L1Delay: 21


In my opinion, a large n\_collision is good since we can see the peak without scanning the parameter.

2. aaa

- 

```
phnxrc@intt0 18:54:47 operations $ cat intt.scheduler
# modegrp repeat jump target modebitfile
# modebit default value is 0:0x36;95:0x35; (9 August 2023)
0      0      0      0
1      0      0      0      0:0x36;95:0x35;
2      0      1      2
```

Week 1



- Goals
  - Establish collisions at low luminosity to measure backgrounds and radiation dose
  - Set up minimum bias trigger
  - Time in detectors to trigger
  - First look at MVTX background ???
  - Test ramp of magnet
    - Put HV on TPC at the end of magnet test?
- Beam conditions
  - Low luminosity (ZDC rate ~1 kHz)
    - 1 or 2 fills with 6 or 28 bunches just to look at losses
  - "Easy" beam conditions (smaller crossing angle? larger  $\beta^*$ ?) to minimize losses
  - Magnet off but doors closed (except for test)
  - Polarization not the highest priority (i.e., long stable stores when possible)
- Stretch goal
  - Take first data with all working detectors in Big Partition

2024-03-26

PHIC Coordination Meeting

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higher may be better →

Parameter	Value	Parameter	Value
Vref	1	N1sel	6
DAC0	15	N2sel	4
DAC1	30	FB1sel	4
DAC2	60	Leaksel	0
DAC3	90	P3sel	0
DAC4	120	P2sel	4
DAC5	150	Gsel	2
DAC6	180	BWsel	8
DAC7	210	P1sel	5
		Injsel	0
		LVDS	63