

# sPHENIX Run25 status

Akitomo Enokizono

# Co-spokespersons election

Thank you for voting in the first round of the sPHENIX spokesperson election. We had nearly 85% participation and the results were very close among the three pairs of candidates, with none receiving more than 50% of the votes in this round. The top two vote getters are:

- Dennis Perepelitsa & Anne Sickles
- Megan Connors & Jin Huang

The SP election nominating committee warmly thanks Stefan Bathe and Hugo Pereira Da Silva for standing in the election.

We will initiate a second round of the election which will be open from today, January 7, 2025, until January 16, 2025. **Instructions on how to vote are provided below.**

Email from the SP nominating committee (Maria Chamizo-LLatas, Rosi Reed, Yuko Sekiguchi, Tanner Mengel)



# Quark Matter 2025

Deadlines

sPHENIX:

1 plenary + 4 talks + 10 posters now

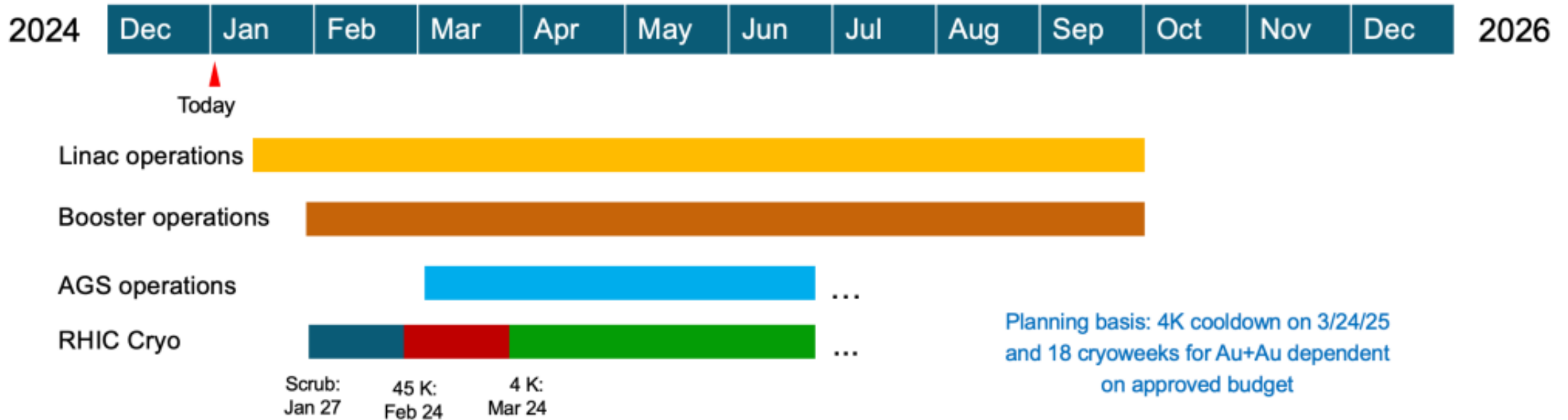
1. dET/deta, dN/deta in p+p and AA (rejected)
2. Collectivity in high-multiplicity p+p & in Au+Au (talk accepted)
3. pi0/eta AN (merged into 15 and poster)
4. pi0/eta spectra to high-pT in p+p (merged into 15 and poster)
5. Calorimeter jet spectra in p+p (poster accepted)
6. Dijet correlations in p+p (talk accepted)
7. UE & in p+p jet events and fluctuations in Au+Au events (poster accepted)
8. [ML abstract] event generation and jet subtraction (poster accepted)
9. Isolated photons in p+p (merged into 15 and poster)
10. D production & ratios in p+p (poster accepted)
11. Lambda/D0 in p+p (talk accepted)
12. [ML abstract] real-time HF event selection (poster accepted)
13. Streaming readout (poster accepted)
14. sPHENIX commissioning (poster accepted)
15. sPHENIX measurements of high-pT neutral mesons and isolated photons in p+p collisions (merged talk)

- Registration opening: September 1, 2024
- Abstract submission opening: September 1, 2024
- Abstract submission deadline: November 15, 2024
- Abstract acceptance notification: December 15, 2024 (delayed to December 23, 2024)
- Early-bird registration deadline: January 31, 2025
- Application for early-career researcher support: September 1, 2024 - January 22, 2025
- Registration deadline: February 7, 2025
- Early-career researcher day: April 6, 2025
- Conference dates: April 7 - 12, 2025

# RHIC operation for FY25

## RHIC Operations FY25

Revised: 01/02/2025



[https://www.c-ad.bnl.gov/esfd/operatingschedules/CAD\\_operation\\_current\\_FY25.pdf](https://www.c-ad.bnl.gov/esfd/operatingschedules/CAD_operation_current_FY25.pdf)

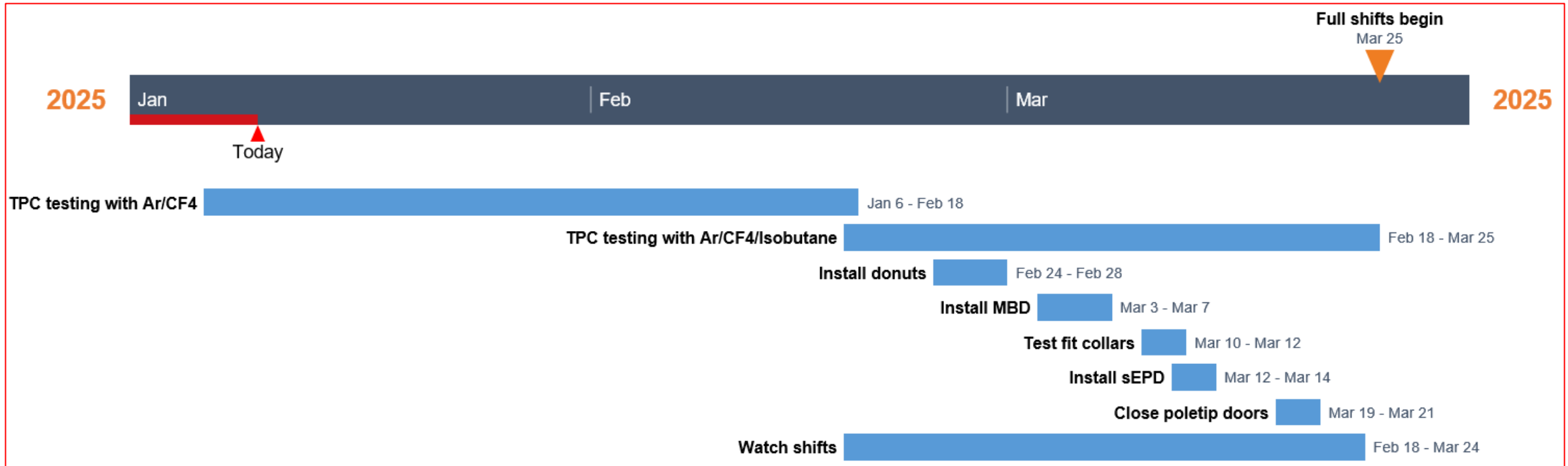
# Communication between co-SP and ALD

Dave and Gunter, General Mtg, Jan. 10

- Run 25 expected to start March 24
- Default is (22-2) wk Au+Au run
- More likely than not, there will be addtl. 12 weeks of running in FY26
- Possibility of summer break (while keeping RHIC cold) - total would be equivalent of 30 cryo-weeks
- co-SP pointed out:
  - need to clarify on Run25 schedule for shift arrangements
  - 20wks is insufficient for reaching 7/nb goal
  - sPHENIX will almost certainly argue for using most of FY26 running for further Au+Au data
  - strong arguments from sPHENIX, STAR and machine for further running beyond current plan
- ALD expects that short-term extension of ASE to allow some running in CY26 is feasible if necessary (e.g., in case of unforeseen incidents/difficulties)
- Further extension will require significant changes in circumstances

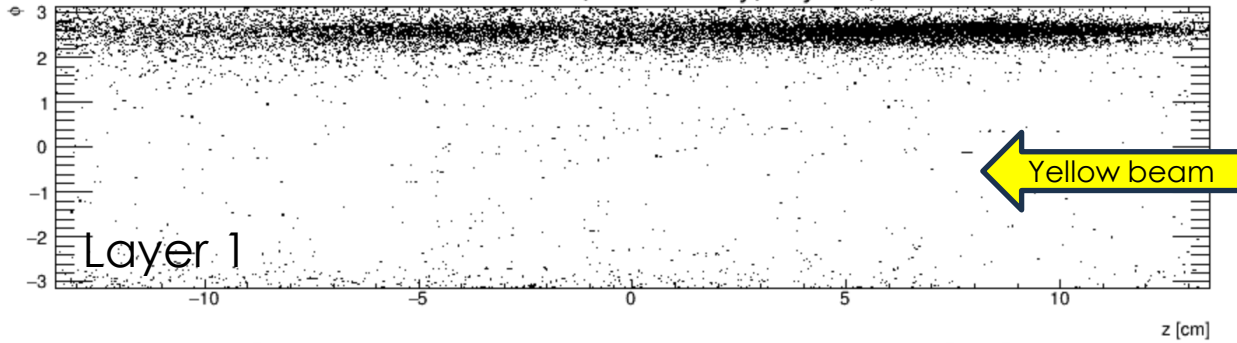
# sPHENIX preparation for Run25

From John's slides for planning meeting



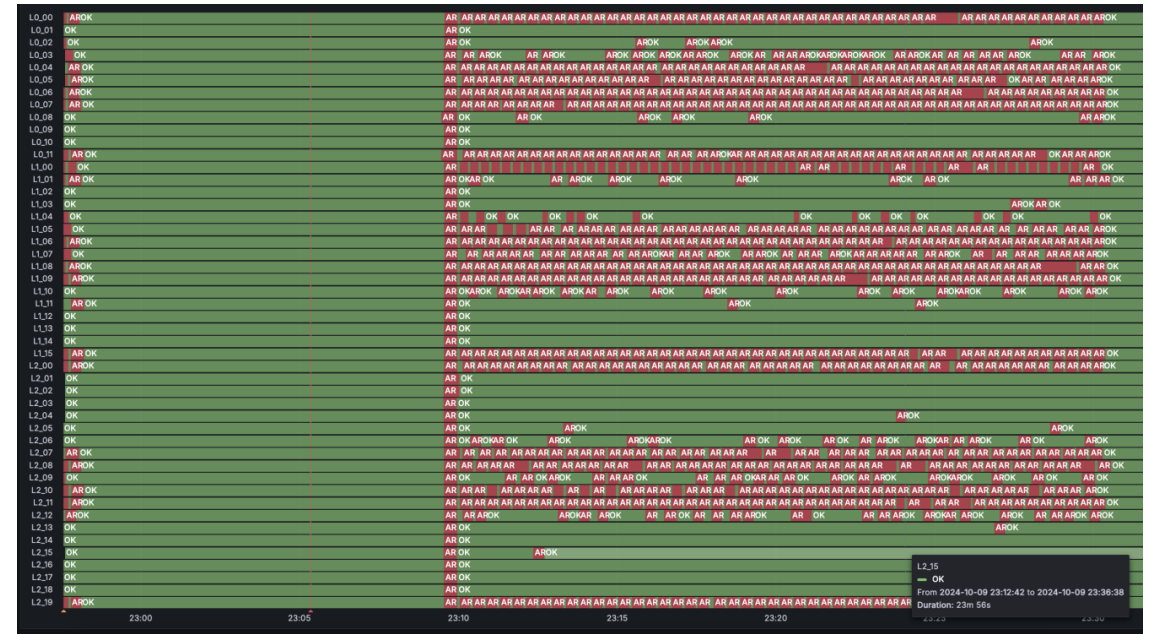
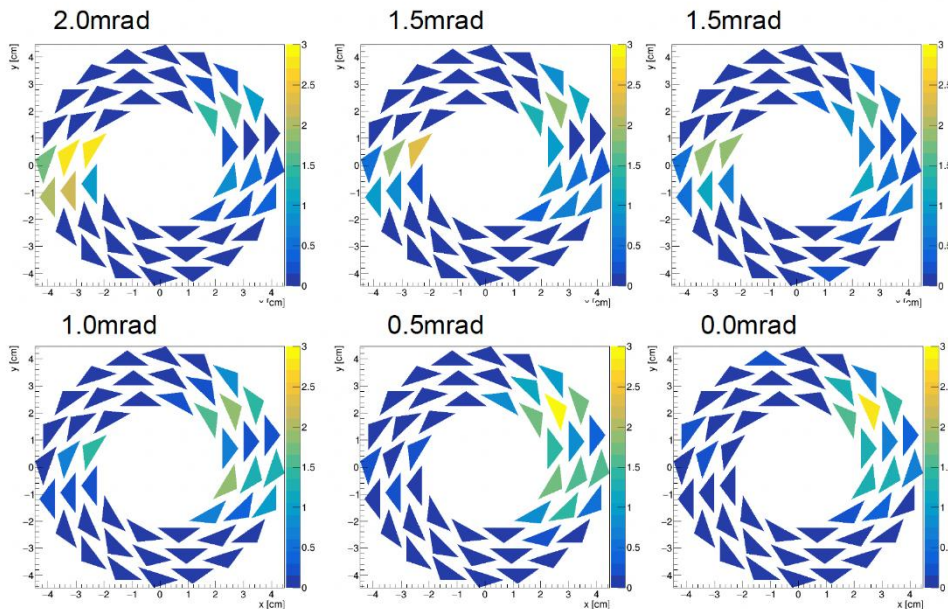
# MVTX background issue for Au+Au

*s*PHENIX Internal, Yellow Only, Layer 1, t = 64.90 ms



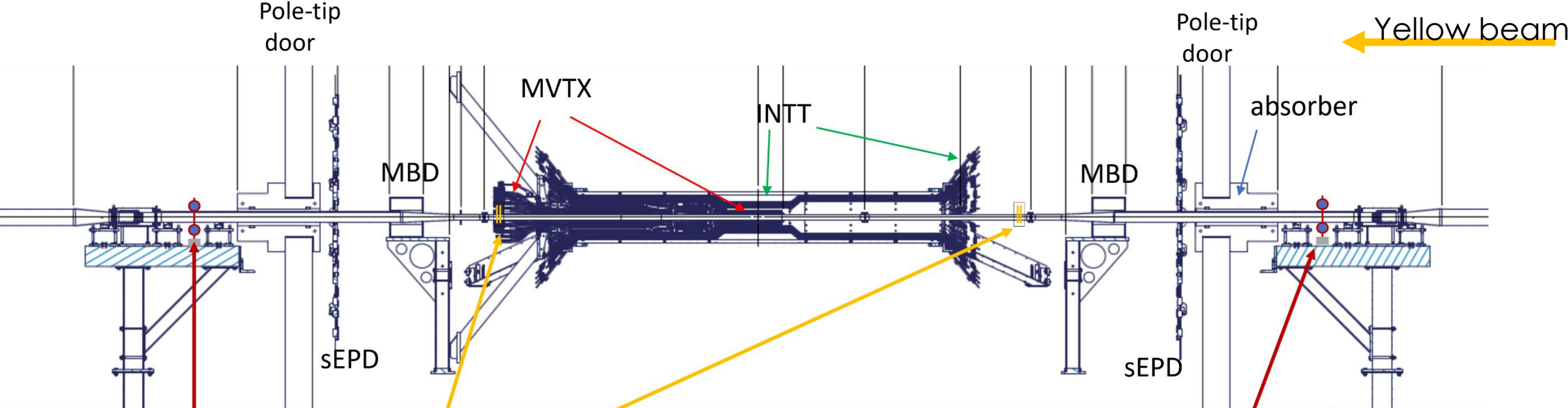
- No problem in p+p but lots of beam background splash even with one bunch single beam...
- Ends up with persistent auto-recovery mode.
  - Auto-recovery takes 10 sec.

## X-ing angle summary, 1x1 bunches



On-site work by Cameron and remote analysis by Hao-Ren

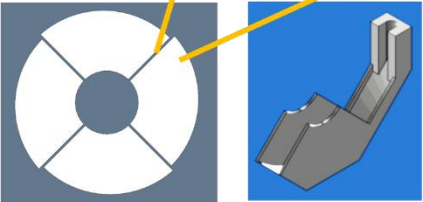
# Inner and Outer "Donut" Counters



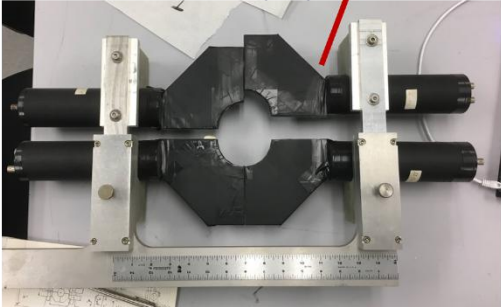
South

North

"Outer Donut" (south)



"Inner Donut" : each is 2 - 5" OD x 1.75" ID  
0.7mm thick scintillator



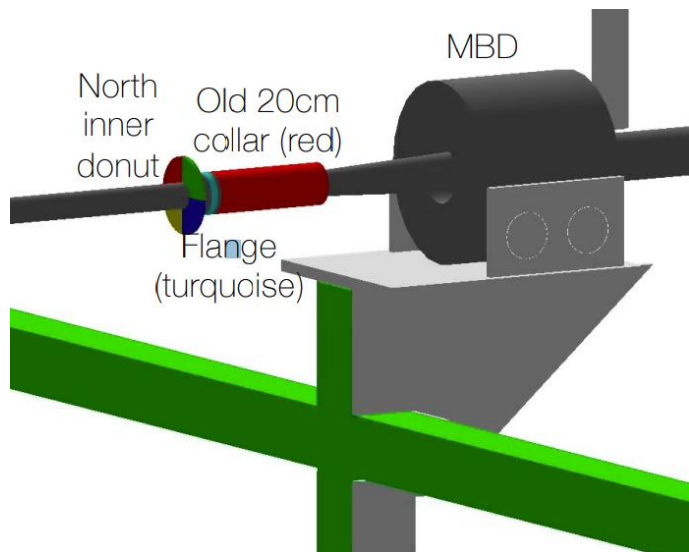
"Outer Donut" : re-purposed pp2pp detector modules : pmts and scintillator



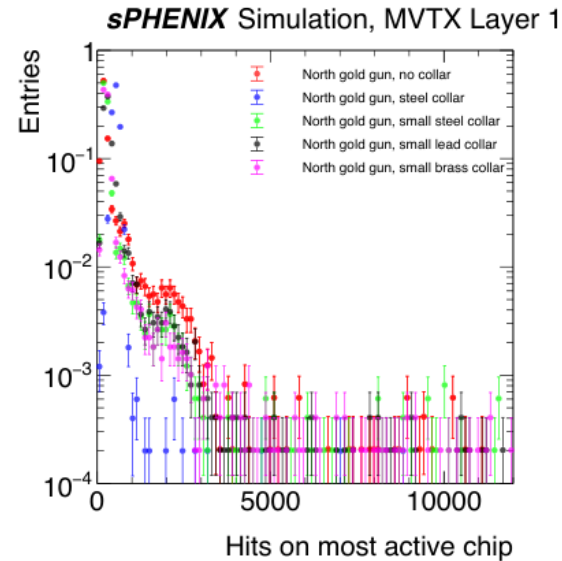
# Steel collars, polyethylene absorber

## John's plan

- We are considering collars around the beam pipe between the inner taper and the flange in the beampipe
- This would be a 5" or 6" diameter split pipe that could clamshell around the beam pipe
- Studies of material selection and length under way by Cameron, Mickey, Genki and others
- Whether we do it or not, the plan would be to start the run without it, so we will design something that can be installed and removed in ~1 maintenance day

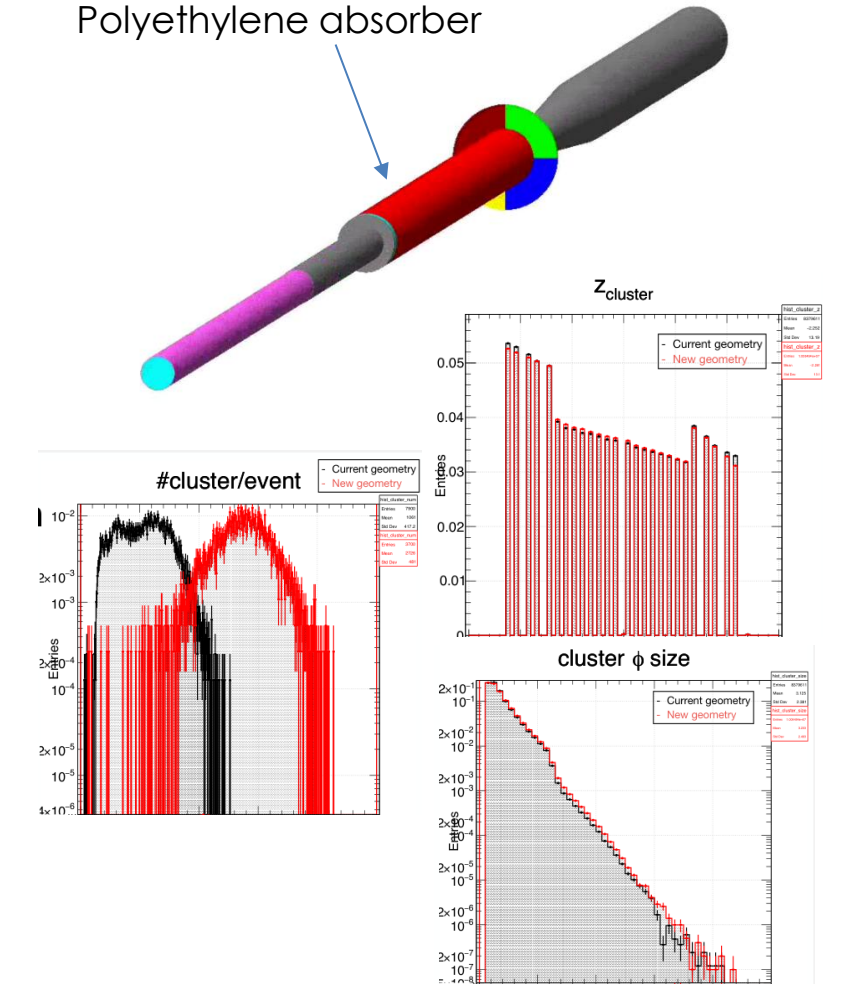


## Cameron's simulation work



## Genki's simulation work

Polyethylene absorber



# TPC FEE repair work on going...

**Takao Sakaguchi** 3 日前

@all This is maximum I can do in terms of replacing FEEs/transceivers for the south side. If we want to do more, we need some of the INTT ROCs and/or laser heads coming off.



4 返信

**Rosi Reed** 3 日前

What percentage is left that you could fix in either case? (Removing INTT ROCs or laser heads.)

**Takao Sakaguchi** 3 日前

10 out of 312 fees still have issue in the south. If the lower half of the INTT came out, we could fix another 7, and we could also investigate the big noise issue at 6 o'clock (need to take the laser head off there, too). The rest 3 are under the laser heads at 12 and 3 o'clock, and the corresponding heads need to come off to fix them.

**Ross Corliss** 一昨日

though still hypothetical, we'd be talking about removing three of the four laser benches on the south side?

**Takao Sakaguchi** 一昨日

Well, if we really want to solve the noise issue in the south side, we have to at least remove INTT ROCs around there and likely the laser heads also, in order to reach the FEEs under them. It's a judgement call by collaboration.

# sPHENIX shift sign-up

- sPHENIX shift sign-up opened at noon on Jan. 6 (EST)
  - At this moment, the sign-up form is prepared for Feb.18 – Oct.14
  - Still many shift opens before QM and after September.
- ~~2.7~~ 2.9 shifts per person for Run25
- Different from Run24, you can release the reserved shift slot by 4 weeks before the date
  - (Rosi) **Jan 20th** → Lock so that people can't un-sign-up if their shift is scheduled to start within 4 weeks

Week	Period Coord.	Shift	Shift Leader	Detector Opr.	DAQ Opr.	Data Monitor Opr.
Mar 18th - Mar 25th	Martin Purschke Brookhaven National Laboratory	0:00-8:00	Silas Grossberndt Baruch College, CUNY			
		8:00-16:00	Anthony Hodges University of Illinois, Urbana-Champaign	Walt Sondheim Los Alamos National Laboratory		
		16:00-00:00		Xin Dong Lawrence Berkeley National Laboratory		
Week	Period Coord.	Shift	Shift Leader	Detector Opr.	DAQ Opr.	Data Monitor Opr.
Mar 25th - Apr 1st	Eric Mannel Brookhaven National Laboratory	0:00-8:00	Silas Grossberndt Baruch College, CUNY	Jennifer James Vanderbilt University	Laurynette Griffin Vanderbilt University	Chris Platte Vanderbilt University
		8:00-16:00	Caroline Riedl University of Illinois, Urbana-Champaign	Anthony Hodges University of Illinois, Urbana-Champaign	Yasser Corrales Morales Massachusetts Institute of Technology	Walt Sondheim Los Alamos National Laboratory
		16:00-00:00			Jo Schambach Oak Ridge National Laboratory	Adeeb Saed Lehigh University
Week	Period Coord.	Shift	Shift Leader	Detector Opr.	DAQ Opr.	Data Monitor Opr.
Apr 1st - Apr 8th	Eric Mannel Brookhaven National Laboratory	0:00-8:00	Sean Stoll Brookhaven National Laboratory			
		8:00-16:00	Jakub Kvačil Los Alamos National Laboratory	Caroline Riedl University of Illinois, Urbana-Champaign	Xudong Yu Peking University	Yasser Corrales Morales Massachusetts Institute of Technology
		16:00-00:00	Tristan Protzman Lehigh University		Takao Sakaguchi Brookhaven National Laboratory	
Week	Period Coord.	Shift	Shift Leader	Detector Opr.	DAQ Opr.	Data Monitor Opr.
Apr 8th - Apr 15th	Itaru Nakagawa RIKEN	0:00-8:00		Ralf Seidl RIKEN		Lameck Mxibanda Florida A&M University
		8:00-16:00	Audrey Francisco CEA Saclay	Maxence Vandembroucke CEA Saclay	Jakub Kvačil Los Alamos National Laboratory	Nicole D'Hose CEA Saclay
		16:00-00:00	David Stewart Wayne State University	Yuji Goto RIKEN		
Week	Period Coord.	Shift	Shift Leader	Detector Opr.	DAQ Opr.	Data Monitor Opr.
Apr 15th - Apr 22nd	Itaru Nakagawa RIKEN	0:00-8:00	Yasuyuki Akiba RIKEN	Jaemin Hwang Korea University	Devon Loomis University of Michigan	Takahiro Kikuchi Rikkyo University
		8:00-16:00	Audrey Francisco CEA Saclay	Hanou Jiang Columbia University	Shuhang Li Columbia University	Emma McLoughlin Columbia University
		16:00-00:00	Tristan Protzman Lehigh University	Charles Hughes Lehigh University	Yeonju Go Brookhaven National Laboratory	<b>SHIFT OVERLAPS</b> Lameck Mxibanda Florida A&M University

Institution Name	# People	Current # of active Authors	Effective # of Authors	# total shift obligation	# Shifts Taken	Status	Member Names
RIKEN	10	6	6	16	23	+44% (OK)	Akitomo Enokizono, Yasuyuki Akiba, Hideto Enyo, Yuji Goto, Itaru Nakagawa, Ralf Seidl, Minh Kim, Yuko Shoji Sekiguchi, Yasushi Watanabe, Satoshi Yokkaichi
RIKEN BNL Research Center	1	1	1	3	3	Exact coverage (OK)	Genki Nukazuka
Rikkyo University	6	1	1	3	5	+67% (OK)	Takahiro Kikuchi, Tomoya Kato, Ryota Shishikura, Kazuma Fujiki, Kazuyoshi Kurita, Jiro Murata

# BNL travel (updated version)

	Month	Jan			Feb			Mar			Apr			May			Jun			Jul			Aug			Sep			Oct			Nov			Dec																		
		12/31	1/7	1/14	1/21	1/28	2/4	2/11	2/18	2/25	3/4	3/11	3/18	3/25	4/1	4/8	4/15	4/22	4/29	5/6	5/13	5/20	5/27	6/3	6/10	6/17	6/24	7/1	7/8	7/15	7/22	7/29	8/5	8/12	8/19	8/26	9/2	9/9	9/16	9/23	9/30	10/7	10/14	10/21	10/28	11/4	11/11	11/18	11/25	12/2	12/9	12/16	12/23
	Period	1/6	1/13	1/20	1/27	2/3	2/10	2/17	2/24	3/3	3/10	3/17	3/24	3/31	4/7	4/14	4/21	4/28	5/5	5/12	5/19	5/26	6/2	6/9	6/16	6/23	6/30	7/7	7/14	7/21	7/28	8/4	8/11	8/18	8/25	9/1	9/8	9/15	9/22	9/29	10/6	10/13	10/20	10/27	11/3	11/10	11/17	11/24	12/1	12/8	12/15	12/22	12/29
	Cryo Week										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													
	Events	ATHC ePIC TPS								JPS			QM			HQ						IS			JPS SPIN																												
	Beam					Pink				Beam?									Summer Break?			Beam(?)			Beam??																												
BNL	Rachid									QM																																											
BNL	Raul					3/17																																															
Purdue	Wei																																																				
Purdue	Joseph																																																				
RIKEN	Yasuyuki																																																				
RIKEN	Itaru					3/1?				JPS																		IS			JPS																						
RIKEN	Genki												4/2																																								
RIKEN	Akitomo					~2/18				3/30			QM																		Cover JPS period																						
RIKEN	Yuko	TPS 1/13 - 2/1				2/10				when?			3/30			QM															IS			JPS																			
RIKEN/NCU	Cheng-Wei	TPS 1/13 - 2/1				2/10				3/30			QM																																								
NWU	Takashi									QM																																											
NWU	Maya															Mostly not available																																					
NWU	Manami																																																				
NWU	Mai Kano																																																				
NWU	Hinako																																																				
NWU	Nao																																																				
NWU	Yui																																																				
NWU	Mahiro																																																				
NWU	Itsuki																																																				
Rikkyo	Ryota									JPS			not available																																								
Rikkyo	Tomoya									JPS			not available																																								
Rikkyo	Takahiro									JPS			4/2																																								
Rikkyo	Hayato																																																				
Rikkyo	Tomoki																																																				
Rikkyo	Yusuke																																																				
JAEA	Shoichi																																																				
NCU	Chia-Ming																																																				
NCU	Kai-Yu																																																				
NCU	Wei-Che																																																				
NTU	Rong-Shyang																																																				
NTU	Lian-Sheng																																																				
NTU	Yu-Chen																																																				
NTU	Tzu-Chuan																																																				
Korea Univ	Byungsik																																																				
Korea Univ	Jaemin												QM																					7/31 ~ Army																			

<https://docs.google.com/spreadsheets/d/19mHncED6ORXqv2N4TVZ12kvGjgqf92Ysrr8i0v4nPBM/edit?gid=177969834#gid=177969834>



# INTT apartments

- BNL housing office finally approved the following reservations
  - One-bedroom Apt for staff / Feb 17 – Oct 31
  - One-bedroom Apt for staff / Feb 24 – Oct 31
  - One-bedroom Apt for staff / Jun 1 – Aug 31
  - Two-bedroom Apt for staff / Aug 1 – Sep 31
  - Team Apt (4 bedroom) / March 3 – Oct 31
  - Team Apt (3 bedroom) / May 5 – Oct 31
- Staff apartments will be used by any RIKEN or INTT staff members

for staff

for students