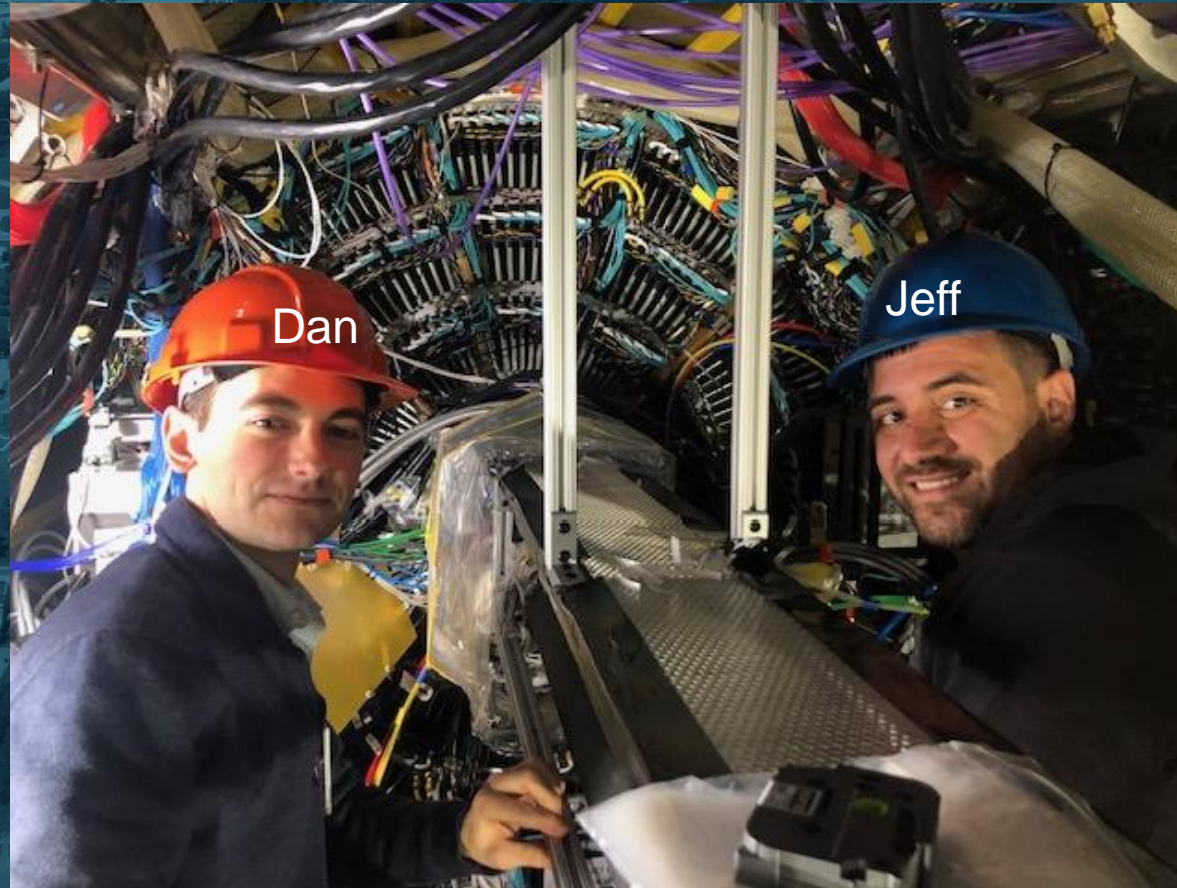


# INTT ROCs Removal For the TPC repairs

Rachid Nouicer, BNL

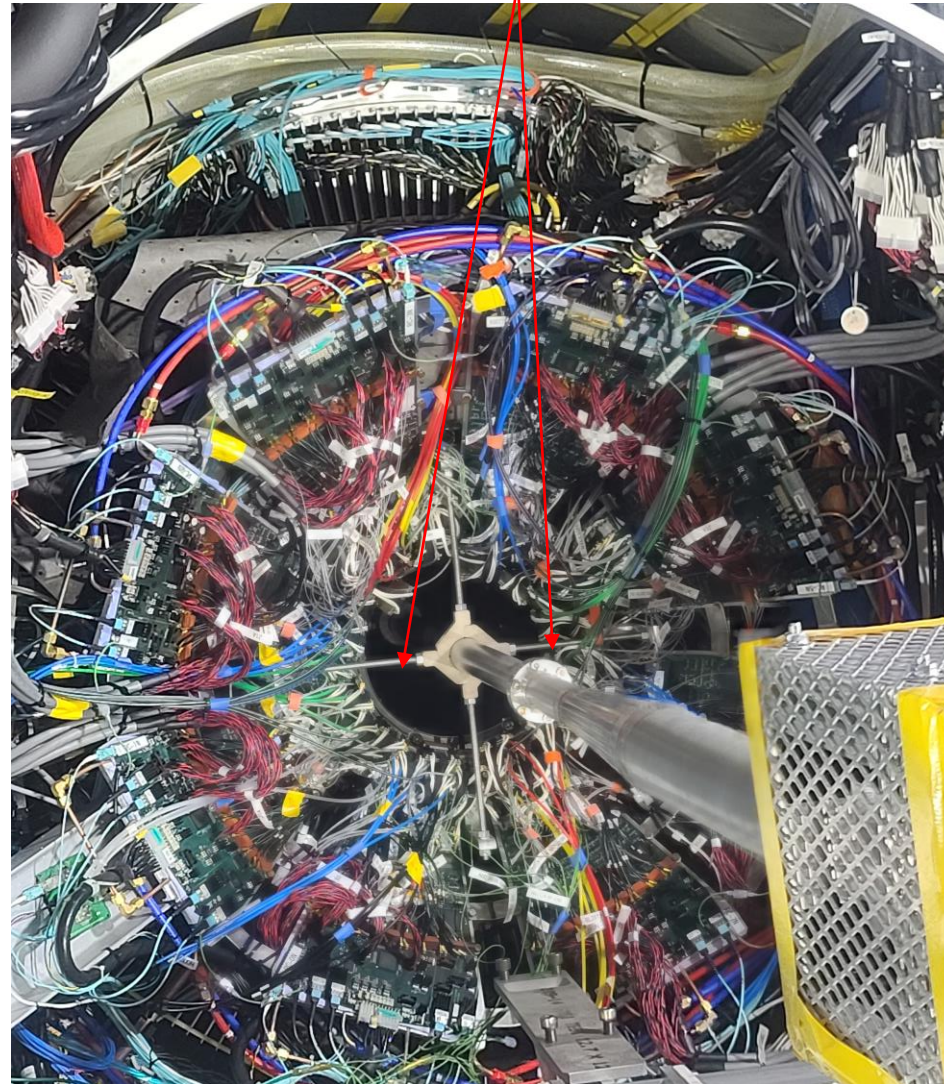
December 13<sup>th</sup>, 2023



Jeff and Dan are very familiar with sPHENIX subsystems in the bore-end → they did excellent/careful job in removing INTT ROCs in the north and south sides, and securing the INTT cables



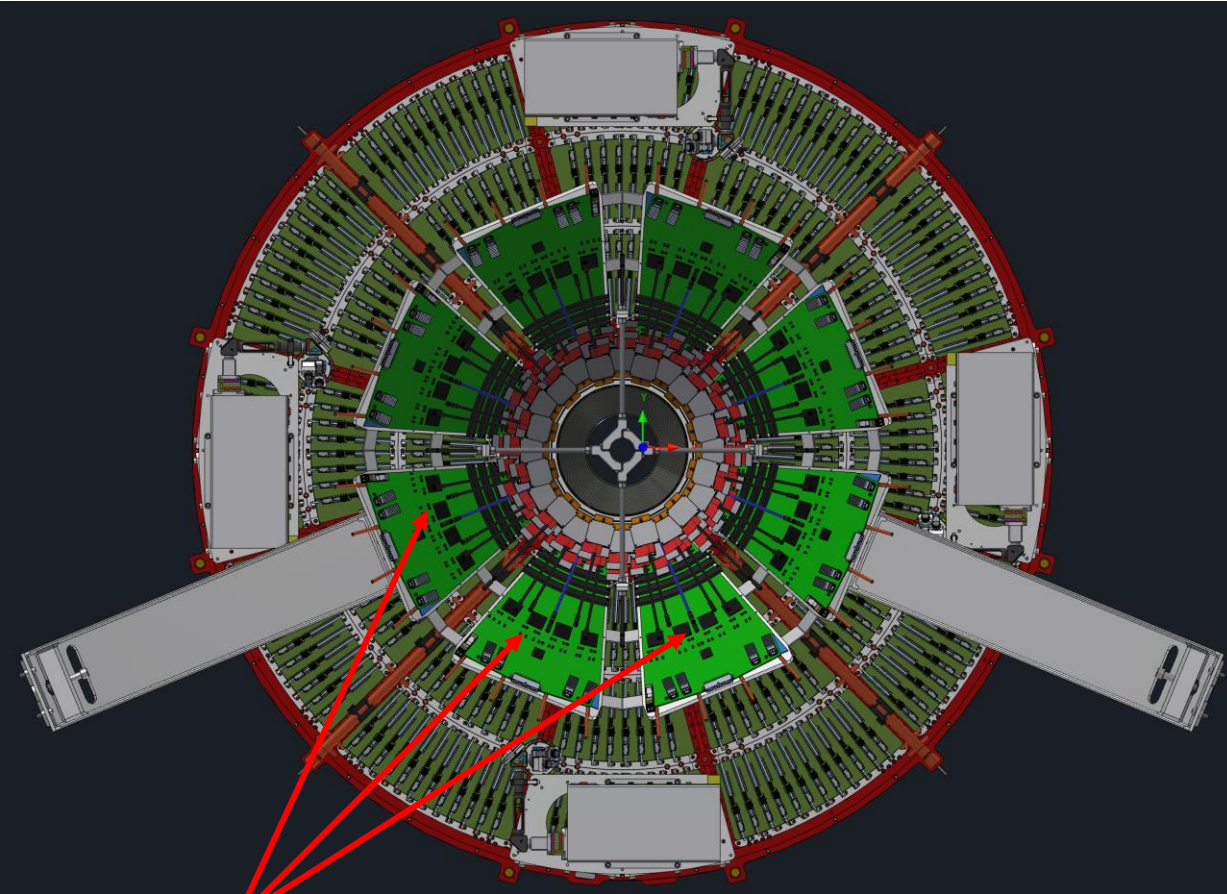
Not possible to hinge the ROCs because the  
Beam Support





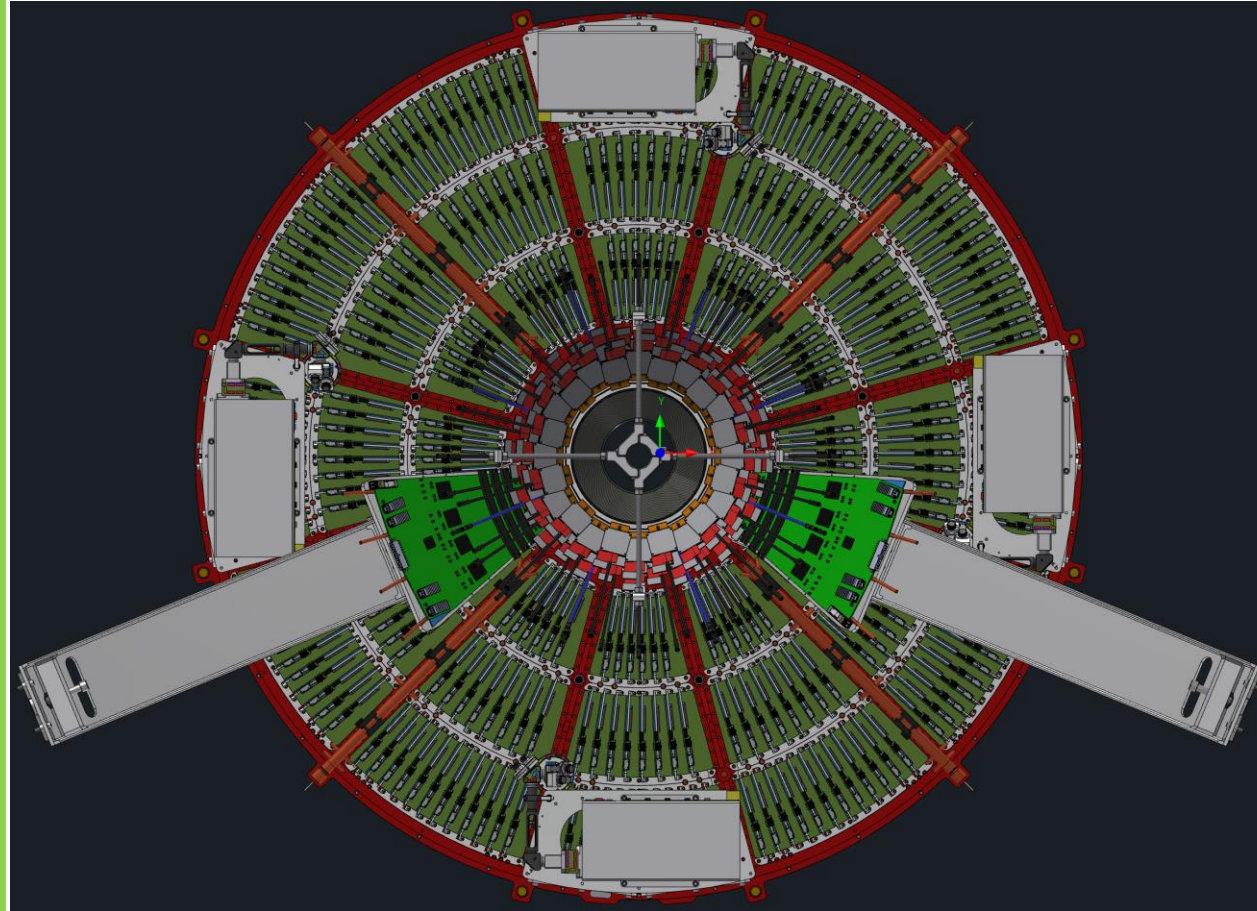
# Removing INTT ROCs Allowing TPC Repairs

ROCs configuration in Run-23



ROCs (8 ROCs in each side)

ROCs configuration for TPC work

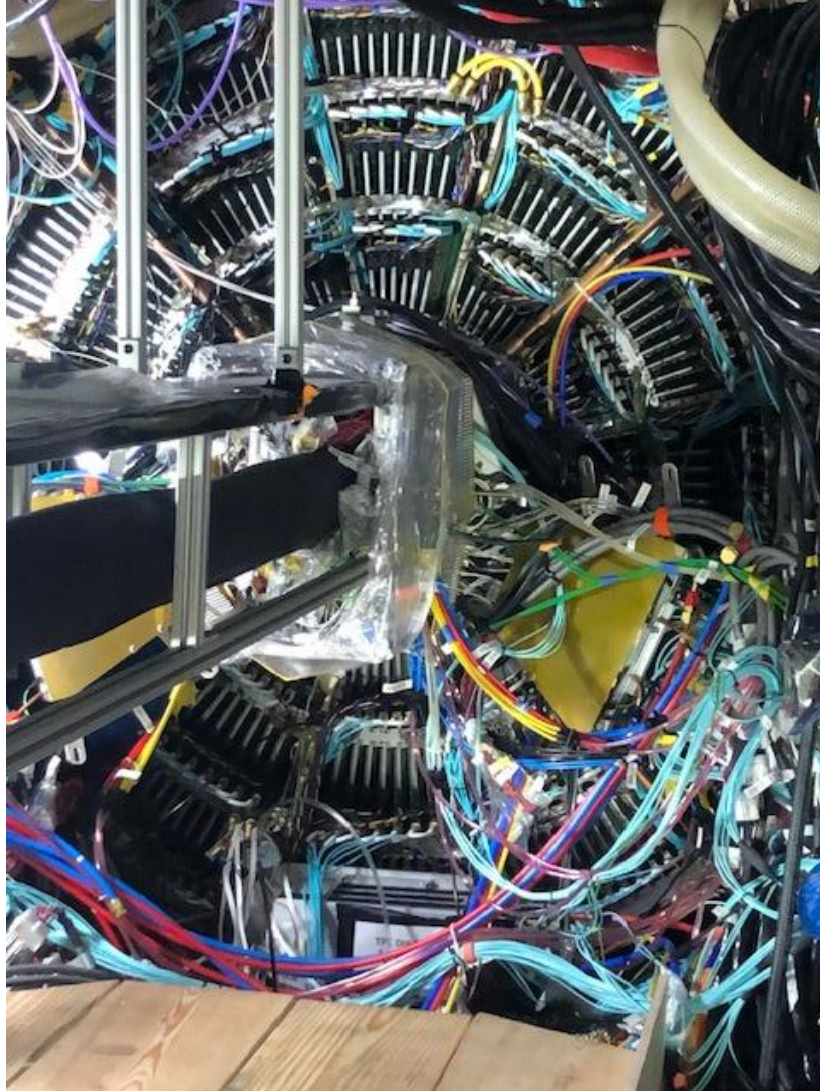


6/8 ROCs were removed in each side

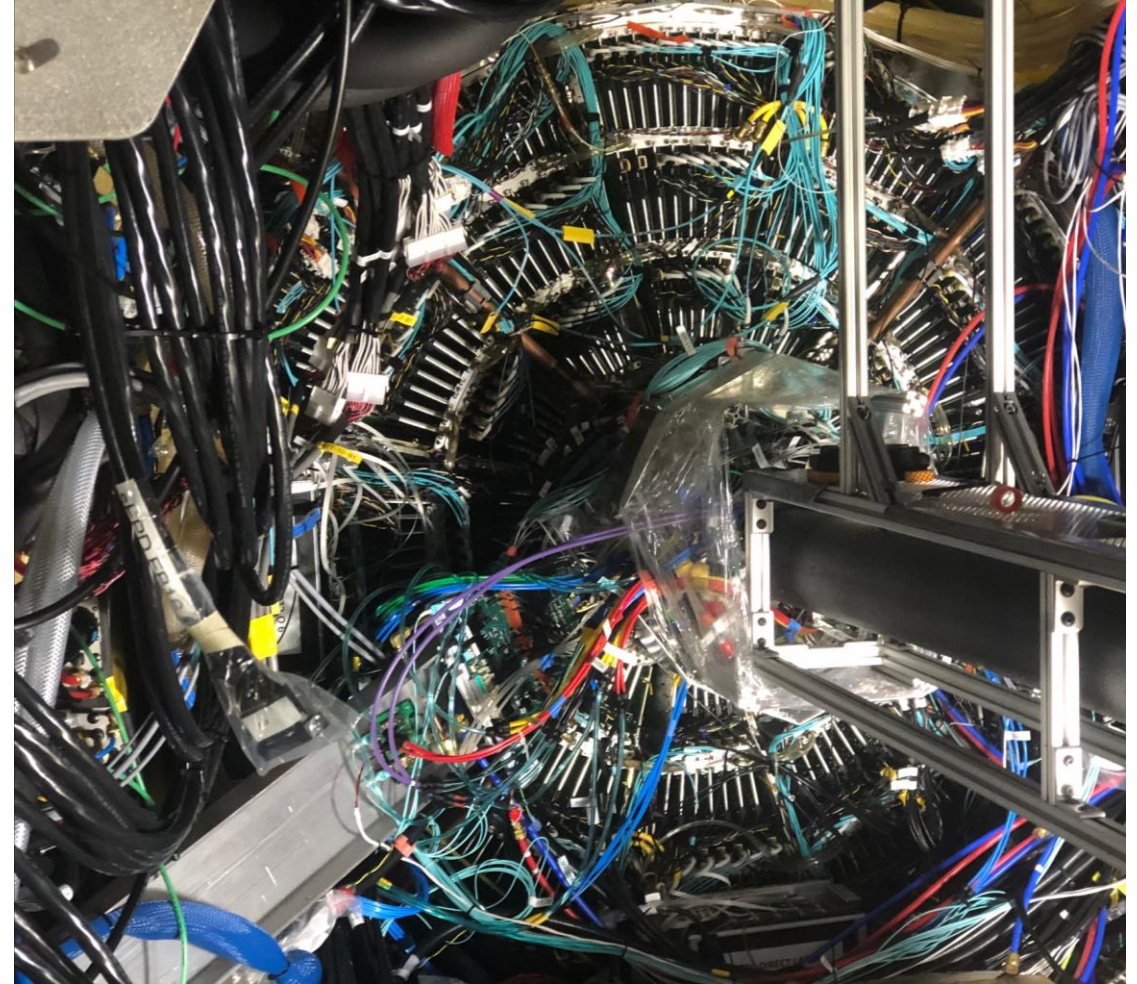


## Removing INTT ROCs allowing TPC repairs

South Side



North Side



6/8 ROCs were removed in each side



# Improving INTT live channels

Akiba's question in last meeting,  
"are we going to test the ROCs?"

ROCs are in the Room 2-93

- My answer: I think we should test the ROCs;  
this is excellent opportunity to improve the live channels  
by identifying the instable ports on the ROCs

- We know there is unstable ROC ports →
- ROC-06 (RC-0S) will be replaced by it's original ROC-18 that is more stable and it's regulator was fixed by Tim.
- Akitomo is at BNL, this is a good for him to learn the INTT readout.
- The bench with full system test is also available in the silicon lab at BNL.
- Note: Akitomo need to be added to the silicon lab ESR (Rachid).

Collaboration meeting  
Takashi's slide

- Hot/Dead/Cold channels defined by Nhits/events
  - Tight cut will be applied
    - Hot: mean + 3 sigma
    - Cold: mean - 3 sigma
    - Dead : No hit
  - Some problematic ladders
- Current status for INTT - 56 ladders
  - Good : 93.5%
  - Hot/Cold/Dead : 2.9%
  - Problematic : 3.6%



From John Haggerty: reinstallation of the ROCs could be end of January/February 2024; depends of TPC repairs, components delivery, and tests results.

Only one issue appeared during Run-23, solved but keep an eye on it essentially in hot summer

- INTT Cooling Circulator unit trips due to the high temperature/humidity at the assembly hall, during hot summer
- Issue was solved by:
  1. Purchased (\$14k)/installed a new cooling circulator unit in September 2023 (no trips since then)  
*note:* the old cooling unit moved to the lab and it has been working for months and no trips (humidity/temperature related).
  2. injected compressed air into the unit
  3. In Run-24 will hookup new standalone AC unit to the rack (purchasing of the standalone AC unit in progress).

