

# FST Fall setup

May 25, 2020

# Assumptions

- A prototype wedge will have been assembled , shipped to UIC, tested, shipped to BNL so it is available after the Run-20
- As we plan to assembled up to 3 wedges detailed tests can proceed at UIC
- The idea from the March draft document was to two separate tests
  - Integration of one wedge with proper cables to DAQ system. Readout with the DAQ system, checkout of response
  - Separate test of cooling performance connected to the refurbished cooling system.

# Integration test

- Setup wedge on 3 platform
  - Space available, easy to pull cables to FST readout racks
- Needs
  - Lighttight box for wedge
    - Electrically isolated, size? Copy UIC design ?
  - Cooling
    - Not NOVEC; what is used at UIC? -> No cooling at UIC.
    - Chilled water?
    - Patch panel
  - Grey cable(s) ; purple cables with T-board
  - As some of the electronics is at UIC, and will be in use for testing, just readout one crate.
  - DAQreader, proper configuration files

# Planned tests, personnel

- Integrate with prototype slow control interface
  - Slow control people, UIC (Xu, Shenghui)
- Setup on platform
  - Produce lighttight box; simple design, construction
    - Rahul + STGC ? UIC ?
  - Pull connect cables.
    - Electronics group +BNL FST
- Integrate with DAQ
  - Tonko, Gerard, BNL (Pritwish, Hu), UIC (Xu, Shenghui)
  - Prepare JEVN plots.
  - Offline analysis macros, programs

# Time line

- Assuming October 1 end of run, tests to be done in November
- Confirm setup functional
- Confirm test results from UIC results
- Ensure slow control, alarms, monitor plots etc. works