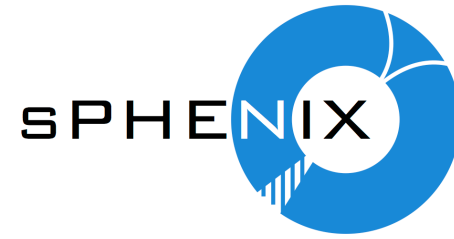


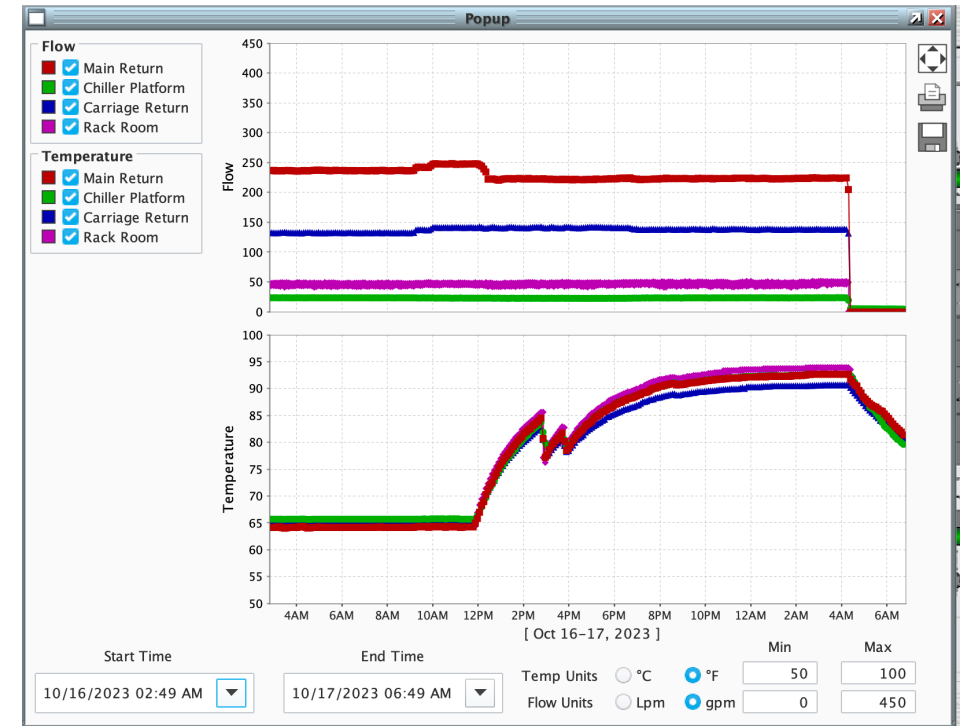
# sPHENIX

John Haggerty  
for Kin Yip

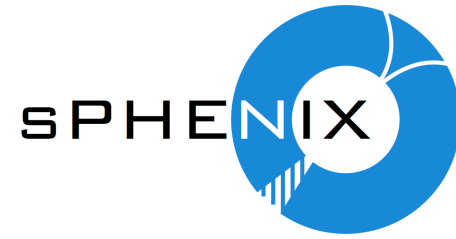
# Electronic Cooling Water (ECW) interruption



- We had some difficulties with the ECW which cools the racks, EMCAL, and INTT
- The chiller failed, we turned everything off... we continued to have a temperature excursion... then a nylon hose came loose and the pump tripped off
  - This revealed that the backup chiller was non-functional
- We have added control and monitoring protection and steps have been taken to repair the backup chiller
- We hope to resume ECW flow next Monday so we can continue electronic testing

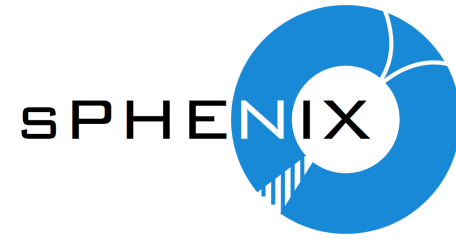


# Review of TPC GEM operation

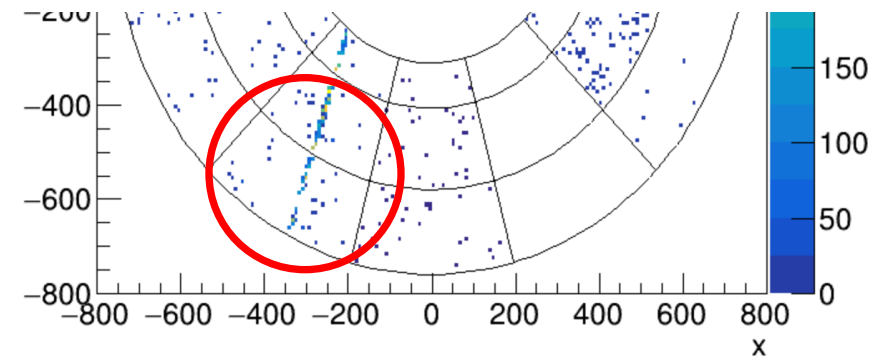
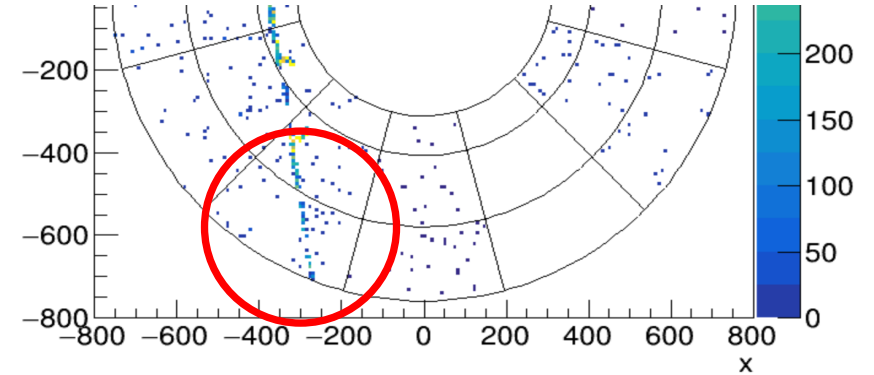


- A significant fraction of the 72 quad GEM's have exhibited problems reaching full operating voltage since we were first allowed to operate them on May 18, 2023, which they did not show when tested at Stony Brook University in December 2022.
- The problem was investigated by Tom Hemmick and the TPC team from August 1 until a review was held on Friday (October 20).
- The review had GEM experts [Klaus Dehmelt (JLab), Prakar Garg (Yale), Bill Llope (Wayne State), Craig Woody and Bob Azmoun (BNL)], sPHENIX tracking experts [Tony Frawley (FSU), Joe Osborn (BNL)], INTT experts [Rachid Nouicer (BNL)], and MVTX experts [Ming Liu and Walt Sondheim (LANL)] as well as broad collaboration participation.

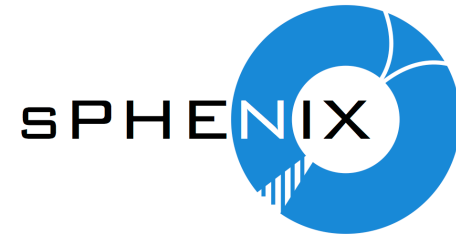
# Next steps



- Interim repairs of 3 GEM module appear to have restored them
- Review report released to the collaboration ~today
- Developing budget and schedule for repair
- Continue testing (ECW needed) with high voltage and cosmic tracks



# Absorber to address MVTX background



- We have designed an absorber that might address the MVTX background
- Getting quotes for SS and brass
- Looking at installation fixturing

