



U.S. DEPARTMENT  
*of* ENERGY

# Time Meeting 10-14-2025 SDCC/SCDF

X f i @BrookhavenLab

# Oct 1 Power Outage

- A 400KW PDU failed in the new data center @09:21 AM Oct 1
  - 16 racks of the newest compute nodes offline
    - 13 sPHENIX racks, 3 ATLAS racks
- Failure traced to loose connections in the PDU
  - Insulation on main conductors for one of two output circuits from the PDU burned
  - Transformer unaffected but output circuit breakers suspect
- Repair plan
  - Replace cable with burned insulation
  - Replace one or both circuit breakers on the output circuits
- Acquisition of parts in progress
  - One replacement circuit breaker expected to be delivered within 30 days
  - Delivery of a replacement cable expected within the week.

# Proactive PDU Inspections

- Operational problems with and non-intrusive inspection of other PDUs in the facility suggest problem is not isolated to a single PDU
- SCDF and F&O personnel are currently working to fast track intrusive inspection and remediation of all 13 PDUs in the facility
  - PDU needs to be powered down
- Two priorities, minimize disruption while addressing all PDUs as quickly as possible.
- SCDF planning document with evolving schedule available at:
  - [proposed\\_pdu\\_schedule - Google Docs](#)

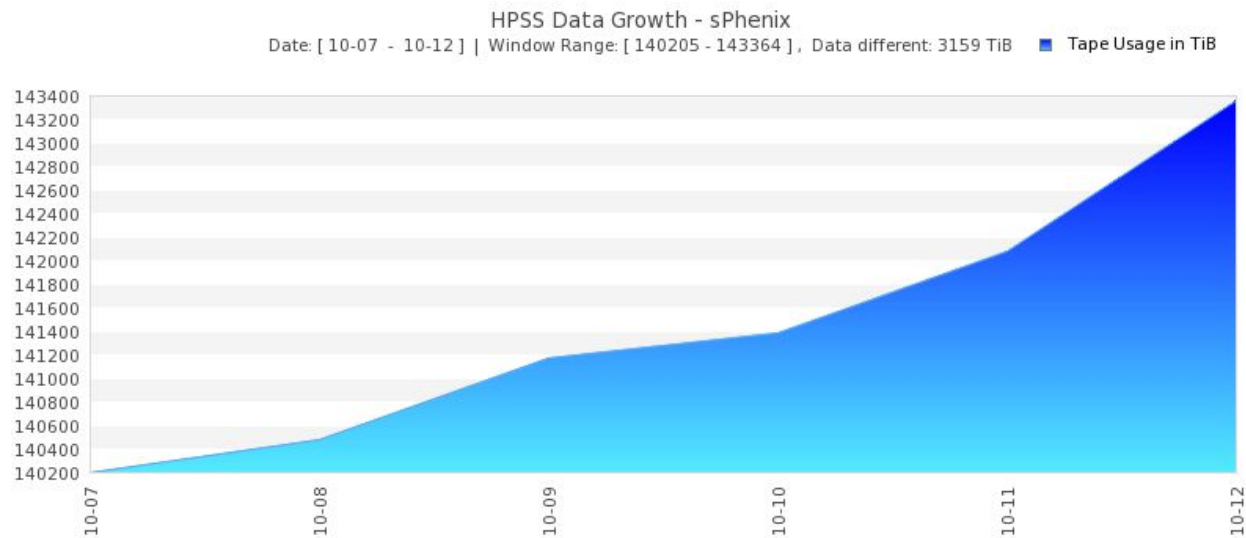
# Important Points

- Eight rows of 19" racks
  - Four compute rows (odd numbered rows)
    - Up to 20 racks per row
    - Single PDU per row
    - Compute nodes obviously off line while PDU is down
  - Four storage and infrastructure rows (even numbered)
    - Up to 20 racks per row
    - Redundantly powered equipment
    - Each rack powered by two separate PDUs
    - Equipment and services will remain operational while each PDU is addressed
- Tape room and network room
  - All equipment redundantly powered
  - Fed by two independent PDUs
  - HPSS and Network remains on line and available.

# Other Issues

- Monday - Problems with sPHENIX data transfers to HPSS
  - Symptom - "539 User limit exceeded" when connecting with pftp to hpssgw4v (one of two sPHENIX pftp gateways)
- Problem traced to monitoring script designed to test pftp server availability.
  - Monitoring script disabled.
  - Monitoring of pftp service availability will be redesigned.

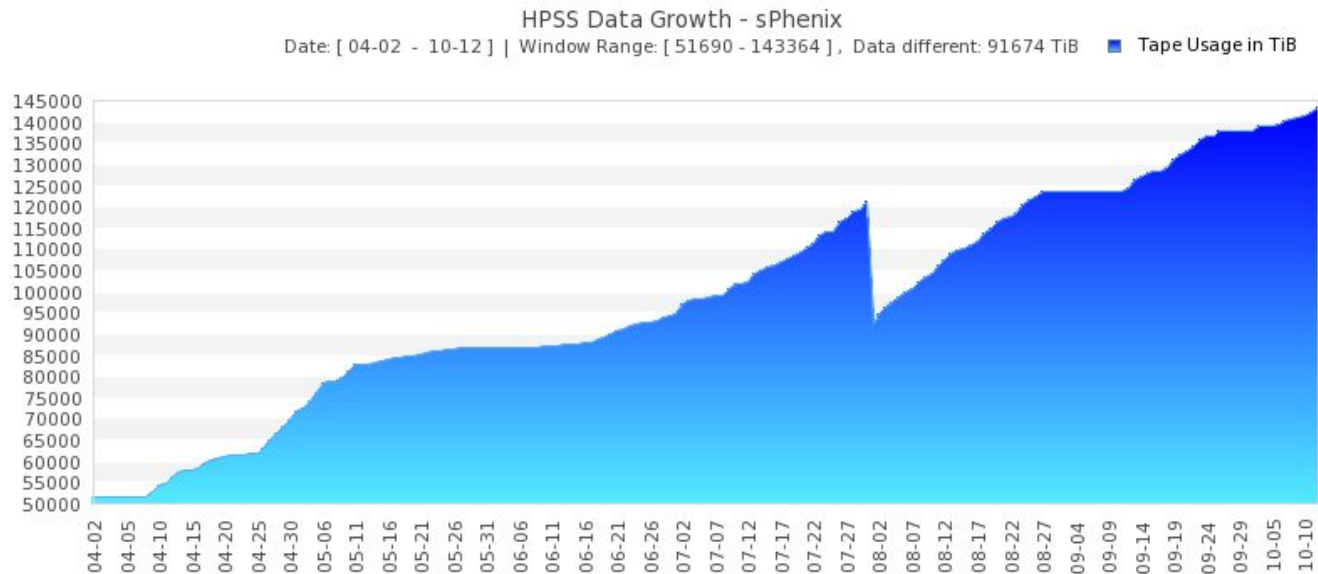
# sPHENIX Data Volume Past 7 Days



3.47 PB written to tape in the last 7 days

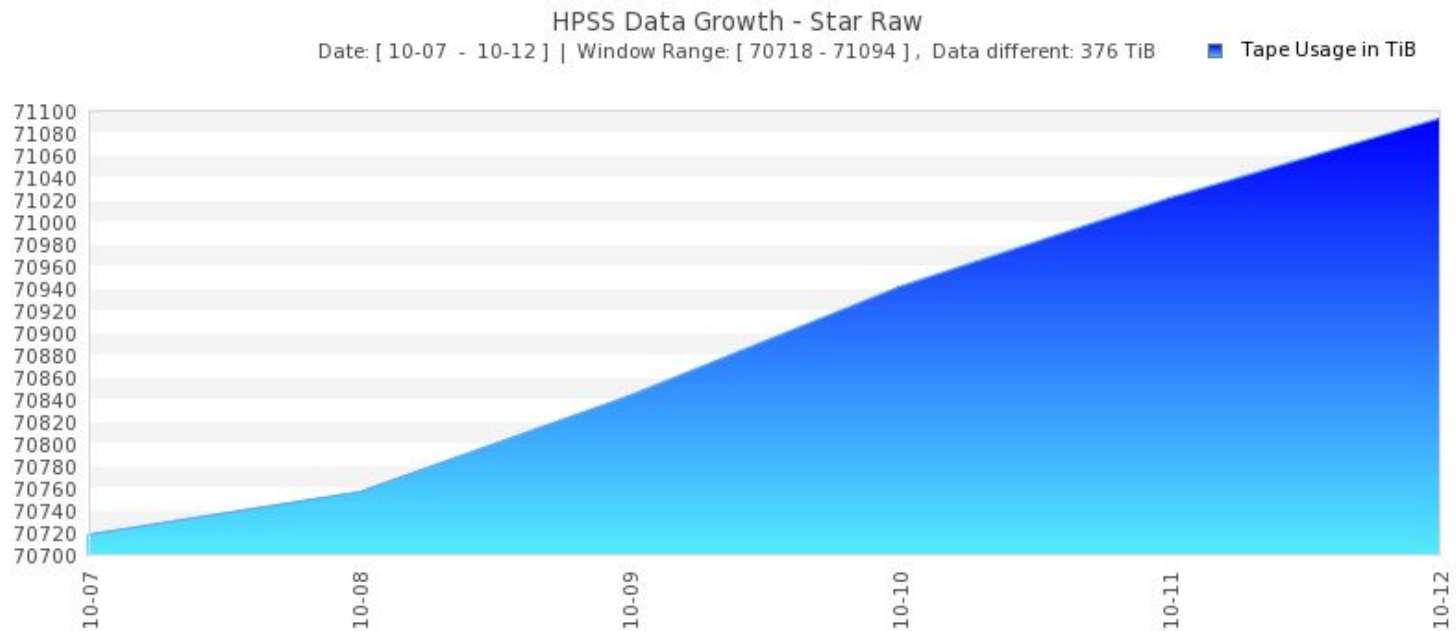


# sPHENIX Data Volume Since April 1



100.8 PB written to tape since April 1 2025

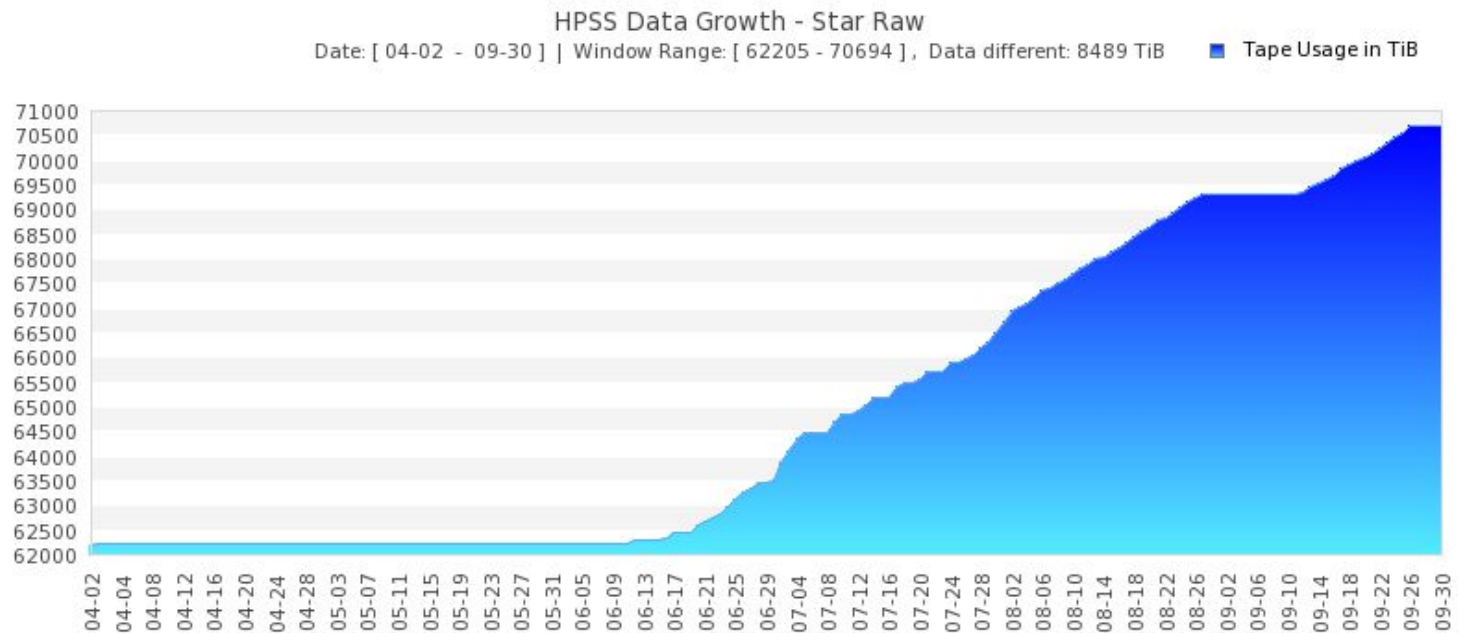
# STAR Data Volume Past 7 Days



413 TB written to tape in the last 7 days

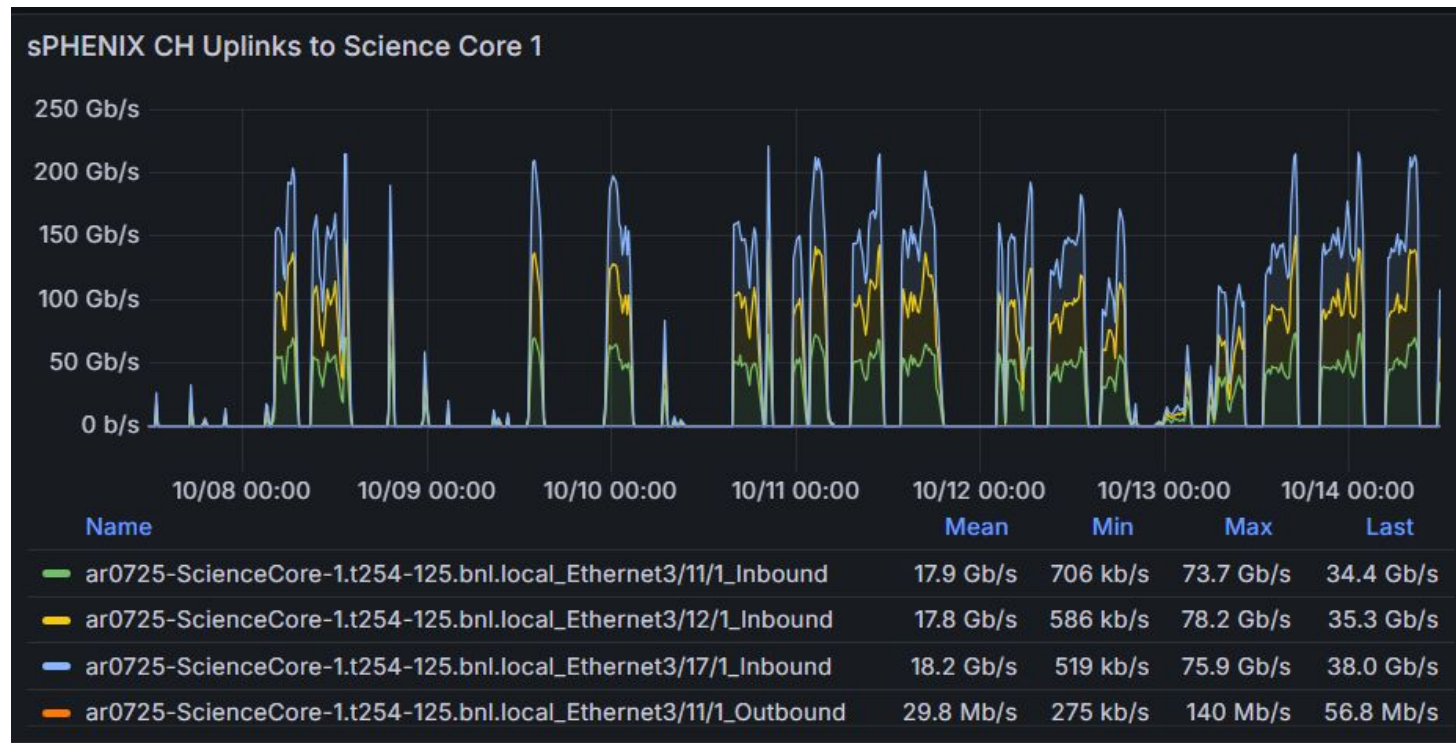


# STAR Data Volume Since April 1



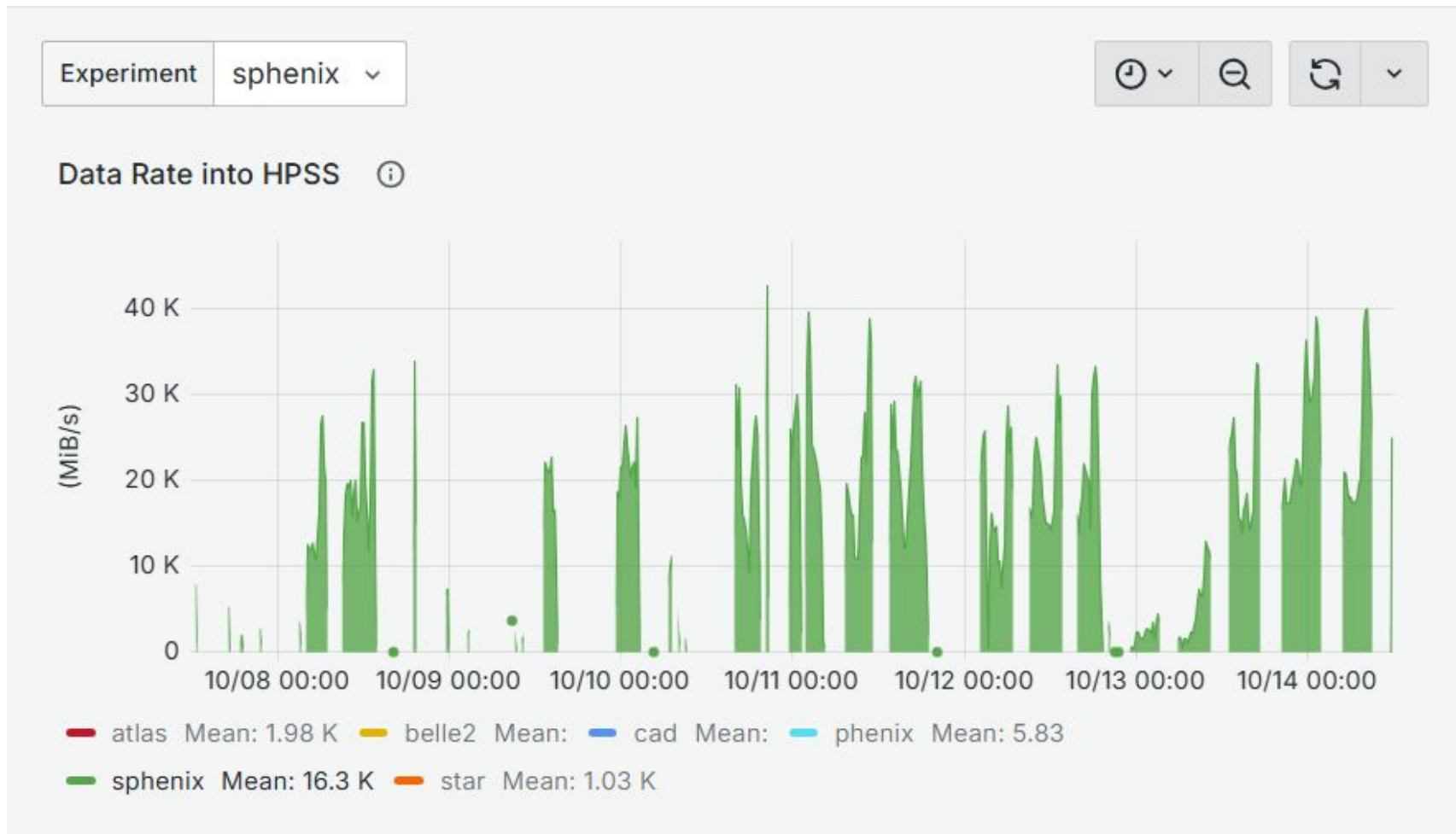
9.77 PB written to tape since April 1, 2025

# Network Traffic from sPHENIX to SCDF



Network traffic on one of two LACP links between sPHENIX and SCDF. (Transfers to HPSS and Lustre).

# sPHENIX Data to HPSS



# STAR Data to HPSS

