DSG NPS Collaborators’ Meeting Update

Aaron Brown and the Detector Support Group
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HV Supply Cable Long-term Testing

- Mindy Leffel has fabricated 24 of 40 cables
- Long-term testing of cables at 2000 V
- Readback currents higher (~8 µA) than expected (~670 µA)
  - Based on measured resistor values
- CAEN informs possible module recalibration needed
• To check if offset was on another module as well, tested using module #314

• New problem: channel #1 unable to reach set voltage
HV Supply Cable Long-term Testing

- Cables tested again using module #326
- Results for cables #7, #8, and #9 look good
- Problems due to module #314, not the cables
LabVIEW Keysight Sensor Scanning

- Keysight sensor scanning system development in progress
- Four arrays for thermocouple values to be passed to hardware interlock program being developed by Mary Ann Antonioli
Hardware Interlock System

• Majority of items needed for hardware interlock system fabrication have been procured
  – Most should be in hand by **July 2021**
• Remaining items to be ordered include humidity sensors and various cabling/cable assemblies
Conclusion

• HV supply cable testing by George Jacobs in progress (11 cables tested)
  – Testing cables fabricated by Mindy Leffel
  – Not testing SAMTEC connectors

• Determined module #314 channel #1 has problems
  – Calibration?

• Awaiting CAEN module firmware revision to enable module calibration by users

• Developing Keysight scanning system and hardware interlock program (Mary Ann Antonioli, Peter Bonneau, and Aaron Brown)
Thank You!