DSG-NPS Collaborators’ Meeting Update

Aaron Brown and the Detector Support Group
12/02/2021
Contents

• ESR Film Pre-shaping
• CSS Phoebus Screen Development
• Ansys Thermal Analysis
• Conclusion
ESR Film Pre-shaping

Ten jigs available

- Mindy Leffel and George Jacobs have completed 340 of 600 films

Finished product

pre-shaped film
• Converting EPICS CSS-BOY screens to CSS Phoebus screens
• Each block is an embedded display (copy of the same screen)
  – Easier to make changes

monitor voltage, current, power status Phoebus screen
CSS Phoebus Screen Development

NPS Overview screen

- 1080 LEDs
  - LED color indicates power supply channel status
CSS Phoebus Screen Development

- Temperature maps give an overall view of temperature sensors in the crystal array
- Enables visual detection of temperatures over threshold
- Randomly generated temperature values
• Added stand and polyethylene enclosure to model
Conclusion

• ESR film pre-shaping work in progress (~55% complete)
• EPICS screens in development
  – Converting previously made screens from CSS-BOY to CSS Phoebus
  – New screens will be made using CSS Phoebus
  – Started Phoebus-based alarm handler system
• Good progress
Thank You!
Season’s Greetings!