

# pTDR comments on Barrel HCal

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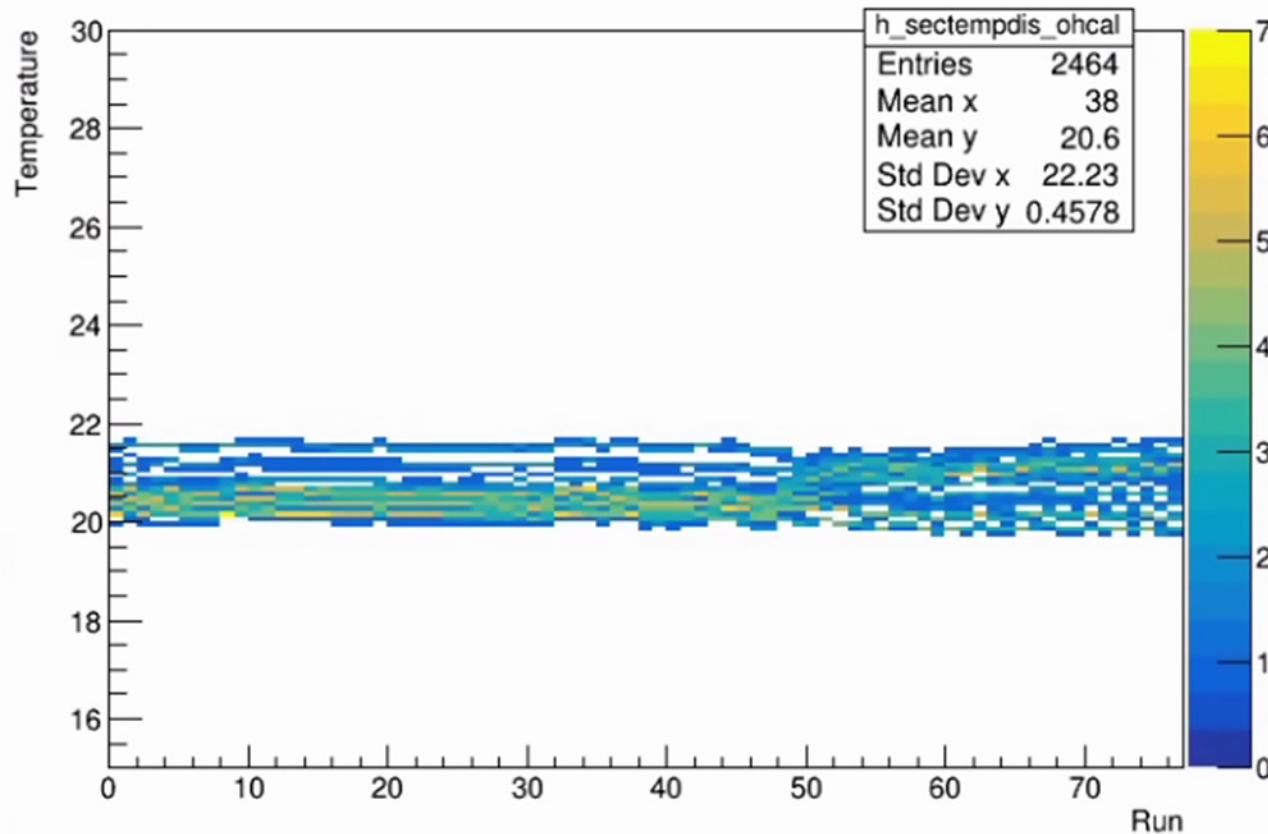
TIC Meeting

November 18, 2024

# Summary of comments

- Useful feedback from Sevil Salur and Anthony Hodges
- Have addressed comments that address text readability already
- Discussed questions raised in recent BHCAL meeting
- Beyond the comments, there is additional updates we need to make to the text and figures
- Also need to update the plot captions according to guidelines for documenting simulations

# Temperature Fluctuations

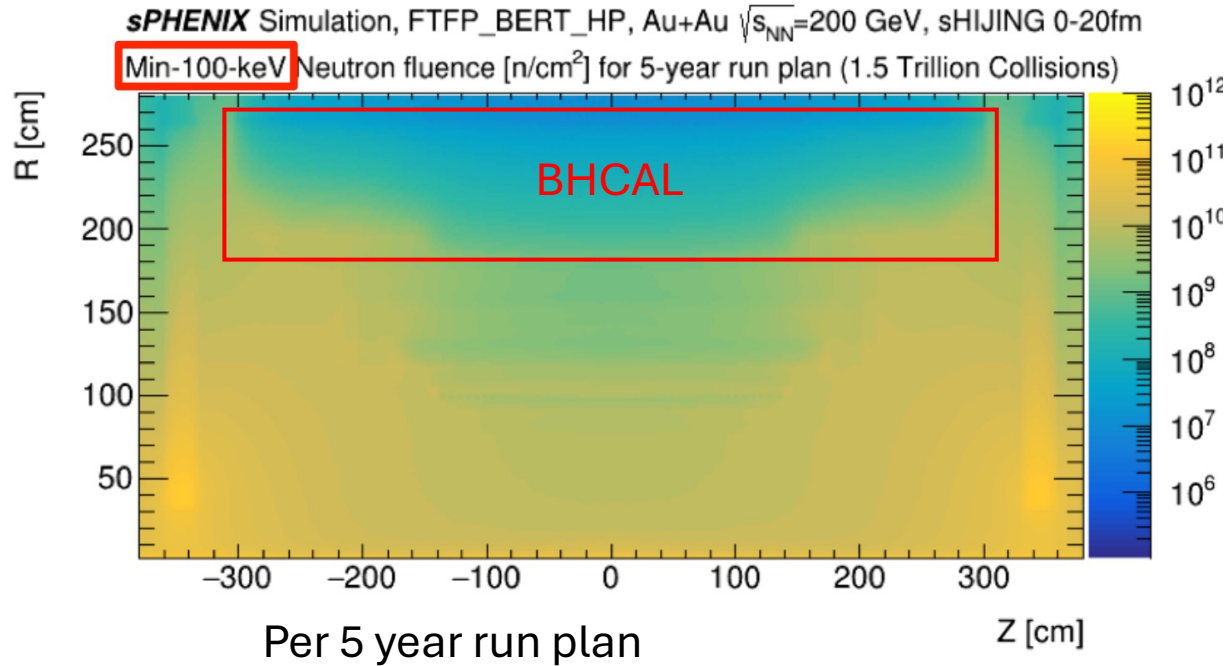


Per sector average temperatures  
of all sectors for all LED runs  
taken with sPHENIX in Run 2023

All T fall within 20.0 and 21.5 C. So the upper limit of T fluctuations is +/- 0.75 C.  
Most of that range comes from a position dependence (top sectors have higher T than bottom sectors).  
The actual per sector fluctuations are much smaller than 0.75 C.

# Neutron Flux

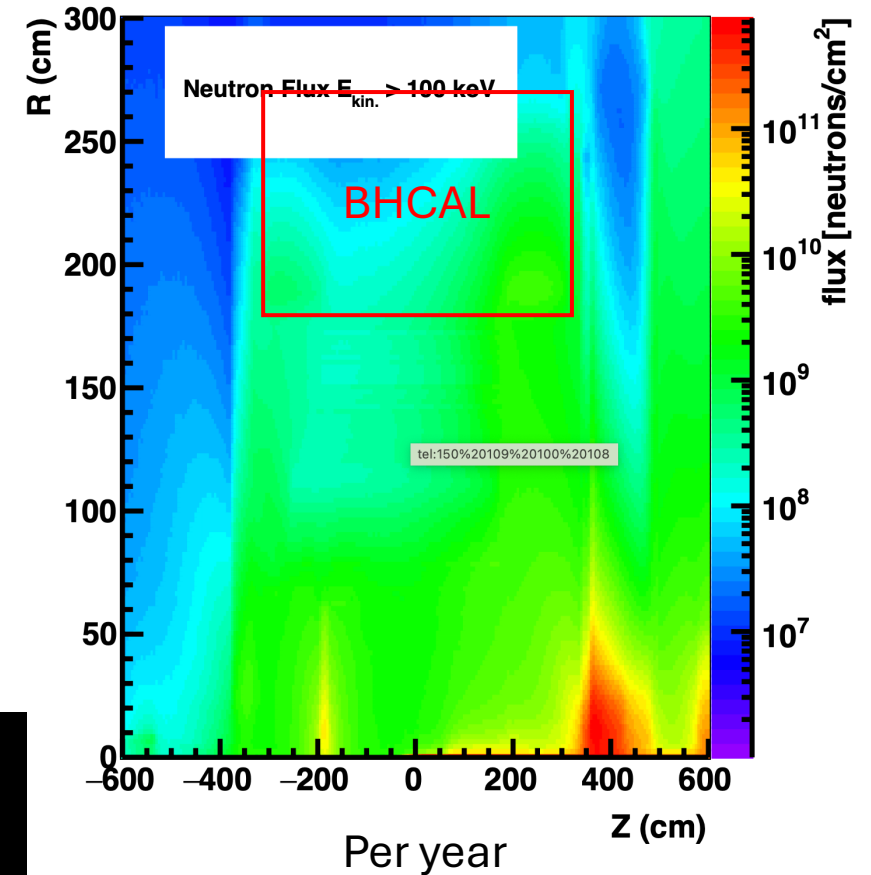
sPHENIX



Neutron fluxes are similar:

- sPHENIX:  $1e9 - 1e10 \text{ cm}^{-2}$  in 5 years
- ePIC:  $1e8 - 1e9 \text{ cm}^{-2}$  per run

ePIC



sPHENIX Director's Review

Calorimeter Electronics:

WBS 1.05.01 Silicon Photomultipliers

Christine Aidala, University of Michigan

April 9-11, 2019 BNL

[https://indico.bnl.gov/event/19524/contributions/76511/attachments/47542/80662/Jentsch\\_dosimetry\\_ePIC\\_May\\_16\\_2023.pdf](https://indico.bnl.gov/event/19524/contributions/76511/attachments/47542/80662/Jentsch_dosimetry_ePIC_May_16_2023.pdf)