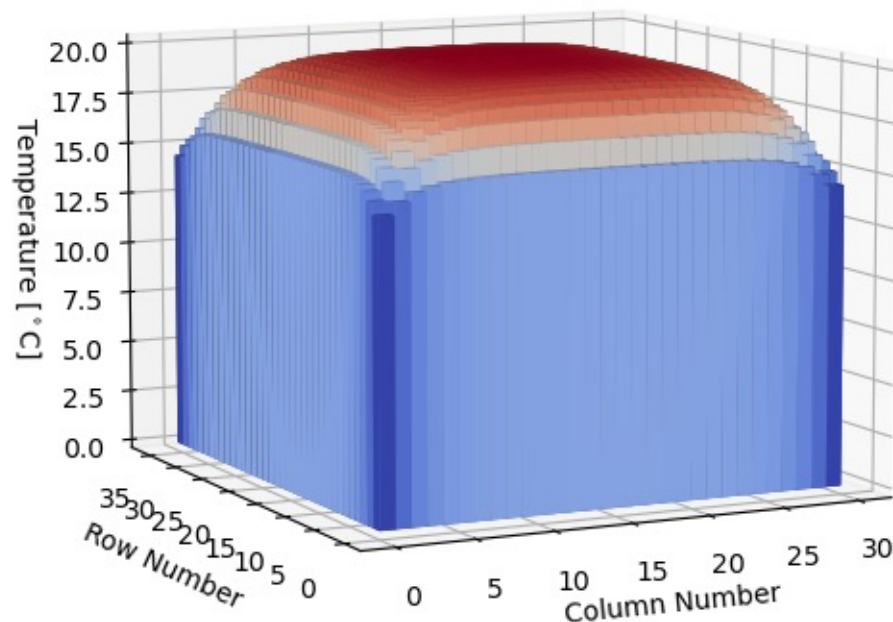
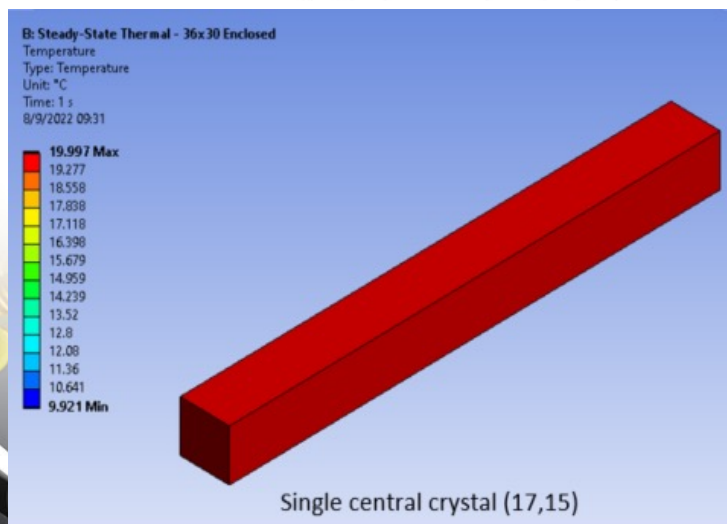
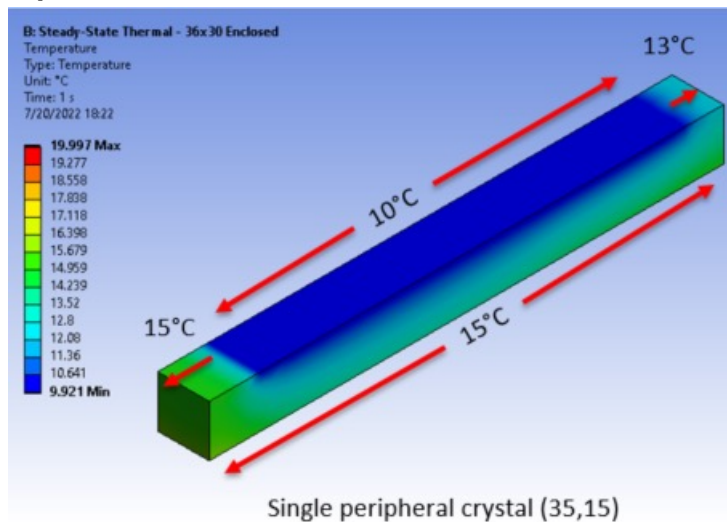


# The Issue with Heat Near the PbWO<sub>4</sub> Calorimeter

In this ANSYS/FLUENT calculation the ambient room temperature is 20° C and we apply a temperature of 10°C on the outside periphery. Recall that the PbWO<sub>4</sub> light yield has a temperature sensitivity of 2-2.5% per °C. The precision relies on a stable temperature. This is for the NPS in Hall C, that has 30 x 36 PbWO<sub>4</sub> crystals.



## Requirements:

- 1) a stable ambient room temperature
- 2) no heat at the front of the crystals where the shower starts.

Slides courtesy Aaron Brown (JLab)  
based on work for the NPS.