

DSG-Ansys R&D Meeting Minutes

Date: February 17, 2022

Time: 14:00 to 15:00

Attendees: Aaron Brown, Pablo Campero, Brian Eng, and Tyler Lemon

1. NPS Thermal Analysis

Aaron Brown

1. Discussed model modifications
 - May not be necessary to add heat exchanger to the model
 - Brian Eng suggested adding more details to the model such as material properties
2. Thermal properties of carbon in the model will be checked

2. EIC beryllium section

Pablo Campero and Brian Eng

1. Discussed Insertable B-layer (IBL) Thermal Mockup Bake-Out Tests (part of ATLAS experiment) document
 - Model shows aerogel and a carbon fiber tube between the beam pipe and first layer of silicon
 - Will run steady-state thermal simulation for the EIC beryllium section using aerogel material instead of air in the annulus space
2. Discussed available materials in Ansys Fluid Flow CFX and Ansys Fluid Flow Fluent
 - Material selection is limited; since beryllium (solid) is not available, will use aluminum