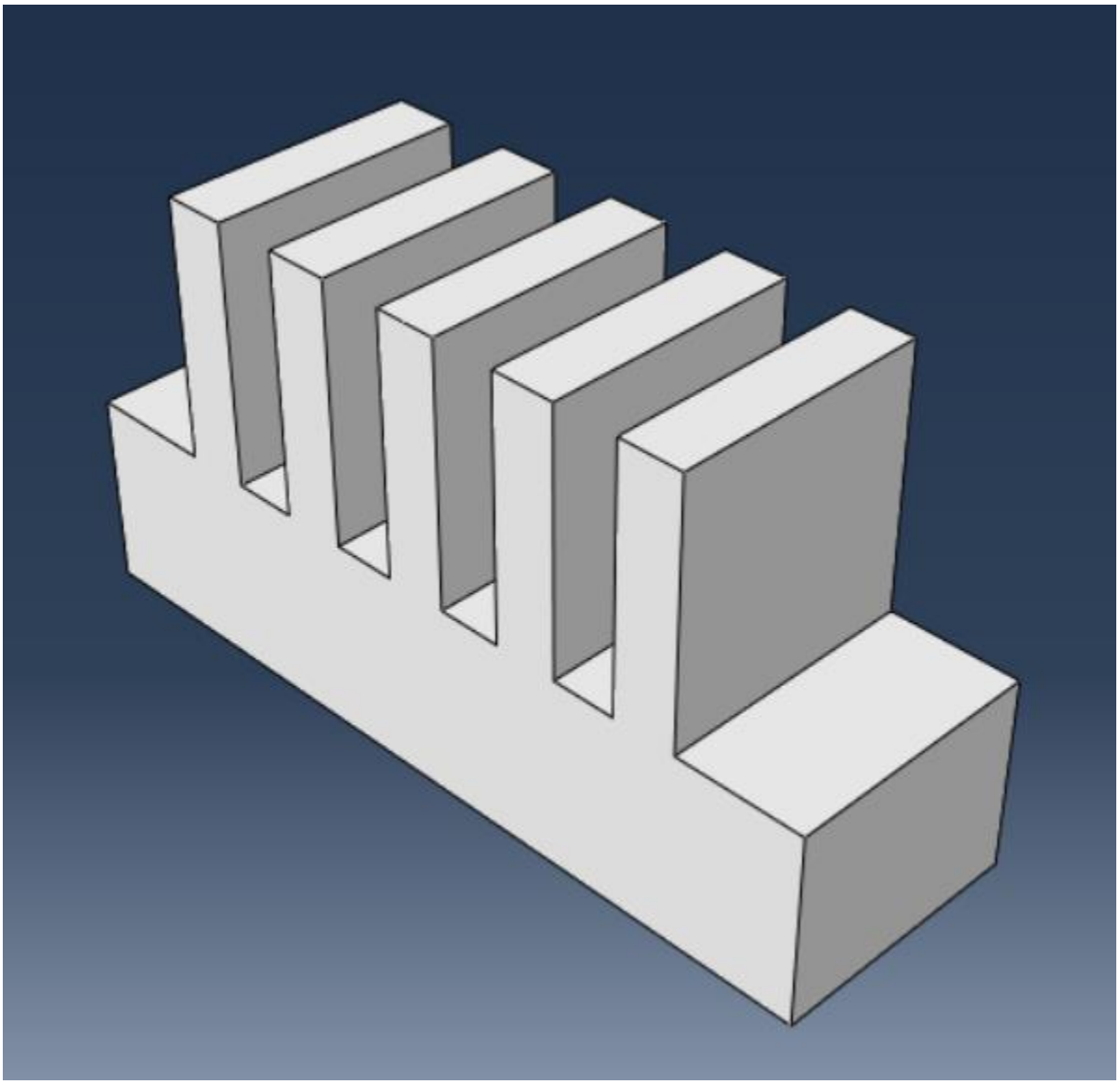
Project 3: ABAQUS Heat Transfer: Fin

Problem Statement: Evaluate the thermal performance of a fin subjected to temperature loading.

Geometry:

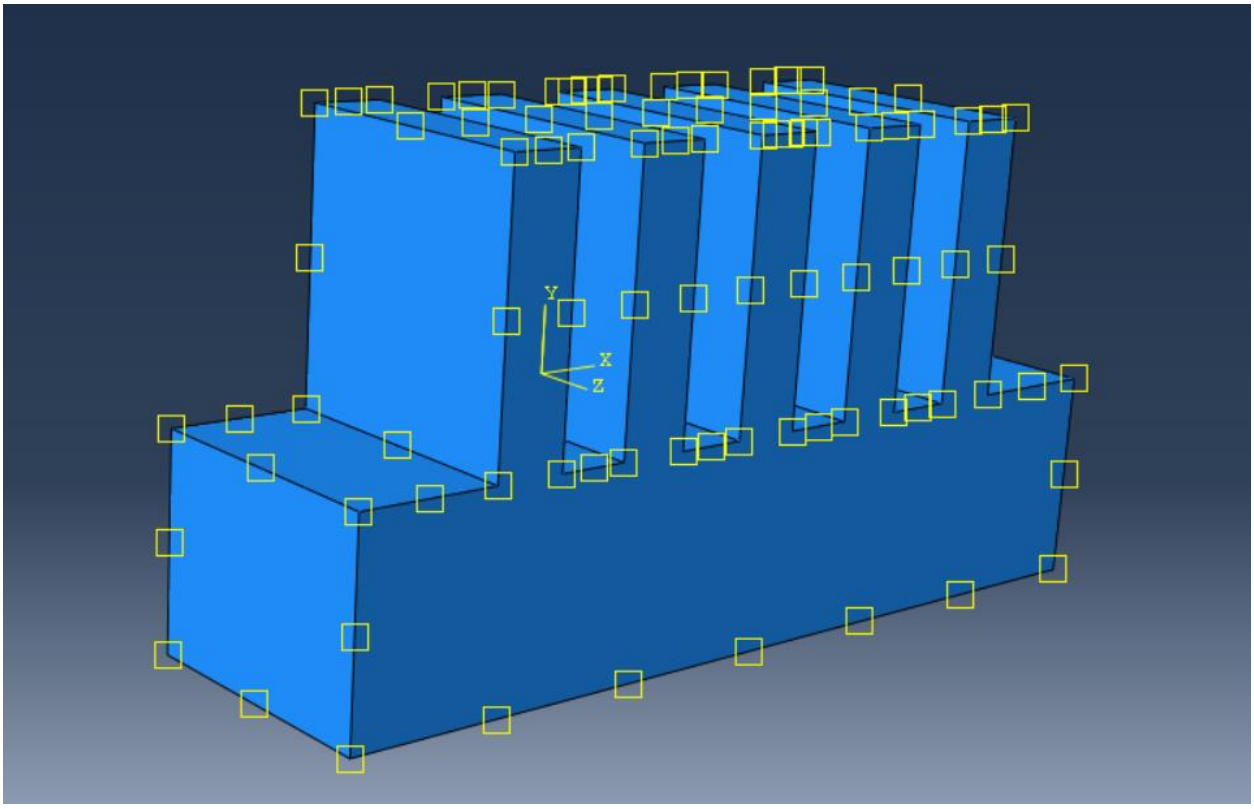


Material Properties:

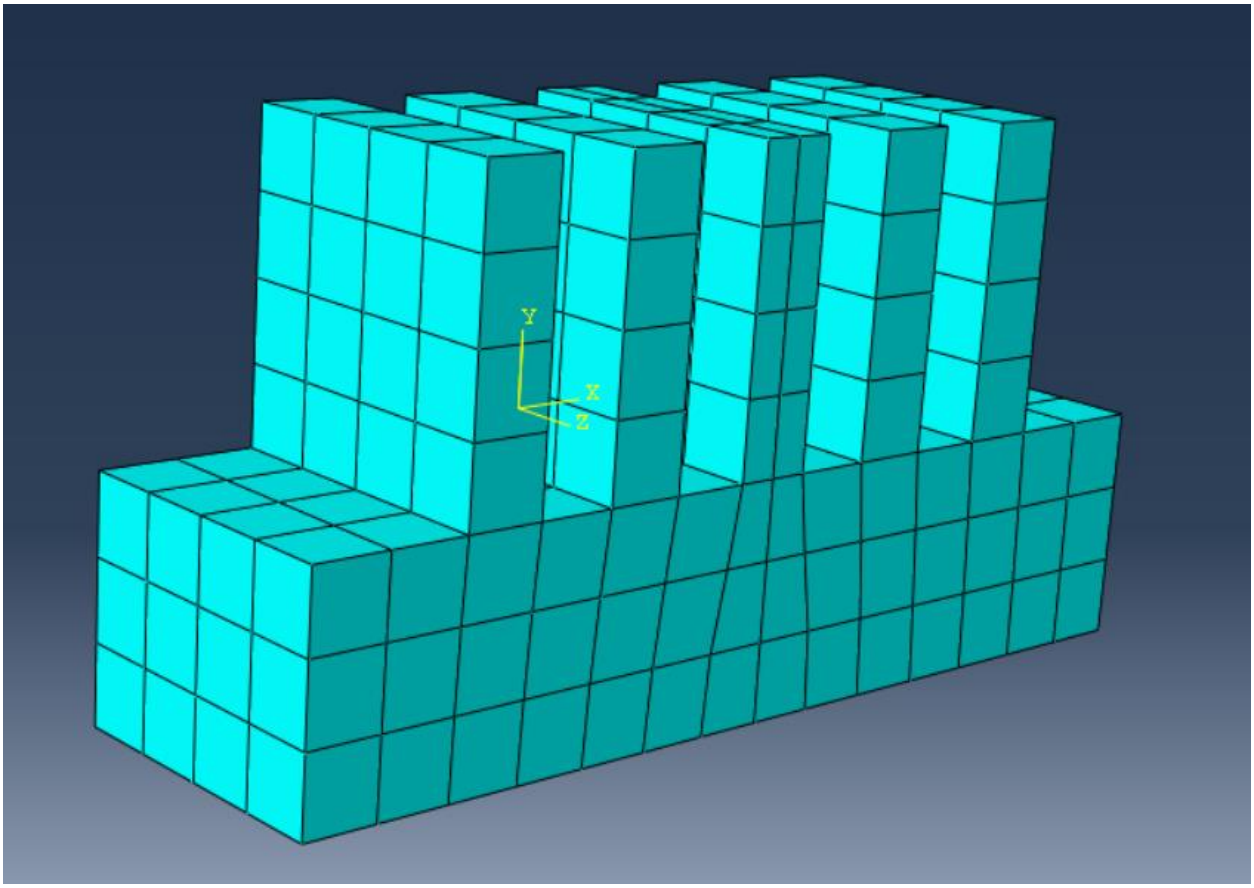
Conductivity
44

Loading and boundary conditions:

1) Temperature loading at the bottom surface,
2) Body heat flux.

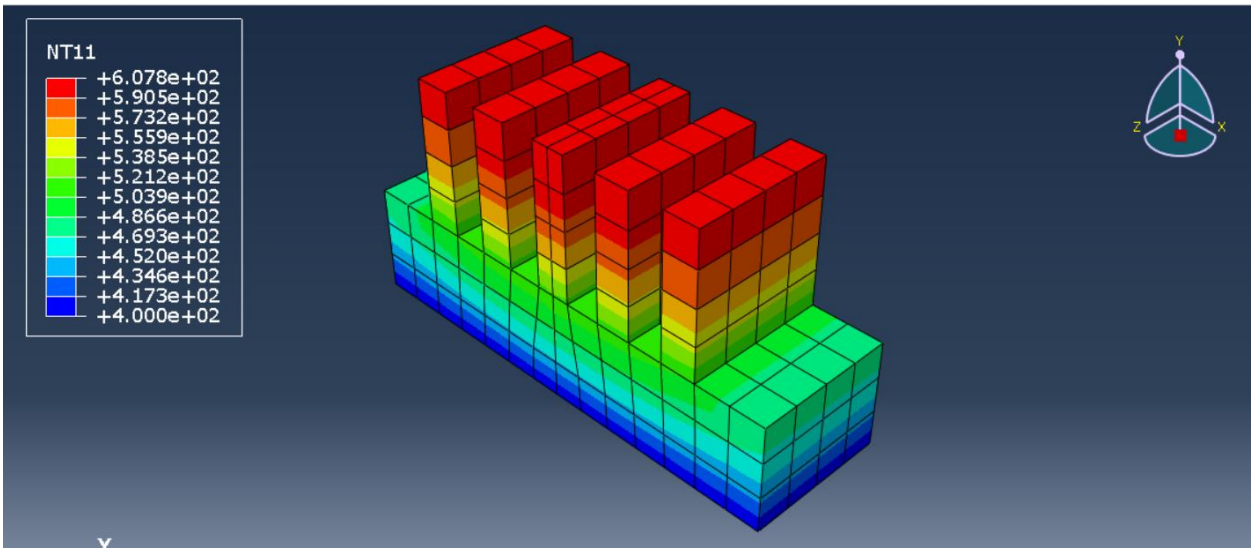


Mesh: (coarse due to limitation of 1000 nodes in ABAQUS educational version).



Results:

Nodal temperature:



Heat flux per unit area: