

Annex A. Esatan-TMS Thermal Models

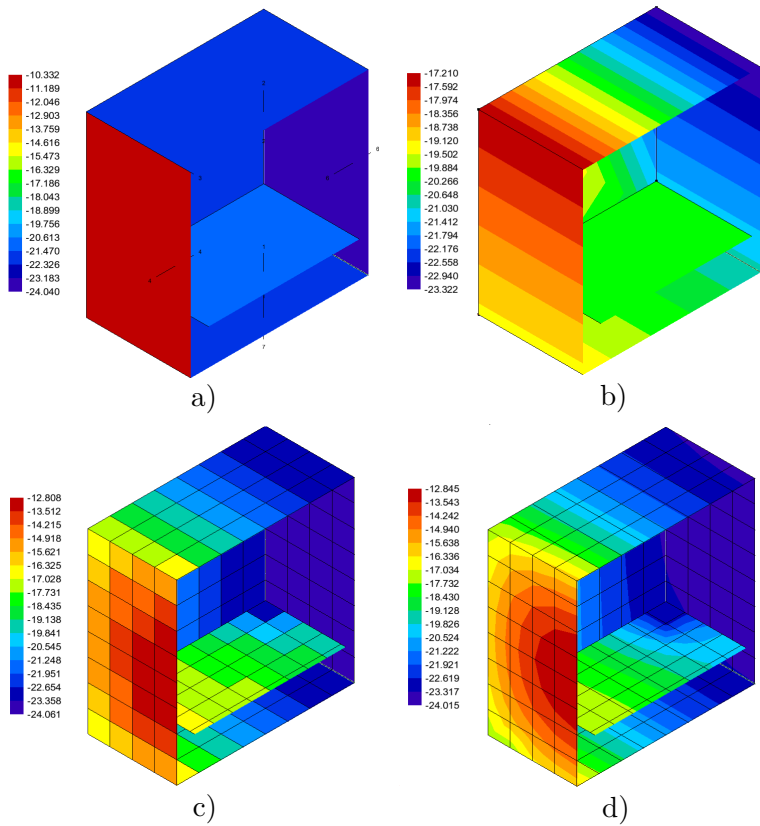


Fig. A.1. Node temperatures of low and high fidelity FDM (a, c) and FEM (b, c) meshes of the CubeSat model

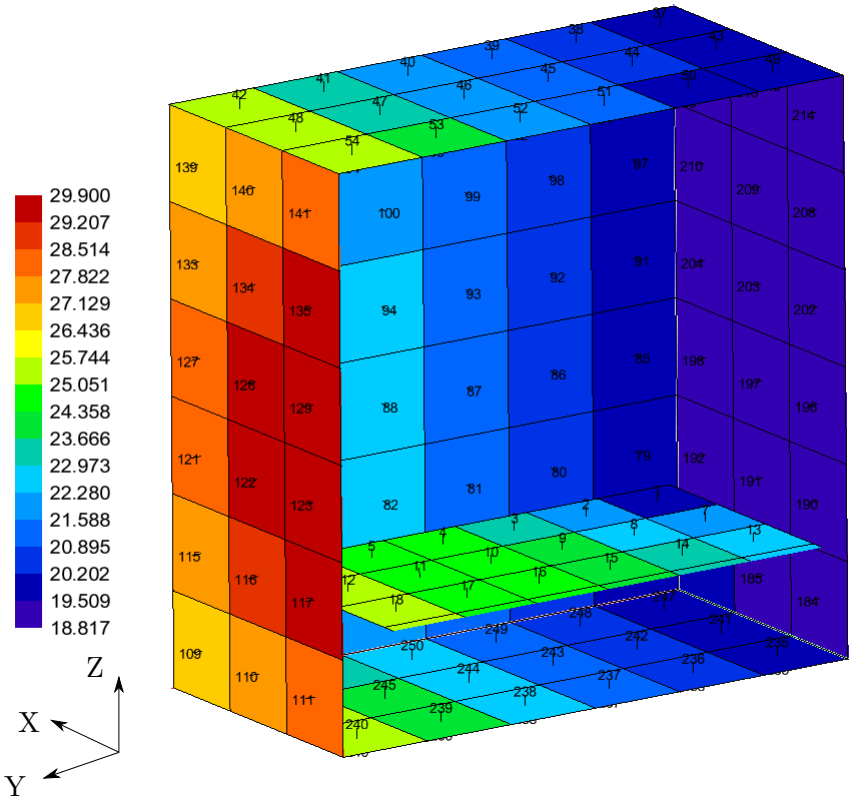


Fig. A.2. CubeSat thermal model node temperatures in °C in Esatan-TMS after optimization. Numbers on the mesh represent node numbers, model is shown cut through the YZ symmetry plane

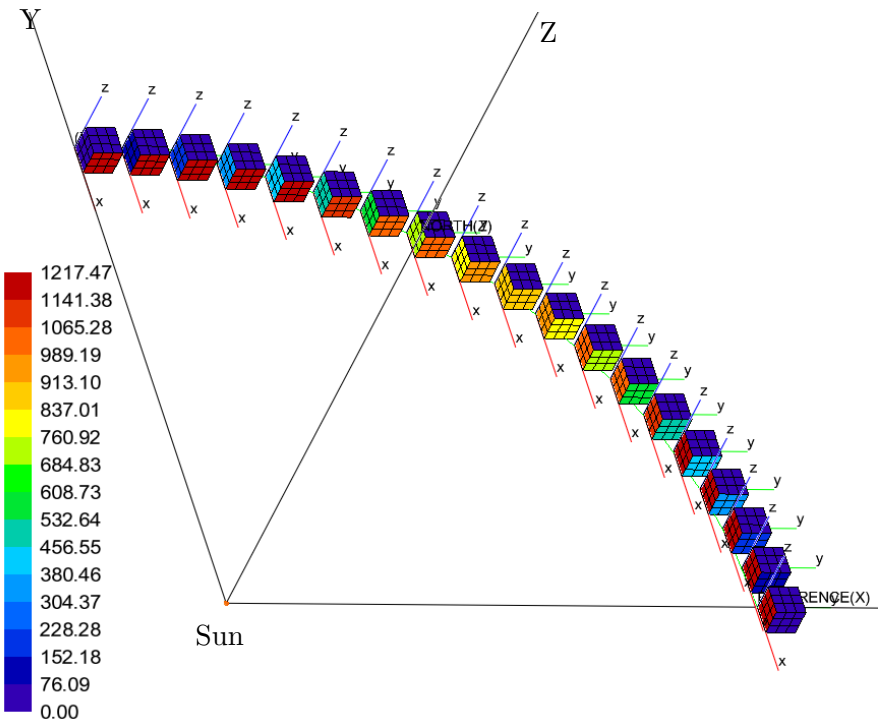


Fig. A.3. Solar heat flux analysis of the CubeSat model in Esatan-TMS (heat flux is given in W/m^2)

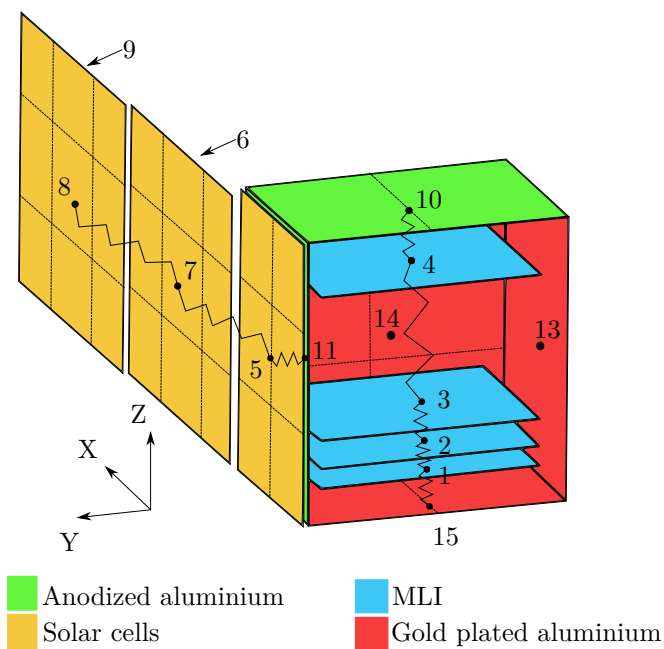


Fig. A.4. Thermal model of the CubeSat with solar arrays

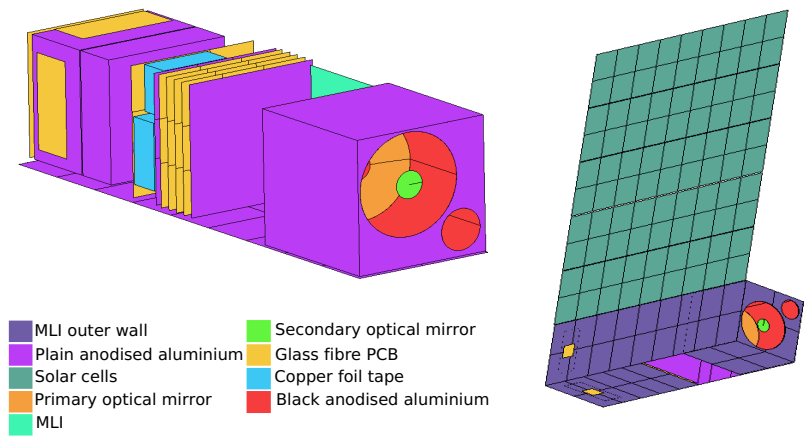


Fig. A.5. MS thermal model (internal components are shown on the left and external components on the right)

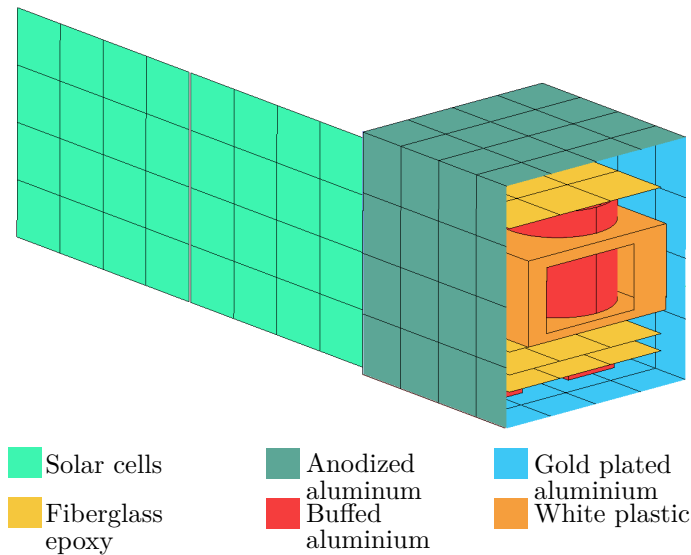


Fig. A.6. Thermal model for the RU