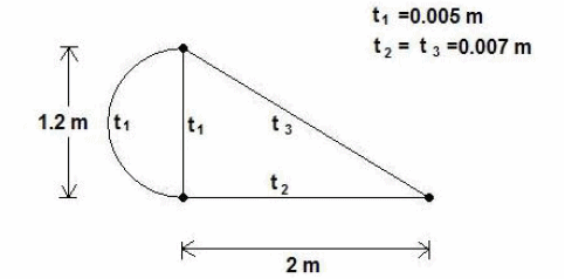
EAS4200C Aerospace Structures Homework #6 (Due: Oct. 19th)

1. Find the shear flow and twist angle in the two-cell three-stringer thin-walled bar with the cross-section shown in the figure. The material is AL 2024-T3 with G = 27 GPa. The applied torque is 2×10^5 Nm.



2. A shaft with a channel section shown in the figure is subjected to a torque T. Assume that neither end is constrained. Find the warping distribution on the cross-section, the maximum warp, and the location of the maximum warp.