CFD analysis of a human powered Submarine

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Synopsis

This project aims to do the numerical simulation of a ”Human powered Submarine” to find the optimum shape and minimize drag. The design is made using Spaceclaim and the mesh is done in openFOAM using snappyHexMesh. The solver used was simpleFoam. For accurate turbulence predictions, $\kappa-\omega$SST model was used and compared with the results of the paper by Sher Afghan Khan et.al.[1].

References

[1] Sher Afghan Khan, MA Fatepurwala, and KN Pathan. Cfd analysis of human powered submarine to minimize drag. *Ratio (L/D)*, 4:5, 2018.