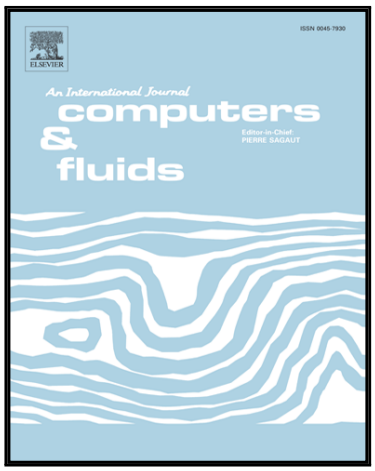

Hydrodynamic analysis and optimization of the Titan submarine via the SPH and Finite–Volume methods

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Highlights

- A SPH and FVM numerical hydrodynamics analysis of the Titan submarine is presented.
- Contours of flow variables are shown in the near and far field for several Re and Fr.
- Preliminary thrust and power values are given for surfaced and submerged conditions.
- Design recommendations are proposed based on the current submarine hull shape.
- SPH is successfully applied to simulate 3D fluid flow over complex geometries.