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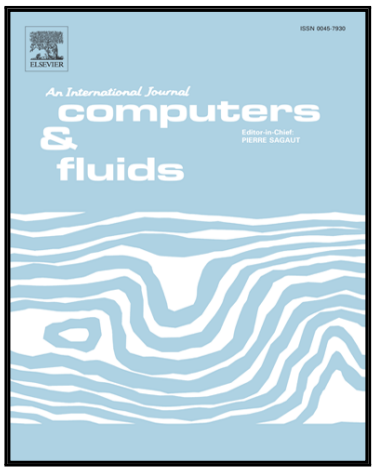

Development of a parallelised fluid solver for problems with mesh interfaces and deforming domains

Horacio J. Aguerre, Santiago Márquez Damián, Juan M. Gimenez, Norberto M. Nigro

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Highlights

- A parallelised dynamic mesh strategy is proposed using OpenFOAM(R).
- The new strategy can address conservatively partially-overlapped interfaces.
- Large deformations are solved with the combination of layering and mesh deformation.
- The parallel implementation has shown an efficiency higher than 85 percent.
- Robustness and convergence are proved solving an internal combustion engine.

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