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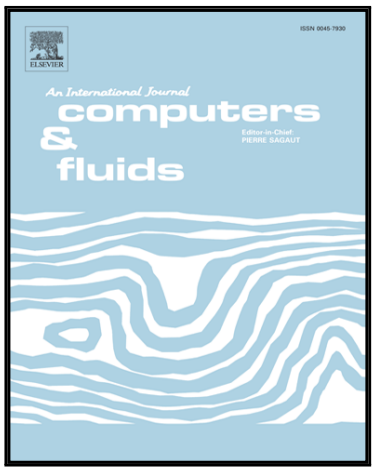

A fully coupled hybrid computational aeroacoustics method on hierarchical Cartesian meshes

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Highlights

- A fully coupled direct-hybrid method for computational aeroacoustics is proposed.
- A CFD and a CAA solver run simultaneously on a joint hierarchical Cartesian grid.
- In-memory data transfers between the solvers greatly improve parallel efficiency.
- The new scheme is validated with the simulation of a pair of co-rotating vortices.
- Performance results show method to be suitable for massively parallel simulations.

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