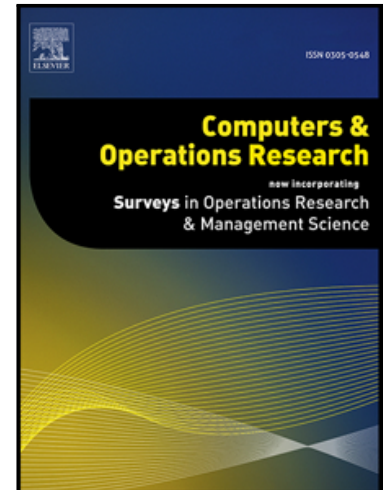


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Trajectory Planning for Autonomous Underwater Vehicles in the Presence of Obstacles and a Nonlinear Flow Field using Mixed Integer Nonlinear Programming

Tong Wang, Ricardo M. Lima, Loïc Giraldi, Omar M. Knio

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Highlights

- The time-optimal trajectory planning for autonomous underwater vehicles is considered.
- Detailed and simplified MINLP models considering obstacles and a flow field are proposed.
- A solution approach with an enhanced initialization and MILP models is implemented.
- A detailed analysis of the MILP models and performance of the MILP solver is made.
- The performance of the MINLP methodology and quality of the trajectories are analyzed.

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