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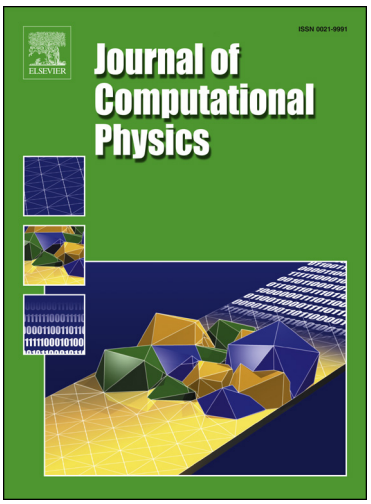

Topology optimization of hyperelastic structures using a level set method

Feifei Chen, Yiqiang Wang, Michael Yu Wang, Y.F. Zhang

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Highlights

- A level set method is proposed for structural optimization of soft bodies.
- Geometric and material nonlinearities are considered.
- A strict shape sensitivity analysis is conducted with high-order terms retained.
- A discrete velocity selection strategy is developed.
- The proposed optimization method greatly improves the critical buckling load.