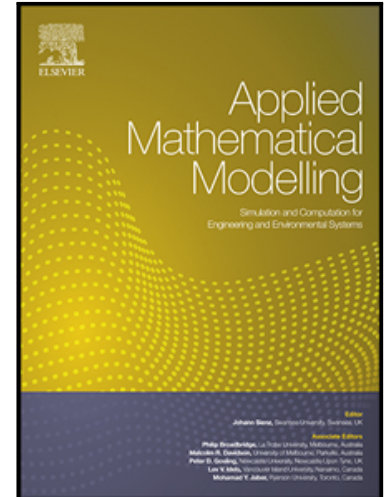


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STABLE IMPLICIT TIME-INTEGRATION OF FLEXIBLE ROTATING STRUCTURES – EXPLANATION FOR INSTABILITIES AND CONCEPTS FOR AVOIDANCE

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Highlights

- First explanation of well-known instability problem of Newmark time-integration for flexible rotating structures is given
- Academic solutions for instability issues (e.g. “stiffness scaling”) are presented
- Concept for avoidance of instability problems is shown (improved time-step control with detection of numerical issues)

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