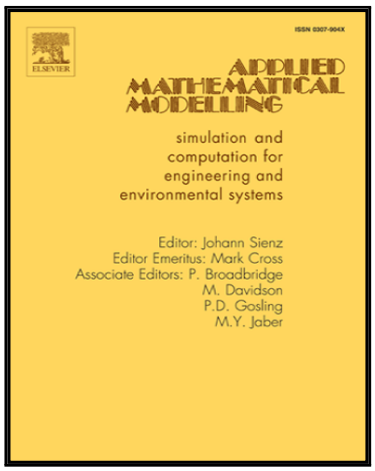

Damage detection approach based on the second derivative of flexibility estimated from incomplete mode shape data

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Highlights

- Incomplete mode shape data were expanded to construct flexibility matrix.
- The damage was detected by the updated flexibility curvature.
- The effectiveness of the proposed method depended on the number of truncated modes.