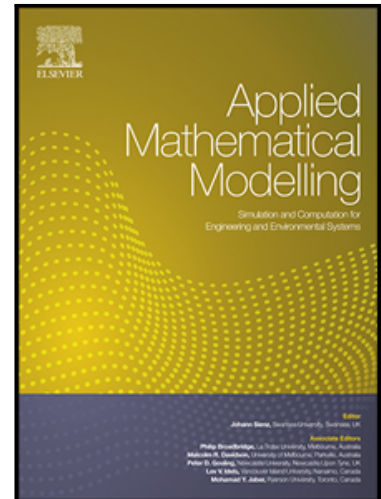


## Accepted Manuscript

Topology optimization considering the fatigue constraint of variable amplitude load based on the equivalent static load approach

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## Highlights

- A new topology optimization is developed considering fatigue life in time domain.
- Pseudo sensitivity analysis using the equivalent static load (ESL) is verified.
- Modified damage ruler is developed for stable convergence and clear optimal result.
- The validity of the proposed TO method is verified by solving some problems.

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