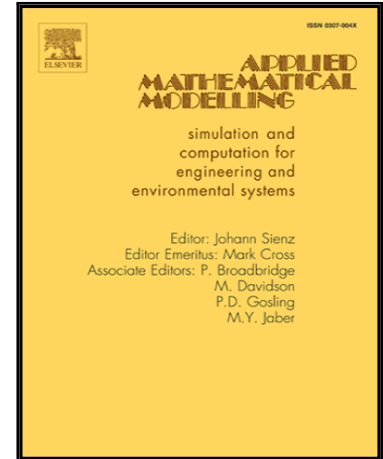


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An effective approach for probabilistic lifetime modelling based on the principle of maximum entropy with fractional moments

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Highlights

- This paper presents a fractional moment method for probabilistic lifetime modelling of engineering systems.
- Fractional moments are calculated based on a small, simulated sample of remaining useful life of the system.
- The principle of maximum entropy (MaxEnt) with fractional moments is used to recover the system lifetime distribution.
- Applications of method are illustrated by several dynamical and discontinuous stochastic systems.

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