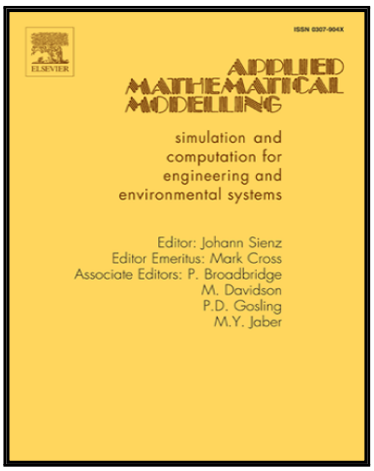

Fractional-order Bernoulli wavelets and their applications

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Highlights

- We define a new fractional function based on the Bernoulli wavelet.
- The fractional integration operational matrix for these functions is driven.
- This matrix combine with collocation method for solve fractional systems.
- We achieve error analysis. The error analysis shows that the method is convergent.
- The results show that a small number of these functions yield accurate results.