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A new method to mitigate data fluctuations for time series prediction

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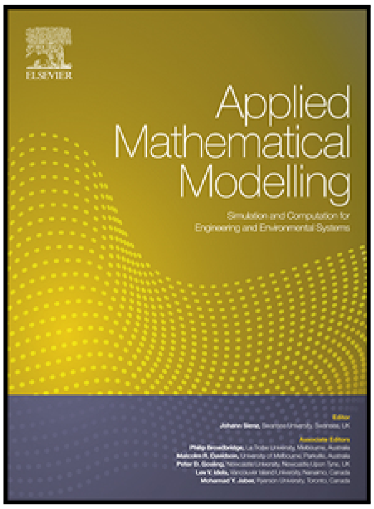

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Research highlights

1. The shortcomings of existing time series forecasting methods are identified.
2. A new fractional bidirectional weakening buffer operator is proposed.
3. The proposed operator can highlight series trend while reducing the negative impact of unavoidable sample fluctuations.
4. A new time series forecasting methodology is provided.
5. The proposed method is compared with existing models and it performs well on time series prediction.