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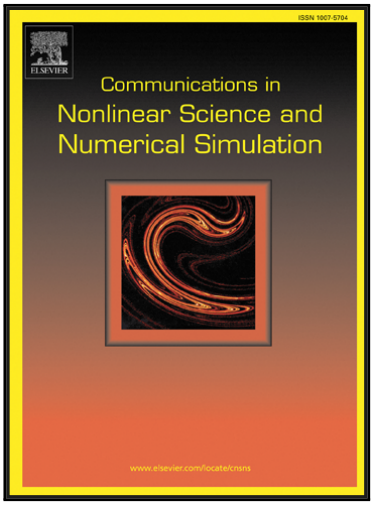

Parameter Identification of Fractional Order System using Enhanced Response Sensitivity Approach

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Highlights

- A computational scheme for linear fractional order systems is put forward based on the Adams method and the Newmark -β method to obtain the nu- merical solutions precisely and efficiently, no matter how the single degree of freedom (SDOF) and multi-degree-of-freedom (MDOF) system, or the system contains different type derivative operators at the same time.
- The enhanced response sensitivity approach in this paper does not depend on the selection of initial values.
- Measured data contain 10work well and insensitive to the measurement noise.
- The weight matrix can indeed decrease the influence of the measurement noise and improve the accuracy of the identification procedure.

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