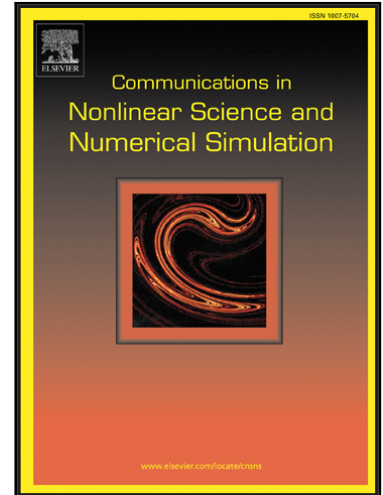


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Efficient high-order structure-preserving methods for the generalized Rosenau-type equation with power law nonlinearity

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Highlights

- The proposed methods for the multi-symplectic Hamiltonian system is systemic and can be applied to many Hamiltonian PDEs.
- We first proposed I_3 -preserving method for the Rosenau-type equations.
- Application of Composition methods gives a series of high-order conservative integrators.
- The composition schemes are still robust for the equation with extremely small parameter.
- The numerical results of the proposed methods are much better than those of existing methods.

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