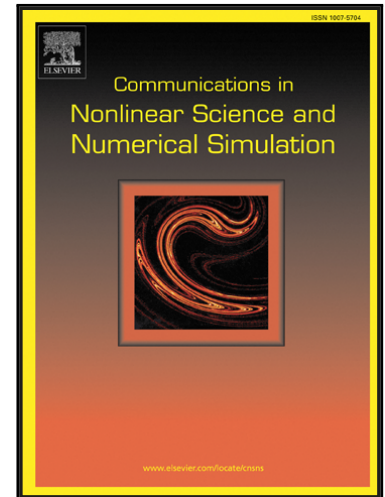


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Nonlinear wave-packet dynamics resonantly driven by AC and DC fields

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Highlights

- Dynamics of a single-particle wave-packet placed in a chain under the simultaneous action of local non-linearity and superposed AC and DC fields.
- The wave-packet fronts displaying either a continuous spreading or a solitonic-like evolution depending on a balance between the non-linearity strength and electric fields.
- The non-linearity can induces a unidirectional motion of the wave-packet centroid.

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