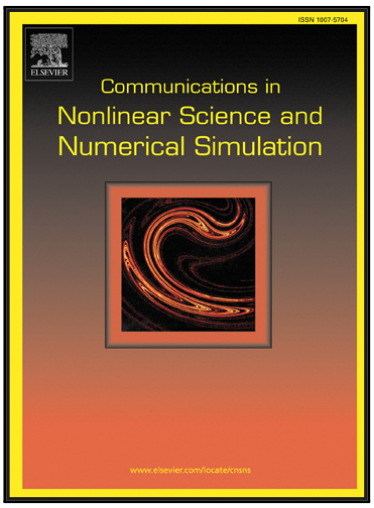

Enhancement of harmonics generation in hysteretic elastic media induced by conditioning

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Highlight

- In this paper we show that conditioning, i.e. memory effects due to the application of a medium level strain, is responsible of activation of nonlinearity in hysteretic elastic media.
- Harmonics generation is indeed enhanced when the sample is previously conditioned by a propagating wave in the material at a larger amplitude.
- Self-conditioning is also discussed, i.e. memory effects of a propagating elastic wave on itself.
- A method to quantify self-conditioning is presented.
- Finally, multistate models are shown to be intrinsically containing the ingredients to describe nonlinearity activation. One of this models is discussed as an example.