

Abstract Submitted
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Two-dimensional, one-way coupled arrays KATSUO MAXTED, JOHN F. LINDNER, The College of Wooster, Wooster OH 44691, BARBARA J. BREEN, University of Portland, Portland OR 97203 — A damped, two-way coupled array of bistable oscillators quickly dissipates all excitations. However, the corresponding one-way coupled array can topologically force solitary waves to propagate indefinitely. Experimentalists have realized one-way coupling in one-dimensional arrays by powering the coupling with falling water. The corresponding one-way motion is an extreme example of wave propagation in anisotropic media like light in calcite. Here, we generalize this phenomenon to higher dimensions in computer simulations. This work was supported in part by NSF DMR-0649112.

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