

Abstract Submitted
for the MAR08 Meeting of
The American Physical Society

Driven Intrinsic Localized Modes in a Coupled Pendulum Array. RITOBAN BASU THAKUR, Dickinson College, LARS ENGLISH, ALBERT SIEVERS, Cornell University, DICKINSON COLLEGE, PHYSICS TEAM — Intrinsic localized modes (ILMs), also called discrete breathers, are directly generated via modulational instability in an array of coupled pendulums. These ILMs can be stabilized over a range of driver frequencies and amplitudes. They are characterized by a π -phase difference between their center and wings. At higher driver frequencies, these ILMs are observed to disintegrate via a pulsating instability, and the mechanism of this breather instability is investigated.

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Date submitted: 02 Dec 2007

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