

Abstract Submitted
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Noise-enabled optical ratchet in cold atoms¹ ALEX REIGLE, Miami University, A. RAPP, P. JANOVICK, J. SLATTERY, AND S. BALI COLD ATOM TEAM — By shining an additional laser beam onto a 3D optical lattice we introduce a propagating modulation that “ripples” through the lattice, “dragging” along some cold atoms. The underlying physical mechanism is discussed with data presented to elucidate the interplay between noise (spontaneous emission) and directed motion.

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