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An investigation of non-Brownian random walks in an optical lattice using polarization-selective intensity correlations BENJAMIN AGYARE, SAMUEL BISH, MATTHEW BRIEL, SAMIR BALI, Department of Physics, Miami University, Oxford, OH 45056 — We propose that Levy walks by cold atoms trapped in a near-resonance shallow optical lattice may be detected by measuring the polarization-selective intensity correlations of the scattered light. Experimental progress is reported.

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