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Probing driven quantum systems with ultracold lithium in optical lattices[1] ETHAN SIMMONS, ROSHAN SAJJAD, ALEC CAO, JEREMY TANLIMCO, DAVID WELD, University of California, Santa Barbara — Ultracold lithium atoms in optical lattices provide a flexible playground for the experimental study of driven quantum systems. We describe recent progress on a variety of experiments along these lines, including both topological and polychromatic Floquet-band engineering, continuously-trapped atom interferometry, and the investigation of many-body dynamical localization in an interacting quantum kicked rotor.

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