

Abstract Submitted
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Floquet Edge States with Ultracold Atoms¹ MATTHEW REICHL,
ERICH MUELLER, Cornell University — We describe an experimental setup for
imaging topologically protected Floquet edge states using ultracold bosons in an
optical lattice. Our setup involves a deep two-dimensional optical lattice with a
time-dependent superlattice that modulates the hopping between neighboring sites.
The finite waist of the superlattice beam yields regions with different topological
numbers. One can observe chiral edge states by imaging the real-space density of
a bosonic packet launched from the boundary between two topologically distinct
regions.

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