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Modifying properties of Chern insulators by time dependent perturbations[1] BENJAMIN M. FREGOSO, VICTOR GALITSKI, Joint Quantum Institute and Condensed Matter Theory Center, University of Maryland — We study the quantum dynamics of topological Chern insulators in the presence a time dependent perturbation. We show that and under proper drive conditions they can be turned in to trivial insulators or insulators with a higher Chern number. We discuss signatures of such states in the context of non-adiabatic Thouless pumping. We argue that this provides a way to tune the properties of topological systems.

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