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Torsional Response, bulk-boundary correspondence, and Viscosity in Topological Insulators TAYLOR HUGHES, ROBERT LEIGH, ONKAR PARRIKAR, University of Illinois at Urbana-Champaign — We discuss the relationship between torsion and visco-elastic response of 2D time-reversal breaking topological insulators. We connect the bulk topological response to a new anomalies in the momentum current of the chiral edge theory that we have determined. We also discuss the implications for spectral flow and the emergence of a chiral-gravity type response theory.

> Taylor Hughes University of Illinois at Urbana-Champaign

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