

Abstract Submitted  
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**Transport signatures of conduction along domain walls in a quantum anomalous Hall insulator**<sup>1</sup> ILAN ROSEN, ELI FOX, DAVID GOLDHABER-GORDON, Stanford University, XUFENG KOU, ShanghaiTech University, LEI PAN, KANG WANG, University of California, Los Angeles — The quantum anomalous hall system, which hosts robust chiral edge modes, has been realized in ferromagnetic topological insulators. Edge modes carry current along the boundary of a magnetic topological insulator film, and are expected to do the same along magnetic domain walls if the film has more than one domain. Magnetic domains are formed in a magnetic topological insulator as its magnetization is reversed by an external field, and may be tailored more intentionally by applying a spatially inhomogeneous field. We use transport measurements to study conduction along magnetic domain walls in Cr-(Bi,Sb)<sub>2</sub>Te<sub>3</sub>, motivated by the prospect of development of reconfigurable electrical connections in topological materials.

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