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Universal Finite-Size Scaling around Topological Quantum Phase Transitions TOBIAS GULDEN, MICHAEL JANAS, YUTING WANG, ALEX KAMENEV, University of Minnesota — The critical point of a topological phase transition is described by a conformal field theory, where finite-size corrections to energy are uniquely related to its central charge. We investigate the behavior away from criticality and obtain a scaling function. In contrast to scaling functions for entanglement entropy it discriminates between phases with different topological indexes. This function appears to be universal for all five Altland-Zirnbauer symmetry classes with non-trivial topology in one spatial dimension. We obtain an analytic form of the scaling function and compare it with numerical results.

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