Finite Size Scaling of Topological Entanglement Entropy[1] YUT-ING WANG, TOBIAS GULDEN, ALEX KAMENEV, Univ of Minnesota - Twin Cities — We consider scaling of the entanglement entropy across a topological quantum phase transition in one dimension. The change of the topology manifests itself in a sub-leading term, which scales as $L^{-1/\alpha}$ with the size of the subsystem L, here α is the Rényi index. This term reveals the universal scaling function $h_\alpha(L/\xi)$, where ξ is the correlation length, which is sensitive to the topological index.

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