

Abstract Submitted  
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**Using topological entanglement entropy to identify low energy effective field theories of fractional Chern Insulators** BRYAN CLARK, Station Q, ANDREI BERNEVIG, Princeton University — The physics of quantum interacting many-body systems allow for a wide variety of phases, whose properties are governed by low energy field theories. In this talk, we write down prototypical par-tion Chern insulating wave-functions with chern numbers 1,2,3, and 5 and determine their corresponding low energy effective field theory by computing their topological entanglement entropy. We also discuss non-universal aspects of the entanglement entropy including the effect of changing the mass on the corner terms and the slope of the area law.

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