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Entanglement Entropy of Random Fractional Quantum Hall Systems BARRY FRIEDMAN, DARWIN LUNA, Physics Department, Sam Houston State University — The entanglement entropy of fractional quantum Hall systems is studied numerically in the presence of a short range random potential. The numerical method used is direct diagonalization and two questions will be considered. Firstly, can the topological entanglement entropy be reliably computed for accessible system sizes? Secondly, can the entanglement entropy be practically used to detect phase transitions as a function of the disorder strength?

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