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Abstract for an Invited Paper
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Entanglement Hamiltonians in Fermion Systems and the Riemann-Hilbert problem

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In this talk, I will discuss work on entanglement in fermion systems. I will describe recent results on effective entanglement hamiltonians in conformal quantum field theories, and how the free fermion entanglement Hamiltonian in 1d can be obtained by solving a Riemann-Hilbert problem. I will also show how finite size corrections to the Hamiltonian may be obtained by perturbing around the Riemann-Hilbert solutions, as well as explore subtle difference between the Neveu-Schwartz and Ramond sectors of free fermion fields.