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**Singlet current pumping** SUNGJUN KIM, KUNAL DAS, ARI MIZEL, The Pennsylvania State University — We study adiabatic quantum pumping of electron spin singlets in a one dimensional channel. The electron propagation is described using a tight-binding Hamiltonian with two Hubbard impurities. As the strengths of the impurities change periodically in time, a current of spin singlets develops. The calculation employs a two-particle Green's function formalism that assumes no bias in the channel and zero temperature.

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