

Lieb-Robinson bounds and the spectral flow

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This talk will review locality estimates for quantum lattice systems which are generally referred to as Lieb-Robinson bounds. As an application, various properties of the spectral flow, also known as ‘quasi-adiabatic evolution’, will be discussed. Here the spectral flow is a carefully chosen automorphism which has been useful in a number of recent applications; most notably a proof of stability of the spectral gap for a large class of models.

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