# NORM ESTIMATES FOR EIGENFUNCTIONS OF GENERAL GRAPHS

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Recent years have seen much interest in the study of delocalization on graphs. One may show the eigenfunctions in a spectral region are delocalized using different criteria. For instance, one can try to show the eigenfunctions have large support. One can try to prove quantum ergodicity, showing that most eigenfunctions equidistribute on the graph in some sense. Yet another criterion is to give upper bounds on the supremum norms of the eigenfunctions, and more generally the $p$-norms for $p > 2$.

In this talk, I will discuss some results on the norms of eigenfunctions of a Schrödinger operator $H$ on a large finite graph $G$. It is assumed that $(G, H)$ is somehow of limited complexity - this class includes N-lifts of some base graph. The estimates are valid for all eigenfunctions of the graph, except for a finite set of exceptional energies.

Joint work with Étienne Le Masson.