Excited random walks on Z^d

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We consider excited random walks (ERW) on the d-dimensional integer lattice. Broadly speaking, the main idea behind this class of models is to take a well-known "underlying process" (such as, for example, simple symmetric random walk) and modify its transition probabilities for the "first few" visits to every site of the lattice.
These modifications can be deterministic or random. The resulting process, ERW, is not markovian, and its properties can be very different from those of the underlying process.

The goal of the talk is to give an overview of some results and methods and to pose several open problems.