

## **Random walk on the random graph**

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We will discuss the behavior of the random walk on two random graph models: on one hand the random regular graph with constant degree, and on the other hand the giant component of the supercritical Erdos-Renyi random graph with constant average degree. In the former case it is known that the walk mixes in logarithmic time and exhibits the cutoff phenomenon. In the latter case, while starting from the worst trap delays mixing and precludes cutoff, it turns out that starting from a fixed vertex induces the rapid mixing behavior of the regular case. (Joint work with Nathanael Berestycki, Eyal Lubetzky and Allan Sly.)