

## **abstract**

COMPUTER SCIENCE/DISCRETE MATH I

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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We give asymptotically precise estimates for the expected time taken for a random walk to visit all vertices of a graph, viz. the cover time. We do this for several models of random graphs viz.  $G_{n,p}$  when  $p$  is above the connectivity threshold; random  $r$ -regular graphs; the giant component of  $G_{n,p}$  when the average degree is a constant larger than 1; the preferential attachment graph.

The results are based on a lemma that can most usefully be applied to graphs of "high girth" and for which the random walk is "rapidly mixing" e.g. Ramanujan graphs.