

# The Random Walk Construction of Uniform Spanning Trees and Uniform Labelled Trees

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## Abstract

A random walk on a finite graph can be used to construct a uniform random spanning tree. We show how random walk techniques can be applied to the study of several properties of the uniform random spanning tree: the proportion of leaves, the distribution of degrees, and the diameter.

**Key words.** spanning tree, random tree, random walk on graph.  
**AMS(MOS) subject classification.** 05C05, 05C80, 60C05, 60J10.  
**Abbreviated title.** Random Spanning Trees.

*SIAM J. Discrete Math.* **3** (1990), 450-465.

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\*Research supported by N.S.F. Grant MCS87-01426