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Elizabeth Reilly, Dept. of Applied Mathematics and Statistics, Johns Hopkins University, Baltimore, MD 21218, and **Edward R. Scheinerman*** (ers@jhu.edu), Dept. of Applied Mathematics and Statistics, Johns Hopkins University, Baltimore, MD 21218. *Random threshold graphs.*

A *random threshold graph* is a simple graph with vertex set $\{1, 2, \dots, n\}$ that is generated as follows: Let x_1, x_2, \dots, x_n be n values chosen uniformly and independently from $[0, 1]$. Join distinct vertices u and v by an edge if and only if $x_u + x_v > 1$. We discuss various properties of random threshold graphs. For example, the probability that a random threshold graph on n vertices has a Hamiltonian cycle is asymptotically $1/\sqrt{2\pi n}$. (Received August 27, 2008)