

1056-K1-1532 **Tim Chartier*** (tichartier@davidson.edu), Department of Mathematics, Davidson College,
P.O. Box 6908, Davidson, NC 28035. *Google-opoly*.

You submit a query to Google and the search engine quickly returns an ordered list of pages. The page listed first is considered, loosely speaking, the best web page related to your query. In this talk, the PageRank algorithm, as proposed by Google's founders Larry Page and Sergey Brin, will be computed through its formulation as a Monte Carlo simulation. In particular, a game called "Google-opoly" will be introduced that teaches the fundamental concepts in the PageRank algorithm through a series of interactive applets. Through the game, issues of dealing with dangling nodes and cycles will be encountered and motivate the need for teleportation. In the end, computation via Markov Chains will also be discussed. (Received September 22, 2009)