1023-Z1-1484 **Rebecca S. Wills*** (rmwills@ncsu.edu), Department of Mathematics, North Carolina State University, Box 8205, Raleigh, NC 27695. *Identifying when computed PageRank scores are accurately ranked.* Preliminary report.

The most popular and most influential modern day ranking scheme is Google's PageRank algorithm. Developed by Google founders Larry Page and Sergey Brin, the PageRank algorithm calculates a ranking score for each webpage. These scores correspond to elements of the stationary distribution for a large Markov chain based on the hyperlink structure of the Web. Google calculates successive approximations to the stationary distribution using an iterative method, such as the power method. The elements of the final approximation are the PageRank scores used by Google. Determining when to stop the iterations requires deciding when the computed approximation is good enough. A popular criterion for terminating iterations is based on the residual norm. We present reasons to consider instead termination criteria based on the ranking of approximated scores. (Received September 26, 2006)