

Conditioning of the entries in the stationary distribution of a Google-type matrix

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In this talk we give conditioning bounds for the stationary vector of a stochastic matrix of the form $cA+(1-c)B$, where $c \in (0,1)$ is a scalar, and A and B are stochastic matrices, the latter being rank one. The bounds depend on c , and on quantities such as the number of dangling nodes (which correspond to rows of A having all entries equal), or the lengths of certain cycles in the directed graph associated with A .