

On Computing Network Prestige

Wai-Ki CHING

Department of Mathematics
The University of Hong Kong,
Pokfulam Road, Hong Kong.

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Abstract

The computation of network prestige is an important issue in studying networks such as the WWW, social networks and epidemic networks. A number of iterative methods based on solving the dominant eigenvector have been proposed for computing the prestige of symmetric or asymmetric network whose problem size is huge. The PageRank algorithm has been successfully applied in the computation of ranking of webpages. In this talk, we propose a revised PageRank algorithm for the computation of prestige of a general network and extend it to handle the case when there are negative relations among the members in the network.