

Network Influence: A New Systematic Measure on the Importance of a Journal Article via Web of Science (WoS)

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Abstract

There exists many different measures on the importance of a journal article, but most considers only its direct citations and reference. In this talk, we propose a new quantity called “Network Influence” that measures the influence of an articles not only towards its neighbors but also the whole research field. The analysis is done on a big database called the Web of Science (WoS), which records the information of journal publications in almost all research fields in the past thirty years. In specific, we undergo a systematic ranking process for all articles being tagged as statistics in the WoS subject area, identifying which topics are hot and influential in statistics community over the past ten years. We also investigate in how deep other research fields utilize statistics as an analytical tool via the cross-network analysis in the WoS. This is a joint work with collaborators in the Institute of Statistical Mathematics (ISM) in Japan.