

Viral Marketing: Influential nodes

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Abstract

Finding a set of influential nodes in a graph is an interesting problem in the field of viral marketing. For this project, I will explore¹ the Susceptible Infected Recovered (SIR) model introduced by [2]. In this model, they propose a semi-local centrality measure as a tradeoff between the low-relevant degree centrality and other time-consuming measures.

Datasets

1. Coauthorships in network science: co-authorship network of scientists working on network theory and experiment, as compiled by M. Newman in May 2006. <http://www-personal.umich.edu/mejn/netdata/netscience.zip>
2. ca-HepPh: Collaboration network of Arxiv High Energy Physics. <https://snap.stanford.edu/data/ca-HepPh.html>

References

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¹Other interesting papers: [1] [5] [4] [3]