

Accepted Manuscript

Prediction of competitive diffusion on complex networks

Jiuhua Zhao, Qipeng Liu, Lin Wang, Xiaofan Wang

PII: S0378-4371(18)30540-5
DOI: <https://doi.org/10.1016/j.physa.2018.05.004>
Reference: PHYSA 19544

To appear in: *Physica A*

Received date: 17 November 2017

Revised date: 2 April 2018

Please cite this article as: J. Zhao, Q. Liu, L. Wang, X. Wang, Prediction of competitive diffusion on complex networks, *Physica A* (2018), <https://doi.org/10.1016/j.physa.2018.05.004>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Highlights

- We propose a competitive diffusion model with two groups of competitors and prove the convergence of the model.
- We propose a prediction method based on the mutual influences among the agents (called general IM method) and compare its performance with centrality-based prediction methods.
- Besides predicting the competition result, which can be achieved by centrality-based prediction methods, the general IM method can also predict the normal agent's supporting bias.
- For undirected networks, the general IM method performs better than the centrality-based prediction methods when the competing group contains more than one agent.

Download English Version:

<https://daneshyari.com/en/article/7374912>

Download Persian Version:

<https://daneshyari.com/article/7374912>

[Daneshyari.com](https://daneshyari.com)