Accepted Manuscript

Overlapping influence inspires the selection of multiple spreaders in complex networks

Ming-Yang Zhou, Wen-Man Xiong, Xiang-Yang Wu, Yu-Xia Zhang, Hao Liao

PII: S0378-4371(18)30559-4
DOI: https://doi.org/10.1016/j.physa.2018.05.022
Reference: PHYSA 19562

To appear in: *Physica A*

Received date : 23 November 2017
Revised date : 9 April 2018

Please cite this article as: M.-Y. Zhou, W. Xiong, X. Wu, Y. Zhang, H. Liao, Overlapping influence inspires the selection of multiple spreaders in complex networks, *Physica A* (2018), https://doi.org/10.1016/j.physa.2018.05.022

***Highlights (for review)**

Highlights

1. We show that most classical methods find influential single node, not multiple influential nodes.
2. Overlapping influence between nodes is characterized.
3. A greed algorithm is proposed to improve the collective influence of multiple spreaders based on overlapping influence.
4. The proposed method outperforms state of the art methods in detecting multiple spreaders.