# Accepted Manuscript


The effect of social tie on information diffusion in complex networks

Yinxue Yi, Zufan Zhang, Chenquan Gan

PII: S0378-4371(18)30787-8
DOI: https://doi.org/10.1016/j.physa.2018.06.063
Reference: PHYSA 19757

To appear in: *Physica A*

Received date : 8 February 2018
Revised date : 16 April 2018

Please cite this article as: Y. Yi, Z. Zhang, C. Gan, The effect of social tie on information diffusion in complex networks, *Physica A* (2018), https://doi.org/10.1016/j.physa.2018.06.063

**Highlights:**

(1) This manuscript examines the effect of social tie and network topology on information diffusion.

(2) A novel information propagation model with social tie strength and self-confirming mechanism is proposed and analyzed.

(3) Theoretical and experimental analysis of the proposed model is also examined, from which one can see that the equilibrium is globally asymptotically stable, and social tie plays a key role in information diffusion.