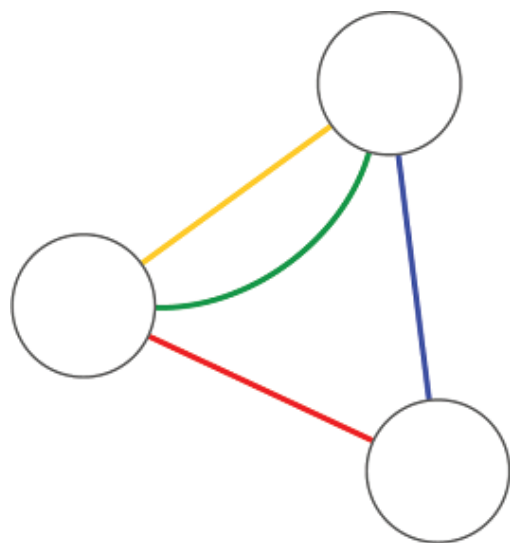


Multiple Network Modeling, Analysis and Mining

Satellite Symposium at NetSci2013 - Copenhagen at DTU - Technical University of Denmark

<http://multiplenetworks.netsci2013.net/>

Monday, June 3rd, 2013



Description

Complex networks are used to represent complex interacting events, but many real-world phenomena may require very rich representations. For example, the entities under study may relate to each other for different reasons. In this case, network scholars developed Multiple Network models, in which nodes may be connected through different relations.

Multiple Networks require a novel network analysis toolbox. In [1] authors proved that the cascade failures in multiple networks obey to dynamics that are very different from the ones discovered for general complex networks. In [2], for their community discovery, authors needed to extend the popular concept of modularity to Multiple Networks. Finally, [3] provided some insights about the interdependence of links in Multiple Networks, paving the way to the development of a Multiple Network link prediction. These examples prove that, if reality is multifaceted, then also network analysis should be multifaceted.

[1] S. V. Buldyrev, R. Parshani, G. Paul, H. E. Stanley, and S. Havlin. Catastrophic cascade of failures in interdependent networks. *Nature*, 2010.

[2] P.J. Mucha, T. Richardson, K. Macon, M. A. Porter, and J.-P. Onnela. Community Structure in Time-Dependent, Multiscale, and Multiplex Networks. *Science*, 2010.

[3] M. Szell, R. Lambiotte, and S. Thurner. Multirelational organization of large-scale social networks in an online world. *PNAS*, 2010.



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Confirmed Speakers

Jiawei Han, Univ. of Illinois at Urbana-Champaign

Kwang Il-Goh, Korea University

Regino Criado, Universidad Rey Juan Carlos

Renaud Lambiotte, University of Namur

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Attendance

Attendance to our symposium is free of charge. For more information, visit the official website at <http://multiplenetworks.netsci2013.net/>. We encourage everyone to also register for the main NetSci2013 conference. For the NetSci2013 registration fee and deadline please see: <http://www.netsci2013.net>.

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Organization:

