

Yuhao Yi

POSTDOCTORAL RESEARCHER

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Areas of Specialization

Network Science • Distributed Control • Spectral Graph Theory

Education

- Jan. 2019 DOCTOR OF SCIENCE in Computer Software and Theory
Shanghai Key Laboratory of Intelligent information Processing,
School of Computer Science, Fudan University, China.
Supervised by Dr. Zhongzhi Zhang.
- Jul. 2013 BACHELOR OF SCIENCE in Computer Science, Fudan University, China

Professional Preparation

- 2019 Postdoctoral Researcher
- 2016-2017 Visting Student
Networked system lab, Department of Computer Science, Rensselaer Polytechnic Institute, U.S.A.
Supervisor: Stacy Patterson.
- 2016.01-2017.04 Research Assistant
Centre for Chaos and Complex Networks, Department of Electronic Engineering, City University of Hong Kong, China.
Supervisor: Guanrong Chen.

Papers

†Papers are listed in inverse chronological order.

*Author names are in alphabetical order in some of my papers.

CONFERENCES

- 2019a (α - β ordering) Huan Li, Richard Peng, Liren Shan, **Yuhao Yi**, Zhongzhi Zhang, *Current Flow Group Closeness Centrality for Complex Networks*. WWW-2019: 961-971.
- 2018a Anirban Das, **Yuhao Yi**, Stacy Patterson, Bassam Bamieh, and Zhongzhi Zhang, *Convergence Rate of Consensus in a Network of Networks*. CDC-2018: 459-465.
- 2018b **Yuhao Yi**, Liren Shan, Huan Li, Zhongzhi Zhang*, *Bi-harmonic distance related centrality for edges in weighted networks*. IJCAI-ECAI-2018: 3620-3626.

- 2018c Liren Shan, **Yuhao Yi**, Zhongzhi Zhang*, *Improving information centrality of a node in complex networks by adding edges*. IJCAI-ECAI-2018: 3535-3541.
- 2018d **Yuhao Yi**, Bingjia Yang, Zhongzhi Zhang*, Stacy Patterson*, *Bi-harmonic distance and the performance of second-order consensus networks with stochastic disturbances*. ACC-2018: 4943-4950.

JOURNAL ARTICLES

- 2019b (α - β ordering) Huan Li, Stacy Patterson, **Yuhao Yi**, Zhongzhi Zhang, *Maximizing the Number of Spanning Trees in a Connected Graph*. IEEE Trans. on Information Theory, (to appear). [arXiv:1804.02785](https://arxiv.org/abs/1804.02785).
- 2018e **Yuhao Yi**, Zhongzhi Zhang*, Stacy Patterson, *Scale-free Loopy Structure is Resistant to Noise in Consensus Dynamics in Complex Networks*. IEEE Trans. on Cybernetics. 2018, (to appear). [arXiv:1801.00535](https://arxiv.org/abs/1801.00535).
- 2018f Yi Qi, Zhongzhi Zhang*, **Yuhao Yi**, and Huan Li. Consensus in self-similar hierarchical graphs and Sierpiński graphs: Convergence speed, delay robustness, and coherences. IEEE Trans. on Cybernetics, 2019, 49(2), 592-603.
- 2018g Stacy Patterson*, **Yuhao Yi**, and Zhongzhi Zhang. *A Resistance Distance-Based Approach for Optimal Leader Selection in Noisy Consensus Networks*. IEEE Trans. on Control of Network Systems, 2019, 6(1): 191-201.
- 2017 **Yuhao Yi**, Zhongzhi Zhang*, Liren Shan, and Guanrong Chen. *Robustness of First- and Second-Order Consensus Algorithms for a Noisy Scale-Free Small-World Koch Network*. IEEE Trans. on Control Systems Technology, 2017, 25 (1), 342-350.
- 2015a **Yuhao Yi**, Zhongzhi Zhang*, Yuan Lin and Guanrong Chen. *Small-World Topology Can Significantly Improve the Performance of Noisy Consensus in a Complex Network*. Computer Journal, 2015, 58(12):3242-3254.
- 2015b Qian Lv, **Yuhao Yi** and Zhongzhi Zhang*. *Corona graphs as a model of small-world networks*. Journal of Statistical Mechanics: Theory and Experiment, 2015, P11024.
- 2015c Zhongzhi Zhang*, Huan Li and **Yuhao Yi**. *Anomalous behavior of trapping in extended dendrimers with a perfect trap*. Journal of chemical physics, 2015. 143: 064901.
- 2015d Zhongzhi Zhang*, Xiaoye Guo, **Yuhao Yi**. *Spectra of weighted scale-free networks*. Scientific Reports, 2015, 5:17469.

WORKING PAPERS

- 2019c **Yuhao Yi**, Timothy Castiglia, and Stacy Patterson, *Shifting Opinions in a Social Network through Leader Selection*.
- 2019d **Yuhao Yi**, Anirban Das, Stacy Patterson, Bassam Bamieh, and Zhongzhi Zhang, *Convergence Rate of Consensus in a Network of Networks*. (Journal Version)