# JING LIU

jing.liu@mail.bnu.edu.cn

School of Systems Science, Beijing Normal University

No.19, Xinjiekouwai St, Haidian District, Beijing, 100875, P.R.China

#### **EDUCATION**

# School of Systems Science, Beijing Normal University

September 2018 - Present

Ph.D. candidate

Supervisor: Jiang Zhang (Beijing Normal University) and Pan Zhang (Institute of Theoretical Physics, Chinese Academy of Sciences)

## Department of Physics, Beijing Normal University

September 2014 - June 2018

Bachelor of Science

## RESEARCH INTERESTS

Unsupervised generative modeling and its applications in statistical physics problems Tensor network for machine learning Combinatorial optimization problems

## TEACHING EXPERIENCE

Teaching assistant for Basics and Applications of MATLAB (undergraduate), and Artificial Intelligence (graduate)

#### **PUBLICATIONS**

1. Solving nonequilibrium statistical mechanics by evolving autoregressive neural networks

Ying Tang\*, **Jing Liu\***, Jiang Zhang, Pan Zhang (\* contributed equally) arXiv:2208.08266 [cond-mat.stat-mech] (under review)

2. Tensor networks for unsupervised machine learning

Jing Liu, Sujie Li, Jiang Zhang, Pan Zhang arXiv:2106.12974 [cond-mat.stat-mech] (under review)

3. Human mobility in interest space and interactive random walk Fanqi Zeng, Li Gong, **Jing Liu**, Jiang Zhang, Qinghua Chen, Ruyue Xin Journal of Physics: Complexity 1 (2), 025004

4. Gumbel-Softmax Optimization: A Simple General Framework for Combinatorial Optimization Problems on Graphs

Jing Liu, Fei Gao, Jiang Zhang

COMPLEX NETWORKS 2019: Complex Networks and Their Applications VIII pp 879–890

- 5. A general deep learning framework for network reconstruction and dynamics learning Zhang Zhang, Yi Zhao, Jing Liu, Shuo Wang, Ruyi Tao, Ruyue Xin, Jiang Zhang Applied Network Science 4 (110), 1-17
- 6. Chinese Address Similarity Calculation Based on Auto Geological Level Tagging Jing Liu, Jianbin Wang, Changqing Zhang, Xiubo Yang, Jianbo Deng, Ruihe Zhu, Xiaojie Nan, Qinghua Chen

ISNN 2019: Advances in Neural Networks – ISNN 2019 pp 431–438

7. Coevolution of agent's behavior and noise parameters in majority vote game on multilayer networks

 ${\bf Jing\ Liu},\ {\rm Ying\ Fan},\ {\rm Jiang\ Zhang},\ {\rm Zengru\ Di}$ 

New Journal of Physics 21 (1), 015007