

Yuan Yuan

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EMPLOYMENT HISTORY

Purdue University

Assistant Professor of Management

West Lafayette, IN, USA

August 2021 - Present

EDUCATION

Massachusetts Institute of Technology

PhD, Institute for Data, Systems, and Society

Cambridge, MA, USA

Sept 2016 - August 2021

○ Interdisciplinary Ph.D. program between data science and social science

○ Dual Ph.D. in *Statistics*

Tsinghua University

BEng, Computer Science; BA, Economics (2nd Major)

Beijing, China

Sept 2012 - June 2016

○ Graduation with honors

RESEARCH INTERESTS

Social Networks: Use causal inference and machine learning to understand network dynamics, social and biological contagion, and prosocial behavior.

Online Experimentation: Explore statistics and machine learning methods that improve online experimentation

PUBLICATIONS AND MANUSCRIPTS

- [7] **Yuan Yuan**, Eaman Jahani, Shengjia Zhao, Yong-Yeol Ahn, and Alex Pentland “*Mobility network reveals the impact of spatial vaccination heterogeneity on COVID-19*”, under review at *Nature Human Behaviour*.
- [6] **Yuan Yuan**, Christos Nicolaides, Alex Pentland, and Dean Eckles “*Promoting physical activity through prosocial incentives on mobile platforms*”, In submission.
- [5] Ding Lyu, **Yuan Yuan** (corr author), Lin Wang, Xiaofan Wang, Alex Pentland, “*Investigating and modeling the dynamics of long ties*”, R&R at *Communications Physics (Nature Portfolio)*.
- [4] **Yuan Yuan**, Tracy Xiao Liu, Chenhao Tan, Qian Chen, Alex ‘Sandy’ Pentland, and Jie Tang, “*Gift contagion in online groups: Evidence from WeChat red packets*.” Minor Revision, *Management Science*.
- [3] **Yuan Yuan**, Kristen Altenburger, and Farshad Kooti, “*Causal Network Motifs: Identifying Heterogeneous Spillover Effects in A/B Tests*”, the Web Conference (WWW), 2021.
- [2] **Yuan Yuan**, Ahmad Alabdulkareem, and Alex ‘Sandy’ Pentland. “*An interpretable approach for social network formation among heterogeneous agents*.” *Nature Communications*, 2018.

- [1] **Yuan Yuan**, Sihong Xie, Chun-Ta Lu, Jie Tang, and Philip S. Yu, “*Interpretable and effective opinion spam detection via temporal pattern mining across websites.*” *IEEE International Conference on Big Data*, 2016.

INDUSTRY EXPERIENCE

Core Data Science Group, Facebook Research

Menlo Park, CA, USA

Research Intern

May 2020 - August 2020

- o Employed causal inference and machine learning to understand how to promote social interactions and solidarity in online social networks.
- o Explored methods for conducting causal inference on large-scale social networks.

INVITED TALKS & LECTURES

- [8] “*Promoting physical activity through prosocial incentives on mobile platforms*”, invited talk, Center for Real Estate, Nov 2021.
- [7] “*Machine Learning for Social Networks*”, invited talk, SICSS Hong Kong, June 2021.
- [6] “*Causal Inference on Social Networks*”, invited talk, Microsoft Research, April 2021.
- [5] “*Causal Network Motifs: Identifying Heterogeneous Spillover Effects in A/B Tests*”, invited talk, Oxford Mathematical Institute, Nov 2020.
- [4] “*Causal identifications in observational studies*”, invited talk, Conference on Big Data and Social Computing, Aug 2020.
- [3] “*Identifying gift contagion in online groups*, ” guest lecturer for Behavioral Economics, Tsinghua University (remotely), Mar 2020.
- [2] “*Predicting economic growth by social diversity*, ” invited talk, International Conference on Social Computing, Aug 2019.
- [1] “*Trading off between homophily and social exchange for social network formation*, ” invited talk, Beijing Normal University, Jan 2019.

CONFERENCE PRESENTATIONS

2021: WebConf, Informs, Informs Healthcare, CIST, WITS

2020: NetSci, IC2S2, CODE

2019: IC2S2, Informs

2018: NetSci-Econ, AFE, NetSci, IC2S2, CODE

2017-: BigData, CCS

PROFESSIONAL SERVICES

Organizer: SICSS Beijing 2021, WINE Experimentation Workshop 2021.

Technical Program Committee: MIT Conference on Digital Experimentation, 2019-2021.

Session chair: CODE’2019-2021, IC2S2’2020.

Reviewer: NSF Proposal, Management Science, MIS Quarterly, ACM Transactions on Knowledge Discovery from Data, IEEE Transactions on Big Data, Misinformation Review, IC2S2'20.

TEACHING EXPERIENCE

Doctoral Research Seminar: Topics in Social Networks

2021 Fall

Introduction to Management Information Systems

2022 Spring

SELECTED AWARDS & GRANTS

Research Grant (\$5,000) from Russel Sage Foundation (co-PI)

2019

Participant in Summer Institute in Computational Social Science, Princeton University

2019

Travel Grant for Annual Conference on Network Science and Economics

2018

College Graduate Excellence Award, Tsinghua University

2016

China Computer Federation Outstanding Undergraduate Award

2015

Chinese National Scholarship

2014