

# Haochuan Cui

## Network Scientist & Computational Social Scientist

Phone Number: (+86) 18810261121

Email: [haochuancui@mail.bnu.edu.cn](mailto:haochuancui@mail.bnu.edu.cn)

Personal Page: [hashc.github.io/about](https://hashc.github.io/about)

### EDUCATION

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- Ph.D. in Systems Science, Beijing Normal University, 2023.07 expected
- Visiting Student in Department of Sociology, The University of Chicago, 2019-2023
- B.A. in Mathematics, Anhui University, 2016.07

### RESEARCH INTERESTS

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My current research focuses on the Science of Science, a new interdisciplinary field uses large data sets to study the mechanisms underlying the doing of science—from the choice of a research problem to career trajectories and progress within a field. my work focus on the formation of knowledge boundaries, and the formation of team, as well as how scholars and their behavior affect the Sci&Tech progress.

### REPRESENTATIVE RESEARCH PUBLICATIONS

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- [1] Wang, C. J., Yan, L., & Cui, H\*. (2023). Unpacking the Essential Tension of Knowledge Recombination: Analyzing the Impact of Knowledge Spanning on Citation Counts and Disruptive Innovation. (Accepted by *Journal of Informetrics*, IF 4.373)
- [2] Cui, H., Zeng, A., Fan, Y., & Di, Z. (2021). Quantifying the impact of a teamwork publication. *Journal of Informetrics*, 15(4), 101217. (IF 4.373)
- [3] Cui, H., Zeng, A., Fan, Y., & Di, Z. (2020). Identifying the key reference of a scientific publication. *Journal of Systems Science and Systems Engineering*, 29(4), 429-439. (IF=1.265)

### UNDER REVIEW

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- [1] Cui, H., & Wang, C. J. (2023). Breaking the Boundaries of Knowledge Space: Analyzing the Knowledge Spanning on the Q&A Website through Word Embeddings. arXiv preprint *arXiv:2301.09739*. (R&R in *Humanit Soc Sci Commun*)
- [2] Cui, H., Wu, L., & Evans, J. A.\* (2022). Aging Scientists and Slowed Advance. arXiv preprint *arXiv:2202.04044*. (Submitted to Nature)

### WORKING PAPER

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- [1] Cui, H. & Li, L., decomposed the disruptive index and predict the disruptive direction of science.
- [2] Yan, L., Wang, C. & Cui, H.\*, Are disruptive patents harder to be rejected by examiner? evidence from USPTO 2000-2019

### AWARDS, FELLOWSHIP & HONORARIA

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- ✓ Chinese Government Scholarship, Chinese Scholarship Council, 2021 (~ \$23K)

- ✓ Kaifeng-Swarm Research fellowship, Kaifeng Foundation, 2020 (~ \$20K)
- ✓ Top Innovative Talents Scholarship, Beijing Normal University, 2019 (~ \$10K)
- ✓ The 1st Prize of Scholarship, Beijing Normal University, 2018 (~ \$2000)
- ✓ The 2nd Prize of Scholarship, Beijing Normal University, 2018 (~ \$1700)
- ✓ Baogang Student Scholarship, Baogang Education Foundation (totally 5 students in the university), 2015 (~ \$1700)
- ✓ The First Prize of Scholarship, Anhui University, 2014 (~ \$800)
- ✓ Xindi Student Scholarship, Anhui University, 2013 (totally 25 students in the university) (~ \$1400K)
- ✓ Meritorious Winner of Interdisciplinary Contest in Modeling (ICM), COMAP, 2016
- ✓ Meritorious Winner of Interdisciplinary Contest in Modeling (ICM), COMAP, 2015
- ✓ The First Prize of China Undergraduate Mathematical Contest in Modeling, CSIAM, 2015
- ✓ The 2nd Prize of national mathematic contest in Anhui for undergraduate students, 2013

### TEACHING ASSISTANT

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- Data Analysis by Python, Beijing Normal University, 2022 Summer
- Frontier on Complex Network, Beijing Normal University, 2021
- Complex Network, Beijing Normal University, 2019
- Computational Communication Seminar, Nanjing University, 2019

### TALK VISITS

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- University of Pittsburg, School of Information Science, 2022
- Nanjing University, School of Information Management, 2021
- Annual Conference of Swarm Club, 2019

### SERVICE

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- Invited Reviewer for Academic Journals:  
*Journal of Informetrics*  
*Journal of Knowledge Management*  
*Journal of Social Computing*
- Conference/Workshop Co-Chair/Organizer:  
 Session host, Conference on Complex Systems-China, CSSC 2021  
 Program Committee Member, International Conference of Computational Social Science (IC2S2 2022)

### OTHERS

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**SKILLS:** Python, R, Matlab, SQL, Liunx shell, Pytorch/Deep Learning