

# Hao Peng

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## CONTACT

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## RESEARCH INTERESTS

My research is in computational social science and science of science — an interdisciplinary field that utilizes data-driven and computational approaches to examine the knowledge of science itself. I'm particularly interested in studying how social factors influence the process of scientific publishing and the dissemination of knowledge. My research goal is to improve the equity, inclusion, and quality of science, and amplify its societal impact.

## EDUCATION

Ph.D. in Information *Sep. 2017 - Present*  
**University of Michigan**, School of Information *Ann Arbor, MI, USA*  
• Advisor: [Daniel M. Romero](#)

M.S. in Data Science *Sep. 2015 - May 2017*  
**Indiana University** *Bloomington, IN, USA*  
• Advisors: [Yong-Yeol Ahn](#), [Filippo Menczer](#)

B.S. in Information Management & System *Sep. 2011 - June 2015*  
**Sun Yat-Sen University** *Guangzhou, China*

## RESEARCH POSITIONS

Graduate Student Research Assistant *Sep. 2017 - Present*  
**University of Michigan** *Ann Arbor, MI, USA*

Summer Research Intern *May 2017/19 - July 2017/19*  
**University of Southern California** *Los Angeles, USA*  
• Supervisor: [Emilio Ferrara](#)

Summer Research Intern *May 2016 - Aug. 2016*  
**University of Pennsylvania** *Philadelphia, USA*  
• Host: World Well-Being Project  
• Supervisor: [Muhammad Abdul-Mageed](#), [Lyle Ungar](#)

## JOURNAL PAPERS

1. Ethnic Disparities in Publishing in Top Biology Journals  
**H. Peng**, K.R. Lakhani, M. Teplitskiy  
(In Review)
2. Author Mentions in Science News Reveal Wide-Spread Ethnic Disparities  
**H. Peng**, M. Teplitskiy, D. Jurgens  
(In Review)
3. Embeddings of Scholarly Periodicals Reveal Complex Disciplinary Organizations  
**H. Peng**, Q. Ke, C. Budak, D.M. Romero, Y.Y. Ahn  
*Science Advances* 7, eabb9004 (2021)
4. Network Modularity Controls the Speed of Information Diffusion  
**H. Peng**, A. Nematzadeh, D.M. Romero, E. Ferrara  
*Physical Review E* 112, 052316 (2020)

5. On the Inevitability of Online Echo Chambers  
K. Sasahara, W. Chen, **H. Peng**, G.L. Ciampaglia, A. Flammini, F. Menczer  
*Journal of Computational Social Science* (2020)
6. Sentiment Analysis of Web Reviews Based on Comparative Sentence Extraction  
**H. Peng**, J. Xu, Z. Xiao  
*Data Analysis and Knowledge Discovery* (2016)

#### SHORT PAPERS

1. Event-Driven Analysis of Crowd Dynamics in the *BLM* Online Social Movement  
**H. Peng**, C. Budak, D.M. Romero  
*WWW* (2019)
2. Performance Dynamics and Success in Online Games  
A. Sapienza, **H. Peng**, E. Ferrara  
*ICDM Workshop* (2017)
3. Recognizing Pathogenic Empathy in Social Media  
M. Abdul-Mageed, A. Buffone, **H. Peng**, S. Giorgi, J. Eichstaedt, L. Ungar  
*ICWSM* (2017)

#### AWARDS AND FELLOWSHIPS

##### Awards

- 2nd Prize of the John Hunter Excellence in Plotting Contest, *SciPy*, 2019
- UMich Rackham Travel Grant, 2019
- UMSI PhD Travel Grant, 2018, 2019
- Travel Scholarship, *IC2S2*, 2018

##### Fellowships

- Microsoft Azure Research Award, 2016
- Indiana University Data Science Program Fellowship, 2015
- Academic Excellence Scholarship of Sun Yat-Sen University, 2011

##### Other Awards

- First Prize in the Regional Physics Competition, Hubei, China, 2010
- Silver Medal in the National Physics Olympiad Contest, China, 2010

#### TEACHING

Graduate Student Instructor

##### University of Michigan

- SI 106 - Programs, Information and People (with [Paul Resnick](#))
- SI 330 - Data Manipulation (with [Matthew Kay](#))

Winter 2019  
Fall 2018

#### MEDIA COVERAGE

##### Research Coverage

- New Scientist [[Link](#)]

Sep 2020

#### SELECTED TALKS

##### Conference Presentations

- *IC2S2*, MIT, USA
- *WWW*, San Francisco, USA
- *IC2S2*, Northwestern University, USA
- *NetSci*, Indianapolis, USA

July 2020  
May 2019  
July 2018  
June 2017

##### Colloquia and Seminars

- CSS Seminar, UMSI
- IAR Seminar, UMSI
- IAR Seminar, UMSI

Oct. 2019  
April 2019  
Nov. 2017

## SERVICE

### Conference Volunteer

- Session chair, *IC2S2*, 2020

### Conference Reviewer

- *WWW*: 2017, 2019, 2020
- *WSDM*: 2018, 2020
- *ICWSM*: 2021
- *IC2S2*: 2020
- *CSCW*: 2020

### Journal Reviewer

- Computer Science: *Transactions on the Web*
- Multidiscipline: *PLOS ONE*

## REFERENCES

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|--|---|
| • Daniel M. Romero<br>drom@umich.edu<br>University of Michigan | • Yong-Yeol Ahn<br>yyahn@iu.edu<br>Indiana University Bloomington |
| • Misha Teplitskiy<br>tepl@umich.edu<br>University of Michigan | • Filippo Menczer<br>fil@iu.edu<br>Indiana University Bloomington |