

# Ruobin Gong

Address 110 Frelinghuysen Road, Hill Center 404  
Piscataway, New Jersey, 08854 USA  
Email [ruobin.gong@rutgers.edu](mailto:ruobin.gong@rutgers.edu)  
Phone +1 (848) 445-7612  
Webpage [ruobingong.github.io](https://ruobingong.github.io)

## Current position

2018- ASSISTANT PROFESSOR, Department of Statistics, Rutgers University

## Education

2018 PH.D., Statistics, Harvard University  
2013 A.M., Statistics, Harvard University  
2011 HON. B.Sc., Cognitive Psychology, University of Toronto

## Grants

2019-22 National Science Foundation, DMS-1916002 (Principal Investigator)  
*Privacy-Preserving Bayesian Inference: Foundations and Extensions*

## Peer-Reviewed Publications

### JOURNAL ARTICLES

- Gong, R. and Meng, X.-L. (2021). Judicious judgment meets unsettling updating: dilation, sure loss, and Simpson's paradox (with discussion). *Statistical Science*, 36(2):169–190
- Jacob, P. E., Gong, R., Edlefsen, P. T., and Dempster, A. P. (2021). A Gibbs sampler for a class of random convex polytopes (with discussion). *Journal of the American Statistical Association*, doi:10.1080/01621459.2021.1881523
- Gong, R., Kadane, J. B., Schervish, M. J., Seidenfeld, T., and Stern, R. B. (in press; 2021b). Deceptive credences. *Ergo, an Open Access Journal of Philosophy*
- Gong, R. and Xie, M. (2019). Discussion on prior-based Bayesian information criterion (PBIC) by MJ Bayarri, James O. Berger, Woncheol Jang, Surajit Ray, Luis R. Pericchi, and Ingmar Visser. *Statistical Theory and Related Fields*, 3(1):35–36

## CONFERENCE PROCEEDINGS

- Gong, R., Kadane, J. B., Schervish, M. J., and Seidenfeld, T. (2021a). Total evidence and learning with imprecise probabilities. *Proceedings of Machine Learning Research (ISIPTA'21)*, 147:161–168
- Gong, R. and Meng, X.-L. (2020). Congenial differential privacy under mandated disclosure. In *Proceedings of the 2020 ACM-IMS on Foundations of Data Science Conference*, pages 59–70
- Gong, R. (2019b). Simultaneous inference under the vacuous orientation assumption. *Proceedings of Machine Learning Research (ISIPTA'19)*, 103:225–234

## Other Publications

### PREPRINTS

- Gao, J., Gong, R., and Yu, F.-Y. (2021). Subspace differential privacy. *arXiv:2108.11527*
- Caprio, M. and Gong, R. (2021). Generalized dynamic Jeffrey's updating. *Technical report*
- Gong, R. (2020b). Transparent privacy is principled privacy. *arXiv:2006.08522*
- Chen, Y., Gong, R., and Xie, M.-g. (2020). Geometric conditions for the discrepant posterior phenomenon and connections to Simpson's paradox. *arXiv:2001.08336*
- Schervish, M. J., Seidenfeld, T., Gong, R., Stern, R. B., and Kadane, J. B. (2020). When no price is right. *Technical report*
- Gong, R. (2019a). Exact inference with approximate computation for differentially private data via perturbations. *arXiv:1909.12237*

### NON-REFEREED ARTICLES

- Gong, R. (2021b). Going remote and back again: Lessons learned. *IMS Bulletin*, 50(6)
- Gong, R. (2021a). Back on the road. *IMS Bulletin*, 50(3)
- Gong, R. (2020a). Now, your information is beyond Enigmatic. *IMS Bulletin*, 49(2)
- Gong, R. (2018b). There's fun in thinking just one step more. *IMS Bulletin*, 47(8)

### DISSERTATION

- Gong, R. (2018a). *Low-resolution statistical modeling with belief functions*. PhD thesis, Harvard University

## Invited Talks

2021

- JSM: *Recent Developments in Differential Privacy* (virtual event)
- ISIPTA 2021, Granada, Spain (virtual participation)
- IMS/HBS virtual workshop: *Crossing Disciplines: Studying Fairness, Bias, and Inequality in Management and Decision Sciences Research*

- 2020 Boston Area Differential Privacy Seminar (virtual event)  
 BFF6.5: *Workshop on Bayesian, Fiducial, and Frequentist Statistical Inference* (virtual event)  
 l'Ecole des sciences criminelles, Université de Lausanne  
 Department of Statistics, The University of Chicago  
 HMI Data, AI and Society Seminar, Australian National University  
 Department of Statistics and Actuarial Science, University of Waterloo  
 FODS2020: Plenary session on *Fairness, Privacy, Interpretability* (virtual event)  
 Statistical Data Privacy Group, Department of Statistics, Penn State University  
 OpenDP Community Meeting, Statistics Breakout Session Lightning Presentation (virtual event)  
 Signal and Information Processing Seminar Series, Rutgers University  
 United States Census Bureau, Suitland, MD
- 2019 Department of Statistical Science, University of Toronto  
 HDSR Symposium: *Differential Privacy for 2020 U.S. Census* (panel), Harvard University  
 Department of Statistics, Columbia University  
 JSM: *Towards Perfect and Scalable Distributional Computation*, Denver, CO  
 ISIPTA 2019, Ghent, Belgium  
 SDSS: *Recent Developments in Lower Rank Learning for Complex Data*, Seattle, WA  
 New England Statistics Symposium, Hartford, CT  
 Sixth Bayesian, Fiducial and Frequentist Workshop (panel), SAMSI, Durham, NC  
 Department of Mathematics and Statistics, Washington University in St. Louis  
 School of Statistics, University of Minnesota  
 Department of Statistics, University of California, Davis
- 2018 Department of Statistics, George Washington University  
 Foundations of Probability seminar, Rutgers University  
 Department of Mathematical Sciences, New Jersey Institute of Technology  
 20<sup>th</sup> IMS New Researchers Conference, Simon Fraser University  
 ICSA Applied Statistics Symposium, New Brunswick, NJ  
 Fifth Bayesian, Fiducial and Frequentist Conference, University of Michigan
- 2017 Department of Economics, Harvard University  
 JSM (invited poster), Baltimore, MD  
 61<sup>st</sup> World Statistics Congress, Marrakech, Morocco  
 Fourth Bayesian, Fiducial and Frequentist Workshop (panel), Harvard University  
*The virtue of the "Not Sure"*. Harvard Horizons Symposium [[video/profile](#)]

## Editorial Service

### JOURNAL

- 2018– ASSOCIATE EDITOR, Harvard Data Science Review  
 – CO-EDITOR, Special Issue on *Differential Privacy and the Decennial Census*

### CONFERENCE

- 2021 PROGRAM COMMITTEE, AIES 2021, virtual conference  
 PROGRAM COMMITTEE and POSTER PRIZE COMMITTEE, ISIPTA 2021, Granada, Spain  
 PROGRAM COMMITTEE, BELIEF 2021, Shanghai, China

2020

|      |   |
|------|---|
|      | PROGRAM COMMITTEE, 7 <sup>th</sup> Bayes, Fiducial and Frequentist Statistics Conference, Toronto, Canada (postponed)                                 |
| 2019 | PROGRAM COMMITTEE, ISIPTA 2019, Ghent, Belgium<br>ORGANIZING COMMITTEE CO-CHAIR, Sixth Bayesian, Fiducial and Frequentist Workshop, SAMSI, Durham, NC |
| 2018 | SESSION ORGANIZER, ICSA Applied Statistics Symposium: Statistical Inference for Discrete and Categorical Data, New Brunswick, NJ                      |
| 2017 | ORGANIZING COMMITTEE, Fourth Bayesian, Fiducial and Frequentist Workshop, Harvard University  |

#### OTHER

|       |  |
|-------|--|
| 2021– | CONTRIBUTING COLUMN EDITOR, <i>Sound the Gong</i> , IMS Bulletin |
|-------|--|

#### Professional Service

|                |  |
|----------------|--|
| 2020–          | SMALL GROUP LEAD, NASEM Committee on National Statistics - 2020 Census Data Products Expert Meetings |
| 2020, 2021     | FACULTY PANELIST, Rutgers DIMACS Research Experiences for Undergraduates Program                     |
| 2018–          | Rutgers Department of Statistics Website Committee   |
| 2018–19, 2020– | Rutgers Department of Statistics Award Nomination Committee  |
| 2018–2020      | Rutgers Department of Statistics Retreat Committee   |

#### Peer Review

|            |   |
|------------|---|
| Journal    | Synthese ('21)<br>Bayesian Analysis ('20)<br>Electronic Journal of Statistics ('18)<br>International Journal of Approximate Reasoning ('19)<br>Journal of Computational and Graphical Statistics ('20)<br>Journal of the American Statistical Association ('18, '20, '21)<br>Revstat ('19)<br>Statistical Science ('18, '19)<br>TEST ('20, '21) |
| Conference | AIES 2021<br>ISIPTA 2021<br>BELIEF 2021<br>ISIPTA 2019  |
| Grant      | National Science Foundation   |

#### Teaching

|              |   |
|--------------|---|
| 2021         | Bayesian Analysis (16:960:568)  |
| 2020         | Byrne Seminar: <i>Statistical Privacy in the Digital World - from Netflix to the Census</i> |
| 2019, 20     | Applied Time Series Analysis (16:960:565)   |
| 2018, 19, 20 | Regression and Time Series (16:954:596)   |

## Previous appointments held

|         |   |
|---------|---|
| 2016-17 | PEDAGOGY FELLOW, Derek Bok Center for Teaching and Learning, Harvard University |
| 2015    | RESEARCH FELLOW, Data Science for Social Good Fellowship, University of Chicago |
| 2012-13 | INTERN, Computational Radiology Lab, Boston Children's Hospital                 |

## Awards

|         |   |
|---------|---|
| 2018    | Arthur P. Dempster Award                                |
| 2017    | Harvard Horizons Scholar                                |
| 2016-17 | Harvard GSAS Merit Fellowship                           |
| 2016    | David K. Pickard Teaching Fellow Award                  |
| 2015-16 | Derek Bok Center Certificate of Distinction in Teaching |
| 2011    | Forrin Prize in Psychology                              |

Last updated: August 31, 2021