

Guangyu Tong

CONTACT INFORMATION

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RESEARCH INTERESTS

Immigration, Mental Health, Gun Violent Crime, Racial Achievement Gap, Statistics (research areas: causal inference, missing data, meta-analysis, generalized linear models, survey methodology, Bayesian modeling)

EDUCATION

Duke University, Durham, North Carolina, USA

Ph.D. Candidate, Sociology (expected graduation: May 2020)
M.A. Sociology, Durham, North Carolina, 2017

Columbia University, New York City, New York, USA

M.A., Quantitative Methods in the Social Sciences, May, 2014

Peking University, Beijing, China

B.L. and B.A., Sociology and Economics, July, 2012

PEER-REVIEWED PAPERS AND CHAPTERS

1. **Tong, Guangyu** and Guang Guo. *forthcoming*. Power and heterogeneity: meta-analysis in sociological research. *Sociological Methods and Research*.
2. **Tong, Guangyu**, Fan Li, and Andrew Allen. *forthcoming*. Missing data methods for clinical trials. Steven Piantadosi and Curtis Meinert (Eds.) *Principles and Practice of Clinical Trials*. New York: Springer.
3. **Tong, Guangyu**. 2019. Ethnic churches as an important space of ethnic resources for immigrant entrepreneurs *Review of Religious Research:61(2): 135-156*.
4. Chen, Jing, Yin Wu, **Guangyu Tong**, Xiaoming Guan and Xiaolin Zhou. (2012). ERP correlates of social conformity in a line judgment task. *BMC Neuroscience*, 13 (1):43.

PUBLICATIONS UNDER REVIEW

1. **Tong, Guangyu** and Angel Harris L. Revisiting the Asian American academic advantage at the close of the 20th century: the importance of selective migration on college enrollment. *R&R from International Migration Review*.
2. Yu, Hengshi, **Guangyu Tong**, and Fan Li. A note on the estimation and inference with extended score equations for correlated outcomes *Under Review*.
3. **Tong, Guangyu**, Emily Persons. Getting ready ahead: socioeconomic status and parenting strategies among Chinese adolescents with emigration intentions. *Under Review*.
4. **Tong, Guangyu**, Guang Guo. The life-course association of birthweight genes with health: heterogeneity in age groups and birth cohorts. *Under Review *Poster Session Winner, PAA Annual Conference, 2018, Denver.**
5. Wu, Qiang and **Guangyu Tong (Equal Contribution)**. Spike and slab: observations on the long-term income inequality in imperial China and a cultural shift explanation. *Under Review*.

ONGOING
RESEARCH
PROJECTS

1. Combining survey weights and propensity score weights for multiple treatments and an application in studying educational achievement across immigrant generations.
2. An R package for balancing weights and multiple-group comparison in Cox proportional hazard models. *Collaboration with Fan Li and Tianhui Zhou.*
3. The effectiveness of involuntary commitment following short-term holds (Baker events) on preventing gun-involved violent crime, murder, and suicide among people with mental illness *Collaboration with Jeffrey Swanson and Michele Easter.*
4. Firearm access at different ages, behavioral and mental disorders, and the future criminal behaviors and misuse of firearms. *Collaboration with William Copeland, Jeffrey Swanson, and Michele Easter.*
5. The use of shared parameter models and pattern mixture models for handling missing data in meta-analysis and network meta-analysis with individual-level patient data. *Collaboration with Hwanhee Hong.*

CONFERENCE
PRESENTATIONS

- Revisiting the Asian American academic advantage at the close of the 20th century: the importance of selective migration on college enrollment. *Paper Session, Annual Conference of Population Association of American, Austin, TX, April, 2019.*
- Power and heterogeneity: meta-analysis in the era of big data. *Regular Session, Annual Meeting of American Sociological Association, Philadelphia, PA, August, 2018.*
- Separable factor analysis in the multivariate exploratory data analysis. *Paper Session, Joint Statistical Meeting, Vancouver, BC, Canada, July, 2018.*
- Birthweight gene predicts the life-course health and socioeconomic outcomes. *Paper Session, RC 28 Annual Meeting, Seoul, South Korea, May 2018.*
- A supply-side explanation on selective migration of potential Chinese immigrants. *Poster Session, Annual Conference of Population Association of American, Denver, CO, April 2018.*
- Birthweight genes predict the life-course health and socioeconomic outcomes. *Poster Session, Annual Conference of Population Association of American, Denver, CO, April 2018.*
- Spike and slab: Observations on the long-term income inequality in imperial China. *Paper Session, Annual Conference of Social Science History Association, Montreal, Quebec, Canada, November 2017.*
- The Asian-American achievement advantage: Superior academic culture or selective migration? *Regular Session, Annual Meeting of the American Sociological Association, Seattle, WA, August 2016.*
- Co-religion, co-ethnicity or kinship networks? Social capital in ethnic churches for new immigrant entrepreneurs. *Round Table, Annual Meeting of the American Sociological Association, Seattle, WA, August 2016.*

INVITED TALKS

- Difference-in-difference methods in the analysis of social media data. Chinese University of Political Science and Law, Beijing, China, May 2018.
- An introduction to social networks and computational social sciences. Chinese University of Political Science and Law, Beijing, China, May 2016.

TEACHING EXPERIENCE	Instructor, Sociological Inquiry (SOC1 110), Duke Sociology, Summer 2018	
	Instructor, Sociological Inquiry (SOC1 110), Duke Sociology, Summer 2017	
	Guest Instructor, "Handling Missing Data with R", Summer Program in Professional Studies, Duke University, Summer 2016	
	Discussion Session Instructor, Sociological Inquiry (SOC1 110), Duke Sociology, Fall 2018	
	Discussion Session Instructor, Sociological Inquiry (SOC1 110), Duke Sociology, Spring 2017	
	Discussion Session Instructor, Sociological Inquiry (SOC1 110), Duke Sociology, Fall 2016	
	Lab Instructor, Data Visualization (QMSS 4065), Columbia University, Spring 2014	
	Lab Instructor, Data Visualization (QMSS 4065), Columbia University, Fall 2013	
	Teaching Assistant, Stats Analysis of Quantitative Data (SOC1 333), Duke Sociology, Spring 2019	
	Teaching Assistant, Stats Analysis of Quantitative Data (SOC1 333), Duke Sociology, Spring 2018	
	Teaching Assistant, Social Research Methods (SOC1 332), Duke Sociology, Fall 2017	
	Teaching Assistant, Society and Genomics, Peking University, Summer 2012	
	AWARDS AND RESEARCH FUNDS	Poster Session Winner, Population Association of America Annual Meeting, 2018
Graduate Student Conference Travel Award, Duke Graduate School 2017,2018		
Competitive Summer Research Fellowship, Duke Graduate School 2017, 2019		
Outstanding Research Fund (\$1500), Duke Department of Sociology, 2015		
The President's Research Fund (about \$1000), Peking University, 2010-2011		
May Fourth Anniversary Scholarship, Peking University, 2010		
OTHER ACADEMIC & TRAINING EXPERIENCE	<i>Graduate Research Assistant</i>	
	Department of Psychiatry and Behavioral Sciences, Duke University	Sep 2018 - Now
	Duke Network Analysis Center, Duke University	Sep 2014 - May 2015
	Department of Statistics, Columbia University	Jan 2014 - May 2014
	Mailman School of Public Health, Columbia University	Sep 2012 - Dec 2013
	<i>Trainee</i>	
	Genomics for Social Scientists Summer Workshop by National Institute of Aging Ann Arbor, Michigan	Jun 2018
	Graduate Student Workshop by Association for the Study of Religion, Economics, and Culture Orange, California	Mar 2018
	Summer Institute in Social-Science Genomics by Russel Sage Foundation Santa Barbara, California	Jun 2017
	<i>Participant</i>	
	Duke Data Visualization Contest	
	<i>Featured Project on Duke Research Website: The Math of Popularity</i>	Dec 2015
	FDNY Beta Data Drive	June 2014
	UNDP Visualization Data Drive	April 2014
	<i>Visiting Student</i>	
	Summer Exchange Program of Ludwig-Maximilian University	Aug 2011
	PROFESSIONAL SERVICE	Poster Session Judge, Annual Conference of PAA, Austin
VIP Consultant for Duke DataFest Data Analysis Competition		April, 2015

Ad-hoc Reviewer for *BMJ Open*, *Rationality and Society*, *Review of Religious Research*, *Research in Social Stratification and Mobility*

PROFESSIONAL
SOCIETIES

American Sociological Association, 2014 – present
Population Association of America, 2016 –present
American Statistical Association, 2016 – present
Research Committee 28 (RC28), 2018 –present
Social Science History Association, 2017– 2018

PROGRAMMING
LANGUAGES

R, SAS, Stata, Python, Java, Linux/Shell, Latex

PHD-LEVEL
STATISTICS
TRAINING

Duke University (all earned A-range grades):
STAT 571: Machine Learning
STAT 601: Bayesian and Modern Statistics
STAT 640: Causal Inference
STAT 832: Multivariate Statistical Analysis
STAT 841: Categorical Data Analysis
BIOSTAT 710: Statistical Genetics and Genetics Epidemiology
BIOSTAT 903: Advanced Survival Analysis
BIOSTAT 673(UNC): Probability and Statistical Inferences II
SOC 718(UNC): Longitudinal Data Analysis
BIOSTA 902: Missing Data Analysis: Theory and Applications (Audit)