

Mathematical Sociologist

Message from the Chair: Lynn Smith-Lovin



I hope that everyone's new year is off to a great start. The Section is going great guns and is headed into a fun time of the year—awards season and ASA submissions. We have five awards for which we will be accepting nominations until February 1. You can find descriptions and nomination information at <https://bit.ly/3rUiTY7>. In addition, we have our two graduate student awards, the best article award, and of course, the Coleman Lifetime Achievement Award. (continues on page 2).

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<p>Chair Lynn Smith-Lovin Duke University</p> <p>Chair-Elect Dawn Robinson U. of Georgia</p> <p>Past Chair Guillermina Jasso New York University</p> <p>Secretary/Treasurer Pam Emanuelson North Dakota State U.</p>	<p>Section Council Emma Spiro U. of Washington</p> <p>Neha Gondal Boston University</p> <p>Weihua An Emory University</p> <p>Kevin Lewis UC San Diego</p> <p>Kimberly Rogers Dartmouth College</p>	<p>Matt Brashears U. of South Carolina</p> <p>Student Representative Victoria Money U. of South Carolina</p> <p>Newsletter Co-Editors Jorge Zazueta U. Aut. de S. Luis Potosí</p> <p>Diego Leal U. of South Carolina</p> <p>Webmaster Zack Almquist U. of Washington</p>
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And I especially want to call your attention to our new award, the Award for Progress in Mathematical Sociology. This award will be given for the first time this year and recognizes a discovery, technical innovation, or invention representing a significant contribution to progress in mathematical sociology. The contribution may have been made at any time prior to the award year, and up to three people can share the award. Because it is new, we'll need to think about what kinds of discoveries or innovations we'd like to honor. Dawn T. Robinson (sodawn@uga.edu), our Chair-elect, has agreed to chair the Progress Award committee so that you can send nominations to her.

The submissions to the ASA program are due just a short time later, on February 16. We have three open-paper sessions on the section program this year and a Mathematical Sociology session in the general program, organized by our Section's Secretary-Treasurer Pam Emanuelson. In addition, we are collaborating with three other sections in 2022: Culture, Methodology, and Inequality, Poverty, and Mobility. (We will also have a special session honoring Tom Fararo, organized by John Skvoretz.) Information on the sessions can be found here: <https://bit.ly/3o3Nod2>. At the meetings in Los Angeles, our section day will be the last day of the meetings (August 9). Because of that, we've decided to join forces with a couple of other sections that are meeting on the last day for our reception—Social Psychology and Emotions. Our membership overlaps substantially with Social Psychology, and I have close relations with both sections. Combining our resources will help us have a nice spread and a good time.

To nominate or BE nominated for an award, to submit a paper to our great sessions, to register and come to the Los Angeles meeting, or to vote in the ASA election on March 31 (when we will have a great slate of officer nominations and a by-law change on the ballot)—you've got to be a member of ASA and the Section. Our membership was the highest it's ever been in December, at 332. But, as we knew it would, it's dropped quite a bit as people's ASA memberships expired at the end of the year. Your section membership expires automatically when your ASA membership dies. So, it's time to sign back up so that you can be a part of all of the coming activities. And when you renew your membership, be SURE to check that Mathematical Sociology box! (If you got this newsletter through the section listserve, you are currently active in the ASA and the Section. If you got it through a separate, blinded email list, then you are one of the people who expired at the end of the year. Time to sign up again.)

By the way, while you are signing up, you might think about giving a gift membership to a student or a colleague. The deadline for gift memberships to count toward our next year's (Philadelphia in 2023) program allocation and budget is July 31, 2022. However, the sooner you give a gift membership, the sooner the lucky person can begin to enjoy membership benefits and learn more about the Section. To purchase a gift membership for someone, go to asanet.org and log in to the member portal. Next, click "Purchase a gift section membership" under Contribute/Give. Next, select Mathematical Sociology and search for the person you want to give to by first and last name. Immediately after you make your payment, the person will receive an email that includes your name along with the notification of the section gift. They don't have to do anything—they are in.

And what are they in for? In addition to the awards and sessions to feature our research work, several interesting things are going on. The Council will be deciding how to invest and allocate Tom Fararo's wonderful bequest. The new DEI ad hoc committee continues to develop ideas for making the Section more diverse and inclusive in a variety of ways. I'm also planning to ask Council to form two new ad hoc committees—one composed of graduate students to help think of ways to make the Section more inclusive and interesting for our graduate student members, and a second to help develop information and programs to help us connect more with researchers and practitioners outside academia. The ASA has suggested to us that our mentoring program could be more effective (especially at reaching marginalized groups) if it had a bit more structure, so I'm hoping the graduate student committee and DEI committee can work together to get that set up. We'll be talking about all of these things in Los Angeles, when hopefully we can meet IN PERSON to celebrate our research and having survived the pandemic isolation in good, healthy form.

I look forward to seeing you there. We will circulate our second newsletter of the year in mid-summer to give you a more detailed plan for all the fun. Meanwhile, stay safe, keep well, and send in those nominations and papers.

Mathematical Sociology at ASA

2022 ASA – Los Angeles

Mathematical Sociology & Sociology of Culture Joint Session: Formal Models of Culture

Session Organizer: Daniel DellaPosta, Pennsylvania State University (djd78@psu.edu)

We invite papers that use formal (mathematical or computational) approaches, broadly speaking, to study culture. These papers could focus, for example, on how culture forms and evolves, how cultural elements relate to one another, or how cultural factors influence thinking and behavior, among other possible topics. We are open to papers that present and develop theoretical models using formal techniques as well as those that apply formal methods to empirical data. The methods used in these papers could include (but are not limited to) network analysis, word-embedding or other forms of natural language processing, mathematical models, or agent-based computational models.

Open-Theme Regular Session in Mathematical Sociology

Session Organizer: Pamela Emanuelson, North Dakota State University (pamela.emanuelson@ndsu.edu)

The ASA Program Committee welcomes paper submissions on all areas of mathematical sociology, including but not limited to mathematical and/or computational modeling, technical innovations in simulation or data analysis, and empirical studies leveraging or showcasing technical innovations.

Mathematical Sociology & Inequality, Poverty and Mobility Joint Session: Mathematical and Computational Approaches to Studying Inequality

Organizer: Siwei Cheng, New York University (siwei.cheng@nyu.edu)

This session invites papers that employ mathematical and computational methods, including but not limited to formal modeling, agent-based models, machine learning, network analysis, and text analysis, to study theoretical and empirical aspects of inequality.

Invited Panel in Honor of Thomas Fararo

Organizer: John Skvoretz, University of South Florida (jskvoretz@usf.edu)

Theoretical Unification and Sociological Theory: An Appreciation of the Contributions of T.J. Fararo.

Mathematical Sociology & Methodology Joint Session in Computational Sociology: Methods and Application

Session Organizer: Xi Song, University of Pennsylvania (xisong@upenn.edu)

This joint session of the Methodology and Mathematical Sociology Sections covers new work that develops new computational methods and/or applies computational methods to novel sources of data such as administrative records, historical archives, text and image data, social media, network data, and data that link traditional social surveys with emerging 'Big Data' in social sciences.

Call for Section Award Nominations

James S. Coleman Distinguished Career Achievement Award

Committee Chair: Weihua An (Emory University)

This award is given biennially in even-numbered years for a distinguished career in mathematical sociology. Nominators and nominees must be members of the Mathematical Sociology Section at the time the nomination is submitted. Please write to Weihua An, Chair (weihua.an@emory.edu), by February 1, 2022, to submit nomination letters.

Geoffrey Tootell Mathematical Sociology Outstanding Dissertation-in-Progress Award

Committee Chair: Emma Spiro (University of Washington)

This award, given annually, provides a grant of \$5,000 to meet some of the scholarly expenses of a student whose dissertation employs mathematics in an interesting, imaginative, or ingenious way to advance sociological knowledge. The applicant should submit a copy of the approved dissertation proposal, with a list of any requirements added by the graduate committee. The application packet should also include a letter of support from the student's sponsor, which describes the student's qualifications for the completed task and the potential importance of the project. Applicants must be members of the Mathematical Sociology section, and must agree to remain members through the period to be covered by the grant. Please send a copy of the dissertation proposal and an application letter to Emma Spiro (espiro@uw.edu) by February 1, 2022. (Letters of support may be sent separately in cases of self-nomination; please indicate the name of the letter writer in the application letter.)

Outstanding Article Publication Award

Committee Chair: Kevin Lewis (University of California San Diego)

This award is given annually for a published article making significant contributions to mathematical sociology. Eligible papers must have a publication date during the three years before the award year, that is, in 2019-2022. Nominators and nominees must be members of the Mathematical Sociology Section at the time the nomination is submitted. Self-nominations are welcome. Please submit papers and a nomination letter to Kevin Lewis, Chair (lewis@ucsd.edu), by February 1, 2022

Award for Progress in Mathematical Sociology

Committee Chair: Dawn Robinson (University of Georgia)

This award, to be given annually starting in 2022, is for a discovery, technical innovation, or invention representing a significant contribution to progress in mathematical sociology. The contribution may have been made at any time prior to the award year. While this contribution will ordinarily be described in one or more publications, this award recognizes the intellectual contribution itself and not any publication arising from it. Up to three individuals may share a given award, provided that all meet the selection criteria. Nominators and nominees must be members of the Mathematical Sociology Section at the time the nomination is submitted. Self-nominations are welcome. Please submit nomination letters to Dawn T. Robinson, Chair (sodawn@uga.edu), by February 1, 2022

Outstanding Graduate Student Paper Award

Committee Chair: Matthew Brashears (University of South Carolina)

This award is given annually for a paper that significantly contributes to mathematical sociology. Papers can be published or unpublished. The submission can consist of a dissertation chapter but not the entire dissertation. Eligible papers must have been written while the corresponding or first author was still a graduate student and during the three years before the award year, that is, in 2019-2022. Multiple-author papers are admissible, provided that the corresponding or first author meets the eligibility requirements and no non-student is a co-first author; in the case of multi-authored papers with non-student authors, a letter from the most senior non-student author is required which describes the student(s) contributions. Nominators and nominees must be members of the Mathematical Sociology Section at the time the nomination is submitted. Self-nominations are welcome. The award is shared by the eligible student authors on multiple-author papers, including non-student authors who are Section members. Please email a copy of the paper and a nomination letter to Matthew Brashears, Chair (BRASHEAM@mailbox.sc.edu), by February 1, 2022. (Letters of support may be sent separately in case of self-nomination; please indicate the letter writer's name in the application letter.

Highlight: 14 years an Editor. Talking to Pam Emanuelson

Diego Leal (DL): How did you get involved in the Mathematical Sociologist? For how long were you an editor?

Pam Emanuelson (PE): The Mathematical Sociologist was my first foray into professional service. Barbara Meeker was stepping down from her editorship after almost ten years. The chair at the time requested volunteers to take up the position. It's kind of funny looking back, but I was really nervous as I approached to offer my services. Luckily, Alison Bianchi had also volunteered, so I wasn't alone. We co-edited for the first year, though much of the credit for those early newsletters goes to Alison. After that first year, I took up the mantle on my own. For a couple of years, it was just me. But, as you know, others hopped on board periodically to share the load.

As for how long I was editor... I don't quite recall. The first year I remember was 2007. Diane Felmlee was the chair that year, and she was a delightful colleague to work beside. The last newsletter was undoubtedly in 2020. So let's say I acted as editor or co-editor for 13 to 14 years.

DL: How do you think being an editor helped you (or not) to get a better sense of our community?

PE: It's actually been a great experience, and I'd encourage any graduate student or early faculty member to volunteer. You meet so many exciting scholars. Honestly, as graduate students change roles from student to faculty, I think many of us suffer from imposter syndrome. While the editorship was a small responsibility on the larger scale of my career, it played a prominent role in building my confidence and professional network. Since then, I've taken up multiple leadership positions within my University and in the broader discipline. I don't know that all those opportunities would have come my way had I not started as newsletter editor.

DL: Any funny or interesting anecdote related to your time as editor? Maybe a number you remember fondly?

PE: Amusing anecdotes are in short supply. I've worked with many people, but I'm not one to 'edit and tell.' Still, there are many people that I remember fondly. Perhaps the people I enjoyed working with the most were my co-editors. I'm always grateful for the contributions and ideas of others. My sincerest thanks to Alison Bianchi, Donna Lancianese, and Diego Leal for their outstanding work as co-editors. During my tenure, members have used the newsletter to express ideas regarding the state of the discipline in general and mathematical sociology in particular. These editorials are what I'm most proud of, and I'm very grateful for the scholars that took time out of their busy schedules to write them.

DL: Is there something we did not ask that you wish we had asked?

PE: Not so much, but I will add a few concluding comments. The Section is vital, and it continues to grow in new and exciting directions. It was an honor to have a front-row seat to those developments. Thank you for entrusting me with the section newsletter for so many years.



Highlight: Zack Almquist Takes Over the Journal of Mathematical Sociology



Zack W. Almquist will be serving as the Editor-in-Chief for the Journal of Mathematical Sociology published by Taylor and Francis (<https://bit.ly/3s17Yfq>) starting in February 2022. He is taking over from the excellent leadership provided by Noah Friedkin (2015-2022) and is looking forward to supporting the Mathematical Sociology community in this new role.

Prof. Almquist is currently an Assistant Professor in the Department of Sociology, an Adjunct Assistant Professor in the Department of Statistics, and a Senior Data Science Fellow in the eScience Institute at the University of Washington. He also serves as the Center for Studies in Demography and Ecology's Training Core PI, where he leads the NIH T32 Fellowship program in Demography and Data Science. Before coming to UW in 2020, Prof. Almquist has held positions as a Research Scientist at Facebook, Inc on the Demography and Survey Science team and as an Assistant Professor of Sociology and Statistics at the University of Minnesota. He has also been a visiting scholar at Stanford University and the University of Washington. Dr. Almquist received his Ph.D. from the Department of Sociology at the University of California, Irvine. He also holds MAs in Sociology and Demography from UCI, an MS in Statistics from Northwestern University, and a BS in Mathematics from the University of Oregon. Dr. Almquist is a recipient of the ASA's Section on Methodology's Leo Goodman Award and the Mathematical Sociology's Outstanding Dissertation Award.

Editor Almquist is looking forward to excellent submissions in Mathematical Sociology and is encouraging you to send your best work in formal modeling writ large in the social sciences. This includes but is not limited to research in agent-based modeling (ABM), simulation analysis, mathematical models, statistical models, machine learning, and demographic methods. The Journal of Mathematical Sociology is published in association with the International Network for Social Network Analysis, the Japanese Association for Mathematical Sociology, the Mathematical Sociology Section of the American Sociological Association, and the Methodology Section of the American Sociological Association.



Highlight: Student Representative

Victoria Money

I am a quantitative researcher that uses experimental methods to identify underlying mechanisms for human behavior. These behaviors include deception, identity adoption, long-term adherence to newly adopted behaviors or identities, and responses to disrupted environments. Although I primarily use experimental methods, I also utilize simulation, social network analysis on big data, and survey data to explore and explain social phenomena. As a Ph.D. candidate at the University of South Carolina, I am working under a Defense Threat Reduction Agency (DTRA) grant examining human movement in response to a nuclear explosion event. My research goals aim to understand various reactive behaviors so that we may then build better predictive models and intervention strategies.

My master's thesis focused on the use of lying in situations that were incongruent with an individual's expectations. I designed a 2x2 vignette experiment that manipulated relationship type (casual or close) and the level of situational incongruency via deflection scores (low or high). I found that an overwhelming number of participants lied to their partners when the situation they experienced did not meet their expectations. Although lying is deemed taboo, participants in my study used it to protect their partner or did so out of politeness. Lying was a tool used to manage anticipatory deflection; hurting their partner's feelings by being honest would have caused high deflection, deflection not yet experienced. This study also included free text response options to allow participants the opportunity to reflect and expand on their behavioral choices.

In a different vein of research, I collaborated with Information Sciences to characterize diet using data from Reddit. This project employed Natural Language Processing using Mallet in Python, resulting in the publication of a conference paper with the Association for Information Science and Technology. With over 500,000 observations, we were able to identify seven topics on diet. These data showed an emphasis on healthy lifestyles, health promotion, and overall, the presence of positive social support for those posting diet information (seeking advice and information). Although this project differs from my thesis, it does share an overlapping theme of prosocial behavior. The desire to help and provide support for someone emerged in both datasets.

Currently, my work with DTRA includes building a baseline simulation of human movement in response to a nuclear explosion. This model relies on the Dynamic Social Impact Theory to determine movement both in response to the initial event and to radiophobia. The latter case, radiophobia, is rooted in misinformation. Not only does it cause fear and related health problems (to fear not radiation), but it also negatively impacts the economy through refusal or high hesitancy to return to and to consume any animal and agricultural products produced by a now cleared hot spot. In combination with literature and reports on historical nuclear events, this project aims to model human movement so we may better understand and thus mitigate problems such as death due to neglect, prolonged negative consequences, and adverse health outcomes due to fear born from misinformation. You can learn more about my work at: <https://sites.google.com/view/vikimoney>

New Work by Members of Our Community

New Articles

Jasso, Guillermina. 2021. "Linking Input Inequality and Outcome Inequality." *Sociological Methods and Research* 50(3):944-1005. <https://doi.org/10.1177/004912412111014245>

Adriaans, Jule, Stefan Liebig, Clara Sabbagh, and Guillermina Jasso. 2021. "What's in a Word? Just vs. Fair vs. Appropriate Earnings for Self and Others." *Social Justice Research* 34(4):397-427. <https://doi.org/10.1007/s11211-021-00380-1>

Jasso, Guillermina. 2021. "The Methods and Surprises of Sociological Theory: Ideas, Postulates, Predictions, Distributions, Unification." Pp. 17-36 in Seth Abrutyn and Omar Lizardo (eds.), *Handbook of Classical Sociological Theory*. New York, NY: Springer. https://doi.org/10.1007/978-3-030-78205-4_2

Zazueta, Jorge, and Accinelli Elvio. 2021. "Exploring the gender gap in the labor market: a sex-disaggregated view." *The Social Science Journal*. <https://doi.org/10.1080/03623319.2021.1905398>

Accinelli, Elvio, García Armando, Sánchez Carrera Edgar, and Zazueta Jorge. 2021. "On the Strategic Complementarity of Skilled Workers and Technological Innovation: Which Determines Which?" *Studies in Microeconomics*. <https://doi.org/10.1177/10723210222211024383>

Edited collection of articles (with downloadable E-Book)

Jasso, Guillermina, and Moshe Semyonov. 2021. *Immigration in the Global Era: Migrants and the People and Laws at Origin and Destination*. Immigration in the Global Era: Migrants and the People and Laws at Origin and Destination | *Frontiers Research Topic* (frontiersin.org). [\[link\]](#)



Opportunities

BIGSSS Summer School: Call for Experts/Projects Summer School & Research Incubator

We are looking for experts and projects for our computational social science (CSS) summer school on data-driven modeling of social cohesion.

It will take place in Groningen (Netherlands), hosted by the Department of Sociology / ICS at the University of Groningen, from July 4 to 15, 2022.

The two-week summer school is also a research incubator. That means, besides listening to lectures and hands-on workshops, experts and participants work together on research projects for publication. The results of former schools were published as an edited volume and in scientific journals.

See the website (continuously updated): <http://janlo.de/bigsscss/> and our Call for Experts [here](#)

We offer travel expenses, accommodation, meals, and the opportunity to work on your own research questions in a lively environment.

Contact: css@bigsss-bremen.de. Organizers: Jan Lorenz, Andreas Flache, Michael Mäs. (Rolling admission without a deadline, please contact us directly with your ideas or questions.)

We are looking for projects addressing the conceptualization and measurement of social cohesion as well as its causes and consequence using methods of computational social science such as

- Innovative data analysis
- Internet-based experiments
- Data related agent-based modeling and simulation
- Social network analysis
- Natural language processing
- Social media analysis

Thank you for your timely contributions to the Spring Issue of the Mathematical Sociologist. Please continue to send us your announcements, articles, book reviews, conference announcements, etc. The more you are involved with the newsletter, the better it will be. Please feel free to send us your comments, concerns, corrections, or any ideas you have for the newsletter.

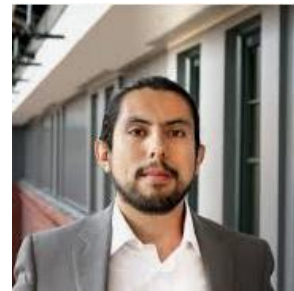
Have a great Spring semester, and watch your email for future newsletter editor requests!

Newsletter Co-editors



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Mission Statement of the Mathematical Sociology Section

The purpose of the Mathematical Sociology Section of the American Sociological Association is to encourage, enhance and foster research, teaching, and other professional activities in mathematical sociology, for the development of sociology and the benefit of society, through organized meetings, conferences, newsletters, publications, awards and other means deemed appropriate by the Section Council. In addition, the Section seeks to promote communication, collaboration, and consultation among scholars in sociology in general, mathematical sociology, and allied scientific disciplines.