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Mathematical Sociologist

VOLUME 15, ISSUE I

FALL/WINTER 2011-2012

Greetings from the Chair...Katherine Faust

It is a pleasure to report on current activities of the ASA Mathematical Sociology Section and to let you know of upcoming events. It was a busy summer. Mathematical Sociology had a great presence at the ASA meetings in Las Vegas, with two sessions focusing on the challenges and benefits of interdisciplinary research. We also had a lively Section Business Meeting where, among other things, we recognized winners of three awards: Damon Centola received the Outstanding Article Award; Nick Berigan received the Outstanding **Dissertation in Progress** Award; and Ashton Verdery received the Best Graduate Student Paper Award (more details on the recipients are elsewhere in the newsletter). The joint reception with the sections on Rationality and Society and Evolution, Biology, and Society provided a marvelous venue to renew acquaintances and meet colleagues from related areas.

I am extremely grateful to Robert Hanneman for his service as 2010-2011 Section Chair, for his many contributions to keeping this a vibrant section, and for being generous with his time in the transition. I also want to thank our outgoing council members (James Kitts, David Melamed, and Dawn Robinson) and welcome the new members of council (Arnout van de Rijt, Matthew Brashears, and Emma Spiro).

Section membership continues to hold steady. At the most recent count we have 231 members, 60 of whom are students! This is up 5 people from a year ago, reflecting a general trend of growing section memberships in ASA. As always, we want to keep Mathematical Sociology as vibrant as possible, and recruiting new members is a means toward that end. It is especially helpful to recruit student members, and although the section cannot pay dues, individuals are welcome to subsidize the (quite modest) cost of a student membership.



On the theme of engaging new people in mathematical sociology, you can also help by contributing to the Dissertation in Progress Award fund. If you make a contribution to ASA, be sure to note on the check that it should go to the Math Soc Dissertation Award. David Wagner (section treasurer) can help direct your contribution

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appropriately (email d.wagner@albanv.edu).

Several events are planned for the upcoming year. We will have two section sessions at the ASA meetings in Denver one devoted to models and assessing model adequacy and the other focused on empirical applications. Section day will be Saturday, August 18. We are also continuing our cosponsorship of the Joint Japan – North America Mathematical Sociology Conference, which will take place on Thursday, August 16, the day before the ASA meetings. Mitch Sato and Sun-Ki Chai are co-organizers of the joint conference, and we can expect to hear more from them as plans develop. There are also sessions devoted to mathematical sociology at the upcoming Pacific Sociological Asso-

ciation and the Midwest Sociological Society meetings.

The section will be giving four awards in 2012: the James Coleman recruiting new members **Distinguished Career** Award, Outstanding Article Publication Award, Outstanding Dissertationin-Progress Award, and Graduate Student Paper Award. Descriptions of these awards can be found tions and associations to elsewhere in the Newsletter, but I want to emphasize that we need you to submit nominations so can consider the very best various conferences and contenders in each category.

Looking to the future, my goals for the year are straightforward: sustain a reasonable growth in section membership; expand the reach of mathematical sociology; maintain a healthy financial state; and keep the section vibrant and relevant to its members.

As I noted above, is vital, and small efforts by individuals can add up (strength through math). We can also help ensure a central position for mathematical sociology by working with other secdemonstrate the wide applicability of mathematical approaches to social phenomena. Sessions on that the award committees mathematical sociology at mini-conferences devoted to mathematical sociology Sociology! are great, as are joint sessions with synergistic groups. I also want to keep the section useful and relevant for members. Timely and engaging

communication is vital, and we are fortunate to have dedicated people overseeing our newsletter (Pamela Emanuelson) and website http://www. mathematicalsociology.org/ (Matthew Brashears). Ensuring that these venues continue their appeal also requires that others contribute ideas and material - so, get in touch with Pamela and Matthew to spread the word.

I anticipate a great year ahead for Mathematical Sociology, and I look forward to working with section council and members to promote Mathematical

MATHEMATICAL SOCIOLOGY **Triple Special Issue** "Micro-Macro Links and Micro-Foundations" Journal of Mathematical Sociology 35(1-3) 2011 **Special Issue Editors:** Marcel van Assen, Vincent Buskens, and Werner Raub For information see: http://www.informaworld.com/smpp/title~db=all~content=g933028573 L

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Xiaomeng Ban, Jie Gao, and Arnout van de Rijt. 2010. "Navigation in Real-World Complex Networks through Embedding in Latent Space." Pp. 138-48 in *Proceedings of the 2010 Workshop on Algorithm Engineering & Experiments* (ALENEX10), Texas: SIAM.

Barnett, George A. 2011. *Encyclopedia of Social Networks*. Sage Publications, Inc.

From the Special Edition of Mathematical Sociology:

Werner Raub, Vincent Buskens, and Marcel A. L. M. van Assen. "Micro-Macro Links and Micro-Foundations in Sociology."

Simon Gächter and Christian Thöni. "Micromotives, Microstructure and Macrobehavior: The Case of Voluntary Cooperation."

Kazuo Yamaguchi. "Population Heterogeneity and Between-Group Substitutability and Complementarity of Social Actions."

Arnout van de Rijt. "The Micro-Macro Link for the Theory of Structural Balance."

Mark Fossett. "Generative Models of Segregation: Investigating Model-Generated Patterns of Residential Segregation by Ethnicity and Socioeconomic Status."

Andreas Flache and Michael W. Macy. "Small Worlds and Cultural Polarization."

Dirk Helbing, Wenjian Yu, and Heiko Rauhut. "Self-Organization and Emergence in Social Systems. Modeling the Coevolution of Social Environments and Cooperative Behavior."

Karl-Dieter Opp. "Modeling Micro-Macro Relationships: Problems and Solutions."

Check out these recent publications in Mathematical Sociology!!

BEST PUBLISHED ARTICLE AWARD

Damon Centola M.I.T Sloan School of Management

"The Spread of Behavior in an Online Social Network Experiment"

Committee Members:

Robb Willer, Chair Robert Breiger and Katherine Faust

GRADUATE STUDENT PAPER AWARD

Ashton Verdery

University of North Carolina, Chapel Hill

"Population Growth and Social Structure"

Committee Members:

Jane Sell, Chair Alison Bianchi and David Melamed

DISSERTATION IN PROGRESS AWARD

Nick Berigan University of South Carolina

"Justice, Sanctioning and Retaliation in the Provision of Public Goods"

Committee Members:

Pamela Emanuelson. Chair Peter Burke and Dawn Robinson





Ashton Verdery Turners Falls, MA

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HIGHLIGHTS

TWO DISSERTATION-IN-PROGRESS AWARD WINNERS

I started studying mathematical sociology late in my undergraduate career. Initially I was interested in ethical and political philosophy, especially the works of Hobbes, Locke, Rousseau, and Mill. I was attracted to

these writers by the common theme of an ongoing struggle to prevent the world from spiraling into chaos. The question that

always stuck with me was, if we are constantly bombarded with opportunities to be selfish and to go against the collective interest, why are we bothered when someone does so? To this day, that question influences my work.

The first time I saw the opportunity to answer questions regarding social order was in a social psychology course taught by Lisa Troyer. Thereafter, I enrolled in the University of Iowa's PEOPLE program (Philosophies and Ethics Of Politics, Law, and Economics), and completed courses across the social sciences thereby gaining a perspective on how the social sciences view social phenomena. While the topics in sociology and social psychology piqued my interest, I also enjoyed the rigorous mathematical models employed in economics and political science. Combining those interests, I decided to pursue sociological research in experimental game theory. I n addition, I learned a lot about experimental sociological research working as an undergraduate research assistant under Lisa Troyer. I graduated with my Bachelor of Science in Sociology in 2006.

In the fall of 2006, I began my graduate student career at the University of South Carolina. Initially I worked for Brent Simpson, who taught me a lot about experimental game theory. My second year in graduate school, I enrolled in an independent study with Barry Markovsky, where I learned about the various justice paradigms. Given the mathematical nature of justice theories in social psychology, I saw a great opportunity to integrate my knowledge of game theory with the justice paradigms. For the final project, I wrote an NSF-style grant proposal. After some editing on his part, Barry submitted the grant proposal to NSF, and we received the grant on our second attempt. Our grant looks at how justice concerns impact the dynamics of cooperation in the provision of public goods. Our grant funded three experiments, which have resulted in numerous conference presentations. Currently we are analyzing the data of the first experiment, and plan to submit the results for publication soon.



Nick Berigan, Award Recipient 2011 From the quantitative nature of both justice theories and game theory, I generated two new experiments which now serve as my dissertation: one that incorporates a sanctioning mechanism, and one that incorporates both sanctioning and retaliation. Accordingly, most of my research to this point centers on the connections between justice concerns and the dynamics of cooperation. I plan to finish my dissertation research and graduate in the spring of 2012.

Since starting graduate school, I have taken on a number of other interests as well. One such interest is in mathematical modeling of the social value orientation literature. For my MA thesis, I converted five different social value orientation types into utility functions. I then paired the types against each other (including pairs of the same type) and simulated the outcomes of all 78 2 x 2 games listed in Rapoport and Guyer's (1966) taxonomy, where I compared the objective outcomes of each SVO type to their tendency to achieve its desired outcome. From this work, I was able to generate a number of interesting findings. For example, although individualists (i.e. those who follow the traditional rational actor model) tend to maximize their payoffs, they are less likely to achieve their most desired outcome than altruists (who only seek to maximize others' payoffs) and utilitarians (who seek to maximize joint payoffs). Also, when ranking the most desirable partner's social value orientation, the lists vary greatly both between objective payoffs and tendency to create desired outcomes and between the focal actors' social value orientation. The findings thus suggest that there is no uniformly-preferred partner.

Recently, Kyle Irwin and I have been looking at collective action problems where there are multiple means to generate the same public good. In our first project, using the general welfare as a public good, we used cross-cultural data to look at the characteristics of strategies to which societies gravitate. Specifically, we focused on compared individuals' participation in charitable organizations to their level of support for government welfare programs. We generated our hypotheses based on Yamagishi and associates' previous work on culture and trust. In addition to previous research which indicates that people in collectivist societies are more reliant on external entities to enforce cooperation, our findings indicate that collectivist societies also gravitate toward cooperative strategies which facilitate the production of the public good via external mechanisms, independent from sanctioning (in this case, support government wealth re-distribution). Further, individualist societies tend to gravitate toward cooperative solutions which involve generating the public good personally (in this case, give to charity). We plan to continue this research by looking at other groups beyond geographical ones.



David Melamed, Award Recipient 2010

David Melamed is a Ph.D. candidate in Sociology at the University of Arizona.

I began the program at the University of Arizona in the Fall of 2007 after earning an M.A. degree in Sociology from Kent State University. While at Kent, I worked with Professors Alison Bianchi, Stanford Gregory and Will Kalkhoff. As a result of working with Professors Bianchi and Kalkhoff,

I became interested in social psychology. As such I moved to the University of Arizona to work with Professors Linda Molm and Henry A. Walker. While at Arizona, my interests broadened to include quantitative methods, social network analysis and stratification/mobility.

I feel fortunate to have worked with several mentoring-focused faculty. I have published "Effects of Dichotically Enhanced Electronic Communication on Crash Risk and Performance During Simulated Driving." with Stanford Gregory and Will Kalkhoff in *Perceptual and Motor Skills*. This paper focused on the processing of verbal signals in dyads. I am also working on a series of papers with Linda Molm and another graduate student on the effects of embedding reciprocal exchanges into negotiated exchanges and viceversa. In addition, I have been working with Ronald Breiger on a Defense Threat Reduction Agency grant that focuses on applying new analytic techniques to open-sourced data on terrorist organizations. So far this research has produced one published paper and several more are in the works. Lastly, I am working with Henry A. Walker on a paper that formally addresses incorporating graded status characteristics, or characteristics with more than two ordered states, into the expectation state theories.

My NSF funded dissertation develops a formal model of just rewards. Using a model grounded in reward expectations theory, I produce point predictions of just rewards based on an individual's relative status and the expected value of the good to be evaluated. In developing the model, I found it necessary to extend the mathematics of reward expectations theory to account for graded status characteristics. An experiment supports the logic of my procedure for dealing with graded characteristics, and vignette and secondary data support both the just rewards model and the graded characteristics procedure. Several papers from this project are under review (including one with Henry A. Walker). One of these papers won the Mathematical Sociology Section's Graduate Student Paper Award, and the dissertation proposal won the Outstanding Dissertation-in-Progress Award from the same section.

Related to his interests in individual reactions to injustice, along with Michael North, I published a paper in *Social Psychology Quarterly* on the role of networks in the social psychology of inequality. A related paper is forthcoming in *Sociological Focus*. This paper shows how legitimacy is related to justice evaluations using two exchange network-type experiments. A more recent project focuses on influence in groups larger than two, where the members are differentiated by at least one status characteristic. This project has identified several directions for further research, and he is currently writing two papers on this topic.

New from Robert B. Smith

MULTILEVEL MODELING OF SOCIAL PROBLEMS: A CAUSAL PERSPECTIVE

Societal problems are complex, intractable, and costly. This book confronts these constraints by defining this five-step process: Analyze the roots of the social problem both theoretically and empirically; formulate a study design that captures the nuances of the problem; gather empirical data providing valid and repeatable measures; model the multilevel data using appropriate multilevel statistical methods to uncover potential causes and any biases to their implied effects; and finally, use the results to refine theory and to formulate evidence-based policy recommendations for implementation and testing.

The core chapters apply this process to ameliorate societal problems bearing on social and economic development: political extremism; global human development; violence against religious minorities; computerizations of work; reform of urban schools; health care utilization and costs; and parental reluctance to vaccinate children. These chapters address the multilevel data structures of the social problems by grouping observations on micro units (level-1) by more macro units (level-2) (e.g., professors are grouped by their university), and by presenting multilevel (i.e., hierarchical) statistical modeling in contextual, longitudinal, and meta-analyses. These chapters apply qualitative typologies that may explain the differences between the macro units, thereby crafting a "mixed-methods" approach that combines qualitative attributes with quantitative measures. The parts of the book focus on: (1) notions of causality; (2) in contextual studies, the multiple causes of an effect; (3) in evaluative research, the multiple effects of a cause; and (4) in research summaries and empirical studies, assessments of putative causal relationships.

What is New?

This book uniquely focuses on the intersection of social problems, multilevel modeling, and causality. By applying multilevel modeling to hierarchical data structures, this book illustrates how the use of these methods can improve the study of social problems. It gives the reader access to data sets, computer code, and analytic techniques (that can be downloaded from extras.springer.com), while at the same time carefully discussing issues of causality in such models.

This book innovatively:

- Develops procedures for studying social, economic, and human development.
- Uses typologies to group (i.e., classify or nest) the level of random macro-level factors.
- Estimates models with Poisson, binomial, and Gaussian response distributions using SAS's generalized linear mixed models (GLIMMIX) procedure.
- Selects appropriate covariance structures for generalized linear mixed models.
- Applies difference-in-differences study designs in the multilevel modeling of intervention studies.
- Calculates propensity scores by applying Firth logistic regression to Goldberger-corrected data.
- Uses the Kenward-Roger correction in mixed models of repeated measures.
- Explicates differences between associational and causal analysis of multilevel models.
- Consolidates research findings via meta-analysis and methodological critique.
- Develops criteria for assessing a study's validity and zone of causality.

Mathematical sociologists, policy researchers, methodologists, and applied statisticians in the social sciences (specifically, sociology, social psychology, political science, educational research, and health services research) will find this book of great interest because of its social problems focus, clarity of exposition, and use of state-of-the-art procedures. It can be used as a primary text in courses on multilevel modeling or as a primer for more advanced texts.



MATHEMATICAL SOCIOLOGY SECTION AMERICAN SOCIOLOGICAL ASSOCIATION ANNUAL REPORT, 2010-2011

Robert Hanneman, Past Chair (2010-11)

October 2011

1) <u>Meeting Attendance</u>. The section council conducted its annual meeting in Las Vegas, prior to the general business meeting of the section. All but one member of the council were able to attend, and the group reviewed the issues to be discussed at the business meeting, as well as the general affairs of the section. The consensus was that the section is in excellent condition maintaining an overall membership has remained roughly constant for several years. Members of the council particularly noted the relatively large number of student and younger faculty becoming active in mathematical sociology, and the increasing diversity of sub-specialties that are strongly represented in the section.

Even though the section was not allocated any regular sessions for the Las Vegas meetings, attendance at section day activities was excellent. Forty-one members attended the business meeting (roughly 20% of the section membership), and there was lively and positive discussion on several issues: strengthening the working relationship between the section and the Journal of Mathematical Sociology through cooperation on the archiving of data and programs for works published in the journal and other works by section members; building stronger and more regular communication among the section's newsletter editor, the section's webmaster, and the council; and the feasibility of increasing the size of our annual dissertation prize based on the solid financial performance of its endowment (despite a very difficult economy).

 <u>Awards</u>. Three awards were given at the Las Vegas meetings, with the winners determined by three committees with nine section members as judges. The 2011 Award winners were:

Best Published Paper Award: Damon Centola (MIT). "The Spread of Behavior in an Online Social Network Experiment," *Science* 329 (3 Sept.): 1194-1197. Professor Centola's paper contributes to a rapidly expanding literature on diffusion and influence in social networks. It is distinguished by simultaneously contributing to the development of rigorous formal theory, exceptional data and methods, and innovative analysis. By placing the article in *Science*, Centrola has not only contributed to our knowledge of a central research problem, but also exposed the broader scientific community to the excellent work being done in mathematical sociology. (Award Committee: Robb Willer, Ron Breiger and Katherine Faust). *Graduate Student Paper Award*: Aston Verdery (UNC, Chapel Hill). "Population Growth and Social Structure." The paper tests theory about demographic contributions to social structural change and differentiation. It focuses specifically on how population growth in the form of natural increase may affect social structure by looking at its contributions to kinship networks. Using agent-based micro-simulation methods, it tests how slight variations in places' experience with the demographic transition can impact social structure. The committee was especially impressed with the careful specification and justification of assumptions and its nicely crafted empirical test. (Award Committee: Jane Sell, Alison Bianchi and David Melamed).

Dissertation-in-Progress Award: Nick Berigan (U. South Carolina) "Justice, Sanctioning, and Retaliation in the Provision of Public Goods." Nick Berigan's dissertation proposal integrates Multilevel Justice Theory with research on sanctioning in public goods social dilemmas. In an experiment, the researcher plans to manipulate salient characteristics of contributions to a public good and then measures perceptions of injustice and resulting subjects' contributions/sanctions. The experiments will test if the amount of sanctions and contributions varies with the level of perceived injustice. The proposal combines strong formal theory in one of the main traditions of mathematical sociology with well designed empirical tests using rigorous methods and measures. It promises to make an important contribution in a major multi-disciplinary area of theory. (Award Committee: Pamela Emanuelson, Dawn Robinson and Peter Burke).

The section continues to enjoy excellent nominations in our prize competitions. In 2011-12, competitions are planned for book and career achievement awards in addition to our published paper, graduate student paper, and dissertation in progress awards.

 Election and Change of Section Officers. Elections were held during 2010-11, and new officers were installed at the business meeting.

> Outgoing Officers (term ended 2011) Council: James Kitts, Dawn Robinson Student Council Member: David Melamed

Continuing Officers (Term ends 2013) Council: Alison Bianchi, Peter Burke Continuing Officers (Term ends 2012) Secretary Treasurer: David Wagner Council: Jane Sell, Robb Willer

Will Continue 2011-12 Webmaster: Matthew Brashears Newsletter Editor: Pamela Emanuelson

Incoming Officers (Term ends 2014) Chair-Elect: Noah Friedkin Council: Matthew Brashears, Arnout van de Rijt Student Council Member: Emma Spiro After 2011 ASA Meetings Chair: Katherine Faust Chair Elect: Noah Friedkin Past Chair: Robert Hanneman Ronald Breiger ends his term

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Nomination procedures. The Past Chair serves as chair of the Nomination Committee (Section Bylaws, para. I.C), which consists of all Section Officers, who generate names and participate in a ranking of candidates proposed for each office. Candidates are approached and asked whether they will run in the order of this ranking.

Gender diversity of section officers. The Section continues to maintain a commendably high degree of gender diversity among its officers, especially in light of the preponderance of men among Section members, in comparison with ASA averages.

- 4) **Extensive Participation at ASA Meetings**. At the Las Vegas meetings, the Mathematical Sociology Section held a very successful paper session with contributions from several of the main traditions in the field. A panel discussion of the contributions of other fields (esp. engineering, computer science, and economics) to the recent development of mathematical sociology was also held. In addition, three regular sessions in the area of social networks, and section sessions in Rationality and Society included numerous papers from Mathematical Sociology section members. A section session of the Organizations section was also co-sponsored by Mathematical Sociology and included papers by section members.
- 5) <u>Contributions to the Mathematical Sociology Outstanding Dissertation in Progress Award.</u> The section's award to recognize and stimulate students to develop dissertation research in mathematical sociology has been one of the section's most important contributions to the future of the discipline. The endowment of the fund has increased somewhat due to a steady stream of contributions. At the business meeting, the possibility of offering two prizes was discussed. The conditions of the endowment, however, call for a single award. The secretary/treasurer will advise the council on whether the current value of the prize might be increased.
- 6) Membership Information

	June 30, 2009	July 15, 2010	June 30, 2011
Total Section Membership	212	219	226

7) Financial Summary

Net Assets Fuding	June 30, 2010	August 15, 2011
Net Assets Ending	\$4820	\$3654

8) Web Presence and Newsletter.

Webmaster Matthew Brashears reported that the Section's web page continues to improve.

(<u>www.mathematicalsociology.org</u>.) Under Matt's leadership a Section-oriented blog, *Permutations*, has been launched. At the business meeting and council meeting, the addition of a data archive to the website – in collaboration with the Journal of Mathematical Sociology – was discussed and approved. Possible collaboration with the *International Network for Social Network Analysts* for archiving of data from their publications will also be explored. Pamela Emanuelson, who has served as the Section's newsletter editor for several years **PAGE I3** indicated that she must reduce her role, owing to her new responsibilities as a ladder faculty member. She will continue to work supporting the newsletter as new editors are sought.

Both the section council and the general membership endorsed closer working relationships among the council, newsletter editor, and webmaster. In recognition of the central importance of increasing visibility for mathematical sociology, and the particularly important role of the Web, the newsletter editor and webmaster will now be included in council communications throughout the year.

- 9) **<u>Reception</u>**. On the evening of section day, the Mathematical Sociology Section co-sponsored a reception for its members, and those of Evolution and Society and Rationality and Society. The event was very successful, with strong attendance and many opportunities to build more linkages among the three sections.
- 10) <u>Plans for the New Year.</u> The section and its council are planning an ambitious and active participation in the Denver meetings in 2012. In addition to a regular section session and panel, the section will actively seek to collaborate with Social Psychology, Theory, Organizations, Rationality and Society, and Evolutionary sections to provide additional opportunities for member participation.

The section is also planning to co-sponsor a pre-meeting at the Denver ASA meetings which will renew the Japan/American Mathematical Sociology joint meetings after a hiatus of a couple years. Mitch Sato (Chair of Rationality and Society) will coordinate contributions from Japanese scholars and Sun-ki Chai will coordinate contributions from American scholars to the event.

FINANCIAL STATEMENT 2011

Account (37)				
AND EXPENSES		NET ASSETS		
Section Budget Allocations	\$1082	Beginning Balance	1.11.11	\$2572
Total Income	1082	Increase in NET Assets		1082
Expenses*	0	Current Balance	8.15.11	3654
Increase/(Decrease in Net Assets)	1082			
	Account (37) AND EXPENSES Section Budget Allocations Total Income Expenses* Increase/(Decrease in Net Assets)	Account (37) AND EXPENSES Section Budget Allocations \$1082 Total Income 1082 Expenses* 0 Increase/(Decrease in Net Assets) 1082	Account (37)NET ASSETSAND EXPENSESNET ASSETSSection Budget Allocations\$1082Total Income1082Increase in NET AssetsExpenses*0Current BalanceIncrease in Net Assets)1082	Account (37) NET ASSETS AND EXPENSES NET ASSETS Section Budget Allocations \$1082 Beginning Balance 1.11.11 Total Income 1082 Increase in NET Assets Expenses* 0 Current Balance 8.15.11 Increase/(Decrease in Net Assets) 1082 1082

*Anticipated 3rd Quarter expenses include Graduate Student Paper Award, reception expenses and council breakfast expenses. In the previous budget year, these expenses totaled \$2073.

Dissertation Award Fund				
INCOME AND EXPENSES		NET ASSETS		
Income:				
Interest	\$4635.77	Beginning Balance	1.11.11	\$123,522.25
Contributions	5000.00	Increase in NET Assets		9635.77
Total Income	9635.77	Current Balance	8.15.11	133,158.02
Expenses*	0			
Increase/(Decrease in Net Assets)	9635.77			

*Anticipated 3rd Quarter expenses include Dissertation Award of \$1000.

AWARD NOMINATIONS

Mathematical Dissertation-in-Progress Award

This award provides a grant of \$1,000 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 his or her approved dissertation proposal, with a list of any requirements added by the graduate committee. The 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. The requirements include membership in the ASA and the mathematical sociology section during the period to be covered by the grant. Please send a copy of the dissertation proposal and a nomination letter by February 1, 2012 to :

Katherine Faust

<u>kfaust@uci.edu</u>

Outstanding Article Award

This award honors an article that has made an outstanding contribution to mathematical sociology. Eligible articles must have been published during the three years prior to the award year. Please send a copy of the article and a nomination letter by February 1, 2012 to :

Noah Friedkin Department of Sociology University of California, Santa Barbara Santa Barbara, CA 93106 friedkin@soc.ucsb.edu

The Distinguished Career Award recognizes a lifetime of contributions to the field of Mathematical Sociology. The last award was given to Linton Freeman in 2006. A letter of nomination should outline the candidate's activities of lasting significance in mathematical sociology, conducted over the course of her or his career. The nomination also should include a copy of the candidate's curriculum vitae, and an assurance that the candidate has given permission to be nominatived for the award. Nominations must come from American Sociological Association members. Please submit nominations by February 1, 2012 to:

James S. Coleman Distinguished Career Award

Jane Sell Department of Sociology 311 Academic Building Texas A&M University College Station, TX 77843-4351 j-sell@tamu.edu

Graduate Student Paper Award

This award is presented for the best paper written by a graduate student that makes a significant contribution to mathematical sociology. Papers can be published or unpublished. The submission can consist of a dissertation chapter, but not the entire dissertation. The submission must have been written or published during the three years prior to the award year. The author/first author must be a graduate student at the time of submission, and all authors must be graduate students when the paper was written. Nominations and self-nominations are welcome. Please send a copy of the paper and a nomination letter by February 1, 2012 to :

> Alison Bianchi Department of Sociology University of Iowa 118 Seashore Hall West Iowa City, IA 52242-1401 <u>alison-bianchi@uiowa.edu</u>

CONFERENCES

Regional Conferences

There is a mathematical sociology session at both next spring's Midwest Sociological Society (MSS) meeting in Minneapolis and the Pacific Sociological Association (PSA) meeting in San Diego. See the MSS and PSA websites for details. Finding the mathematical sociology session at each may take some rooting around on the respective websites, particularly on the PSA's. All submissions should be made via the portal on the annual meeting page of each regional association's website. Papers/abstracts that promise new substantive sociological findings by employing a mathematical model are favored if there is competition. Early papers/abstracts are more likely to be accepted because of the following mechanism: if there is an early abundance of presentable papers, the meeting organizing committee will be petitioned to authorize a second session. The earlier this request is made, the more likely it is to be granted. The PSA due date for papers is October 15, the MSS due date is October 24. It is conceivable that the due dates might be postponed. Each session adjourns to a discussion over coffee of research frontiers in mathematical sociology, or practical topics such as employment strategies, introducing mathematical sociology into the curriculum, writing/ publishing mathematical sociology texts, funding sources, or raising the visibility of mathematical sociologists and mathematical sociology in the news media (or at least Wikipedia).

Joint Japanese-American Conference

Sun-Ki Chai (University of Hawaii) and Yoshimichi Sato (Tohoku University) are co-organizing a miniconference on mathematical sociology on August 16, 2012, a day before the ASA meeting. It is cosponsored by our section, Section on Rationality and Society, and the Japanese Association for Mathematical Sociology. Its details will be announced in the Spring edition of our newsletter. Meanwhile, please mark the day on your calendar.

Preliminary Information About the Mathematical Sociology Section Sessions at the ASA

Looking forward to the 2012 American Sociological Association Annual Meeting in Denver from August 17th to the 20th, we have two section sessions open for paper submissions. Both sections will be organized by Carter Butts. A section on "Empirical Applications of Mathematical Models," seeks submissions that focus on applications of mathematical models to empirical data. The other session, "Models and Model Adequacy" seeks submissions that

focus on assessing the adequacy of mathematical models. Model assessment will be construed broadly, and might involve testing or evaluating model fit, robustness, logical consistency, or correspondence of a model to empirical observations. The online submission system opens on December 8, 2012 and closes at 3pm on January 11, 2012.





http://www.sscnet.ucla.edu/ soc/groups/mathsoc/

Thank you for your timely contributions to the Fall/Winter 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 winter and watch your email for future newsletter

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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. The Section seeks to promote communi-



Site for the 2012 Annual Meeting of the American Sociological Association,

Colorado Convention Center

cation, collaboration and consultation among scholars in sociology in general, mathematical sociology and allied scientific disciplines.

> Archimedes Quoted in D MacHale There are things which seem incredible to most men who have not studied mathematics.