

Sean Fitzhugh

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Education

- University of California, Irvine
 - Qualifying Exams: Social Networks and Population
 - M.A., Mathematical Behavioral Sciences (March 2012)
 - Thesis title: *Effects of Individual and Group-Level Properties on the Robustness of Emergency Phase Communication Networks*
- University of California, Berkeley
 - B.A., Sociology (May 2009)
 - * Graduated with highest honors
 - B.A., Political Science (May 2009)

Employment History

Graduate Student Researcher

September 2009 to present

PI: Carter T. Butts; Grants worked under:

- Office of Naval Research: *Scalable Methods for the Analysis of Network-Based Data*
- National Science Foundation: *Cyber-enabled Discovery and Innovation: Topology and Function in Computer, Social, and Biological Networks*
- National Science Foundation: *Informal Online Communication in Extreme Events: Content, Dynamics, and Structure*
- National Science Foundation: *Improvisation in Emergency Response: Linking Cognition, Behavior and Social Interaction*

Research Interests

- Social Network Analysis
- Data Collection Methods
- Sampling
- Methods for Exploratory Data Analysis
- Organizations

Peer-Reviewed Publications (Conference Proceedings and Journal Articles)

- Sutton, Jeannette; Spiro, Emma S.; Greczek, Matt; Johnson, Britta; Fitzhugh, Sean; and Butts, Carter. (Forthcoming) "Tweeting the Spill." *International Journal of Information Systems for Crisis Response and Management*.
- Spiro, Emma S.; Sutton, Jeannette; Fitzhugh, Sean; Greczek, Matt; Pierski, Nicole; and Butts, Carter T. (2012) "Rumoring During Extreme Events: A Case Study of Deepwater Horizon 2010." ACM Web Science 2012 Conference (WebSci12). June 22-24, 2012. Evanston, Illinois.
- Sutton, Jeannette; Spiro, Emma S.; Greczek, Matt; Johnson, Britta; Fitzhugh, Sean; and Butts, Carter T. (2012) "Connected Communications: Network Structures of Official Communications in Disaster." 9th International Conference on Information Systems for Crisis Response and Management (ISCRAM). Vancouver, Canada

Invited Talks

- Fitzhugh, Sean M.; Butts, Carter T.; Pixley, Joy E. (August 2011) "Shared Spells: The Effect of Co-participation on Differences Between Life Histories." Population, Society, and Inequality Series, University of California, Irvine. October 11, 2011.

Presentations

- Fitzhugh, Sean ; Gibson, C. Ben; and Butts, Carter; (May 2013) "Extended Brokerage Structures in Organizational Networks: A Model-Driven Approach" 33rd Sunbelt Conference (INSNA), Hamburg, Germany.
- Gibson, C. Ben; Spiro, Emma S.; Fitzhugh, Sean; and Butts, Carter; (May 2013) "Estimating Active User Population Dynamics in Online Social Networks" 33rd Sunbelt Conference (INSNA), Hamburg, Germany.
- Fitzhugh, Sean ; Butts, Carter; Kurant, Maciej; Gjoka, Minas; and Markopoulou, Athina; (August 2012) "The Enumeration Problem: Link-Trace Methods for Enumeration of Vertex Sets" 107th Annual Meeting of the American Sociological Association, Section on Methodology Roundtable Session: Methodological Innovations, Boulder, Colorado.
- Fitzhugh, Sean ; Butts, Carter; Kurant, Maciej; Gjoka, Minas; and Markopoulou, Athina; (August 2012) "The Enumeration Problem: Methods for Enumerating Subpopulations within a Network" The Fifth Joint Japan-North America Mathematical Sociology Conference, Boulder, Colorado.
- Spiro, Emma S. (presenter); Sutton, Jeannette; Fitzhugh, Sean; Greczek, Matt; Pierski, Nicole; and Butts, Carter T. (June 2012) "Rumoring During Extreme Events: A Case Study of Deepwater Horizon 2010." ACM Web Science 2012 Conference (WebSci12). Evanston, Illinois.
- Fitzhugh, Sean ; Butts, Carter; Kurant, Maciej; Gjoka, Minas; and Markopoulou, Athina; (June 2012) "The Enumeration Problem: An Illustration with Political Activist Networks" 5th Annual Political Networks Conference, Boulder, Colorado.

- Johnson, Britta (presenter); Sutton, Jeannette; Spiro, Emma S.; Fitzhugh, Sean; and Butts, Carter T. (June 2012) “Technology Lineage and Adoption: Diffusion of Microblog Technologies Among Government Organization” 5th Annual Political Networks Conference, Boulder, Colorado.
- Fitzhugh, Sean ; Butts, Carter; Kurant, Maciej; Gjoka, Minas; and Markopoulou, Athina; (March 2012) ”Link-Trace Methods for Enumeration of Vertex Sets” 32nd Sunbelt Conference (INSNA), Redondo Beach, California.
- Spiro, Emma S. (presenter); Sutton, Jeannette; Fitzhugh, Sean; and Butts, Carter T. (March 2012) “A Microstructure Topology for Hyperedge Communication Events.” 32nd Sunbelt Conference (INSNA), Redondo Beach, California.
- Fitzhugh, Sean M.; Butts, Carter T.; Pixley, Joy E. (August 2011) “Shared Spells: The Effect of Co-participation on Differences Between Life Histories.” 106th Annual Meeting of the American Sociological Association, Paper Session in Aging and Life Course: Demographic and Structural Processes, Las Vegas, Nevada.
- Spiro, Emma S.; Butts, Carter T. (presenter); Sutton, Jeannette; Greczek, Matt; Fitzhugh, Sean M.; and Pierski, Nicole M. (July 2011). ”Informal Online Communication in the Deepwater Horizon Disaster.” 2011 Natural Hazards Research and Applications Workshop, Broomfield, Colorado.
- Fitzhugh, Sean M.; Butts, Carter T.; and Pixley, Joy E. (June 2011) “State Institutions and Population-Level Life History Patterns” 4th Annual Political Networks Conference, Ann Arbor, Michigan.
- Spiro, Emma S. (presenter); Sutton, Jeannette; Greczek, Matt; Butts, Carter T; Fitzhugh, Sean M.; and Pierski, Nicole M. (June 2011). ”Rumoring During Extreme Events: Deepwater Horizon 2010.” 4th Annual Political Networks Conference, Ann Arbor, Michigan.
- Fitzhugh, Sean M.; Butts, Carter T.; Pixley, Joy E. (February 2011) “A Network Approach to Pattern Discovery in Spell Data.” 31st Sunbelt Conference (INSNA), St. Pete Beach, Florida.
- Spiro, Emma S. (presenter); Acton, Ryan M.; Sutton, Jeannette; Greczek, Matt; Pierski, Nicole; Fitzhugh, Sean M.; and Butts, Carter T; (February 2011) “Rumoring in Informal Online Communication Networks” 31st Sunbelt Conference (INSNA), St. Pete Beach, Florida.
- Fitzhugh, Sean M.; Butts, Carter T. (August 2010). “Effects of Individual and Group-Level Properties on the Robustness of Emergency-Phase Communication Networks.” 105th Annual Meeting of the American Sociological Association, Paper Session in Mathematical Sociology: Mathematical Sociology at Key Intersections of the Discipline, Atlanta, Georgia.
- Butts, Carter T.; Mendonca, David; Webb, Gary; Jasny, Lorien; Marcum, Christopher S. (presenter); Fitzhugh, Sean; Cirik, Ali A.; and Elsasser, Shaun. (July 2010). “Key Findings from the Improvisation in Emergency Response Project: Linking Cognition, Behavior, and Social Interaction.” 2010 Annual Hazards Research and Application Workshop, Broomfield, Colorado.
- Fitzhugh, Sean M.; and Butts, Carter T. (presenter). (July 2010). “Effects of Individual and Group-level Properties on the Robustness of Emergency-phase Communication Networks.” 30th Sunbelt Conference (INSNA), Riva del Garda, Italy.

Teaching Experience

Teaching Assistant

- Social Network Analysis: An Introduction (July 2013). 2013 ICPSR Summer Program in Quantitative Methods of Social Research. Berkeley, California.
- Social Network Analysis: An Introduction (July 2012). ICPSR Summer Program. Chapel Hill, North Carolina.

Workshop Assistant

- ERGMs for Valued Networks (May 2013). 33rd Sunbelt Conference. Hamburg, Germany.
- STERGM - Separable Temporal ERGMs for Modeling Discrete Relational Dynamics (May 2013). 33rd Sunbelt Conference. Hamburg, Germany.
- Exponential-family Random Graph Modeling with **statnet** (May 2013). 33rd Sunbelt Conference. Hamburg, Germany.
- Modeling Relational Event Dynamics with **statnet** (May 2013). 33rd Sunbelt Conference. Hamburg, Germany.
- Exponential Random Graph Models for Social Networks (June 2012). 5th Annual Political Networks Conference. Boulder, Colorado.
- Modeling Relational Event Dynamics with **statnet** (March 2012). 32nd Sunbelt Conference. Redondo Beach, California.
- Exponential-family Random Graph Modeling with **statnet** (March 2012). 32nd Sunbelt Conference. Redondo Beach, California.
- Sampling and Network Inference (June 2011). 4th Annual Political Networks Conference. University of Michigan: Ann Arbor, Michigan.
- Modeling Networks with Missing Data (June 2011). 4th Annual Political Networks Conference. University of Michigan: Ann Arbor, Michigan.
- Exponential Random Graph Models for Social Networks (June 2011). 4th Annual Political Networks Conference. University of Michigan: Ann Arbor, Michigan.
- Network Analysis with **statnet** for Individual, Organizational, and International Relations Applications (May 2010). 3rd Annual Political Networks Conference. Duke University: Durham, North Carolina.

Fellowships and Awards

Graduate Student Fellow—Center for Networks and Relational Analysis	2012-present
Best Social Science Student Paper Award at the Web Science Conference 2012	June 2012
Political Networks NSF Fellowship Stipend	June 2012

Professional Memberships

- American Sociological Association 2009-present
- International Network for Social Network Analysis 2009-present