

# Katharine A. Anderson

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## Contact:

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## Current Position

- 2019 - present      Visiting Assistant Professor, Dept of Informatics and Networked Systems,  
School of Computing and Information, University of Pittsburgh
- 2010 - 2019\*      Assistant Professor of Economics and Entrepreneurship  
Tepper School of Business, Carnegie Mellon University

## Education

- Ph.D in Economics, University of Michigan (2010)  
“A Study of Skills, Problem Solving, and Collaboration Networks”  
Committee: Scott E. Page (Chair), Lada Adamic, Stephan Laueremann, Robert Willis
- Masters in Economics, University of Michigan (2007)
- B.A. Math (with honors) and Economics (with honors), Grinnell College (2002)

## Fields of Interest

Social Networks, Behavioral Economics, Political Economy, Skills and Human Capital, Team Problem Solving, Innovation, Computational Modeling

## Publications

- Anderson, Katharine A., (2018). “Skill Networks and Measures of Complex Human Capital” *Proceedings of the National Academy of Science*, 201706597
- Anderson, Katharine A., Crespi, Matthew, and Sayre, Eleanor C. Linking Behavior in the PER Coauthorship Network. (2017). *Physical Review PER* 13(1) 010121, 2017: 1-10.
- Anderson, K. A. (2016). A model of collaboration network formation with heterogeneous skills. *Network Science*, 4(02), 188-215.
- Anderson, Katharine A. (2012). “Specialists and generalists: Equilibrium skill acquisition decisions in problem-solving populations.” *Journal of Economic Behavior & Organization*, 84(1), 463-473.
- Montgomery, Mark, and Katharine Anderson (2007). “Best laid plans: Gender and the MBA completion rates of GMAT registrants.” *The Quarterly Review of Economics and Finance*, 47(1), 175-191.

Anderson, Katharine, Barrow, Lisa, and Kristen F. Butcher (2005). "Implications of changes in men's and women's labor force participation for real compensation growth and inflation." *Topics in Economic Analysis & Policy*, 5(1).

Anderson, Katharine, Eric French, and Tina Lam (2004). "You can't take it with you: Asset run-down at the end of the life cycle." *ECONOMIC PERSPECTIVES-FEDERAL RESERVE BANK OF CHICAGO*, 28(3), 40.

## **Working Papers**

"Network Representations of Diversity in Scientific Teams"

"Specialization and diversity in teams, when teams are self-generated" (with Seth Richards-Shubik, under review)

"Skill Specialization and Economic Success: Networks and Human Capital in Short Term Labor Markets" (with Rebecca Lessem)

"Skill Specialization and the Formation of Collaboration Networks"

"Social Network Constraints on the Formation of Resource Management Groups"

## **Works in Progress**

"Worker Heterogeneity and Income Inequality"

"Collaboration, Career Paths, and Academic Hierarchy"

"Leading the Charge: Evolution and Innovation in Economics"

## **Fellowships and Awards**

Berkman Faculty Development Grant (2014-2015)

Junior Faculty Chair, awarded by senior Tepper faculty (2011-2012)

Rackham One-term Dissertation Fellowship (2010)

Integrative Graduate Education and Research Traineeship (IGERT) Fellowship, Institutions, Diversity, Emergence, Adaptation and Structures (IDEAS) NSF award number 0221611 (2007-2009)

Graduate Research Fellowship, National Science Foundation (2004-2007)

## **Invited Talks**

Computational and Data Science Seminar, George Mason University (2019)

Barcelona GSE Summer Forum, Networks: Information, Contracts, and Communities Workshop (2019)

Formal Social Epistemology Workshop (FSEW) (2018)

Department of Mathematics, University of Buffalo (2018)  
Complex Systems Seminar, University of Pennsylvania (2015)  
Economics Seminar, Grinnell College (2015)  
Applied Micro Seminar, Carnegie Mellon University (2015)  
Organizational Behavior Seminar, Carnegie Mellon University (2015)  
Networks Lunch Seminar, Carnegie Mellon University (2015)  
RAIN Seminar, Department of Management Science & Engineering, Stanford University (2012)  
Economic Networks Seminar, Department of Economics, Stanford University (2012)  
Center for Advanced Modeling in the Social, Behavioral, and Health Sciences, Johns Hopkins University (2012)  
NetSci Economics Satellite Session, Northwestern University (2012)  
Sumantra Ghoshal Conference on Managerially Relevant Research, London School of Business (2011)  
SET Change seminar, Games and Decisions seminar, OBT seminar, Carnegie Mellon University (2011)  
Math and Economics Joint Seminar, Grinnell College (2009)  
Invited Seminar, Santa Fe Institute (2009)

### **Selected Conference Presentations**

Networks in Economics Conference, Indiana University (2019) “Skill Networks and Measures of Complex Human Capital”  
International Conference on Computational Social Science (IC2S2) (2018) “Skill Networks and Measures of Complex Human Capital”  
Science of Team Science (2016) “What Brings Us Together: Institutions and Community Structure in an Early-Stage Academic Community”  
Networks in Economics Conference, Stanford U (2016) “Writers, Designers, and Software Developers: Skill Networks and Measures of Complex Human Capital”  
Sunbelt Conference (2016) “What Brings Us Together: Institutions and Community Structure in Early Stage Academic Communities”  
Workshop on Information in Networks (2015) “Writers, Designers, and Software Developers: Skill Networks and Measures of Complex Human Capital”  
Science of Team Science (2015) “Specialization and Diversity in Teams when Teams are Self-generated”

## **Teaching**

Innovation and Entrepreneurship in Information, University of Pittsburgh (2020)

Social Computing, University of Pittsburgh (2020)

Network Science and Analysis, University of Pittsburgh (2019)

Masters-level class, intended as an introductory course for students with a programming background

Introduction to Telecommunications and Networks, University of Pittsburgh (2019)

Revision of existing telecommunications course to include social networks material. Done in conjunction with telecommunications professor

Introduction to Entrepreneurship, Carnegie Mellon University (2011-2019)

New course, developed for undergraduate students from a wide range of departments. Classes are a mixture of lecture, discussion, and in-class exercises. The course is structured around two large-scale group projects, where students go through the process of vetting an idea, refining it through the use of market research, building a financial plan, and presenting it to an audience of non-experts

Social, Economic, and Information Networks, Carnegie Mellon University (2014-2018)

New course, developed for undergraduate students. This course provides a technical introduction to social network analysis. Students learn a combination of mathematical models, computational models, and statistical techniques. The course is capped off with a group project, where students analyze real social network data.

ICPSR Complex Systems Models in Social Science (2010 and 2011)

One week unit on social networks, developed especially for this course.

Modeling Political Processes (Game Theory), University of Michigan (2009)

Faculty Course Evaluations Available on Request

## **Student Supervision**

Undergraduate Student Research:

Daniel Lee (Summer 2017)

Alan Wang (Summer 2016)

Peiyun Zhang (Summer 2016)

Michael Rosenberg (Spring 2015)

Sharon Lin (Spring 2015)

Hyo Na Lee (Spring 2015)

Doctoral Student Advising:

Faith Feng—Summer Paper Advisor (2016)

Benjamin Tengelsen—Research Advisor (2013-2015)

Matthew Crespi, School of Public Policy—Research Advisor (2014)

Remco Hesen, Department of Philosophy—Committee Member (2013)

Nandana Sengupta—Summer Paper Advisor (2011)

## **Service**

Member: Donald and Winifred Wilson Program, Leadership Council, Grinnell College (2015-present)

Ad Hoc Referee: Proceedings of the National Academy of Science (2018-present)

Ad Hoc Referee: Network Science (2014-present)

Member: Undergraduate Economics Curriculum Committee (2014-2017)

Ad Hoc Referee: Journal of Labor Economics (2014)

Member: Undergraduate Business and Econ Joint Curriculum Committee (2012-2014)

Session Co-organizer: ASSA "Network Models: Theory and Estimation" (2012)

Member: Faculty Hiring Committee (2011-2012)

\* On leave AY 2012-2013 (maternity) and AY 2013-2014 (medical)