

James Fan

Assistant Professor of Operations Management
Naval Postgraduate School
Email: james.fan@nps.edu, jfan@chapman.edu

Research Experience

2018 – Present Assistant Professor
Monterey, CA Defense Resources Management Institute, Naval Postgraduate School

2022 – Present Visiting Research Professor
Orange, CA Economic Science Institute, Chapman University

2017 – 2018 Postdoctoral Research Fellow
Baltimore, MD Carey Business School, Johns Hopkins University

2012 – 2017 Lab Manager of Laboratory for Economics Management and Auctions
State College, PA Smeal College of Business, Pennsylvania State University

Education

2012 – 2017 Smeal College of Business, Pennsylvania State University
State College, PA Ph.D. in Supply Chain & Information Systems

2014 – 2016 Eberly College of Science, Pennsylvania State University
State College, PA M.A. in Mathematics; Concurrent Degree

2005 – 2009 Vanderbilt University
Nashville, TN B.A. in Economics, East Asian Studies

Current Research Interests

Behavioral operations & behavioral economics, machine learning & worker retention, horizontal coordination, goal-setting, procurement and acquisition

Publications

Fan, J., Gomez-Miñambres, J., Non-binding Goals in Teams: A Real Effort Experiment. *Manufacturing and Service Operations Management*. Articles in Advance. Available at <https://doi.org/10.1287/msom.2019.0793>

Fan, J., Kwasnica, A., Thomas, D., Paying for Teamwork: Supplier Coordination with Endogenously-Selected Groups. *Production and Operations Management*. June 2018, 27(6), 1089-1101. Available at <https://onlinelibrary.wiley.com/doi/full/10.1111/poms.12856>

Fan, J., Griffin, C., Optimal Digital Product Maintenance with a Continuous Revenue Stream. *Operations Research Letters*. May 2017, 45 (3), 282-288. Available at <http://www.sciencedirect.com/science/article/pii/S0167637717302274>

Fan, J., Gómez-Miñambres, J., Smithers, S. Make it too difficult, and I'll give up; let me succeed, and I'll excel: The interaction between assigned and personal goals. *Managerial Decision Economics*. 2020; 41: 964– 975. <https://doi.org/10.1002/mde.3151>

Griffin, C., Fan, J., Optimal Control of Circulant Games for Stabilized Coexistence in Cyclic Public Goods Markets. *Journal of Dynamics and Games*

Defense-Focused Publications

Melese, F., Fan, J., Rethinking Government Supplier Decisions: The Economic Evaluation of Alternatives (EEoA). *Defence and Peace Economics*. Available at <https://doi.org/10.1080/10242694.2020.1808939>

Ahn, T., Cole, S., Fan, J., Griffin, C. Predicting skilled workforce retention: a machine-learning approach with Royal Australian Navy sailors. *Military Operations Research*

Working Papers

Fan, J., de Vries, J., Greunke, C., McDowell, P., New Workers or New Tasks: How Do Augmented Reality, Experience, and Task-Switching Affect Maintenance Performance?

Ferraro, P., Weigel, C., Fan, J., Messer, K., Nudging Organizations: Evidence from Three Large-scale Field Experiments.

Fan, J., Kwasnica, A., Auctions, Efficient Coordination, and Strategic Complementarities.

Research in Progress

An Experimental Study on Retail Coordination and Incentive Structures
In collaboration with Brent Moritz and Hyun Seok Lee

Social Norms in Customer-Operated Service Systems
In collaboration with Mirko Kremer

Reference Points and Optimal Help in Teams: Theory and Experiment
In collaboration with Xiaoyang Long, Joaquin Gomez-Minambres, and Timothy Shields

Conference Reviewed Research Papers

Griffin, C., Mercer, D., Fan, J., Squicciarini, A., 2012. Two Species Evolutionary Game Model of User and Moderator Dynamics. *Social Informatics, 2012 International Conference on, Lausanne, 2012*, pp. 32-39.

Greunke, C., McDowell, P., Kennedy, M., Fan, J. Enhancing Maintenance Workers: A Controlled Field Experiment with Augmented Reality. *Interservice/Industry Training, Simulation and Education Conference, 2021*.

Grants

Principal investigator, 2018 Acquisition Research Program Grant F19-032
Co-investigator, 2018 Naval Research Program Grant N322

Principal investigator, 2021 Acquisition Research Program Grant F21-023

Referee/Reviewer: *Management Science, Manufacturing and Service Operations Management, Production and Operations Management, Economic Inquiry, National Science Foundation grant application*

Teaching Experience

2018 – Present
Monterey, CA Instructor for Executive courses on *Defense Resources Management*
Defense Resources Management Institute, Naval Postgraduate School
Courses for senior officers, U.S. and international

2018 Spring
Baltimore, MD Instructor for 3 sections of *Operations Management*
Carey Business School, Johns Hopkins University
43 full-time MBA students, 46 part-time MBA students

2017 Fall
Baltimore, MD Guest lecturer for *Engineering Microeconomics*
Whiting School of Engineering, Johns Hopkins University
20 undergraduate students

2017 Fall
Baltimore, MD Instructor for 2 sections of *Statistical Analysis*
Carey Business School, Johns Hopkins University
50 full-time MBA students, 17 part-time MBA students

2016 Summer
State College, PA Instructor for *Manufacturing and Services Strategy*
Smeal College of Business, Pennsylvania State University
18 undergraduate students

2011 – 2012
State College, PA Graduate Teaching Assistant
Mathematics Department, Pennsylvania State University

In Person Presentations

Social Norms in Customer-Operated Service Systems (May 2019)
POMS 30th Annual Conference, Washington D.C.

Auctions, Efficient Coordination, and Strategic Complementarities (November 2018)
INFORMS 2018, Phoenix, AZ

Nudging Organizations: Evidence from Two Large-scale Field Experiments (June 2018)
Behavioral Operations Conference, Dallas, TX

Non-binding Goals in Teams: A Real Effort Experiment (October 2017)
INFORMS 2017, Houston, TX

Non-binding Goals in Teams: A Real Effort Experiment (October 2016)
INFORMS 2016, Nashville, TN

Non-binding Goals in Teams: A Real Effort Experiment (July 2016)
Behavioral Operations 11th Annual Conference, Madison, WI

Non-binding Goals in Teams: A Real Effort Experiment (May 2016)
POMS 27th Annual Conference, Orlando, FL

Goal-setting in Teams: A Real Effort Experiment (May 2016)
Annual Smeal Student Scholar Symposium, State College, PA

Endogenous Group Selection in Coordination Games (November 2015)
Economics Lunch Seminar at Bucknell University, Lewisburg, PA

Coordination with Endogenously Selected Groups (October 2015)
INFORMS 2015, Philadelphia, PA
Differential Game Model of Software Quality with Competitive Digital Vendors (May 2015)
POMS 26th Annual Conference, Washington D.C.

Optimal Control Model for Product Maintenance of Mobile Applications (April 2015)
12th Annual College of Engineering Research Symposium, State College, PA

Robustness of Asset Markets For Equilibrium Selection (October 2014)
2014 ESA North-American Meeting, Fort Lauderdale, FL

Service

- Behavioral Operations Working Paper Competition chair for INFORMS 2020
- Session chair for INFORMS behavioral OM track & military operations track
- Session chair for POMS behavioral OM track
- Panelist for Artificial Intelligence in Naval Research Working Group 2019, 2020 Symposium
- Naval Postgraduate School Faculty Council Representative