

Abigail Nussey Devereaux

Education

Ph.D. in Economics—George Mason University, May 2020, expected. M.A., 2017
Complexity economics, game theory, macroeconomics, applied microeconomics, computational social science

Dissertation: “The Microfoundations of an Open-Ended Evolutionary Macroeconomics.”

Advisor: Richard Wagner

M.A. in Mathematics—Boston University, 2007

Differential geometry, algebraic topology

B.A. in Physics, *summa cum laude*—Boston University, 2004

Experimental high-energy particle physics, quantum theory

Professional Experience

Ph.D. Fellow in Economics—New York University, 2018-20

Classical Liberal Institute Fellow—New York University, 2018-20

Research areas: Behavioral economics, game theory, applied microeconomic theory

Mercatus Ph.D. Fellow in Economics, George Mason University, 2016-20

Research Assistant to Richard E. Wagner, Economics, George Mason University, 2016-20

Research areas: Macroeconomic theory, agent-based modeling, game theory

Graduate Lecturer, Economics, George Mason University, 2017-18

ECON 306: Intermediate Microeconomics

ECON 385: International Economic Policy

ECON 412: Game Theory and Institutions

ECON 380: Economies in Transition

Teaching Assistant to Carlos Ramirez, Economics, George Mason University, 2015-16

ECON 715: Graduate Macroeconomics I

ECON 871: International Monetary Economics

Departmental Tutor for PhD Students, Economics, George Mason University, 2016-17

Department-hired tutor for first-year PhD students in all subjects.

PhD Student Math Camp Instructor, George Mason University, Summer 2016

Departmental Tutor for Undergraduates, Economics, George Mason University, 2015-16

Department-hired tutor for undergraduate students in all subjects.

Technical Project Manager, Wolfram Research, Boston, MA, 2007-15

Project areas: Application development in *Mathematica*, complex systems science and educational technology project developer, instructor and event manager for the NKS/Wolfram Science Summer School, journal peer-review and administration.

Research Assistant, ATLAS Muon Spectrometer Project for the CERN Large Hadron Collider, Harvard University High-Energy Physics Laboratory, Cambridge, MA, 2002-4

Project areas: Wrote software application in C++ to graphically track particles in real-time as they traveled through the muon detectors; helped to build, connect, and test detectors.

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Peer-Reviewed Publications

Devereaux, A. N., & Peng, L. (2019). "Give Us a Little Social Credit: To Design or Discover Personal Ratings in the Era of Big Data." *Journal of Institutional Economics*. (conditional acceptance)

Devereaux, A. N. (2019). "The Augmented Commons: How Augmented Reality Aids Agile Self-Organization." *Journal of Private Enterprise*.

Devereaux, A. N. (2019). "Is the Singularity the New Wild West? On Social Entrepreneurship in Extended Reality." *Journal of Entrepreneurship and Public Policy*. (conditional acceptance)

Devereaux, A. N. (2019). "The Nudge Wars: A Modern Socialist Calculation Debate." *The Review of Austrian Economics*.

Devereaux, A. N., Wagner, R. E. (2018). "Contrasting Visions for Macroeconomic Theory: DSGE and OEE." *The American Economist*.

Nussey, Abigail. (2010). "Outer Median and Probabilistic Cellular Automata on Network Topologies." *Complex Systems*, Volume 18, Issue 4.

Selected Working Papers

Koppl, R., Devereaux, A. N., Herriot, J., Kauffman, S. "A Simple Combinatorial Model of World Economic History."

Devereaux, A. N. "The Topology of Contextual Choice: Can Nudge Policy Work in the Real World?" (in R&R at *Review of Behavioral Economics*)

Devereaux, A. N., & Wagner, R. E. "Game Theory as Social Theory: Finding Spontaneous Order."

Book Chapters and Book Reviews

Devereaux, A. N., & Wagner, R. E. (2018). "Emergence, Equilibrium, and Agent-Based Modeling: Updating James Buchanan's Democratic Political Economy." In *James M. Buchanan* (pp. 109-129). Palgrave Macmillan, Cham.

Devereaux, A. N. (2016). Book Review: David Colander and Roland Kupers, *Complexity and the Art of Public Policy: Solving Society's Problems from the Bottom Up*: Princeton University Press, Princeton, NJ, 2016, 320 pp, USD 22.95 (cloth). *Public Choice*.

Invited Articles

Devereaux, A. N. (2019). "Approaching the Singularity Behind the Veil of Incomputability: On Algorithmic Governance, the Economist-as-Expert, and the Piecemeal Circumnavigation of the Administrative State." *Cosmos & Taxis*.

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Conference Presentations

Southern Economic Association meetings

Nov. 23-25 2019: "The Algorithmic Use of Knowledge: An Austrian Response to Cybernetic Hypernudge," and "An Agent-Based Model of Synecological Game Theory"
Nov. 17-19 2017: "Contrasting Visions for Macroeconomic Theory: DSGE and OEE"
Nov 19-21 2016: "The Nudge Wars: A Glimpse into the Modern Socialist Calculation Debate," and "Macro Theory Within An Ecological Framework"

Simulation in the Social Sciences, Paris 1 Sorbonne

Oct. 10-11 2019: "Agent-based Modeling as Quintessential Tool for Open-ended Social Theorizing"

Colloquium on Market Institutions, New York University, Economics

Sept. 23 2019: "Multiple Games Analysis as a Petri Dish for Polycentric Orders"
Jan. 28 2019: "Give Us a Little Social Credit: To Design or Discover Personal Ratings in the Era of Big Data"

Institute for Humane Studies Summer Graduate Research Colloquium

July 12-15 2018: "Game Theory as Social Theory: The Synecological Minimum"
July 6-9, 2017: "Cascades, Cycles and Creativity: The Endogenous Dynamics of a Systems Theoretic Economics"

Association of Private Enterprise Education meetings

April 1-4 2018: "Give Us a Little Social Credit: A Near-Future Tug of War Between Explorers and Exploiters"
April 9-12 2017: "The Augmented Commons: How Technology Could Help Solve Problems of Public Goods and Aid Agile Self-organization"

Public Choice Society meetings

Mar. 1-3 2018: "Complex and Entangled Public Policy: Here Be Dragons"

NKS Midwest Conference 2008, Indiana University

Oct 31-Nov 2 2008: "Outer Median Cellular Automaton Rules in 1D, 2D, and on Graphs."

Seminars

Mind and Society Seminar on Complexity Economics, George Mason University (founder and organizer):

April 5 2017: "Cascades in Context"
Mar 8 2017: "Elements of Systems Theory and Economics"
Feb 15 2017: "Fitness or Efficiency?"
Nov 15 2016: "Sketch of a Diachronic Macroeconomics"
Oct. 11 2016: "Some Paradoxes of Computation in Mathematical Economics"
Sept. 29 2016: "Introduction: Non-computability, Alain Lewis, and Bottom-Up Macro Theory"

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Selected Applications in Complex Systems

"The Formation of Transactive Memory Systems," an agent-based model of the formation of who-knows-what work team networks. NetLogo. (2016)

"Schelling Segregation on Networks." NetLogo. (2016)

"Highlighting Patterns in Cellular Automata." (2011). *Wolfram Demonstrations Project*.

"Four-Color Outer Median Cellular Automata on Graphs." (2008) *Wolfram Demonstrations Project*.

Other Education

Santa Fe Institute's Complexity Science Summer School (Summer, 2016)

Projects: "The City as an Ecology of Plans," and "Group Emergence"

Santa Fe Institute for Complexity Short Course: "Exploring Complexity in Social Systems and Economics" (January 4-7, 2016)

New Kind of Science Summer School, University of Vermont, Complex Systems Center.

Project: "Digital Song Composition with Cellular Automata," Summer, 2010.

Project: "Outer Median and Probabilistic Cellular Automata on Network Topologies," Summer, 2008.

Selected Awards

NYU PhD Fellowship in Economics (2019, 2018)

Mercatus PhD Fellowship (2019, 2018, 2017, 2016)

Institute for Humane Studies PhD Fellowship (2019, 2018, 2017, 2016)

Mercatus Summer Research Fellowship (2019, 2018, 2017, 2016)

Languages

Human: Native English, proficient French, tourist-level Spanish

Computer: *Mathematica*, Python, R, NetLogo, C++, any markup language or statistics package

Other Creative Interests and Proficiencies

Music: Proficient in operatic voice, piano, and classical and digital composition.

Writing: Proficient in literary nonfiction, fiction, poetry. Preference for novel-length literary speculative fiction.

Art: Realist painter in oils and oil pastels.