

BRIAN D. CONNELLY

Professional Preparation

- ▶ **B.S. in Computer Science**, Purdue University (2002)
- ▶ **M.S. in Computer Science**, Michigan State University (2005)
- ▶ **Ph.D. in Computer Science; Ecology, Evolutionary Biology, and Behavior**
Dissertation: *Ecological Effects on the Evolution of Cooperative Behaviors*
Advisor: Philip K. McKinley
Michigan State University (2012)

Appointments

- ▶ **NSF Postdoctoral Research Fellow**, University of Washington (2013–)
- ▶ **Postdoc**, BEACON Center for the Study of Evolution in Action (2012–2013)
- ▶ **Graduate Research Assistant**, Michigan State University, (2003–2012)
- ▶ **Teaching Assistant**, Michigan State University, (2005–2006, 2007–2008)

Publications

Publications Related to the Current Project:

- ▶ B.E. Beckmann, D.B. Knoester, B.D. Connelly, C.M. Waters, and P.K. McKinley. Evolution of resistance to quorum quenching in digital organisms. *Artificial Life*, 18(3):1–20, 2012 (pdf)
- ▶ B.D. Connelly, L. Zaman, P.K. McKinley, and C. Ofria. Modeling the evolutionary dynamics of plasmids in spatial populations. In *Proceedings of the Genetic and Evolutionary Computation Conference*, pages 227–233, 2011 (pdf)
- ▶ B.D. Connelly, B.E. Beckmann, and P.K. McKinley. Resource abundance promotes the evolution of public goods cooperation. In *Proceedings of the Genetic and Evolutionary Computation Conference*, pages 143–150, 2010 (**Best Paper Award**) (pdf)
- ▶ B.D. Connelly, L. Zaman, C. Ofria, and P.K. McKinley. Social structure and the maintenance of biodiversity. In *Proceedings of the 12th International Conference on the Synthesis and Simulation of Living Systems (ALIFE)*, pages 461–468, 2010 (pdf)
- ▶ B.D. Connelly and P.K. McKinley. Evolving social behavior in adverse environments. In *Proceedings of 10th European Conference on Artificial Life*, pages 498–498, 2009 (pdf)

Other Relevant Publications:

- ▶ B.D. Connelly, L. Zaman, and P.K. McKinley. The seeds platform for evolutionary and ecological simulations. In *Proceedings of the Genetic and Evolutionary Computation Conference*, pages 133–140, 2012 (pdf)
- ▶ B.D. Connelly, P.K. McKinley, and B.E. Beckmann. Evolving cooperative pheromone usage in digital organisms. In *Proceedings of IEEE Symposium on Artificial Life*, pages 184–191, 2009 (pdf)

Recent Synergistic Activities

- ▶ Mentor for 8th Grade Science Experiment, Beaver Lake Middle School, Issaquah, WA (2015)
- ▶ Volunteer, Pacific Science Center, Seattle, WA (2015)
- ▶ Co-led experiments examining bacterial growth and the effect of hand washing, Sacajawea Elementary School, Seattle, WA (2014)
- ▶ Science Fair Judge at Jane Addams K-8 School in Seattle, WA (2013, 2014)
- ▶ Judge for Biology Graduate Student Symposium, University of Washington (2014)
- ▶ Co-Instructor and Co-Organizer of CompCamp, an introduction to computational tools and programming for biologists, Department of Biology, University of Washington (2013)

Awards & Honors

- ▶ **Science Communication Fellowship**, Pacific Science Center (2015)
- ▶ **Postdoctoral Fellowship**, National Science Foundation (2013)
- ▶ **Outstanding Graduate Student**, Dept. of Computer Science and Egr., MSU (2012)
- ▶ **Outstanding Service Award**, Dept. of Computer Science and Egr., MSU (2012)
- ▶ **Nominee for Fitch-Beach Outstanding Graduate Research Award**, College of Engineering, MSU (2012)
- ▶ **Best Paper**, Genetic and Evolutionary Computation Conference (2010)
- ▶ **Best Poster (3rd Place)**, Dept. of Computer Science and Egr., MSU (2006)
- ▶ **Graduate Research Fellowship Award**, Quantitative Biology Program, MSU (2004)

Relevant Open Source Software Contributions

- ▶ **Primary Developer**, SEEDS platform for computational ecology and evolution
Available: <http://seeds-project.org>
- ▶ **Primary Developer**, PlateTools for reading, manipulating, and analyzing microplate data
Available: <https://github.com/briandconnelly/PlateTools>
- ▶ **Developer**, Avida digital evolution platform
Available: <http://avida.devosoft.org>

Collaborators & Other Affiliations

- ▶ *Collaborators (Past 48 Months)*: Benjamin Kerr (UW), Sarah Hammarlund (UW), Katie Dickinson (UW), Michael Doebeli (UBC), Philip McKinley (MSU), Christopher Waters (MSU), Eric Bruger (MSU)
- ▶ *Doctoral Committee*: Philip McKinley (MSU), Christopher Waters (MSU), Charles Ofria (MSU), Thomas Schmidt (UM), C. Titus Brown (UC)