# Brian Powers

Curriculum Vitae

## Education

2011–2016 **Doctor of Philosophy in Mathematics**, *University of Illinois at Chicago*, Chicago, Illinois.

Mathematics (Game Theory)

- 2003–2007 **Masters of Science in Mathematics**, *Fairfield University*, Fairfield, Connecticut. Financial Mathematics
- 1999–2003 Bachelor of Arts in Mathematics and Computer Science, *Tufts University*, Medford, Massachusetts. Graduated *Cum Laude*

# Ph.D. Thesis

title An Analysis of Multi-Issue Final-Offer Arbitration

supervisor T.E.S. Raghavan

description An extension of Final Offer Arbitration to the multivariate problem settings and an exploration of the various methods of arbitrator decision-making.

# Vocational Experience

- 2019–Present Instructor, Arizona State University, Tempe, AZ. Mathematics Instructor in the Sciences and Mathematics department in the College of Integrative Sciences and Arts.
- 2018–Present **Modeling Researcher**, *Ocean Conservancy*, Washington, DC. Contributing to the POSEIDON agent-based model of ocean life and fisheries.
- 2016–Present **Online Adjunct Instructor**, *Southern New Hampshire University*, Manchester, New Hampshire.

Facilitating and teaching online courses in undergraduate statistics and mathematics.

- 2017–2019 **Online Adjunct Instructor**, *Stratford University*, Falls Church, VA. Teaching online courses in undergraduate statistics and mathematics.
- 2016–2019 **Research Postdoctoral Scholar**, *Arizona State University*, Tempe, Arizona. Supported by a grant from GOMRI to build a dynamic model of various fish species and fishers in the northern Gulf of Mexico, I am actively involved in the development of the theory and implementation of the model, as well as the analysis of data and output.
  - 2017 Adjunct Instructor, Grand Canyon University, Phoenix, Arizona. Taught Quantitative Analytics for Management, an MBA course and Applied Statistics for Nursing.
- 2011–2016 **Private Tutor**, Chicago, Illinois and Scottsdale, Arizona. Worked with over fifty students, accumulating more than 1000 hours of tutoring; students ranged from elementary school through graduate level; topics ranged from Algebra and Calculus to Applied Statistics, Complex Analysis and Excel

2011–2016 Lecturer, Teaching Assistant and Tutor, University of Illinois at Chicago, Chicago, Illinois.

Lectured Applied Statistical Methods in Spring 2015; Taught weekly discussion sessions; graded homework, quizzes and exams; maintained personal course webpages; worked weekly at the Mathematics Learning Center with students in many subjects of mathematics and statistics

- 2015 **Adjunct Lecturer**, *Northwestern College*, Chicago, Illinois. Typical lecturer duties for an introductory mathematics course
- 2013 Adjunct Lecturer, Moraine Valley Community College, Palos Hills, Illinois. Planned all course material for a summer Finite Math course; gave lectures, graded homework, quizzes and exams
- 2011 **Mathematics Tutor**, *Katonah Tutoring Club*, Katonah, New York. Worked one-on-one and in group sessions with students aged 11 through 17
- 2008–2010 **Treasury Analyst**, *Bahá'í World Centre*, Haifa, Israel. Served as the primary banking relationship manager; performed cash management, forecasting and analysis; performed account reconciliations and accounting
- 2004–2008 Loan Administrator and Business Analyst, UBS Investment Bank, Stamford, Connecticut.

Maintained a portion of the loan trading portfolio; participated in detailed analysis of the Commercial Lending Business at UBS; gathered user requirements for a strategic loan platform

#### Consulting

2017-Present Statistics Consultant, Bahá'í World Centre, Haifa, Israel.

#### Service

2018 **APR Committee**, *Stratford University*, Falls Church, Virginia. Redesigned the Introductory Statistics course and participated in committee activities to strengthen the academic program in general.

### Publications

Yi Huang, Brian Powers, and Lev Reyzin. Training-time optimization of a budgeted booster. In *Proceedings of the 24th International Joint Conference on Artificial Intelligence, IJCAI 2015, Buenos Aires, Argentina*, July 2015.

Jeremy Kun, Brian Powers, and Lev Reyzin. Anti-coordination games and stable graph colorings. In *Algorithmic Game Theory*, pages 122–133. Springer Berlin Heidelberg, 2013.

Brian Powers. An analysis of dual-issue final-offer arbitration. *International Journal of Game Theory*, pages 1–28, 2018.

Brian Powers, Michalis Smyrnakis, and Hamidou Tembine. Empathy in bimatrix games. *arXiv preprint arXiv:1708.01910*, 2017.

Brian R Powers. Dual-issue final-offer arbitration: Invariance of pure optimal strategies under lp metrics. *International Game Theory Review (IGTR)*, 21(04):1–27, 2019.

#### Languages

English Fluent Spanish Proficient Mother tongue Conversational

# Computer skills

Languages	Java, C++, AWK, Visual Basic, JavaScript, PHP, MySQL	Design	TeX, HTML, CSS
Office	Word, Excel, etc.	Graphics	lllustrator/Inkscape, Photoshop/GIMP
Statistical	R, SAS, SPSS	Instructional	Blackboard, Moodle, Canvas

#### Interests

Game Design I enjoy designing and producing board and card games

Visual Arts Illustration, stained glass and computer graphics

Web Design Design and development of personal web projects and sites

## References

#### Research

- T.E.S. Raghavan (UIC)
- Lev Reyzin (UIC)
- Steven Saul (ASU)

#### Teaching

- Jane Morgan (SNHU)
- Catherine Hart (ASU)
- Lia Liu (UIC)