

# Haosui Duanmu

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## CONTACT INFORMATION

Department of Economics  
University of California, Berkeley  
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## RESEARCH INTERESTS

mathematical statistics, stochastic processes and probability theory, statistical decision theory, nonstandard analysis, point set topology

## EMPLOYMENT

**University of California, Berkeley**, Berkeley, California USA

Postdoctoral Fellow., Department of Economics (March 2018–)

- Advisors: Robert M. Anderson

## EDUCATION

**University of Toronto**, Toronto, Ontario Canada

Ph.d., Department of Statistical Sciences, December 2017

- *Department of Statistical Sciences Doctoral Award*
- Thesis Topic: Applications of Nonstandard Analysis to Markov Processes and Statistical Decision Theory
- Advisors: Jeffrey S. Rosenthal, Daniel M. Roy and William Weiss

M.S., Department of Statistical Sciences, May 2012

B.S., Department of Mathematics, May 2011

- *Graduate with High Distinction*
- Programme: Mathematics and its Application to Finance (specialist)

## PUBLICATIONS

Refereed Publications:

1. Haosui Duanmu, Franklin D. Tall, and Lyubomyr Zdomskyy. “Productively Lindelöf and Indestructibly Lindelöf Spaces.” *Topology and its Applications*, 160(18): 2443 (2013)
2. Haosui Duanmu, William Weiss. “Finitely-additive, Countably-additive and Internal Probability Measures.” *Commentationes Mathematicae Universitatis Carolinae*, Vol. 59, No. 4 (2018), pp. 467-485.
3. Haosui Duanmu, Jeffrey S. Rosenthal, and William Weiss “Ergodicity of Markov Processes via Nonstandard Analysis.” *Memoirs of the American Mathematical Society*, Accepted.

Submitted Manuscript

- Haosui Duanmu, Daniel M. Roy. “On Extended Admissible Procedures and their Nonstandard Bayes Risk.” *The Annals of Statistics*, Major Revision.
- Robert M. Anderson, Haosui Duanmu, and Aaron Smith. “Mixing Times and Hitting Times for General Markov Processes.” *Israel Journal of Mathematics*, Submitted.

- Robert M. Anderson, Haosui Duanmu, and Aaron Smith. “Mixing and Average Mixing Times for General Markov Processes.” *Proceedings of the American Mathematical Society*, Submitted.
- Robert M. Anderson, Haosui Duanmu, and Aaron Smith. “Mixing and Hitting Times for Gibbs Samplers and Other Non-Feller Processes.” *Annales de l’Institut Henri Poincaré*, Submitted.

#### Manuscript in Preparation

- Haosui Duanmu, Daniel M. Roy, and Aaron Smith. “Existence of Matching Priors for Compact Parameter Spaces.” In Preparation.
- Robert M. Anderson, Haosui Duanmu, Daniel M. Roy, and Qiang Sun. “A Non-standard Minimax Theorem.” In Preparation.
- Robert M. Anderson, Haosui Duanmu, Aaron Smith and Jun Yang. “Drift, Minorization and Hitting Times.” In Preparation.

## AWARDS

### Student Award

- NSERC postdoctoral fellowship (ranked 3 out of 43 applicants in Scholarship and Fellowship Committee for Mathematical Science)  
Natural Science and Engineering Research Council of Canada 2019.
- Department Doctoral Award  
Department of Statistical Sciences, University of Toronto 2018.
- Coxeter Scholarship for Mathematics  
Department of Mathematics, University of Toronto 2010.
- Dean’s List Award  
University of Toronto, 2008–2011.

### Presentation Award

- Best Student Poster Presentation Award,  
University of Toronto Statistical Science Research Day 2017.
- Best Poster of the Statistical Society of Canada Student Conference Award,  
Statistical Society of Canada Annual Meeting 2015.
- Probability Section Student Presentation Award,  
Statistical Society of Canada Annual Meeting 2015.

## PRESENTATIONS

### Statistic and Probability Conferences

- The Statistical Society of Canada Annual Meeting, Calgary, AB (May 2019).
- The Statistical Society of Canada Annual Meeting, Montreal, QC (June 2018).
- 5th Bayesian, Fiducial and Frequentist Conference, University of Michigan, Ann Arbor, MI (May 2018).
- Workshop on Stochastic Processes and their Applications, Carleton University, Ottawa, ON, Canada (August 2017).

- 11th Conference on Bayesian Nonparametrics, Paris, France (June 2017).
- 4th Bayesian, Fiducial and Frequentist Conference, Harvard University, Cambridge, MI (May 2017).
- World Congress in Probability and Statistics, University of Toronto, Toronto, ON, Canada (June 2016).
- International Workshop in Applied Probability, University of Toronto, Toronto, ON, Canada (June 2016).
- ISBA World Meeting, Sardinia, Italy (June 2016).
- Statistical Society of Canada Annual Meeting, Brock University, St Catharines, On, Canada (May 2016).
- Objective Bayes Workshop, University of Valencia, Valencia, Spain (June 2015).
- Statistical Society of Canada Annual Meeting, University of Dalhousie, Halifax, NS, Canada (June 2015).

#### Seminar Talks

- Stanford University, invited by Peter Glynn, Stanford, CA (May 2019).
- University of California, San Diego Probability Seminar, San Diego, CA (Jan 2019).
- University of California, Berkeley Risk Seminar, Berkeley, CA (September 2018).
- The Johns Hopkins University Economic Department Seminar, Baltimore, MD (May 2018).
- University of Ottawa Probability and Statistics Seminar, Ottawa, ON, Canada (February 2017).
- University of California, Berkeley Probability Seminar, Berkeley, CA (February 2017).
- University of Toronto Set Theory Seminar, Toronto, ON, Canada (November 2016).
- University of Toronto Set Theory Seminar, Toronto, ON, Canada (December 2015).