

# ALEXANDER ROITERSHTEIN

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CV includes 10 pages,  
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## EDUCATION

PhD, Applied Mathematics, Technion - Israel Institute of Technology, 2004,

Thesis: "Random Walks in Random Environments",

Advisors: Eddy Mayer-Wolf and Ofer Zeitouni.

MSc, Applied Mathematics, Technion - Israel Institute of Technology, 1999,

Thesis: "Language Recognition by Markov Computational Systems",

Advisor: Hava T. Siegelmann.

MBA, Decisions and Operations Research, Tel Aviv University, 1996.

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## FIELDS OF INTEREST

Random walk models and their applications; population dynamics; complex networks; microbiome ecology; branching processes and their applications to biology and other fields; nonparametric statistics; time series: asymptotic tail behavior, extremes, clustering, analysis of random combinatorial structures; stochastic processes in random environment; general theory of Markov chains.

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## EMPLOYMENT

Fall 2021 - Present:

Visiting Associate Professor, Department of Mathematics, Texas A&M University, College Station.

Fall 2018 - Summer 2021:

- ◇ Research Associate, Department of Statistics, Texas A&M University, College Station, T32 Training Program in Biostatistics, Bioinformatics, Nutrition and Cancer (Ruth L. Kirschstein National Research Service Award)
- ◇ In addition, Assistant/Visiting Lecturer, Department of Statistics (Spring 2020 - Spring 2021).

Fall 2009 - Spring 2018:

Assistant Professor, Tenure Track, Department of Mathematics, Iowa State University.

Fall 2007 - Spring 2009:

Post-Doc, Department of Mathematics, Iowa State University.

Spring 2005 - Spring 2007:

Post-Doc, Department of Mathematics, University of British Columbia.

## SHORT-TERM POSITIONS

- ◇ Visiting Assistant Professor, Division of Applied Mathematics, Brown University, Summer 2016.
  - ◇ Visiting Researcher, ETH, Zurich, Institute for Mathematical Research, Fall Term 2004.
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## PUBLICATIONS AND PREPRINTS

### SUBMITTED PREPRINTS

44. A. Roitershtein, R. Rastegar, R. S. Chapkin, and I. Ivanov, *Extinction scenarios in evolutionary processes: A Multinomial Wright-Fisher approach*, under review.
43. T. Mansour, R. Rastegar, and A. Roitershtein, *Height of records in partitions of a set*, under review.

### PEER-REVIEWED ARTICLES INDEXED BY MATHEMATICAL REVIEWS

42. A. Roitershtein and Z. Zhou, *Distribution tails of history-dependent random linear recursions*, to appear in Stochastic Models.
41. T. Mansour, R. Rastegar, A. Roitershtein, and G. Yildirim, *The longest increasing subsequence in involutions avoiding 3412 and another pattern*, to appear in Pure Mathematics and Applications (P.U.M.A.)
40. T. Mansour, R. Rastegar, A. Roitershtein, and M. Shattuck, *Shifting powers in Spivey's Bell number formula*, to appear in Quaestiones Mathematicae.
39. R. Rastegar and A. Roitershtein, *Avalanches in a short-memory excitable network*, Adv. in Appl. Probab. **53** (2021), 609–648. MR4322398
38. A. P. Ghosh, S. Noren, and A. Roitershtein, *Favorite sites of a persistent random walk*, J. Math. Anal. Appl. **501** (2021), 125180. MR4236925
37. T. Mansour, R. Rastegar, and A. Roitershtein, *Horizontal visibility graph of a random restricted growth sequence*, Adv. Appl. Math. **124** (2021), 102145. MR4188892
36. T. Mansour, R. Rastegar, and A. Roitershtein, *Finite automata, probabilistic method, and occurrence enumeration of a pattern in words and permutations*, SIAM J. Discrete Math. **34** (2020), 1011–1038. MR4082279
35. T. Mansour, R. Rastegar, and A. Roitershtein, *Staircase patterns in words: subsequences, subwords, and separation number*, European J. Combin. **86** (2020), 103099. MR4078936

34. C. McCarthy, G. Nop, R. Rastegar, and A. Roitershtein, *Random walk on the Poincaré disk induced by a group of Möbius transformations*, Markov Process. Related Fields **25** (2019), 915–940. MR4246021
33. T. Mansour, R. Rastegar, and A. Roitershtein, *On ballistic deposition process on a strip*, J. Stat. Phys. **177** (2019), 626–650. MR4027577
32. D. Buraczewski, P. Dyszewski, A. Iksanov, A. Marynych and A. Roitershtein, *Random walks in a moderately sparse random environment*, Electron. J. Probab. **24** (2019), paper no. 69. MR3978219
31. I. Ben-Ari, A. Roitershtein, and R. B. Schinazi, *A random walk with catastrophes*, Electron. J. Probab. **24** (2019), paper no. 28. MR3933207
30. O. Angel, A. Matzavinos, and A. Roitershtein, *Limit theorem for the Robin Hood game*, Statist. Probab. Lett. **149** (2019), 9–15. MR3906783
29. T. Chumley, O. Aydogmus, A. Matzavinos, and A. Roitershtein, *Moran-type bounds for the fixation probability in a frequency-dependent Wright-Fisher model*, J. Math. Biol. **76** (2018), 1–35. MR3742781
28. A. Roitershtein and Z. Zhou, *Relative growth of the partial sums of certain random Fibonacci-like sequences*, J. Difference Equ. Appl. **23** (2017), 1913–1928. MR3764773
27. E. Carroll, A. P. Ghosh, X. H. Nguyen, and A. Roitershtein, *Iterated Routh's triangles*, J. Geom. Graph. **21** (2017), 141–156. MR3747986
26. A. P. Ghosh, S. Noren, and A. Roitershtein, *On the range of the right-transient frog model on  $\mathbb{Z}$* , Adv. in Appl. Probab. **49** (2017), 327–343. MR3668379
25. A. Matzavinos, A. Roitershtein, and Y. Seol, *Random walks in a sparse random environment*, Electron. J. Probab. **21** (2016), paper 72. MR3592203
24. O. Aydogmus, A. P. Ghosh, S. Ghosh, A. Roitershtein, *Colored maximal branching process*, Theory Probab. Appl. **59** (2015), 663–672. MR3431700
23. A. P. Ghosh, R. Rastegar, and A. Roitershtein, *On a directionally reinforced random walk*, Proc. Amer. Math. Soc. **142** (2014), 3269–3283. MR3223382
22. I. Ben-Ari, D. Hay, and A. Roitershtein, *On Wallis-type products and Pólya's urn schemes*, Amer. Math. Monthly **121** (2014), 422–432. MR3193726
21. K. Jungjaturapit, T. Pluta, R. Rastegar, A. Roitershtein, M. Temba, C. N. Vidden, B. Wu, *Trading cookies in a gambler's ruin scenario*, Involve **6** (2013), 191–220. MR3096368
20. R. Basu and A. Roitershtein, *Divergent perpetuities modulated by regime switches*, Stoch. Models **29** (2013), 129–148. MR3056180
19. A. Roitershtein and Z. Zhong, *On random coefficient INAR(1) processes*, Sci. China Math. **56** (2013), 177–200. MR3016591
18. I. Ben-Ari, K. Boushaba, A. Matzavinos, and A. Roitershtein, *Stochastic analysis of the motion of DNA nanomechanical bipeds*, Bull. Math. Biol. **57** (2011), 1932–1951. MR2817824
17. A. P. Ghosh, E. Kleiman, and A. Roitershtein, *Large deviation bounds for functionals of Viterbi paths*, IEEE Trans. Inform. Theory **57**(2011), 3932–3937. MR2817065

16. I. Ben-Ari, A. Matzavinos, and A. Roitershtein, *On a species survival model*, Electron. Commun. Probab. **16** (2011), 226–233. MR2788894
15. D. Hay, R. Rastegar, and A. Roitershtein, *Multivariate linear recursions with Markov-dependent coefficients*, J. Multivariate Anal. **102** (2011), 521–527. MR2755013
14. A. P. Ghosh, D. Hay, V. Hirpara, R. Rastegar, A. Roitershtein, A. Schulteis, and J. Suh, *Random linear recursions with dependent coefficients*, Statist. Probab. Lett. **80** (2010), 1597–1605. MR2684005
13. A. P. Ghosh, A. Roitershtein, and A. Weerasinghe, *Optimal control of a stochastic processing system driven by a fractional Brownian motion input*, Adv. in Appl. Probab. **42** (2010), 183–209. MR2666924
12. I. Ben-Ari, M. Merle, and A. Roitershtein, *A random walk on  $\mathbb{Z}$  with drift driven by its occupation time at zero*, Stochastic Process. Appl. **119** (2009), 2682–2710. MR2532219
11. A. Roitershtein, *Transient random walks on a strip in a random environment*, Ann. Probab. **36** (2008), 2354–2387. MR2478686
10. A. Roitershtein, *A note on multitype branching processes with immigrants in a random environment*, Ann. Probab. **35** (2007), 1573–1592. MR2330980
9. A. Roitershtein, *One-dimensional linear recursions with Markov-dependent coefficients*, Ann. Appl. Probab. **17** (2007), 572–608. MR2308336
8. A. Roitershtein, *A log-scale limit theorem for one-dimensional random walks in random environments*, Electron. Commun. Probab. **10** (2005), 244–253. MR2198599
7. E. Mayer-Wolf, A. Roitershtein, and O. Zeitouni, *Limit theorems for one-dimensional transient random walks in Markov environments*, Ann. Inst. H. Poincaré Probab. Statist. **40** (2004), 635–659. MR2086017
6. A. Ben-Hur, A. Roitershtein, and H. T. Siegelmann, *On probabilistic analog automata*, Theoret. Comput. Sci. **320** (2004), 449–464. MR2064311

## PEER-REVIEWED ARTICLES NOT INDEXED BY MATHEMATICAL REVIEWS

5. K. Zhou, I. Dobson, Z. Wang, A. Roitershtein, and A. P. Ghosh, *A Markovian influence graph formed from utility line outage data to mitigate cascading*, IEEE Trans. Power Syst. **35** (2020), 3224–3235.
4. A. P. Ghosh, W. Qin, and A. Roitershtein, *Discrete-time Ornstein-Uhlenbeck process in a stationary dynamic environment*, Journal of Interdisciplinary Mathematics **19** (2016), 1–35.
3. R. Rastegar, A. Roitershtein, V. Roytershyen, and J. Suh, *Discrete-time Langevin motion in a Gibbs potential*, Applied Mathematics **3** (2012), 2032–2037.

## BOOK CHAPTER

2. C. Bowman, K. Larson, D. Stein, A. Roitershtein, and A. Matzavinos, *Bayesian uncertainty quantification for particle-based simulation of lipid bilayer membranes*, In *Cell Movement: Modeling and Applications*, M. Stolarska and N. Tarfulea (eds.), Springer, 2018, 77–102.

## PEER-REVIEWED CONFERENCE PROCEEDINGS ARTICLE

1. H. T. Siegelmann, A. Roitershtein, and A. Ben-Hur, *Noisy neural networks and their generalization*, Advances in Neural Information Processing Systems (NIPS) **12** (2000), 335–341.
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## GRADUATE AWARDS

- ◇ Special award for the PhD. thesis at the Department of Mathematics, Technion, 2004.
- ◇ Prof. Elisha Netanyahu Prize for excellence in PhD research, Technion, 2004.
- ◇ Sandor Szego Award for Excellence in Teaching, Technion, 2001.
- ◇ Miriam and Aaron Gutwirth Excellence Scholarship, Technion, 1998.

## RESEARCH GRANTS

- ◇ “Self-interacting Random Walks”, Simons Foundation: Collaboration Grant (#359575, single PI), \$35000, 2015-2018.
  - ◇ “Computational Study of the Kesten-Goldie Constant”, XSEDE, Stampede2 Supercomputer, startup allocation DMS170014, 4,200 Node Hours (\$1,082 estimated value), Pi: A. Roitershtein, 2017.
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## TEACHING EXPERIENCE

### UNDERGRADUATE COURSES, TEXAS A&M

- ◇ MATH 304 Linear Algebra, F 2021 (3 sections).
- ◇ STAT 201 Elementary Statistical Inference, S 2020, F 2020 (remote), S 2021 (remote).

### UNDERGRADUATE COURSES, IOWA STATE UNIVERSITY

- ◇ MATH 165 Calculus I, F 2007, F 2009 (large section), F 2016 (3 sections, recitations), S 2017.
- ◇ MATH 166 Calculus II, S 2013 (math majors section), S 2016, F 2016 (2 sections).
- ◇ MATH 201 Introduction to Proofs, F 2015, F 2017, S 2018.
- ◇ MATH 265 Calculus III, F 2008, F 2011, F 2014, Sum 2016, F 2017 (collaborative instruction).
- ◇ MATH 265H Calculus III, Honors Section, S 2018.
- ◇ MATH 266 Elementary Differential Equations, S 2008.
- ◇ MATH 267 Elementary Diff. Eqs. & Laplace Transforms, Sum 2008, F 2013 (collaborative instruction).
- ◇ MATH 268 Laplace Transforms, S 2009.
- ◇ MATH 307 Matrices and Linear Algebra, Sum 2008, F 2010.
- ◇ MATH 317 Theory of Linear Algebra, F 2011.

- ◇ MATH 365 Complex Variables with Applications, S 2016.
- ◇ MATH 385 Introduction to PDE, F 2010, Sum 2011, F 2014, F 2017.
- ◇ MATH 414 Analysis I, S 2012, F 2012, Sum 2017.
- ◇ MATH 415 Analysis II, S 2017.
- ◇ MATH 435 Independent Studies (Geometry I), Sum 2011.
- ◇ MATH 436 Independent Studies (Geometry II), Sum 2011.
- ◇ MATH 490 Independent Studies, Sum 2009, F 2009, S 2011 (2 students), F 2011, S 2016 (2 students), F 2016 (2 students), S 2017, F 2017, S 2018.
- ◇ MATH 491 Undergraduate Thesis, S 2011, F 2011, S 2017 (2 students), F 2017, S 2018.
- ◇ MATH 492 Undergraduate Seminar (Game Theory), S 2009.
- ◇ MATH 492 Independent Studies (Undergraduate Seminar), F 2010.
- ◇ HON 290H First-Year Honors Mentor Program, S 2017 (3 students).
- ◇ HON 322U Honors Seminar (Mathematics of Paul Erdos), S 2012.

#### **UNDERGRADUATE COURSES, UNIVERSITY OF BRITISH COLUMBIA**

- ◇ MATH 317 Calculus IV, F 2005, F 2006.
- ◇ MATH 340 Introduction to Linear Programming, Sum 2007.

#### **GRADUATE COURSES, IOWA STATE UNIVERSITY**

- ◇ MATH 501 Introduction to Real Analysis, Summer Terms 2011, 2012, 2014, 2015.
- ◇ MATH 554 Introduction to Stochastic Processes, Fall Terms 2008, 2009, 2012, 2013, 2015.
- ◇ MATH 590 Graduate Independent Studies S 2009, F 2014.
- ◇ MATH 610 Graduate Research Seminar, S 2012.
- ◇ MATH 645 Advanced Stochastic Processes, Spring Terms 2008, 2014, 2015.

#### **TEACHING PLATFORMS**

Blackboard, Canvas, eCampus, Pearson MyLab Math, Top Hat.

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## PHD STUDENTS AND POSTDOCS, IOWA STATE UNIVERSITY

- ◇ Timothy Chumley (NSF Alliance Postdoc), Fall 2013 - Spring 2016.  
Currently, Assistant Professor of Mathematics at Mount Holyoke College, South Hadley, MA.
- ◇ Oscar Aguilar (PhD, Stat. & Appl. Math, 2019), joint with Arka P. Ghosh,  
Thesis: "Topics in portfolio allocation".  
Currently, Senior Analytics Consultant at Principal Financial Group, and  
Assistant Professor of Analytics at Grand View University, Des Moines, Iowa.
- ◇ Steven Noren (PhD, Math., 2017), joint with Arka P. Ghosh,  
Thesis: "Topics in self-interacting random walks".  
Currently, Visiting Assistant Professor at the Illinois Wesleyan University.
- ◇ Kubilay Dagtoros (PhD, Appl. Math. & Stat., 2017), joint with Arka P. Ghosh,  
Thesis: "Large deviation results for random walks in a sparse random environments".  
Currently, Assistant Professor of Mathematics at Norfolk State University, Norfolk, VA.
- ◇ Zachary Voller (PhD, Appl. Math., 2016),  
Thesis: "Limit theorems for persistent random walks in cookie environments".  
Currently, Lead Data Scientist at Target Corporation - Enterprise Data and Business Insights Center  
of Excellence, Minneapolis, MN.
- ◇ Shu Yang (PhD, Appl. Math & Stat., 2014), Jae Kwang Kim and Zhengyuan Zhu principal advisers,  
Thesis: "Fractional imputation method in handling missing data".  
Currently, Assistant Professor of Statistics, North Carolina State University, Raleigh, NC.
- ◇ Subhomoy Ghosh (PhD, Stat., 2013), joint with Arka P. Ghosh,  
Thesis: "Topics in stochastic growth models".  
Currently, Computational Scientist and Research Assistant Professor, Center for Research Computing  
(CRC), University of Notre Dame.
- ◇ Youngsoo Seol (PhD, Appl. Math., 2013),  
Thesis: "Random walks in a sparse random environment".  
Currently, Assistant Professor of Mathematics at Dong-A University, Busan, South Korea.
- ◇ Reza Rastegar (PhD, Appl. Math., 2012), joint with Arka P. Ghosh,  
Thesis: "Topics in self-interacting random walks".  
Currently, Director of Analytics and Data Science, Occidental Petroleum Corporation, Houston, TX and  
Adjunct Professor at the Departments. of Mathematics and Engineering, University of Tulsa, OK.

## MS STUDENTS, IOWA STATE UNIVERSITY

- ◇ Tetiana Takhistova (MSc, 2017),  
Thesis: "Spider random walk in a random environment".
- ◇ Yiyi Sun (MSc, Appl. Math., 2017),  
Thesis: "Trading cookies with a random walk".
- ◇ Emily Carroll (MSc, Math., 2016), joint with Arka P. Ghosh,  
Thesis: "The dynamical system of iterated Cevian tribbles".
- ◇ Ke Ren (MSc, Appl. Math., 2015),  
Creative component: "Frog models".



- ◇ Zheng (John) Zhong (MSc, Appl. Math., 2013), Thesis: "On random coefficient INAR(1) processes".
- ◇ Wenjun Qin (MSc, Appl. Math., 2011), joint with Arka P. Ghosh, Thesis: "Discrete Ornstein-Uhlenbeck process in a stationary dynamic environment".

## UNDERGRADUATE THESES, IOWA STATE UNIVERSITY

- ◇ Charles McCarthy, 2018, "Compositions of Möbius transformations".
- ◇ Gavin Pop, 2017, "Planar Brownian motion".
- ◇ Zirou Zhou, 2017, "Relative growth of the partial sums of certain random Fibonacci-like sequences".
- ◇ Chen Hua, 2011, "Multi-type maximal branching process".
- ◇ Zheng (John) Zhong, 2011, "On distribution tails of a stationary INAR(1) process".

## OTHER UNDERGRADUATE RESEARCH PROJECTS, IOWA STATE UNIVERSITY

- ◇ REU, Summer 2010, joint with Reza Rastegar (TA) and Chad Vidden (TA). "Random walks in a game-theoretic environment". The results were presented in MATHFEST of the MAA (Pittsburgh, August 2010), in SACNAS National Conference (Anaheim, October 2010), and in MAA Undergraduate Poster Session, Joint Mathematics Meetings (New Orleans, January 2011).
- ◇ REU, Summer 2009, joint with Arka P. Ghosh (co-mentor) and Reza Rastegar (TA). "Stochastic difference equations". The results were presented in 2009 Young Mathematician Conference at Ohio State University and in 2009 MATHFEST of the NAM (November, Howard University, Washington DC).
- ◇ Independent Studies, Daehwan Kim (Summer and Fall 2009), Jisha Zheng (Fall 2010), Vivek Hirpara (Spring 2011), Morteza Khosravi (Fall 2011), Xu Yan (Spring 2016), Zirou Zhou (Spring 2016, Spring and Fall 2017), Brandon Evans (Fall 2016), Charles McCarthy (Spring 2018).
- ◇ Research Internship Program, Zhirou Zhou, "Stochastic Difference Equations", 12/2017-5/2018.
- ◇ First-Year Honors Mentor Program, Zachary Graves, Sara Ronnkvist, Ethan Wanlass (Spring 2017).

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## RECENT TALKS (SINCE 2016)

- ◇ Austin-TAMU Probability and Related Fields Meeting, College Station, November 2021.
- ◇ Big Data Working Group Seminar (College of Veterinary Medicine), Texas A&M, College Station, February 2020.
- ◇ Statistics Seminar, Texas A&M, College Station, March 2019.
- ◇ Analysis Seminar, University of Alberta, March 2019.
- ◇ Probability Seminar, Texas A&M, College Station, August 2018.
- ◇ A Symposium on Optimal Stopping, Rice University, Houston, June 2018 (invited).
- ◇ Math Colloquium, University of South Florida St. Petersburg, April, 2018.



- ◇ Math Colloquium, New York Institute of Technology, March 2018.
  - ◇ Probability Seminar, University of Wroclaw, November 2016.
  - ◇ Probability Seminar, Brown University, August 2016.
  - ◇ Target's Enterprise Data and Business Insights Center of Excellence, Minneapolis, June 2016.
  - ◇ Analysis Seminar, University of Alberta, March 2016.
  - ◇ Probability seminar, Iowa State University, February 2016, September 2017.
  - ◇ Discrete Mathematics Seminar, Iowa State University, March 2016.
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## PROFESSIONAL ACTIVITIES

- ◇ Referee for peer-reviewed journals: Annals of Probability, ESAIM: Probability and Statistics, Stochastic Processes and their Applications, Annales de l'Institut Henri Poincaré, Proceedings of the Indian Academy of Sciences - Mathematical Sciences, Annales de l'Institut Fourier, Probability Theory and Related Fields, Illinois Journal of Mathematics, Mathematical and Computer Modeling, Science China Mathematics, Electronic Journal of Probability, Computational Statistics and Data Analysis, ALEA: Latin American Journal of Probability and Mathematical Statistics, Statistics and Probability Letters, Journal of Mathematical Analysis and Applications, Journal of Applied Mathematics, Theory and Applications of Graphs, TEST (An Official Journal of the Spanish Society of Statistics and Operations Research), Frontiers of Mathematics in China, Queueing Systems, Journal of Statistical Physics, Journal of Difference Equations and Applications, Journal of Mathematical Biology, Nonlinearity, Journal of Algebraic Combinatorics, Stochastics: An International Journal Of Probability And Stochastic Processes, Markov Processes and Related Fields, Computers in Biology and Medicine, Entropy, Journal of Mathematics (Hindawi), Acta Mathematica Scientia, Stochastics and Dynamics, Bernoulli.
  - ◇ Reviewer for the AMS Mathematical Reviews (MathSciNet).
  - ◇ Mentor, National Alliance for Doctoral Studies in the Mathematical Sciences (since 2010).
  - ◇ Referee for NSA's (NSA-AMS) Mathematical Sciences Program, 2014.
  - ◇ Co-organizer of the special session on "Stochastic Processes with Applications to Physics and Control" at the AMS Spring Central Section Meeting, Ames, April 27–28, 2013.
  - ◇ Co-organizer of the Ames Symposium in Probability. Conference in honor of Krishna B. Athreya's 70th birthday, Ames, September 18–19, 2009. Co-sponsored by the ISU Office of the Provost and the Institute for Mathematics and its Applications (IMA), Minneapolis.
  - ◇ External evaluation of a tenure-track faculty (Grand Valley State University), 2011 and 2012.
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## DEPARTMENTAL AND INSTITUTIONAL SERVICE, IOWA STATE UNIVERSITY

- ◇ Lecturer/Senior Lecturer review committee (2015–2017, 2013–2014), Ad hoc committee on postdocs (2014–2015), Ad hoc pre-proposal review committee for the VPR Office (Fall 2014), Probability faculty search committee, joint with Statistics (2012–2013), Math biology search committee (2011–2012), Co-organizer of the Department Colloquium (2009–2011).
- ◇ PHD committees: Ding Dai, January 2020 (Stat, Major Prof.: Arka P. Ghosh), Sen Zhou, April 2018 (Math, Major Prof.: L. Steven Hou), Fikri Kucuksayacigil, April 2018 (IMSE & Math, Major Prof.: Min J. Kyung), Keguo Huang, July 2017 (Math, Major Prof.: Arka P. Ghosh), Min Wang, April 2015 (Math & Stat, Major Profs.: Zhijun Wu and Karin Dorman), Saulo Orizaga, July 2014 (Math, Major Prof.: L. Steven Hou), Dajing Wu, April 2014 (Physics, Major Prof.: Kirill Tuchin), Sambarta Dasgupta, February 2014 (EE, Major Prof.: Umesh Vaidya), Man Basnet, August 2013 (Appl. Math, Major Profs.: Fritz Keinert and Namrata Vaswani), Chi-Jen Wang, July 2013 (Appl. Math, Major Prof.: James Evans), Jing Wang, July 2013 (Appl. Math, Major Prof.: James Evans), Maksym Pryporov, July 2013 (Appl. Math, Major Prof.: Hailiang Liu), Yiping Hao, June 2013 (Appl. Math, Major Prof.: Zhijun Wu), Ozgur Aydogmus, March 2013 (Appl. Math, Major Prof.: Zhijun Wu), Sijia Liu, July 2011 (Appl. Math, Major Prof.: Anastasios Matzavinou), Darren Row, March 2011 (Math, Major Prof.: Leslie Hogben), Jun Li, November 2009 (Physics, Major Prof.: James Vary).
- ◇ MSc committees: John Wu, July 2018 (Math., MSc, Major Prof.: Jonathan D. H. Smith), Sen Zhou, November 2017 (Math, Major Prof.: L. Steven Hou), Alex Nowak, April 2017 (Math., MSc, Major Prof.: Jonathan D. H. Smith), Abdolghani Ebrahimi, August 14, 2015 (IMSE, Major Prof.: Arka P. Ghosh).
- ◇ First-year graduate student's faculty mentor, Kuejai (Nan) Jungjaturapit (2010).

## EXTRACURRICULAR UNIVERSITY SERVICE, IOWA STATE UNIVERSITY

- ◇ Judge in a Three Minute Thesis (3MT®) competition (November 2017).
- ◇ Judge in the Symposium on Undergraduate Research & Creative Expression Agenda (April 2017).
- ◇ Faculty Adviser for the Iowa Ukrainian Students Organization (2014–2016).

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## PROFESSIONAL SOCIETIES

American Mathematical Society (AMS), American Statistical Association (ASA).