

EMPLOYMENT	Bard College, Department of Mathematics Assistant Professor	2019 – Present
	Duke University, Department of Mathematics William W. Elliott Research Assistant Professor	2016 – 2019
EDUCATION	University of Washington	2006 – 2016
	Ph.D. Mathematics; Advisor: Christopher Hoffman	2016
	M.S. Mathematics Advisors: William McGovern, James Morrow	2012
	B.S. Mathematics, Cum Laude	2010
	B.A. Philosophy with College Honors, Cum Laude	2010
RESEARCH	Probability; Statistical Physics; Mathematical Biology	
GRANTS	NSF DMS-1855516; <i>Multitype Particle Systems</i> ; Amount: \$190,868	2019 – 2022
	AMS–Simons Travel Grant; Amount: \$4,000	2017 – 2019
PUBLICATIONS	(listed in order of arXiv postdate)	
	1. Recurrence and transience for the frog model on trees . Christopher Hoffman, Tobias Johnson, Matthew Junge. <i>Annals of Probability</i> . Volume 45, Number 5 (2017), 2826-2854.	
	2. Choices, intervals and equidistribution . Matthew Junge. <i>Electronic Journal of Probability</i> . Volume 20 (2015), paper no. 97, 18 pp.	
	3. From transience to recurrence with Poisson tree frogs . Christopher Hoffman, Tobias Johnson, Matthew Junge. <i>Annals of Applied Probability</i> . Volume 26, Number 3 (2016), 1620-1635.	
	4. Site recurrence for coalescing random walk . Itai Benjamini, Eric Foxall, Ori Gurel-Gurevich, Matthew Junge, Harry Kesten. <i>Electronic Communications in Probability</i> . Volume 21 (2016), paper no. 47, 12 pp.	
	5. Frog model wakeup time on the complete graph . Nikki Carter, Brittany Dygert, Stephen Lacina, Collin Litterell, Austin Stromme, Andrew You. <i>The Rose-Hulman Undergraduate Mathematics Journal</i> . Volume 17 : Issue 2 (2016), Article 9.	
	6. The critical density for the frog model is the degree of the tree . Tobias Johnson, Matthew Junge. <i>Electronic Communications in Probability</i> . Volume 21 (2016), paper no. 82, 12 pp. t	
	7. Stochastic orders and the frog model . Tobias Johnson, Matthew Junge. <i>Annales de l’Institut Henri Poincaré</i> . Volume 54, Number 2 (2018), 1013-1030.	
	8. Ewens sampling and invariable generation . Gerandy Brito, Christopher Fowler, Matthew Junge, Avi Levy. <i>Combinatorics, Probability, and Computing</i> . 27.6 (2018): 853-891.	

9. [The bullet problem with discrete speeds](#). Brittany Dygert, Christoph Kinzel, Matthew Junge, Jennifer Zhu, Annie Raymond, Erik Slivken. *Electronic Communications in Probability*. Volume 24 (2019), paper no. 27, 11 pp.
10. [Coalescing random walk on unimodular graphs](#). Eric Foxall, Tom Hutchcroft, Matthew Junge. *Electronic Communications in Probability*. Volume 23 (2018), paper no. 62, 10 pp.
11. [Infection spread for the frog model on trees](#). Christopher Hoffman, Tobias Johnson, Matthew Junge. *Electronic Journal of Probability*. Volume 24 (2019), paper no. 112, 29 pp.
12. [Asymptotic behavior of the Brownian frog model](#). Erin Beckman, Emily Dinan, Rick Durrett, Ran Huo, Matthew Junge. *Electronic Journal of Probability*. Vol. 23 (2018), paper no. 104, 19 pp.
13. [Block size in Geometric\(\$p\$ \)-biased permutations](#). Irina Cristali, Vinit Ranjan, Jake Steinberg, Erin Beckman, Rick Durrett, Matthew Junge, James Nolen. *Electronic Communications in Probability*. Vol. 23, (2018) paper no. 80, 10 pp.
14. [Poisson percolation on the square lattice](#). Irina Cristali, Matthew Junge, Rick Durrett. *Latin American Journal of Probability and Mathematical Statistics (ALEA)*. 16, 429437 (2019)
15. [Parking on transitive unimodular graphs](#). Janko Gravner, Hanbeck Lyu, Matthew Junge, David Sivakoff. *Annals of Applied Probability*. Volume 29, Number 4 (2019), 2089-2113.
16. [Poisson percolation on the oriented square lattice](#). Irina Cristali, Matthew Junge, Rick Durrett. To appear in *Stochastic Processes and their Applications*. (2019)
17. [The upper threshold in ballistic annihilation](#). Debbie Burdinski, Shrey Gupta, Matthew Junge. *ALEA*. 16, 10771087 (2019)
18. [Coexistence in chase escape](#). Rick Durrett, Matthew Junge, Si Tang. *In revision at Electronic Communications in Probability*.
19. [The frog model on trees with drift](#). Erin Beckman, Natalie Frank, Yufeng Jiang, Matthew Junge, Si Tang. *Electronic Communications in Probability*. Volume 24 (2019), paper no. 26, 10 pp.
20. [Cover time for the frog model on trees](#). Christopher Hoffman, Tobias Johnson, Matthew Junge. *Forum of Mathematics, Sigma*. Volume 72019, e41.
21. [The contact process on periodic trees](#). Yufeng Jiang, Remy Kassem, Grayson York, Brandon Zhao, Matthew Junge, Xianqing Huang, Rick Durrett.
22. [The phase structure of asymmetric ballistic annihilation](#). Matthew Junge, Hanbaek Lyu.
23. [SIR epidemics on evolving graphs](#). Yufeng Jiang, Remy Kassem, Grayson York, Matthew Junge, Rick Durrett.
24. [Critical percolation and \$A + B \rightarrow 2A\$ dynamics](#). Matthew Junge.
25. [Two-type annihilating particle systems on the complete and star graph](#). Irina Cristali, Yufeng Jiang, Matthew Junge, Remy Kassem, David Sivakoff, Grayson York.

26. [Chase-escape with death on trees](#). Erin Beckman, Keisha Cook, Nicole Eikmeier, Sarai Hernandez-Torres, Matthew Junge.
27. [Parking on supercritical Galton-Watson trees](#). Riti Bahl, Philip Barnet, Matthew Junge.

CONFERENCES ORGANIZED Mathematical Research Community: Stochastic Spatial Systems 2019

 Pacific Northwest MAA session. Corvallis, OR. 2016

 Title: Thinking outside the circle: alternative outreach.

AWARDS

 Excellence in Teaching Award, University of Washington 2015

 Tyrell Rockafellar Fellowship 2015

 NSF Research Training Grant Graduate Fellowship 2012

 Excellence in Teaching Award, University of Washington Math Dept. 2011

TEACHING EXPERIENCE

 Bard College

- Calculus I
- Probability
- Senior Project Advisor

 Duke University

- Advanced Introduction to Probability
- Duke Opportunities in Math
- Introduction to Probability and Statistics
- Math Everywhere
- Graduate Probability Topics Course (Discrete Interacting Particle Systems)

 University of Washington

- Matrix Algebra with Applications
- Single Variable Calculus
- Online Course Development: Calculus I and II
- Lead Teaching Assistant
- Calculus and Business Math Teaching Assistant

SERVICE AND LEADERSHIP

 Bard Prison Initiative Instructor 2019

 U. of North Carolina Adjunct Professor in Prisons. 2016 – 2017

 Women’s Prison Instructor for Freedom Education Project Puget Sound. 2014 – 2016

 NSF Research Experience for Undergraduates Project Leader. 2014 – 2016