

# Christopher Glynn

## Curriculum Vitae

University of New Hampshire  
Durham, NH 03824  
☎ +1 (603) 862 3349  
✉ christopher.glynn@unh.edu

### Academic Appointments

- 2017–present **Assistant Professor**, *University of New Hampshire, Peter T. Paul College of Business and Economics, Department of Decision Sciences*, Durham, NH.
- 2016 – 2017 **Postdoctoral Research Associate**, *University of Washington, College of Arts and Sciences, Department of Statistics*, Seattle, WA, Mentor: Emily B. Fox.

### Education

- 2012–2016 **Ph.D.**, *Duke University*, Durham, NC, *Statistical Science*.  
Dissertation: *Advances in Dynamic Modeling and Computation for Count Data*  
Advisor: Surya Tokdar
- 2012–2015 **M.S.**, *Duke University*, Durham, NC, *Statistical Science*.
- 2008–2009 **M.S.**, *Boston University*, Boston, MA, *Mathematical Finance*.
- 2002–2006 **B.S.**, *University of New Hampshire*, Durham, NH, *Electrical Engineering*.

### Professional Experience

- 2011–2012 **Quantitative Analyst**, *Boston Advisors*, Boston, MA.  
Statistical researcher for \$2 billion investment management firm. Responsible for developing new analytic tools and stock selection strategies for portfolio managers.
- 2009–2011 **Research Associate**, *Federal Reserve Bank of Boston*, Boston, MA.
- Co-Lead, Basel II Retail Credit Qualification Team (2011).
    - Co-leader of an interagency team of ~15 economists, bank supervisors, and policy experts from across the Federal Reserve System and Office of Comptroller of Currency.
    - Conducted Basel II exams of retail credit portfolios at systemically important financial institutions.
  - Performed statistical analyses of asset pricing and lending practices of large banks during the 2008 financial crisis (2009–2010).

### Peer-Reviewed Journal Articles

1. **Glynn, C.** and Fox, E. B. (2019). Dynamics of homelessness in urban America. *The Annals of Applied Statistics*, 13(1):573–605. doi:10.1214/18-AOAS1200. <https://projecteuclid.org/euclid.aoas/1554861661>
2. **Glynn, C.**, Tokdar, S. T., Howard, B., and Banks, D. L. (2019). Bayesian analysis of Dynamic Linear Topic Models. *Bayesian Anal.*, 14(1):53–80. doi:10.1214/18-BA1100, <https://projecteuclid.org/euclid.ba/1523671249>.

3. Caruso, V. C., Mohl, J. T., **Glynn, C.**, Lee, J., Willett, S. M., Zaman, A., Ebhira, A. F., Estrada, R., Freiwald W. A., Tokdar, S. T., and Groh, J. M. (2018). Single neurons may encode simultaneous stimuli by switching between activity patterns. *Nature Communications*, 9(1):2715. doi:10.1038/s41467-018-05121-8. <https://www.nature.com/articles/s41467-018-05121-8>
4. Boyer, D. M., Winchester, J. M., **Glynn, C.**, and Puente, J. (2015). Detailed anatomical orientations for certain types of morphometric measurements can be determined automatically with geometric algorithms. *The Anatomical Record*, 298(11):1816-1823. doi:10.1002/ar.23202, <https://anatomypubs.onlinelibrary.wiley.com/doi/10.1002/ar.23202>.
5. Boyer, D. M., Puente, J., Gladman, J. T., **Glynn, C.**, Mukherjee, S., Yapuncich, G. S., and Daubechies, I. (2015). A new fully automated approach for aligning and comparing shapes. *The Anatomical Record*, 298(1):249-276. doi:10.1002/ar.23084, <https://anatomypubs.onlinelibrary.wiley.com/doi/10.1002/ar.23084>.

## Invited Revisions and Submitted Manuscripts

6. **Glynn, C.**, Tokdar, S. T., Zaman, A., Caruso, V., Mohl, J. T., Willett, S., M., and Groh, J. M. (2019+). Analyzing second order stochasticity of neural spiking under stimuli-bundle exposure (invited revision).
7. **Glynn, C.**, Hu, J., Polson, N. G., and Xu, J. (2019+) Bayesian inference for Polya Inverse Gamma models, <https://arxiv.org/abs/1905.12141> (submitted for review).
8. **Glynn, C.**, Byrne, T. H., and Culhane, D. P. (2019+). Inflection points in community-level homeless rates (submitted for review).
9. Irie, K., **Glynn, C.**, and Aktekin, T. (2019+). Sequential forecasting of bursty count data (submitted for review).

## Manuscripts in progress

1. **Glynn, C.** Comment on 'Bayesian forecasting of multivariate time series: scalability, structure, and decisions', by Mike West. Invited discussion in the *Annals of the Institute of Statistical Mathematics*.
2. **Glynn, C.**, Byrne, T. H., and Culhane, D. P. Quantifying uncertainty in HUD estimates of homelessness.
3. **Glynn, C.** Learning low-dimensional structure in house price indices.
4. Mercer, C. T., Wake, C. P., and **Glynn, C.** Estimating the housing market price of coastal flood risk.

## Proceedings / Presentations at Refereed Conferences

1. **Glynn, C.** and Yalcinkaya, G. Learning consumer preferences from text data. *AMA Global Marketing SIG Conference*, Buenos Aires, Argentina, May 20-23, 2019.
2. **Glynn, C.** and Tokdar, S. T. A switching dynamic generalized linear model to detect abnormal performances in Major League Baseball. *MIT Sloan Sports Analytics Conference*, Boston, MA, March 3-4, 2017.

## Research Awards & Honors

- 2018 – 2019 **Zillow Research Fellow**, \$60,000 gift to University of New Hampshire to support research in Bayesian methods for large collections of time series.
- 2019 **Best of *The Annals of Applied Statistics***, Invited by the Editor of *The Annals of Applied Statistics* to present in a session at the 2020 Joint Statistical Meetings honoring the journal's best papers in 2019.
- 2018 **Highlights from *Bayesian Analysis***, Invited by the Editor of *Bayesian Analysis* to present in a session at the 2019 Joint Statistical Meetings honoring the journal's best papers in 2018.

## Invited Presentations & Policy Briefings

- 2019 Joint Statistical Meetings, Denver, Colorado.  
New England Statistics Symposium, Hartford, Connecticut.  
University of Arkansas, Fayetteville, Arkansas, Spring Lecture Series.  
U.S. Department of Housing and Urban Development, Washington, D.C., Policy Development & Research seminar series.  
U.S. Interagency Council on Homelessness, Washington, D.C., Joint policy briefing.
- 2018 Zillow Homelessness Forum, Washington, D.C..  
Japanese Joint Statistical Meeting, Tokyo, Japan, 2018 Meeting.  
Discussant for Akaike Memorial Lecture  
University of Tokyo, Tokyo, Japan, Bayesian econometrics seminar series.  
International Society for Business and Industrial Statistics, Athens, Greece, 2018 International Symposium.  
International Society for Bayesian Analysis, Edinburgh, Scotland, 2018 World Meeting.  
George Washington University, Washington, D.C., Decision Sciences seminar series.
- 2017 International Indian Statistical Association, Hyderabad, India, 2017 International Conference on Statistics.  
University of Connecticut, Storrs, CT, Statistics Department Colloquium.  
University of New Hampshire, Durham, NH, Data Science seminar series.
- 2016 University of Washington, Seattle, WA.

## Software Code

- auto3dgm R package for automatically aligning 3-dimensional shapes, *with Jesus Puente*.  
DLTM R code for fitting Dynamic Linear Topic Models, *with Surya Tokdar*.  
sDGLM R code for fitting switching dynamic generalized linear models.  
Inflection R code for estimating inflection points in community-level homeless rates.

## Teaching at University of New Hampshire

- ADMN 420 **Business Statistics**, Introductory course on statistics, Fall '17, Fall '18, Fall '19.

- DS 768 **Forecasting Analytics**, Time series analysis and dynamic modeling for advanced undergraduates, Spring '17, Spring '18.
- ADMN 992 **Applied Bayesian Modeling**, Graduate-level course on Bayesian modeling and computation, Fall '18.

## --- Student Advising

- 2018-present **Co-Advisor**, Arnold Englander, Ph.D. student in Electrical Engineering.  
University of New Hampshire
- Fall 2018 **Advisor**, Haotian Guan, Undergraduate capstone project in Applied Mathematics.  
University of New Hampshire

## --- Service

- Profession **Referee**, *Annals of Applied Statistics; Bayesian Analysis; Law, Probability & Risk; Journal of Sports Analytics*.
- Session organizer**, *Bayesian analysis of modern urban challenges*, ISBA 2018 World Meeting, Edinburgh, Scotland.
- University **Faculty search committee**, Member of hiring committee in Department of Mathematics & Statistics for two tenure track positions in statistics, 2019.
- College **Artifex Data Analytics**, Leading a college-wide experiential learning initiative in business analytics, including curriculum development, industry engagement, and student recruitment, 2018–present.
- Department **Fall Analytics Summit**, Organized a daylong summit on “creating value from data” that included a keynote address, industry presentations, student research showcase, and workshop on data visualization, October 2019.
- ADMN 420 Task Force**, Co-leading a team of five faculty and lecturers to standardize curriculum and assessments across 12 sections of the introductory statistics course, 2019–present.
- M.S. in Business Analytics**, Member of departmental committee developing a proposal for a Master of Science in Business Analytics, 2019–present.
- Summer Research Award Committee**, Member of departmental committee that evaluated faculty research proposals for summer funding, 2019.
- Bayesian Data Science seminar series**, Co-organizer, 2017–2018.

## --- Media Coverage of Research

- 2019 **United Shades of America**, Guest on episode of CNN documentary series to discuss research on homeless and housing affordability crisis in Los Angeles, Filmed August 2019. Scheduled to air in April 2020.
- World Economic Forum**, *This is the critical number that shows when housing breaks down*, Jan. 31, 2019, <https://www.weforum.org/agenda/2019/01/here-s-a-way-of-predicting-when-homelessness-is-likely-to-rise/>.

**New York Times**, *Microsoft pledges 500 million for affordable housing in Seattle area*, Jan. 16, 2019, <https://www.nytimes.com/2019/01/16/technology/microsoft-affordable-housing-seattle.html>.

2018 **Vox**, *How rising rents contribute to homelessness*, December 14, 2018, <https://www.vox.com/the-goods/2018/12/14/18131047/homelessness-rent-burden-study>.

**Bloomberg**, *The homeless crisis is getting worse in America's richest cities*, Nov. 20, 2018, <https://www.bloomberg.com/news/features/2018-11-20/the-homeless-crisis-is-getting-worse-in-america-s-richest-cities>.

2017 **Los Angeles Times**, *A 5% rent increase would push 2,000 Angelenos into homelessness, study warns*, Aug. 2, 2017, <https://www.latimes.com/local/lanow/la-me-ln-rent-increase-homelessness-20170802-story.html>.