Jackson P. Lautier
CURRICULUM VITAE

CONTACT INFORMATION

Department of Mathematical Sciences
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EMPLOYMENT

2023–	Assistant Professor, Department of Mathematical Sciences, Bentley University, Waltham, MA, USA

EDUCATION

Degrees

Ph.D. / 2023	Statistics, University of Connecticut, Storrs, CT, USA *Advisors: Vladimir Pozdnyakov, Jun Yan, Sy Han (Steven) Chiou (Assoc.), and Emiliano Valdez (Assoc.)* *Dissertation: Essays on Survival Analysis with Applications to Securitization and Consumer Finance* *Recognition: 2024 Arnold Zellner Thesis Award in Econometrics and Statistics, Honorable Mention*
B.A. / 2011	Mathematics/Actuarial Science, University of Connecticut, Storrs, CT, USA *magna cum laude*

PROFESSIONAL DESIGNATIONS

Actuarial Credentials

F.S.A. / 2015	Fellow of the Society of Actuaries *Specialization: Quantitative Finance and Investment*
C.E.R.A. / 2014	Chartered Enterprise Risk Analyst
M.A.A.A. / 2013	Member of the American Academy of Actuaries

PROFESSIONAL WORK EXPERIENCE

United States Food and Drug Administration

- Oak Ridge Institute for Science and Education (ORISE) Fellow, Center for Drug Evaluation and Research (CDER)
  Research topic: *Machine learning applications in biopharmaceutical research* (2021 – 2022, 2023, 2024)

Prudential Financial, Inc.

- Director, Actuary: Modeling, Variable and Fixed Annuities, *supervisor of two direct reports* (2018 – 2019)
- Quantitative Credit Research Analyst: Structured Products, PGIM Fixed Income (2016 – 2018)
- Associate Actuary: Capital & Risk Management, Individual Life Insurance (2014 – 2016)
- Senior Actuarial Associate: Guaranteed Minimum Withdrawal Benefit Pricing, Prudential Retirement (2013 – 2014)
- Senior Actuarial Associate: Pension Consulting Services, Retirement Planning Strategies (2011 – 2013)
- Actuarial Intern: Pension Consulting Services (2010 – 2011)

RECOGNITION

Awards

- Arnold Zellner Thesis Award in Econometrics and Statistics, Honorable Mention, Business and Economic Statistics Section, American Statistical Association (2024)
- Student Poster Award, Excellence in Statistical Science, UConn Department of Statistics 60th Anniversary Celebratory Conference, *Consumer Credit Risk Convergence: The Case for Performance-Based Interest Rate Reductions in Consumer Automobile Loans* (2022)
- Best Performance in Probability, Department of Statistics, University of Connecticut (2022)
- Student Paper Award, American Statistical Association (ASA), Risk Analysis Section, *Modeling Time-to-Event Contingent Cash Flows: A Discrete-Time Survival Analysis Approach* [$600] (2022)
- Conference Participation Award, University of Connecticut [$1,000] (2021)

Fellowships

- ORISE Oak Ridge Institute for Science and Education Fellowship, U.S. Food and Drug Administration (FDA), Center for Drug Evaluation and Research (CDER) [$24,000] (2024)
- Doctoral Dissertation Fellowship, University of Connecticut, The Graduate School [$2,000] (2023)
- ORISE Oak Ridge Institute for Science and Education Fellowship, U.S. Food and Drug Administration (FDA), Center for Drug Evaluation and Research (CDER) [$20,000] (2023)
- ORISE Oak Ridge Institute for Science and Education Fellowship, U.S. Food and Drug Administration (FDA), Center for Drug Evaluation and Research (CDER) [$35,600] (2021 – 2022)
- NSF-GRFP National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP) Award Recipient, Mathematical Science (Statistics) [$138,000] (2020 – 2023)
- Statistics Fellowship, University of Connecticut, Department of Statistics [$11,900] (2019 – 2020)

Grants

- Faculty Seed for Success, Academic Innovation Initiative, Bentley University [$14,000] (2024)
- Health Thought Leadership Network, Center for Health and Business, Bentley University [$1,500] (2023)
- Hoffman Center for Business Ethics, Bentley University [$2,000] (2023)

PUBLICATIONS

Peer-Reviewed Publications

1 **Lautier, J. P.**, Grosser, S., Kim, J., Kim, H., & Kim, J. (2024). Clustering plasma concentration-time curves: applications of unsupervised learning in pharmacogenomics. *Journal of Biopharmaceutical Statistics*, Forthcoming. https://doi.org/10.1080/10543406.2024.2365389

2 **Lautier, J. P.**, Pozdnyakov, V., Yan, J. (2024). On the maximum likelihood estimation of a discrete, finite support distribution under left-truncation and competing risks. *Statistics & Probability Letters*, 207, 109973. https://doi.org/10.1016/j.spl.2023.109973

3 **Lautier, J. P.**, Pozdnyakov, V., Yan, J. (2023). Estimating a discrete distribution subject to random left-truncation with an application to structured finance. *Econometrics and Statistics*, Forthcoming. https://doi.org/10.1016/j.ecosta.2023.05.005

4 **Lautier, J. P.**, Pozdnyakov, V., Yan, J. (2023). Pricing time-to-event contingent cash-flows: A discrete-time survival analysis approach. *Insurance: Mathematics and Economics*, 110, 53-71. https://doi.org/10.1016/j.insmatheco.2023.02.003 [2022 American Statistical Association Student Paper Award]

5 Cohen, J. P., Friedt, F. L., **Lautier, J. P.** (2022). The impact of the Coronavirus pandemic on New York City real estate: First evidence. *Journal of Regional Science*, 62, 858–888. https://doi.org/10.1111/jors.12591
[Downloads & citations in top 10% of papers published in JRS for 2022-2023]

Articles Under Revision

1 **Lautier, J. P.**, Pozdnyakov, V., Yan, J. (2022). On the convergence of credit risk in current consumer automobile loans. *Journal of the Royal Statistical Society Series A: Statistics in Society*, in revision. [arXiv] [SSRN]

Articles Submitted for Peer-Review

1 **Lautier, J. P.** (2023). A new framework to estimate return on investment for player salaries in the National Basketball Association. [arXiv] [github] [Latest Version]

Working Papers

1 **Lautier, J. P.**, Pozdnyakov, V., Yan, J. (2024). A discrete-time, semi-parametric time-to-event model for left-truncated and right-censored data.

2 **Lautier, J. P.**, Grosser, S., Kim, J., & Kim, J. (2024). pkDip: A new dissimilarity measure for clustering plasma concentration time curves.

PRESENTATIONS

Keynote Speaker

1 *Practical Applications of Data Science for Actuaries*, Invited General Sessions, Actuaries' Club of Hartford & Springfield, Fall Meeting (2022)

Invited Talks

1 *A new framework to estimate return on investment for player salaries in the National Basketball Association*, Invited Oral Presentations, 2024 Cascadia Symposium on Statistics in Sports, Simon Fraser University (September 2024)

2 *A new framework to estimate return on investment for player salaries in the National Basketball Association*, Roundtable Discussions, Joint Statistical Meetings (August 2024)

3 *On the Convergence of Credit Risk in Current Consumer Automobile Loans*, Invited Seminars, 2024 Actuarial Research Conference, Middle Tennessee State University (July 2024)

4 *A discrete-time, semi-parametric time-to-event model for left-truncated and right-censored data*, Invited Seminars, 27th Insurance: Mathematics and Economics International Congress, University of Illinois at Urbana-Champaign and DePaul University (July 2024)

5 *On the Convergence of Credit Risk in Current Consumer Automobile Loans*, Invited Seminars, 2024 North American Summer Meeting of the Econometric Society, Department of Economics, Vanderbilt University (2024)

6 *A discrete-time, semi-parametric time-to-event model for left-truncated and right-censored data*, Invited Seminars, New England Statistics Symposium, University of Connecticut (2024)

7 *A new framework to estimate return on investment for player salaries in the National Basketball Association*, Invited Seminars, UConn Sports Analytics Symposium, University of Connecticut (2024)

8 *A new framework to estimate return on investment for player salaries in the National Basketball Association*, Invited Seminars, Department of Statistics and Data Science, Southern Methodist University (2024)

9 *A new framework to estimate return on investment for player salaries in the National Basketball Association*, 2023 Midwest Sports Analytics Meeting, Central College (2023)

10 *Essays on Survival Analysis with Applications to Securitization and Consumer Finance*, Invited Seminars, UConn Actuarial Science Seminars, University of Connecticut (2023)

11 *On the Convergence of Credit Risk in Current Consumer Automobile Loans*, Invited Seminars, Fifth Biennial Auto Lending Conference, Federal Reserve Bank of Philadelphia (2023)

12 *On the Convergence of Credit Risk in Current Consumer Automobile Loans*, Invited Poster Presentations, 2023 Boulder Summer Conference on Consumer Financial Decision Making, University of Colorado Boulder Leeds School of Business (2023)

13 *On the Convergence of Credit Risk in Current Consumer Automobile Loans*, Invited Seminars, John Molson School of Business, Department of Finance, (Université) Concordia University (2023)

14 *On the Convergence of Credit Risk in Current Consumer Automobile Loans*, Invited Seminars, Department of Economics, University of Connecitcut (2023)

15 *On the Convergence of Credit Risk in Current Consumer Automobile Loans*, Invited Seminars, Finance Department, School of Business, University of Connecticut (2023)

16 *On the Convergence of Credit Risk in Current Consumer Automobile Loans*, Invited Seminars, Department of Mathematical Sciences, Bentley University (2023)

17 *Modeling Time-to-Event Contingent Cash Flows: A Discrete-Time Survival Analysis Approach*, American Statistical Association, Risk Analysis Section, 2022 Student Paper Awards Invited Presentations, Joint Statistical Meetings (2022)

18 *Applications of Survival Analysis in Financial Risk Management: Predicting and Pricing Asset-Backed Security Cash-Flows*, Invited Seminars, SiDOR Research Group & CINBIO, Universida de Vigo (2022)

19 *The Impact of the Coronavirus Pandemic on New York City Real-Estate: First Evidence*, COVID and Cities paper session, American Real-Estate and Urban Economics – Allied Social Sciences Associations Annual Meeting (2022)

Organized Paper Session Proposals

1 *Novelty within Clustering for Applications in the Biomedical Sciences*, Topic Contributed Program, Joint Statistical Meetings (August 2024)

2 *Running the gamut in survival analysis: Four recent results from four different subfields*, Invited Session Proposals, New England Statistics Symposium, University of Connecticut (2024)

Contributed Conference Presentations

1 *pkDip: A New Dissimilarity Measure for Clustering Plasma Concentration Time Curves*, Novelty within Clustering for Applications in the Biomedical Sciences, Topic Contributed Program, Joint Statistical Meetings (August 2024)

2 *pkDip: A New Dissimilarity Measure for Clustering Plasma Concentration Time Curves*, Clustered Data Methods, ENAR 2024 Spring Meeting (2024)

3 *On the Convergence of Credit Risk in Current Consumer Automobile Loans*, Topics on Financial Econometrics and Macroeconomic Modeling, Joint Statistical Meetings (2023)

4 *On the Convergence of Credit Risk in Current Consumer Automobile Loans*, Invited Student Papers Session, New England Statistics Symposium (2023)

5 *Applications of Machine Learning in Pharmacogenomics: Clustering Pharmacokinetic Concentration Curves*, Dose Finding, Dose Selection, and Early-Phase Trials paper session, Joint Statistical Meetings (2022) [*presented by co-author]

6 *Modeling Financial Cash Flows with Discrete-time Survival Analysis*, Invited Student Papers Session, New England Statistics Symposium (2022)

7 *Estimating a Discrete Distribution from Data Subject to Random Left-Truncation*, Invited Student Papers Session, New England Statistics Symposium (2021)

STUDENT SUPERVISION

Bentley University

1 Roan Maye, Valente Center Undergraduate Researcher Program, Faculty Mentor (2023 –)

2 Costas Dhimogjini, Undergraduate Student Research Assistantships, Faculty Mentor (2024 –)

TEACHING EXPERIENCE

Courses Taught

- MA214 Intermediate Applied Statistics, Bentley University (F2024)
- ST113 Business Statistics, Bentley University (S2024)
- ST113 Business Statistics, Bentley University (F2023)
- Math 3639 Actuarial Loss Models, University of Connecticut (S2019)
- Math 3639 Actuarial Loss Models, University of Connecticut (F2018)

Teaching Assistant

- Elementary Concepts of Statistics, University of Connecticut (2020)
- Elementary Concepts of Statistics, University of Connecticut (2019)

Instructional Workshops

- Basketball Analytics with R Instructional Workshop, UConn Sports Analytics Symposium [git] (2021)
- Basketball Analytics with R Instructional Workshop, UConn Sports Analytics Symposium [git] (2020)

PROFESSIONAL ACTIVITIES

Department Service

- Committee Member for Tenure Track Search Committee (2024)
- Committee Member for Social Committee (2023–)

Conference Organization

- 2024 Mini-Symposium on Statistical Computing in Action, Sponsored by the Section on Statistical Computing of the American Statistical Association, Organizing Committee Member

Professional Memberships

- The Econometric Society (2024)
- American Financial Association (2022 –)
- Institute of Mathematical Statistics (2022 –)
- American Statistical Association, Member (2019 –) [Sections: Business and Economic Statistics (2019 –), Risk Analysis (2019 –), Statistics in Sports (2021 –), Biopharmaceutical (2022–), Lifetime Data Science (2022–)]
- New England Statistical Society, Student Member (2019 –)
- American Academy of Actuaries (2012 –)
- Society of Actuaries (2009 –)

Referee Reports

- *Statistics and Its Interface*
- *American Journal of Undergraduate Research*

Conference Participation

- Joint Statistical Meetings, American Statistical Association, Portland, OR (2024)
- Actuarial Research Conference, Middle Tennessee State University, Murfreesboro, TN (2024)
- 27th Insurance: Mathematics and Economics International Congress, Chicago, IL (2024)
- North American Summer Meeting of the Econometric Society, Department of Economics, Vanderbilt University (2024)
- New England Statistical Symposium, New England Statistical Society, Storrs, CT (2024)
- UConn Sports Analytics Symposium, University of Connecticut, Storrs, CT (2024)
- Eastern North American Region Spring Meeting, Baltimore, MD (2024)
- Midwest Sports Analytics Meeting, Central College, Pella, IA (2023)
- New England Symposium on Statistics in Sports, Harvard University, Cambridge, MA (2023)
- Joint Statistical Meetings, American Statistical Association, Toronto, ON (2023)
- Fifth Biennial Auto Lending Conference, Federal Reserve Bank of Philadelphia, Philadelphia, PA (2023)
- Consumer Financial Decision Making, University of Colorado Boulder Leeds School of Business, Boulder, CO (2023)
- Innovative Data in Household Finance, National Bureau of Economic Research, Cambridge, MA (2022)
- Excellence in Statistical Science, UConn Department of Statistics 60th Anniversary Celebration, Storrs, CT (2022)
- Joint Statistical Meetings, American Statistical Association, Washington, DC (2022)
- New England Statistical Symposium, New England Statistical Society, Storrs, CT (2022)
- Allied Social Sciences Associations (ASSA) Annual Meeting, American Economic Association, Virtual (2022)
- New England Statistical Symposium, New England Statistical Society, Providence, RI (2021)
- Joint Statistical Meetings, American Statistical Association, Virtual (2021)
- Annual Meeting & Exhibit, Society of Actuaries, Virtual (2020)
- Predictive Analytics Symposium, Society of Actuaries, Minneapolis, MN (2018)
- ABS East, Structured Finance, Information Management Network, Miami, FL (2017)
- ABS West, Structured Finance, Information Management Network, Las Vegas, NV (2017)
- ABS East, Structured Finance, Information Management Network, Miami, FL (2016)
- Annual Meeting & Exhibit, Society of Actuaries, Las Vegas, NV (2016)
- Investment Symposium, Society of Actuaries, Philadelphia, PA (2015)

ASSET MANAGEMENT

- Managing Director, Instructive Quantitative Finance Hedge Fund (2024 –)
  Asset manager of a small scale algorithmic trading hedge fund to give students with an interest in quantitative finance experience running and maintaining a model, identifying trades, and communicating complex financial ideas.

AUM	Inception	1Q	YTD	1Y	3Y	5Y	10Y
$10,438	7/1/2024	—	4.38%	—	—	—	—

as of August 28, 2024

Student Traders:

- Costas Dhimogjini, Bentley University (2024)

VOLUNTEER SERVICE

- Actuarial Bootcamp, Enterprise Risk Management Topic Presenter, University of Connecticut (2014 – 2023)
- Exam ERM & FSA Speciality Exam Proctor, Society of Actuaries (2020)
- Breadline volunteer (weekly), St. Francis of Assisi, New York, NY (2016 – 2018)
- Introduction to the Actuarial Profession and Statistical Black Swans, West Orange High School, NJ (2016)
- Adventure Saturday program for at-risk youth, St. Patrick, St. Anthony Church, Hartford, CT (2014 – 2015)