

# Paul Savariappan

NCSU Dept of Statistics  
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## Education

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- **University of Madras, Chennai, India**  
Ph.D. in Statistics  
Dissertation: “Reliability Analysis of Repairable Systems with Dependent Structure”. December 1999
- **Marquette University, Milwaukee, Wisconsin, USA**  
M.S in Bio-mathematics May 2006
- **University of Madras, Chennai, India**  
Master of Philosophy in Statistics April 1991
- **Loyola College, University of Madras, Chennai, India**  
Master of Science in Statistics April 1984
- **St. Joseph’s College, University of Madras, Trichy, India**  
Post Graduate Diploma in Computer Applications April 1985
- **St. Joseph’s College, University of Madras, Trichy, India**  
Bachelor of Science in Statistics April 1982

## Employment

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- **Associate Teaching Professor of Statistics**  
North Carolina State University, Raleigh, NC January 2018 – Present
- **Visiting Associate Professor of Statistics**  
University of Wisconsin, Madison, WI August 2015 – Dec 2016
- **Associate Professor of Mathematics**  
Luther College, Decorah, Iowa September 2012 – Dec 2017
- **Assistant Professor of Mathematics**  
Luther College, Decorah, Iowa September 2007 - August 2012
- **Visiting Assistant Professor of Mathematics**  
Northwestern College, Orange City, Iowa August 2006 – May 2007

- **Associate Professor of Statistics**  
Loyola College, Chennai, India June 1992 – Dec 2003
- **Assistant Professor of Statistics**  
Loyola College, Chennai, India June 1986 - May 1992

## Teaching Experience

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### Courses Taught

- **North Carolina State University**
  - ST 525: Statistics and Computing for Agricultural Data Science
  - ST 516: Experimental Statistics for Engineers II
  - ST 515: Experimental Statistics for Engineers I
  - ST 511: Experimental Statistics for Biological Sciences I
  - ST 512: Experimental Statistics for Biological Sciences II
  - ST 503: Fundamentals of Linear Models and Regression
  - ST 431: Introduction to Experimental Design
  - ST 430: Introduction to Regression Analysis
  - ST 421: Introduction to Mathematical Statistics I
  - ST 372: Introduction to Statistical Inference and Regression
  - ST 371: Introduction to Probability and Distribution Theory
  - ST 370: Probability and Statistics for Engineers
  - Course Development:
    - ST525: Developed a new course (ST525, Special topics) for “The Graduate Certificate in Agriculture and Data Science” an interdisciplinary graduate certificate program.

## Service

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- Ph.D Preliminary exam committee August 2021 ,August 2023 and August 2024
- Department Diversity committee: member
- Peer teaching evaluations done by me: 1. Arnab Maity 2. Brian Reich 3. Dan Harris
- Hiring committee member to hire two Teaching Assistant Professors. Our search was successful and we were able to hire two TAPs.
- Developed a new course (ST525, Special topics) for “The Graduate Certificate in Agriculture and Data Science” an interdisciplinary graduate certificate program.
- Participating in a project funded by a United States Department of Agriculture (USDA) National Institute of Food & Agriculture (NIFA) grant (567446)

- Volunteered as a consultant for Data Fest conducted by the Duke University for three years.
- Department Diversity committee:member
- Journal Refereeing: Manuscript referee for Pakistan Journal of Statistics.
- Diversity Council, Fall 2013
- Member of a Mathematics hiring search committee, Spring 2011
- Technology Committee, Luther College, 2008 – 2011
- **Advising and Mentoring**
  - Amir Hossein Sadeghi— Industrial Engineering – Ph.D Committee
  - Salem Alnaimi – Civil Engineering – Ph.D Committee
  - Fernando David Soler Diaz – Animal Science – Co-adviser for Master thesis
  - Advising undergraduate students
  - Tyler Johnson - Teaching mentor
  - Provided academic advising to an average of 60 students every semester.
  - Advised to two students with their ST 542 “Evaluating quality attributes of Jeans (Experimental study), the Masters level consulting course taught by Emily Griffith.
  - Academic advisor, Luther College, Fall 2008 - 2017
  - Actuarial Careers Advisor, Luther College, Fall 2008 – 2017
  - Advisor to the Actuarial club from Fall 2018 to Spring 2020

## Honors and Awards

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- Received a “Thank a Teacher award” three times from the Executive Vice Chancellor and Provost.
- Received a “Thank an Advisor” from the Advising Professional Development Committee.

## Publications

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- Paul R Savariappan, Vaidyanathan, V.S and Chandrasekhar, P (2014), “Statistical Analysis for a Two Service Point Tandem Queue with Varying Service Rate”, *IAPQR*, Vol. 39, No. 1, Pages 55 - 71.
- Paul R Savariappan, and Chandrasekhar, P (2013), “Inference Procedures for Bivariate Exponential Model of Gumbel in Reliability Theory”. *Proceedings Joint Statistical Meetings*, Montreal, Canada, Pages 3348 - 3357.
- Paul R Savariappan, and Chandrasekhar, P (2012), “Statistical Analysis of tandem queues with blocking”, *Calcutta Statistical Association Bulletin*, Vol. 64, September & December 2012, Nos. 255-256, Pages 241-255.

- Paul R Savariappan, and Chandrasekhar, P (2012), “Statistical Analysis for a Three Service Point Tandem Queue with Blocking”, *Sri Lankan Journal of Applied Statistics*, Vol. 13, Pages 1-13.
- Paul R Savariappan, and Chandrasekhar, P (2012), “Bayesian Inference for an Impatient M/M/1 Queue with Balking”, *J. Appl. Statist. Sci.*, Vol. 19, No. 3, Pages 73 – 80.
- Paul R Savariappan and Chandrasekhar, P (2011), “Application of Bivariate and Trivariate Exponential Distributions in Reliability Theory”. *Proceedings Joint Statistical Meetings*, Miami, Florida, Pages 3181-3192.
- Paul R Savariappan, and Chandrasekhar, P (2011), “Application of Trivariate Exponential Distribution in Three Station Tandem Queues” *Proceedings of the International Conference on Mathematical Sciences*, Kerala, Pages 319 - 332.
- Paul R Savariappan, and Chandrasekhar, P (2009), “Statistical Inference for Bulk Arrival Queue”, *Proceedings of the 5th Asian Mathematical Conference*, Malaysia, Pages 109 - 116.
- Paul R Savariappan, and Chandrasekhar, P (2009), “Statistical Analysis for Tandem and Bulk Service Queueing Systems”, *Pak. J. Statist.*, Vol. 25, No. 2, Pages 195–203.
- Paul R Savariappan, and Chandrasekar, B (1998), “Confidence Limits for Study State Availability of a System with Dependent Structure for Failure and Repair Times”, *J. Appl. Statist. Sci.*, Vol. 8, Pages 17–27.
- Paul R Savariappan, and Chandrasekar, B (1998), “Proceedings of the International Conference on Stochastic Processes and Their Applications”, Anna University, Chennai (India) *Narosa Publishing House*, New Delhi, Pages 140 – 146.
- Paul R Savariappan, and Chandrasekar, B (1997), “Reliability Measures for Two Unit Systems with Dependent Structure for Failure and Repair Times”, *Microelectron. Reliab.*, Vol. 37, No. 5, Pages 823 –829.
- Chandrasekar, B and Paul R Savariappan (1996), “A Property of Counting Process in Multivariate Renewal Theory”, *Microelectron. Reliab.*, Vol. 36, No. 1, Pages 111 – 113.

## Papers Presented and Conferences Attended

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- 2013 Joint Statistical Meetings, Montreal, Canada. August 03-08, 2013. “Inference Procedures for Bivariate Exponential Model of Gumbel in Reliability Theory”.
- 2011 Joint Statistical Meetings, Miami, Florida. July 30 – August 4, 2011. “Application of Bivariate and Trivariate Exponential Distributions in Reliability Theory”.
- Presented a research article entitled “Application of Trivariate Exponential Distribution in Three Station Tandem Queues” International Conference on Mathematical Sciences, Kerala, India. January 3 – 5, 2011.
- Presented a research article entitled “Statistical Analysis of Tandem Queues with Blocking” International Conference on Statistics and Information Analytics (ICSIA – 2010) 11 – 13, January 2010, Loyola College, Chennai, India.

- Presented a research article entitled “Statistical Inference for Bulk Arrival and Bulk Service Queues” 5th Asian Mathematical Conference, June 22-26, 2009, Putra World Trade Centre, Kuala Lumpur, Malaysia.
- Presented a research article entitled “Statistical Analysis for a Three Station Tandem Queue with Blocking and Infinite Queue in Front of Station 1” in the 7th World Congress in Probability and Statistics, Singapore, July 14-19, 2008.
- Attended a conference on Teaching Introductory Statistics held at Medical College of Wisconsin on July 14, 2006.
- Attended a one-day short course on Bayesian Modeling, Inference, and Prediction presented by David Draper, sponsored by the Chicago Chapter of the American Statistical Association. (March 18, 2005).
- Presented a research article entitled “Performance Measures for Three-Unit Relay Circuit” in the International Conference on Statistical Inference, Department of Statistics, Madras University, Chennai, 2000.
- Presented a research article entitled “A Property of Counting Process in Multivariate Renewal Theory” in the Symposium on Statistical Inference at the Center for Mathematical Science, Thiruvananthapuram, Kerala, 1992.
- Presented a research article entitled “Reliability Measures for Two Unit Systems with Dependent Structure for Failure and Repair Times” in the Indian Society for Probability and Statistics, Osmania University, Hyderabad, 1995.
- Presented a research article entitled “Reliability Performance Measures for Two Unit Systems with Dependent Structure” in the International Conference on Stochastic Processes and their Applications, Department of Mathematics, Anna University, Chennai, 1998.

## Undergraduate Research

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### Funded Undergraduate Research Grants Supervised: Ford Scholar Research Fund in Mathematics

- Michael Noltner, “Mixed-effect Models for Repeated Measures of Count Data”, 2010/2011 Academic Year Undergraduate Research Grant, \$2000.

### Collaborative Projects with Students & Presentations

- Jack Ryan & Tien Vo, Midwest Undergraduate Mathematics Symposium, “Prediction of Incoming Student Success in First Math Course Using Linear, Logistic, and Ordinal Logistic Regression Models”, Simpson College, Indianola, Iowa, April 1-2, 2011.
- Michael Noltner, Midstates Consortium for Math and Science, “Zero-inflated Count Regression Models with Application in Psychology”, Undergraduate Research Symposium in the Physical Sciences, Mathematics and Computer Science, Washington University in St. Louis, Nov. 12-14, 2010.

- Aaron J. Taylor, Luther College Student Research Symposium, “Predicting the NCAA Tournament with a Zero-Inflated Poisson Regression Model”, May 7, 2010.

## Undergraduate Honors Theses Supervised

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- Britney Schwefel, “A Neyman Scott Model of Rainfall in Northeast Iowa”, Honors Thesis, B.S., Mathematics/Statistics, 2008.

## Advisor for Senior Paper

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- Christina Storlie, “*Statistically Exploring Historic Diet Trends for Luther Students Enrolled in Nutrition*”, Luther College, Decorah, IA. May 2013.
- Andrew St.Martin, “*Examining the effect of Decorah High School’s Intervention Programs*”, Luther College, Decorah, IA. May 2013.
- Elisa Smith, “*Multiple linear and Logistic regression Analysis of What Wins Games among IIAC Division III Softball Teams*”, Luther College, Decorah, IA. May 2013.
- David Hotchkiss, “*Decision to apply to Graduate School: Application of Ordinal Logistic Regression*”, Luther College, Decorah, IA. April 2009.
- Nathan Ostlie, “*Quantitative Analysis of Luther College’s Admission Process. A Logistic Regression Approach*”, Luther College, Decorah, IA. April 2009.
- Britney Schwefel, “*A Neyman Scott Model of Rainfall in Northeast Iowa*”, Luther College, Decorah, IA. April 2009.
- Peter Sandstedt, “*The Most Valuable Batting Statistics that Influence Runs*”, Luther College, Decorah, IA. May 2013.
- Maxwell Hull, “*Determining High-Risk Factors of High School Student’s Math and Reading Test Scores by Regression Analysis*”, Luther College, Decorah, IA. May 2013.
- Travis Goettl, “*Does Modern Education Work*”, Luther College, Decorah, IA. May 2013.
- Janel Burnes, “*Socio-Economic Status Report*”, Luther College, Decorah, IA. May 2013.
- Nicholas Barkve, “*Predicting the Leakiness of Homes in Winneshiek County*”, Luther College, Decorah, IA. April 2012.
- Emily Jeffries, “*Why not Computer Science*”, Luther College, Decorah, IA. April 2012.
- Megan Goldstein, “*The Statistical Analysis of the Energy Use within the Residence Halls at Luther College*”, Luther College, Decorah, IA. April 2011.
- Tracy Ostile, “*Correlation between First Semester GPA and the Number of First Semester Credits at Luther College*”, Luther College, Decorah, IA. April 2011.
- Tien N. Vo, “*Predicting Luther College Incoming Students Success in First Math Course*”, Luther College, Decorah, IA. April 2011.

- Kristin Mattes, “*Fitting Monthly Rainfall Data Surrounding Decorah – Exploring a few Types of Exponential Distributions*”, Luther College, Decorah, IA. April 2010.
- Jared Krawczyk, “*Statistical Analysis of Procedure and Carrier Data for the 2009 Fiscal Year*”, Luther College, Decorah, IA. April 2010.
- Justin Hoffman, “*Econometrics and Linear Regression: Application in Revenue*”, Luther College, Decorah, IA. April 2010.
- Austin Tegels, “*Forecasting Analysis of Earth’s Ecoregions and Causes of Species Diversity Using Multiple Linear Regression*”, Luther College, Decorah, IA. April 2010.
- Stephen Nilsen, “*Presidential Campaign Culture on the College Campus – A Statistical Examination of Politics*”, Luther College, Decorah, IA. April 2010.

## Professional Membership

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- American Statistical Association