

UConn THE DEPARTMENT OF STATISTICS

2021 NEWSLETTER



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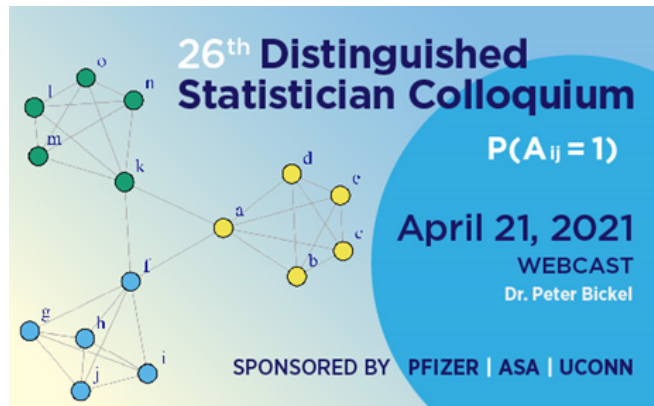
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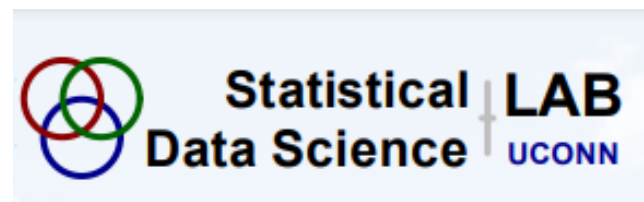
Stay Connected

AROUND THE DEPARTMENT



26th Distinguished Statistician Colloquium
 $P(A_{ij} = 1)$
April 21, 2021
WEBCAST
Dr. Peter Bickel
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The poster features a network graph with nodes labeled a through o, connected by lines. The nodes are arranged in a roughly circular pattern with some internal connections.



A message from the Department Head

Welcome to the 24th issue of our Department Newsletter. Even during the pandemic year, the department has been very active and productive. Substantial progress has been made on the development of the undergraduate and graduate curriculums in biostatistics and data science. Currently, we have 20 tenure and tenure-track faculty members, 1 Assistant Professor in Residence two Lecturers, 5 adjunct faculty members, and 12 faculty members from Allied Health Science, Mathematics, Nursing Instruction and Research, UCHC, Computer Science & Engineering, Ecology and Evolutionary Biology, and Electrical & Computer Engineering, who have affiliated appointments with Statistics. In Fall 2021, we have 125 graduate students enrolled in our graduate program, of whom 74 have received financial support, 121 Stat major or double major undergraduate students, 82 Math- Stat



major or double undergraduate students, and 75 Stat minor undergraduate students. I am pleased to report that the department has just opened up two new Faculty positions: a tenure-track position at the level of Assistant Professor in the area of Data Science (<https://academicjobsonline.org/ajo/jobs/19337>) and Assistant Professor In Residence – Stamford, CT (<https://academicjobsonline.org/ajo/jobs/19417>).

I would like to congratulate Ofer Harel, Professor and Director of Graduate Admissions, to serve as Associate Dean for Research and Graduate Affairs of UConn College of Liberal Arts and Sciences starting on March 15, 2021. I would also like to congratulate HaiYing Wang for his promotion to Associate Professor with tenure (effective in August 2021). I would like to welcome Courtney L. Trzasko to join our department as the Educational Program Assistant 2 on July 16, 2021. Courtney is a great addition to the Department. After his 34 years of service at UConn, our Professor Rick Vitale is retired in summer 2021. Twenty-four attended the retirement luncheon at Lucky Lou's Bar & Grill, Wethersfield, CT in honor of Rick on August 3, 2021. I would like to congratulate his amazing career and numerous achievements. All of our faculty and staff miss Rick very much. At the same time, we wish Rick having a very healthy, joyful, and more fulfilled retirement. It was sad to see that Anthony Luis left the Department to join Aware Recovery Care as a payroll manager in May 2021. Anthony joined the Department as Program Assistant in spring 2018. He had been a great asset to our faculty and students. It has been my great pleasure to work with him. He has helped me in many ways to take care of departmental daily operations. I am very grateful that Anthony has been working as a temporary university specialist to help out a smooth transition during the last 6 months. It was also sad to see that Timothy Fortune left us to move back his hometown in Mississippi after one year as Assistant Professors in Residence. Wish Timothy the best in his next chapter of his young career.

During the past year (fall 2020-fall 2021), Yuwen Gu received the First Makuch Award in Mathematics and Data Science for 2021-22; Dipak K. Dey received the CLAS Faculty Mentoring Award in Spring 2021 and became an Elected Fellow of the Connecticut Academy of Science and Engineering in 2021; and Ming-Hui Chen received the 2020 ICASA Distinguished Achievement Award on December 15, 2020 and the Certificate of Appreciation from ISBA in June 2021. Ming-Hui Chen was also selected as the Board of Trustees Distinguished Professor in April 2021. Kun Chen was elected as Program Chair-Elect 2022 for the ASA Statistical Computing Section. HaiYing Wang received a three-year NSF grant entitled "CIF: Small: Statistically Optimal Subsampling for Big Data and Rare Events Data" as Principal Investigator (Start Date: 06/15/2021, End Date: 05/31/2024). Yuping Zhang's project entitled "A new graph-based clustering method with application to single-cell RNA-seq data from human pancreatic islets" was selected for funding from UConn/UConn Health Scholarship Facilitation Fund (SFF) for Spring 2021. Yao Zheng's Research Excellence Program (REP) proposal for AY 2020-21 entitled "Novel Statistical Modeling Techniques for High-Dimensional Time Series Data" was selected for funding by OVPR. Nalini Ravishanker received the International Statistical Institute (ISI) Service Award for her outstanding and dedicated leadership and service as SPC Chair for the Virtual ISI World Statistics Congress 2021. Haim Bar's seed grant proposal entitled "A mathematical/stochastic model for cytoarchitectural organization in the developing brain" was selected for funding by IBACS.

I am very pleased to report that our graduate and undergraduate students have received many prestigious awards from various statistical associations and statistical conferences. Below is a list of awards and recognitions:

- PhD student Elizabeth Gibbs was named a James A. Hickman Scholar by The Society of Actuaries for 2021-2022 academic year.
- Irene Soteriou, '23 (CLAS), a cognitive science and statistics double major at the University of Connecticut, was honored with The Newman Civic Fellows Award for her leadership and investment in her community.
- STAT undergrads Christine Nguyen and Uyen Le were selected to be UConn McNair Fellows for the fall 2021 semester.
- PhD student Yunqi Wang is a recipient of The Kenneth and Paula Munson Family Fund for Student Support in Health Sciences Fellowships for the 2020-21 academic year.
- PhD student Yiming Zhang won the 1st place award (Spiegelman Award) of the 2021 Transportation Statistics Interest Group (TSIG) of the ASA Student Paper Competition. His paper is entitled "Bayesian Criterion-based Assessments of Recurrent Event Models with Applications to Commercial Truck Driver Behavior Studies" co-authored with Feng Guo and Ming-Hui Chen.
- PhD students Wenlin Yuan, Simiao Gao, Md Tuhin Sheikh, Daeyoung Lim, and Yiming Zhang were awarded ISBA (The International Society for Bayesian Analysis) Travel Award to attend the 2022 ISBA World Meeting or any other ISBA Section or co-sponsored meeting between now and December 31, 2022.
- The ISBA thanks UConn students Soumik Banerjee, Eric Baron, Zhiduo Chen, Simiao Gao, Yuen Tsz Abby Lau, Aolan Li, Daeyoung Lim, Md. Tuhin Sheikh, Wei Shi, Patrick Toman, Meiruo Xiang, Wenlin Yuan, Katherine Zavez, Yiming Zhang, and Haiwei Zhou for volunteering at the 2021 ISBA world meeting (<http://events.stat.uconn.edu/ISBA2021>). See <https://bayesian.org/wp-content/uploads/2021/09/2109.pdf> for More information.
- PhD student Md Tuhin Sheikh received the IBM Student Paper Award and PhD students Jing Wang and Ganchao Wei received Munich Re/HSB Student Poster Award at the 34th New England Statistics Symposium hosted by the University of Rhode Island on September 30-October 2, 2021.
- PhD Student Yiming Zhang received EAC-ISBA 2021 Graduate Student Poster Award for his poster entitled "Bayesian Double-regression Model for Multi-type Recurrent Event Data", presented at the fifth EAC-ISBA conference (hybrid) with in-Person Mirror Sites: Atlantic City, New Jersey and Kunming, Yunnan (November 14-16, 2021).

We are very happy to see such outstanding achievements by our students.

The UConn Health Center has continued to provide strong support to our students both from joint research grants as well as from internship programs. We would like to thank Professor Robert Aseltine, Chair, Division of Behavioral Science and Community Health and Director, Center for Public Health and Health Policy, for his continuous sponsor of research collaborations with our faculty and graduate students. We also thank Professor James Grady, Director of Biostatistics, Connecticut Institute for Clinical and Translational Science, for providing financial support and research opportunities to many of our graduate students. Our collaboration with School of Nursing continues to grow. The SON-STAT meetings are held biweekly. This collaboration has led the funding of NIH R01 and other federal grants. The School of Nursing has supported 4 STAT GA's in AY 2020-21 and 5 STAT GA's in AY 21-22. We also enjoy close research collaboration with Department of Facilities Operations, School of Pharmacy, and College of Agriculture, Health and Natural Resources. Our Statistical Consulting Services (SCS) enjoys another successful and productive year. Thanks to Director Timothy Moore for his leadership.

During the period of fall 2020 to fall 2021, the department has been very active in organizing national and international conferences, including the 26th and 27th Distinguished Statistician Colloquia on April 21, 2021 and October 20, 2021 (virtual) (Haim Bar, Dipak Dey (Chair), Yuping Zhang and Yao Zheng) (<https://stat.uconn.edu/pfizer-colloquium/>); the 4th Stat4Onc Annual Symposium (virtual) on May 5-7, 2021 (Ming-Hui Chen (Co-chair), Yuan Wenlin, Heeju Lim, Jung Wun Lee, and Tracy Burke) (<https://events.stat.uconn.edu/stat4onc2021/>); the ISBA 2021 Virtual World Meeting on June 23-July 2 (Ming-Hui Chen (Co-chair), Daeyoung Lim, Wenlin Yuan, Simiao Gao, Yiming Zhang, Md Tuhin Sheikh, +10 PhD students, Tracy Burke) (<https://events.stat.uconn.edu/ISBA2021/>); the Statistics In Pharmaceuticals 2021 (SIP2021, virtual) (August 27-28, 2021) (<https://events.stat.uconn.edu/SIP2021/>) (Qiqi Deng, Dooti Roy, Ming-Hui Chen (Co-Chairs), Wenlin Yuan, Daeyoung Lim, Simiao Gao, Yiming Zhang, and Tracy Burke); the 34th New England Statistics Symposium (hybrid) held at Providence Campus of the University of Rhode Island on September 30-October 2, 2021 (Kun Chen, Ming-Hui Chen, Daeyoung Lim, Wenlin Yuan, Simiao Gao, Yiming Zhang, Md Tuhin Sheikh) (<https://symposium.nestat.org/committees.html>); the 2021 UCONN Sports Analytics Symposium on October 9, 2021 (Jun Yan) (<https://stats.org/events/ucsas2021/program.html>); Design and Analysis of Experiments 2021 (virtual) on every Tuesdays, Wednesdays, and Thursdays of October 2021 (HaiYing Wang) (<https://sites.google.com/view/dae2021>); and EAC-ISBA 2021 (hybrid) with in-person mirror sites: Atlantic City, New Jersey and Kunming, Yunnan (Dipak K. Dey, Ming-Hui Chen, Wenlin Yuan, Daeyoung Lim, Simiao Gao, Yiming Zhang, Md Tuhin Sheikh, Tracy Burke) (<https://events.stat.uconn.edu/EACISBA2021/>). Ming-Hui Chen serves as the 2022 JSM Program Chair and Kun Chen serves as Associate Chair of the 2022 JSM program (<https://ww2.amstat.org/meetings/jsm/2022/programcommittee.cfm>).

I would like to congratulate our alumni for their continuous successes in so many fronts. Below is just a short list of what they have achieved during the period of fall 2020-fall 2021:

- The paper, entitled “Fast Bayesian inference for block-NNGP for large data” co-authored by Zaida Jesús Quiroz Cornejo, Marcos O. Prates (Ph.D. 2011), Dipak K. Dey, and Havard Rue was selected as the best Paper Winner 2021 by International Association for Statistical Computing – Latin American Regional Section (IASC-LARS).
- Sudipto Banerjee (Ph.D. 2000), Professor and Chair of the Department of Biostatistics at the UCLA Fielding School of Public Health, was named a Fellow of the American Association for the Advancement of Science (AAAS).
- Karthik Bharath (Ph.D. 2012) was promoted to the rank of Full Professor in the School of Mathematical Sciences at the University of Nottingham, Nottingham, UK.
- Gyuhyeong Goh (Ph.D. 2015), Assistant Professor at Kansas State University received his promotion and tenure to the rank of Associate Professor effective Fall 2021.
- Chongliang Luo (Ph.D. 2017) accepted an Assistant Professor position at Washington University in St. Louis after completing a post-doctoral position at University of Pennsylvania.
- Shariq Mohammed (Ph.D. 2018) accepted an Assistant Professor position in the Department of Biostatistics at Boston University after completing a post-doctoral position at the University of Michigan.
- Samiran Ghosh (Ph.D. 2006), Director of Biostatistics in Biostatistics, Epidemiology and Research Design Core, Wayne State University, Detroit, MI, was promoted to the rank of Full Professor (Tenured).
- Guanyu Hu, former postdoc research scholar (2017-2020) was awarded a 2021 New Researcher Travel Award from the Institute of Mathematical Statistics (IMS).

The recipient of the next UConn Statistics Department Distinguished Alumni Award is Bani K. Mallick, who received Ph.D. in statistics from the University of Connecticut in 1994. Bani is a Distinguished Professor and Susan M. Arseven 75 Chair in Data Science and Computational Statistics in the Department of Statistics at Texas A&M University in College Station. Bani plans to come to Storrs in Spring 2022 to receive this award.

In fall 2021, Dipak K. Dey and his wife, Rita created the Dr. Dipak and Mrs. Rita Dey Doctoral Fellowship to support incoming or continuing doctoral level students pursuing a program of study in statistics or data sciences. I would like to invite you to honor Dipak's legacy by making a gift (<https://www.foundation.uconn.edu/giving-details/>). Your gift to the Dr. Dipak and Mrs. Rita Dey Doctoral Fellowship will make a difference in the lives of our perspective students.

I hope that the pandemic will be over soon. I cannot wait to see our alumni to come back to visit us in-person and to attend the conferences we will host on UConn Storrs campus in the future. I wish all having safe, healthy, and happy Thanksgiving, Christmas, and New Year.

Ming-Hui Chen (ming-hui.chen@uconn.edu)

A message from the Director of the Undergraduate Program

Let me begin by congratulating all of our recent graduates for obtaining their Bachelor's degrees and wishing them success in all of their future endeavors. Last year was a year like no other, and their dedication, fortitude, and accomplishments during this pandemic are much to be admired.



Our department continues to thrive, offering a major in Statistics, a major in Mathematics-Statistics (jointly with Math), a major in Data Science (jointly through the Individualized and Interdisciplinary Studies Program), and a minor in Statistics. As of Fall 2021, there are over 225 students in the three majors at the Storrs campus, with nearly 25% of these being double major or dual degree students. There are also over 75 students who plan to minor in Statistics. All our course offerings remain in high demand with near-full enrollments. We continue to offer multiple sections of many core classes, and are now offering several new elective courses to complement the recent growth in the statistics and data science fields: STAT2255 – Statistical Programming, STAT3255 – Introduction to Data Science, and STAT4255 – Introduction to Statistical Learning. We also continue to connect students with undergraduate research opportunities, internships, career networking events, and other resources. Please visit the department website at www.stat.uconn.edu for more information about our undergraduate program, and information for prospective majors and minors.

Congratulations to all the graduates this year; I wish them well in their future careers, either as they head out to graduate programs around the country, or accept jobs in industry or government.

Elizabeth Schifano (elizabeth.schifano@uconn.edu)



A message from the Director of the Graduate Program

Our department has three graduate programs: the Ph.D. program, the M.S. program in Statistics, and the Professional M.S. program in biostatistics. These programs provide excellent learning and research experiences to prepare students for a successful career in statistics. We offer a broad spectrum of modern courses in statistics and probability, covering advanced theories and methodologies, statistical computing, data science, and consulting. In advanced seminar courses, students are exposed to exciting areas of current research. Through our Statistical Consulting Services, students are engaged in research in many areas of science and technology, and provide support to the research community of the University of Connecticut. We have an extensive collaboration with faculty members in educational, medical, biological, health and environmental sciences, and our graduate students have the opportunity to be employed as research assistants on many of their funded research projects. During the 2020-21 academic year, 121 graduate students were enrolled in our graduate programs, 68 of them with support in the form of teaching or research assistantship from the department or a variety of other sources. We gratefully acknowledge the financial support from Dean's Office of the College of Liberal Arts and Sciences (CLAS), Dean's Office of the College of Agriculture, Health and Natural Resources (CANR), Office of the Vice President for Research, Pfizer, Inc., (supports from Hartford, Pratt & Whitney, Boehringer Ingelheim, any other companies?)



Our graduate programs are highly competitive and visible around the world. This year 376 students all over the world applied for admission to the programs. I would like to thank Professor Harel (Director of Graduate Admission) and all other members (Kun Chen, Ming-Hui Chen, Victor Hugo Lachos Davila, Dipak Dey and Nalini Ravishanker) of the graduate admissions committee for their hard work in reviewing the applications. Thanks are also due to our administrative staff, Anthony Luis and Tracy Burke, for their hard work throughout the application and admission processes.

For more information about our graduate programs, including course offerings, research and other academic activities, news updates, and admissions, please go to the department website: www.stat.uconn.edu.

Zhiyi Chi (zhiyi.chi@uconn.edu)

A message from Statistical Consulting Services

The Statistical Consulting Services (SCS) has had another busy and productive year, with the majority of our consultations taking place remotely via WebEx, Teams and Zoom. In fall 2020, the consulting team consisted of Joochul Lee, Xiaomeng Li, Jiyeon Song, Katherine Zavez, Yifan Li, Soumik Banerjee, and Hao Wu. The team remained the same for the spring 2021 semester. Sadly (for the SCS), we said farewell to a number of consultants over the past year, as Joochul, Xiaomeng, Jiyeon, and Soumik graduated and moved on the bigger and brighter things (we wish them well!). The SCS also operated over the 2021 summer, with Jiyeon Song, Xiaomeng Li, Ziyang Wang, Katherine Zavez, and Eric Baron working as consultants. During the academic year, the SCS was jointly funded by Office of the Vice President for Research (OVPR), Dean's Offices of CLAS and CAHNR, the Provost's Office, and the Department of Statistics.



The SCS assisted over 150 clients across its three consulting modes between August 2020 and July 2021. During the academic year, the SCS offered full-consulting projects, walk-in consulting, and online services. Walk-in services were provided daily for a total of 12 hours per week in the fall, and 10 hours in the spring. Online consulting was provided by Joochul Lee and Katherine Zavez. Over the summer, the SCS continued to offer on-demand online consulting and full project engagements.

A total of 11 full consulting projects were engaged in by the SCS team in the fall. So far, 2021 has seen a large number of full consulting projects, with of 40 full consulting projects taken on since the spring semester. These projects and clients came from across campus (e.g., Animal Science, Chemistry, and PNB), as well as externally (e.g., Department of Veteran Affairs in NYC). We are still excited by the number of researchers using the SCS for assistance with grant applications, with more than 10 researchers seeking assistance with grant proposals. The SCS has also assisted with 75 clients via the online service and 48 walk-ins over the course of the fall, spring and summer. The SCS partnership with the School of Dental Medicine saw us assist with 5 projects for a total of 47 consulting hours.

The SCS's workshops continue to be extremely popular. The fall series saw us, once again, covering Exploratory Data Analysis, Power Analysis, and Linear Regression, as well and an Introduction to Programming in R. In the spring, we covered three main topics: Linear Regression, Generalized Linear Models, and Mixed Effects models, with each topic spanning two workshop sessions. All workshops were very well attended, drawing participants from across campus. We see these workshops as a valuable tool for educating researchers at UConn about statistical practices, while at the same time promoting the use of the SCS in their regular research.

Finally, I would like to thank all of the consultants who worked for the SCS this year. Once again, the SCS has had a successful year, in spite of the difficult circumstances. As we transition back to more in-person consultations, I look forward to meeting all of you in person! And if you are a new graduate student and are interesting in joining the SCS in the future, please reach out to me.

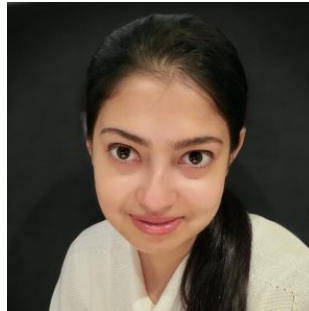
Timothy E. Moore, Ph.D.
Director, Statistical Consulting Services
Center for Open Research Resources & Equipment

Statistics in Pharmaceuticals (SIP2021) and BIST 5092

By Qiqi Deng, Dooti Roy and Ming-hui Chen



Qiqi Deng



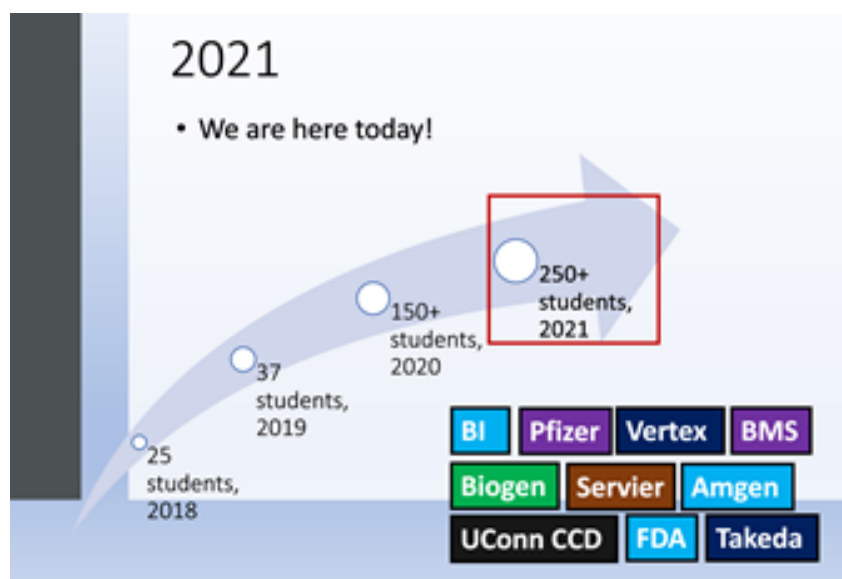
Dooti Roy



Ming-Hui Chen

This year we have re-designed the UConn Statistics Biopharmaceutical Summer Academy into two different yet connected events: Statistics in Pharmaceuticals (SIP) conference and UConn 1-credit course, BIST 5092.

Statistics in Pharmaceuticals (SIP) is a two-day conference that aims to introduce a career in the pharmaceutical industry to students studying in quantitative fields, especially statistics and data sciences. SIP2021 was sponsored by Amgen, Biogen, Boehringer-Ingelheim, Bristol Myers Squibb, Pfizer, Servier, Takeda, Vertex and Obis Clinical. The sponsor companies, together with UConn Department of Statistics and UConn Center for Career Development, organized and provided the program for SIP2021. During the conference, attendees heard from experienced clinicians and statisticians sharing their “why”, discussing important clinical questions and challenges, and how statistics provided solutions to some of those. Students also got to know different and diverse opportunities which this industry could offer. The conference was virtual and free to all students around the world. We had 250+ people registered for SIP 2021. They came from 12 different countries, across 40 different states within US, and across 50+ universities globally.

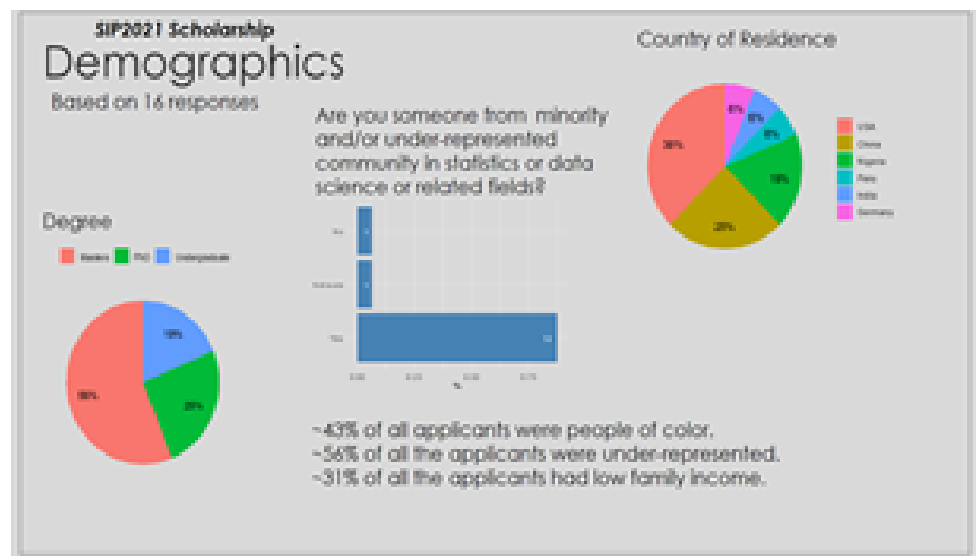


SIP and BIST 5092

- **Statistics in Pharmaceuticals (SIP)**
 - Two-day conference
 - Multiple companies
 - Speakers with diverse background
 - Free to the students
- **BIST 5029**
 - Two-week summer course
 - Deeper dive into important statistical topics and thinking in pharmaceutical statistics
 - Instructors are statistician from industry
 - Uconn standard tuition

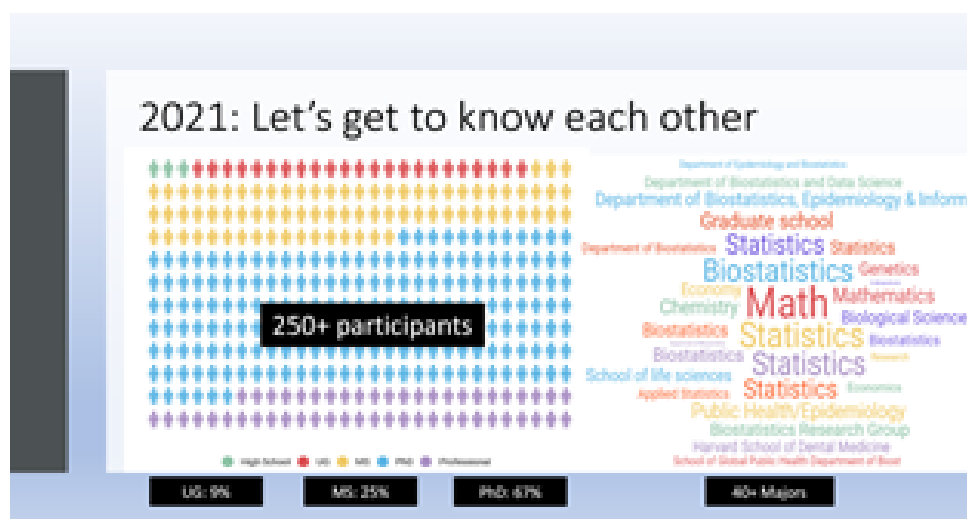
Statistics in Pharmaceuticals (SIP2021) and BIST 5092

SIP 2021 also offered scholarships (\$500 - \$1000) to spread awareness about career opportunities for statistics in pharmaceutical and biotech industry, especially focused on championing JEDI (Justice, Equity, Diversity and Inclusion) principles. There were 12 scholarships awarded, with more than half of the recipients coming from minority or underrepresented communities.



BIST 5092 is a UConn 1-credit summer course. This two-week summer course was an immersive, collaborative, dynamic and academic experience for students who wanted a deeper dive into their career as a statistician or programmer in pharmaceuticals and health analytics. The course covered the basics in pharmaceutical statistics using a project-based learning approach. The content of the course was heavily enriched by real drug examples across different therapeutic areas. Students learned by actively engaging in real-world projects for drug development. The course introduced the newer designs, methods and software used in practice which were rarely covered in school, directly to the students who could benefit from learning them and finding their passion in such a role. We had 17 students (5 undergraduate and 12 graduate students) from 7 universities who signed up for the course. The final projects from two teams had won poster awards in SIP2021.

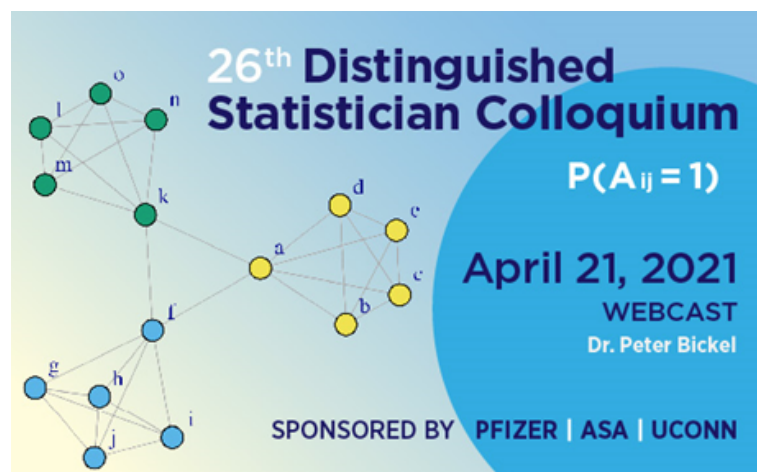
We plan to continue these activities in future. For more information about SIP2021 and BIST5092, please visit <https://events.stat.uconn.edu/SIP2021/index.html> and <https://events.stat.uconn.edu/BI-UConn/summercourse.html>.



26th Distinguished Statistician Colloquium

The Department of Statistics at the University of Connecticut was honored to arrange the 26th Pfizer/ASA/UConn Distinguished Statistician Colloquium Series. The Pfizer Colloquium series ran from 1978 until 2012 and was renewed in 2018. The colloquium series featured C. R. Rao, Bradley Efron, D.R. Cox, Grace Wahba, Nan Laird and many more. For a complete list, see

<https://stat.uconn.edu/pfizer-colloquium/>. The purpose of the Colloquium was to provide a forum



for a distinguished statistician to share and disseminate their unique perspective and work in the theory and/or application of statistics. Starting from 2018, the series has been co-sponsored by Pfizer, the American Statistical Association, and the Department of Statistics at the University of Connecticut.

This year's speaker at the 26th Pfizer Distinguished Statistician Series was Professor Peter Bickel from the Department of Statistics at the University of California, Berkeley. Due to the COVID-19 crisis, this year we celebrated the Distinguished Statistician Colloquium Series through Webinar on Wednesday, April 21, 2021. The interview was conducted by Elizaveta Levina (University of Michigan, Ann Arbor), Purnamrita Sarkar (University of Texas, Austin), and Rachel Wang (University of Sydney).

The emcee of the program was Dipak Dey, Distinguished Professor and Dr. Haim Bar, Associate Professor in the Department of Statistics. Brief remarks were made by Dr. Ron Wasserstein, Executive Director, ASA; Dr. Naitee Ting, Head of Global Biometrics and Data Management at BI and Nitis Mukhopadhyay, Professor of Statistics at UConn.

We thank Pfizer and the ASA for their generous financial support. We also thank the members of the selection committee – Dan Meyer and Demissie Alemayehu from Pfizer, Ron Wasserstein and Nancy Flournoy from the ASA, and Dipak Dey (Chair), Joseph Glaz and Ming-Hui Chen from UConn. Professor Chen also represents the New England Statistical Society (NESS). We also thank the project manager Juliet Kapsis and Administrative assistant Tracy Burke from UConn. This event was attended by 227 registered participants from 8 different countries.

The videos are added to the ASA YouTube channel. First video for the colloquium:

<https://youtu.be/9pJcuZLGMuQ> Second video for the interview: <https://youtu.be/zIq2oIuQbHI>

Haim Bar (haim.bar@uconn.edu), Dipak Dey (Chair) (dipak.dey@uconn.edu), Yuping Zhang (yuping.zhang@uconn.edu) and Yao Zheng (yao.zheng@uconn.edu)

The 3rd UConn Sports Analytics Symposium A Success

The 3rd UConn Sports Analytics (UCSAS) was held virtually on Saturday, Oct. 9, 2021. Among the 300+ registrants, over two thirds were graduate, undergraduate, or pre-college students. This reflects the positioning of the symposium: focusing on students and accessible in terms of technical level, cost, and space. About a third of participants registered through our international hubs, thank our partners Profs. Marcos Prates in Brazil, Hangsheng Wang in China, and Sangwook Kang in Korea.

The program this year featured three keynote presentations. Eric Tulsy, Assistant General Manager, Carolina Hurricanes, presented “No Stone Unturned: Leveraging Public Domain Analysis.” Justin Jacobs, Principal Research Statistician, Sandia National Laboratories, presented “A Square-Integrable Methodology into Play Registration for NBA Tracking Data.” Sarah Bailey, Manager Analytics and Data, Los Angeles Rams, presented “Sports Science in NFL: An Overview of How Analytics and Performance Can Work Together.” All keynote speakers answered questions from the audience with great insights.

A panel discussion on careers in sports analytics featured four women sports analysts. The discussion was moderated by Alison Lukan, Seattle Kraken Contributor and TV Analyst for Root Sports. The three panelists were Jessica Hensley, Data Analyst, United States Olympic & Paralympic Committee; Kelsey Roberts, Database/Basketball Analyst, New York Knicks; and Sara Ziegler, Sports Editor, FiveThirtyEight. The panel discussion will become a great resource for students interested in a sports analytics career.

The virtual poster session showed 15 posters, 12 of which were presented by graduate/undergraduate students. Each presenter had his/her own virtual room for viewers to drop by. Each poster was uploaded onto Twitter with a 2x2 image layout style several days before the event. A poster award committee led by Jeremy Abramson of University of Southern California judged the student posters. The Student Poster Award went to Quang Nguyen of Loyola University Chicago for his poster “Concerns Regarding Sport Climbing Competition Format and Scoring System: Who’s Suffering?” coauthored with Hannah Butler and Gregory J. Matthews.

The 6 training workshops were in parallel threads, each of 50-minute. They were all well-attended: 1) Introduction to R by Tuhin Sheikh; 2) Introduction to Python by Surya Eada; 3) Hockey Analytics with R by Meghan Hall; 4) Basketball Analytics with R by Jackson Lautier; 5) Web Scraping for Sports Data by Lucas Godoy; and 6) TensorFlow with Applications in Sports Analytics by Jun Jin. The workshops on hockey analytics and TensorFlow are new additions to our archived workshops. The teaching materials are archived in public GitHub repos with links on our website.

The symposium was supported by the UConn community and the sports analytics community. Welcoming remarks were delivered by Dr. Andrew Agwunobi, UConn Interim President; Paul Caddy, UConn Head Coach of Field Hockey; and Seth Partnow, Special Advisor to the CEO at StatsBomb.

The Organizing Committee consisted of Alison Lukan, Brian MacDonald, Greg Matthews, Lauren Poe, and myself. The joining of Alison and Lauren this year greatly increased the diversity of the organizing committee as well as the symposium. We thank all the presenters, panelists, workshop instructors, poster judges, session chairs, welcoming remarkers, student volunteers, and all the participants for being with us online the whole day. We are very grateful to our colleagues and students who helped with the conference one way or another. Special thanks go to our student web support Yelie Yuan and student volunteer leader Sreeram Anantharaman for their dedicated support.

The event was hosted by the UConn Statistical Data Science Lab. Sponsors include the New York City Chapter of the American Statistical Association; CluBear, China; UConn Data Science Lab; UConn Department of Statistics, and UConn Sports Management Program. The recordings of all the sessions (except the workshop on web scraping) are available for public viewing at the symposium website: <https://statds.org/events/ucsas2021/program.html>.

Jun Yan (jun.yan@uconn.edu)



NESS | New England Statistical Society

NEW ENGLAND STATISTICS SYMPOSIUM SINCE 1987 & NEW ENGLAND STATISTICAL SOCIETY SINCE 2017

With all our members' and friends' support, the New England Statistical Society (NESS) has continued to make significant progress on various fronts in 2021. It has been another challenging year due to the ongoing COVID-19 pandemic, but our society has stayed active.



After being rescheduled from May 2020, the 34th edition of the New England Statistics Symposium was held on September 30 – October 2, 2021 in a hybrid format. The nearly 250 participants who registered for the conference, were almost equally divided between a remote participation option and an in-person meeting, held at the University of Rhode Island, Providence campus. The Symposium featured the annual Chernoff Lecture delivered by the Chernoff Award Winner, and plenary invited sessions speakers Tamara Broderick (MIT), Siddhartha Chib (Washington University in St. Louis), and Christopher Schmid (Brown University). The program featured 30 invited sessions, 3 short courses, a career fair, a virtual poster session, a student paper competition sponsored by IBM and a student paper competition sponsored by Munich Re - HSB. We thank for the hard and dedicated work of the organizing committee led by Dr. Gavino Puggioni and our many student volunteers.

Next year, the symposium will be back to UConn. We are anticipating a three-day hybrid conference, and the tentative dates are set as May 19 to 21, 2022. Please stay tuned and check our website at <https://symposium.nestat.org> for further information. Inquiries can be sent to Dr. Kun Chen at kun.chen@uconn.edu.

The society has created the Chernoff Excellence in Statistics Award to honor Herman Chernoff and his outstanding, long-term contributions to the field of statistics. These contributions include large sample theory, experimental design, sequential analysis, methods of presenting statistical data in visual form, and statistical decision making. The Chernoff Excellence in Statistics Award is the most prestigious award bestowed by the NESS, given to an individual who, in the tradition of Herman Chernoff's work, has made exceptional contributions to theory, methodology, or novel applications to statistics or data science. In 2019, the inaugural winner of the Chernoff Excellence in Statistics Award was Professor Shaw-Hwa Lo from Columbia University. We are very pleased to announce that the 2021 winner is Professor Stuart Geman from Brown University.



NESS Chernoff Award Ceremony. From left to right: Herman Chernoff (remote), Stuart Geman (Award Recipient), and Joseph Cappelleri (NESS President).

The society, alongside the 2021 NERDS Organizing Committee, is pleased to announce that we will be hosting a series of virtual webinars (11/2021 - 12/2021) focused on the current state of statistical and clinical research in rare disease drug development. We had a very successful virtual NERDS 2020 event last year, where we had well over 200 registrants. This year we aim to keep the conversation going with several webinars that are aimed to keep our rare disease community connected and informed of recent advances and research. We all look forward to a day when we will be able to safely meet again in person for this event as we had done in 2019. The event is free and open to everyone. Please check our website at <https://nerds.nestat.org> for further updates.

The 2021 NextGen Data Science Day (DSD), organized by the NextGen Committee of NESS, will be held virtually on Saturday, November 7, 2020. In keeping the NextGen Committee's mission of supporting the next generation of statisticians and data scientists, the DSD conference provided a platform of resources to help guide students and early career professionals. More information is available at <https://nestat.org/nextgen>.

The NESS Education Committee now has a Subcommittee on Ethics in Data Science and Data Science Education, whose mission is to help establish ethics as a first-class area of investigation within the field of data science, to contribute to the construction and adoption of ethical frameworks for data scientists, and to promote the study of ethics in data science curricula. Towards these ends the subcommittee plans on creating forums for the discussion of ethics in data science (speaker series, colloquia, workshops, conferences), delivering data ethics and AI fairness training courses (both theoretical and applied), and researching and advocating for the inclusion of ethics in data science curricula. It is our hope that by promoting ethics in data science and data science education, NESS will contribute to a more fair, just, truthful and peaceful society. The inaugural talk in the Society Colloquium Special Series on Ethics in Data Science was delivered by Dr. Amit Dhurandhar from IBM Watson on April 8, 2021. Please check our website at <https://nestat.org/education/ethics/> for more details.

The society has made significant progress towards launching its flagship journal, the New England Journal of Statistics in Data Science (NEJSD). The journal aims to create an interface between statistics and other disciplines in data science, provide a platform to exchange innovative ideas, and be a promoter of data sciences to scientific communities. The NEJSD is proud to be a pioneer to reform the traditional peer review process by introducing a two-step hybrid review process: (1) an author-led online open review/revision to facilitate on-line discussions and instant dissemination of submitted work, and (2) an invitation-only close-door peer review process to ensure quality of accepted articles.

Dr. Ming-Hui Chen and Dr. Min-ge Xie are named the Inaugural Co-Editor-in-Chiefs. The journal will initially launch with the following sections:

- * Biomedical Research (Paul S. Albert & Colin O. Wu)
- * Cancer Research (Yuan Ji & Ying Lu)
- * Machine Learning & Data Mining (Ali Shojaie)
- * Engineering Science (Feng Guo)
- * NextGen (Moinak Bhaduri)
- * Statistical Methodology (Grace Yi)
- * Software (Haim Bar)
- * Spatial and Environmental Statistics (Gavino Puggioni)

As of June 1, 2020, Dr. Joseph C. Cappelleri has become the President, Dr. Ming-Hui Chen has become the Past President, and Dr. Eric Kolaczyk has become the President Elect. As of June 1, 2021, Dr. Kun Chen has finished his term as the Secretary. Dr. Jianan Hui from Servier have become the Secretary and Dr. Yuwen Gu from UConn has become the Deputy Secretary. To learn more about NESS, please visit <https://nestat.org>.

We sincerely invite you to join us.

Kun Chen (kun.chen@uconn.edu)

Design and Analysis of Experiments 2021

The primary purpose of the Design and Analysis of Experiments (DAE) series of conferences is to nurture and encourage junior researchers in the field, and to stimulate research in topics of relevance to science and industry. The conferences focus on new directions of research in experimental design, as well as novel innovations in established design problems. Only one session at a time will be scheduled so that everyone can attend every talk.

The 2021 DAE includes ten scientific sessions, three roundtable sessions, a poster session with 21 poster presentations, and a panel discussion session.

Scientific Sessions and Speakers

- Tradeoffs Between Computational Costs and Statistical Efficiency
 - William Li, Shanghai Advanced Institute of Finance
 - Yanxi Liu, University of Illinois at Chicago
 - Roshan Joseph, Georgia Institute of Technology
- Optimal designs
 - Jesús López Fidalgo, University of Navarra
 - Kalliopi Mylona, King's College London
 - Rakhi Singh, UNC Greensboro
- New Developments in Factorial Designs and Orthogonal Arrays
 - Jessica Jaynes, California State University
 - Robert Mee, University of Tennessee
 - Lin Wang, George Washington University
- Online experiments
 - Susan Murphy, Harvard University
 - Julie Beckley, Etsy
 - Weitao Duan, LinkedIn
- Bayesian Optimization and Active Learning
 - Nathan Wycoff, Georgetown University
 - Max Balandat, Facebook
 - Matthias Poloczek, Amazon
- Bayesian adaptive clinical trial designs: using uncertainty and information
 - Tianjian Zhou, Colorado State University
 - Daniel Schwartz, University of Chicago
 - Meizi Liu, University of Chicago
- Analyzing Clinical Trials Disrupted by COVID
 - Richard Emsley, King's College London.
 - Kelly Van Lancker, Ghent University.
 - Diane Uschner, George Washington University.
- Bayesian and model-robust design
 - Tim Waite, University of Manchester, UK
 - Lida Mavrogonatou, University of Cambridge
 - Lulu Kang, Illinois Institute of Technology

Roundtable Sessions and Leaders

- Career in Academia
 - Derek Bingham, Simon Fraser University
 - Nancy Flournoy, University of Missouri
- Career in Industry
 - Bradley Jones, SAS
 - Natee Ting, Boehringer-Ingelheim Pharmaceuticals Inc.
- Publishing Papers
 - Ying Hung, Rutgers
 - Min Yang, University of Illinois Chicago

JMP Poster Session

There were 21 poster presentations

- Judges:
 - Angela Dean, Ohio State University
 - Max Morris, Iowa State University
 - Dibyen Majumdar, University of Illinois-Chicago

Panel Discussion

- Panelists:
 - Xinwei Deng, Virginia Tech
 - Dennis Lin, Purdue University
 - Jonathan W. Stallrich, North Carolina State University
 - John Stufken, University of North Carolina at Greensboro
 - Weng Kee Wong, University of California, Los Angeles

A message from the Graduate Students



This year due to the COVID-19 pandemic our annual Department Pincic was sadly canceled. Our Graduate Student Committee (GSC) was able to coordinate some online game nights amongst one another and a hybrid grad appreciation week event to keep students connected!

Katherine Zavez (katherine.zavez@uconn.edu)



MEET OUR FACULTY



HAIM BAR

ASSOCIATE PROFESSOR



Editorial Boards

Sankhya, Associate Editor.

New England Journal of Statistics in Data Science, Column Editor.

Invited Faculty Talks

- Symposium on Data Science and Statistics (SDSS, virtual), 2021. "On Graphical Models and Convex Geometry", in a session on "Recent Trends in High-Dimensional Statistics".
- Computational and Methodological Statistics, CFE-CMStatistics (virtual) 2020. "Large-p variable selection in two-stage models", in a session on "Trends in the analysis of large and complex data"

Grants

Disease Mechanisms of Prenatal and Pediatric Acquired Hydrocephalus. National Institutes of Health. CoPI. PI – Dr. Joanne Conover, UConn.

Selected Publications

- Bar, H.; Booth, James; Wells, Martin, T. Mixed Effect Modeling and Variable Selection for Quantile Regression. Statistical Modelling. 2021.
- Bar, H.; Wang, H. Reproducible Science with LATEX. J. data sci. 2021; 19, no. 1, 111-125, DOI 10.6339/21-JDS998
- Bar, H., Bang, S., A mixture model to detect edges in sparse co-expression graphs with an application for comparing breast cancer subtypes. 2021; PLOS ONE 16(2): e0246945. doi.org/10.1371/journal.pone.0246945
- McLaughlin, P.; Bar, H. A Spatial Capture-Recapture Model with Attractions Between Individuals. Environmetrics. 2021; 32(1):e2653, doi: 10.1002/env.2653



KUN CHEN

ASSOCIATE PROFESSOR



Editorial Boards

Journal of Machine Learning Research, Editorial Board Member (July 2020 - Present)

Sankhya, The Indian Journal of Statistics, Associate Editor. (January 2016 - Present)

Invited Faculty Talks

- Department of Biostatistics, Epidemiology and Informatics, University of Pennsylvania. October 2021.
- International Conference on Advances in Interdisciplinary Statistics and Combinatorics, University of North Carolina at Greensboro. October 2021.
- Southwest University of Finance and Economics, Chengdu, China. September 2020.

Grants

- Developing suicide risk algorithms for diverse clinical settings using data fusion. National Institutes of Health (R01-MH124740). Principal Investigator (with Dr. Robert Aseltine and Dr. Fei Wang); 09/16/2020–06/30/2024.
- Improving suicide prediction using NLP-derived social determinants of health. National Institutes of Health (R01-MH125027). Principal Investigator on sub-award; 09/01/2020–06/30/2024.
- Improving the identification and management of suicide risk among patients using prescription opioids (HEAL Supplement). National Institutes of Health (R01-MH112148-03S1). Principal Investigator on sub-award; 09/18/2020–06/30/2022.
- Reciprocal modulation of the microbiome and cellular senescence in metabolic dysfunction. National Institutes of Health (R01-AG068860). Principal Investigator on sub-award; 09/10/2020–05/31/2025.
- Improving the identification of patients at risk of suicide. National Institutes of Health (R01-MH112148). Principal Investigator on sub-award; 07/01/2017–06/30/2022.
- Comprehensive heterogeneous response regression from complex data. National Science Foundation (IIS-1718798). Principal Investigator; 09/01/2017–08/31/2021.
- Integrative multivariate analysis with multi-view data. National Science Foundation (DMS-1613295). Principal Investigator; 09/01/2016–08/31/2020.

Outreach

- Program Chair-Elect (2021-), Section on Statistical Computing, American Statistical Association (ASA)
- Secretary (2021-), ASA CT Chapter
- Associate Program Chair, 2022 Joint Statistical Meeting, ASA.
- Member (2017-), Connecticut All-Payer Claims Database (APCD) Data Release Committee (DRC), Office of Health Strategy, State of Connecticut
- Secretary (2017-2021), New England Statistical Society (NESS)
- Member of University General Education Oversight Committee and Co-Chair of its Q-Subcommittee (2018-2021)

Selected Publications

- Liu, X., Ma, S., and Chen, K. (2021) Multivariate functional regression via a nested reduced-rank regularization. *Journal of Computational & Graphical Statistics*. In press.
- Li, Y., Yu, C., Zhao, Y., Aseltine, R., Yao, W., and Chen, K. (2021) Pursuing sources of heterogeneity in modeling clustered population. *Biometrics*. In press.
- Xu, W., Chang, S., Li, Y., Doshi, R., Chen, K., Wang, F., and Aseltine, R. (2021) Improving suicide risk prediction via targeted data fusion: proof of concept with statewide data. *Journal of the American Medical Informatics Association*. In press.
- Wang, J., Tang, K., Feng, K., Lin, X., Lv, W., Chen, K., and Wang, F. (2021) Impact of temperature and relative humidity on the transmission of COVID-19: a modelling study in China and the United States. *BMJ Open*, 11:e043863.

MING-HUI CHEN

DISTINGUISHED PROFESSOR & DEPARTMENT HEAD

Professional Societies

Ming-Hui Chen was elected to Fellow of International Society for Bayesian Analysis in 2016, the Institute of Mathematical Statistics in 2007 and Fellow of American Statistical Association in 2005. He became an elected member of the International Statistical Institute in 1999. He is a member of the American Association for the Advancement of Science (AAAS) and the International Biometric Society (ENAR), and a lifetime member of the Institute of Mathematical Statistics, the American Statistical Association, the International Society for Bayesian Analysis, Section on Bayesian Statistics, the International Chinese Statisticians Association, the Korean International Statistical Society, and the New England Statistical Society. He is also an ASA accredited Professional Statistician (PStat).



Editorial Boards

Ming-Hui Chen is Co Editor-in-Chief of *Statistics and Its Interface*, Co Editor-in-Chief of *New England Journal of Statistics in Data Science*, Associate Editor of *Journal of the American Statistical Association*, Associate Editor of *Lifetime Data Analysis*, and Associate Editor of *Journal of Computational and Graphical Statistics*.

Invited Faculty Talks

Ming-Hui Chen gave invited talks on “A New Bayesian Joint Model for Longitudinal Count Data with Many Zeros, Intermittent Missingness, and Dropout with Applications to HIV Prevention Trials” at the 2020 ICSA Applied Statistics Symposium (Virtual), Houston, Texas, December 13-16, 2020; “Assessment of Homogeneity and Consistency for Network Meta-Analysis” in Invited Session 62 on “Recent Advances in Bayesian Network Meta-Analysis” at ENAR 2021 Spring Meeting (Virtual), March 14-17, 2021; “Bayesian Network Meta-Regression Hierarchical Models Using Heavy-Tailed Multivariate Random Effects with Covariate-Dependent Variances” in Invited Session 418 on “Recent Developments in Network Meta-Analysis”, 2021 JSM (Virtual), August 8-12, 2021; and “Bayesian Network Meta-Regression Hierarchical Models Using Heavy-Tailed Multivariate Random Effects with Covariate-Dependent Variances” in Invited Session 4d on “Recent Advances on Meta-Analysis” at International Conference on Advances in Interdisciplinary Statistics and Combinatorics - AISC 2021 (Virtual), October 8-10, 2021.

He gave a webinar talk on “Recent Development on Bayesian Clinical Trial Designs Using Historical Data” in the 2020 Cytel Virtual Bayesian Webinar Series, December 10, 2020 (over 200+ attended). He also delivered an invited colloquium talk on “A Power Prior Approach for Leveraging External Longitudinal and Competing Risks Survival Data within the Joint Modeling Framework” in the Académico de Estadística, ITAM on August 20, 2021 and Departamento de Estatística, Universidade Federal de Minas Gerais on September 3, 2021.

Awards

Ming-Hui Chen received the International Chinese Statisticians Association (ICSA) Distinguished Achievement Award in December 2020 and ISBA Certificate of Appreciation, 2021 (<https://bayesian.org/project/certificates-of-appreciation/>). He was selected as Board of Trustees Distinguished Professor, University of Connecticut, April 2021.

Grants

Ming-Hui Chen is a Co-PI of NIH R01 grant on “Bayesian Approaches to Model Selection for Survival Data” for 2016-2021; NIH P01 grant on “Statistical Methods for Cancer Clinical Trials” for 2015-2021; NIH R01NR grant on “Multi-Omics Analysis of Pain/Stress Impact on Neurodevelopment in Preterm Infants” for 2017-2022. He is a PI of Pratt & Whitney Task 156 Project on “Engine Combustor Life Modeling” for 1/1/2019-12/31/2019. He is the PI on the subcontract from UNC of Amgen grant on “Bayesian Methods for Meta-analysis” for 1/1/2014-12/31/2021 and Merck & Co grant on “Bayesian Methods for Design and Analysis of Clinical Trials” for 2015-2022. He is the PI on REGENXBIO (RGX) grant on “Bayesian Clinical Trial Design and Simulation Studies” for 03/01/2020-05/022/2022, and on Servier grant on “Clinical Trial Design, Protocol Preparation and Trial Conduct” for 01/01/2021-12/31/2022.

Outreach

Ming-Hui Chen was an external reviewer of the grant proposals of the Research Grant Council (RGC) of Hong Kong (2013 – 2021). He serves as Representative from Districts 1-3, ASA Caucus of Academic Representatives, 2018-2021. He serves on the International Advisory Committee for the discipline of statistics of Yunnan University, December 2017 -- Present. He also serves as a member of the International Advisory Committee for the discipline of statistics of Shanghai Jiaotong University, 2013 -- present. He served as President of the New England Statistical Society (NESS) for June 1, 2018 - May 31, 2020 and he is President-Past of NESS for June 1, 2020 - May 31, 2022.

He is the 2022 JSM Program Chair (<https://ww2.amstat.org/meetings/jsm/2022/programcommittee.cfm>).

He was Co-Organizer of The 4th Stat4onc Annual Symposium (May 6-8, 2021) (<https://events.stat.uconn.edu/stat4onc2021/>); Co-Chair of the Organizing Committee of the 2021 ISBA World Meeting (Virtual), June 23-July 2, 2021

(<https://events.stat.uconn.edu/ISBA2021/committee.html>); Co-Chair of the organizing committee of Statistics In Pharmaceuticals 2021 (SIP2021) (August 27-28, 2021) (<https://events.stat.uconn.edu/SIP2021/>); a member of the Organizing Committee and Student Poster Committee and chair of the Fundraising Committee of the 34th New England Statistics Symposium on September 30 – October 2, 2021 (<https://symposium.nestat.org/index.html>); and a member of the Program Committee of the EAC-ISBA 2021 on November 14-16, 2021 (<https://events.stat.uconn.edu/EACISBA2021/>).

Research Center

Research Interests:

Bayesian Statistical Methodology, Bayesian Computation, Bayesian Phylogenetics, Categorical Data Analysis, Design of Bayesian Clinical Trials, DNA Microarray Data Analysis, Meta-analysis, Missing Data Analysis (EM, MCEM, and Bayesian), Monte Carlo Methodology, Prior Elicitation, Statistical Methodology and Analysis for Prostate Cancer Data, Statistical Modeling, Survival Data Analysis, and Variable Selection.

Selected Publications

- Ming-Hui Chen (with Sheikh, Md. T., Ibrahim, J.G., Gelfond, J.A., and Sun, W.) 2021. Joint Modelling of Longitudinal and Survival Data in the Presence of Competing Risks with Applications to Prostate Cancer Data. *Statistical Modelling*, 21(1-2), 72-94.
- (With Zhang, F., Cong, X., and Chen, Q.) 2021. Assessing Importance of Biomarkers: a Bayesian Joint Modeling Approach of Longitudinal and Survival Data with Semicompeting Risks. *Statistical Modelling*, 21(1-2), 30-55.
- (With Yuan, W. and Zhong, J.) 2021+. Flexible Conditional Borrowing Approaches for Leveraging Historical Data in the Bayesian Design of Superiority Trials. *Statistics in Biosciences*. In press. <https://doi.org/10.1007/s12561-021-09321-7>.
- (With Wei, S., Kuo, L., and Lewis, P.O.) 2021+. Bayesian Concentration Ratio and Dissonance. *Bayesian Analysis*. In press. DOI: 10.1214/21-BA1277.

Published Books

- Ming-Hui Chen (With J.D. Petrucci and B. Nandram) 1999. *Applied Statistics for Engineers*. Text Book, Prentice-Hall, INC., ISBN 0-13-565953-1.
- (With Q.-M. Shao and J.G. Ibrahim) 2000. *Monte Carlo Methods in Bayesian Computation*. Springer-Verlag, ISBN 0-387-98935-8.
- (With J.G. Ibrahim and D. Sinha) 2001. *Bayesian Survival Analysis*. Springer-Verlag, ISBN 0-387-95277-2.
- (With D.K. Dey, P. Müller, D. Sun, and K. Ye) 2010. *Frontiers of Statistical Decision Making and Bayesian Analysis --- In Honor of James O. Berger*. Springer-Verlag, ISBN 978-1-4419-6943-9.
- (With L. Kuo and P.O. Lewis) 2014. *Bayesian Phylogenetics: Methods, Algorithms, and Applications*. Chapman & Hall/CRC Mathematical and Computational Biology. ISBN: 978-1466500792.

ZHIYI CHI

PROFESSOR & ASSOCIATE DEPARTMENT HEAD

Editorial Boards

Applied Stochastic Models in Business and Industry, Associate Editor

Grants

NSF DMS-1720218. "New simulation methods for Lévy processes and related distributions. 2017–2021.



Selected Publications

- S. Rayaprolu and Z. Chi (2020). False discovery variance reduction in large scale simultaneous hypothesis tests. *Methodol. Comput. Appl. Probab.* 23, 711–733.
- Z. Chi. (2020). Law of the first passage triple of a spectrally positive stable processes. *J. Theor. Probab.* 33, 715–748.
- Z. Chi (2019). Law of two-sided exit by a spectrally positive strictly stable process. *Stochastic Process. Appl.* 130, 3976–3989.
- Z. Chi (2018). On a multivariate strong renewal theorem. *J. Theor. Probab.* 31, 1235–1272.

Published Books

N. Ravishanker, Z. Chi, D. Dey (2021). *A First Course in Linear Model Theory*. 2nd ed. CRC Press.



DIPAK DEY

BOARD OF TRUSTEES & DISTINGUISHED PROFESSOR

Professional Societies

Dipak Dey is a Fellow of International Society for Bayesian Analysis, the Institute of Mathematical Statistics and Fellow of American Statistical Association. He is an elected member of the International Statistical Institute, American Association for the Advancement of Science (AAAS), Connecticut Academy of Arts and Science (CAAS) and Connecticut Academy of Science and Engineering (CASE). He is also a member of The International Biometric Society (ENAR), Section on Bayesian Statistics of the American Statistical Association, International Chinese Statisticians Association, International Indian Statistical Association and New England Statistical Society. He is also an ASA accredited Professional Statistician (P. Stat).



Editorial Boards

Editor-in-chief, Sankhya, series A (<https://www.springer.com/journal/13171>) and Series B (<https://www.springer.com/journal/13571>), Official Journal of Indian Statistical Institute, published through Springer.
Associate editor of Journal of Statistical Research (<http://jsr.isrt.ac.bd/>).

Invited Faculty Talks

- Invited Speaker, Conference in honor of Barry Arnold, Dallas, TX, May 2021. (Virtual).
- Invited Speaker, IISA International Conference, Chicago, Chicago, IL., May 2021. (Virtual).
- Invited Speaker, National Museum Science, Ministry of Cultural Affairs, India, (On line live through YouTube Chanel) May 2021. (Virtual).
- Invited Speaker, 128th birth anniversary of Prof. P C Mahalanobis at the Indian Statistical Institute, Kolkata, India, June 2021. (Virtual).
- Invited Speaker, SAMSI closing workshop (<https://www.samsi.info/home/samsi-closing-ceremony/>), Durham, North Carolina, August 2021. (Virtual).
- Invited Speaker, On Foundation of Statistical Inference by C. R. Rao Relating to Information Inequality at the Indian Academy of Science. (2020).

Grants

Modeling and Analysis of Large Insurance Claim and Occurrence Data: A Partnership Between UConn and Travelers. Award # CW 2485339; August 28, 2016- July 30, 2023, \$1,074,758.

Research Center

Bayesian Analysis, Big Data Analytics, Bioinformatics, Biostatistics, Computational Statistics, Decision Theory, Environmental Statistics, Insurance Statistics, Multivariate Analysis, Optics, Reliability and Survival Analysis, Statistical Shape Analysis, Statistical Genetics

Outreach

- Site Visit and Evaluation of Division of Intramural Population Health Research, Eunice Kennedy Shriver National Child Health and Human Development.
- President of Purdue Statistics Alumni Association.
- Member, Connecticut Institute of Clinical and Translational Sciences (CICATS).
- Member, Core Research Group of the Center for Health Communication and Marketing.
- Member, Advisory Committee of the Center for Environmental Sciences and Engineering (CESE).
- Member, Institute for Collaboration on Health Intervention and Policy (In CHIP).
- Member of the Hong Kong Research Grant Council.
- Reviewer on the statistical parts of "Nature".

Selected Publications

- (With S. Mohammed). Scalable Spatio-Temporal Bayesian Analysis of High-Dimensional EEG Data. Canadian Journal of Statistics: Special issue on neuroimaging. Vol. 49, No. 1, Pages 107–12, (2021).
- (With M. De Oliveira, L. Castro and D. Dey and D. Sinha), Bregman Divergence to Generalize Bayesian Influence Measures for Data Analysis. Journal of Statistical Planning and Inference, Volume 213, Pages 222-232(2021).
- (With A. Halder, S. Mohammed and K. Chen and D. Dey). Spatial Tweedie exponential dispersion models: An application to insurance rate-making. Scandinavian Actuarial Journal. <https://doi.org/10.1080/03461238.2021.1921017>. (2021).
- (With T. Ye, V. H. Lachos Davila and X. Wang and D. Dey). Comparisons of zero inflated continuous regression models from a Bayesian perspective. Statistics in Medicines. <https://doi.org/10.1002/sim.8795> (2021).

Published Books

- (With P. Muller and D. Sinha). Practical Nonparametric and Semiparametric Bayesian Statistics Springer-Verlag Lecture Notes Series, 1995.
- (With S. Ghosh and B. Mallick). Generalized Linear Models: a Bayesian Perspective, Marcel Dekker Inc., 2000.
- (with N. Ravishanker). A First Course in Linear Model Theory Chapman and Hall, 2001.
- (With C.R. Rao). Handbook of Statistics, 25: Bayesian Thinking, Modeling and Computation Elsevier
- (With S.K. Upadhyay, and U. Singh). Bayesian Statistics and Its Application, Anamaya, 2006.
- (With S. Ghosh and B.K. Mallick), Bayesian Bioinformatics. Chapman & Hall CRC. 2010.
- (With M._H. Chen, P. Mueller, D. Sun and K. Ye). Frontiers of Statistical Decision Making and Bayesian Analysis. Springer 2010. . ISBN 978-1-4419-6943-9.
- (With S. K. Upadhyay, U. Singh and A. Loganathan, eds.). Current Trends in Bayesian Methodology with Applications. Chapman & Hall CRC, ISBN 9781482235111, 2015.
- (With J. Yan). Extreme Value Modeling and Risk Analysis: Methods and Applications. Chapman & Hall ISBN-13: 978-1498701297,2015. ISBN # 13:978.
- (With C.R. Rao). Essential Bayesian Models. North Holland. ISBN-13: 978-0444537324 ISBN-10: 044453732
- (With N. Ravishanker and Z. Chi), A First Course in Linear Model Theory (Chapman & Hall/CRC Texts in Statistical Science). Oct 19, 2021.

JOSEPH GLAZ

PROFESSOR



Editorial Boards

Editor - in - Chief, Methodology and Computing in Applied Probability, since 1997, and Associate Editor, Sequential Analysis, since 2004.

Outreach

Joseph Glaz is a member of the Board of International Workshops in Applied Probability (IWAP). IWAP 2018 was held on June 18-21, 2018, in Budapest, Hungary. IWAP 2022 is planned to be held in Thessaloniki, Greece, during June 2022. He is a member of the Scientific Program Committee of the International Symposia on Applied Stochastic Models and Data Analysis, ASMDA, and Stochastic Modeling Techniques and Data Analysis, SMTDA. ASMDA 2021 was held in Athens, Greece, as in person and on-line virtual conference, on June 1-4, 2021. SMTDA 2020 was held in Barcelona, Spain, as an on-line virtual conference on June 11-14, 2020. He is a member of the oversight committee for an undergraduate minor in bioinformatics. He is also affiliated with Booth Engineering Center for Advanced Technology (BECATS).

Selected Publications

- Zhang, P. and Glaz, J. (2018). Scan Statistics on graphs and networks. Handbook of Scan Statistics. Glaz, J. and Koutras, M. V., Eds, Springer. Springer Link, https://doi.org/10.1007/978-1-4614-8414-1_43-1
- Wu, Q. and Glaz, J. (2019). Robust scan statistics for detecting a local change in population mean for normal data. Methodology and Computing in Applied Probability, Vol. 21, 295-314.
- Wu, Q. and Glaz, J. (2021). Scan statistics for normal data with outliers. Methodology and Computing in Applied Probability 23, 429-458. <https://doi.org/10.1007/s11009-020-09837-3>
- Chen, J. and Glaz, J. (2021). Scan statistics for detecting a local change in mean for normal data. Handbook of Scan Statistics. Glaz, J. and Koutras, M. V., Eds., Springer. Published on-line in Springer Link https://doi.org/10.1007/978-1-4614-8414-1_22-1

Published Books

- Glaz, J. and Balakrishnan, N. (Eds.) (1999). Recent Advances on Scan Statistics. Birkhauser Publishers, Boston.
- Glaz, J., Naus, J., Wallenstein, S. (2001). Scan Statistics. Springer, New York.
- Baeza-Yates, R., Glaz, J., Gzyl, J., Hüsler, J. and Palacios, J. L. (Eds.) (2005). Recent Advances in Applied Probability. Springer, New York.
- Chiquet, J., Glaz, J., Limnios, N. and Moyal, P. (Eds.) (2008). Book of Abstracts. IWAP 2008, 4th International Workshop in Applied Probability, Université de Technologie de Compiègne, Compiègne, France.
- Glaz, J., Pozdnyakov, V. and Wallenstein, S. (Eds.) (2009). Scan Statistics: Methods and Applications. Birkhauser, Boston.
- Aribas, A., Glaz, J., Jiménez, R. and Romo, J. (2010). IWAP 2010 Book of Abstracts and Detailed Programme. 5th International Workshop in Applied Probability. Universidad Carlos III de Madrid, Colmenarejo, Madrid, Spain. Depósito Legal: M-28524-2010.
- Glaz, J. and Koutras, M. V. (Eds.) (2021). Handbook of Scan Statistics. Springer Nature (in preparation).

YUWEN GU

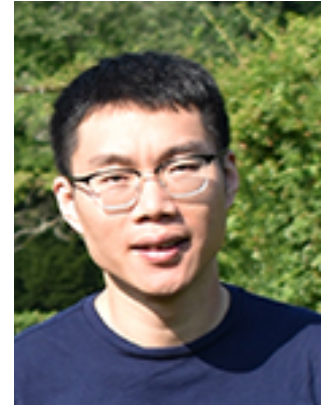
ASSISTANT PROFESSOR

Invited Faculty Talks

- Department of Statistics and Actuarial Science, University of Iowa, Iowa City, Iowa, 2021
- The 5th International Conference on Statistical Optimization and Learning, Beijing Jiaotong University, Beijing, 2020

Outreach

Deputy Secretary, New England Statistical Society, 2021



Selected Publications

- Li, W., Gu, Y. and Liu, L. (2020). Demystifying multiply robust estimators. *Biometrika*. 107(4), 919-933.
- Gu, Y. and Zou, H. (2020). Sparse composite quantile regression in ultrahigh dimensions with consistent parameter calibration. *IEEE Transactions on Information Theory*. 66(11), 7132-7154.
- Fontaine, S., Yang, Y., Qian, W., Gu, Y. and Fan, B. (2019). A unified approach to sparse Tweedie Modeling for multi-source insurance data analysis. *Technometrics*. 62(3), 339-356.
- Gu, Y. & Zou, H. (2018). Aggregated expectile regression by exponential weighting. *Statistica Sinica*, 29, 671-692.



OFER HAREL

PROFESSOR



Editorial Boards

Ofer Harel is an Editor for The International Statistical Review and Associate Editor for Statistics in Medicine and Sankhya, the Indian Journal of Statistics, Series B. He is also on the Editorial Board of AIDS and Behavior, and was a Special Issue Editor (13th International Conference on Health Policy Statistics (ICHPS)) for Health Services and Outcomes Research Methodology.

Invited Faculty Talks

Presented invited talks at CLAS Research Workshop, Virtual (March, 2021); The 2021 ENAR Workshop - Fostering Diversity in Biostatistics, Virtual (March, 2021); the Center for Technology and Behavioral Health, Geisel School of Medicine, Dartmouth College, Lebanon, NH (Virtual, March, 2021); the Diversity Mentoring Program, Joint Statistical Meeting (JSM), Virtual (August, 2020); the Joint Statistical Meeting (JSM), Virtual (August, 2020).

Grants

Ofer Harel is a PI on "Collaborative Research: Shape-based Imputation and Estimation of Fragmented, Noisy on to the Reconstruction of Fossil Bovid Teeth," and a supplement to fund and under-represented student with the same title supported by National Science Foundation; he is Co-I on "Multilevel Resilience Trajectories in the Transition to Cancer Survivorship, supported by National Institute of Health; Co-I on "The feasibility and effectiveness of an Opioid package prototype (OPP) to impact opioid prescribing, dispensing, and patient use outcome" supported by US Food and Drug Administration (FDA). Ofer Harel also has several sub-contracts from UCHC to fund number of graduate students.

Outreach

Appointed to the Bureau of Labor Statistics Technical Advisory Committee (BLSTAC), U.S. Bureau of Labor Statistics; Elected Chair-elect, chair, past chair for the Council of Sections Governing Board, American Statistical Association; Elected to co-chair the International Conference for Health Policy Statistics (ICHPS); member, ASA Statistical Consulting Section Subcommittee on Membership Outreach & Diversity; member, American Statistical Association's Committee on Nominations; member, Anti-Racism Task Force, American Statistical Association (ASA). Member, Biostatistical Methods and Research Design (BMRD) Study Section, Center For Scientific Review, National Institute of Health; Member, Data and Safety Monitoring Board (DSMB) for NCCIH grant "Mobile mindfulness to improve psychological distress after critical illness;" Member, Data and Safety Monitoring Board (DSMB) for NIDA grant "Behavioral intervention to enhance HIV test/treat;" Mentor, Diversity Mentoring Program, Joint Statistical Meeting; Mentor, Math Alliance.

Selected Publications

- 1Sidi, Y. and Harel, O. (2020) "Comprehensive benefit-risk assessment of non-inferior treatments using multi-criteria decision analysis." *Value in Health*, 23(12), 1622–1629, <https://doi.org/10.1016/j.jval.2020.09.002>.
- Larose, C., Dey, D. and Harel, O. (2019) "The Impact of Missing Values on Different Measures of Uncertainty." *Statistica Sinica*, 29(2), 551-566.
- Cho, H., Matthews, G., and Harel, O. (2019) "Performance evaluation of the Wald-type confidence interval methods of the area under the receiver operating characteristic curve in the presence of ignorable missingness." *International Statistical Review*, 87(1), 152–177. <https://doi.org/10.1111/insr.12277>
- Harel, O., Mitchell, E. and the missing data group. (2018) "Multiple imputation for incomplete data in epidemiological studies." *American Journal of Epidemiology*, 187(3), 576–584.

Published Books

2009. Strategies for Data Analysis with Two Types of Missing Values: From Theory to Application. Lambert Academic Publishing.

LYNN KUO

PROFESSOR

Grants

- She was supported by an Intramural Research Program, National Institute on Aging, National Institutes of Health, via Einstein Medical School.
- Conducting Statistical Research for Chronic Kidney Disease (CKD) Drug Development, supported by BI Boehringer Ingelheim.



Outreach

- Treasurer of New England Statistical Society
- External reviewer for a promotion consideration from associate professorship to full professorship at University of Massachusetts.
- Reviewer for Statistics in Medicine, PLOS One, Statistica Neerlandica, Communications in Statistics - Simulation and Computation.
- Judge and chairperson for a HSB poster session of the 34th New England Statistical Symposium.

Selected Publications

- Ellen Grober, Qi Qi, Lynn Kuo, Jason Hassenstab, Richard J. Perrin and Richard B. Lipton (2021) The Free and Cued Selective Reminding Test Predicts Braak Stage, *Journal of Alzheimer's Disease* 80 (2021) 175–183
- Ellen Grober, Qi Qi, Lynn Kuo, Jason Hassenstab, Richard J. Perrin and Richard B. Lipton (2021) Stages of Objective Memory Impairment Predict Alzheimer's Disease Neuropathology: Comparison with the Clinical Dementia Rating Scale–Sum of Boxes. *Journal of Alzheimer's Disease* 80 (2021) 185–195
- Daoyuan Shi, Ming-Hui Chen, Lynn Kuo, Paul Lewis (2021) New partition based measures for data compatibility and information gain, *Statistics in Medicine*, 40(15) 3560-3581
- Jinjian Mu, Qingyang Liu, Lynn Kuo, Guanyu Hu (2021) Bayesian variable selection for the Cox regression model with spatially varying coefficients with applications to Louisiana respiratory cancer data, *Biometrical Journal*, <https://doi.org/10.1002/bimj.202000047>.

Published Books

Bayesian Phylogenetics: Methods, Algorithms, and Applications, eds: MH Chen, L. Kuo, & P. Lewis, 2014, Chapman & Hall (CRC).



VICTOR HUGO LACHOS DAVILA

PROFESSOR

Editorial Boards

Associate Editor of S A N K H Y A Series B. Associate Editor of Brazilian Journal of Probability and Statistics . Associate Editor of Stats.



Invited Faculty Talks

- Invited talk Virtual ISI World Statistics Congress 2021- ISI Mahalanobis International Award - Session in honour of Prof. Heleno Bolfarine.
- Invited talk at Coloquio Virtual pre-Congreso Científico Bicentenario por la Independencia del Perú (CCBIPerú2021), Cuzco, Peru, July 2021, Coloquio de Matemáticas.
- Invited talk at The 29th Congreso de Matematica Capricornio (COMCA-2021), Chile, July 2021.
- Invited colloquium lecture at the Department of Statistics, Universidade Federal de Pernambuco, Brazil , June 2021.
- Invited colloquium lecture at the Department of Statistics, Universidad Nacional de Trujillo, Peru, October 2021.

Grants

Serves as a Co-PI on a research training grant from The Travelers Companies for "Modeling and Analysis of Large Insurance Claim and Occurrence Data: A Partnership Between UConn and Travelers."

Outreach

- Member of the Scientific Program Committee of the XVI Brazilian Meeting on Bayesian Statistics (EBEB), the conference will take place in Brazil in March 2022.
- Member of the Scientific Program Committee of the XVII Brazilian School of Regression Model (2021), Satellite Event in Memory of Prof. Heleno Bolfarine, the event will take place in Brazil in November 2021.
- At UConn, serves as member of the Committee on Curricula and Courses in the College of Liberal Arts and Sciences (CLAS).
- My PhD student Fernanda Schumacher, a visiting student in the Department of Statistics, received Student competition award of statistics in association with the Conference in Honour of Fred Smith and Chris Skinner". Southampton, UK, June-2021.
- My master Student Katherine Andreina Loor Valeriano, received an Award for the Best Master Thesis defended in the period 2018-2020. SINAPE, São Paulo, Brazil, August-2021.
- Serves on Grant Review Panel: National Science Foundation NSF-DMS. 7. Serves as a reviewer for Swiss National Science Foundation (SNSF)

Selected Publications

- Schumacher, F.L., Lachos, V.H. and Matos, L.A. (2021). Scale mixture of skew-normal linear mixed models with within-subject serial dependence. *Statistics in Medicine*, 40, 1790-1810.
- Galarza, C.E., Bourguignon, M. and Lachos, V.H. (2021). A skew-t quantile regression modeling for censored and missing data, *Stat*, 10, 1-15 (e379).
- Bandyopadhyay, D., Prates, M.O., Zhao, X. and Lachos, V.H. (2021). Spatial skew-normal independent models for non-randomly missing clustered data. *Statistics in Medicine*, 40, 3085-3105.
- Olivari, R.C. Garay, A.M. Lachos, V.H. and Matos, L.A. (2021). Autoregressive mixed-effects models for censored data. *Journal of Biopharmaceutical Statistics*, 31, 273-294.

Published Books

Lachos, V.H., Cabral, C.R.B. and Zeller, C.B (2018). *Finite Mixtures of Skewed Distributions*. Springer.

NITIS MUKHOPADHYAY

PROFESSOR



Editorial Boards

Nitis Mukhopadhyay has been the Editor-in-Chief of Sequential Analysis journal since 2004. He was a Guest Co-Editor (with Carlos A. Coelho and Thomas Mathew) of a special issue the Journal of Statistical Theory and Practice in honor of the 70th birthday of Professors Bimal K. Sinha and Bikas K. Sinha, March 2018, no.1, 12, pp. 1-154. During 2019-21, he was a Co-Editor for Gini Inequality Index from Chapman & Hall.

He is a member of the Advisory Board for Sri Lankan Journal of Applied Statistics and also Associate Editors for the Communications in Statistics (both Theory and Applications series) and Calcutta Statistical Association Bulletin. He is an advisory board member for the International Journal of Statistics in Medical Research from Tbilisi, Georgia.

Invited Faculty Talks

- Professor Mukhopadhyay Visited Unversity Federal Ouro Preto(Brazil) as the university's guest and gave 5 special university-wide lectures in statistics, econometrics, big data, and education in Ouro Preto and in the capital BH of MG, Brazil, March 2019.
- Delivered an invited presentation at the NESS (Hartford, Connecticut) hosted by UConn-Storrs in a session organized by A. Polunchenko, May 2019.
- Arranged and Chaired 2 invited paper sessions at the QPRC (Washington, D.C.) and gave an invited presentation in a session organized by S. Zacks in June 2019.
- Delivered an invited presentation at the IWSM hosted at the Binghamton University, New York and Chaired a number of sessions, June 2019.
- He had spent the first half of the month of January 2020 in Calcutta as a visiting scientist at the Indian Institute of Management Calcutta, University of Calcutta, and Amity University Kolkata. Gave special invited lectures on (i) big data and information, (ii) teaching and research, and (iii) inequality measures.
- Lined up to deliver a key lecture in Milan, Italy and organized a special symposium in Venice, Italy on Applied Mathematics & Computational Science In March 2020. He committed to deliver the Plenary Lecture at this symposium and then Chair this symposium. He was ready to go! It fell through due to the pandemic.
- He was lined up to deliver an invited paper at the ASA/IMS Spring Research Conference at Oakland University, Michigan in May 2020. He was ready to go! It fell through due to the pandemic.
- He organized four invited paper sessions at the IWAP in Thessaloniki, Greece in June 2020. He was going to Chair those sessions. He was ready to go! It fell through due to the pandemic.
- He was invited to visit the Institute of Stochastics, Tbilisi, Georgia and deliver the Keynote Address in the conference, July 2020. He was ready to go! It fell through due to the pandemic.
- The whole landscape changed! After a long pause, he gave an online presentation under the "Lecture Series for Propagation of Statistics Education and Research" organized by Calcutta Statistical Association as a part of its outreach program, through an online platform on September 24, 2021 at 7.00 PM (IST). The title of the lecture was "Pairwise Independence of Random Variables May Not Imply Their Mutual Independence: New Classes of Illustrations".

Outreach

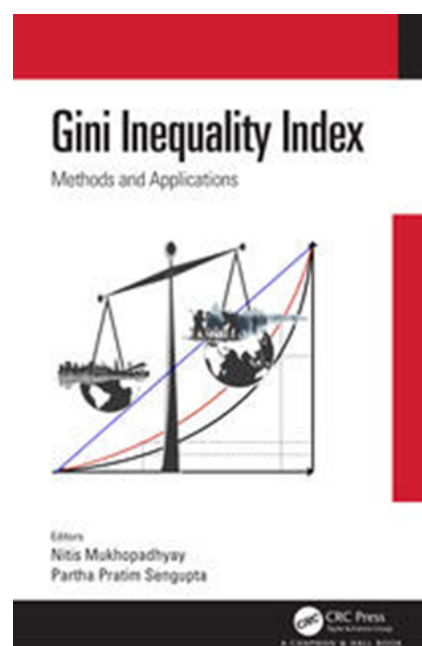
- A Vice President, Calcutta Statistical Association. Patron/Academic advisor to APAMURS (Asia Pacific Academy of Multidisciplinary Research and Study), NIT-Durgapur.
- International Program Committee member, IWAP (Budapest, Hungary).
- Was the Co-Chair and Co-Organizer for the IWSM (June 2019).
- Hosted the visits from Colleagues, Sarath Peireis (Colombo, Sri Lanka), Debanjan Bhattacharjee (Utah Valley University) and Ivair R. Silva (Brazil and Harvard), on separate occasions for collaborative research on capture-recapture sampling strategies and statistics education..
- Was filmed for a five-minute welcome-speech shown at the recent Pfizer Colloquium televised from Harvard.
- He gave an online presentation under the "Lecture Series for Propagation of Statistics Education and Research", organized by Calcutta Statistical Association as a part of its outreach program, through an online platform on September 24, 2021 at 7.00 PM (IST). The title of the lecture was "Pairwise Independence of Random Variables May Not Imply Their Mutual Independence: New Classes of Illustrations".
- He attended the New England Statistics Symposium held at the University of Rhode Island, Providence Campus in-person from September, 30 – October 2, 2021.

Selected Publications

- N. Mukhopadhyay. On rereading Stein's lemma: Its intrinsic connection with Cramér-Rao identity and some new identities. *Methodology and Computing in Applied Probability*, 23, 355–367. April 2021.
- A pedagogical note on asymptotic normality of a two-sample approximate pivot for comparing means, *Calcutta Statistical Association Bulletin*, 73, 45-72. May 2021.
- (S. K. Bishnoi, S. K. An unusual application of Cramér-Rao inequality to prove the attainable lower bound for a ratio of complicated gamma functions. *Methodology and Computing in Applied Probability* (October 2020). 15 pages, DOI doi.org/10.1007/s11009-020-09822-w.
- (Soumik Banerjee). A general theory of three-stage estimation strategy with second-order asymptotics and its applications, *Sankhya, Series A* (June 2021), 40 pages: DOI 10.1007/s13171-021-00253-4.

Published Books

- N. Mukhopadhyay (T. K. S. Solanky) *Multistage Selection and Ranking Procedures: Second-Order Asymptotics*. Marcel Dekker, Inc., New York, 1994.
- (M. Ghosh and P. K. Sen) *Sequential Estimation*. John Wiley & Sons, Inc., New York, 1997.
- *Probability and Statistical Inference*. Marcel Dekker, Inc., New York, 2000.
- (S. Datta and S. Chattopadhyay) *Applications of Sequential Methodologies*, edited volume. Marcel Dekker, Inc., New York, 2004.
- *Introductory Statistical Inference*. Chapman & Hall/CRC Press, 2006.
- (Basil M. de Silva) *Sequential Methods and Their Applications*. CRC Press/Chapman & Hall, 2009.
- (P. P. Sengupta) *Gini Inequality Index: Methods and Applications*, edited volume. Chapman & Hall/CRC Press, April 30, 2021 (ISBN 9780367688356: <https://www.routledge.com/Gini-Inequality-Index-Methods-and-Applications/Mukhopadhyay-Sengupta/p/book/9780367688356>).



VLADIMIR POZDNYAKOV

PROFESSOR

Editorial Boards

Associate Editor for Methodology and Computing in Applied Probability

Selected Publications

- C. Hu, M. Elbroch, T. Meyer, V. Pozdnyakov, and J. Yan, Moving-Resting Process with Measurement Error in Animal Movement Modeling, *Methods in Ecology and Evolution*, to appear.
- V. Pozdnyakov, M. Elbroch, C. Hu, T. Meyer, and J. Yan, On Estimation for Brownian Motion Governed by Telegraph Process with Multiple Off States, *Methodology and Computing in Applied Probability*, 22 (2020), 1275-1291.
- C. Hu, V. Pozdnyakov, and J. Yan, Density and Distribution Evaluation for Convolution of Independent Gamma Variables, *Computational Statistics*, 35 (2020), 327-342.
- V. Pozdnyakov, M. Elbroch, A. Labarga, T. Meyer, and J. Yan, Discretely Observed Brownian Motion Governed by Telegraph Process: Estimation, *Methodology and Computing in Applied Probability*, 21 (2019), 907-920.



Published Books

J. Glaz, V. Pozdnyakov, and S. Wallenstein, (Eds.) (2009). *Scan Statistics: Methods and Applications*. Birkhauser, Boston.



NALINI RAVISHANKER

PROFESSOR



Editorial Boards

Co-editor-in-chief of the International Statistical Review (2016-present)
Associate editor, Journal of Forecasting and Chilean Journal of Statistics

Invited Faculty Talks

- Feb. 2020. U. Buffalo. Modeling Intra-Day Financial Time Series.
- Oct. 2020. Data'20: 2020 International Conference on Data Analytics for Business and Industry: Way Towards a Sustainable Economy (ICDABI), Bahrain (virtual conference). Biclustering Approaches for High-Frequency Financial Time Series.
- Dec. 2020. ISBIS Regional Conference. CUSAT, India (virtual conference, keynote). Biclustering Approaches for High-Frequency Time Series.
- Apr. 2021. SUNY Binghamton; George Washington University. Biclustering Approaches for High-Frequency Financial Time Series.

Grants

- TIDC C19-2020: Damage Modeling, Monitoring, and Assessment of Bridge Scour and Water Borne Debris Effects for Enhanced Structural Life. Co-PI, October 2020-October 2022 (PI: Wei Zhang, Civil Engineering, UConn).
- Hartford Steam Boiler: UConn-HSB Collaboration: Statistical Computing Approaches for the Analysis of Multiple Time Course Data, PI, Aug 2019-Aug 2021.
- NCHRP 17-85: Development and Application of Crash Severity Models for the Highway Safety Manual (PI: John Ivan), 1/10/19-1/9/22.

Outreach

- Chair, Scientific Program Committee, ISI WSC 2021.
- VP for Education, NESS (2017-2020)
- Faculty Coordinator, Statistics for the UConn ECE Program.

Selected Publications

- Toman, P., Zhang, J., Ravishanker, N. and Konduri, K. (2020). Dynamic Predictive Models for Ridesourcing Services in New York City Using Daily Compositional Data. *Transportation Research Part C: Emerging Technologies*, 121, 102833.
- Thavaneswaran, A. and Ravishanker, N. (2021). Estimating Functions for Generalized Circular Time Series Models, *Sankhya A*, Jan. 2021, <https://doi.org/10.1007/s13171-020-00237-w>
- Ravishanker, N. and Chen, R. (2021). An Introduction to Persistent Homology for Time Series, *WIRES Computational Statistics*, February 2021, <https://doi.org/10.1002/wics.1548>
- Soliman, A., Toman, P., Ravishanker, N., Rajasekaran, S., Lally, N., D'Addeo, H. (2021). Custom Unsupervised Approach for Pipe-Freeze Online Anomaly Detection, 7th IEEE World Forum on the Internet of Things - WFIoT2021

Published Books

- Ravishanker, N. and Dey, D. K. (2001). *A First Course in Linear Model Theory*. Chapman & Hall/CRC: New York. ISBN 1-58488-247-6.
- Ravishanker, N., Chi, Z., and Dey, D. K. (2021). *A First Course in Linear Model Theory*. Chapman & Hall/CRC: New York, Second edition.
- Davis, R. A., Holan, S. H., Lund, R. and Ravishanker, N. (2016). *Handbook of Discrete-Valued Time Series*. Chapman & Hall/CRC: New York. ISBN 9781466577732 – CAT# K16804

ELIZABETH SCHIFANO

ASSOCIATE PROFESSOR AND UNDERGRADUATE PROGRAM
DIRECTOR

Editorial Boards

Associate Editor: Journal of Computational and Graphical Statistics

Associate Editor: New England Journal of Statistics in Data Science

Invited Faculty Talks

Elizabeth Schifano delivered an invited keynote presentation at the University of Toronto's Department of Statistical Science Research Day held at the Fields Institute, Toronto, ON, in April 2019. She also presented at the 2019 Joint Statistical Meetings in Denver, CO.



Grants

Elizabeth Schifano is a co-investigator on an Oncology Nursing Society Foundation grant with PI Wanli Xu, entitled "Microbiota Modulation of Chemotherapy-related Pain and Fatigue in Colorectal Cancer Patients" (2019-2021).

Outreach

Elizabeth Schifano is an elected member of the Applied Public Health Statistics Section Council of the American Public Health Association (APHA).

Selected Publications

- Schifano, E.D., Jeong, H., Deshpande, V., and Dey, D.K. (2021). Fully and empirical Bayes approaches to estimating copula-based models for bivariate mixed outcomes using Hamiltonian Monte Carlo. *TEST*, 30, 133–152.
- Lee, J., Wang, H., and Schifano, E.D. (2020) Online Updating Method to Correct for Measurement Error in Big Data Streams. *Computational Statistics & Data Analysis*, 149, Article 106976.
- Xue, Y., Schifano, E.D., and Hu, G. (2020). Geographically Weighted Cox Regression for Prostate Cancer Survival Data in Louisiana. *Geographical Analysis*, 52, 570–587.
- Xue, Y, Wang, H., Yan, J. and Schifano, E.D. (2020). An Online Updating Approach for Testing the Proportional Hazards Assumption with Streams of Survival Data. *Biometrics*, 76(1), 171-182.



HAIYING WANG

ASSOCIATE PROFESSOR



Editorial Boards

Managing Editor: The New England Journal of Statistics in Data Science

Invited Faculty Talks

- Nonuniform negative sampling and log odds correction with rare events data
Department of Mathematics and Statistics, The University of North Carolina at Charlotte, October 1, 2021.
- Unweighted estimation based on optimal sample under measurement constraints. Virtual 63rd World Statistics Congress 2021, Online, July 11-16, 2021.
- Sampling for Massive Data with Rare Events. Academy of Mathematics and Systems Science, June 20, 2021.
- Sampling for Massive Data with Rare Events. International Indian Statistical Association 2020 conference, May 20-22, 2021.
- Imbalanced Data, Negative Sampling, and Nonuniform Log Odds Correction. Joint UConn UMass Statistics Colloquium, March 17, 2021.
- Maximum sampled conditional likelihood estimation for informative subsample. Center of Applied Statistics of Renmin University of China, January 6, 2021.
- Maximum sampled likelihood estimation for informative subsample. Department of Mathematics, University of Arizona, November 2, 2020.
- Maximum sampled likelihood estimation for informative subsample. Department of Statistics, University of Missouri, October 19, 2020.

Grants

NSF CCF 2105571 (06/15/2021 - 05/31/2024), PI, \$399,502.

Outreach

- UConn Pre-College Summer: Data Science
- Co-organizer: 2021 Design and Analysis of Experiments Conference

Selected Publications

- Wang, H., Zhang, A., and Wang, C. (2021). Nonuniform negative sampling and log odds correction with rare events data. NeurIPS 2021,
- Wang, H., Zhang, D., Liang, H., and Ruppert, D. (2021). Iterative likelihood: A unified inference tool. Journal of Computational and Graphical Statistics 0, 10.1080/10618600.2021.1904961
- Wang, H. and Zou, J. (2021). A comparative study on sampling with replacement vs poisson sampling in optimal subsampling. The 24th International Conference on Artificial Intelligence and Statistics, vol. 130 of Proceedings of Machine Learning Research, 289–297.
- Bar, H. and Wang, H. (2021). Reproducible science with LaTeX. Journal of Data Science. 19, 1, 111–125

XIAOJING WANG

ASSOCIATE PROFESSOR

Editorial Boards

Associate Editor, *Sankhya A*, 01/2019-present.

Invited Faculty Talks

Dr. Wang gave the invited talks in the 2020 Women in Statistics and Data Science Conference, 2021 ISBA World Meeting and 34th New England Statistics Symposium.



Grants

Xiaojing Wang is the PI on NSF Faculty Early Career Development Program (CAREER) Award for “CAREER: Advancing Latent Variable Statistical Modeling for the Analysis of Big and Complex Longitudinal Data to Promote Personalized Learning” from 2019 to 2024. She is also the PI on UCONN REP Award for “The Promise of Bayesian Learning in Mobile Health” from 2021 to 2022 and the PI on UCONN SFF Award for Fall 2021.

Outreach

Dr. Wang is a Deputy Treasurer for New England Statistical Society from 2018 to present. In addition, she served as Award Committee Chairs for IBM Student Paper Award and Munich Re/HSB Student Poster Award for the 34th New England Statistics Symposium. Moreover, she has been in the advisory committee for the program on data science in the social and behavior sciences of SAMSI for Spring 2021. Also, she is the co-organizers for interdisciplinary Seminars on Statistical methodology for Social and Behavioral Research.

Selected Publications

- (with T. Ye, V. H. Lachos, D. K. Dey) (2021). “Comparisons of zero-inflated continuous regression models from a Bayesian perspective”, *Statistics in Medicine*, 40 (5): 1073-1100.
- (with Y. Liu) (2020). “Bayesian Nonparametric Monotone Regression of Dynamic Latent Traits in Item Response Theory Models”, *Journal of Educational and Behavioral Statistics*, 45 (3): 274-296.
- (with Y. Liu, L. Geng, D. Zhang and M.-H. Chen) (2020). “Subgroup Analysis from Bayesian Perspectives”, *Design and Analysis of Subgroups with Biopharmaceutical Applications*, Book Chapter, Page 331-345.
- (with A. Bishoyi and D. K. Dey) (2020). Learning Semiparametric Regression with Missing Covariates Using Gaussian Processes Models. *Bayesian Analysis*, 15 (1): 215-239.

JUN YAN

PROFESSOR

Editorial Boards

- Editor-in-Chief, Journal of Data Science
- Associate Editor, Brazilian Journal of Probability and Statistics

Outreach

Chair-elect/current/past, 2021--2023, ASA Section on Statistical Computing



Grants

NSF CC19325716, 08/01/2019 — 07/31/2021: CC* Compute: Shared Computing Infrastructure for Large-scale Science Problems. \$400,000. PI: Richard T. Jones, Co-PIs: Vernon Cormier, Kyungseon Joo, Cara D. Battersby, and Jun Yan

Selected Publications

- Hu, C., Elbroach, M., Meyer, T., Pozdnyakov, V., and Yan, J. (2021+): Moving-resting process with measurement error in animal movement modeling. *Methods in Ecology and Evolution*. Forthcoming.
- Jiao, J., Hu, G., and Yan, J. (2021): A Bayesian marked spatial point processes for basketball shot chart. *Journal of Quantitative Analysis in Sports*. 17(2): 77–90.
- Li, Y., Chen, K., Yan, J., and Zhang, X. (2021): Uncertainty in optimal fingerprinting is underestimated. *Environmental Research Letters*. 16(8): 084043.
- Wang, Z., Jiang, Y., Wan, H., Yan, J., and Zhang, X. (2021): Optimal fingerprinting in detection and attribution of changes in climate extremes with combined score equations. *Journal of the American Statistical Association*. 116(553): 1–13.

Published Books

- Hofert, M., Kojadinovic, I., Mächler, M., and Yan, J. (2018): *Elements of Copula Modeling with R*. Springer.
- Dey, D. K., and Yan, J. (eds.) (2015): *ExtremeValue Modeling and Risk Analysis: Methods and Applications*. Chapman & Hall/CRC.



YUPING ZHANG

ASSOCIATE PROFESSOR



Editorial Boards

Member of the Review Editorial Board, *Frontiers in Big Data* (section Medicine and Public Health)

Associate Editor for Computational Genomics (specialty section of *Frontiers in Genetics*, *Frontiers in Bioengineering and Biotechnology*, and *Frontiers in Plant Science*)

Invited Faculty Talks

- Integrative analysis of longitudinal high-dimensional data with time-lagged associations, 2021 Joint Statistical Meetings, Session: Highlights from STAT.
- Statistical learning and inference for biological networks, The Department of Statistics Colloquium, University of Connecticut.
- Joint statistical learning for high-dimensional heterogeneous networks, Department of Statistics Colloquium Series, University of Georgia.

Grants

- PI for “Correlated Graphical Models for High-Dimensional Heterogeneous Data: Theory, Optimization, and Applications”, National Science Foundation, DMS-2015481.
- PI for “A new graph-based clustering method with application to single-cell RNA-seq data from human pancreatic islets”, Scholarship Facilitation Fund Award, University of Connecticut.

Outreach

- Grant review panelist for National Institutes of Health, Panel: Biomedical Computing and Health Informatics
- Grant review panelist for National Science Foundation, Directorate for Mathematical and Physical Sciences
- Grant review panelist for National Science Foundation, Directorate for Biological Sciences
- Member of the local organizing committee for the Pfizer/ASA/UConn Distinguished Statistician Series, Storrs, CT

Selected Publications

- Zhang, Y., Mao, D. and Ouyang, Z. (2021+) Model-based distance embedding with applications to chromosomal conformation biology. Accepted at *The Annals of Applied Statistics*.
- Zhang, Y. (2020+) Principal wave analysis with applications to epigenomics and neuroimaging data. Accepted at *Statistics and Its Interface*.
- Liu, Q., Zhang, Y. and Ouyang, Z., (2021) Structural inference of time-varying mixed graphical models. *Stat.* e414. doi.org/10.1002/sta4.414.
- Liu, Q. and Zhang, Y. (2020) Fast variational inference for joint mixed sparse graphical models. *IEEE Journal on Selected Areas in Information Theory*. vol. 1, no. 3, pp. 908-913, doi: 10.1109/JSAIT.2020.3042124.

YAO ZHENG

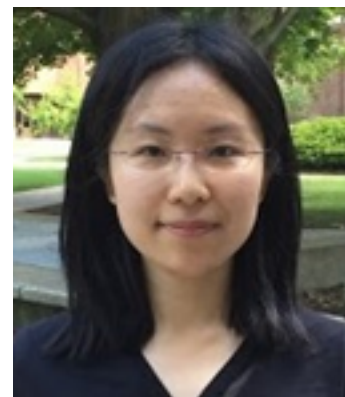
ASSISTANT PROFESSOR

Invited Faculty Talks

- “A novel computationally scalable high-dimensional vector autoregressive moving average model”, The 34th New England Statistics Symposium, University of Rhode Island, Oct 2021.
- “High-dimensional low-rank tensor autoregressive time series modeling”, International Virtual Conference on Advanced Statistical Techniques in Business and Industry, Dec 2020.

Grants

Novel statistical modeling techniques for high-dimensional time series data. UConn OVPR Research Excellence Program. Principal Investigator; 06/2021–12/2022.



Outreach

Organizer of invited paper sessions for the 2021 International Chinese Statistical Association (ICSA) Applied Statistics Symposium and the 63rd ISI World Statistics Congress (ISI WSC 2021). Member of organizing committee for the Pfizer/ASA/UConn Distinguished Statistician Series.

Selected Publications

- Wang, D., Zheng, Y., Lian, H. and Li, G. (2021). High-dimensional vector autoregressive time series modeling via tensor decomposition. *Journal of the American Statistical Association*, to appear. doi: 10.1080/01621459.2020.1855183.
- Zheng, Y. and Cheng, G. (2021) Finite time analysis of vector autoregressive models under linear restrictions. *Biometrika*, 108, 469–489.
- Zheng, Y., Zhu, Q., Li, G. and Xiao, Z. (2018). Hybrid quantile regression estimation for time series models with conditional heteroscedasticity. *Journal of the Royal Statistical Society: Series B*, 80, 975–993.
- Zheng, Y., Li, W.K. and Li, G. (2018). A robust goodness-of-fit test for generalized autoregressive conditional heteroscedastic models. *Biometrika*, 105, 73–89.



AWARDS AND ACHIEVEMENTS

Faculty Awards and Achievements

- PROF. ROBERT ASELTINE (UCHC), PROF. KUN CHEN (UCONN) AND FEI WANG (CORNELL) HAVE BEEN AWARDED AN NIH R01 GRANT. *September 21, 2020*
- ASSOC. PROF. YUPING ZHANG HAS BEEN AWARDED SCHOLARSHIP FACILITATION FUNDING (SFF). *January 14, 2021*
- PROF. OFER HAREL HAS BEEN APPOINTED BY UCONN CLAS AS ASSOCIATE DEAN FOR RESEARCH AND GRADUATE AFFAIRS. *February 25, 2021*
- PROF. DIPAK DEY IS A NEWLY ELECTED MEMBER OF THE CONNECTICUT ACADEMY OF SCIENCE AND ENGINEERING. *March 4, 2021*
- PROFESSOR AND DEPT. HEAD MING-HUI CHEN HAS BEEN SELECTED AS A BOARD OF TRUSTEES DISTINGUISHED PROFESSOR *April 29, 2021*
- ASSISTANT PROFESSOR HAIYING WANG HAS BEEN PROMOTED TO ASSOCIATE PROFESSOR *April 29, 2021*
- PROF. DIPAK DEY IS THE WINNER OF THE 2021 FACULTY MENTORING OF FACULTY AWARD. *May 10, 2021*
- ASSOC. PROF. HAIYING WANG HAS RECEIVED A THREE-YEAR NSF GRANT. *May 28, 2021*
- PROF. NALINI RAVISHANKER HAS BEEN PRESENTED A SERVICE AWARD BY THE INTERNATIONAL STATISTICAL INSTITUTE (ISI) *July 26, 2021*
- PROFS. CORNEJO, PRATES, DEY & RUE HAVE WON BEST PAPER BY INTERNATIONAL ASSOCIATION FOR STATISTICAL COMPUTING – LATIN AMERICAN REGIONAL SECTION (IASC-LARS) *July 26, 2021*
- PROF. KUN CHEN HAS BEEN ELECTED AS PROGRAM CHAIR-ELECT 2022 FOR THE ASA STATISTICAL COMPUTING SECTION *July 26, 2021*

Student Awards and Achievements

- *KATHERINE ZAVEZ HAS WON THE APHA'S APPLIED PUBLIC HEALTH STATISTICS SECTION 2020 STUDENT RESEARCH PAPER COMPETITION. October 28, 2020*
- *PHD STUDENTS KATHERINE ZAVEZ, PRINCE ALLOTEY, MATH-STAT STUDENT RUJUE DU AND YULIA SIDI, '20 PHD HAVE WON THE 2020 ASA LEADERSHIP CHALLENGE. November 2, 2020*
- *IRENE SOTERIOU, '23 (CLAS), A COGNITIVE SCIENCE AND STATISTICS DOUBLE MAJOR AT THE UNIVERSITY OF CONNECTICUT, HAS BEEN HONORED WITH THE NEWMAN CIVIC FELLOWS AWARD MARCH 12, 2021*
- *STAT UNDERGRADS CHRISTINE NGUYEN AND UYEN LE HAVE BEEN SELECTED TO BE UCONN MCNAIR FELLOWS FOR THE FALL 2021 SEMESTER! March 30, 2021*
- *RUJUE DU, AIDAN GARRITY, RYAN GROSSMAN, GEORGIA KASPEROWICZ, ANUSHA KUMAR, DAN MESKILL, NIGEL MILLS, ZIHENG WANG AND XINYI ZHANG FROM THE DEPARTMENT OF STATISTICS HAVE BEEN ACCEPTED INTO THE UNIVERSITY OF CONNECTICUT PHI BETA KAPPA CHAPTER. MAY 7, 2021*
- *PHD STUDENT ELIZABETH GIBBS HAS BEEN NAMED A JAMES A. HICKMAN SCHOLAR BY THE SOCIETY OF ACTUARIES FOR 2021-2022 ACADEMIC YEAR. May 26, 2021*
- *PHD STUDENT YUNQI WANG IS A RECIPIENT OF THE KENNETH AND PAULA MUNSON FAMILY FUND FOR STUDENT SUPPORT IN HEALTH SCIENCES FELLOWSHIP. June 15, 2021*
- *PHD STUDENT YIMING ZHANG RECEIVED 1ST PLACE AWARD (SPIEGELMAN AWARD) OF THE 2021 TSIG STUDENT PAPER COMPETITION. June 15, 2021*

ANNUAL STATISTICS DEPARTMENT AWARDS FOR STUDENT ACHIEVEMENT

- SURYA EADA RECEIVED THE FAIRFIELD & DOLORES SMITH AWARD
- GANCHAO WEI RECEIVED THE FAIRFIELD & DOLORES SMITH AWARD
- JUNG WUN LEE RECEIVED THE GOTTFRIED NOETHER AWARD
- MIN LIN RECEIVED THE GOTTFRIED NOETHER AWARD
- SRAWAN BISHNOI RECEIVED THE BEST PERFORMANCE IN PROBABILITY AWARD
- JIADONG FANG RECEIVED THE BEST PERFORMANCE IN PROBABILITY AWARD AND THE BEST PERFORMANCE IN INFERENCE AWARD
- DAEYOUNG LIM RECEIVED THE BEST PERFORMANCE IN INFERENCE AWARD
- SIMIAO GAO RECEIVED THE BEST PERFORMANCE IN BIostatISTICS AWARD
- KATHERINE ZAVEZ RECEIVED THE TEACHING AWARD
- JOOCHUL LEE RECEIVED THE SERVICE AWARD
- AUSTIN MENGER RECEIVED THE SERVICE AWARD
- WENLIN YUAN RECEIVED THE SERVICE AWARD
- YIMING ZHANG RECEIVED THE SERVICE AWARD

Alumni Awards and Achievements

- SUJIT SAHU (PH.D. 1994) HAS JUST PUBLISHED A BOOK ENTITLED, BAYESIAN MODELING OF SPATIO-TEMPORAL DATA WITH R. CHAPMAN AND HALL. AVAILABLE FROM <HTTPS://WWW.SUJITSAHU.COM/BMBOOK/BMSTDRBOOK.PDF>
- ANANDAMAYEE MAJUMDAR (PH.D. 2004) HAS JOINED INTER-AMERICAN TROPICAL TUNA COMMISSION(IATTC) AS A SENIOR STATISTICIAN, IN SAN DIEGO, CALIFORNIA. FOR MORE INFORMATION OF IATTC, SEE <HTTPS://WWW.IATTC.ORG/HOMEENG.HTM>
- KARTHIK BHARATH (PH.D.2012) HAS BEEN PROMOTED TO THE RANK OF FULL PROFESSOR IN THE SCHOOL OF MATHEMATICAL SCIENCES AT THE UNIVERSITY OF NOTTINGHAM, NOTTINGHAM, UK.
- GYUHYEONG GOH (PH.D. 2015) HAS BEEN PROMOTED TO THE RANK OF AN ASSOCIATE PROFESSOR WITH TENURE IN THE DEPARTMENT OF STATISTICS AT KANSAS STATE UNIVERSITY, MANHATTAN KS USA.
- ARITRA HALDER (PH.D. 2020) HAS ACCEPTED A POSITION AS A RESEARCH ASSISTANT PROFESSOR IN THE SOCIAL AND DECISION ANALYTICS DIVISION AT THE UNIVERSITY OF VIRGINIA'S BIOCOMPLEXITY INSTITUTE AND INITIATIVE.
- SHUANG YIN (PH.D. 2020) HAS ACCEPTED A DATA SCIENTIST POSITION AT TRANSAMERICA CORPORATION, CEDAR RAPIDS, IA.
- ZIQI YANG (PH.D. 2021) HAS ACCEPTED A POSITION AS FINANCIAL ANALYST AT ALIPAY IN ZHEJIANG, CHINA.
- JIYEON SONG (PH.D. 2021) HAS ACCEPTED A RESEARCH FELLOW POSITION IN THE DEPARTMENT OF BIostatISTICS, SCHOOL OF PUBLIC HEALTH. UNIVERSITY OF MICHIGAN, ANN ARBOR, MI.
- XIAOMENG LI (PH.D. 2021) HAS ACCEPTED A DATA SCIENTIST POSITION AT EY IN MANHATTAN, NEY YORK.
- MARCOS PRATES, '11 PHD WAS ELECTED PRESIDENT OF THE BRAZILIAN STATISTICS ASSOCIATION (ABE) FOR THE 2020-2022 TERM. *September 28, 2020*
- SUDIPTO BANERJEE, '00 PHD IS THE PRESIDENT-ELECT OF THE INTERNATIONAL SOCIETY FOR BAYESIAN ANALYSIS (ISBA) *November 23, 2020*
- SUDIPTO BANERJEE, '00 PHD HAS BEEN NAMED A FELLOW OF THE AAAS. *January 12, 2021*
- THE AUDIOBOOK WAS PUBLISHED BY DAVID SALSBURG, '66 PHD. *February 3, 2021*
- SHARIQ MOHAMMED '18 PHD HAS ACCEPTED AN ASSISTANT PROFESSOR POSITION IN THE DEPARTMENT OF BIostatISTICS AT BOSTON UNIVERSITY *March 24, 2021*
- SAMIRAN GHOSH '06 PHD HAS BEEN PROMOTED TO FULL PROFESSOR AT WAYNE STATE UNIVERSITY. *May 21,2021*

ALUMNI CORNER

Support the Department

The Statistics department would like to thank all donors for their generous donations to the department. Alumni support has been influential in helping the department achieve its goal of supporting students and faculty. This past year, donations were used to enhance graduate student experiences and fund awards for 14 deserving graduate students. In the past, donations have also been used to fund graduate fellowships, fund travel awards that allow faculty and students to present their research at conferences, and fund special events such as seminars and lectures.

We kindly ask for your continued support through alumni donations. With your generous donations, the department can continue to award deserving students and faculty for their hard work and achievements. If you have specific questions regarding how your donation is used, please do not hesitate to reach out to Courtney Trzasko at courtney.trzasko@uconn.edu.

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DEPARTMENT OF STATISTICS

Stay Connected

The Statistics Department would love to stay connected with all of our alumni. If you would like any of your professional or personal updates to be included in the next issue of the newsletter, please send them to Courtney Trzasko at courtney.trzasko@uconn.edu. Please be sure to include the year you graduated and the degree received in your email.



To stay connected with other University of Connecticut alumni or get involved in alumni events, please visit <https://www.foundation.uconn.edu/alumni-networks/> for more information.

A Special Celebration Honoring
Professor Nitis Mukhopadhyay's Seventieth Birthday
@

The 34th New England Statistics Symposium

*Department of Computer Science and Statistics, University of Rhode Island
September 30 – October 2, 2021*

This in-person celebration held on October 2, 2021 was organized and chaired by Yan Zhuang which was divided into two greatly put together invited paper sessions covering a wide range of topics, not exclusively devoted to sequential analysis. One will get a taste of this from the layout of the two sessions which are summarized below.

Saturday, October 2nd

IS-14: Sequential Methodologies in honor of Professor Mukhopadhyay

10:30 AM-12:10 PM

[Speakers](#)

- **Yan Zhuang** (Chair, Session Organizer, Speaker) Connecticut College, Assistant Professor: On Comparing Locations of Two-Parameter Exponential Distributions Using Sequential Sampling with Applications in Cancer Research
- **Jun Hu** (Speaker) Oakland University, Michigan, Assistant Professor: Three-Stage Minimum Risk Point Estimation with Termination Defined via Gini Mean Difference
- **Zhe Wang** (Speaker) Denison University, Ohio, Assistant Professor: Ramp Detection Methods for Renewable Energy Integration

Saturday, October 2nd

IS-15: Probability and Sequential Analysis: A Celebration Session Honoring Professor Nitis Mukhopadhyay

1:10 PM-2:50 PM

[Speakers](#)

- **Yan Zhuang** (Chair, Session Organizer) Connecticut College, Assistant Professor
- **Michael Baron** (Speaker) American University, Washington DC, Professor: Sequential Estimation of Under-Reported Epidemic Counts
- **Swarnali Banerjee** (Speaker) Loyola University, Chicago, Assistant Professor: Multistage Methods for Dimension Reduction
- **Tumulesh Solanky** (Speaker) University of New Orleans, Chair and Professor of Mathematics: Some Issues Related to Implementation of the Partition Problem Formulations for Normal Populations

The included presenters largely came from some of Mukhopadhyay's recent advisees: Swarnali Banerjee (PhD 2014), Yan Zhuang (PhD 2018), Jun Hu (PhD 2018) and Zhe Wang (2020). The program included a presentation from one of Mukhopadhyay's one of the earliest advisees (6th) from UConn: Tumulesh Solanky (PhD 1990). The sessions were greatly threaded together with a presentation from Michael Baron, a long-time colleague and collaborator of Mukhopadhyay on a very timely research topic: Under-Reporting in Epidemic Counts. This was based on some joint research of Michael with his son, Eric Baron, a PhD student in Statistics at UConn-Storrs.

In another invited paper session on Latest Advances in Sequential Analysis organized by Aleksey Polunchenko from Binghamton University, a number of Mukhopadhyay's more recent advisees presented their research as invited papers: Soumik Banerjee (PhD 2020: Binghamton University) plus two continuing PhD students, Srawan K. Bishnoi and Swathi Venkatesan. During such a long pandemic, Soumik, Srawan and Swathi had great opportunities to showcase their research in debut performances highlighting much promise, dedication and vigor. The details of that 3rd session follow.

Saturday, October 2nd

IS-07: Latest advances in sequential analysis

8:30 AM-10:10 AM

Speakers

- **Aleksey Polunchenko** (Chair, Session Organizer, Speaker) Binghamton University, Associate Professor: On the Performance of the Generalized Shiryaev-Roberts Control Chart in Continuous Time
- **Soumik Banerjee** (Speaker), Binghamton University, Visiting Assistant Professor: Minimum Risk Point Estimation for a Function of a Normal Mean Under Weighted Power Absolute Error Loss Plus Cost: First-Order and Second-Order Asymptotics
- **Srawan Kumar Bishnoi** (Speaker), University of Connecticut, PhD Student: An Unusual Application of Cramer-Rao Inequality to Prove the Attainable Lower Bound for a Ratio of Complicated Gamma Functions
- **Swathi Venkatesan** (Speaker), University of Connecticut, PhD Student: A Minimum Risk Fixed-Width Confidence Interval (MRFWCI) for the Mean of a Normal Distribution

A number of other former PhD advisees of Mukhopadhyay could not join these sessions in-person because of restrictions placed on their travel plans due to the ongoing pandemic. But, they did not want to miss out and hence they joined by live video-messaging. They were: Debanjan Bhattacharjee (PhD 2011 @ Utah Valley University), Bhargab Chattopadhyay (PhD 2012 @ Indian Institute of Management Visakhapatnam, India), and Sudeep R. Bapat (PhD 2017 @ Indian Institute of Management Indore, India).

From the five selected photos taken on October 2, one will see a number of our past and present statistics PhD students. All of them attended in-person including Dipak K. Dey, Chavvi Solanky (Tumulesh Solanky's wife), Mahua Mukhopadhyay, Jinjian Wu (Zhe Wang's husband) and others. Unfortunately everyone could not be captured on pictures. In any case, can you identify everyone in these photos? That will be a good teaser in itself!

A number of colleagues of Mukhopadhyay from UConn-Storrs joined remotely: Nalini Ravishanker had sent greetings in one of the sessions. Victor Hugo Lachos, Suman Majumdar and Vladimir Pozdnyakov joined via online videos to share interesting personal observations. This segment was very special.

Mukhopadhyay earnestly thanks Yan Zhuang for organizing this event seamlessly and he appreciates everyone's valuable time spent on this in-person or otherwise. He summarized his sentiments as follows: "I am blessed to take part with my students, collaborators, colleagues, families, and friends. This humbling experience made me think and reflect: No two flowers from one plant are exactly same, but each flower is enduringly special. Students are those hardy 'flowers'! I know that each will win over many fallacies and inequities of this world in one's own unique ways. They blossomed any way, in spite of me, I may add, and they look so ready to face big challenges. That is the only way, the very best way, for these crown-jewels to march on. I distinctly hear their footsteps."



