NESS NEWSLETTER

DECEMBER 2022

IN BRIEF

Announcements

Call for participation in the 36th New England Statistics Symposium

The Department of Biostatistics and Department of Mathematics and Statistics at the Boston University are proud to host the 36th New England Statistics Symposium on June 3–6, 2023. Please contact the Committee Chairs Dr. Shariq Mohammed (shariqm@bu.edu) and Dr. Daniel Lewis Sussman (sussman@bu.edu) for inquiries, or check the official website at https://symposium.nestat.org for more details about the event.

Call for nomination of the Chernoff Excellence in Statistics Award

At A Glance: NESS Activities in 2022

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A Message from the President Dr. Eric Kolaczyk

With the start of June, 2022, it was my honor to start as the new NESS president. I want to thank my predecessor, Joe Cappelleri, for all his work these past two years ensuring that, with the tremendous support of our members and friends, the New England Statistical Society (NESS) was so well-positioned to continue to make significant progress on various fronts in 2022. We are glad to report to you in this newsletter the major activities and updates of NESS in 2022, of which I'll highlight just a few here. A major milestone was the official launch of the NESS flagship journal, the New England Journal of Statistics in Data Science (NEJSDS)! My heartfelt thanks and congratulations to the many individuals on our publications committee and new journal editorial board for this achievement. In addition, there was the 35th holding of our flagship New England Statistics Symposium, which from its beginnings as a small, one-day gathering of local statisticians has grown to become a four-day, hybrid event for statisticians and data scientists around the country and beyond. At this year's event too we were proud to present the 3rd Chernoff Excellence in Statistics Award to Prof. Nitis Mukhopadhyay from the University of Connecticut. Also highly successful as an event was our NextGen Data Science Day, where the next generation of data scientists had a chance to learn about careers in the quickly evolving field of data science and network with area professionals. Lastly, we were particularly pleased to announce the launch of our NextGen Scholarships for Underrepresented Minorities as well as the first five winners of these awards! This scholarship program is the result of the joint efforts of the NESS Education and NextGen Committees, to whom I want to offer a special word of thanks and gratitude and similarly to our various sponsors helping fund this initiative. As you'll see within, 2022 was a great year for NESS. We look forward to working with you in the new year to do even more!

NESS Presidents at the banquet of the symposium

The 35th New England Statistics Symposium

The Department of Statistics at the University of Connecticut (UConn) proudly hosted the 35th New England Statistics Symposium on May 22 – 25, 2022. As a flagship annual event of the New England Statistical Society (https://nestat.org), the symposium has been bringing together statisticians from all over New England and beyond to share research, discuss emerging issues in the field, and network with colleagues, ever since it was first started at UConn in 1987.

The 35th Symposium was run in a hybrid mode, with in-person sessions held at Storrs (UConn campus) and all sessions broadcast live via Whova. Short courses were offered on May 22 and May 23, and the main conference program were on May 24 and May 25. Here are a few highlights.

✧ There were 7 short courses taught by an all-star lineup, that covered a spectrum of topics in statistics and data science including clinical trial designs with the use of RWD, statistical learning with neuroimaging data, programing with NIMBLE, applied event time data analysis, machine learning with large health data, and statistical topics on outcome research.

✧ There were three keynote sessions. Two keynote presentations were given by Dr. Jeff Leek from John Hopkins and Dr. Susan Murphy from Harvard. We also organized a Keynote Panel Session on Covid-19 vaccine development, with panelists that are statistical leaders from major vaccine producers, government agencies, and academic institutions, including Dr. Peter Gilbert from Fred Hutchinson, Dr. Danyu Lin from UNC Chapel Hill, Dr. Satrajit Roychoudhury from Pfizer, and Dr. Honghong Zhou from Moderna. In addition, a banquet talk was given by Dr. Xiao-Li Meng, Founding President of the NESS Society.

Prof. Mukhopadhyay receiving the Chernoff Award

✧ 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. We were very pleased to announce that the 2022 winner is Prof. Nitis Mukhopadhyay from UConn. The Chernoff Lecture was delivered by Prof. Mukhopadhyay on the last day of the conference.

✧ The program committee was joined by more than 40 members from various institutions and companies in the New England area and beyond, who worked together to create a high-quality scientific program with more than 50 invited sessions.

✧ Students were encouraged to participate in student research/poster competitions and a Statathon data challenge. For the first time, the symposium also offered job placement services to students and sponsors.

The symposium had a big turnout, and the number of total registrations even exceeded the pre-pandemic high set in 2019. There were 464 conference registrations and 134 short course registrations, and the banquet was well attended by more than 80 guests. The symposium received support and sponsorship from many companies and institutions, including Boehringer Ingelheim, Bristol Myers Squibb, HSB, Mass Mutual, Munich Re, Pfizer, Servier, The Lotus Group, Travelers, and ASA local chapters in Boston, Connecticut, and New York. We sincerely appreciate their support and contribution!

We received more than 100 high-quality student paper and poster submissions. Ten students received NESS Student Research Awards sponsored by MassMutual (https://nestat.org/researchawards/), and five students received NESS Student Poster Awards sponsored by Munich Re (https://nestat.org/posterawards/). Each winner was awarded $300 cash price and a plaque. In addition, three teams won the NESS Stat-a-thon Challenge sponsored by Travelers and HSB, and the first, second, and the third places were awarded $600, $400, and $300 cash prices, respectively. Dr. Yao Zheng led the student research award committee, Dr. Xiaojing Wang led the student poster award committee, and our graduate student Daeyoung Lim led the Stat-a-thon committee. We sincerely thank the committee chairs and all the committee members for their excellent work!

Stat-a-thon Chair Daeyoung Lim with a winning team

Lastly, we would like to mention that the organization of the symposium was supported by more than 20 student volunteers from the Department of Statistics at UConn. It is fair to say that the symposium was mainly run by the student volunteers and the symposium would not be successful without their dedication and contribution. On the other hand, the symposium provides an excellent opportunity for students to network, exchange ideas, and grow their professional skills. We hope more students are willing to participate and volunteering in the future. Thank you!

Next year, the symposium will be held at Boston University, jointly organized by its Department of Biostatistics and Department of Mathematics and Statistics. We are anticipating a hybrid conference, and the tentative dates are set as June 3, 2023 — June 6, 2023. Please stay tuned and check our website at https://symposium.nestat.org for further information. Inquiries can be sent to Dr. Shariq Mohammed at shariqm@bu.edu and Dr. Daniel Lewis Sussman at sussman@bu.edu. We look forward to your participation at the next symposium!

— Contributed by Kun Chen (Associate Professor of Statistics at UConn) and Ming-Hui Chen (Distinguished Professor and Department Head of Statistics at UConn). Edited by Yuwen Gu.

The Chernoff Excellence in Statistics Award

An Interview with Dr. Nitis Mukhopadhyay

Dr. Nitis Mukhopadhyay, Professor of Statistics at UConn, was the recipient of the 2022 Chernoff Award. He delivered the Chernoff Lecture, "*A Slow Dance from Andrey Markov's Inequality to Herman Chernoff's Inequality and Bound: My Memories in a Rear-View Mirror*," at the 35th New England Statistics Symposium. Congratulations to Prof. Mukhopadhyay!

The following is an excerpt of the interview questions from NESS Past President Dr. Joseph Cappelleri and the responses from Prof. Mukhopadhyay.

Prof. Mukhopadhyay

Joe: How has the research of Herman Chernoff influenced your own research?

Nitis: Let me take you back 50 years. I learned cursory material on large sample theory and Hoeffding's (1948) U-statistics in some courses I took as an MStat student (1970-1972) at the *Indian Statistical Institute* (ISI), Calcutta. In 1972 fall, I became a PhD student at ISI under the guidance of Malay Ghosh (1969 PhD from UNC-Chapel Hill under P. K. Sen). From UNC-Chapel Hill, Hoeffding (1948, 1961) developed the first CLT and SLLN in the non-IID case and immediately nonparametrics jumped to its youth from infancy. Hoeffding's direct influence on both Sen, Ghosh were very clear. They all hailed from Chapel Hill.

Sen visited ISI frequently from 1970-1975 and I attended a number of his seminars. When he visited ISI, a couple of times Jana Jurečková also visited. Given the CLT of Hoeffding (1948), an original and fundamental breakthrough came from Chernoff and Savage (1958) on CLT for two-sample rank order statistics. Hájek (1961) opened new horizons and Jurečková was a Hájek-protégé from Prague, Czechoslovakia (now Czech Republic). I could smell high-powered large sample theory constantly brewing when I walked in hallways at ISI. Those days, practically in all seminars, the speakers were referring to Chernoff (1958) and Chernoff, Gastwirth, and Johns (1967).

I realized early (1970-1972) that I must master the two Chernoff-papers (1958, 1967). I spent one whole summer on them, but it will be a lie if I said I mastered them. When I go back to those papers, they give me a thrilling chill, and I discover hidden gems.

In 1972, I began working in sequential analysis which required large sample theory under optional stopping. Both direct and indirect influence of the Chernoff-papers was huge. However, Chernoff's lasting influence on me came from his 1972 breakthrough SIAM monograph "*Sequential Analysis and Optimal Design*", that is, all 119-pages of it. For decades, that was the hallmark of clinical trial designs which were put to practice. This monograph led me to one-armed or two-armed bandit problems. I published a number of papers on them.

Chernoff's writing style influenced me a whole lot. His papers that I read, and still reread, have taught me ways to express ideas tightly, accurately, and economically. His papers are clear and difficult at the same time. So, in order to appreciate that Chernoff-magic, I have reread his work many times over. Every time I do that, I see something new.

Joe: How would you describe your relationship with your three colleagues who nominated you for the Chernoff Award?

Nitis: Joe, you mentioned at the award ceremony that Michael Baron, Tumulesh Solanky, and Shelemyahu Zacks nominated me for the Chernoff Award. I will briefly describe my connections with them.

MICHAEL BARON: I knew Andrew Rukhin when he was at Purdue, but then he moved to UMass-Amherst perhaps 1 or 2 years before I moved to UConn-Storrs (1985) from Stillwater, Oklahoma. The 1st NESSymp originated at UConn-Storrs in 1987 when I was the Department Head. Andrew organized the 2nd NESSymp at UMass-Amherst. Subsequently, Andrew moved to University of Maryland Baltimore County (UMBC) and **Michael** did his PhD from UMBC under Andrew Rukhin. During one JSM some years ago, Michael came up to me, introduced himself, and we have been great friends since. He has profound knowledge in multitude of areas in statistics, probability, and mathematics including sequential analysis, change detection, Bayesian inference and broad ranging applications. He has been serving as an Associate Editor of the premier journal, *Sequential Analysis*, which I have been associated with as its Editor-in-Chief for 20+ years now. His openness and versatility in all areas of sequential analysis make Michael one of the most valuable AEs advising me. Michael received the *Abraham Wald Prize in Sequential Analysis* (2007) for a joint paper coauthored with Alex Tartakovsky. Michael and I have visited each other in a number of places, both nationally and internationally, including Dallas, Washington DC, Paris, Jerusalem.

TUMULESH K. S. SOLANKY: **Tumulesh** did his PhD (1990) with me at UConn-Storrs. He could work in any area of statistics and he decided to work on some parametric and nonparametric accelerated sequential procedures for selecting the best treatment. He and I developed a series of papers in multivariate analysis, design of experiments, multiple comparisons and more. Tumulesh knew everything then and knows everything now.

Right after he graduated, he moved to the Department of Mathematics at the University of New Orleans (UNO), and moved up the ladder to become a full professor and the Department Head. He has been the Department Head for 20+ years or so. Recently, Tumulesh has been named the University of Louisiana System Foundation and Michael and Judith Russell Professor in Data/Computational Sciences & Seraphia D. Leyda University Teaching Fellow. He continues to serve as an AE of the *Sequential Analysis* journal.

In the summer weeks 1990, he was moving to UNO, and he dropped by to see me to say goodbye. We discussed many things. In particular, I mentioned to him that all the large sample second-order results in multiple comparisons and selection/ranking at the time were essentially done by the two of us. I asked him: Why should we not write a book together at that time, just the right time? He and I eventually came up with the book, "*Multistage Selection and Ranking Procedures*: *Second-Order Asymptotics*" in 1994. That was a moment of pride for me. Tumulesh was thrilled.

A trip to Uppsala, Sweden was the first international trip when Tumulesh came along as a student, and that was a blast. The families on either side sweetly get jealous when Tumulesh and I meet and talk about many funny episodes from that Uppsala trip.

At the end of the day, Tumulesh, his wife Chhavi, and their two children have always stood by me and Mahua as family members do. Both families have cherished such a close bond over decades. We have visited each other numerous times. Mahua and I both enjoy live jazz music. Whenever we visit New Orleans, we visit the Solanky family and the Preservation Hall.

SHELEMYAHU ZACKS: In theory, I seem to believe that I have "known" **Shelley Zacks** since 1971 when I was a second-year student in the MStat degree program at ISI, Calcutta. C. R. Rao was revising his "Linear Statistical Inference" book. Its 2nd edition came out in 1973. In my coursework, we referred to Rao's first book plenty, but we were all eagerly waiting for its 2nd edition. Shelley's (1971) big book "*The Theory of Statistical Inference*" was already available then in the ISI library. I religiously studied from both books and learned many topics on sequential estimation largely from Shelley's book and some from Rao's book.

Indeed I knew Shelley's name early on through D. Basu (Basu's Theorem) and Sen connections. They were exchanging core ideas in foundations of survey sampling, clinical trials, optimal design theory, and inference (frequentist, Bayesian, fiducial). After his PhD from Columbia, Shelley joined Stanford and then his connection with Chernoff became rock solid. The Chernoff and Zacks (1964) paper on a change-point problem appeared within months, but independently, of Shiryaev's (1963) landmark paper. I continue to think that the breakthroughs in change detection came from the trio: Shiryaev-Chernoff-Zacks. I learned quickly that different schools often tend to highlight different researcher's work, sometimes knowingly, but other times perhaps not knowingly. Subjectivity still remains rampant.

Probably, in the early 1980's, I came under Shelley's watch. The *Sequential Analysis* journal began its journey in 1981 and I began publishing my major papers in that journal. I can only guess that both Shelley and Sen (and Woodroofe) had handled a number of my papers. Shelley has continued to serve as an AE of the *Sequential Analysis* journal since its inception. One day, Shelley called me to talk about a paper that he was preparing on sequential estimation on exponential problems. He was

interested in exact calculations and already he had a large body of his paper done, whereas I was nearly a large sample inference person then. We exchanged many notes and eventually Shelley and I finished that first joint paper. I filled in asymptotics. That was the beginning of a long and satisfying collaboration. Shelley and I wrote a series of papers together including one celebrating S. N. Roy Centennial. A joint paper of ours received the *Abraham Wald Prize in Sequential Analysis* (2008) which gave us immense satisfaction. I have been a beneficiary of Shelley's infinite wisdom. Some of our ideas were later developed more by his students at Binghamton and my students at UConn-Storrs.

We became very close and that strong bond continues. We talk every couple of months. He is just outstanding. At the age of 90+, he continues publishing papers and writing books in numerous areas. Shelley, his wife Hanna, and Mahua and I have attended many international and domestic conferences together over the years. Mahua and I look up to Shelley and Hanna as our best friends and mentors in statistics and life.

Joe: How would you highlight your three top achievements?

Nitis: Here are three top achievements.

1. My immediate family; **2.** My students; **3.** Books I have written.

However, I cannot claim that these are exactly my exclusive achievements in any reasonable sense. I am just one lucky individual and I feel satisfied to be drawn in the middle of all the actions.

Joe: What makes you such a wonderful teacher?

Nitis: I get paid for teaching, but I have never treated teaching as my job. I have always wanted to be a good teacher. I still do, but some days may not fan out as planned, and then I look forward to another day to bring the "magic" back. Again, sometimes I can do so very easily or so it may appear, and other times my lecture goes flat. I enjoy teaching to its core. I teach for fun.

Everyday, I go to a class smilingly to share my magic with students. A classroom changes me. I do not carry notes. I do not have notes. I do not post notes on the web (pandemic was an exception). I speak (with an accent!) loudly, forcefully because I want to spread my own pure enthusiasm among my students. I address my students by looking at their eyes and I answer all questions from students at the level that a course demands.

I follow textbooks religiously, but I explain stuffs in totally my way and do surprising problems on the whiteboard everyday, regardless of a course or its level. I do not prove something that is already proven in a textbook unless I can give a completely different proof with great new insight. As a teacher, I can demand that students should follow a textbook very closely. If students and/or the teacher do not or cannot follow a textbook closely, then the textbook ought to be changed. I know that this is possible to do.

I have never borrowed anyone else's lecture notes. I prefer to freelance. I like to surprise my audience. I live for that opportunity. I will die for that. Teaching requires serious "thinking" as I teach on the go, sometimes more so than traditional research does, and I teach students to seriously "think" through. When a student learns the rope, and knows that the teacher is serious, it is a win-win situation. Then, marvelous things happen. Normally, a small number of students may not apply themselves and fall behind. I reinforce ideas for them and try to pick them up to the required level, but they cannot bring the level of a course down.

I constantly think about that. I still struggle to become a good teacher for all students. Someday, I may become a wonderful teacher. I wait impatiently for that day. My earnest hope is: That day will be tomorrow.

Call for Nominations

The Society has created the Chernoff Excellence in Statistics Award to honor Herman Chernoff's outstanding, long-term contributions to the field of statistics. These contributions include work on 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 NESS, given to an individual who, in the tradition of Herman Chernoff's work, has made exceptional contributions to the theory, methodology, and/or novel applications of statistics and data science.

The award will be given to one recipient every year at the New England Statistics Symposium, with travel expenses covered plus a minimum of $500 honorarium. The award recipient will be asked to deliver the Chernoff Lecture at the symposium.

Nominees who previously did not win will be carried forward for future consideration and, if they like, are allowed to update their submission.

NESS is committed to a community of excellence, equity, and diversity and welcomes nominations of women, underrepresented minorities, persons with disabilities, sexual minority groups, and other candidates who have contributed to the diversification and enrichment of ideas and perspectives.

Nominations for the award are to be submitted by January 15, 2023. The procedure for nominating an individual for the Chernoff Excellence in Statistics Award is as follows:

✧ Download the one-page nomination form and complete it.

- ✧ Supply the candidate's CV.
- ✧ Email these documents to nestat.hcaward@gmail.com.

For more details on this award and for making nominations and donations, please visit https://nestat.org/hcaward/.

The 2022 NextGen Data Science Day

On Saturday, November 12, the 2022 NextGen Data Science Day (DSD) was held virtually through the event platform Whova (https://nestat.org/nextgen/dsd2022/). The NextGen Committee, led by Dr. Wei Zhong, aims to support the next generation of data scientists and statisticians. Towards this goal, the DSD conference brought together a group of eminent data science practitioners, influencers, and leaders to interact with students and early career professionals. Topics of discussions included the current state and future directions of data science across broad and diverse markets.

This virtual event had over 100 registrations with student registrants from over 20 different schools. The conference sponsors included Pfizer, the Hartford Steam Boiler, Munich Re, the American Statistical Association (ASA) Connecticut Chapter, ASA Statistical Computing & Graphics Sections, Boehringer Ingelheim, and the Lotus Group. Four virtual sponsor booths were set up in Whova during the event where attendees could learn about those organizations, watch sponsor videos, and meet with the representatives.

Our conference featured two distinguished keynote speakers, Dr. Nicholas Horton and Dr. Catherine Williams. Dr. Horton is Beitzel Professor of Technology and Society (Statistics and Data Science) at Amherst College and the current vice president of the American Statistical Association. Dr. Williams is the VP of Data and Research at Qualtrics to lead the data intelligence center of excellence. In the morning session, Dr. Horton introduced his exploration on the landscape of data science tools and presented how they can help develop the capacity for students to "think with data", and how they need to be improved. In the afternoon session, Dr. Williams discussed "human data" in the business model and then presented a few key applications of artificial intelligence that use that data and survey some of the machine learning and other data techniques.

In addition to keynote presentations, Dr. Eric Kolaczyk, a professor from McGill University and the current NESS president, provided a briefly overview of NESS and NextGen DSD in the opening remarks, followed by a one-hour student poster competition. Twelve posters were on display, and were graded by 11 judges, who, hailing from both academia and industry, generously contributed their time and crucial feedback to the participants. Special thanks to our poster subcommittee members Gaurav Sharma, Moinak Bhaduri and Iris Yan for their great efforts on the poster session planning. Awards in "high school" and "general" categories were announced at the end of the day, with certificates distributed the following day, along with formal mentions at https://nestat.org/nextgen/dsd2022/poster_winners2022/.

A total of 16 speakers participated in our four panel sessions throughout the day. In the morning, attendees could attend "Careers in Data Science", in which data scientists from various fields shared their perspectives on career development, or "Data Science and Environmental Science", where panelists introduced the application of different data science tools in environmental science. In the afternoon, speakers in "What Do Data Scientists Do?" shared their day-to-day experiences and their views of challenges as data scientists. In "NextGen Roundtable (Ask Me Anything)", five NextGen committee members from both academia and industry shared their own stories and addressed different questions on how to learn data science and improve the related skills. Additionally, a networking session presented opportunities for students and data science professionals to meet and interact. Finally, our conference was closed by the announcement of poster competition winners and the kick-off of the 2nd year NextGen Scholarship application.

In the conference, speakers and attendees were engaged and many interactions were observed. We intend to retain and further that vision, moving forward, as the session prospers. The conference was organized by the NextGen Committee, along with support from many volunteers and sponsors. The list of current committee members can be found at https://nestat.org/nextgen/about/.

— Contributed by Wei Zhong (Director of Oncology Biostatistics at Pfizer); Edited by Yuwen Gu.

Updates from the Committee on Journal and Publication

The Journal and Publication Committee, chaired by Dr. Colin Wu, is happy to report that the NESS flagship journal, the New England Journal of Statistics in Data Science (NEJSDS), has been officially launched. The NEJSDS editorial board is led by the Editor-in-Chiefs, Dr. Ming-Hui Chen and Dr. Min-ge Xie, and includes Drs. HaiYing Wang (Managing Editor), Jing Wu (Production Editor), Daeyoung Lim (Webmaster), Liang Shi (Webmaster), and editors and co-editors of eight subject-specific sections. The sections are: "Biomedical Research" co-edited by Drs. Paul S. Albert and Colin O. Wu, "Cancer Research" co-edited by Drs.Yuan

Ji and Ying Lu, "Engineering Science" edited by Dr. Feng Guo, "Machine Learning and Data Mining" edited by Dr. Ali Shojaie, "NextGen" edited by Dr. Moinak Bhaduri, "Software" edited by Dr. Haim Bar, "Spatial and Environmental Statistics" edited by Dr. Gavino Puggioni, and "Statistical Methodology" edited by Dr. Grace Yi.

The editorial board had issued four Special Issue calls throughout 2022. Topics of the special issues include "Modern Bayesian Methods with Applications in Data Science" (deadline July 15, 2022), "Design and Analysis of Experiments for Data Science" (deadline October 1, 2022), "Novel Statistical Methods and Designs for Clinical Trials" (deadline December, 31, 2022) and "Game-theoretic Statistics and Safe Anytime-Valid Inference" (deadline March 1, 2023). There are fourteen articles that have been accepted and published online at the journal website https://nejsds.nestat.org/journal/NEJSDS/to-appear. These include special issue papers as well as regularly submitted papers. Topics of these accepted articles range from "dynamic modeling," e.g. "Dynamic Continuous Flows on Networks" by Justina Zou, Yi Guo and David Banks, to "machine learning," e.g. "Effects of Stopping Criterion on the Growth of Trees in Regression Random Forests" by Aryana Arsham, Philip Rosenberg and Mark Little, to "innovative clinical trial designs," e.g. "An Optimal Two-Period Multiarm Platform Design with New Experimental Arms Added During the Trial" by Haitao Pan, Xiaomeng Yuan and Jingjing Ye.

To increase the awareness of NEJSDS, the editorial board also organized two invited sessions at 2022 statistical conferences, one at JSM and the other one at WNAR. These sessions featured many great presentations and insightful discussions. We also submitted session proposals to three 2023 conferences which include the 64th ISI World Statistics Congress (WSC) to be held in Ottawa, Canada, JSM to be held in Toronto, Canada, and WNAR to be held in Anchorage, Alaska. We hope these sessions can be approved so that our journal can reach a wider spectrum of the statistics and data science community. We encourage all NESS members and friends to consider submitting your innovative research to NEJSDS for publication. Details of the submission process can be found at the journal website https://journal.nestat.org/submission. Other details about the journal, such as the mission statement, subject areas of the sections and names of the associate editors, can be found at the website https://journal.nestat.org. You may also contact the Editor-in-Chiefs, Dr. Ming-Hui Chen and Dr. Min-ge Xie, or any of the section editors if you would like to submit a manuscript. We would be happy to answer your questions, and we would be delighted to see your cutting edge research published in NEJSDS. The NEJSDS is your journal! It is there to serve you, and it needs your help and participation!

— Contributed by Colin Wu (Mathematical Statistician at the National Institutes of Health and Adjunct Professor at Georgetown University); Edited by Yuwen Gu.

Updates from the Committee on Education

In 2022, the Education Committee volunteers focused their efforts on partnering with the NextGen Committee to deliver and maintain the society's Scholarship for Underrepresented Minorities. Recently, the volunteers have completed a refresh of the scholarship's web infrastructure and code to help ensure performance, stability and affordability in the years that come.

— Contributed by Nathan Lally (Assistant Vice President of Hartford Steam Boiler); Edited by Yuwen Gu.

Diversity, Inclusion, & Outreach (DIO)

The NextGen Diversity, Inclusion, & Outreach (DIO) subcommittee in conjunction with the Education Committee has successfully wrapped up the inaugural round of NextGen Scholarships for Underrepresented Minorities. These scholarships will support efforts of NESS to improve the diversity and inclusivity of its community, as well as in the fields of statistics and data science. We raised a little over $11,000 from our sponsors (Columbia Statistics Department, Menger Analytics, Sage Therapeutics, Pfizer, NESS, & personal donations) and successfully built a secure submission page and evaluation portal in AWS. By reaching out to over 100 HBCU's and posting our application page on various scholarship web boards, we received 59 applicants of which we awarded 5 students each $1,200. Congratulations to Naomi Nwokoma, Quinn Clark, Ashley Dawn, Arleen Alcaraz-Cano, & Cameron Sandoval!

Our team has worked to make our eligibility criteria and evaluation process more inclusive with the help of a new member Ashley Ruegg, who is a high school mathematics educator. We would also like to thank all our other scholarship volunteers, Tanesia Beverly, Christine Dunbar, Nathan Lally, Thomas Lee, Jun Li, Austin Menger, Yulia Sidi, Catherina Villafuerte, & Katherine Zavez for their hard work on the past scholarship assessment. We look forward to reviewing our next batch of applications!

— Contributed by Wei Zhong (Director of Oncology Biostatistics at Pfizer); Edited by Yuwen Gu.

The 5th New England Rare Disease Statistics (NERDS) Workshop

On Friday, December 16, 2022, the Department of Statistics at the University of Connecticut (UConn) graciously hosted the 5th annual New England Rare Disease Statistics (NERDS) workshop at the Storrs campus. The workshop provided an opportunity for

several invited speakers to share innovative clinical development applications across multiple facets of rare disease research: Na Hu (Boehringer-Ingelheim), Yuqian Shen (Sanofi), Glen Laird and Yaohua Zhang (Vertex), Yuvika Paliwal (Pfizer), Mercedeh Ghadessi (Bayer) and James Signorovitch (Analysis Group). The discussions throughout the day were highly engaging from both in-person and virtual participants. Keep on the lookout for future NERDS events, as the organizing committee looks to continuing and enhancing the NERDS workshop as a platform to drive innovation in rare disease drug development.

— Contributed by Jeff Palmer (Statistics Group Head at Pfizer).

Other Sponsored Events

DataFest 2022

DataFest is a data analysis competition held at Wesleyan University where students are presented with a large, complex, surprise data set and work over the weekend to explore, analyze, and present their findings. Teams of 3-5 students work together and compete against other teams. This year, teams from Wesleyan University, Yale University, Connecticut College, Trinity College, UConn, and Bentley University were invited. The event is part of a set of initiatives to strengthen quantitative reasoning and facilitate computational and data analysis work across the curriculum. It is designed to bring together current students, alumni and data analysis professionals as they work together in addressing real world problems that involve computational data work. The event also provides an opportunity for recruiters to connect with students interested and skilled in data analysis that may be candidates for internships and job openings. NESS is a proud sponsor of this year's DataFest event.

2022 International Symposium on Modern Data Science Application, Practice, and Theory

The 2022 International Symposium on Modern Data Science Applications, Practice, and Theory was held at Yale School of Public Health in New Haven, Connecticut, USA on November 19-20, 2022. The conference brought together the world's top experts and scholars to conduct open discussions and exchanges on international hot issues and core technologies in the field of data science. The aim of the conference was to promote the vigorous development of the application, practice, and theory of modern data science, to facilitate communication and cooperation among statisticians around the world, and to build a global academic exchange platform in the frontier field of data science.

ASA-BI-NESS Webinar Series

NESS continuous to sponsor the ASA-BI-NESS Webinear series in 2022. This webinar series focuses on innovative statistical methodologies and other related topics. The webinar series is open to the broad statistics community and general external audiences.

- ⬦ Webinar #30 (August 18): "*Improving the Performance of Bayesian Logistic Regression Model with Overdose Control in Oncology Dose-Finding Studies*", Dr. Hongtao Zhang, Principal Scientist, Merck & Co., Inc.
- ⬦ Webinar #31 (November 10): "*A 2-in-1 Adaptive Design to Seamlessly Expand a Selected Dose from a Phase 2 Trial to a Phase 3 Trial for Oncology Drug Development*", Dr. Eric Zhang, Associated Director, Biostatistics, BeiGene USA, Inc.
- ⬦ Webinar #32 (December 7): "*Recent Development in Statistical Methods for Causal Structural Learning*", Dr. Jiarui Lu, Principal Statistical Consultant, Novartis Pharmaceuticals Corporation

   If you would like to attend the webinar, please send an email to MEDecc.US@boehringer-ingelheim.com.

Interdisciplinary Seminars on Statistical Methodology for Social and Behavioral Research

The Interdisciplinary Seminars on Statistical Methodology for Social and Behavioral Research continued to be supported by the Department of Statistics and the Department of Education Psychology at University of Connecticut (UConn), the Statistical and Applied Mathematical Sciences Institute (SAMSI) and the New England Statistical Society (NESS). In 2022, the seminar is held in hybrid mode with people joining both in person and online from around the world and is scheduled monthly on a Friday. The aims of the seminar are to promote the connection between the statistical, social and behavioral science communities and to encourage more graduate students to participate in interdisciplinary research.

   The seminars in 2022 are listed below:

Date	Speaker	Affiliation	Title
01/28/2022	Andrew Ho	Harvard University	Test Validation for a Crisis: Five Practical Heuristics for the Best and Worst of Times
03/04/2022	Donald Hedeker	University of Chicago	Shared Parameter Mixed-Effects Location Scale Models for Intensive Longitudinal Data
03/25/2022	Elizabeth Stuart	Johns Hopkins University	Combining Experimental and Population Data to Estimate Population Treatment Effects
04/29/2022	Luke Keele	University of Pennsylvania	Approximate Balancing Weights for Clustered Observational Study Designs
09/09/2022	Kosuke Imai	Harvard University	Experimental Evaluation of Algorithm-Assisted Human Decision-Making: Application to Pretrial Public Safety Assessment
10/07/2022	Edsel A Pena	National Science Foundation	Searching for Truth through Data
11/11/2022	Dylan S. Small	University of Pennsylvania	Testing an Elaborate Theory of a Causal Hypothesis

For announcements and WebEx live streaming links, please contact Tracy Burke (tracy.burke@uconn.edu).

— Contributed by Xiaojing Wang (Associate Professor of Statistics at UConn); Edited by Yuwen Gu.

Founding President Dr. Xiao-Li Meng Featured in Journeys of Scholars

The founding President of NESS, Prof. Xiao-Li Meng of Harvard University, was featured in the Youtube Channel "Journeys of Scholars" (https://youtu.be/qlfMbh1Arwo). The Journeys of Scholars is a podcast by Dr. Adel Daoud with conversation about the trajectories, macro-micro strategies, habits, and advice of top-class academic performers. The conversation is on topics that are usually not discussed as systematically in public academic settings, which provide advice and guidance for scholars striving toward excellence by observing how different top performers achieved their goals. The aim of the podcast is to supply these pieces of advice, assistance, and inspiration, particularly to students and young researchers. Feel free to subscribe the channel at https://www.youtube.com/@thejourneysofscholars8820.

Leadership & The 2022 Election

The 2022 NESS Election took place in April. Shuangge Ma from Yale University, Jeff Palmer from Pfizer, Lei Wang from The Lotus Group, Laura F. White from Boston University, and Jun Yan from UConn have been elected as members of the Society Council. Yuchen Fama from Clarifai and Daniel Meyer from Pfizer have been elected to continue as members of the Society Council.

As of June 1, 2022, Dr. Joseph C. Cappelleri has become the Past President, Dr. Eric D. Kolaczyk has become the President, and Dr. Rebecca A. Betensky has become the President Elect.

Executive appointments are listed as follows.

✧ Jianan Hui from Servier will continue serving as Secretary.

✧ Yuwen Gu from UConn will continue serving as Deputy Secretary.

✧ Xiaojing Wang from UConn has been appointed as Treasurer.

✧ Yuanye (Vickie) Zhang from Servier has been appointed as Deputy Treasurer.

✧ Nathan Lally from Hartford Steam Boiler will continue serving as VP for Education.

✧ Naitee Ting from Boehringer Ingelheim has been appointed as the Vice President (VP) for Strategies & Development.

✧ Shariq Mohammed and Daniel L. Sussman from Boston University have been appointed as the co-VPs for Scientific Program.

✧ Colin Wu from National Heart, Lung, and Blood Institute will continue serving as VP for Journal and Publication.

✧ Wei Zhong from Pfizer has been appointed as VP for NextGen Group.

We would also like to take this opportunity to thank executives and council members who have concluded their terms for their great service to NESS and to the statistical and scientific communities:

✧ Abidemi K. Adeniji from M-Estimator LLC

✧ Ming-Hui Chen from UConn

✧ Roee Gutman from Brown University

✧ Priya Kohli from Connecticut College

✧ Lynn Kuo from UConn

✧ James MacDougall from Statistical Consultant

✧ Natesh Pillai from Harvard University

✧ Gavino Puggioni from the University of Rhode Island

✧ Ambar Sengupta from UConn

✧ John Zhang from REGENXBIO

The profiles of NESS Council members can be found at https://nestat.org/about/council/.

NESS Membership

NESS is offering 50% discount to K-12 educators. The current membership fee structure is as follows:

- ✧ Student membership: free
- ✧ Regular membership: $30 per year
- ✧ Life membership: $600
- ✧ K-12 educator: 50% discount on regular membership ($15 per year) and life membership ($300)
- ✧ Joint membership with the Institute of Mathematical Statistics (IMS): $109 per year

To become a NESS member, please register through our website at https://nestat.org/php/member/#signup or mail in the attached registration form.

To make a donation, please visit https://nestat.org/donation/. Your donation will help to promote the growth and expansion of statistical science in the New England area and beyond.

We sincerely invite you to join NESS. Without the support from devoted members, the establishment and the rapid growth of our young society would not have been possible.

Call for Contribution to the Newsletter

Members are invited to submit contributions to the NESS Newsletter which will be published subject to the approval of the editor. Contributions can be of any form relevant to the interests of the society. Please contact Yuwen Gu at yuwen.gu@uconn.edu.

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

Membership Registration Form

Last Name:	
First Name:	
Middle Name:	
Membership Type: Student ☐ Regular ☐ Life ☐ NESS/IMS ☐ K-12 Educator ☐ If Student Members, Expected Graduation Year:	
Email Address:	
Phone Number:	
Employer:	
Address Line 1:	
Address Line 2:	
County/City:	
State/Province:	
Zip Code:	
Country:	
Signature & Date	

- *Student Membership:* free
- *Regular membership:* $30 per year
- *Life membership:* $600
- *K-12 educator:* 50% discount on regular membership ($15 per year) and life membership ($300)
- *Joint membership with the Institute of Mathematical Statistics (IMS):* $109 per year

Please send the form and a check to:

New England Statistical Society (Attn: Xiaojing Wang)
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Storrs, CT 06269-4120