NISS

Parameters

WINTER | 2021

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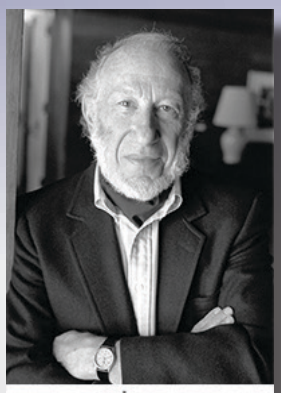
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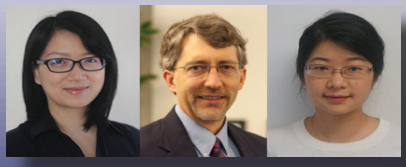
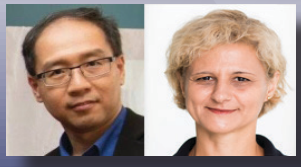



DIRECTORS' NOTES

NISS

Welcome to the Winter 2021 NISS Parameters Newsletter!

What a year it has been… one year ago in this Newsletter I made a prediction that the COVID-19 risk was low "if the epidemic can be contained" with then only 70K cases in the world. Well, it wasn't contained in the US and now the world has seen more than 109M cases, and the US more than 27M. The number of coronavirus cases in the US has outstripped the common flu and with a recent fatality rate about 30 times higher.

NISS responded to this year – a year like no other – by increasing the number of our outreach activities, both for our affiliates and for the general statistical science public. We have partnered with COPSS and now host COVID-19 Data Science Webinars twice a month, and we continue to host tutorials, workshops and virtual meetups every week. See below and signup for our email announcements. If you would like to donate to support these activities, please go to the Donate button on our website home page.

An especially exciting upcoming event is the First CANSSI-NISS Health Data Science Workshop scheduled for May 6-8, 2021. Originally planned for in-person at U Waterloo but moved to a virtual event due to travel and coronavirus restrictions. Therefore, funds available for travel will be used to reimburse the already modest registration fee for all CANSSI members and NISS affiliate members can use their affiliate award funds. We are also looking for sponsors, for special recognition during the workshop and on our website.

The NISS-Merck quarterly virtual meetup continues to attract outstanding distinguished scientists and covers topics of critical interest to statisticians and data scientists working in the Pharma industry. The upcoming April event will tackle the changing landscape for using public domain, open-source, software for regulatory submissions. See below.

NISS at JSM: NISS again plans to have a presence at the JSM in Seattle and/or virtually online. We are planning the Writing Workshop, and we have two invited panel sessions – one celebrating NISS at 30 years, and one showcasing the results of the NISS visualization competition. Hopefully we can attend in person and enjoy the annual Affiliate Luncheon on Sunday at noon, and the NISS reception on Monday evening. Stay tuned for details in the May Newsletter.

I want to thank the NISS board and staff who have so faithfully worked and contributed to support the NISS mission of advocating for cross-sector and cross-disciplinary research and communication.

NISS affiliation demonstrates a commitment to outreach and network with other academic institutions and across government and industry sectors. Half of the cost of an academic affiliate membership can be utilized as travel expenses and registration at NISS-sponsored events for faculty and graduate student participants, who build their career network by engaging in these activities. See the list of upcoming events at www.niss.org/events. To learn more about our affiliate program, see our affiliate information page on our website or contact me

Jim Rosenberger, Director, NISS

While national events dominate the attention on the nation's capital, NISS-DC continues to thrive with staff scattered to their personal working spaces. Our DC office is occupied most weekdays by one or another of the DC staff; the rest of the staff and all Research Associates work remotely.

Projects and research activities continue without slowing down: Two expert panels for NCES are in different stages; Judging is underway for the SAID Contest; Contributed Paper Session focused on the contest as well as the expert recommendations has been accepted for JSM; Manuscript on the use of tree-based statistical analysis for education data has been submitted for peer review; 2020 December Mid-year Update to the Annual Report is in preparation; Research Associates have been recognized for their research contributions.

Connections may be virtual, but everyone is at least as busy as before even as we all look forward to returning to in-person communication and working from the NISS K-Street offices.

Nell Sedransk, Director - DC

ABOUT NISS

The National Institute of Statistical Sciences (NISS) is a national institute that delivers high-impact research in science and in public policy by leveraging the rich expertise of its staff with that of its base of affiliated organizations in academia, industry, and government.
NISS works on issues where information and quantitative analysis are keys to solutions and decisions. NISS functions in three ways: as an expert advisor, as a basic researcher, and as a collaborator.

OUR MISSION

The National Institute of Statistical Sciences (NISS) is an independent research organization that serves as a neutral, objective expert in delivering research in science and public policy to its affiliates in academia, industry and government. NISS identifies, catalyzes and fosters high-impact cross-disciplinary and cross-sector research involving the statistical and data sciences.

FEATURED EVENT SERIES: ESSENTIAL DATA SCIENCE FOR BUSINESS

NISS

The second half of the Essential Data Science for Business tutorial series promises to be as good, if not better than the first half!

Here is the line up that NISS has organized and is making available to you.

February 10, 2021

Julia Silge (Rstudio) was the instructor for the session titled: "Unstructured Data Analysis - Text Mining with Tidy Data Principles" (see story, below)

February 24, 2021

Rochelle Tractenberg (Georgetown University) is the instructor for her session titled: "Ethical Practice of Statistics and Data Science in the Social Sciences". The American Statistical Association (ASA) is in the process of revising its current (2018) Ethical Guidelines for Statistical Practice, which are relevant in every step of the research pipeline. To demonstrate this relevance and utility, this workshop introduces two important tools practitioners can use to support ethical decision-making: we will examine ethical reasoning, a 6-step process for decision-making, and stakeholder analysis, which can help identify where ethical challenges might arise. Examples of ethical reasoning will be worked through, to promote engagement with the ethical practice standards of the ASA in statistics and data science. (*Read more!*)

March 10, 2021

Three instructors will share the teaching responsibilities. They include Jie Chen (Wells Fargo) Tim Hesterberg (Google) Juan Li (Google). The title of this session is: "Domain Knowledge and Application Areas" Jie Chen will focus on describing various machine learning techniques and their applications in banking: credit risk forecasting, trading and market risk models, and finance crime models as well as several other topics. Tim Hesterberg will talk about how Google Brand Lift Surveys estimates the effect of display advertising using surveys. Challenges and the approaches to work will be discussed. Juan Li will illustrate how Google uses hierarchical time series range forecasts to tackle capacity planning challenges. She will review why range forecast is important for capacity planning, then followed by hierarchical time series range forecasts. (*Read more!*).

March 24, 2021

Sam Woolford (Bentley University) is the instructors of this session titled: "Non-Analytic Skills for Analytic Consulting Success". Sam will use an actual case study to demonstrate the rationale for and the application of many non-technical skills that, while not taught in academic programs, are often critical for analytical consultants in business to provide actionable solutions to business problems. While there are many technical components to the case study, the focus will be on the non-technical tools that help the analytical consultant make appropriate decisions throughout the problem. (*Read more!*)

April/May, 2021

At a date to be determined in late April, early may, Victor Lo (Fidelity Investments) is teaming up with Dessislava Pachamanova (Babson College), "Prescriptive Analytics and Optimization"

The first half of this exclusive NISS Event Series included: an overview session presented by Victor Lo of Fidelity Investments (review the recording of this session).

The first five tutorials included:

1 - "Data Science Workflows" with Jim Harner,
2 - "Descriptive Analytics, Exploratory Data Analysis, and Data Visualization" with Lee Wilkinson
3 - "Predictive Analytics and Machine Learning" with Yanling Zuo.
4 - "Causal Inference and Uplift Modeling" with Victor Lo & Dominique / Jonathan Haughton: , and
5 - "Deep Learning" with Ming Li.

Please Note: Each tutorial is presented as a stand-alone tutorial, in other words, you need not to have attended earlier sessions in order to attend later sessions.

Registrations options: $35 for single Data Science Essentials tutorial sessions, $250 for all 10 Essential Data Science for Business tutorial sessions.

Missed a session? No worries! Post Session Access to tutorial materials and recording can be obtained for $35 after the event is over (click on Post-Session Access link).

Check the NISS Events webpage for up to date event info!

NEWS: LATEST DATA SCIENCE TUTORIAL EXPLORES UNSTRUCTURED DATA - TEXT MINING

NISS

February 10, 2021

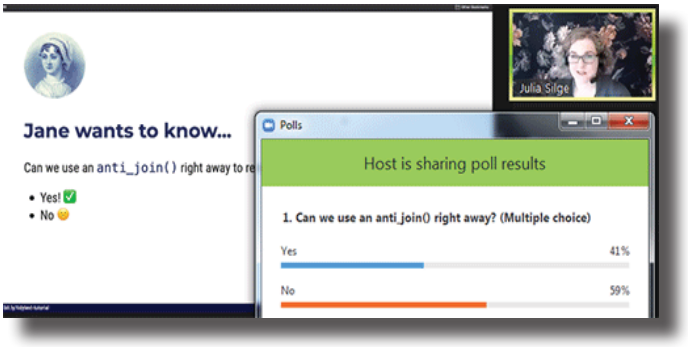
Julia Silge (RStudio) is a bundle of positive energy! As instructor of the sixth tutorial in the NISS Essential Data Science for Business series, she pulled out all of the stops using polls, interactive questions, examples and more examples throughout the session. All of her slides and R code were shared with the attendees ahead of the session and it was clear that many of the participants were following the session step-by-step on their own as Julia walked through the examples online. Enthusiastic? Responsive? Yes! And Yes! Not only was there time to answer questions during the three segments of the tutorial she also took time throughout the breaks and at the end of the session to make sure that questions raised or problems encountered with the code were resolved. If you ever get a chance to sit in on a session led by Julia – you won't be disappointed.

Comments from participants:

"*She explains things clearly.*"

"*Her insight in to things to worry about, like sentiment lexicons could have built-in biases .... worth every penny!*"

"*I appreciate the great lengths Julia went to with skeletal code, and color-coded selections in her slides to help the user fill in missing details. That was above and beyond!*"



Access to Materials

Once again, the Essential Data Science for Business tutorials provide so many details! If you were not able to attend this live session you can still access a recording of the session along with links to the slides that the three presenters used during this session. Use the Registration Option "Post Session Access" on the event webpage, pay the $35 fee, and NISS will provide you with access to all the materials for this session. Or register for the full series of ten tutorials, and NISS will provide all the links as well

SUCCESSFUL COPSS-NISS DATA SCIENCE WEBINARS FOCUS ON CURRENT COVID RESEARCH

The COPSS-NISS COVID-19 Data Science webinar series is co-organized by the Committee of the Presidents of Statistical Societies (COPSS) and its five charter member societies (ASA, ENAR, IMS, SSC, and WNAR), as well as NISS. This bi-weekly seminar features the latest research that is positioned on the cusp of new understanding and analysis of COVID-19 pandemic data, and promotes data-driven research and decision making to combat COVID-19. Find out more about this series and view all the previous sessions on the Webinar Series webpage on the NISS website.

The following webinars have taken place and recordings of these sessions can be found on the NISS website or within the NISS Communications YouTube channel.

February 4, 2021 - Host and Viral Genetics of SARS-CoV-2 to Enable Epidemiologic Surveillance, Clinical Insight and Pathobiology: Moderator: Debashree Ray (Johns Hopkins). Speakers: Priya Duggal (Johns Hopkins) and Winston Timp (Johns Hopkins).

January 21, 2021 - Transmission Dynamics of SARS-CoV-2: Inference and Projection: Moderator: Lily Wang (Iowa State), Speaker: Jeffrey Shaman, (Columbia), Discussant: Roni Rosenfeld (Carnegie Mellon).

January 7, 2021 - Using Epidemiologic Models to Reveal the Nature of Disease Transmission and Inform Decision-making: Moderator: Elizabeth Stuart (Johns Hopkins). Speakers: Justin Lessler (Johns Hopkins) and Adam Kucharski (London School of Hygiene and Tropical Medicine).

December 17, 2020 - An Ecosystem for Tracking and Forecasting the Pandemic: Moderator: Rob Tibshirani (Stanford), Speakers: Roni Rosenfeld (Carnegie Mellon), Ryan Tibshirani (Carnegie Mellon)

December 3, 2020 - The Statistics of COVID-19 Vaccine Trials: Presenter: David Benkeser, (Emory), Moderator: Natalie Dean (University of Florida), Discussant: M. Elizabeth Halloran, (Fred Hutch and University of Washington)

Check the NISS Events webpage for the latest!

NISS HIGHLIGHT: NISS ON YOUTUBE!

NISS

NISS YouTube

Over the past year and a half NISS has accumlated quite a repository of video recordings. Nearly all of the NISS videos are publicly available either through the NISS website / News, or more recently organized into Playlists on the NISS Communications YouTube Channel. Here is the lineup of playlists:

NISS Academic and Research Webinars - 13 videos

Recordings of webinars, presentations, debates and panel discussions on a wide variety of topics of interest to statisticians, biostatisticians, data scientists and other related professional fields

NISS-Merck Meetups - 11 videos

Topics and issues of interest to biostatisticians, statisticians and epidemiologists related to the pharmaceutical industry.

Ingram Olkin Forum: Statistics Serving Society - 19 videos

Forums honoring the memory of Professor Ingram Olkin focus on a current societal issue that could benefit from attention from the statistical community.

COPSS-NISS COVID-19 Data Science Webinar Series - 5 videos

Co-organized by COPSS, ASA, ENAR, IMS, SSC, WNAR and NISS. Features the latest research that is positioned on the cusp of new understanding and analysis of COVID-19 pandemic data.

NISS Academic and Research Webinars - 13 videos

Recordings of webinars, presentations, debates and panel discussions on a wide variety of topics of interest to statisticians, biostatisticians, data scientists and other related professional fields.

Industry Career Fairs - 4 videos

Senior statisticians from a variety of industry sectors provide attendees with an inside look at the research that statisticians in these organizations get involved in and career opportunities for you to consider!

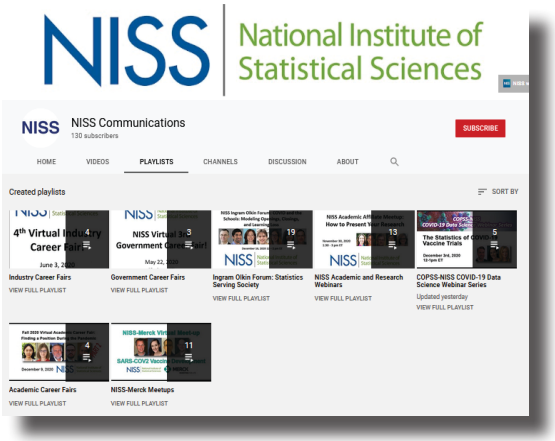
Academic Career Fairs - 4 videos

An inside look at the varying aspects of research, teaching and service that statisticians in academic institutions get involved in and the career opportunities available for you to consider!

Government Career Fairs - 3 videos

Statisticians from different government agencies talk about their organizations, the work that they do and the qualifications required of prospective applicants.

Subscribe to the NISS Communicatons Channel!



UPCOMING EVENT: COPSS-NISS COVID-19 DATA SCIENCE WEBINAR SERIES - 1ST & 3RD THURSDAYS EACH MONTH!

February 18, 2020 12-1:00 pm ET

Misinformation and Attitude Formation Among the Canadian Public

Information about masks, social distancing, vaccinations must reach and inform the mass public to help mitigate the deadly consequences of the pandemic. However, we are operating in an increasingly complex, fractured, and siloed information ecosystem where messages often don't reach or influence their target populations. Understanding where and how Canadians get their information and form opinions is therefore critical. Aengus Bridgman will present consolidated findings from 3 papers on the role that political elites and social media play in attitude formation. Come to learn about how politicians have responded to COVID-19, how social media has contributed to misperceptions, and see unpublished findings on the ways in which the infodemic has infected Canadians.

Moderator: Nathaniel Stevens, University of Waterloo
Speaker: Aengus Bridgman, McGill University

Register for this Event Here!

About This Webinar Series

The COPSS-NISS COVID-19 Data Science webinar series is co-organized by the Committee of the Presidents of Statistical Societies (COPSS) and its five charter member societies (ASA, ENAR, IMS, SSC, and WNAR), as well as NISS. This bi-weekly seminar features the latest research that is positioned on the cusp of new understanding and analysis of COVID-19 pandemic data, and promotes data-driven research and decision making to combat COVID-19.

NISS *SAID in Graphics*

In December, NISS launched the "*SAID in Graphics Data Visualization Competition*" to encourage graduate students to revision the graphics used in online educational reports. A wide array of methods and insights were brought to bear in the entries received from eight interdisciplinary teams and fourteen individuals!

The entries are currently being reviewed by the judges, with the winners being selected and comments on all submissions being returned to the contestants at the end of the month. We'll report highlights in the *NISS Affiliates Update* next month, but for a full discussion, join us for our contributed panel on the contest at JSM in August!

RESEARCH UPDATE: EARLY CHILDHOOD LONGITUDINAL STUDY KINDERGARTEN 2011

When data from the NCES (National Center for Education Statistics) national study, *Early Childhood Longitudinal Study-Kindergarten 2011 (ECLS-K)*, first became available, Ya Mo and Nell Sedransk began an examination of students' characteristics and demographics and their influence on learning in reading and math during the kindergarten year. *ECLS-K* is particularly suited for this because it involves paired assessments at the beginning and at the end of the school year in both reading and math. So it is possible to study competence upon entry into kindergarten, the attainment by the end of kindergarten, and the growth during the kindergarten year.

It quickly became apparent from a standard (hierarchical) modeling approach that not only were demographic and other background factors interrelated in complicated ways or sometimes redundant, but the salient factors were not the same for all students. So what began as a "straightforward analysis" of factors important to kindergarten learning expanded into a more detailed analysis using classification/regression tree models (CRT). These models allow the data analysis to be driven by the data's internal structure so that complex relationships can emerge. As the work progressed, the value of a nonlinear modeling structure for complex education data like these became clear: for these *ECLS-K* data, tree-based methods of analysis revealed important regional, ethnic, and classroom context factors that were jointly affecting kindergartners' learning, but in different ways for different subsets of students.

At the same time, these data provide an excellent case study that demonstrates the advantage of using a model that allows for non-uniform impacts of factors across the population. Thus the manuscript was expanded to introduce tree-based methods more generally for the study of student achievement and other education metrics and to offer the fully worked case study as an exemplar. The manuscript has passed through NCES disclosure review and been submitted to a journal for peer-review.

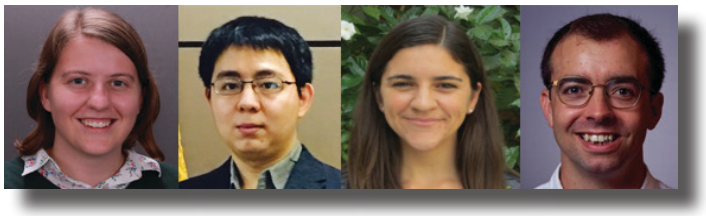
Ya Mo began this study as a NISS Senior Postdoctoral Fellow; she is now on the faculty of the College of Education at Boise State University, where she continues to teach and carry out research. Ya also continues as a NISS research partner; with Brian and Alexi now joining the team, new research directions will focus on applied psychometric research, math performance metrics, and statistical modeling approaches, both nonlinear as well as linear.

NISS HIGHLIGHT: VALUABLE OPPORTUNITES ABOUND IN NISS GRADUATE STUDENT NETWORK!

The NISS Graduate Student Network was initially established during Summer of 2020 with the goal of bringing together students from different institutions. Currently, David Kent (Cornell University), Hannah Waddel (Emory University), Rebecca Kurtz-Garcia (UC-Riverside), and Xinjun Wang (University of Pittsburgh) are the graduate students in the network's executive committee working with the members of the steering committee, Drs. Esra Kurum (UC-Riverside), Kevin Lee (Western Michigan University), Piaomu Liu (Bentley University), and Sumanta Basu (Cornell University). The mission of the network is to organize events so that students can meet and share their experiences with students from other NISS affiliate institutions through social events, the discussion board, alumni meetings, workshops, and more!

Through many different activities students can share their experiences regarding their graduate program, they can discuss how to be an effective TA, how to handle stress, how to work effectively with your advisor, students with internship experience can share information regarding their training and there could be many more topics students can discuss and learn from each other!

The network has a discussion board where students can ask questions and share their experiences. The network organizes a social hour every other month for students to get together and discuss various topics. In addition, the network has also organized two alumni events, where recent alumni share their experiences regarding their graduate programs, current jobs, job search, and interview, and they answer questions from graduate students. You can access information regarding these events through our event page.



NISS Graduate Student Executive Committee: Hannah Waddel (Emory University), Xinjun Wang (University of Pittsburgh), Rebecca Kurtz-Garcia (University of California, Riverside) and David Kent (Cornell University).

Upcoming Events

There are two upcoming events. The first event will focus on what to do once you get job offers from academic institutions, how to decide between them, and also how to negotiate on an offer; the second event will be a statistical software event, in which we will talk about useful software tools for graduate students. More information on these events will be available on our website. In addition, we will be organizing a virtual research conference for graduate students in June, stay tuned, more details on this will also be shared on our website.

Join Today!

We encourage all graduate students from NISS affiliate institutions to join us! There are plenty of opportunities to participate, help organize, or even lead activities in our network. We are hoping to increase our numbers and we believe this network could also lead to a bigger network and be beneficial throughout the student's career even after they graduate from their programs.

Get Involved and Join Today!

AFFILIATE NEWS

NISS Notes the Passing of Two Colleagues

With much sadness, we note the passing of our colleagues Professor Allan Sampson and Professor Emeritus E. James Harner.

Allan Sampson was Professor of Statistics at the University of Pittsburgh. He passed away on January 30, 2021. He was a beloved colleague, mentor, and ardent supporter of NISS. He most recently served on the Ingram Olkin Forum Committee and was Chair of the Organizing Committee for the inaugural Ingram Olkin Forum entitled "Gun Violence - The Statistical Issues" that was held in June of 2019. He will be remembered fondly for his contributions in helping to make this impactful series of forums available for the NISS community.

Statement and details regarding a virtual event in Allan's honor from the Department of Statistics, University of Pittsburgh.

Jim Harner who passed away on Feb 9, 2021 was Professor Emeritus of Statistics at West Virginia University. He was the Chair of the Department of Statistics for 17 years and the Director of the Cancer Center Bioinformatics Core for 15 years at WVU. He was also the Chairman of the Interface Foundation of North America which has partnered with the American Statistical Association to organize the annual Symposium on Data Science and Statistics (SDSS) beginning in May, 2018. The areas of his technical and research expertise included: bioinformatics, high-dimensional modeling, high-performance computing, streaming and big data modeling and statistical machine learning.

He will be remembered fondly for his contributions to NISS, teaching a number of workshops and tutorials related to the efficient data science workflows using R and Spark.

Obituary published in the The Dominion Post

UPDATE: INGRAM OLKIN FORUM SERIES: UNPLANNED CLINICAL TRIAL DISRUPTIONS

NISS

March 23, 2021 10 am - 1 pm ET, Tuesday

Session Five: Coping with Information Loss and the Use of Auxiliary Sources of Data

Many clinical trials that were under way in early 2020 have been disrupted by COVID-19. In some studies, it has been possible to adapt by monitoring patients' progress remotely rather than through in-person visits. Session Five continues an Ingram Olkin Forum series that started with views from statistics leadership in US NIH and regulatory agencies. Following these introductory sessions, we focus on particular statistical methodologies that might contribute to statistical responses to unplanned clinical trial disruptions or provided a basis for the development of methods that provide a more appropriate response to this challenge. Topic specific sessions to date include Estimands and Missing Data and Randomization Tests. We are pleased to announce Session Five (Please click on the preceding links to catch up with this series).

In other cases, the continued follow-up of existing patients and recruitment of new patients has not been possible, leading to study termination with a smaller sample size and less complete information on patient response than had been planned. This session will explore methods to overcome this information shortfall. One approach is to use short term endpoints to replace or augment the original endpoint. Another option is to make use of historical data or concurrent data from external sources. Our speakers will describe such approaches and outline the challenges they pose.

Register for this Event Here!

Speakers at this event include:

Nigel Stallard, (Warwick Medical School)

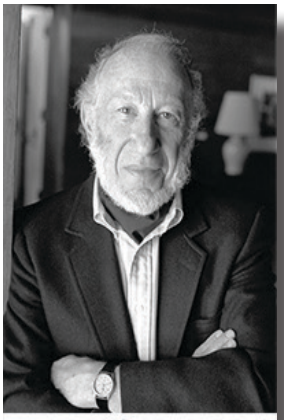
"Using short term endpoint data in interrupted clinical trials"

Marc Vandemeulebroecke, (Novartis)

"Mitigating "force majeure" trial disruptions by leveraging external data, with special reference to pooling approaches"

Heng Li, (FDA, NIH)

"Mitigating study power loss in disrupted clinical trials: Leveraging external data via propensity score-integrated approaches"



S³ Statistics Serving Society

Speakers: Nigel Stallard, (Warwick Medical School), Marc Vandemeulebroecke, (Novartis) and Heng Li, (FDA, NIH)

UPCOMING EVENT: HOW TO NEGOTIATE A JOB OFFER

March 18, 2021 1:30 - 3 pm ET

The Academic Affiliates Committee and NISS Graduate Student Network has planned a webinar that focuses on how to negotiate an academic job offer.

NISS has already recently organized two academic career fairs where department chairs and other experienced faculty have discussed how to apply for a position and shared tips and advice about job talks and the interview process. But what happens when you get that job offer? This webinar has once again reached out to several experienced faculty from a variety of different departments to talk about the follow-up, i.e., "What do you do after you receive an offer?", "How do you choose between the offers?", "What should be the deciding factors in negotiating an offer?" and once you have the job, "How do you start collaborations?" Each speaker will give a talk for 15-20 minutes which will be followed by a Q&A period.

If you are, or are going to be, on the job market, or if you already have offers in hand - then this is a session not to be missed!

Register for this Event Here!

Moderator: Esra Kurum (University of California, Riverside) Panelists: Richard De Veaux (Williams College), Galin Jones (University of Minnesota), and Bhramar Mukherjee (University of Michigan).

National Institute of Statistical Sciences

Graduate Student Network

UPCOMING EVENT: GOVERNMENT CAREER FAIR - SP 2021!

NISS

March 12, 2021 - noon - 1:30 ET

What is it like to work as a statistician in a government agency? What kinds of opportunites are their for data scientists in the federal government? More importantly, how do you prepare yourself for obtaining a position?

NISS has gathered an incredible trio of speakers. Not only do they bring extensive experience working in the federal government, but these individuals have as their priority a willingness to share their experiences so that others may better understand an be better prepared for working for a federal agency.

If you have ever considered being employed by a government institution, then this session is not one to miss!

Moderator: Michael Jadoo, (BLS) Speakers: Mika Cross, (Strategy@Work, LLC), Chris Haffer, (US Equal Employment Opportunity Commission) and Lex Levin, (LexLevin, LLC).

Register for this Event Here!

UPCOMING EVENT: 13TH ANNUAL CONFERENCE ON STATISTICAL ISSUES IN CLINICAL TRIALS

April 12, 2021 - 8:30 am to 4:30 pm ET

Cluster Randomized Clinical Trials: Challenges and Opportunities

NISS is continuing its longstanding collaboration with the Department of Biostatistics, Epidemiology and Informatics at the University of Pennsylvania and is delighted to announce the 13th Annual Conference on Statistical Issues in Clinical Trials:

REGISTRATION IS NOW OPEN!

The conference will be virtual and the program is available on conference website. (*Read more!*)

Organizing Committee

Susan Ellenberg, Chair; Jonas Ellenberg, Jim Lewis, Mary Putt, Pamela Shaw

DBEI Department of Biostatistics Epidemiology & Informatics | Perelman School of Medicine University of Pennsylvania

Register for this Event Here!

UPCOMING EVENT: FIRST CANSSI-NISS HEALTH DATA SCIENCE WORKSHOP

May 6-8, 2021

The First CANSSI-NISS Health Data Science Workshop will be held virtually on May 7-8, 2021, with pre-workshop short courses on May 6th. The workshop brings statisticians and health data scientists from the U.S. and Canada together to explore current approaches and new challenges for learning Big Data in Health Data Science.

The two-day workshop consists of two keynote presentations, four invited sessions, a speed session for students, a late-breaking session, and two split-out virtual lunch & networking sessions. The themed invited sessions will explore current approaches and new challenges in

(i) Statistical Issues with COVID-19, (ii) Statistical Problems in Imaging and Genetics, (iii) Causal Inference for Big Health Data, and (iv) Methods for Electronic Health Data. (*Read more!*)

Plenary Speakers Mary Thompson (University of Waterloo) and Xiao-Li Meng (Harvard University).

CANSSI INCASS | NISS National Institute of Statistical Sciences

Register for this Event Here!

MARCH

COPSS-NISS COVID-19 Data Science Webinar Series

Event Date: Thursday, February 18, 2021 12-1pm ET (9-10am PT)
Event Type: Online Webinar

Misinformation and Attitude Formation Among the Canadian Public. Information about masks, social distancing, vaccinations must reach and inform the mass public to help mitigate the deadly consequences of the pandemic. However, we are operating in an increasingly complex, fractured, and siloed information ecosystem where messages often... (read more)

Essential Data Science for Business: Ethical Practice of Statistics and Data Science in the Social Sciences

Event Date: February 24, 2021 1-4 pm ET
Event Type: Online Tutorial

This workshop introduces two important tools practitioners can use to support ethical decision-making along the pipeline: we will examine ethical reasoning, a 6-step process for decision-making, and stakeholder analysis, which can help identify where ethical challenges might arise. Examples of ethical reasoning... (read more)

COPSS-NISS COVID-19 Data Science Webinar Series

Event Date: Thursday, March 4, 2021 12-1pm ET (9-10am PT)
Event Type: Online Webinar

Predictions, Role of Interventions and the Crisis of Virus in India: A Data Science Call to Arms. In this presentation, we provide a brief chronicle of the modeling experience of our study team over the last one year trying to understand the pandemic in India. We discuss methodological innovations by incorporating selective and imperfect viral testing when using case-counts in an extended SEIR model for COVID-19. ... (read more)

Essential Data Science for Business: Domain Knowledge and Application Areas

Event Date: March 10, 2021 1-4 pm ET
Event Type: Online Tutorial

"Artificial Intelligence and Machine Learning Applications in Banking", "Surveys and Big Data for Estimating Brand Lift" and "Forecast Generation and Evaluation for Datacenter Capacity Planning"... (read more)

Government Career Fair - Spring 2021

Event Date: March 12, 2021 - noon - 1:30 ET
Event Type: Online Webinar

Government institutions have a unique mission when it comes to the data they collect as well as the importance of the research they engage in. This research becomes the principle foundation for informing policy issues that impact all aspects of society. What is it like to work as a statistician... (read more)

How to Negotiate a Job Offer

Event Date: Thursday, March 18, 2021 1:30 - 3 pm ET
Event Type: Online Webinar

The Academic Affiliates Committee and NISS Graduate Student Network has planned a webinar that focuses on how to negotiate an academic job offer. NISS has already recently organized two academic career fairs where department chairs and other experienced faculty have discussed how to apply for a... (read more)

Ingram Olkin Forum Series: Unplanned Clinical Trial Disruptions

Event Date: March 23, 2021 10 am - 1 pm ET, Tuesday
Event Type: Online Webinar/Working group

Session Five: Coping with Information Loss and the Use of Auxiliary Sources of Data Many clinical trials that were under way in early 2020 have been disrupted by COVID-19. In some studies, it has been possible to adapt by monitoring patients' progress remotely rather than through in-person visits... (read more)

Essential Data Science for Business: Non-Analytic Skills for Analytic Consulting Success

Event Date: March 24, 2021 1-4 pm ET
Event Type: Online Tutorial

This webinar will use an actual case study to demonstrate the rationale for and the application of many non-technical skills that, while not taught in academic programs, are often critical for analytical consultants in business to provide actionable solutions to business problems. While there are many... (read more)

Analytics Without Borders Conference 2021

Event Date: Friday, March 26, 2021
Event Type: Online Conference

Join us virtually on Friday, March 26th, 2021 hosted by Bentley University for the 6th Analytics without Borders conference. This conference is a forum for all ways of analytics life to present and discuss analytics work, be it from corporate institutions, academia, government organizations etc.... (read more)

Webinar Series: Mathematical Foundations of Data Science

Event Date: March 26th, 2021 11am ET
Event Location: Online Webinar

Harnessing structure and algorithmic properties for scalable learning methods over networks Speaker Na Li, Harvard University Abstract Recent radical evolution in distributed sensing, computation, communication, and actuation has fostered the emergence of cyber-physical networked systems, across a... (read more)

Check the NISS Events webpage
for up to date event info!

APRIL

13th Annual Conference on Statistical Issues in Clinical Trials: Cluster Randomized Clinical Trials (CRTs): Challenges and Opportunities

Event Date: Monday, April 12, 2021 - 8:30 am to 4:30 pm ET

Conference Theme Cluster Randomized Clinical Trials: Challenges and Opportunities Save the Date! Registration opens January, 2021! (read more)

NISS-Merck Meet-Up on Open Source Software in Pharma

Event Date: Wednesday, April 21, 2021 11am – 12:45pm ET
Event Type: Virtual Meet-up

The National Institute of Statistical Science (NISS) and Merck are sponsoring a Virtual Meet-Up on Open Source Software in Pharma. Overview Use of open access software, especially R, is becoming prevalent in pharma. There is a tremendous amount of interest, but many do not understand the basic... (read more)

MAY

First CANSSI-NISS Health Data Science Workshop

Event Date: May 6-8, 2021
Event Type: Online Conference

Nowadays, statisticians and health data scientists actively work together on the frontier of biological, medical, and public health research. The transdisciplinary collaboration not only develops the modern foundations of Health Data Science but also accelerates the pace of scientific discovery and... (read more)

The Statistical Methods in Imaging Conference 2021

Event Date: May 17-19, 2021
Event Type: Online Conference

The Statistical Methods in Imaging (SMI) conference is the annual meeting of the American Statistical Association (ASA) Statistics in Imaging Section. The conference aims to bring together statisticians and imaging researchers working on methodology, theory, and applications in imaging science. The... (read more)

OCTOBER

AISC 2021

Event Date: October 8 - 10, 2021
Event Location: Greensboro, North Carolina, 27412

International Conference on Advances in Interdisciplinary Statistics and Combinatorics The main objective of the conference is to promote interdisciplinary research involving statistical techniques. These techniques are becoming increasingly important in all fields of scientific discovery. A unique... (read more)

Check the NISS Events webpage for up to date event info!

UPCOMING EVENT: NISS WRITING WORKSHOP FOR EARLY RESEARCHERS!

The National Institute of Statistical Sciences (NISS) has been hosting the Writing Workshop for Early Researchers since 2007!

Each year, in conjunction with JSM, NISS gathers a host of senior authors, editors, grant writers/reviewers—individuals who take valuable time out of their day to share their advice and experiences with a group of junior faculty and early researchers. Evidence of the value of this workshop experience can be judged by

1) the number of experienced, senior statisticians, authors and editors that have volunteered years for on end to share their wisdom and advice and

2) the number of session contributors that were once actual participants in the workshop!

Writing Workshop in 2021? You bet!

It is never too late to think about who might benefit next from this workshop at JSM 2021. Keep your eye on the NISS website or subscribe to our newsletter for all of the latest information about this and other professional development activities!

Virtual or In-Person? NISS is already in the planning stages for this years Writing Workshop for Early Researchers 2021! You should be planning for it too!

Keep your eye on NISS Events webpage for the latest information!

NISS CONTINUES TO WORK TO IDENTIFY TOPICS OF INTEREST TO STATISTICIANS FROM ALL DIFFERENT SECTORS AND THEN GATHER EXPERTS TO CONTRIBUTE TO A CONVERSATION THAT HELPS TO NOT ONLY INFORM BUT ALSO PROVOKE FURTHER THINKING ON THESE TOPICS. KEEP YOUR EYE ON THE NISS WEBSITE FOR FUTURE EVENTS THAT MIGHT BE OF INTEREST TO YOU OR YOUR COLLEAGUES!

Affiliates!

Send Your Job Announcements to NISS!

A link to the Job Announcements page can be found at the bottom of every page of the NISS website! Share your announcement with other organizations associated with NISS or other visitors to our website.

https://www.niss.org/careers

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