

# Parameters

## UPCOMING EVENTS

Tuesday, November 14 | 3:30-4:30 pm ET

### GSN SHORT COURSE ON QUARTO - CREATE YOUR OWN WEBSITE

Instructor: Mine Çetinkaya-Rundel, Professor  
at Department of Statistical Science, Duke  
University

Course Fee only \$15 on Eventbrite - NISS  
Affiliates get reimbursed.

Friday, November 17 | 1-3 pm ET

### NISS/MERCK MEETUP ON ADVANCING AI: FROM BIAS MITIGATION TO ALGORITHMIC POWER IN LANGUAGE MODELS AND HEALTHCARE APPLICATIONS

Speakers: Prof. Linjun Zhang (Rutgers),  
Prof. Song Mei (UC Berkeley), and Lavender  
Jiang (PhD Student, NYU).

Moderator: Dr. Nan Wu, Merck&Co.

Tuesday, November 28, 2023 | 12-1 pm ET

### COPSS-NISS LEADERSHIP WEBINAR: LEADERSHIP IN STATISTICAL METHODS FOR ELECTRONIC HEALTH RECORDS DATA

Speakers:

Rebecca Hubbard (UPenn Medicine)  
Dandan Liu (VUMC)

Moderator: Yates Colbey (Kaiser Permanente  
Washington Health Research Institute)

## Newsletter Contents

### UPCOMING EVENTS

Pages 1-4

- New upcoming NISS hosted & co-sponsored events highlighted in this issue!



### NISS STAFF & AFFILIATES HIGHLIGHT

Page 5

- Welcome New Staff Member Lisa Bivens
- Welcome New Affiliate Institutions
- Welcome New IOF Committee Member

### INGRAM OLKIN FORUMS (IOF)

Page 6

- Recap on Statistical Challenges in the Analysis of Police Use of Force - Nov 9-10, 2023
- Call for Ingram Olkin Forum Proposals! - by March 2024

### RECENT EVENTS & RECORDINGS

Pages 7-8

- NISS Academic Career Fair
- NISS/FCSM Webinar on AI in Federal Government: Uses, Potential Applications, and Issues
- Undergraduate Student Guide for Grad School Series
- COPSS-NISS Leadership Webinar Series - Click to Watch
- NISS Government Career Fair - Click to Watch
- Academic Perspectives on ChatGPT - Click to Watch

### RESEARCH

Page 8

- NISS Research Associates Updates and NASS Projects

### DIRECORS' NOTES

Page 9

- Highlights from new NISS Director, David S. Matteson

# Parameters

## Quick List of Upcoming Events

### Clickable links to each event:

#### NISS Hosted Upcoming Events

Tuesday, Nov 14 | 3:30-4:30 pm ET

GSN quarto Short Course Part 2: Create Your Own Website

Friday, November 17, 2023 | 1 - 3 pm ET

NISS/Merck Meetup on Advancing AI: From Bias Mitigation to Algorithmic Power in Language Models and Healthcare Applications

Tuesday, November 28, 2023 - 12 pm - 1 pm ET

COPSS-NISS Leadership Webinar: Leadership in Statistical Methods for Electronic Health Records Data

**VIEW ALL  
NISS EVENTS AT  
[NISS.ORG/EVENTS](https://www.niss.org/events)**

#### Co-Sponsored Upcoming Events

Friday-Sunday, April 19-21, 2024

Theory and Foundations of Statistics in the Era of Big Data



**Connect with NISS  
on social media & subscribe!**



links down below

## Parameters

## Upcoming NISS Hosted Event Highlights

Tuesday, Nov 14 | 3:30-4:30 pm ET

GSN quarto Short Course Part 2: Create Your Own Website - **Registration \$15 Admission**

The **NISS Graduate Student Network** is excited to be hosting a second short course on QUARTO! This short course will teach you how to create your own website using quarto. The instructor for this short course will be **Dr. Mine Çetinkaya-Rundel** from the Department of Statistical Science at Duke University. Join us for an exciting online event where you'll learn how to create your own website! In this short course, we'll guide you through the process of building a website from scratch. Whether you're a beginner or have some experience, this course is perfect for anyone looking to enhance their web development skills. Don't miss out on this opportunity to unleash your creativity and bring your ideas to life online. Sign up now and get ready to become a web design pro! **Fee: \$15.00**

**Instructor:** Mine Çetinkaya-Rundel, Professor at Department of Statistical Science, Duke University

Full details are available on the [event page](#).

[Click here to Register!](#)

Friday, November 17, 2023 | 1 - 3 pm ET

## NISS/Merck Meetup on Advancing AI: From Bias Mitigation to Algorithmic Power in Language Models and Healthcare Applications

Generative language models like ChatGPT and others are rapidly changing the landscape of artificial intelligence. As these models become more prevalent, they raise numerous theoretical and practical questions about their use, limitations, and potential for bias. In this webinar, we address some of these questions and delve into strategies for mitigating bias in Large Language Models (LLMs) using the concept of multi-calibration. We also explore the evolution of neural networks beyond their traditional role as universal function approximators. These networks reveal their algorithmic prowess in modern generative AI models, challenging classical views of their capabilities. Moreover, we investigate the applications of clinical language models in healthcare predictions. These models can potentially revolutionize decision-making processes at the point of care, offering valuable insights for physicians and administrators. Join us for this webinar, where we unravel the complexities of AI, discuss innovative solutions, and explore its applications.

Speakers: **Prof. Linjun Zhang**, Rutgers; **Prof. Song Mei**, UC Berkeley; **Lavender Jiang**, PhD Student, NYU; Moderator: **Dr. Nan Wu**, Merck&Co.

Full details are available on the [event page](#).

[Click here to Register on Zoom!](#)



Tuesday, November 28, 2023 - 12 pm - 1 pm ET

COPSS-NISS Leadership Webinar: Leadership in Statistical Methods for Electronic Health Records Data

**COPSS NISS** | National Institute of  
Statistical Sciences

**Leadership Webinar Series**



**REBECCA HUBBARD**  
University of Pennsylvania

Professor of Biostatistics,  
University of Pennsylvania  
Perelman School of Medicine



**DANDAN LIU**  
Vanderbilt University Medical  
Center

Associate Professor of Biostatistics,  
Vanderbilt University

Director, Vanderbilt Institute for  
Clinical and Translational Research  
(VICTR) Methods Program

with moderator  
**YATES COLEY**

Kaiser Permanente  
Washington Health  
Research Institute & COPSS  
Leadership Academy



**Topic:**  
**Leadership in  
Statistical Methods  
for Electronic  
Health Research**

Join us for our another insightful webinar on the topic of  
leadership in the field of statistics and data science.

This webinar explores the critical role of statistical methods  
in harnessing the vast potential of electronic health records  
(EHR) data, showcasing cutting-edge research and practical  
applications that shape the future of healthcare analytics,  
improved patient care, and healthcare decision-making.

*Statisticians and data scientists at any stage in their careers  
are invited to attend.*

**TUESDAY, NOVEMBER 28, 2023**  
**12-1 P.M. ET / 9-10 A.M. PT**



**NO FEE, ZOOM  
PRE-REGISTRATION  
REQUIRED**



<https://www.niss.org/events/copss-niss-leadership-webinar-0>

# Parameters

## NISS Staff & Affiliates Highlights

### Ways to Get Involved as a NISS Affiliate

NISS Affiliates, if you would like to be featured in upcoming events (such as career fairs, panels, tutorials, research webinars, etc.), please do not hesitate to contact NISS! NISS is always looking for ways to support the missions of each affiliate.

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.

### Become a Sponsor of NISS Hosted Events!

NISS Invites corporations, universities or institutions and individuals to sponsor events that are hosted by NISS.

Sponsorship helps to defray the cost of organizing events and is a great way to give your organization visibility that targets statisticians and other related professions who attend NISS events! [Learn More!](#)

### Welcome New NISS Financial Manager



**LISA BIVENS**

Financial Manager



Lisa Bivens is the new Financial Manager for the National Institute of Statistical Sciences. Lisa has a diverse background, including a recent bookkeeping position where she managed day-to-day financial transactions, rebuilt data for new integration, processed payroll, and demonstrated proficiency in QuickBooks Online, Great Plains, QBO, Gusto, and ADP. Additionally, Lisa also holds a position at EIS, Inc. as an Accounts Payable Specialist/Office Manager since 2019, where she efficiently handled invoicing, budget documentation, expense tracking, and account reconciliation across multiple accounts, ensuring stringent business controls.

As a lifelong science fan who read the encyclopedia as a little girl, the opportunity to provide accounting support services at NISS is the perfect position for Lisa. A resident of Weddington, North Carolina, Lisa has held a wide variety positions, but honestly enjoys the truth of numbers. When Lisa isn't working or running, she is hanging out with her hubby of 33 years in their apartment in Germany.

Lisa is thrilled to join NISS as our Financial Manager, bringing with her extensive work/life experience to pursue a fulfilling career in administration and management.

### Welcome New NISS Affiliate Members:



Washington University in St. Louis

ARTS & SCIENCES

Department of Statistics and Data Science

**NC STATE  
UNIVERSITY**

Department of Statistics

### Welcome New IOF Committee Member:



**HENRY WYNN**

Emeritus Professor of Statistics  
Department of Statistics



THE LONDON SCHOOL  
OF ECONOMICS AND  
POLITICAL SCIENCE

Henry Wynn joins our IOF Committee as being another prominent statistician in the field to guide future Statistics Serving Society forums. Henry leads a variety of EU-funded projects including leads his own research group, the Decision Support and Risk Group (DSRG). He was head of the Department of Statistics from 2003 to 2006, and from 2000 to 2005 was also part-time Scientific Co-Director of EURANDOM, the international stochastics institute attached to Eindhoven Technical University (TUE), in the Netherlands. He was a Lecturer and then Reader at Imperial College. He became Professor of Mathematical Statistics in 1985 at City University, London, and was Dean of Mathematics there from 1987 to 1995. At City University he co-founded the Engineering Design Centre of which he was co-Director and facilitated the introduction of new degrees, notably the MSc in Quality Improvement and System Reliability and the MSc in Research Methods and Statistics.



Thursday-Friday, November 9-10, 2023

IOF Workshop: Statistical Challenges in the Analysis of Police Use of Force

NISS INGRAM OLKIN FORUM  $S^3$  SERIES

# STATISTICAL CHALLENGES IN THE ANALYSIS OF POLICE USE OF FORCE



LOCATION: CARLETON COLLEGE

**THURSDAY - FRIDAY  
NOVEMBER 9-10, 2023**


## IOF Liaison

### CLAIRE KELLING

Assistant Professor of  
Statistics, Mathematics and  
Statistics Department at  
Carleton College

Addressing the pressing concerns surrounding excessive use of force by police, the Ingram Olkin Forum (IOF) hosted a pivotal in-person workshop, building on the success of their earlier online webinar in June 2021. The forum, supported by the National Science Foundation, convened a distinguished lineup of speakers, including Jacob Kaplan of Princeton University, Shelley S. Hyland from the Bureau of Justice Statistics, and Anna Harvey from New York University, among others. The workshop aimed to shed light on crucial topics such as data quality, unstructured data processing, fairness analysis, and statistical challenges. The methodologies used to analyze police use of force, often inconsistent and reliant on unstated assumptions, were highlighted as a key focus.

The two-day workshop delved into various themes, including Quality Issues with Aggregate Policing Data, Statistical Issues in Analyzing Fairness and Bias, Unstructured Data Challenges, Data Access and Privacy Considerations, Community Collection and Use of Policing Data, and Funding Opportunities. Breakout sessions facilitated the development of research groups, fostering collaborations that advance statistical methodologies for analyzing police use of force. The anticipated output includes a comprehensive white paper summarizing discussions and next steps, with each working group planning to produce a manuscript suitable for publication in scientific journals.

Notable speakers, including Greg Ridgeway of the University of Pennsylvania, Emma Pederson from Communities United Against Police Brutality, and Samuel Sinyangwe of Mapping Police Violence, provided unique insights. The forum, moderated by Claire Kelling of Carleton College, brought together experts from various fields to collectively explore avenues for better understanding the complexities associated with police use of force and to provide evidence to inform reform efforts. The event showcased a collaborative effort to address the multifaceted challenges in this critical area, marking a significant step toward fostering positive change. A full news story will come out on our NISS website about this event.

See full details on the [event page](#)

### Workshop Highlights:

- Quality Issues with Aggregate Crime Data
- Statistical Issues in Analyzing Fairness and Bias
- Unstructured Data: Prospects and Challenges
- Data Access and Privacy Considerations
- Community Collection and Use of Policing Data
- Funding Opportunities

NISS INGRAM OLKIN FORUM  $S^3$  SERIES

## CALL FOR PROPOSALS

NISS invites YOU to submit a  
proposal to create an IOF!

**2023  
Deadline:  
September  
30th**



Submit Online  
Today!



Check out NISS on  
YouTube for Recordings  
of Previous Events!

Wednesday, November 8, 2023 - 12 pm - 1:30 pm ET  
NISS Virtual Academic Career Fair



The National Institute of Statistical Sciences (NISS) recently sponsored a highly successful academic career fair, providing aspiring statisticians and data scientists with crucial insights into career opportunities within academic institutions. Distinguished speakers, including **Kate Calder**, **Xuming He**, and **Michael Hudgens**, shared perspectives from their respective institutions, covering topics such as research, teaching, and service. Moderated by **Elizabeth H. Slate**, the event featured a panel discussion addressing key questions for new hires, including advice from department heads, strategies for seeking career guidance, and characteristics sought in tenure-track/tenured faculty candidates. The live Q&A session allowed direct interaction with the speakers, making the event a valuable resource for those navigating the early stages of their academic careers in statistics and data science. A recording will be made available on our NISS Communications YouTube Channel soon.

Full details available on the [event page](#).

Wednesday, November 8, 2023 - 12 pm - 1:30 pm ET  
NISS Virtual Academic Career Fair



The National Institute of Statistical Sciences (NISS) and the Federal Committee on Statistical Methodology (FCSM) successfully conducted the **NISS/FCSM Webinar Series on AI in Federal Government: Uses, Potential Applications, and Issues**. The collaborative effort provided federal practitioners and managers with valuable insights into the applications of AI in federal agencies, addressing organizational, managerial, and ethical challenges associated with harnessing AI's power. Researchers and managers gained practical knowledge to streamline current AI adoption efforts and explore new initiatives. The webinar, featuring opening remarks from incoming NISS Director David S. Matteson, boasted an esteemed panel of experts, including **Xuming He**, President of the International Statistical Institute; **Nancy Potok**, Former Chief Statistician of the United States; **Bhramar Mukherjee**, Chair of the Department of Biostatistics at the University of Michigan; **Michael Hawes**, Senior Advisor for Data Access and Privacy at the U.S. Census Bureau; and **Chris S. Marcum**, Senior Statistician and Senior Science Policy Analyst in the Office of the Chief Statistician of the United States. The discussion was moderated by **Jennifer Parker**, Director of the Division of Research and Methodology at the National Center for Health Statistics, making it a comprehensive and insightful event for federal staff at all levels of AI expertise and supervisors of researchers. A full news story about the event will be posted on our website.

Full details available on the [event page](#).

[Click here to watch](#)



Check out NISS on  
YouTube for Recordings  
of Previous Events!

**Wednesday, October 11, 2023 - 12 pm - 1:30 pm ET**  
**NISS Government Career Fair**



[Click here to watch](#)

Government institutions played a crucial role in collecting data and conducting research that served as the bedrock for shaping policies affecting all facets of society. Recognizing the unique mission of these institutions, the National Institute of Statistical Sciences (NISS) hosted a webinar that delved into the opportunities for data scientists within the federal government. This event not only addressed the significance of research in policy formulation but also provided insights into preparing for positions in this dynamic field. NISS curated a stellar lineup of speakers, each boasting extensive experience within the federal government. These seasoned professionals, driven by a commitment to knowledge-sharing, offered invaluable insights to help individuals better understand and prepare for roles within federal agencies. The webinar featured interactive presentations followed by Q&A sessions, allowing participants to engage directly with the speakers. The distinguished panel included: Cha-Chi Fan, Director, Office of Data Development and Standards at the Bureau of Transportation Statistics, U.S. Department of Transportation; Shanti V. Gomatam, Mathematical Statistician, Food & Drug Administration; and Jonah L. Wong, Mathematical Statistician, U.S. Census Bureau. Lu Chen, representing NISS and NASS, served as the moderator for this illuminating session. Each presenter had 15-20 minutes to address key topics, including job opportunities, requisite skills for success, career paths, and hiring status within their respective agencies. The event aimed to equip aspiring statisticians, data scientists, and analysts with the knowledge needed to navigate and excel in federal government roles. Attendees had the opportunity to gain firsthand insights from seasoned professionals who have shaped data-driven policies in federal agencies.

Full details available on the [event page](#).

**September 14, 2023 - 1:30 pm - 3 pm ET**  
**Academic Perspectives on ChatGPT**



[Click here to watch](#)

In a groundbreaking webinar, esteemed academics, educators, and researchers will converge to examine the growing phenomenon of students utilizing language models, such as ChatGPT, for their learning endeavors. This insightful event aims to shed light on the underlying factors contributing to the increasing trend and foster interactive discussions around its implications. Through thought-provoking presentations, participants will explore the multifaceted aspects of students incorporating language models into their educational practices. The webinar's primary objective is to identify effective measures to assess the impact of this emerging trend on student learning and academic outcomes. Join us for an engaging and enlightening session that promises to provide valuable insights into the evolving landscape of technology in education.

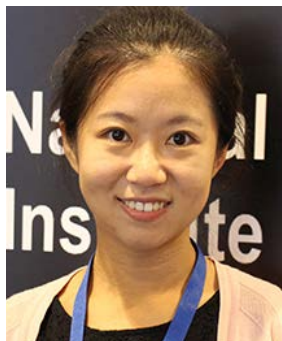
Full details available on the [event page](#).



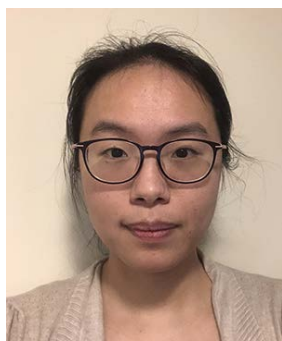
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## Research Highlights

### Latest Updates from NISS/NASS Research Associates



**Lu Chen** has been actively involved in several significant projects and initiatives. In the IMAGE Project, Lu played a key role in refining and updating spatio-temporal hierarchical Bayesian district-level planted acres models, integrating survey data with diverse auxiliary data such as administrative data, weather data, and census data. As part of the Statistical Disclosure Limitation Group, Lu utilized Bayesian models to generate synthetic data, evaluated the results of this data generation, and contributed as a committee member planning the 2024 Privacy and Public Policy meetings. Additionally, Lu contributed to the 2023 Farm Labor Production project, undertaking various tasks related to labor production, including modeling and calibration. Lu's engagement extended to the FCSM Conference, where they attended the event and served as the chair for one of the conference sessions. Furthermore, Lu Chen dedicated time to reviewing three academic papers, showcasing a commitment to scholarly contributions in the field. Overall, Lu Chen's diverse activities underscore their comprehensive involvement in research, conferences, and collaborative initiatives.



**Ruiyi Zhang** has actively engaged in various projects and initiatives. Notably, Ruiyi played a pivotal role in the weekly meetings for the "Inflation Reduction Act (IRA) Greenhouse Gas (GHG) Quantification" project, focusing on Action Area #6. Demonstrating a strong technical acumen, Ruiyi ran the attack code of cell suppression on NASS suppressed tables and Tau-Argus suppressed tables, employing both Modular and Optimal algorithms across all four simulation datasets, totaling 378 tables. Furthermore, Ruiyi proposed a novel measurement, the "attack indicator," to assess attack results and quantify under-suppression issues, presenting these findings to the cell suppression study group. Actively contributing to the field, Ruiyi participated in FCSM2023 from October 24th to 26th. In addition, demonstrating a forward-looking approach, Ruiyi initiated the development of a new NASS cell suppression system, leveraging the LP solver Cplex, developed by IBM and adopted by the US Census Bureau for their own cell suppression system. Ruiyi Zhang's multifaceted contributions underscore a commitment to advancing research and innovation in their field.



**Luca Sartore** is actively engaged in the Integrated Modeling and Geospatial Estimation System (IMAGES) project, though they are part of different sub-teams within the project. Notably, the IMAGE team recently received the undersecretary award, marking a significant achievement. Luca and Ruiyi both contribute to the Statistical Disclosure Limitation Group, with Ruiyi taking on the role of cell suppression team leader and focusing extensively on the project. Luca and Ruiyi share responsibilities in generating synthetic data and evaluating the results of the synthetic data generation. Additionally, Ruiyi attended the FCSM conference this year, indicating a commitment to staying updated on developments in the field. Overall, Luca and Ruiyi's collaborative efforts showcase their involvement in diverse projects and recognition for outstanding achievements within the IMAGES project.

## 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>

