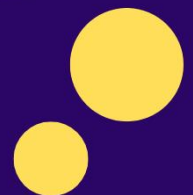




Celebrating the contributions of women to
statistics and data science



SCHEDULE AT A GLANCE

Session #	UTC	US ET	Session Topic	Speakers	Sponsors
S1	12:00am – 1:00am	10/10: 8pm – 9pm	Welcome Session Opening Remark by Katherine Ensor, ASA President	Katherine Ensor, Miguel de Carvalho, Nairanjana Dasgupta, Jessica Kohlschmidt, Vanda Lourenco, Tomi Mori	CWS/ASA/SPE
S2	1:00am-3:00am	10/10: 9pm – 11pm	Women in Statistics and Data Science: Career Journey, Perspectives and Opportunities in New Zealand	Claire Cameron, Jill Haszard, Gabrielle Davie, Ella Iosua, Alice Kim, Nokuthaba Sibanda	University of Otago/NZSA
S3	3:00am-5:00am	10/10: 11pm – 1am	Gender, Statistics and COVID-19 in Korea	Man-Suk Oh, Sohee Park, Tarim Lee, Eun-Kyung Lee	WISK
S4	5:00am-7:00am	1:00am-3:00am	Young Female Statisticians from India	Shuvashree Mondal, Ritika Jain, Upasana Roychowdhury, Sayantee Jana	IISA
	7:00am-8:00am	3:00am-4:00am	Speed Networking		CWS/ASA/SPE
S5	8:00am-9:00am	4:00am-5:00am	How difficult is it for a woman to climb the career ladder? Evidence from Cyprus	Haritini Tsangari	Cyprus Statistical Society
S6	9:00am-10:00am	5:00am-6:00am	Interview of Rashida Bokhari	Saleha Habibullah, Rashida Bukhari	PISTAR
S7	10:00am-11:00am	6:00am-7:00am	From Physio to Statistician: Functional Data Analysis with Application in Sports	Norma Bargary	RSS YSS, Young-ISA
S8	11:00am-12:00pm	7:00am-8:00am	Turning Around: On Some Statistical Methods for Circular Data	Rosa M. Crujeiras	SEIO (Spanish Statistical Society)
S9	12:00pm-1:00pm	8:00am-9:00am	Geospatial Data Science for Public Health Surveillance	Paula Moraga	BioSS
S10	1:00pm-2:00pm	9:00am-10:00am	Celebrating Legacy of Florence Nightingale: Information about Florence Nightingale Day	Shili Lin, Jessica Kohlschmidt	CWS/ASA
S11	2:15pm-3:45pm	10:15am – 11:45am	Diverse Statistical Approaches: Origin and Fundamentals	Alexandra Schmidt, Ivette Gomes, Gerda Claeskens	CWS/SPE

S12	3:45pm-5:00pm	11:45am-1:00pm	Biostatistics Leadership in Oncology Clinical Trials	Sumithra Mandrekar, Megan Othus, Arzu Onar-Thomas	SCT/CWS
S13	5:00pm-6:00pm	1:00pm-2:00pm	Methods for Cluster-correlated Data Analysis	Kendra Plourde, Aya Mitani, Kerrie Nelson	CWS/SSC
S14	6:00pm-7:00pm	2:00pm-3:00pm	Work-life Balance throughout the Academic Research Career	Maya Mathur, Bei Jiang, Josee Dupuis, Sarah Lotspeich	CWS/SSC
S15	7:00pm-8:00pm	3:00pm-4:00pm	The Power of r-power	Nairanjana Dasgupta	CWS
S16	8:00pm-9:00pm	4:00pm-5:00pm	Bayesian Statistics	Federica Zoe Ricci, Isabella Deutsch, Katie Buchhorn	ISBA
BR	9:00pm-10:00pm	5:00pm-6:00pm	Speed Networking		CWS/ASA/SPE
S17	10:00pm-11:00pm	6:00pm-7:00pm	The Academic Data Science Alliance: A community for a just, equitable future	Micaela Parker	ADSA
S18	11:00pm-11:59pm	7:00pm-7:59pm	Concluding Session	Tomi Mori, Jessica Kohlschmidt,	CWS/ASA/SPE







Time Zone Converter:

<https://dateful.com/time-zone-converter>

If you have any questions, please contact: Idwsds1@gmail.com

Conference website: IDWSDS.org

IDWSDS Planning and Organizing Committee and Welcome Session

	<p>Altea Lorenzo-Arribas https://www.bioss.ac.uk/people/altea.html</p> <p>Socio-Economic Statistician Biomathematics & Statistics Scotland BioSS Office, The James Hutton Institute Craigiebuckler, ABERDEEN, Scotland, UK</p>
	<p>Donna LaLonde https://www.amstat.org/about-asa/asa-staff</p> <p>Director of Strategic Initiatives and Outreach American Statistical Association</p>
	<p>Jessica Kohlschmidt https://www.linkedin.com/in/jkkstat/</p> <p>Executive Director, Caucus for Women in Statistics</p> <p>Biostatistician, Acute Leukemia Research Group, Ohio State University</p>
	<p>Miguel de Carvalho www.maths.ed.ac.uk/~mdecarv/</p> <p>Reader in Statistics School of Mathematics University of Edinburgh Edinburgh, UK</p>



Vanda Lourenço

<http://www.vandalourenco.eu/>

Assistant Professor, Department of Mathematics
NOVA School of Science and Technology
NOVA University of Lisbon

President of the Supervisory Board of the Portuguese
Statistical Society (SPE)
Portuguese Representative for Caucus for Women in
Statistics (CWS)



Motomi (Tomi) Mori

<https://www.stjude.org/directory/m/motomi-mori.html>

Chair and Member, Department of Biostatistics, St. Jude
Children's Research Hospital

Past President, Caucus for Women in Statistics



Katherine Bennett Ensor, Ph.D., is the Noah G. Harding Professor of [Statistics](#) in the [George R. Brown School of Engineering](#) at Rice University where she serves as director of the [Center for Computational Finance and Economic Systems \(CoFES\)](#). She also oversees the development of the [Kinder Institute Urban Data Platform](#), a resource for the greater Houston area. She served as chair of the Department of Statistics from 1999 through 2013.

Dr. Ensor, an expert in many areas of modern statistics, develops innovative statistical techniques to answer important questions in science, engineering, and business with a focus on the environment, energy, and finance. She is a fellow of the American Statistical Association, a fellow of the American Association for the Advancement of Science, and has been widely recognized for her leadership, scholarship, and mentoring. She is President of the American Statistical Association

S2 (1:00am-3:00am)

Women in Statistics and Data Science: Career Journeys, Perspectives and Opportunities in New Zealand

Organizers: Claire Cameron and Robin Turner



Statistics to Biostatistics

Research Associate Professor Claire Cameron

Claire is a member of the Biostatistics Centre (University of Otago, New Zealand) providing biostatistical collaboration and advice to people involved with health research. Her involvement in research is varied but, usually, she contributes methodological expertise to a project. She has worked as a statistician in various guises since 1990. She has worked with official statistics, hospital data, and done a lot of analyses related to wildlife. She has also taught statistics at first and second year level. Her PhD (completed in 2009) investigated the use of open population capture-recapture models to estimate diabetes prevalence and incidence in Otago, New Zealand.

She has been in this role since late August 2011. She has been a member of the New Zealand Statistical Association since 1990 and a member of (and the New Zealand representative for) the Caucus of Women in Statistics since 2020.



My Path to Biostatistics – Learning Effects in Crossover Trials

Dr Jill Hazard, Senior Research Fellow, Biostatistics Centre, University of Otago.

Jill is a biostatistician who specialises in the design and analysis of nutrition, sleep, and time-use studies; in particular, randomised controlled trials including cross-over trials and factorial trials.



Riches from Rags: Health Research using Routinely Collected Data

Research Associate Professor Gabrielle Davie

With a background including a Masters degree in Biostatistics from the University of Melbourne and 20 years involvement in quantitative research projects, Gabrielle has a diverse range of research experience and interests.

The use of routinely collected datasets for health research, in particular in the area of injury, is a key research area of hers. She has considerable expertise with accessing and analysing New Zealand's hospital discharge data, mortality collection, coronial case files and injury compensation claims for research purposes. This has resulted in Gabrielle being a named investigator on numerous research projects, as well as leading projects in the areas of injury surveillance, outcomes following injury and more recently the intersection of rurality, deprivation and ethnicity and their impact on health.

She currently works in the Department of Preventive and Social Medicine at the University of Otago, Dunedin, New Zealand and leads a team of data managers / programmers that provide crucial health data science expertise to researchers.



Biostatistician: The Perfect Job I Never Knew Existed

Dr Ella Iosua

Dr Ella Iosua is a Senior Research Fellow (Biostatistician) in the Biostatistics Centre at the University of Otago, providing expertise to Health Sciences researchers. Dr Iosua collaborates with and provides biostatistical advice to researchers from diverse academic disciplines with diverse levels of statistical literacy at optimally all stages of the research process, including research question articulation, study design, analysis, and inference.



Women in Statistics and Data Science in Aotearoa New Zealand

Dr Alice Hyun Min Kim

Dr. Alice Hyun Min Kim is a Biostatistician/Research Fellow based in Wellington, New Zealand. Her research interests focus on the applications of Epidemiology and Statistics in Medicine, Psychology and Public Health. She studied Economics at the University of Auckland and Harvard University, and has an MSc in Statistics from the University of Auckland and a PhD in Health Sciences from the University of Canterbury. Her teaching experiences include Epidemiology (first year) and Health Issues in the Community (postgrad). In her current role at the University of Otago Wellington, she provides biostatistical and methodological input to various health research projects working with a diverse group of researchers across disciplines and institutions. She is a member of the WHO Thematic Platform for Health Emergency and Disaster Risk Management Research Network and has lead- and co-authored research methods chapters on natural experiment design and health disaster and emergency research data.



My journey and work as a Statistician

Dr Nokuthaba Sibanda

Dr Nokuthaba Sibanda is a Senior Lecturer in Statistics in the School of Mathematics and Statistics at Victoria University of Wellington in New Zealand. She is also the Associate Dean for Postgraduate Research in the Faculty of Engineering and the Secretary for the New Zealand Statistical Association. Earlier in the year she was the co-Ambassador for Women in Data Science NZ. Nokuthaba's research focuses on the development of methods for application in health-related areas and fisheries modelling. She obtained her Bachelors' degree in Statistics from the University of Zimbabwe, her MSc in Statistics from University College London and a PhD from Imperial College London. Before moving to academia in New Zealand, she worked as a Biostatistician in the UK.







Organizer

Professor Robin Turner

Professor Robin Turner is Director of the Biostatistics Centre and is passionate about Biostatistical research and teaching. She specialises in the application of biostatistical methods to health related research. Her research covers a wide range of health related areas including understanding the burden of influenza and other respiratory viruses, improving follow-up and monitoring after treatment for cancer and estimating the prevalence and risk factors for chronic diseases. Robin is an expert in the biostatistical methods relating to a randomised clinical trial design to estimate the effect of patient preferences for treatment on their outcomes. She is involved in research into improved biostatistical methods for risk prediction modelling. She has expertise in the methods and analysis of diagnostic test accuracy reviews. Robin enjoys the challenge of applying statistical methods to health-related studies and developing novel methods.

Session 3 (3:00am-5:00am)
Gender, Statistics and COVID-19 in Korea

Organizer: Man-Suk Oh

	<p>Introduction to WISK</p> <p>Man-Suk Oh https://pure.ewha.ac.kr/en/persons/man-suk-oh Professor, Department of Statistics Ewha Womens University, Korea</p> <p>President, Women in Statistics in Korea (WISK)</p>
	<p>Integrating a gender gap perspective into statistics</p> <p>Sohee Park https://ir.ymlib.yonsei.ac.kr/researcher-profile?ep=521 Professor, Department of Biostatistics Graduate School of Public Health Yonsei University, Korea</p>
	<p>Prognosis of COVID-19 patients by the underlying disease and drug treatment in Korea</p> <p>Taerim Lee https://www.researchgate.net/profile/Tae-Rim-Lee Emeritus Professor, Department of Data Science & Statistics Korea National Open University, Korea</p> <p>IBS Executive Board Director</p>
	<p>Algorithms for clustering COVID-19 data: An overview of current trends and new visual approaches</p> <p>Eun-Kyung Lee https://pure.ewha.ac.kr/en/persons/eun-kyung-lee Professor, Department of Statistics Ewha Womens University, Korea</p>

Session 4 (5:00am-7:00am)
Young Female Statisticians from India

Organizer: Sayantee Jana



Robust estimation of dependent competing risk model under interval monitoring and determining optimal inspection intervals

Dr. Shuvashree Mondal

Indian Institute of Technology (ISM), Dhanbad, India
Assistant Professor, Dept. of Mathematics and Computing
<https://in.linkedin.com/in/dr-shuvashree-mondal-b3013a51>

Dr. Shuvashree Mondal is currently working as an Assistant Professor in the Department of Mathematics and Computing, IIT (ISM) Dhanbad, Dhanbad, India. She received her Ph.D. and MSc in Statistics from IIT Kanpur. Her research area includes life time data analysis under censoring, distribution theory, competing risk, cure rate model, life time analysis of one-shot devices.

Abstract: Recently, a growing interest is quite evident in modelling dependent competing risks in life time prognosis problem. In this work, we propose to model the dependent competing risks by Marshal-Olkin bivariate exponential distribution. The observable data consists of number of failures due to different causes across different time intervals. The failure count data is com-mon in instances like one shot devices where state of the subjects are inspected at different inspection times rather than the exact failure times. The point estimation of the life time distribution in presence of competing risk is studied through divergence based robust estimation method called minimum density power divergence estimation (MDPDE). The testing of hypothesis is performed based on a Wald type test based on the asymptotic distribution of the MDPDE. The influence function is derived both for the point estimator and the test statistic, which reflects the degree of robustness. Apart from inference study, in interval monitoring set-up, it is essential to set the inspection times such that the experiment serves different goals of the experimenter adequately. In this context, we desire the precision of the estimator to be as high as possible along with minimum budget for the experiment. We try to achieve both the goals through multi-objective

optimization. Population based heuristic algorithm, Genetic Algorithm (GA) is implemented which returns a set of Pareto optimal solutions. In this work, we exploit a version of non-dominated sorting GA called NSGA-II.



Information and communication technology and female employment in India

Dr. Ritika Jain

Assistant Professor, Centre for Development Studies, Trivandrum

<https://sites.google.com/view/ritika-jain/home>

Ritika Jain is an Assistant Professor at Centre for Development Studies, Trivandrum. She received her Ph.D. and M.Sc. from Indira Gandhi Institute of Development Research (IGIDR), Mumbai. Her research interests include public policy, applied industrial organisation and employment.

Abstract: We revisit the issue of declining female labour force participation in India by investigating the role of information and communication (ICT) adoption. Given the background of rapidly penetrating ICT in India in the past few decades, we explore the impact of ICT adoption (ownership and use) on female labour market behaviour. We use two rounds of a nationally representative survey, the India Human Development Survey and estimate instrumental variable and sample selection models and find that ICT adoption increases the likelihood of female employment and entry into labour market and decreases the likelihood of exit from labour market. We contrast our analysis by comparing it with male employment and find evidence of differential impact of ICT adoption. We find that the effect is limited to women dwelling in urban areas, having some access to formal education and not working in casual employment. The positive impact of ICT adoption on the likelihood of employment is stronger for unmarried women. We further explore two channels through which ICT adoption could influence labour market participation- access to information and empowerment and our results suggest that the positive effects of ICT adoption on employment could be driven through either of these channels.

Kindly note that the paper is coauthored with Dr. Tirtha Chatterjee, assistant professor at OP Jindal School of Government and Public Policy.



AI in manufacturing: Predictive to prescriptive

Ms. Upasana Roy Chowdhury
Associate Director | Analytics and Cognitive in Deloitte India
<https://www.linkedin.com/in/upasana-roy-chowdhury-24835615/>

Upasana Roy Chowdhury is an enthusiastic professional who has a background of Mathematics and Statistics. She has over 10 years of extensive experience in Supply-chain and Manufacturing domains. she has worked in Demand Prediction, Inventory management, Predictive Asset Maintenance and Quality Improvement. Additionally, she has also been involved in solving niche problems like New Product Demand and Intermittent Demand forecasting.



Data mining techniques for identifying relevant comorbidities, from a large set, in traumatic brain injury, for big health-administrative data involving Electronic Health Records

Dr. Sayantee Jana
Assistant Professor, Indian Institute of Technology,
Hyderabad, India
<https://www.linkedin.com/in/sayantee-jana/>

Sayantee Jana is an Assistant Professor in the Department of Mathematics, IIT Hyderabad. Prior to joining IITH in 2021, Sayantee was an Assistant Professor in IIM Nagpur from 2019. She did her PhD from McMaster University, where she worked on multivariate skewed distributions and high-dimensional multivariate data, and was a recipient of the International Excellence Award and the F.R. Britton scholarship. She was also a Young Ambassador to the World Statistics Congress, 2019 in Kuala Lumpur, to present one of her PhD papers. As a Postdoctoral Fellow at the University of Toronto, she worked on developing data mining and dimension reduction techniques for big data of Electronic Health Records. She was awarded the Florence Nightingale Award at the International Biometric Conference 2020, for this work. She is a recipient of Queen Elizabeth Scholarship to work at the University of Toronto, on spatio-temporal modelling of malaria mortality in India. She recently visited Fields Institute of Mathematical Sciences, Canada as a Fields Research Fellow to develop methods for skewed spatio-temporal data. Her research

interests are in the fields of multivariate and skewed distributions, spatio-temporal modelling and data mining.

Abstract: Multiple testing procedures (MTP) are gaining increasing popularity in various fields of biostatistics, especially in statistical genetics. However, in injury surveillance research utilizing the growing amount and complexity of health-administrative data encoded in the International Statistical Classification of Diseases and Related Health Problems 10th Revision (ICD-10), few studies involve MTP and discuss their applications and challenges. We aimed to apply MTP in the population-wide context of comorbidity preceding traumatic brain injury (TBI), one of the most disabling injuries, to find a subset of comorbidity that can be targeted in primary injury prevention.

In total, 2,600 ICD-10 codes were used to assess the associations between TBI and comorbidity, with 235,003 TBI patients, on a matched data set of patients without TBI. McNemar tests were conducted on each 2,600 ICD-10 code, and appropriate multiple testing adjustments were applied using the Benjamini-Yekutieli procedure. To study the magnitude and direction of associations, odds ratios with 95% confidence intervals were constructed. Benjamini-Yekutieli procedure captured 684 ICD-10 codes, out of 2,600, as codes positively associated with a TBI event, reducing the effective number of codes for subsequent analysis and comprehension. Our results illustrate the utility of MTP for data mining and dimension reduction in TBI research utilizing big health-administrative data to support injury surveillance research and generate ideas for injury prevention.

Session 5 (8:00am-9:00am)

How difficult is it for a woman to climb the career ladder? Evidence from Cyprus



How difficult is it for a woman to climb the career ladder? Evidence from Cyprus

Dr. Haritini Tsangari is Professor of Statistics at the School of Business, University of Nicosia, Cyprus. She is also the Director of Doctoral Programs of the School of Business and the Chair of the Faculty Affairs Committee of the University Senate. Her education includes a BSc in Mathematics and Statistics from the University of Cyprus, an MSc in Statistics and a PhD in Statistics from the Pennsylvania State University, USA. Her research interests involve Applied Statistics in areas such as Finance, Management and Healthcare, as well as model building and forecasting. Some of her recent work is in job satisfaction and retention, the use of Artificial Intelligence, sustainability and ESG investing, social inclusion, diversity and gender equality. She has published numerous articles in international academic journals, many of which have received distinctions and have been widely cited. Her work has been presented in local and international conferences and she has been the principal investigator in projects funded by local or European funding institutions. Prof. Tsangari is currently the Vice President of the Cyprus Statistical Society.

[Professor Haritini Tsangari – University of Nicosia \(unic.ac.cy\)](http://unic.ac.cy)

Session 6 (9:00am-10:00am)
Interview of Rashida Bokhari

Organizers: Saleha Habibullah, Rashida Bukhari



Ms. Rashida Bokhari received Master of Economics from Punjab University, Lahore, and Bachelor of Arts in Economics/Sociology, from Punjab University, Lahore. She was Principal of Training Wing of Federal Bureau of Statistics, Islamabad; Directing Staff in Research, National Management College, Lahore; Pakistan Institute of Statistical Training and Research (PISTAR), Lahore. She provided administrative management of the Pakistan Institute of Statistical Training & Research (PISTAR), coordinated National and International level workshops/seminars & training courses.

Session 7 (10:00am-11:00am)

From Physio to Statistician: Functional Data Analysis with Application in Sports

Organizers: Altea Lorenzo-Arribas (Biomathematics & Statistics Scotland, BioSS), Joy Leahy (YSS/RSS statistical ambassador) and Rafael de Andrade (Y-ISA/Maynooth University)

Functional data analysis (FDA) is a statistical methodology that is suitable for modelling high-dimensional data collected over some continuum (typically time). FDA is particularly suitable for the modelling and analysis of data that are measured continuously, more recently via state-of-the-art sensor technologies. This talk will give an overview of FDA with applications to data collected in a variety of sports settings, and discuss the methodological challenges associated with the statistical modelling of these modern human movement datasets.



Norma Bargary

Norma Bargary is Professor of Data Science and Statistical Learning at the University of Limerick, Ireland. Her research centres on the development of statistical models for large, high-dimensional and complex data that are measured over time (e.g. data measured using sensors, human movement data, etc.). Her work is cross-cutting and she has extensive experience working with collaborators across a range of fields such as medicine, biology, sports science, psychology, chemistry, and with industry partners. She has a leading role in several national centres of excellence including: Principal Investigator in Confirm Centre for Smart Manufacturing, Modelling Theme Lead and Funded Investigator in the Solid State Pharmaceutical Centre (SSPC) and Funded Investigator in the Insight Centre for Data Analytics. She is a leading member of the Mathematics Applications Consortium for Science and Industry (MACSI) at UL, and is the UL Vice-Director of the SFI Centre for Research Training in Foundations of Data Science. Her work has been funded by SFI, Enterprise Ireland, EU (FP7, H2020, Erasmus+) and industry, totalling in excess of €16M. She is currently PI on an SFI Frontiers of the Future grant and 3 targeted projects with J&J, Becton-Dickinson and Medtronic. She is also a Royal Statistical Society statistical ambassador.

<https://www.ul.ie/hri/person/hri-member/prof-norma-bargary>

Session 8 (11:00am-12:00pm)

Turning around: on some statistical methods for circular data

SEIO (Spanish Statistical Society)



Rosa M. Crujeiras is an Associate Professor at the Department of Statistics, Mathematical Analysis and Optimization at the University of Santiago de Compostela (USC, Spain). She obtained her PhD in Mathematics in January 2007, with a thesis entitled "Contributions to Spatial Spectral Statistics". She was a post-doc researcher at the Institut de Statistique, Biostatistique et Sciences Actuarielles, Université Catholique de Louvain (Belgium). Her research lines focus on non-parametric inference (estimation and tests) in directional data and processes with spatial dependence. She has led a research line on nonparametric curve estimation for circular and directional data, recently including some advances on circular spatial processes. She has supervised six PhD thesis and has been principal investigator of three national research grants. On September 2021, she was appointed as Scientific Director of the Galician Centre for Mathematical Research and Technology (CITMAga). She is also a member of the Academic Committee of SEIO.

<https://www.usc.gal/en/department/statistics-mathematical-analysis-and-optimisation/directory/rosa-maria-crujeiras-casais-76343>

Session 9 (12:00pm-1:00pm)

Geospatial Data Science for Public Health Surveillance

Organizers: Altea Lorenzo-Arribas, Esther Jones & Claire Harris (Biomathematics & Statistics Scotland, BioSS)

Geospatial health data are essential to inform public health and policy. These data can be used to quantify disease burden, understand geographic and temporal patterns, identify risk factors and measure inequalities. In this talk, I will give an overview of statistical methods and computational tools for geospatial data analysis and health surveillance. I will present disease risk models where environmental, demographic and climatic data are used to predict the risk and identify targets for intervention of tropical diseases. I will also show the R packages *epiflows* for risk assessment of travel-related spread of disease, and *SpatialEpiApp* for disease mapping and the detection of clusters. Finally, I will describe my future research and how it can inform better surveillance and improve population health globally.



Paula Moraga

Paula Moraga is an Assistant Professor of Statistics at King Abdullah University of Science and Technology (KAUST), and the Principal Investigator of the Geospatial Statistics and Health Surveillance (GeoHealth) research group. Her research focuses on the development of innovative statistical methods and computational tools for geospatial data analysis and health surveillance. She develops spatial and spatio-temporal statistical methods to understand the geographic and temporal patterns of diseases, assess their relationship with potential risk factors, detect clusters, measure inequalities, and evaluate the impact of interventions. She also works on the development of statistical software and interactive visualization applications for reproducible research and communication, and the impact of her work has directly informed strategic policy in reducing the burden of diseases such as malaria and cancer in several countries. She has published extensively in leading journals and she is the author of the book *Geospatial Health Data: Modeling and Visualization with R-INLA and Shiny* (2019, Chapman & Hall/CRC). She received her Ph.D. in Mathematics from the University of Valencia, and her Master's in Biostatistics from Harvard University.

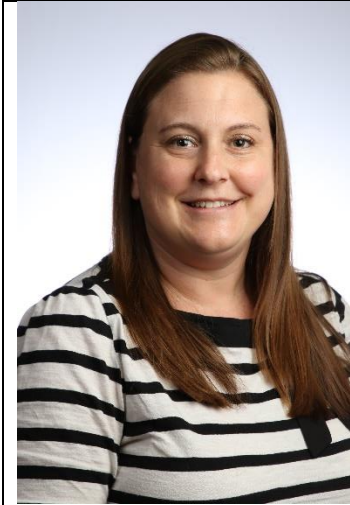
<https://www.paulamoraga.com/>

Session 10 (1:00pm-2:00pm)

Celebrating Legacy of Florence Nightingale: Information about Florence Nightingale Day



Dr. Shili Lin is Professor of Statistics at the Ohio State University. Her research interests lie in the development and application of statistical methods to genomic data from population and family samples. Shili Lin joined the statistics faculty in 1995. Prior to that, she was the Neyman Visiting Assistant Professor in the Department of Statistics at the University of California at Berkeley from 1993-1995. She is an active member of and serves the statistical profession in various capacities, including editorial service for various journals (e.g. current Associate Editor (AE) of *Biometrics* and former AE of the *Journal of the American Statistical Association*), being a standing member in NIH Study Sections (e.g. *Biostatistical Methods and Research Design*), and serving professional organizations such as the American Statistical Association (ASA) and the International Biometrics Society (IBS). Shili Lin also served as the 2018 Caucus for Women in Statistics (CWS) as President. During her tenure as the President, she led the caucus in several directions to strengthen its impact on the profession. Most notable is her continuing effort to increase the national and international reputation of CWS as a premier organization advocating for women in statistics and data science, including her leadership in establishing the Joint IBS-CWS Biennial Florence Nightingale Award. Her work, in coordination with ASA, on the Florence Nightingale Day to encourage middle high school students to pursue educational and career opportunities in statistics and data science, has now been expanded internationally. Shili Lin is a Fellow of the ASA (elected in 2004), a Fellow of the American Association for the Advancement of Science (elected in 2009), and an elected member of the International Statistics Institute (elected in 2014).



Jessica Kohlschmidt is an Executive Director of the Caucus for Women in Statistics and a biostatistician for an Acute Leukemia Research Group at the Ohio State University.

Session 11 (2:15pm-3:45pm)

Diverse Statistical Approaches: Origin and Fundamentals

Organizer: Vanda Lourenço (SPE & CWS)

In this session a general historical overview of three particular areas of statistics will be given: Specifically, Bayesian statistics (Alexandra Schmidt), extreme value theory (Ivette Gomes), and model selection and inference (Gerda Claeskens). The speakers of this invited session are well known and established researchers in the above areas of statistics. Check below their short-bios and stay tuned for this session!



Bayesian statistics and Bayesian inference in spatial statistics

Alexandra Schmidt

<http://alex-schmidt.research.mcgill.ca/>

Alexandra M. Schmidt is Professor of Biostatistics and holds the endowed University Chair in the Department of Epidemiology, Biostatistics and Occupational Health (EBOH) at McGill University. Currently, she is the Program Director of the Biostatistics Graduate Program. She is an Elected Fellow of the American Statistical Association (2020) and an Elected Member of the International Statistical Institute (2010). She was awarded the Distinguished Achievement Medal (2017) from the American Statistical Association's Section on Statistics and the Environment and the Abdel El-Shaarawi Young Investigator Award (2008), from The International Environmetrics Society. She was the 2015 President of the International Society for Bayesian Analysis.



Extreme value theory

Ivette Gomes

https://www.researchgate.net/profile/Maria_Gomes17

Ivette Gomes is a principal researcher at CEAUL (Centre for Statistics and Applications, UL) since 1979, an Emeritus Professor at the Faculty of Science, University of Lisbon (UL), since 2017, and an Elective Member of the Academy of Sciences of Lisbon since 2018. She has a PhD in Statistics (University of She_eld, UK, 1978), an Habilitation Degree in Applied Mathematics (UL, 1982) and one of her main areas of research is Statistics of Extremes and Risk Evaluation. She was a founding member and President of the Portuguese Statistical Society (SPE) and among other

editorial duties, she was editor-in-chief of Revstat Statistical Journal (2003-2018) and she has been associate editor of Extremes since 2007.



Model selection and inference after model selection

Gerda Claeskens

<https://feb.kuleuven.be/gerda.claeskens/public>

Gerda Claeskens is professor of statistics at the research group OR-STAT and the Leuven Statistics Research Center of the KU Leuven, Belgium. Her research mostly focuses on model selection methods, inference post-selection, nonparametric estimation and high-dimensional data. Gerda is a Fellow of the Institute of Mathematical Statistics and of the American Statistical Association. She is an Elected Member of the International Statistical Institute and she was a 2016 IMS Medallion lecturer. Earlier she received a Gottfried E. Noether Young Scholar award. Gerda Claeskens currently serves as Associate Editor of the Journal of the American Statistical Association, International Statistical Review and of TEST.

Session 12 (3:45pm-5:00pm)

Biostatistics Leadership in Oncology Clinical Trials

Organizer: Tomi Mori (CWS & SCT)

In this session, we will highlight biostatistics leadership and contributions made by three women biostatisticians in cancer clinical trials: Sumithra Mandrekar at Mayo Clinic, Megan Othus at Fred Hutchinson Cancer Research Center, and Arzu Onar-Thomas at St. Jude Children's Research Hospital. Together they represent three major cooperative groups funded by the National Cancer Institute in the United States: Alliance, SWOG and the Pediatric Brain Tumor Consortium (PBTC). They will share their experience of challenges in design, conduct and analysis of cancer clinical trials. The session is co-sponsored by CWS and Society for Clinical Trials.



From Precision Medicine to Patient Retention: Conduct of Clinical Trials in Oncology

Sumithra Mandrekar, PhD

<https://www.mayo.edu/research/faculty/mandrekar-sumithra-j-ph-d/bio-00028162>

Sumithra J. Mandrekar, PhD is Professor of Biostatistics and Oncology at the Mayo Clinic, Rochester MN, and the Group Statistician for the Alliance for Clinical Trials in Oncology, which is one of the 4 NCI- funded national clinical trials networks for the conduct of phase II and III clinical trials in adult cancer. She is widely recognized for significant contributions to the statistical methodology for the design, conduct and analysis of clinical trials, particularly in oncology; for leadership in clinical trials and data management coordination at Mayo Clinic and the Alliance for Clinical Trials in Oncology; for leadership on national and international steering committees and advisory panels related to cancer, including the National Cancer Institute Clinical and Translational Advisory Committee (CTAC). She is a fellow and past president of the Society for Clinical Trials, and co-chair of the Ad hoc Working Group on Streamlining Clinical Trials. Dr. Mandrekar's primary research interests include adaptive dose-finding early phase trial designs, designs for predictive biomarker validation, and general clinical trial methodology related to conduct of clinical trials and identification of alternative cancer clinical trial endpoints.



Lessons learned from implementing a novel endpoint is a randomized Phase 2 trial for high-risk resectable melanoma: SWOG Cancer Research Network Trial S1801

Megan Othus, PhD

<https://www.fredhutch.org/en/faculty-lab-directory/othus-megan.html>

Megan Othus is Professor of Biostatistics at the Fred Hutchinson Cancer Center in Seattle, Washington, USA. She is the faculty statistician for the SWOG Cancer Research Network Rare Cancer and Leukemia Committees. In this role she leads the design, oversight, analysis, and reporting of the statistical aspects of clinical trials from these committees. She also leads the statistical components of the translational medicine research that is being conducted either in conjunction with these clinical trials or in collaboration with investigators who have been provided specimens from SWOG's Biospecimen Repository. In addition to clinical trial design, her primary research interests are in using statistical modeling to better understand endpoints.



When the rare gets rarer: approaches to clinical trial designs in pediatric brain tumors

Arzu Onar-Thomas, PhD



<https://www.stjude.org/onar>

Dr. Arzu Onar-Thomas is a Member (Professor) at the Biostatistics Department of St Jude Children's Research Hospital. Her statistical expertise focuses on clinical trial design and implementation with a translational focus on Pediatric Neuro-oncology. She leads the Biostatistics support for the Neurobiology and Brain Tumor Program at St Jude Comprehensive Cancer Center and is a member of the faculty at St Jude Graduate School. Dr. Onar-Thomas is the co-Principal Investigator of the Pediatric Brain Tumor Consortium and the Executive Director of its Operations, Biostatistics and Data Management Core. She also serves as the Lead Faculty Statistician for the Children's Oncology Group's CNS Committee supporting CNS trials in design, operations and analysis. Dr. Onar-Thomas is a member of the NCI's Brain Malignancy Steering Committee, Children's Oncology Group Scientific Council and serves as a Biostatistics Associate Editor for the Journal of Clinical Oncology.

S13 (5:00pm-6:00pm)

Methods for Cluster-correlated Data Analysis

Organizers: Wendy Lou and Aya Mitani

	<p>Sample size considerations for stepped wedge designs with subclusters</p> <p>Kendra Plourde https://medicine.yale.edu/profile/kendra_plourde/</p> <p>Kendra Plourde is an Assistant Professor of Biostatistics at the Yale University School of Public Health. Her research interests are in the design and analysis of randomized controlled trials and observational studies with correlated data, for example, longitudinal studies, cluster randomized and stepped wedge designs with complex sources of clustering, and clinical trials with multivariate outcomes.</p>
	<p>Accounting for drop-out using inverse probability censoring weights in longitudinal clustered data with informative cluster size</p> <p>Aya Mitani https://www.dlsph.utoronto.ca/faculty-profile/ayamitani/</p> <p>Aya Mitani is an Assistant Professor in the Division of Biostatistics at the Dalla Lana School of Public Health, University of Toronto. Her research focuses on developing statistical methods to analyze correlated data and to remove biases that emerge from informative cluster size, study design, missing data, or misclassification in multilevel observational studies and complex surveys. She has collaborated with researchers from various disciplines including oncology, nephrology, anesthesiology, and oral health.</p>



A novel paired kappa for comparing binary ratings in breast cancer screening

Kerrie Nelson

<https://www.bu.edu/sph/profile/kerrie-nelson/>

Originally from New Zealand, Kerrie Nelson is a Research Professor in the Department of Biostatistics at Boston University in Massachusetts. Her research interests include developing new statistical methods to evaluate the agreement and consistency between radiologists' ratings of mammograms in breast cancer screening. These new methods incorporate correlated and clustered ordinal classifications of multiple radiologists.

Session 14 (6:00pm-7:00pm)

Work-life Balance throughout the Academic Research Career

Organizer: Aya Mitani

We invited three statisticians from various career stages (early-career, mid-career, and seasoned) to share their experiences - including challenges and tips - on maintaining work-life balance. The session will begin with a short presentation from each panelist and move to a Q&A session led by the discussant with audience participation. Discussions will include settling in a new workplace/city/country, building a strong network of colleagues/mentors/friends, navigating various work and at-home demands, and striving for professional and personal growth.



Panelist 1 (Early-career): Maya Mathur

<https://profiles.stanford.edu/maya-mathur>

Maya Mathur is an Assistant Professor at the Stanford University Quantitative Sciences Unit and the Associate Director of the Stanford Center for Open and Reproducible Science. She is a statistician whose methodological research focuses on advancing methods for meta-analysis, replication studies, and sensitivity analysis.



Panelist 2 (Mid-career): Bei Jiang

<https://sites.ualberta.ca/~bei1/>

Dr. Bei Jiang is an Associate Professor at the Department of Mathematical and Statistical Sciences of the University of Alberta and Fellow of the Alberta Machine Intelligence Institute (Amii). She received her PhD in Biostatistics in 2014 from University of Michigan. Prior to joining the University of Alberta in 2015 as an Assistant Professor, she was a postdoctoral researcher at the Department of Biostatistics at the Columbia University from 2014 to 2015. Her main research interests focus on statistical integration of multi-source and multi-modal data, and statistical disclosure control and learning methods for privacy protection. She has also worked closely with collaborators in women's health, mental health, neurology, and industry partners to apply cutting-edge statistical learning methods to real-world applications.



Panelist 3 (Seasoned): Josée Dupuis

<https://www.mcgill.ca/epi-biostat-occh/josee-dupuis>

Josée Dupuis, Ph.D., is Professor and Chair, Department of Epidemiology, Biostatistics and Occupational Health, in the School of Population and Global Health at McGill University in Montreal. She previously held faculty positions at Northwestern University and Boston University School of Public Health, and a senior statistical geneticist position at Genome Therapeutics Corporation, a small biotech company. Professor Dupuis has co-authored over 250 articles in the field of statistical genetics. She is involved in the Framingham Heart Study, collaborating on projects to identify genes influencing diabetes related traits and pulmonary function traits. She is an Associate Editor for the journal Biostatistics. Professor Dupuis is a Fellow of the American Statistical Association (ASA), a Fellow of the American Association for the Advancement of Science (AAAS) and she is past-President of the International Genetic Epidemiology Society. She was honored with the International Genetic Epidemiology Leadership Award for her substantial contributions to the field and her service to the Society, and she received the 2020 American Society of Human Genetics Mentorship Award.



Discussant: Sarah Lotspeich

<https://www.sarahlotspeich.com/>

Sarah Lotspeich completed her doctoral training in Biostatistics at Vanderbilt University, followed by a postdoctoral fellowship at the University of North Carolina at Chapel Hill. She is now excited to be in her first year as an Assistant Professor of Statistics at Wake Forest University. Her research is motivated by challenges encountered in analyzing error-prone observational data, particularly in international HIV cohorts and the EHR, and in statistical modeling from data with censored covariates, with applications to Huntington's disease. Outside of academia, Sarah has also worked in data-centric roles with a government health department, a Fortune 500 energy corporation, and a social media tech company. Sarah was raised by rocket scientists on the east coast of Florida, previously earning a BS in Statistics from the University of Florida. When she's not writing code, you can find her cross-stitching, crocheting, or rewatching The Mindy Project for the millionth time.

Session 15 (7:00pm-8:00pm)

The Power of r-power



Nairanjana Dasgupta

Nairanjana (Jan) Dasgupta is a Boeing Distinguished Professor of Science and Mathematics and Professor in the Department of Mathematics and Statistics at Washington State University (WSU). She also the Directs of the Data Analytics Program. She has been a fellow of American Statistical Association (ASA) since 2018. She is part of the Advisory Board for Academic Data Science Alliance (ADSA) since 2020. She is the President for Caucus for Women in Stats (CWS) for 2022 and chairs the JEDI section for WNAR International Biometric Society. She has also been a Faculty Fellow for Data Sciences on her campus since 2021. She is vocal about lack of equity in Data Sciences. She is a passionate advocate for data literacy for all. She got her BS in Statistics from Presidency College (now Presidency University) Kolkata, India. Her MS, PhD are in Stats from University of South Carolina.

She is on the editorial board of *"The American Statistician"* and served on *"Journal of Statistical Computations and Simulations"*. She has an active research profile and has been funded by NIST, NSF, NIH and is currently co-PI on two funded grants. She has published more than 60 papers and has chaired 80 graduate student committees. Her current research is on using ranking-selection ideas to look at large scale multiplicity. She is currently writing a book on analysis of ordinal data.

She is a very involved mother and is active about advocacy for learning disabilities, special education. She enjoys reading, poetry, art and cooking, especially using Indian spices in other cuisines.




<https://www.math.wsu.edu/faculty/ndasgupta/>

Session 16 (8:00pm-9:00pm)

Bayesian Statistics

Organizers: Xenia Miscouridou, Alejandra Avalos Pachecho (j-ISBA)

In this session we have the pleasure to host three early career women researchers from the junior ISBA community. They will present recent advances in the broader area of Bayesian Statistics.

	<p><i>Thinned Random Measures for Sparse Networks with Overlapping Communities</i></p> <p>Federica Zoe Ricci is a third year PhD candidate in the Department of Statistics at the University of California Irvine. Her PhD research focuses on Bayesian Nonparametric models and she is jointly advised by Erik Sudderth and Michele Guindani. She is interested in the analysis of network data, in classification tasks and recommendation systems and enjoys working on projects related to statistics and data science education. She created the R package gradetools to assist data science teachers with grading and providing feedback to their students. https://federiczoe.github.io/</p>
	<p><i>Uncovering Product Cannibalisation using Multivariate Hawkes Processes</i></p> <p>Isabella Deutsch, M.Sc B.Sc is from Vienna, Austria and is currently living in Edinburgh, United Kingdom. She works as a Strategic Data Scientist and is PhD Student in Statistics, University of Edinburgh. She is the co-founder of the Piscopia Initiative. She serves as a student trustee and director at the Edinburgh University Students' Association. www.isabelladeutsch.com</p>
	<p><i>Bayesian Design for Monitoring Coral Reefs</i></p> <p>Katie Buchhorn lived in Germany for 3.5 years where she began her career self-employed and with it built a life abroad. She returned home to work on model development / quantitative analysis and is now working in the field of applied statistics in an environmental context as a PhD candidate at Queensland University of Technology. She wrote "Wondrous Worlds: the Extraordinary Adventures of a Curious Mathematician." www.wondrousworlds.com.au https://github.com/KatieBuc</p>

Speed Networking Break
9:00pm – 10:00pm



Session 17 (10:00pm-11:00pm)

The Academic Data Science Alliance:

A community for a just, equitable future

The Academic Data Science Alliance (ADSA) is a network of academic data science practitioners, educators, and leaders, and academic-adjacent colleagues, who thoughtfully integrate data science best practices in higher education. Our members connect and share their data-intensive approaches and responsible applications in teaching and research. ADSA members believe in a just, equitable future where data science approaches are thoughtfully applied in all domains for the benefit of all. By connecting data science communities across different domains, ADSA accelerates the advancement and uptake of data science innovation and best practices. Come learn about our latest Resources and upcoming Events that can help you!






Micaela Parker

<http://www.academicdatascience.org/>

Micaela Parker is the Founder and Executive Director of the Academic Data Science Alliance (ADSA). Before launching ADSA, Micaela was an Executive Director for the University of Washington's data science institute, the eScience Institute. Based on nearly a decade of experience, Micaela now offers consulting for emerging data science initiatives in academia. Prior to her entry into data science, Micaela was a research scientist for 10 years in the University of Washington's School of Oceanography, where she also earned her PhD. She managed the Center for Human Health and Ocean Studies and was involved in many large, interdisciplinary projects bridging oceanography and genomics.

Session 18 (11:00pm – 1159pm)
Closing Session

	<p>Jessica Kohlschmidt https://www.linkedin.com/in/jkkstat/</p> <p>Executive Director, Caucus for Women in Statistics</p> <p>Biostatistician, Acute Leukemia Research Group, Ohio State University</p>
	<p>Nairanjana Dasgupta</p> <p>Nairanjana (Jan) Dasgupta is a Boeing Distinguished Professor of Science and Mathematics and Professor in the Department of Mathematics and Statistics at Washington State University (WSU). She also the Directs of the Data Analytics Program. She has been a fellow of American Statistical Association (ASA) since 2018. She is part of the Advisory Board for Academic Data Science Alliance (ADSA) since 2020. She is the President for Caucus for Women in Stats (CWS) for 2022 and chairs the JEDI section for WNAR International Biometric Society. She has also been a Faculty Fellow for Data Sciences on her campus since 2021. She is vocal about lack of equity in Data Sciences. She is a passionate advocate for data literacy for all. She got her BS in Statistics from Presidency College (now Presidency University) Kolkata, India. Her MS, PhD are in Stats from University of South Carolina.</p> <p>https://www.math.wsu.edu/faculty/ndasgupta/</p>
	<p>Motomi (Tomi) Mori https://www.stjude.org/directory/m/motomi-mori.html</p> <p>Chair and Member, Department of Biostatistics, St. Jude Children's Research Hospital</p> <p>Past President, Caucus for Women in Statistics</p>

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