

Bios

Keynote speaker

Alicia Carriquiry, ISU, CSAFE



Professor Alicia Carriquiry is a distinguished Professor and President's Chair in Statistics and Director of Center for Statistics and Applications in Forensic Evidence at Iowa State University

Executive panel discussant

Steve Cross, Great West Casualty



With over 22 years of analytical experience in Consulting, Process Improvement, Solution Design, and Data Development, Steve has utilized his analytical rigor in the identification, refinement, and application development of new or existing products and concerns to improve product offerings in the most ethical manner. Steve came to Great West Casualty with experience in a variety of vertical markets, specializing in financial, insurance, credit services, healthcare, government, marketing, and automotive applications. He has been a speaker at the DMA, NCDM, as well as dozens of corporate conferences. At Great West, Steve has worked on refining the pricing models, creating solutions for internal and external stakeholders, and improving the training focus for analytics and big data. His combination of technical and consultative expertise allows him to wear many hats, giving him a unique perspective. Steve has an undergraduate degree in Mathematics/Economics from Bradley University and graduate degrees in Statistics and Genetics from University of Nebraska Lincoln.

Invited Speakers

Valerie Bares – Sanford Research



Dr. Valerie Bares earned her PhD in Computational Science and Statistics from South Dakota State University in 2017. Soon after graduation, she started working for Sanford Research in the Behavioral Sciences group as a Biostatistician. Since starting at Sanford, Valerie has worked with several areas of research such as behavioral science, cardiology, oncology, orthopedics, and sports science; including both big and small data. Dr. Bares is currently the Program Director and Senior Biostatistician of the Research Design and Biostatistics Core.

Lyanna Chu – Iowa State University



I completed my PhD in Biostatistics at UC Davis in 2019. Before that, I studied at UCLA. Currently I'm interested in working on problems related to modern data types, specifically in the context of change-point detection.

Anne Denton - NDSU



Anne Denton is Professor in the Computer Science Department at North Dakota State University (NDSU). She received her Ph.D. in Physics from the Johannes Gutenberg University, Mainz, Germany, in 1996 and a M.S. in Computer Science from NDSU in 2003. Her research interests are in data mining of diverse scientific data sets that are too complex to be analyzed using classical statistics techniques. Currently, she is working with collaborators in soil science, agricultural engineering, hydrology, and atmospheric science on projects that involve the climate impacts on agriculture. Denton has published more than 60 peer-reviewed journal and conference publications and has led projects funded at a total of more than one million dollars.

Tobey Eich – Premier Bankcard



Tobey Eich is a managing consulting analyst IV at Premier Bankcard.

Gerald Fahner - FICO



Dr. Gerald Fahner is Senior Principal Scientist in FICO's Scores division. He specializes on innovative algorithms that turn data and domain knowledge into superior insights, predictions, and decisions. Gerald is also responsible for the core algorithms underlying FICO's Scorecard development platform. His work on causal modelling won the Best Paper award at the Credit Scoring and Credit Control XI conference. Prior to joining FICO in 1996, he served as a researcher in artificial intelligence, neural networks and robotics at the International Computer Science Institute in Berkeley, and earned his Computer Science doctorate from University of Bonn.

Cami Fuglsby – South Dakota State University



Cami Fuglsby is a third-year Ph. D. student under Dr. Christopher Saunders in Computational Science and Statistics at SDSU. She is focusing her research on the study of Forensic Identification of Source problems using Machine Learning and Pattern Recognition techniques. She serves on the Forensic Document Examination sub-committee through the Organization of Scientific Area Committees for Forensic Science under the National Institute of Standards and Technology as their statistician, where her main focus is on the conclusion language used in examinations. She has received a number of awards for her work, including the 1st American Statistical Association Poster Prize at the International Workshop on Simulation and Statistics. Her work on statistical methods is supported by the National Institute of Justice.

David Groeneveld – Advanced Remote Sensing, Inc. (ARSI)



David recently moved to the Sioux Falls area from Santa Fe, New Mexico, coming here specifically to start a business in 2018. His previous startup, HydroBio, built on a long career consulting in issues concerning water, environment and remote sensing. HydroBio developed his patented irrigation prescription method that employs weather and satellite image data to accurately estimate crop water use found to be as accurate for irrigation prescription as soil probes in every pixel of the field. That IP is now

irrigating around the world for Bayer. For Advanced Remote Sensing, Inc. (ARSI), David's vision is to solve the most vexing problem in satellite remote sensing for agriculture; noise-inducing effects from the atmosphere that prevent many potential low-cost revolutionary applications. ARSI was funded by NSF and USDA SBIR Phase I programs in 2019. In 2020, with two anticipated SBIR Phase II awards, ARSI will complete an atmospheric correction algorithm and begin application of game changing solutions for agriculture.

Gary Hatfield - Minnesota Center for Financial and Actuarial Mathematics MCFAM



Dr. Gary Hatfield is a Senior Director and Actuary for Securian Financial. He leads a team of actuaries, data scientists, and quants known internally as the Actuarial Research and Analytics Center of Excellence. He also serves on the company's most senior risk committee. He previously played a key oversight role in Asset Liability Management and Hedging. He earned his PhD in Mathematics from the University of Minnesota where he continues to be involved at the School of Mathematics as an Assistant Professor and an Advisory Board Member for MCFAM (Minnesota Center for Financial and Actuarial Mathematics). Dr. Hatfield also serves the curriculum committee for the Quantitative Finance and Investments track of the FSA Exams. Dr. Hatfield is a Fellow of the Society of Actuaries, a member of the American Academy of Actuaries and is also a CFA charter holder. Previous to entering the insurance field in 1998, he taught College Mathematics at Gustavus Adolphus College in St. Peter, Minnesota

Charles Hendrickson –President & Chief Executive Officer



Charles Hendrickson has been with Capital Services for over 19 years, joining the company in 2000 as Chief Financial Officer. He moved into the Executive Vice President role prior to becoming President and CEO. Through his tenure in bank controller and CFO positions, he has gained extensive experience in asset liability management, bank financial planning, and acquisitions. It was his initiative to understand and better report credit card profitability that resulted in Capital's industry-leading ViPRSM system. He also championed the in-house development of Capital's unique scorecard and statistical analysis competencies. Hendrickson began his career in public accounting with McGladrey and Pullen and later held a bankcard finance role at Citibank before his tenure in commercial banking. He has a degree in

business economics from St. John's University in Minnesota and is also a Certified Public Accountant. He serves on the Board of Directors of Capital.

Sooyong Kim - Sanford Research



Sooyong Kim is a senior research specialist at Selya lab in Sanford Research. She received her degree as a Medical Doctor at Korea University in 2015 and earned a Master of Public Health at the University of North Dakota in 2019. Her research interests lie in perinatal epidemiology, especially systemic and maternal behavioral factors that affect maternal and neonatal outcomes.

Danhyang Lee – The University of Alabama



Dr. Danhyang Lee is currently an Assistant Professor in the Department of Information Systems, Statistics and Management Science at the University of Alabama's Culverhouse College of Business. She received her Ph.D. degree in Statistics from Iowa State University in 2019. She has a broad research interest in applied statistics, including survey sampling and missing data analysis. Specifically, her current research deals with issues in multi-level modeling, missing data analysis, survey data integration, small area estimation, and Bayesian inference.

Yana Melnykov – The University of Alabama



Dr. Yana Melnykov is a Senior Statistician in the Institute of Business Analytics and an Assistant Professor of Statistics in the ISM department at the University of Alabama. She worked on a project supported by Lockheed Martin Corporation. The corresponding paper titled "Studying contributions of variables to classification" was published in Statistics and Probability Letters. Dr. Melnykov's research interests lie in the areas of change point inference and finite mixture modeling.

Igor Melnykov – University of Minnesota, Duluth



Dr. Igor Melnykov is originally from Kharkiv, Ukraine. He moved to the United States in 1999 and earned his Ph.D. in Statistics from Bowling Green State University in 2005. He works in the Department of Mathematics and Statistics at the University of Minnesota – Duluth and previously held positions at Colorado State University – Pueblo and Nazarbayev University in Kazakhstan. His research interests include cluster analysis, classification, multiple hypothesis testing, and asymptotic theory.

Jessica Meyer – Optum



Jessica Meyer is a Senior Data Scientist with 5+ years' experience in the field of data analysis, big data and machine learning. She has worked in a variety of industries including retail and healthcare. She holds a B.S. in Business Administration from Metropolitan State University and a M.S. in Data Science from the University of St. Thomas. In her spare time, she works as an Adjunct Associate at the University of Columbia SPS Analytics program, volunteers on the Data Science Committee reviewing speaker proposals for the annual Grace Hopper Tech Conference and co-hosts the WiT Twin Cities podcast.

Danica Ommen – Iowa State University



Dr. Danica Ommen is an Assistant Professor of Statistics at Iowa State University

Ally Pelletier - Polaris



Ally is currently working at Polaris in Minneapolis, MN. Previously, she was involved in reporting and modeling for the digital department at the Star Tribune. Her work included recommendation models, customer retention, and map development. Previous to working at the Star Tribune, Ally worked as a Data Science Consultant with RProfet. In this position, she was deeply involved in all aspects of the modeling process. She is a subject matter expert in credit modeling as well as the development of the regular reporting processes and documentation necessary to create data driven decisions. Ally earned a BA in Mathematics Education from Concordia College in Moorhead, MN and an MS in Statistics from South Dakota State University. During her time at SDSU she held a research assistantship and an internship in digital media. In her research she developed new statistical power calculations for measuring mixtures of non-normal distributions to measure the profitability in A/B testing in credit card customer behavior.

Melodie Rush - SAS



Melodie Rush is the Statistician for the Customer Loyalty Team at SAS Institute. Melodie received both her B.S. in Statistics and her Masters in Science of Management with a technical option in Statistics from North Carolina State University. Before joining SAS in 1996, Melodie worked for Research Triangle Institute as a Statistician. Her responsibilities included implementing national and local surveys of various topics, such as health care, employee benefits, and drug abuse. As part of her research, she has published work for both the American Statistical Association and the American Public Health Association. After joining SAS, Melodie has developed presentations and methodology for doing many types of analysis, including data mining, forecasting, data exploration and visualization, quality control and marketing. She has spent the last 16 years helping companies identify and solve problems in each of these analytical areas.

Sayed Sajal – Minot State University



Dr. Sayed Sajal is an Assistant Professor in the Department of Computer Science at Minot State University. He earned his Master's and Ph.D. in Electrical and Computer Engineering from the North Dakota State University. He also has an MBA degree in Finance and Marketing. In addition, he has 5 years of industry experience in the wireless telecommunications industry. His research focuses are on secured wireless communications, cybersecurity, data science, and sensor design. He passionately loves to teach as he believes in the “ripple effect of teaching” even after his death. Currently, he is collaborating in material science, industrial engineering, statistics, hydrology, biology, and computer science, and his two multi-million multi-year NSF grants are pending for approval. Dr. Sajal has published more than 30 peer-reviewed journal and conference publications and has led projects funded. He is also looking for collaboration in data science and cybersecurity projects.

Arielle Selya – Sanford Research



Dr. Arielle Selya currently works at the Behavioral Sciences Group at Sanford Research. Dr. Selya studies substance use and addiction, particularly cigarette and e-cigarette use among adolescents. She is very interested in advanced methodology, and regularly uses structural equation modeling, propensity score methods for causal inference, machine learning, and system dynamics simulation modeling approaches in her methods. Dr. Selya also does research on health services, implementation science, nutrition, and education.

Dhiraj Sharan – CEO Query AI



Dhiraj Sharan is the Founder and CEO of Query.AI, a startup that unlocks the power of data through the simplification of access and analysis. His career spans 20 years of innovation and leadership in 4 startups and large companies like HPE, Aruba and Novell. He holds 10 patents and has been a Cisco EIR Entrepreneur. Dhiraj is a bachelor in Computer Science from IIT (BHU, India) and Certificate in Management from Harvard University.

Murat Sincan – Sanford Research – Sanford Imagenetics



Murat Sincan, M.D., is a director of computational medical informatics for Sanford Imagenetics. Dr. Sincan focuses on both genetic and non-genetic components that influence a patient's health. His current project involves the development and use of natural language processing, which pulls clinical concepts from information living in an EMR. Dr. Sincan also conducts research by working with external partners, such as LA BioMed and North Dakota State University. They look at theories and different aspects of precision medicine with which Sanford Health is engaged.

Susan Vanderplas – University of Nebraska, Lincoln



Susan got her PhD in statistics from Iowa State in 2015, then spent time in the private sector before returning to academia in 2018. She is an assistant professor at University of Nebraska, Lincoln, with research interests in statistical graphics and statistical forensics.

Yanshan Wang – Mayo Clinic



Dr. Wang is currently an Assistant Professor in the Division of Digital Health Sciences at Mayo Clinic. His research is centered on developing novel natural language processing (NLP), artificial intelligence (AI), and machine learning methodologies for clinical applications. His research goal is to develop EHR data-driven AI solutions to accelerate clinical research and to facilitate clinical practice. Since Dr. Wang joined Mayo in 2015, he has served as investigators for multiple extramural NIH-funded projects and intramural operational projects. He has published over 50 peer-reviewed articles in high-impact medical informatics journals (e.g., JBI, JAMIA), and conferences (e.g., AMIA Annual Symposium, AMIA summit, IEEE BIBM). Dr. Wang is also active in organizing conference workshops and shared tasks in the medical informatics community, including the international Health NLP workshops and the renowned national NLP clinical challenge (n2c2).

David Zeng – Dakota state university



Dr. David Zeng is an assistant professor of Information Systems at Dakota State University. He teaches graduate courses in the Master of Science in Data Science Program jointly offered by DSU and SDSU. The courses he teaches include Predictive Analytics for Decision Making, Programming for Data Analytics (Python), Deep Learning, and BI & Visualization. His research focuses on Economics of IT-enabled services, application of Deep Learning (transfer learning) in healthcare, and generative neural networks in contests and games. His papers have been published in top peer-reviewed journals and awarded as best papers in conferences. David received his PhD in Information Systems from University of California, Irvine. He got his MS in Computer Science from California State University, Long Beach.

Rong Zheng -- Western Illinois University



Dr. Rong Zheng completed her Ph.D. degree at the University of Alabama in 2017. Her degree is in Applied Statistics, with concentration on data classification and model-based clustering, statistical quality control and nonparametric statistics. She also earned her bachelor's degree in Mathematics and Applied Mathematics from Henan University, China, in 2012. Her tenure-track faculty position with Western Illinois University (WIU) started in 2017. She teaches R Programming, SAS Programming, Categorical Data Analysis, Business Statistics, Applied Time-series Forecasting, and Applied Regression Analysis at WIU.

Workshop instructors

Peter Claussen – Gylling Data Management, Inc, SDSU

Peter Claussen, M.A. is a Biometrician who works with statistical analysis with R and experimental design.

Xijin Ge – South Dakota State University



Dr. Xijin Ge earned his BSc and MS in Physics from Beijing University of Science and Technology, China, and PhD from the University of Tokyo, Japan. After postdoc training, he has been teaching in the SDSU department of Mathematics and Statistics since 2007. His research interests include bioinformatics, genomics and data science. Homepage: <https://www.sdstate.edu/directory/xijin-ge>

Md Riaz Ahmed Khan - SDSU



Being a high school student who enjoyed physical science and mathematics the most, Riaz went to Bangladesh University of Engineering and Technology and got Bachelor's degree in Electrical Engineering in 2011. Over the next three years, he worked as an electrical engineer before starting graduate school. Riaz got Master's in Electrical Engineering (2016) and Master's in Statistics (2018) from South Dakota State University. With an engineering and statistics background, Riaz enjoys computer programming and analyzing data, and does on a daily basis. He is the major author of R package ROCit, and gave contribution to the R package Rprofet, both available on CRAN.