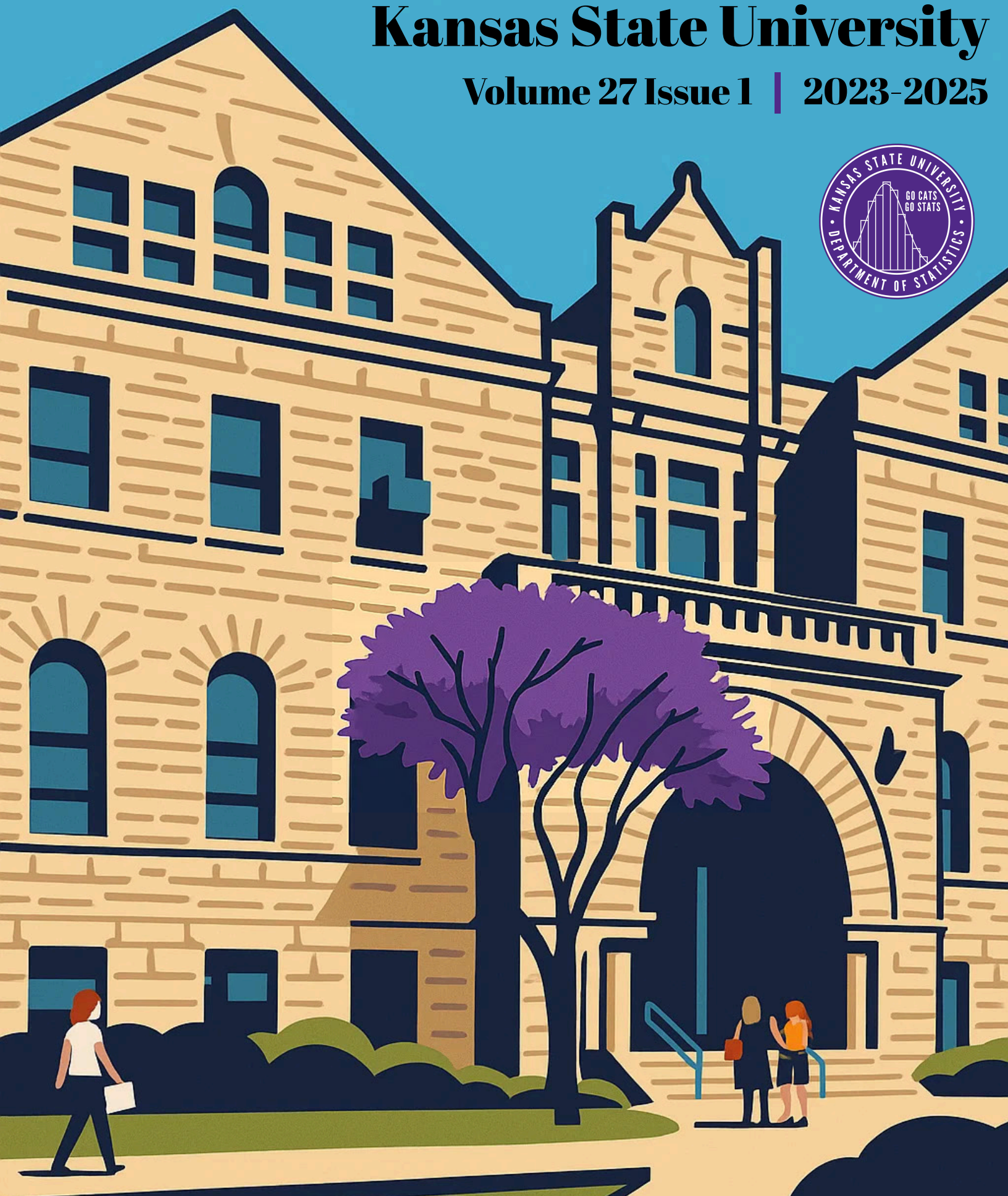
Department of Statistics Newsletter

Kansas State University

Volume 27 Issue 1 | 2023-2025



Department of Statistics Newsletter
Kansas State University
Volume 27 Issue 1 | Summer 2025

Inside this issue

The newsletter is back...sorta

Hello and welcome back to the Kansas State Statistics Department's Newsletter! This is not your usual newsletter brought to you by the department head, but some kind of Frankenstein creation that came to life thanks to a group of enthusiastic graduate students and our department head. We've banded together in an effort to connect with our alumni and share the latest happenings in our beloved department.

It has been some time since we had our last issue, and let me tell you... there has been a lot! So much has happened since 2017, including the rise of data science as the hottest career in the job market and the continuous debate over whether frequentist or Bayesian reign supreme. We've seen the p-value drama unfold, with statisticians everywhere advocating for clearer communication of statistical results.

On the academic front, our department has welcomed new faculty members who bring fresh perspectives and innovative research to the table (See more in page 4). Our students have been hard at work, presenting their findings at conferences and pushing the boundaries of statistical knowledge.

We're thrilled to have this platform to keep you updated on our achievements, events, and fun tidbits from our department. It has been a long time, so grab a large cup of coffee, settle in, and enjoy this edition of the newsletter —packed with all the shenanigans you didn't know you were missing back at the Little Apple!

Announcements

K-STATE Alumni & Friends dinner @JSM!

Nashville on **Monday**, **August 4**, at **6:30pm**

RSVP here

From the Desk of Perla Reyes

Dear friends and colleagues,

Greetings from the KSU Department of Statistics! As many of you may know, I was officially appointed Department Head this June after two years serving as interim head. It has been a challenging experience to learn the ins and outs of the position while ensuring the department runs as smoothly as possible. I must confess that it has been harder than expected, especially with the many changes taking place in the past months.

First, I would like to thank the faculty, staff, and students of the department for making me feel welcome and for all their support during the past two years. I hope to keep earning your continued support every day. Despite the unexpected hurdles and changes, I am proud to say that our department has shown remarkable resilience and adaptability. I also want to thank all my predecessors for passing their knowledge through letters, large amounts of paperwork, and emails. I have learned (and copied) a great deal from you. If you recognize your writing in any of my communications, be assured that it wasn't ChatGPT; I simply copied and pasted.

I'm pleased to bring the department's newsletter back to connect faculty and students with friends and alumni. Another K-State tradition making a comeback is the K-State dinner at JSM. We met last year in Portland, and I hope you will be able to join us this year in Nashville on Monday, August 4, at 6:30 PM. Follow the link to ***RSVP***.

There is so much great news to share, so I'll be brief; you can learn the details in the pages of this newsletter, and please send us your own news for us to share in future installments.

Thanks to the generous philanthropic donation from Dr. Amanda Nelson last summer, we renovated Dickens Room 10 from an outdated computer lab to the Paul I. and Bonnie A. Nelson Student Lab. Since Fall 2024, Room 10 has served as a welcoming place for relaxation and study for our students. Dr. Paul Nelson retired in 2015 after over 30 years of service in the department. Sadly, he passed away in 2021.

In 2024, three new brilliant faculty members joined the department. Drs. Josefina Lacasa and Xuan Xu joined the Stat Lab faculty. With degrees in both agronomy (PhD) and statistics (MS) from K-State, they have successfully made an impact on K-State research endeavors, augmenting the department's visibility. Mrs. Nicholas Mackay obtained his MS in Statistics, left to work for the Air Force, and returned as an instructor to support our teaching mission.

Also, in 2024, Dr. Chris Vahl took over as Director of the Statistical Lab. After his tenure as Department Head, he is now dedicated to upholding the mission of providing statistical advice to scientists across campus through collaboration.

Last summer, Dr. Michael Higgins (PI) and I, as co-PI, were awarded an NSF grant to research the Design and Analysis of Experiments under the K-Nearest-Neighbors Interference Model.

From the Desk of Perla Reyes

In 2025, we have more things to celebrate: our new Provost and Executive Vice President Jesse Perez Mendez awarded Dr. Trevor Hefley with an early promotion to full professor and Dr. Haiyan Wang with a professorial performance award. Please send your congratulations to our two very deserving colleagues.

Excellence is not limited to the faculty; our graduate students do well, too. In addition to our scholarship winners, doctoral student Francis Jo won the first prize at the 2024 Conference on Applied Statistics in Agriculture and Natural Resources Poster competition, and doctoral student Allan Viera de Castro Quadros won the 2023 William L. Stamey Award for Graduate Teaching Assistant and the 2024 Graduate Student Council Award for Graduate Student Teaching Excellence.

The department co-sponsored the first K-State ASA DataFest competition this Spring. Over 20 K-State undergraduate students across campus participated, and our students made the department proud. Our graduate students excelled as mentors, while our undergraduate students came out with the Best of Show prize.

I will conclude by sharing the following link: 2025 Government Transition. The official K-State site to stay informed about what the university leadership has designated as the latest verified information and guidance around the recent executive orders and State of Kansas Legislation. At the departmental level, I will work to facilitate the ongoing activities of the department and, with the help of an excellent faculty and graduate student body, work to shape the future directions of the department. I want to take this opportunity to express my heartfelt gratitude to all our alumni and friends for your continued support and contributions. If your life journey brings you near the Flint Hills, please consider adding a visit. Our alums and friends are always welcome here.

Never give up, never surrender!

Perla Reyes

Faculty changes

Josefina Lacasa

Josefina earned her PhD in Agronomy and her MSc in Statistics from Kansas State University. Her research interests include agricultural statistics, Bayesian statistics, and designed experiments. Her work aims to enhance quantitative methods in agricultural sciences through her teaching, consulting, and research activities.
Josefina is originally from Buenos Aires, Argentina. She enjoys playing volleyball, soccer, climbing, hiking, reading, cooking, and spending time outdoors with family and friends. Her favorite place in the Manhattan area is Konza Prairie, especially in the fall. You might see her walking around with her "mate", which is a very popular (and good) South American tea.

Xuan Xu

Xuan Xu, Ph.D., is an assistant professor of statistics who began his position in March 2024. He is also a faculty member of the K-State Statistical Laboratory and an affiliated principal investigator with 1DATA. Xu has thrived as a scholar and educator, with a research journey characterized by innovation and a passion for transformative advancements in applied statistics. His research focuses on developing statistical and computational approaches to address complex, real-world challenges in agriculture, biomedical sciences, and human health from an interdisciplinary perspective.

Xu has published extensively in renowned scientific journals, including eLife, Expert Opinion on Drug Metabolism & Toxicology, Nature Scientific Reports, Virology Journal, Food and Chemical Toxicology, and many others. Xu is actively seeking motivated graduate and undergraduate students to join his research group! Opportunities are available for individuals interested in statistical modeling, mixed models, experimental design, genomic data analysis, machine learning, artificial intelligence, and interdisciplinary applications of data science.

Nicholas Mackay

Nicholas MacKay graduated from Southern Utah University in 2020 with a Bachelor of Science in Mathematics. During his undergraduate studies, he explored the influence of mathematics on political systems while studying abroad in Russia. He later moved to Manhattan, Kansas, with his wife, Megan, and earned a Master of Science in Statistics from Kansas State University in 2023.

Nicholas currently works as a statistician for the United States Air Force, where he conducts research on machine learning algorithms and supports data-driven decision-making processes.

Outside of work, Nicholas has a strong passion for sports. While he enjoys baseball and football, his favorite hobby is playing golf. He also grew up fishing in Northern Utah and enjoys traveling with his family.

Support the Future of Statistics at K-State!

Help us continue to empower the next generation of data scientists, researchers, and educators. Your donation supports student scholarships, cutting-edge research.

SCAN ME

Recent Events

ASA DataFest at K-State was a success!

The Department of Statistics at Kansas State University, in collaboration with the Institute for Digital Agriculture and Advanced Analytics (ID3A), proudly hosted a local edition of the American Statistical Association's national DataFest competition. This marked a **historic milestone as the very first ASA DataFest ever organized in the state of Kansas**. The event brought together over 20 enthusiastic undergraduate students from diverse academic backgrounds, all eager to tackle a challenging real-world data analysis problem within a limited time frame. Through teamwork, critical thinking, and creative statistical approaches, participants gained hands-on experience and showcased the power of data-driven decision-making.

To support the competitors, graduate students from our department—**Abraham Arbelaez**, **Eli Gacasan**, **and Robert Sholl**—each led a targeted workshop designed to equip participants with essential statistical tools and strategies for the competition. We are especially proud to share that a team composed of our own undergraduate students—**Yuan Gao**, **Tinashe Sekabanja**, and **Isaac Smith**—earned the Best in Show award. Additionally, **Taryn Day**, competing with a different team, received the Best Visualization award.

Recent Events

Ph.D. Candidate Allan Quadros wins prestigious award for teaching excellence

Allan Quadros

As a Ph.D. candidate working under the supervision of Dr. Michael Higgins, I was recently honored with both the William L. Stamey Award and the Graduate Student Council Award for teaching excellence, recognizing my contributions to undergraduate education. Drawing from my own journey overcoming math anxiety, I have developed a teaching approach that makes statistics accessible and engaging through real-world analogies and interactive tools. I created three interactive statistical applications, including the ROC App (published in the Brazilian Journal of Biometrics), which have helped students understand complex concepts.

Beyond the classroom, I currently work on research applying statistics to finance and serve in the National Bio and Agro-Defense Facility (NBAF) project, where I develop statistical models for equipment failure prediction. I am also the author of "mRpostman: An IMAP Client for R" (published in the Journal of Open Research Software) and maintain two other R packages on CRAN.

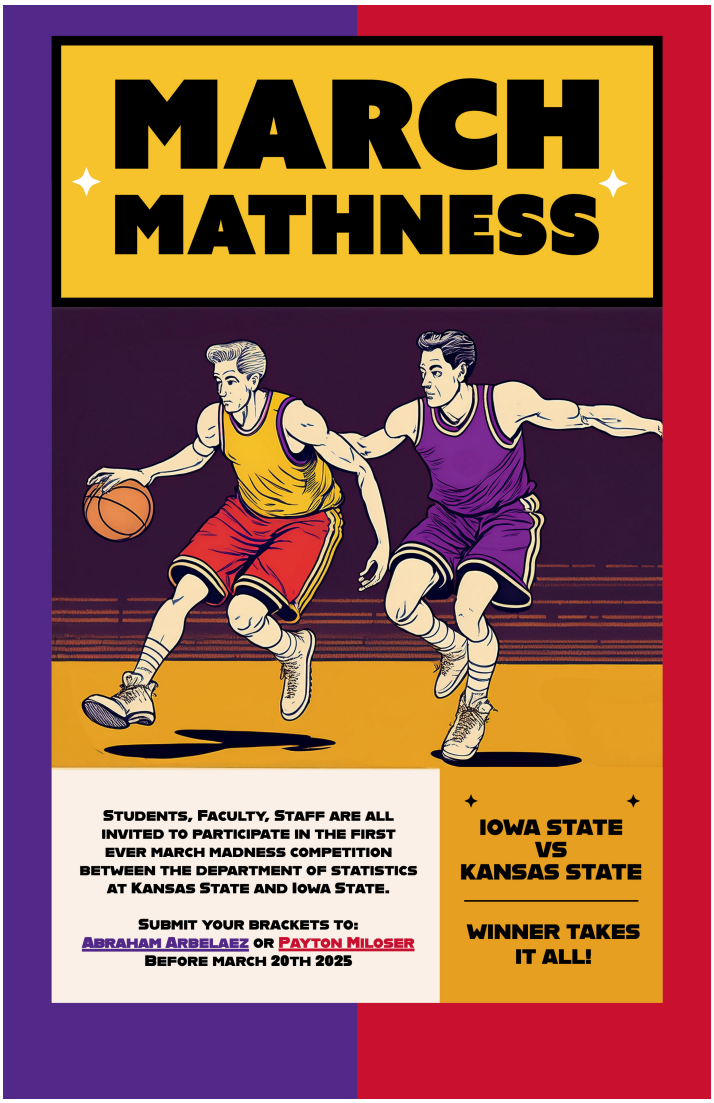
Recent Events

March Madness was back... with a twist!

This past March, the K-State Statistics Club partnered with Iowa State for the first-ever March Mathness competition—a creative crossover between NCAA March Madness and statistical prediction. Students and faculty from both universities competed to build the best statistical models to forecast the men's NCAA basketball tournament, combining sports fandom with data science in the ultimate stats showdown.

Participants used a variety of methods—from logistic regression and machine learning models to **good ol' fashioned intuition**—to predict game outcomes.

Unfortunately, the crown slipped from our grasp thanks to two fateful games: **Auburn's win over Michigan State**. Had the Spartans pulled through, one of our brilliant graduate students—**Den Jackson** or **Jonah Douglass**—would've taken it home for K-State.



Want a shot at glory next year?

March Mathness 2026 is already in the works! Whether you're a sports fan, a stats whiz, or just looking for a reason to build a predictive model, this is your chance to represent K-State and join us.

Open to undergrads, graduate students, faculty **AND ALUMNI.** Prizes include bragging rights—and a custom trophy currently in the works with our friends at Iowa State.

Keep an eye out for announcements early next spring—and don't worry, Auburn can't hurt us forever.

Recent Events

Some Renovations...

Paul I. Nelson and Bonnie A. Nelson, esteemed professor, embodied the essence of academic excellence and transformative leadership at Kansas State University. Their combined 65 years of service—Paul's groundbreaking research and mentorship and Bonnie's advocacy for gender equity and innovative teaching—left an enduring imprint. Together their legacies continue to inspire, shaping minds and fostering excellence. Thanks to a generous philanthropic gift from Dr. Amanda Nelson last summer, we transformed Dickens Room 10 from an outdated computer lab into the Paul I. and Bonnie A. Nelson Student Lab. Since Fall 2024, the space has provided a welcoming environment for students to relax and study. Dr. Paul Nelson, honored in the lab's naming, retired in 2015 after more than 30 years of dedicated service to the department.

Recent Events

Some Renovations...

Over the past year, the department has undergone several much-needed renovations to improve the building's functionality and appearance. These updates have included roof repairs, masonry restoration, and enhancements to the exterior of Dickens Hall. The improvements aim to preserve the historic charm of the building while ensuring a safer and more comfortable environment for students, faculty, and visitors.

Newly restored roof line of Dickens Hall

View of the building facade during renovation

Recent Events

Boehringer Ingelheim visits the Department

On October 2, 2024, we had the pleasure of hosting Will Raida, Manager of Boehringer's Global Pharmacovigilance Data Science, and Mark Hinds, the Senior Biostatistician at Boehringer Ingelheim Animal Health USA Inc. They swooped in to give a talk about the glamorous world of statistics in animal health from Boehringer Ingelheim's industry perspective—sounds thrilling, right? Actually, it was!

Will and Mark brought a refreshing dose of real-world insights, showing how biostatistics and data science are used to keep our furry (and not-so-furry) friends safe. From pharmacovigilance (a fancy word for "watching out for product safety") to statistical analysis, they gave us a behind-the-scenes look at how numbers help ensure animal health products actually do what they're supposed to—without the drama. It was a fun and enlightening session for anyone interested in how stats work their magic in the world of animal health.

We would love to have your company give a talk to our graduate students! Don't hesitate to reach out at statdept@k-state.edu

Recent Events

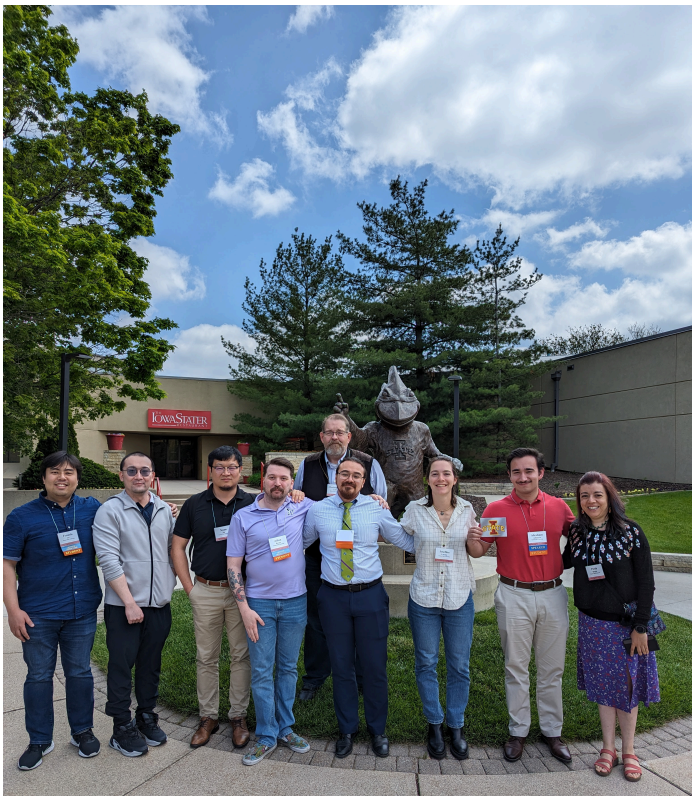
2024 Conference for Applied Statistics in Agriculture and Natural Resources @ Iowa State

What?? At Iowa State?? But... but last time this newsletter was issued, the Ag Stat Conference was an annual staple at K-State! Yes, folks, times have changed. The conference has grown so much that it's now hosted by different institutions across the country, from Florida to Purdue. This year, it was Iowa State's turn to take the reins—and trust me, they did not disappoint.

K-State was well-represented with a solid delegation! Our students delivered both oral and poster presentations. **Abraham Arbelaez** gave a talk on "Identifying Spatio-Temporal Variability in Animal Movement and Agriculture through a Mixture of Machine Learning and Bayesian Hierarchical Modeling." **Aidan Kerns** also took the stage with a presentation titled "Embracing Population Dynamics". But the highlight? **Francis Jo**! He snagged the prize for Best Poster Presentation with his work on "A unified algorithm for Penalized Likelihoods in model selection of spatial-temporal models for lattice data in collaboration with the department of Agricultural economics and college of agriculture, proving that K-State's still got it!

And while there aren't any pictures to show, it wouldn't be a proper Ag Stat Conference without our very own Dallas Johnson busting out some serious line dance moves...we are already booking next year's conference at University of Florida!

Can you recognize some of the old faces?



▲Left to right: Mr. Francis Jo, Mr. Calvin (Rui) Liu, Dr. Xuan Xu, Mr. Aidan Kerns, Dr. Chris Vahl, Mr. Yoshimitsu Nagaoka, Dr. Josefina Lacasa, Mr. Abraham Arbelaez, & Dr. Perla Reyes. Oh boy, haven't the years been kind to both our former department head, Chris, and our new department head, Perla?

Our students and new faculty members were all smiles as they posed with an old friend of the department—Nora Bello! Nora was a beloved faculty member here from 2010 to 2021 and is now thriving in her role as a statistical consultant with the USDA ARS in the Northeast Area. It was great to catch up and see how far she's come since her days in the department. Wishing her the best! ⬟

Recent Events

2024 Halloween Party

The Statistics Club and the Math Club joined forces for the 2024 Halloween Party!

There were some pumpkins painted and pizzas eaten while debating a very serious question: what is the third moment of the paranormal distribution?

Recent Events

2023 Fall Picnic

The Statistics Club, our favorite group of number-crunching pals, teams up with the department to throw a picnic every semester. It's the perfect excuse for students, staff, and faculty to ditch their responsibilities, chow down on some good pizza, and unleash their inner kids with games!

This event is all about having fun and making memories—not to mention it's a great way to find out who's really competitive when it comes to Bingo based of our department's rich history. So whether you're a seasoned picnic veteran or a newcomer looking for some friendly faces, come join us! Current students and alumni alike are welcome! Let's laugh, play, and enjoy the great outdoors together—because we all know good food and good company are the best statistics of all!

Recent Events

Fall 2023 ASA Chapter Meeting and Short Course

Left to right: Dr. Jingru Mu, Dr. Perla Reyes, Mr. Abraham Arbelaez, Mr. Aidan Kerms; Dr. Zachary Weller (GTI Energy) short course presenter and keynote speaker; Dr. Julia Sharp (National Institute of Standards and Technology), short course presenter; Ms. Sai Gadaeraju, Mr. Yoshi Nagaoka, Mr. Ethan Schubert, and Mr. Ryan Seidler.

On September 29, 2023, graduate students and faculty attended the ASA Traveling Short Course: Navigating Tough Conversations in Statistical Collaboration and the Kansas-Western Missouri Chapter Meeting Keynote Title: A Bayesian Integrated Population Model for Understanding Natural Gas Emissions in Local Distribution Systems. The Department of Statistics sponsored the student's attendance.

The Statistics Club is ASA official!

After some paperwork (and a few long calls with admins), the Statistics Club at K-State officially became the first (and only) student chapter affiliated with the ASA in the entire state of Kansas! This is a major achievement for us. ASA student chapters offer fantastic opportunities for students to connect with fellow statistics enthusiasts and interact with prominent statisticians at both local and national meetings. They also inspire students to continue their studies in statistics while providing valuable career insights in the statistical sciences.

Best of all, there are no academic requirements, and you don't need to be a statistics major to join! All students are welcome and encouraged to get involved.

Aren't you proud of us, Ron?

Some of our Scholarship Winners

Summer Lolafaye Coyne Statistics Graduate Scholarship

Aidan Kerns

I started at KSU in 2018, completing a BS in Statistics and Data Science in 2021 before joining the PhD program. After a year working as a contract statistician for Corteva Agriscience, I returned as a full-time student where I hold a position as a GRA in the Statistical Consulting Lab and expect to graduate in 2025. When I am not in my office I spend time with my wife and infant daughter, as well as our dog and two cats, and enjoy renovating our circa 1900s home.

Srijana Subedi

I am Srijana Subedi from Nepal, currently in my third year of a PhD in Statistics at Kansas State University. Alongside my studies, I work as a Graduate Teaching Assistant (GTA) in the Department of Statistics. My research specializes in high-dimensional and longitudinal data analysis. In my free time, I enjoy cooking, watching movies, and engaging in free writing. I also have a passion for traveling to new places and capturing memories through photography.

Robert Sholl

I've been a life-long K-State fan, growing up wearing Darren Sproles jerseys and doing push ups with Willie from the other side of a TV screen. I got my Bachelor of Science in Microbiology here at K-State but after a decent exposure to industry lab-work and data science, I've come back to get a Ph.D. in Statistics. My scientific interest lies in infectious disease, and there's no better group of scientists to work on forecasting models than Statisticians. Almost all my free-time involves computers, whether it's fixing and restoring old systems, programming personal projects, volunteering with technology infrastructure groups, or playing video games. I've been doing two of those four since the days of floppy disks, and I don't plan to stop anytime soon!

Some of our Scholarship Winners

Dr. Lynn Ying-Shiang Lin Statistics Graduate Scholarship

Abraham Arbelaez

My name is Abraham Arbelaez and I am a second-year PhD student in the department. I finished my BS in Statistics at Penn State and came all the way to the Little Apple to specialize and learn more about spatio-temporal statistics and its applications with ecology and environmental science. I grew up in Colombia playing the piano, playing a lot of soccer and falling in love with numbers and data. In my free time, you will find me watching college football (huge fan of both Wildcats and Nittany Lions), watching fútbol (soccer), playing the piano and lifting some relatively heavy weights.

Tinashe Sekabanja

I am an accelerated master's student in Statistics and Data Science with a minor in Computer Science. I am from Kampala, Uganda and moved here for college in 2022. My time at K-State has been filled with lots of Campus involvement and rigorous academic pursuits. At K-State I serve as the secretary of the National Society of Black Engineers (NSBE) as well as the Co-president of the Stats Club. I'm also a member of SWE (Society of Women Engineers) where I volunteer to mentor freshmen in Computer Science, and a member of Bake Club and StuMo (a campus Christian ministry). In my free time, I enjoy playing the piano, cooking, and hanging out with friends and family. My love for statistics was sparked by "How to Lie with Statistics" by Darrell Huff. Since then, I have learned "it is easy to lie with statistics; it is easier to lie without them."

Madhav Dhital

I'm Madhav Dhital, a Statistician (also Physicist because I love Physics and had done Masters') with a passion for developing innovative solutions using data structures. Currently, I'm focused on Optimal Statistical Blocking using Zero Suppressed Binary Decision Diagrams. Beyond my professional life, I have a passion for discovering new technologies and exploring different places around the world. I'm proud to be from Nepal, a country renowned for its breathtaking landscapes, rich cultural heritage, and historical significance as the birthplace of Lord Buddha. Nepal is also home to the majestic Mount Everest, the highest peak on Earth. With its diverse traditions, vibrant festivals, and warm hospitality, Nepal offers a unique blend of nature and culture, making it a remarkable destination for travelers. Popular trekking routes like the Annapurna Circuit further highlight the beauty and adventure that this incredible country has to offer.

Some of our Scholarship Winners

Holly C. And E. Beth Fryer Statistics Scholarship

Dennison Jackson

I am from Lawrence, KS and am currently in my 5th year at K-State and will be graduating in Spring with a Master's in Statistics. I currently work as both a GTA for Stat 225 and a data scientist at Commerce Bank. In my free time I enjoy video editing, watching movies, and teaching myself new things.

Kingsley Darko

I am currently in my final year of my PhD program in Statistics at Kansas State University, where my research focuses on causal inference. Originally from Ghana, I have always been passionate about mathematics and its applications. In my free time, I enjoy engaging in various activities, such as playing soccer, pingpong, volleyball and participating in community events. I also love spending time with friends and family, sharing experiences that enrich my life and foster connections.

The Statistics Scholarship

Delainey Isaacson

Hello! My name is Delainey Isaacson, and I am a sophomore at Kansas State University dual-majoring in Statistics and Economics. In my free time I love to play percussion with the K-State Marching Band, go bowling with the Bowling Club, and read! I also like to go out on long walks or drives listening to music.

Some of our Scholarship Winners

Ronald and Rae Iman Scholarship in Statistics

Erik Huter

My name is Erik Huter, and I am currently a sophomore at K-State. I am a dual stats and math major and I am from Wichita, Kansas. I haven't decided exactly what I want my future career to be but I am very interested in grad school, actuarial science, and data science. In my free time, I enjoy watching sports, especially K-State football and basketball. My biggest passion is learning, I love to spend time learning about topics that are interesting to me. I also like playing video games and going to the gym when I have the time.

Ray and Carolyn Waller Statistics Scholarship

Yuan Gao

My name is Yuan Gao. I come from China. I am a junior student of K state, and my major is statistics and data science. I really enjoy hiking with my friends or my family. additionally, I also like watching football game during my free time.

Alumni News

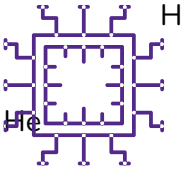
Dennis Clason **(PhD '87)** has left the UC faculty and is now a Principal Statistician with Cytel working remotely on neurology studies. He now has two grandchildren: Mary is 8 and learning piano. Grant is 10 and trying the patience of those around him as he learns to be a percussionist. When he's not working, he plays bass trombone with the Cincinnati Brass Band, a British-style brass band that finished second in the second section of the North American Brass Band Association Championships in 2023 and 2024.

Brent Rognlie **(MS '87)** recently retired after 25 years of innovating software solutions for the Biopharma manufacturing sector. Simply put, there has been a tremendous need for being able to seamlessly aggregate, contextualize and analyze data from multiple data sources to optimize quality outcomes. He was in on the ground floor for creating Discoverant and Skyland PIMS (Process Information Management System) to help meet those needs.

In his spare time he is enjoying flying small airplanes and hiking in the Colorado mountains.

Mark Sorell **(BS '86, MS '88)** now lives with his wife (Traci) and teenage son (Carlos) in rural Oklahoma, southeast of Tulsa. He retired from the applied statistics field in fall of 2021 after 32+ years.

CHIPS, CARDS AND CROOKS: He started his career at Intel Corporation in Santa Clara, CA after leaving Kansas State University in the fall of 1988. He then worked at various locations - Austin, TX, Portland, OR and nineteen years in Rio Rancho, NM. He taught statistics classes to engineering staff, worked on improving process control, and increasing yields for the manufacturing of computer chips. He left Intel after 23 years and moved to the Kansas City area working for Hallmark Cards in the Consumer Research division. He designed numerous studies to better understand consumer buying habits and improve sales. After three years, he left Hallmark Cards and joined the federal government working for the Inspector General's Office of the United States Department of Agriculture. He worked mostly with special agents and internal auditors doing analysis and research to find fraud, waste and abuse within the USDA's 31 major programs such as crop insurance, food stamp program, and employee purchase card program. After six years with the USDA OIG, he retired from his statistical duties in fall 2021 and continues to enjoy rural life with his family and friends.



Marta Remmenga **(PhD '91)** just out of K-State took a position as an Assistant Professor at New Mexico State University in their Department of Experimental Statistics with a joint appointment in the University Statistics Center. The department offered a Master of Science in Experimental Statistics (later renamed Applied Statistics) and the faculty provided statistical consulting services to researchers across campus.

she got tenure and eventually full professor there. She was fortunate enough to take a 6-month sabbatical at the University of Western Australia in 2006.

Family circumstances led her to apply for jobs near the Fort Collins, Co area where she grew up. She landed a position as a Mathematical Statistician with the US Department of Agriculture, Animal Plant Health Inspection Service (APHIS) working in the area of animal health surveillance for emerging, endemic, and foreign animal diseases. It is very fast paced work with a challenging mix of application of theory, simulations, and data analysis. She is always learning something new about animal diseases, laboratory tools for detecting and quantifying information about population health, epidemiology, and statistics.

Alumni News

Eric Gibson **(PhD '97)** is currently the Global Head of Advanced Quantitative Sciences at Novartis Pharmaceuticals, leading a team of 1200 quantitative scientists with expertise in biostatistics, data science, statistical programming, and pharmacometrics. His current areas of focus include technology platforms, statistical computing environments, leadership in statistics, and judging the strength of evidence for realistic replication expectations. He enjoys offshore fishing but is happy simply driving the boat.

Jamie Perrett **(PhD 2004)** is currently working his dream job as an Associate Teaching Professor in the Department of Statistics at Brigham Young University. In addition to teaching hundreds of students introductory statistics each semester, he also regularly teaches a statistical modeling course and a data science ecosystems course. Jamie, his wife Laura, and their youngest, Sam (age 16) live in Salem, Utah near his parents where Jamie grew up. Their oldest son, Spencer, is attending dental school at UCLA. Spencer's wife, Brooke, is a physical therapist. Daughter Lindsay (born in Manhattan, KS while Jamie was a Ph.D. student) is finishing up a degree in Exercise Science at BYU and plans to go to medical school. Her husband, Stan is studying Criminal Justice at Utah Valley University and plans to be a police officer. Jamie has stayed active in the American Statistical Association and was recently awarded Fellow in 2022. He currently serves as co-chair for the revision of the ASA Guidelines for Assessment and Instruction in Statistics Education (GAISE College Report), and represents the ASA on the Conference Board of the Mathematical Sciences (CBMS) Data Science Working Group.

Narmadha Meenu Mohankumar (PhD 2022) began her career as a Data Scientist at the Energy and Environment Directorate of Pacific Northwest National Laboratory (PNNL) in Seattle, WA, USA, shortly after graduation. Over the past three years at PNNL, Meenu has thrived in applying her expertise to research projects that address critical national interests. Her contributions span a diverse array of applications in energy, environmental studies, and national security, focusing heavily on leveraging statistical methodologies to advance decision-making processes. These include projects in renewable energy, environmental remediation, and sustainability efforts that support national goals. Originally from Sri Lanka, Meenu completed her undergraduate studies at the University of Peradeniya before moving to the USA to pursue graduate studies at Kansas State University. She has maintained close ties to her roots, with her parents still residing in Sri Lanka and her brother currently completing his PhD in Cincinnati, Ohio. Throughout her journey, Meenu has always valued the unwavering love and support of her family, who have been her greatest source of strength and inspiration.

Living in the vibrant city of Seattle brings Meenu immense joy, as she immerses herself in its dynamic cultural and outdoor experiences. A passionate enthusiast of dance and music, she takes full advantage of the city's offerings, including live concerts, dancing events, and music festivals. Moreover, Seattle's proximity to lush hiking trails and camping spots complements her love for outdoor adventures. The city's thriving social scene further nurtures her engagement in community activities—an integral part of her balanced and fulfilling lifestyle.

We would love to have you here! We want to know where our alumni are and how they are doing! Don't hesitate to reach out at statdept@k-state.edu

Some Faculty News

Grant Award Announcement

Congratulations to **Dr. Michael Higgins** (PI) and **Dr. Perla Reyes** (Co-PI) from the Department of Statistics at K-State on receiving a $200,000 NSF grant for their project "**The Design and Analysis of Experiments under the K-Nearest-Neighbors Interference Model.**"

Their research, funded by the NSF Division of Mathematical Sciences, will advance experimental design in networked environments where treatment effects may "spill over" to neighboring units. The project also provides exciting training opportunities for graduate students.

Way to go, Dr. Higgins and Dr. Reyes!

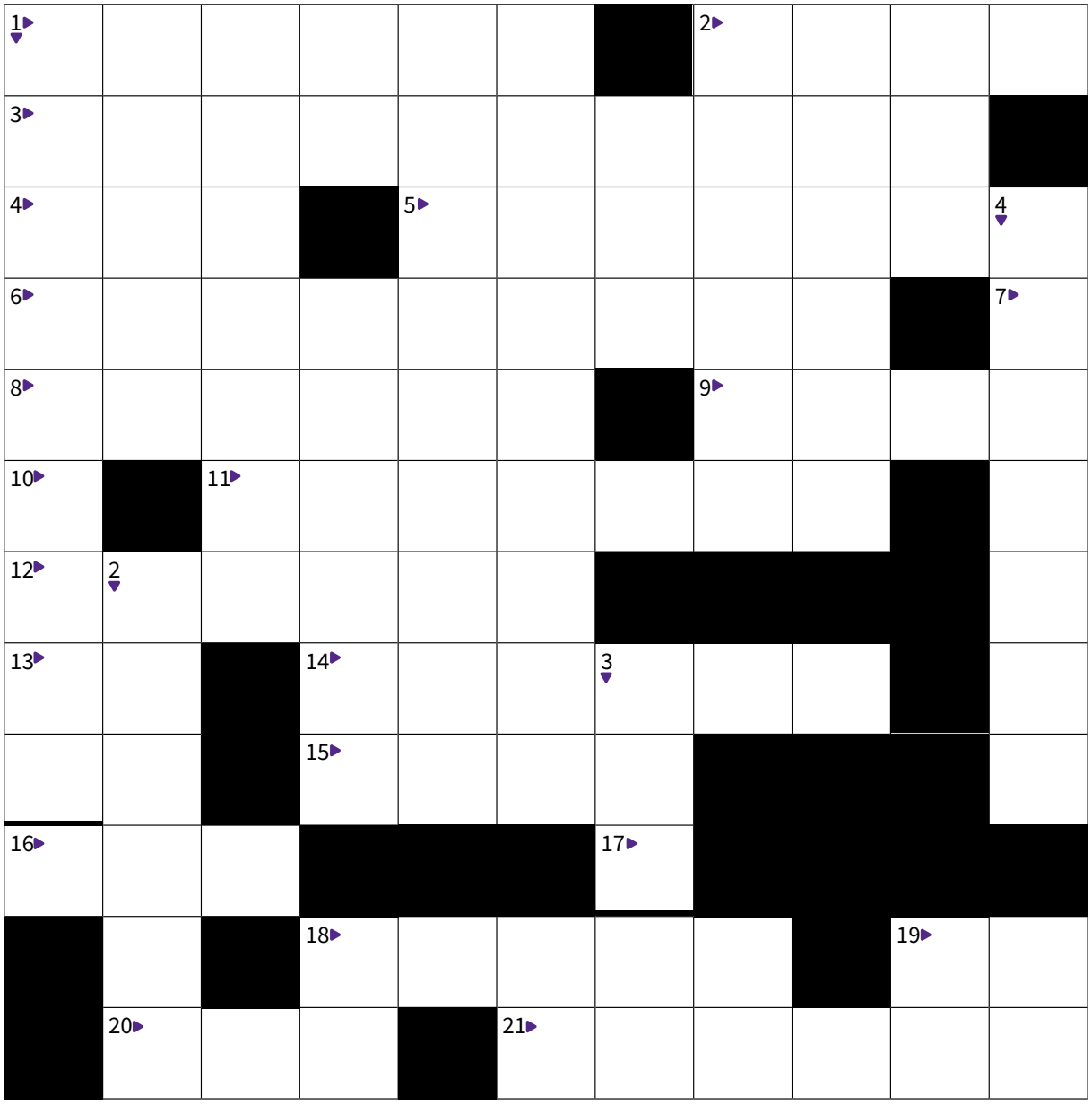
Celebrating Faculty Achievements

Dr. Trevor Hefley has been promoted to **Full Professor** in the Department of Statistics at Kansas State University. Dr. Hefley's research in **spatial and ecological statistics**, along with his dedication to mentorship and collaborative science, has earned him national recognition. This promotion reflects his excellence in research, teaching, and service, and we are proud to celebrate this important career milestone.

Dr. Haiyan Wang has received a **Professorial Performance Award**, a distinction that honors sustained excellence in teaching, research, and service to the university. Dr. Wang's focus areas are **machine learning, high-dimensional statistics, data mining and nonparametric inference**. This recognition is a testament to her lasting impact on both students and the broader academic community.

Please join us in congratulating Dr. Hefley and Dr. Wang on their well-deserved achievements

Puzzles



Puzzles

Horizontal

1) Middle name from first Department Head
2) Month when the Department was founded
3) Ho and Ha are _____.
4) Q3 - Q1
5) Q1 - (1.5xIQR)
6) _____ splines are function estimates $\hat{f}(x)$ obtained from a set of noisy observations in order to balance a measure of goodness of fit.
7) The modern language R is based on this program
8) Graphical method for comparing two probability distributions by plotting their quantiles against each other
9) Abbreviation of classes given by the department
10) ___-statistics arise naturally in producing minimum-variance unbiased estimators.
11) Professor Emeritus that published "Inappropriate Fiddling with Statistical Analyses to Obtain a Desirable P-value: Tests to Detect its Presence in Published Literature"
12) $2k - 2\ln(\hat{L})$
13) Used to delete or remove a variable from a workspace in R
14) Country of origin of current Department Head
16) Software used in Analysis of Messy Data
17) Any statistical test used to compare the variances of two samples or the ratio of variances between multiple samples.
18) Professor Emeritus that graduated from Michigan State in 1976.
19) This function computes the standard deviation of the values in R
20) Object formed through the operations of countable unions, countable intersections, etc
21) Professor Emeritus that has a BS in Mathematics Education

15) $$\frac{\sum_{i=1}^{n} x_i}{n}$$

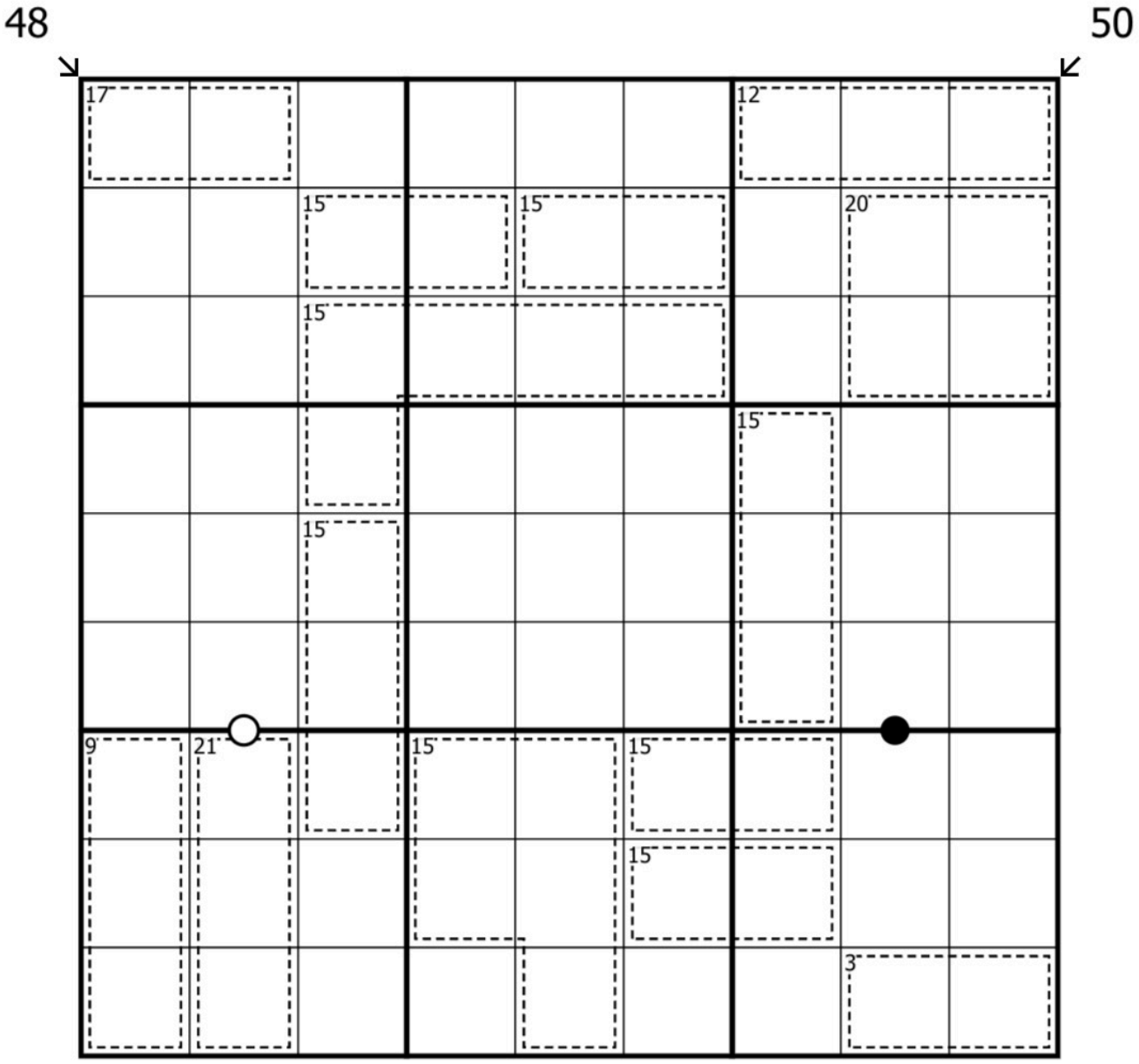
Vertical

2) Method of vector quantization that aims to partition n observations into k clusters in which each observation belongs to the cluster with the nearest mean
3) Largest element in S that is less than or equal to each individual element of s
4) Integrated development environment for R

1) $$f(x) = \begin{cases} \frac{x^{k/2-1}e^{-x/2}}{2^{k/2}\Gamma(k/2)} & \text{for } x \geq 0 \\ 0 & \text{otherwise} \end{cases}$$

$f(x)$ = probability density function
k = degrees of freedom
$\Gamma(k/2)$ = gamma function

Puzzles



Irregular Flags

by Dr. Mike Higgins

Normal sudoku rules apply. Digits within a cage sum to the given total. Digits may not repeat in a cage. Digits on an indicated diagonal must sum to the given total. Cells joined by a white dot must contain consecutive digits. Cells joined by a black dot must contain digits in a 1:2 ratio.