

SIENA UNIVERSITY

UPSTAT

Statistical Reasoning for the Common Good

2026

Loudonville, New York

Friday – Saturday, April 17 – 18, 2026

CONFERENCE WEBSITE

community.amstat.org/rochester/events/upstat-2026

Conference Sponsors

The UPSTAT Conference team extends its deepest gratitude to our generous sponsors, whose diverse contributions are the cornerstone of this event's success. Their support goes far beyond financial sponsorship; it is a direct investment in the next generation of data scientists, statisticians, and mathematicians. By offsetting critical operational costs, our sponsors ensure that the conference remains both affordable and accessible, particularly for students and community members who might otherwise face barriers to entry. This commitment to inclusivity allows us to foster a vibrant, multidisciplinary environment where students can present their research, network with industry leaders, and engage in high-level academic exchange. We are truly honored to partner with organizations that share our dedication to making statistical reasoning a tool for the common good.

This year's sponsors include:



Siena University

Siena University (formerly Siena College) is a private, Franciscan Catholic liberal arts university in Loudonville, NY (near Albany), known for its strong focus on service, social justice, and compassionate leadership, offering diverse majors, a 12:1 student-faculty ratio, and Division I athletics. It emphasizes a dynamic learning environment with hands-on experiences, robust wellness programs, and a commitment to inclusivity for its diverse student body.

Siena College was established in September 1937 when seven Franciscan friars opened a Catholic college for men in Loudonville, New York, despite the backdrop of the Great Depression and World War II. Starting on a 38-acre farm with a converted family home, the fledgling institution rapidly expanded, doubling its student body annually for its first four years and laying the cornerstone for Siena Hall in 1938. Although the school faced near-casualty during World War II due to severely low enrollment, the post-war era brought rapid growth fueled by the G.I. Bill. Over eighty years, the college transformed from a handful of students and courses into a 175-acre co-educational campus featuring 60 buildings, a full-time faculty of over 200, and 3,000 students pursuing undergraduate and graduate degrees, all while maintaining its Catholic, Franciscan, and liberal arts tradition. In 2025, Siena College ascended to Siena University as it expanded its graduate program offerings.

Core Values

Siena University's Franciscan, liberal arts learning community is committed to creating a more just, peaceable and humane world by providing tomorrow's leaders the Education for a Lifetime. This transformative journey of intellectual, social and spiritual discovery is expressed through our core values: **Compassionate Leadership, Inclusivity, Innovation, Lifelong Learning, and Person Centered.**

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Welcome Letter From Conference Organizers

Dear UPSTAT attendees:

Thank you! Without your interest and scholarship, our community would not get to learn and grow together. Not only are we building new ideas and knowledge, but we are also forming new relationships, both professional and personal. The future of our field starts with us. Our technical and academic knowledge is a catalyst for meaningful change. By channeling our collective minds into new discoveries, we have the opportunity to transform raw information into actionable insights that address the world's most pressing challenges. Our work has ample potential to serve the public good, where we build models and tools that contribute to a more equitable society. Together, we are not just analyzing data or performing calculations; we are using our talents to shape a better reality for everyone.

We hope that you make new connections, experience new perspectives, and leave this conference with a renewed sense of purpose. Allow the conversations started here to evolve into breakthroughs powered by the power of statistics. Thank you for being a part of this event and for your contributions to our field.

Sincerely,

2026 ASA Rochester Chapter UPSTAT Conference Organizers

Conference Organizers

Name	Institution	Role	Contact
Tanzy Love	U of R	Organizing Chair	Tanzy_Love@urmc.rochester.edu
Travis Brodbeck	Siena University	Host Committee Chair	tbrodbeck@siena.edu
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Christopher Ryan	SUNY Binghamton	Technical Operations Chair	cryan@binghamton.edu
Katherine Grzesik	U of R	Registration and Program Chair	katherine.grzesik@rochester.edu
Ernest Fokoue	RIT	Partnerships and Community Outreach Chair	epfeqa@rit.edu

Conference Venue

Directions to Campus

From the North

From the Northway (I-87), take Exit 5 (NY 155). Turn left on NY 155 to US 9. Turn right onto Route 9 for two miles. Siena is on the left.

From the South

Travel north on the New York State Thruway (I-87) to Exit 23 (I-787). Follow I-787 North to I-90 West. Take Exit 6 (US 9 North to Loudonville, first exit off I-90). Follow Route 9 North approximately two miles. Siena is on the right.

From the East

From the Massachusetts Turnpike, take the New York State Thruway to Exit B-1 (I-90 West). Follow I-90 to Exit 6 (US 9 North to Loudonville). Follow US 9 North approximately two miles. Siena is on the right.

From the West

From the New York Thruway, take Exit 24 (Northway I-87). Follow Northway North to Exit 5 (NY 155). Turn left on US 155 to US 9. Turn right on US 9 for two miles. Siena is on the left.

Transportation

Air: Albany International Airport, served by ten airlines, is five miles from campus. Taxi service is available.

Bus: Greyhound and Adirondack Trailways have terminals in downtown Albany. Taxi service is available.

Train: Amtrak serves the Capital Region via its terminal in Rensselaer, eight miles from campus. Taxi service is available.

Campus Map

1 - SIENA HALL

- President's Office
- Registrar
- CURCA
- Stack Center
- HEOP
- School of Business
- School of Liberal Arts

2 - FRIARY

3 - FOY HALL

- Beaudoin Theatre
- Counseling Center
- The MacDonnell Career and Internship Center
- TV Studio
- Study Abroad

4 - ROGER BACON HALL

- Key Auditorium
- Bryce Observatory
- School of Science

5 - MORRELL SCIENCE CENTER

- Saint Center

6 - NOBEL HALL

7 - J. SPENCER AND PATRICIA STANDISH LIBRARY

8 - LONNSTRÖM DINING HALL

9 - SARAZEN STUDENT UNION

- Maloney Great Room
- Casey's Lounge
- Bookstore
- Post Office
- Student Life
- Title IX Office
- Damietta Cross-Cultural Center
- WPCR
- Saint Card
- Student Accounts

10 - KIERNAN HALL

11 - RICHARD AND JOAN ROSETTI HALL

12 - HAAS PLANT OPERATIONS BUILDING

13 - COLBETH HALL

14 - CLARE CENTER

15 - ST. THOMAS MORE HOUSE

- Center for Academic Community Engagement (ACE)

16 - ST. FRANCIS HOUSE

- Development and Alumni Engagement

17 - SERRA MANOR

- President's Residence

18 - MACCLOSKEY SQUARE TOWNHOUSES

- Health Services

19 - CUSHING VILLAGE TOWNHOUSES

20 - SHYDER HALL

- Massry Commons
- Commuter Lounge

21 - PLASSMANN HALL

22 - HENNEPIN HALL

23 - RYAN HALL

24 - PADUA HALL

25 - HINES HALL

- Public Safety
- Siena College Research Institute
- Information Technology Services
- Sr. Thea Bowman Center for Women
- Franciscan Center for Service and Advocacy

26 - ST. MARY OF THE ANGELS CHAPEL

27 - CARRIAGE HOUSE

- Laudato Si' Center for Integral Ecology

28 - THE GROTTO

29 - FR. BEN KUHN HOUSE

- Academic Success Center

30 - PATRICIA GIOIA HALL

- Welcome Center/Admissions
- Financial Aid

31 - THE TRUSTCO BANK CENTER

- Human Resources
- Finance and Administration
- Army ROTC "Mohawk" Battalion

32 - MARCELLE ATHLETIC COMPLEX (MAC)

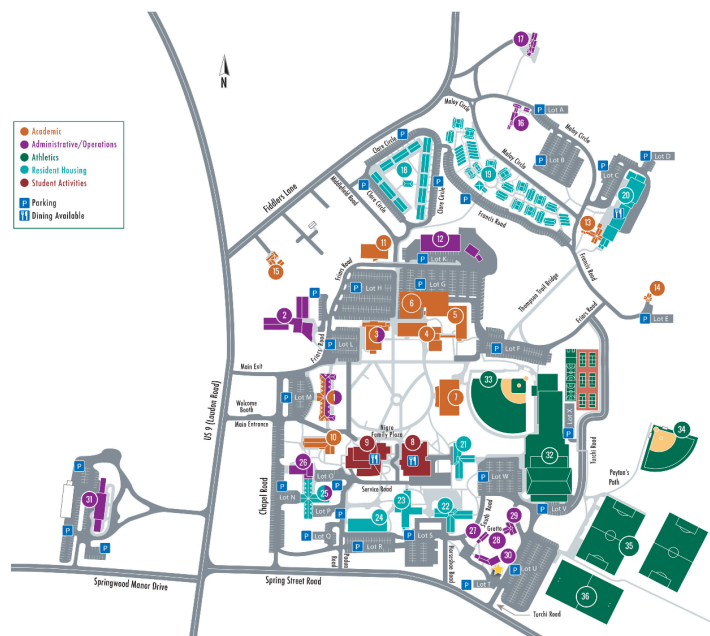
- Callahan Field House
- UHY Center
- Alumni Recreation Center

33 - CONNORS PARK

34 - SIENA FIELD

35 - HICKEY FIELD

36 - SIENA RUGBY PITCH



Friday Location and Parking

Location: Snyder Hall (Building 20)

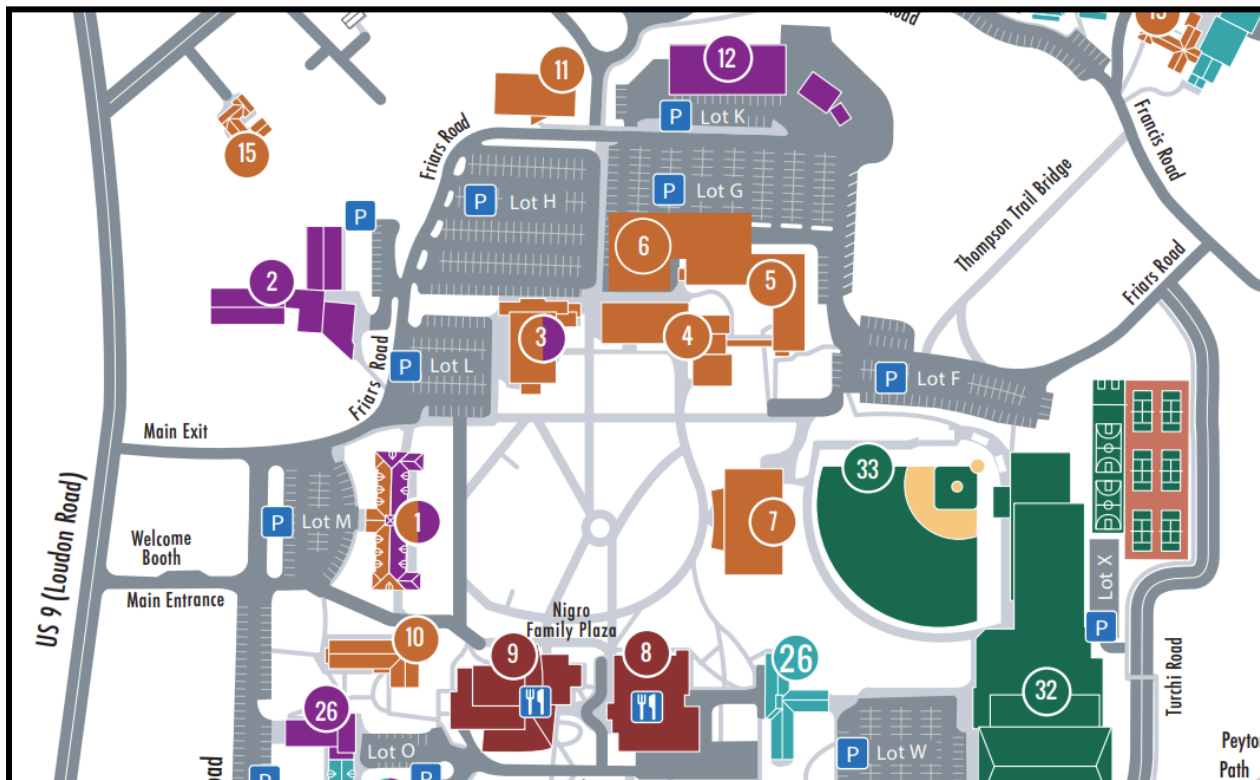
Parking Lots: Lot B and Lot C



Saturday Location and Parking

Location: Roger Bacon Hall (Building 4)

Parking Lots: Lot G, Lot H, and Lot F



Around the Area

Hotels

There are many hotels located close to Siena. These listings are meant only as a resource for visitors to the area, not as an endorsement or recommendation by Siena University.

Lodging	Phone number
The Century House 997 Loudon Road Latham, NY 12110	518-785-0931
Hilton Garden Inn Albany Airport 800 Albany Shaker Road Albany, NY 12211	518-464-6666
Comfort Inn Latham - Albany 981 New Loudon Rd. Cohoes, NY 12047	518-785-0000
Hampton Inn 10 Ulenski Dr. Albany, NY 12205	518-438-2822
Hilton Garden Inn (Albany/SUNY Area) 1389 Washington Ave. Albany, NY 12206	518-453-1300
Homewood Suites 216 Wolf Rd. Albany, NY 12205	518-438-4300
Quality Inn & Suites 611 Troy-Schenectady Rd. Latham, NY 12110	518-785-5891
The Desmond Hotel	800-448-3500

660 Albany Shaker Rd. Albany, NY 12211

Hilton Albany

518-462-6611

40 Lodge St. Albany, NY 12207

Holiday Inn Express & Suites

518-783-6161

400 Old Loudon Rd. Latham, NY 12110

Marriott Albany

518-458-8444

189 Wolf Rd. Albany, NY 12205

La Quinta Inn & Suites

518-640-2200

833 New Loudon Rd. Latham, NY 12110

Super 8 Latham/Albany Airport

518-362-7025

681 Troy Schenectady Rd. Latham, NY 12110

Courtyard by Marriott

518-319-8700

227 Wolf Rd. Albany, NY 12205

Hilton Garden Inn - Troy

518-272-1700

235 Hoosick St. Troy, NY 12180

Renaissance Albany Hotel

518-992-2500

144 State St. Albany, NY 12207

Residence Inn - East Greenbush

518-720-3600

3 Tech Valley Dr. East Greenbush, NY 12061

Holiday Inn Express & Suites - East Greenbush

518-286-1011

8 Empire Dr. Rensselaer, NY 12144

Restaurants

There are many restaurants located close to Siena. These listings are meant only as a resource for visitors to the area, not as an endorsement or recommendation by Siena University.

Restaurant	Phone number
76 Diner 722 New Loudon Rd. Latham, NY 12110	518-785-3793
Common Roots 19 Quackenbush Square Albany, NY 12207	518-447-9000
Angelo's 677 Prime 677 Broadway Albany, NY 12207	518-427-7463
Karavalli 9 Johnson Rd. Latham, NY 12110	518-785-7600
Lanie's Cafe 471 Albany Shaker Rd, Loudonville, NY 12211	518 438-5005
Philly Bar & Lounge 622 Watervliet Shaker Rd. Latham, NY 12110	518-785-9559
BJ's Brewhouse 3 Wolf Rd., Suite 101 Colonie, NY 12205	518-375-3570

Conference at a Glance

Friday: Welcome, Tutorials, Short courses, and networking

Saturday: Breakout sessions, keynote speaker, plenary panel, poster session, and awards

This is a two-day conference, running from Friday, April 17, 2026, through Saturday, April 18, 2026. The event is structured with a distinct focus on practical learning and networking, particularly through its opening on Friday evening, which includes registration, a welcome session, and an extended networking period following tutorials and short courses. On Saturday, there will be three sets of breakout sessions, a poster session, and a keynote address. These activities will be sandwiched between the welcome and farewell remarks. The activities on Friday will be split between Rosetti Hall for the Tutorials and Snyder Hall's Massry Commons for the Reception and Applied Probability Games.

The main activities are concentrated on Saturday, starting with a Welcome and Breakfast at the Roger Bacon Hall 202 - Key Auditorium. The core of the Saturday schedule is dedicated to a high volume of concurrent Breakout Sessions (labeled 1A through 3E), which repeat throughout the morning and early afternoon. These sessions are interspersed with networking breaks to encourage interaction. The structure peaks midday with a Plenary Session Address in the large Key Auditorium following lunch.

The conference concludes with a final round of Breakout Sessions and a dedicated poster session, indicating opportunities for research presentation and broader discussion. The event wraps up with an Awards & Closing Remarks session in the main Key Auditorium, concluding at 5:30 PM on Saturday.

Conference Schedule

Friday Overview

Time	Duration	Description	Location
4:00 PM		Registration Table Opens	Rosetti Hall Lobby
5:30 PM	90 min	Tutorials & Short Courses	Rosetti Hall 104
5:30 PM	90 min	Tutorials & Short Courses	Rosetti Hall 120
5:30 PM	90 min	Tutorials & Short Courses	Rosetti Hall 225
5:30 PM	90 min	Tutorials & Short Courses	Rosetti Hall 226
7:00 PM	90 min	Networking	Snyder Hall 165 - Massry Commons

Saturday Overview

Time	Duration	Description	Location
8:30 AM		Registration Table Opens	Roger Bacon Hall Lobby
8:45 AM	45 min	Breakfast & Networking	Roger Bacon Hall Lobby
9:30 AM	15 min	Welcome Address	Roger Bacon Hall 202 - Key Auditorium
9:45 AM	60 min	Breakout Sessions 1A	Roger Bacon Hall 208
9:45 AM	60 min	Breakout Sessions 1B	Roger Bacon Hall 210
9:45 AM	60 min	Breakout Sessions 1C	Roger Bacon Hall 302
9:45 AM	60 min	Breakout Sessions 1D	Roger Bacon Hall 328
9:45 AM	60 min	Breakout Sessions 1E	Roger Bacon Hall 340
10:45 AM	15 min	Networking Break	Roger Bacon Hall
11 AM	60 min	Breakout Sessions 2A	Roger Bacon Hall 208
11 AM	60 min	Breakout Sessions 2B	Roger Bacon Hall 210
11 AM	60 min	Breakout Sessions 2C	Roger Bacon Hall 302
11 AM	60 min	Breakout Sessions 2D	Roger Bacon Hall 328
11 AM	60 min	Breakout Sessions 2E	Roger Bacon Hall 340

Time	Duration	Description	Location
12:00 PM	60 min	Lunch	Roger Bacon Hall
1:00 PM	60 min	Plenary Speaker Address	Roger Bacon Hall 202 - Key Auditorium
2:00 PM	30 min	Conference Group Photo	Roger Bacon Hall
2:30 PM	15 min	Networking Break	Roger Bacon Hall
2:45 PM	60 min	Breakout Sessions 3A	Roger Bacon Hall 208
2:45 PM	60 min	Breakout Sessions 3B	Roger Bacon Hall 210
2:45 PM	60 min	Breakout Sessions 3C	Roger Bacon Hall 302
2:45 PM	60 min	Breakout Sessions 3D	Roger Bacon Hall 328
2:45 PM	60 min	Breakout Sessions 3E	Roger Bacon Hall 340
3:45 PM	15 min	Networking Break & Poster Setup	Roger Bacon Hall
4:00 PM	60 min	Poster Sessions 3A	Roger Bacon Hall 328
4:00 PM	60 min	Poster Sessions 3B	Roger Bacon Hall 340
5:00 PM	15 min	Closing Remarks	Roger Bacon Hall 202 - Key Auditorium
5:15 PM	15 min	Award Presentation & Photos	Roger Bacon Hall 202 - Key Auditorium

Friday Detailed Schedule

Tutorial Sessions

4/17/2026 at 5:30pm

Teaching Intro Stat with Primary Sources

Room T2

Beverly Wood, Embry-Riddle Aeronautical University (F)

Help your students learn more deeply by stepping away from the textbook and take a look the primary historical sources. (60 minutes)

Statistical Graphics for the Common Good: An Introduction to Data Visualization

Room T3

Nonhle Mdziniso, Rochester Institute of Technology (F)

This tutorial introduces core principles of data visualization using R, emphasizing how visual encoding and design choices support clear, honest communication of data for the common good. (90 minute session)

Julia seeks Romeo: A Soulful and Fun Introduction to the Julia Programming Language

Room T4

Ernest Fokoue, Rochester Institute of Technology (F)

Julia has tremendous potential for statistical research. Julia is also excellent for teaching statistics.

Saturday Detailed Schedule

Breakout Sessions 1 (9:45 AM - 10:45 AM)

ROOM A

What's in a song? - a comparative analysis of attention/fitness signaling in human vs. bird song

Greg Babbitt, Rochester Institute of Technology (F)

How similar or different is what we call 'song' in humans vs. bird? We will begin to answer this question.

Modeling Nonlinear Interactions in Longitudinal Ecological Data

Carlina Velicer, University of Rochester (Student-U)

We leverage longitudinal data to model how experience and environmental conditions shape mating success in a polygynous bird, revealing nonlinear interactions difficult to capture with standard ecological research approaches.

Breakout Sessions 1 (9:45 AM - 10:45 AM)

ROOM B

Boosted Sliced Regression for Dimension Reduction in Binary Classification with Applications to Healthcare and Education

Edmund Osei, The University of Alabama, Tuscaloosa (Student-G)

We proposed a novel dimension reduction approach for binary classification that combines gradient boosting and sliced regression, which outperforms existing sufficient dimension reduction methods and is more scalable.

Nonparametric Effect Size Estimation: An Evaluation of Blaine's d in Heavy-Tailed Data

Farid Ahmad Rohan, University of Rochester (Student-G)

Our simulations demonstrate that Cohen's d starts to collapse as data becomes heavy-tailed, whereas Blaine's d maintains superior performance in estimating effect sizes.

Learning Ordinal Geometry: Semantic-Aware Kernels for Ordered Categorical Data

Ernest Fokoue, Rochester Institute of Technology (F)

Semantic-Aware Ordinal Kernels (SAOK) integrate category order and meaning into a principled geometric framework. This approach improves rank alignment and interpretability without increasing computational complexity over standard methods.

New Horizons for Survey Data Collection

Travis Brodbeck, Siena Research Institute / SUNY Albany (Student-G)

This presentation examines emerging survey technologies-AI-driven follow-ups, text-to-web methods, and online panels-to show how researchers can enhance data quality and extract deeper insights from modern survey samples.

Leveling Up Cybersecurity: How Explainable AI Transforms Digital Safety in Gaming

Apoorva Phadnis, Towson University (Student-G)

Akshata Kishore Moharir, Microsoft (I)

As we build increasingly complex AI systems for digital safety, the gap between capability and trust widens. This presentation offers proven, practical solutions for bridging that gap.

Beyond Detection: Explainable AI as the Backbone of Secure Gaming Ecosystems

Apoorva Phadnis, Towson University (Student-G)

Akshata Kishore Moharir, Microsoft (I)

This presentation explores how explainable AI can transform gaming security by making anti-cheat systems not only more effective but also transparent and trustworthy for players and developers alike.

Architectural Analysis of Retrieval-Augmented Generation (RAG) Models

Mohammad Wasim Shekh, (I)

This research analyzes the evolution of RAG architectures from Naive to Modular workflows, comparing Vector, Knowledge Graph, and Ontology-based retrieval to identify failure points and optimal use cases.

A Behaviorally Inspired Statistical Machine Learning Paradigm

Ernest Fokoue, Rochester Institute of Technology (F)

How does the typical way humans approach learning and mastering a task inspire innovative statistical learning machines

Broadening Access and Representation in Statistics and Mathematics

Susan Mason, Niagara University (F)

In this presentation, we outline ways to recognize and overcome stereotypes about statisticians, with the goal of broadening access and representation in the field.

Developing Statistical Sensibility Through a High School Citizen Science Program

Jane Oppenlander, Clarkson University (F)

A high school citizen science program focused on lake conservation provides a venue for students to develop field data collection skills and learn statistical concepts.

Engaging Students in Probability and Statistics

Elizabeth Reid, Marist University (F)

This talk presents interactive, approachable activities, such as the Birthday Problem and the St. Petersburg Paradox, that help students overcome hesitation and build intuition in probability and statistics.

Keynote Address (1:00 PM - 2:15 PM)

ROOM K

The Future of Statistics in an AI Era

Roger Hoerl, Union College (F)

The arrival of generative AI has provided a shock, raising questions for the statistics profession. Where does statistics as a discipline stand now?

Breakout Sessions 3 (2:45 PM - 3:45 PM)

Application of Mixed Models in Medical Development

ROOM A

Handling Missing Data and ROC Analysis for Repeated Measurements: Application to Predicting HIV Viral Suppression Using Tenofovir Concentrations in Dried Blood Spots

Hongmei Yang, UPMC (F)

ROC analysis of repeated measurements with missing data, applied to HIV study.

Mixed Model for Repeated Measures with Application to Cardiodynamic Electrocardiogram (ECG) Assessment

Hongqi Xue, Clario (I)

Mixed models for repeated measures applied to cardiodynamic Electrocardiogram (ECG) assessment of clinical studies

Latent Growth Curve Model in Prediction of Child Height

Xueya Cai, UPMC (F)

Mixed models for repeated measures applied to prediction of child height

Data-Driven Analysis of Food Assistance Coverage in Central and Northern New York

Aysa Atik, Le Moyne College (Student-U)

This study demonstrates how data-driven statistical and spatial analysis can identify gaps in food assistance coverage and support strategic, equity-focused decision-making to better serve food-insecure communities.

Does Reputation Matter? Potential Bias in Umpire Accuracy.

Kyler Patrick, St. John Fisher University (Student-U)

This paper investigates the relationship between player reputation and umpire accuracy in borderline calls. Using Statcast and FanGraphs data and logistic regression, pitcher quality is found to influence close calls.

The 5Ds of Walking Choice: Developing a Built Environment Walkability Index for Pakistan

Areej Arshad, Rochester Institute of Technology (Student-G)

This study aims to develop a simple, context-specific walkability index for Pakistan based on the 5D principles of walking choice and the existing National Walkability Index for the United States.

Poster Session (4:00 PM - 5:00 PM)

Room P1, Methods

Variance Heterogeneity and Heavy-Tailed Outcomes in Experimental Neuroscience Data

Vanita Shih, University of Rochester (Student-U)

This study examines variance heterogeneity and heavy-tailed outcome distributions in 30 interventional neuroscience experiments using open-access data, highlighting how violations of parametric assumptions may affect statistical inference.

Archetypal Analysis: When and How?

Henrik Bingemann, Skidmore (Student-U)

Archetypal analysis (AA) is a dimension reduction method that finds extreme points in data. We develop new methods that demonstrate when and how to use AA.

Interpretable Contrastive Principal Component Analysis via Group LASSO

Vijay Bapana, Skidmore College (Student-U)

We introduce GLCPA, a structured contrastive dimension reduction method that identifies meaningful feature groups that drive variation in the treatment group relative to the control.

Retraining LLMs to Think Like a Chief Design Officer: Strategic, Brand-Aligned Web Design Beyond Generic UI Generation

Rishikesh Yadav, Caldwell University (Student-U)

We retrained LLMs to think like a Chief Design Officer which results into a strategic, brand-aligned web design beyond generic UI generation.

Exact Confidence Interval for Cohen's Kappa

Caitlin O'Leyar, University of Rochester (Student-U)

Proposed techniques for constructing an exact confidence interval for Cohen's kappa are compared via simulations on confidence interval length and coverage.

Eigenclust: Co-Association-Based Ensemble Clustering

Thomas Weaver, University of Rochester (Student-G)

Unsupervised clustering can be effectively performed by combining an ensemble of clustering algorithms through a rotation of the co-association matrix.

The Impact of Climate Change on Human Migration Patterns in the United States

Harleen Kaur, Rochester Institute of Technology (Student-G)

This study examines how climate stressors affect U.S. county in-migration, finding that heat, aridity, & wildfire exposure reduce migration inflows, with impacts varying by age & education.

The Partial Volume Over the ROC Surface

Christopher Ratigan, Tufts University (Student-G)

We detail a new performance metric for binary classifiers which takes into account both imbalances in costs and classes & realistic constraints on capacity and positive predictive value.

Assessing Whether People Choose to Receive the COVID-19 Vaccine Based on Their Views on Healthcare

Joseph Burkee, Le Moyne College (Student-U)

This project examines COVID-19 vaccine hesitancy across a variety of countries. We evaluate the validity of surveys related to marginalization and healthcare facilities that have yet to be used.

Is rural residency associated with higher Area Deprivation Index (ADI) scores across affluent, middle-income, & low-income communities in the United States?

Benjamin Song, Pittsford Sutherland High School (F)

Across affluent, middle-income, and low-income communities in the United States, rural residency is associated with higher Area Deprivation Index (ADI) scores.

Test-retest reliability of passive BCI-based color vision assessment

Sebastian Rueda, Albany Research Institute (F)

Test-retest reliability is a critical prerequisite for clinical deployment of brain-computer interface (BCI)-based assessments. Using electroencephalography steady-state visual evoked potentials (SSVEPs) to assess congenital red-green color vision deficiencies, we observed

Fuzzy Matching: Linking Disparate Name Variants for Social Network Analysis in Kenya

Faryal Shabir, University of Rochester (Student-U)

Are networks a barrier to migration? In order to explore this question, we must have a clear dataset to know what our network is.

Plenary Speaker



Dr. Roger W. Hoerl

Donald C. Brate '45-Stanley G. Peschel '52 Professor of Statistics
Union College

Biography

Dr. Roger W. Hoerl is Brate-Peschel Professor of Statistics at Union College, in Schenectady, NY. Previously, he led the Applied Statistics Lab at GE Global Research. Dr. Hoerl has been named a Fellow of the American Statistical Association and the American Society for Quality, and has been elected to the International Statistical Institute and International Academy for Quality. He has received the Brumbaugh and Hunter Awards, as well as the Shewhart Medal, from the American Society for Quality, and the Founders Award and Deming Lectureship Award from the American Statistical Association. His article “AI and Statistics: Perfect Together,” with Tom Redman, was included in the “10 AI Must-Reads for 2024” by Sloan Management Review.

Academic Credentials	Selected Professional Honors
● Ph.D. in Statistics, University of Delaware (1983) ● M.S. in Statistics, University of Delaware (1981) ● B.S. in Mathematics, Elizabethtown College (1979)	● Fellow, American Statistical Association (ASA) ● Fellow, American Society for Quality (ASQ) ● Elected Academician, International Academy for Quality (IAQ)

Selected Publications & Contributions

- **Books:** Authored or co-authored nine books, including *Statistical Thinking: Improving Business Performance* and *Leading Six Sigma: A Step-by-Step Guide*.
- **Articles:** Published over 80 articles appearing in peer-reviewed journals.
- **Patents:** Co-inventor on multiple patents related to financial early warning systems and business analysis techniques based on incomplete data.

Plenary Speaker Address

Saturday, April 18, 2026 at 1:00 PM in Roger Bacon Hall 202 - Key Auditorium

Session Title: The Future of Statistics in an AI Era

The statistics discipline has been in a state of flux since the arrival of “data science” as a recognized discipline fifteen or so years ago. There has been competition with, and perhaps to some degree, capitulation to the newer discipline, which arose primarily out of computer science. More recently, the arrival of generative AI, in the form of large language models and chat boxes, has provided another shock to the system, raising additional questions for the statistics profession. Where does statistics as a discipline stand now? How does it fit into the emerging ecosystem for analytics? In attempting to answer these questions, it may be helpful to refer back to previous times of flux, such as the growth and dominance of mathematical statistics beginning fifty or so years ago, the impact of globalization, and the more recent rise of data science. The primary conclusion from such an analysis is that the statistics discipline is perhaps selling itself short, and does not fully appreciate the perspective and skills that it, and no one else, can provide. Focusing on these unique skills, rather than attempting to mimic the skills of others, is likely to provide a brighter future for the profession.

Awards and Recognition

Kudos and Thank Yous

To the Organizers

Thank you to our conference organizers across various universities in the region. Your volunteer service is the foundation that allows for our UPSTAT community to come together. Great job to everyone for their help putting this event together.

To the Sponsors

Thank you to the conference sponsors whose financial and other support provides the essential resources to support the annual UPSTAT conference.

To the Keynote and Plenary Speakers

Thank you to the featured speakers who shared their knowledge and expertise with our conference community. The insights shared are incredibly valuable and will leave a lasting impact on attendees.

To the Siena Community

Thank you to Siena University for hosting this year's UPSTAT conference. With a special thanks to the facilities and events department, Siena Fresh for catering, and Siena faculty for their service.

To the Presenters

Thank you to the professional and emerging scholars who helped make this conference possible. Your work not only advances the field of statistics and data science but also contributes to educating our peers in the industry.

To the Attendees

Thank you to our attendees for taking the time to travel and participate in this year's conference. Without you, there would be no UPSTAT.