

Data Science Seminar

The Data Science Seminar is evolved from the former Statistical Machine Learning Seminar which covered topics in statistical theory that was important for machine learning research as well as development and applications of machine learning techniques in interdisciplinary research. The scope of the Data Science Seminar has been broadened to facilitate dialogue among different communities in the data science circle.

It is listed as course MATH 568.

Location: Whitney 100E (See the directions to the department)

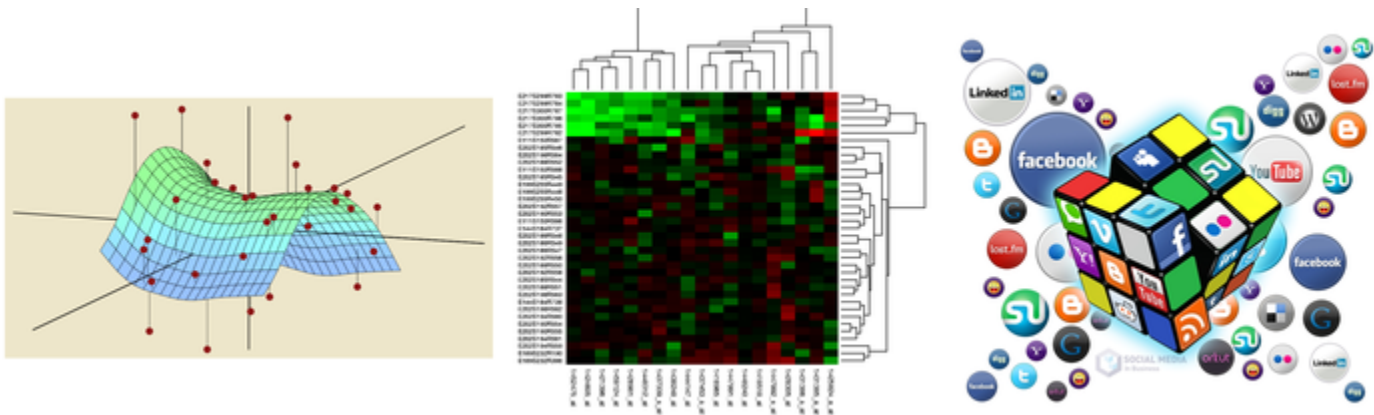
Time: Tuesday 12:00 pm –1:00 pm

Organizer: Statistics Group

See also the Statistics Seminar.

An internal Machine Learning Working Group meeting is held when no seminar talk is scheduled.

See Previous talks in the Data Science Seminar and even earlier talks.



Spring 2024

▪ January 23, 2024

Speaker: Yili Zhang (MathWorks)

Topic: Low-Code Machine Learning in SIMULINK & MATLAB APPS.

Abstract

▪ March 26, 2024

Speaker: Dr. Zeyu Ding (Department of Computer Science at Binghamton University)

Topic: Differential Privacy in Practice: How the US Government Protects Your Sensitive Information in the 2020 Census.

Abstract

Fall 2023

▪ September 26, 2023

Speaker: Dr. Marianthi Markatou (SUNY University at Buffalo)

Topic: Distances and their role in statistical inference.

[Abstract](#)**▪ October 3, 2023**

Speaker: Dr. HaiYing Wang (University of Connecticut)

Topic: Rare Events Data and Maximum Sampled Conditional Likelihood.

[Abstract](#)

▪ October 10, 2023

Speaker: Dr. Yiming Ying (SUNY University at Albany)

Topic: Interplay between Generalization and Optimization via Algorithmic Stability.

[Abstract](#)

▪ October 17, 2023

Speaker: Dr. Peter D. Hoff (Duke University)

Topic: Core Shrinkage Covariance Estimation for Matrix-variate Data.

[Abstract](#)

▪ October 24, 2023

Speaker: Dr. Luis Carvalho (Boston University)

Topic: Deviance Matrix Factorization.

[Abstract](#)

▪ October 31, 2023

Speaker: Dr. Ruiqi Liu (Texas Tech University)

Topic: Estimation and Hypothesis Testing of Derivatives in Smoothing Spline ANOVA Models.

[Abstract](#)

▪ November 14, 2023

Speaker: Dr. Jiguo Cao (Simon Fraser University)

Topic: Machine Learning for Functional Data.

[Abstract](#)

▪ November 28, 2023

Speaker: Dr. Li Zhang (University of California San Francisco)

Topic: NAIR Software: Unlocking the Immune System's Secrets by Network Analysis and Advanced Machine Learning.

[Abstract](#)

▪ December 5, 2023

Speaker: Dr. Xuexia Wang (Florida International University)

Topic: Genetic Association Test and Risk Prediction Modeling for Cardiomyopathy in Cancer Survivors.

[Abstract](#)

Spring 2023

▪ February 14, 2023

Speaker: Dr. Yuan Fang (Binghamton University)

Topic: Clustering disease trajectories: statistical method applications and evaluation.

[Abstract](#)

▪ February 21, 2023

Speaker: Dr. Xuming He (University of Michigan)

Topic: How Good is Your Best Selected Subgroup.

[Abstract](#)

▪ February 28, 2023

Speaker: Dr. James D. Wilson (University of San Francisco)

Topic: The Political Brain: Associations of Tasked-based Functional Connectivity Networks and Political Ideology.

[Abstract](#)

▪ March 7, 2023

Speaker: Dr. Sijian Wang (Rutgers, The State University of New Jersey)

Topic: Dynamic Attention-Based Functional Data Analysis.

[Abstract](#)

▪ March 14, 2023

Speaker: Dr. Holger Dette (Ruhr-Universitaet Bochum)

Topic: Functional data analysis on Banach spaces.

[Abstract](#)

▪ March 21, 2023

Speaker: Dr. Hamsa Bastani (University of Pennsylvania)

Topic: Efficient and targeted COVID-19 border testing via reinforcement learning.

[Abstract](#)

▪ March 28, 2023

Speaker: Dr. Jie Peng (UC Davis)

Topic: Statistical methods for diffusion MRI.

[Abstract](#)

▪ April 11, 2023

Speaker: Dr. Chris Haines (Internal)

Topic: Independent Spacings Theorem with a Maximum Product Spacings Estimation Application.

[Abstract](#)

▪ April 18, 2023

Speaker: Dr. Konstantin G. Arbeev (Duke University)

Topic: How Good is Your Best Selected Subgroup Stochastic process models: Bringing biology to statistics to advance research on aging.

[Abstract](#)

▪ April 27, 2023

Speaker: Dr. Runze Li (Penn State University)

Topic: Model-Free Conditional Feature Screening with FDR Control.

[Abstract](#)

Fall 2022

▪ September 20, 2022

Speaker: Dr. Soumik Banerjee (Internal)

Topic: Likelihood-based Approach for Testing the Homogeneity of Risk Difference in a Multicenter Randomized Clinical Trial.

[Abstract](#)

▪ October 4, 2022

Speaker: Dr. Chao Huang (Florida State University)

Topic: Shape-on-Scalar Regression Models: Going Beyond Prealigned Non-Euclidean Responses.

[Abstract](#)

▪ October 25, 2022

Speaker: Dr. John Stufken (George Mason University)

Topic: Musings on Subdata Selection.

[Abstract](#)

▪ November 1, 2022

Speaker: Dr. Jinchi Lv (University of Southern California)

Topic: High-Dimensional Knockoffs Inference for Time Series Data.

[Abstract](#)

▪ November 8, 2022

Speaker: Dr. Rui Song (North Carolina State University)

Topic: On statistical inference for sequential decision making.

[Abstract](#)

▪ November 15, 2022

Speaker: Dr. Rachael Hageman Blair (University at Buffalo)

Topic: Harnessing stability estimation for module detection, clustering, and ensemble clustering.

[Abstract](#)

▪ December 6, 2022

Speaker: Dr. Alexander Franks (University of California, Santa Barbara)

Topic: Sensitivity to Unobserved Confounding in Studies with Factor-structured Outcomes.

[Abstract](#)

Spring 2022

▪ Apr. 5, 2022

Speaker: Dr. Soumik Banerjee (Internal)

Topic: Multistage Minimum Risk Point Estimation (MRPE) with First-Order and Second-Order Asymptotic Properties.

[Abstract](#)

▪ Apr. 26, 2022

Speaker: Dr. Krishnakumar Balasubramanian (The University of California, Davis)

Topic: Fractal Gaussian Networks: A sparse random graph model based on Gaussian Multiplicative Chaos.

Abstract▪ **May 3, 2022**

Speaker: Dr. Hongtu Zhu (University of North Carolina)

Topic: Challenges in Biobank-scale: Imaging Genetics and Beyond.

Abstract

▪ **May 10, 2022**

Speaker: Dr. Yao Zheng (University of Connecticut)

Topic: Tensor methods for high-dimensional time series modeling.

Abstract

Fall 2021

▪ **Sep. 14, 2021**

Speaker: Dr. Matthew Reimherr (Pennsylvania State University)

Topic: KNG - A New Mechanism for Data Privacy.

Abstract

▪ **Sep. 21, 2021**

Speaker: Dr. Haoda Fu (Eli Lilly and Company)

Topic: Our Recent Development on Cost Constraint Machine Learning Models.

Abstract

▪ **Sep. 28, 2021**

Speaker: Dr. Eric F. Lock (University of Minnesota)

Topic: Bidimensional Linked Matrix Decomposition for Pan-Omics Pan-Cancer Analysis.

Abstract

▪ **Oct. 19, 2021**

Speaker: Dr. Damla Senturk (UCLA)

Topic: Multilevel Modeling of Spatially Nested Functional Data: Spatiotemporal Patterns of Hospitalization Rates in the U.S. Dialysis Population.

Abstract

▪ **Oct. 26, 2021**

Speaker: Dr. Giles Hooker (UC Berkeley)

Topic: There is No Free Variable Importance: Traps in Interpreting Black Box Functions.

Abstract

▪ **Nov. 2, 2021**

Speaker: Dr. Yuanjia Wang (Columbia University)

Topic: Machine Learning Approaches for Optimizing Treatment Strategies for Mental Disorders.

Abstract

▪ **Nov. 9, 2021**

Speaker: Dr. Megan Johnson (Internal)

Topic: The Interconnectivity Vector and the Betti Sequence: Finite-Dimensional Vector Representations of Persistent Homology.

Abstract▪ **Nov. 16, 2021***Speaker:* Dr. Cen Wu (Kansas State University)*Topic:* Robust Bayesian variable selection for gene-environment interactions.Abstract▪ **Nov. 30, 2021***Speaker:* Dr. Antonio Linero (University of Texas at Austin)*Topic:* Bayesian Decision Tree Ensembling Strategies for Nonparametric Problems.Abstract▪ **Dec. 7, 2021***Speaker:* Dr. Annie Qu (University of California Irvine)*Topic:* Correlation Tensor Decomposition and Its Application in Spatial Imaging Data.Abstract

Spring 2021

▪ **Mar. 02, 2021***Speaker:* Brian Franczak (MacEwan University)*Topic:* On using mixtures of shifted asymmetric Laplace distributions for model-based classification.Abstract▪ **Mar. 23, 2021***Speaker:* Adam Ciarleglio (The George Washington University)*Topic:* Multiple imputation in functional regression with applications to EEG data in a depression study.Abstract▪ **March 30, 2021***Speaker:* Wenshu Dai (Binghamton University)*Topic:* Finite Mixtures of Regression Models and Finite Mixtures of Regression Models with Concomitant Variables for Clustering Microbiome Data.Abstract▪ **April. 13, 2021***Speaker:* Nalini Ravishanker (University of Connecticut)*Topic:* Biclustering Approaches for High-Frequency Time Series.Abstract▪ **April. 27, 2021***Speaker:* Melody Ghahramani (The University of Winnipeg)*Topic:* Time Series Regression for Zero-Inflated and Overdispersed Count Data: A Functional Response Model Approach.Abstract

▪ May 04, 2021

Speaker: Zhou Wang (Binghamton University)

Topic: Multiclass Anomaly Detector: the CS++ Support Vector Machine

[Abstract](#)

Fall 2020

▪ Oct. 20, 2020

Speaker: Sumanta Basu (Cornell University)

Topic: Measuring Systemic Risk with Graphical Models of Time Series Data.

[Abstract](#)

▪ Oct. 27, 2020

Speaker: Yuan Luo (Northwestern University)

Topic: A Multidimensional Precision Medicine Approach Identifies an Autism Subtype Characterized by Dyslipidemia

[Abstract](#)

▪ Nov. 3, 2020

Speaker: Shaofei Zhao (Binghamton University)

Topic: Distribution-free and nonparametric multivariate feature screening via measure transportation for high dimensional response and predictor variables.

[Abstract](#)

Spring 2020

▪ Mar. 24, 2020

CANCELLED AND POSTPONED

Speaker: Sumanta Basu (Cornell University)

▪ April. 21, 2020

Speaker: Liang Li, Yunhui Liu and Han Zhang

Topic: Capstone Project: Factors Affecting PhD Student Success.

[Abstract](#)

▪ April. 21, 2020

CANCELLED AND POSTPONED

Speaker: Adam Ciarleglio (George Washington University)

▪ May. 05, 2020

CANCELLED AND POSTPONED

Speaker: Yuan Luo (Northwestern University)

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Fall 2019

See the schedule of the **Interdisciplinary Dean's Speaker Series in Data Science**.

- **Oct. 9, 2019 (special day and time)**

- Interdisciplinary Dean's Speaker Series in Data Science**

- Speaker:* Joseph W Hogan (Brown University)

- Topic:* Using Electronic Health Records Data for Predictive and Causal Inference About the HIV Care Cascade

- [Abstract](#)

- **Oct. 11, 2019 (Special Date and time)**

- Speaker:* Paul McNicholas (McMaster University)

- Topic:* Clustering Higher-Order Data

- [Abstract](#)

- **Oct. 22, 2019**

- Speaker:* Gen Li (Columbia University)

- Topic:* Integrative multi-view regression: Bridging group-sparse and low-rank models.

- [Abstract](#)

- **Oct. 24, 2019 (1:15 pm, stat seminar time)**

- Speaker:* Doug Turnbull (Ithaca College)

- Topic:* TBA

- [Abstract](#)

- **Oct. 29, 2019**

- Speaker:* Wangshu Tu (Binghamton University)

- Topic:* A family of mixture models for biclustering

- [Abstract](#)

- **Nov. 5, 2019**

- Speaker:* Wangshu Tu (Binghamton University)

- Topic:* Non existence of fixed sample estimator for prescribed proportional closeness

- [Abstract](#)

- **Nov. 8, 2019**

- Interdisciplinary Dean's Speaker Series in Data Science**

- Speaker:* Andrew Gordon Wilson (New York University; Courant Institute of Mathematical Sciences)

- Topic:* How do we build models that learn and generalize?

- [Abstract](#)

- **Nov. 12, 2019**

- Speaker:* Kexuan Li (Binghamton University)

- Topic:* A Hausman test for the presence of market microstructure noise in high frequency data

- [Abstract](#)

- **Nov. 19, 2019**

- Interdisciplinary Dean's Speaker Series in Data Science**

Time: 10am-11:30am

Location: UUW325

Speaker: Arthur Spirling (New York University; Politics and Data Science)

Topic: Word Embeddings: What works, what doesn't, and how to tell the difference for applied research

[Abstract](#)

▪ **Nov. 26, 2019**

Speaker: Wei Yang (Binghamton University)

Topic: Random Covariance Matrix and the Marchenko-Pastur law

[Abstract](#)

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Spring 2019

▪ **March 05, 2019**

Speaker: Rebecca Nugent (Carnegie Mellon University)

Topic: Before Teaching Data Science, Let's First Understand How People Do It

[Abstract](#)

▪ **March 12, 2019**

Speaker: Subhadeep (Deep) Mukhopadhyay (Temple University)

Topic: Graph Data Science

[Abstract](#)

▪ **March 26, 2019**

The Dean's Speaker Series in Statistics and Data Science

Speaker: Regina Y. Liu (Rutgers University)

Topic: Fusion Learning: Efficient Combination of Inferences from Diverse Data Sources

[Abstract](#)

▪ **April 9, 2019**

Speaker: David Hunter (Pennsylvania State University)

Topic: Multivariate Nonparametric Mixture Models

[Abstract](#)

▪ **April 16, 2019**

The Dean's Speaker Series in Statistics and Data Science

Speaker: David Madigan (Columbia University)

Topic: Towards honest inference from real-world healthcare data

[Abstract](#)

▪ **April 23, 2019**

Speaker: Daphney-Stavroula Zois (SUNY Albany)

Topic: Spatiotemporal Quickest Change Detection for Traffic Accident Nowcasting

[Abstract](#)

▪ **April 30, 2019**

Speaker: Lin Yao (Binghamton University)

Topic: Dissertation Defense - JAMES-STEIN-TYPE OPTIMAL WEIGHT CHOICE FOR FREQUENTIST MODEL AVERAGE ESTIMATOR

Special time and location: 3:30 pm at OR 100D

[Abstract](#)

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Fall 2018

▪ October 9, 2018

The Dean's Speaker Series in Statistics and Data Science

Speaker: Sidney Resnick (Cornell University)

Location: Old Champlain Atrium (unusual location)

Topic: Fitting the Linear Preferential Attachment Model for Social Network Growth

[Abstract](#)

▪ October 23, 2018

The Dean's Speaker Series in Statistics and Data Science

Speaker: David Ruppert (Cornell University)

Topic: Density Estimation with Noisy Data

[Abstract](#)

▪ November 13, 2018

Speaker: Yudong Chen (Cornell University)

Topic: Byzantine-Robust Distributed Learning with Non-convercity

[Abstract](#)

Spring 2018

▪ January 30

Speaker: Qiqing Yu (Binghamton University)

Topic: Identifiability Conditions For The Linear Regression Model Under Right Censoring

[Abstract](#)

▪ February 20

Speaker: Yinsong Chen (Binghamton University)

Topic: The Conductance and Mixing Time

[Abstract](#)

▪ March 13

Speaker: Jiexin Duan (Purdue University)

Topic: Large-Scale Nearest Neighbor Classification with Statistical Guarantee

[Abstract](#)

▪ March 20

Speaker: Yuan Fang (Binghamton University)

Topic: **Bayesian Approach to Parameter Estimation for the mixtures of Multivariate Normal Inverse Gaussian Distributions**

[Abstract](#)

▪ **April 10**

Speaker: **Leila Setayeshgar** (Providence College)

Topic: **Large Deviations for a Class of Stochastic Semilinear Partial Differential Equations**

[Abstract](#)

▪ **April 17**

Speaker: **Wenbo Wang** (Binghamton University)

Topic: **A look at distance-weighted discrimination**

[Abstract](#)

▪ **April 24**

Speaker: **Haomiao Meng** (Binghamton University)

Topic: **Multicategory Angle-based Large-margin Classification**

[Abstract](#)

▪ **May 1**

Speaker: **Chen Liang** (Binghamton University)

Topic: **Goodness of fit tests for clustered spatial point processes**

[Abstract](#)

Fall 2017

▪ **September 19**

Speaker: **Dan Yang** (Rutgers University)

Topic: **Autoregressive Model for Matrix Valued Time Series**

[Abstract](#)

▪ **September 26**

Speaker: **Ji Meng Loh** (New Jersey Institute of Technology)

Topic: **Single-index model for inhomogeneous spatial point processes**

[Abstract](#)

▪ **November 14**

Speaker: **Wei jie Su** (Wharton School of the University of Pennsylvania)

Topic: **TBA**

[Abstract](#)

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