

# Statistics and Data Science

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## Faculty

### Chair

#### Xuming He

Kotzubei-Beckmann Distinguished Professor  
 PhD, University of Illinois at Urbana-Champaign  
 Robust statistics; quantile regression; Bayesian inference; post-selection inference

### Director of Graduate Studies, PhD Program

#### José Figueroa-López

Professor  
 PhD, Georgia Institute of Technology  
 Inference methods for stochastic processes based on high-frequency sampling data; nonparametric estimation and model selection methods; time series analysis; high-frequency algorithmic trading, limit order book modeling, and asset price formation

### Director of Master's Program

#### Nan Lin

Professor  
 PhD, University of Illinois at Urbana-Champaign  
 Statistical computing in big data, quantile regression, causal inference, longitudinal data and functional data analysis, and statistical applications in anesthesiology

### Directors of Undergraduate Studies

#### Jimin Ding

Associate Professor  
 PhD, University of California, Davis  
 Survival analysis; longitudinal data analysis; joint modeling of longitudinal and survival data; functional data analysis; nonparametric smoothing methods; systems of differential equations; dynamical systems; profile likelihood; asymptotic theories

#### Joe Guinness

Associate Professor  
 PhD, University of Chicago  
 Computing and methodology for large spatial and spatial-temporal datasets; Gaussian process models

## Department Faculty

#### Likai Chen

Assistant Professor  
 PhD, University of Chicago  
 Time series; high dimensional data analysis; statistical learning theory

#### Ran Chen

Assistant Professor  
 PhD, University of Pennsylvania  
 Reinforcement learning; data-driven decision-making; optimization; statistical machine learning; high-dimensional statistics; nonparametric statistics

#### Hong Hu

Assistant Professor  
 PhD, Harvard University  
 Statistical signal processing; machine learning

#### Abigail Jager

Senior Lecturer  
 PhD, University of Chicago  
 Statistics; causal inference

#### Vasileios (Bill) Katsianos

Senior Lecturer  
 PhD, University of Chicago  
 Statistical genetics; multiple testing with dependence; graphical models; Markov Chain Monte Carlo methods; time series analysis; model-based clustering

#### Todd Kuffner

Associate Professor  
 PhD, Imperial College London  
 Statistics; econometrics; Bayesian asymptotics; applications of differential geometry to statistics; empirical likelihood; variable and model selection methods

#### Soumendra Lahiri

Stanley A. Sawyer Professor  
 PhD, Michigan State University  
 Asymptotic expansions, astrostatistics, inference for high dimensional and massive data sets, machine learning and predictive modeling, resampling and computer intensive methods, spatial statistics, time series and econometrics

#### Bo Li

Stanley A. Sawyer Professor  
 PhD, Texas A&M University  
 Spatial and spatiotemporal statistics; univariate and multivariate spatiotemporal data modeling; functional data analysis; multiple testing; copula methods; Bayesian hierarchical modeling; spatial extremes

#### Robert Lunde

Assistant Professor  
 PhD, Carnegie Mellon University  
 Statistical network analysis; time series; resampling methods; high-dimensional statistics

**Carlos Misael Madrid Padilla**

Assistant Professor

PhD, University of Notre Dame

High-dimensional statistics; nonparametric statistics; change point detection; causal inference; Bayes methodology

**Debashis Mondal**

Associate Professor

PhD, University of Washington

Spatial statistics; computational science; machine learning; applications in ecology (including microbial ecology); environmental sciences

**Lizda Nazdira Moncada Morales**

Lecturer

PhD, University of Notre Dame

Statistical machine learning; combinatorial commutative algebra

**Xiaofeng Shao**

Lecturer

PhD, University of Chicago

Econometrics; time series analysis; change-point analysis; high-dimensional statistics; nonparametric statistics; functional data analysis

**Debjoy Thakur**

Postdoctoral Lecturer

PhD, Indian Institute of Technology

Spatial statistics, resampling method, copula, spatial extreme, statistical neural network

**Shota Takeishi**

Postdoctoral Lecturer

PhD, University of Tokyo

Heterogeneity; survival analysis; asymptotic theory