YEONJOO PARK

CONTACT
INFORMATION

Department of Management Science and Statistics *Phone:* (210) 458-6823
Alvarez College of Business *Email:* yeonjoo.park@utsa.edu
University of Texas at San Antonio
SP1 340M

EDUCATION

Ph.D. in Statistics, 2017
University of Illinois at Urbana-Champaign (advisor:Douglas G. Simpson)
M.Sc. in Statistics, Seoul National University, Seoul, Korea 2011
B.Sc. in Statistics, Ewha Womans University, Seoul, Korea 2009

EMPLOYMENT

Assistant Professor of the Department of Management Science and Statistics
  at University of Texas at San Antonio Aug 2018 - present

Visiting Assistant Professor of the Department of Statistics
  at University of Illinois at Urbana-Champaign Aug 2017 - Aug 2018

RESEARCH
INTERESTS

Functional Data; Functional-Response Regression; Functional Mixed Model; Inference; Spatial Data; Power Analysis; Predictive Modeling; Robust Statistics.

PUBLICATIONS

Park, Y., Oh, H-S., and Lim, Y. (2024) A data-adaptive dimension reduction for functional data via penalized low-rank approximation. *Statistics and Computing.* Accepted.

Park, Y., Han, K., and Simpson, D. G. (2023) Testing linear operator constraints in functional response regression with incomplete response functions. *Electronic Journal of Statistics.* 17(2): 3143-3180.

Park, Y., Kim, H., and Lim, Y. (2023). Functional principal component analysis for partially observed elliptical process. *Computational Statistics and Data Analysis.* 184, 107745.

Park, Y., Kim, H., and Lim, Y. (2023). Change points detection for nonstationary multivariate time series. *Communications for Statistical Applications and Methods.* **30**:369-388.

Park, Y., Li, B., and Li, Y. (2023). Crop yield prediction using Bayesian spatially varying coefficient models with functional predictors. *Journal of the American Statistical Association.* 118:541, 70-83.

Park, Y., Chen, X., and Simpson, D. G. (2022). Robust inference for partially observed functional response data. *Statistica Sinica.* **32**, 2265-2293.

Park, Y. and Simpson, D. G. (2019). Robust probabilistic classification applicable to irregularly sampled functional data. *Computational Statistics and Data Analysis* **131**, 37–49.

Wirtzfeld, L. A., Ghoshal, G, Rosado-Mendez, I. M., Nam, K., Kumar, V., **Park, Y.,**, Pawlicki, A., Kurowski, M., Hartman, E., Miller, R., Labyed, Y., Simpson, D. G., Bigelow, T. A., Zagzebski, J. A., Oelze, M. L., Hall, T. J., and O'Brien, W. D. (2015). Quantitative ultrasound comparison of MAT and 4T1

mammary tumors in mice and rats across multiple imaging systems, *Journal of Ultrasound in Medicine* **34**, 1373–1383.

Lim, Y., **Park, Y.,** and Oh, H-S. (2013). Robust principal component analysis via ES-algorithm, *Journal of the Korean Statistical Society* **43**, 149-159.

REPORTS

Teaching & learning student engagement and learning in the time of Covid-19. (2020). *Urban Education Institute at UTSA.* https://uei.utsa.edu/_files/pdfs/DistanceLearningBrief2-8-17-20.pdf

SUBMITTED OR UNDER REVISION

Park, Y. and Han, A. Robust domain selection for functional data via interval-wise testing and effect size mapping. *Under review.*

Kang, S. and **Park, Y.** Framing of Russia-Ukraine War: Topic Modeling and Comparisons from Global News. *Revised and resubmitted.*

Kim, Y., **Park, Y.**, Chandrasekaran, D., Gretz, R. and Basuroy, S. The impact of post-launch continuous improvement on user engagement in digital products: Evidence from the mobile application industry. *Under revision.*

WORKS IN PROGRESS

Han, K, **Park, Y.**, and Kim, S. Statistical inference on functional varying coefficient regression models with shaped constraints on sub-intervals.

Park, Y., Li, B, and Li, Y. Crop yield prediction using spatial DeepKriging with functional inputs.

GRANTS

Aging Research in Animals (ARIA): Promoting Rigorous Research on Behavioral and Social Processes. National Institutes of Health . Role: Collaborator.

AWARDS AND HONORS

1969 Commemorative Award for Teaching Excellence, University of Texas at San Antonio 2024
Dean's Distinguished Research Award, University of Texas at San Antonio 2023
Outstanding qualifying exam award at Robert Bohrer Memorial Workshop 2012
Best student poster award, KISS (Korean International Statistical Society) 2011
Best teaching assistant award, Seoul National University 2011

PRESENTATIONS

Crop yield prediction with Spatial DeepKriging with functional inputs, *Academic Data Science Alliance (ADSA) annual meeting*, San Antonio, TX. Oct 2023

Crop yield prediction using Bayesian spatially varying coefficient models with functional predictors, *Southern Regional Council on Statistics Summer Research Conference*, Waco, TX. June 2023

A data-adaptive dimension reduction for functional data via penalized low-rank approximation. *Alamo Symposium in Statistics*, San Antonio, TX. Mar 2023

Crop yield prediction using Bayesian spatially varying coefficient models with functional predictors, Southern Methodist University, Dallas, TX. Oct 2022

Testing shape constraints in varying coefficient regression models for functional data, *Recent Developments in Statistical Science and Its Applications: 9th International Conference*, Chung-Ang University, Korea. June 2022

Data-adaptive robust functional principal component analysis for partially observed functional data, *Recent Developments in Statistical Science and Its Applications: 8th International Conference*, Chung-Ang University, Korea (Online). Dec 2021

Robust principal component analysis for partially observed functional data, *Informs* (Online). Oct 2021

Spatially varying coefficient model with functional Predictors, *UIC MSCS Department Seminar Series: Statistics and Data Science*, University of Illinois at Chicago, IL (Online). March 2021

Prediction with spatially correlated functional covariates, *Informs*, Seattle, WA, Oct 2019

Robust M-estimation for partially observed functional data, *MSS research seminar*, San Antonio, TX, Oct 2019

Robust M-estimation for partially observed functional data, *Joint Statistical Meetings*, Denver,CO, Aug 2019

Functional Signal-to-Noise Ratio analysis with applications in quantitative ultrasound, *ENAR meeting*, Miami, FL, Mar 2015.

Robust probabilistic classification for functional data with applications in quantitative ultrasound, *Beckman Institute, University of Illinois*, Urbana-Champaign, IL, Nov 2014.

Robust probabilistic classification for functional data, *Robert Bohrer Memorial Workshop*, Urbana-Champaign, IL, Nov 2014.

Poster presentation, *Midwest Statistics Research Colloquium*, Chicago, IL, Mar 2014.

Poster presentation, *Korean Statistical Society Meeting*, Daejeon, Korea, Mar 2011.

TEACHING EXPERIENCE	University of Texas at San Antonio	
	STA6713 Linear Models	Spring 2023-2024
	STA6413 Nonparametric Statistics	Spring 2022
	DA6213 Data-Driven Decision Making and Design	Spring 2021
	STA 6853 Categorical Data Analysis	Spring 2019
	STA 6443 Algorithms I	Fall 2018-2024
	University of Illinois at Urbana-Champaign	
	STAT 448 Advanced Data Analysis	Spring 2018, Fall 2017
	STAT 200 Statistical Analysis	Spring 2015
	Qualifying exam preparation course for Ph.D. students	Summer 2013

WORK EXPERIENCE	Anheuser-Busch InBev, IL, *Data Analyst (Internship)*	May - Aug 2015

- Developed and implemented Sales Algorithm to predict customers next order for B2B application order suggestion. Pilot study for 7 main cities in US.

Center for Prevention Research and Development (CPRD), Institute of Government and Public Affairs, IL, *Data Analyst (Internship)* Jun - Dec 2014

- Evaluated programs and policies implemented in Illinois with various statistical models, including growth curve model and mixed-effects model