CURRICULUM VITAE

Kai Yang PhD

Assistant Professor
Department of Institute for Health and Equity
Division of Biostatistics

OFFICE ADDRESS:
> Medical Education Building
> 8701 Watertown Plank Rd
> Milwaukee, WI 53226
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EDUCATION:
> 08/2012 - 06/2016 BS, Department of Mathematics, Nanjing University, China
> 08/2016 - 08/2019 MS, Department of Biostatistics, University of Florida, FL
> 08/2016 - 08/2021 PhD, Department of Biostatistics, University of Florida, FL

FACULTY APPOINTMENTS:
> 08/2021 - Present Assistant Professor, Institute for Health and Equity, Division of Biostatistics, The Medical
> College of Wisconsin, Milwaukee, WI

AWARDS AND HONORS:
> 05/2014 Jingchu Scholarship, Nanjing University
> 05/2015 First Prize of the People's Scholarship, Nanjing University
> 03/2018 Student Travel Award, Department of Biostatistics, University of Florida
> 05/2018 Outstanding Dissertation Research Award, University of Florida
> 05/2018 Best Student Paper Award, International Indian Statistical Association
> 08/2018 Young Investigator Award, American Statistical Association
> 05/2019 Student Travel Award, IMS/ASA Spring Research Conference
> 05/2019 Student Travel Award, Midwest Biopharmaceutical Statistics Workshop
> 07/2020 Outstanding Dissertation Research Award, University of Florida
> 10/2022 PHHP Outstanding Young Alumni Award, University of Florida

MEMBERSHIPS IN HONORARY AND PROFESSIONAL SOCIETIES:
> 06/2017 - Present American Statistical Association
> 06/2017 - Present International Biometric Society
> 03/2018 - Present International Chinese Statistical Association
> 08/2018 - Present American Association for the Advancement of Science
> 03/2019 - Present Institute of Mathematical Statistics
> 03/2019 - Present Institute for Operations Research and the Management Sciences

EDITORSHIPS/EDITORIAL BOARDS/JOURNAL REVIEWS:
Journal Review
> 02/2019 - Present IEEE Access
> 03/2020 - Present International Journal of Production Research
> 11/2020 - Present Statistics in Medicine
> 05/2021 - Present BioData Mining
> 08/2021 - Present Global Epidemiology
> 01/2022 - Present BMJ Open
> 07/2022 - Present Journal of Applied Statistics

11/2023 - Present Statistical Papers
01/2024 - Present Quality Technology and Quantitative Management

LOCAL/REGIONAL APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:
07/2022 - 06/2023 Vice President, Wisconsin Chapter, American Statistical Association
07/2023 - Present President, Wisconsin Chapter, American Statistical Association
01/2024 - Present Member, AHW Grant Review Panel, Advancing a Healthier Wisconsin

NATIONAL ELECTED/APPOINTED LEADERSHIP AND COMMITTEE POSITIONS:
03/2022 - Present Member, ICSA Student Paper Competition Committee, International Chinese Statistical Association
09/2023 - Present Member, Radiation Oncology In-Training Exam Committee, American College of Radiologists
01/2024 - Present Member, ICSA Award Committee, International Chinese Statistical Association

RESEARCH GRANTS/AWARDS/CONTRACTS/PROJECTS:

Active
Peer Review

Title:	Endothelial Rap1 in the control of heart function
Source:	NIH Heart Lung and Blood Institute
Role:	Biostatistician
PI:	Dr. David X. Zhang
Dates:	09/01/2021 - 08/31/2026

Title:	Development of a Surgical Oncology Disparities Research Program
Source:	AHW-Research and Education Program
Role:	Biostatistician
PI:	Dr. Anai Kothari
Dates:	05/2022 - 04/2026

Title:	Leveraging a Public School District and Schoolyard Spaces to Confront Climate Health Inequities in A Low Income, Urban Community of Color
Source:	Environmental Protection Agency
Role:	Co-Investigator
PI:	Dr. Kirsten Beyer
Dates:	09/2022 - 08/2025

Prior
Peer Review

Title:	A Multipotential Mitigation Agent for Gastrointestinal Syndrome
Source:	NIH
Role:	Consultant
PI:	Dr. Paul Okunieff
Dates:	08/2018 - 07/2019

Title:	Online Spatio-Temporal Disease Surveillance Using Exponentially Weighted Spatial LASSO
Source:	CTSI BERD Pilot Methodological Innovation Award

Role:	Principal Investigator
PI:	Dr. Kai Yang
Dates:	05/2022 - 04/2023

INVITED LECTURES/WORKSHOPS/PRESENTATIONS:

National

Kai Yang, Peihua Qiu, Online Sequential Monitoring of Spatio-Temporal Disease Incidence Rates, IISA Conference on Statistics, Gainesville, FL, 05/17/2018 - 05/20/2018

Kai Yang, Peihua Qiu, Online Sequential Monitoring of Spatio-Temporal Disease Incidence Rates, INFORMS Annual Meeting, Seattle, WA, 10/20/2019 - 10/23/2019

Peihua Qiu, Kai Yang, Spatio-Temporal Disease Surveillance by Using Covariate Information, INFORMS Annual Meeting, Virtual, 11/08/2020 - 11/11/2020

Peihua Qiu, Kai Yang, Spatio-Temporal Disease Surveillance by Using Covariate Information, WNAR Annual Meeting, Virtual, 06/13/2021 - 06/16/2021

Kai Yang, Peihua Qiu, Design Variable Sampling Control Charts Using Covariate Information, INFORMS Annual Meeting, Anaheim, CA, 10/24/2021 - 10/27/2021

Kai Yang, Peihua Qiu, Adaptive Process Monitoring Using Covariate Information, ICSA Applied Statistics Symposium, Gainesville, FL, 06/19/2022 - 06/22/2022

Peihua Qiu, Kai Yang, Spatio-Temporal Process Monitoring Using Exponentially Weighted Spatial LASSO, INFORMS Annual Meeting, Indianapolis, IN, 10/16/2022 - 10/19/2022

Kai Yang, Design Variable Sampling Control Charts Using Covariate Information, INFORMS Annual Meeting, Phoenix, AZ, 10/15/2023 - 10/18/2023

International

Kai Yang, Peihua Qiu, Online Sequential Monitoring of Spatio-Temporal Disease Incidence Rates, Nanjing University, Nanjing, China, 11/02/2020

Kai Yang, Peihua Qiu, Design Variable-Sampling Control Charts Using Covariate Information, Jinan University, Guangzhou, China, 06/29/2021

Peihua Qiu, Kai Yang, Effective Disease Surveillance by Using Covariate Information, IISA Conference on Statistics, Bangalore, India, 12/26/2022 - 12/30/2022

PEER REVIEWED WORKSHOPS/PRESENTATIONS:

Local

Kai Yang, Peihua Qiu, Spatio-Temporal Incidence Rate Data Analysis by Using Nonparametric Regression, UF Biostatistics Workshop, Gainesville, FL, 04/07/2017 - 04/08/2017

Kai Yang, Peihua Qiu, Online Sequential Monitoring of Spatio-Temporal Disease Incidence Rates, UF Statistics Winter Workshop, Gainesville, FL, 01/19/2018 - 01/20/2018

Kai Yang, Peihua Qiu, Nonparametric Modeling of Spatio-Temporal Disease Incidence Rate Data, UF Emerging Pathogens Institute Research Day, Gainesville, FL, 02/12/2019

Regional

Kai Yang, Peihua Qiu, Effective Statistical Process Control by Using Covariate Information, ASA Florida Chapter Meeting, Orlando, FL, 02/08/2019 - 02/09/2019

National

Kai Yang, Peihua Qiu, Online Sequential Monitoring of Spatio-Temporal Disease Incidence Rates, ENAR Spring Meeting, Atlanta, GA, 03/25/2018 - 03/28/2018

Kai Yang, Peihua Qiu, Online Sequential Monitoring of Spatio-Temporal Disease Incidence Rates, Midwest Biopharmaceutical Statistics Workshop, Indianapolis, IN, 05/20/2019 - 05/22/2019

Kai Yang, Peihua Qiu, Online Sequential Monitoring of Spatio-Temporal Disease Incidence Rates, IMS/ASA Spring Research Conference, Blacksburg, VA, 05/22/2019 - 05/24/2019

Kai Yang, Peihua Qiu, Adaptive Process Monitoring Using Covariate Information, Joint Statistical Meeting, Washington, DC, 08/06/2022 - 08/11/2022

International

Kai Yang, Peihua Qiu, Online Sequential Monitoring of Spatio-Temporal Disease Incidence Rates, Joint Statistical Meeting, Vancouver, Canada, 07/28/2018 - 08/02/2018

COMMITTEE SERVICE:
Medical College of Wisconsin
09/2021 - 06/2023 Member, Website Committee, Division of Biostatistics, Institute for Health and Equity, Medical College of Wisconsin

09/2021 - 06/2023 Member, Computer Committee, Division of Biostatistics, Institute for Health and Equity, Medical College of Wisconsin

01/2022 - 06/2023 Member, Student Admission Committee, Division of Biostatistics, Institute for Health and Equity, Medical College of Wisconsin

03/2022 - Present Member, Faculty Recruitment Committee, Division of Biostatistics, Institute for Health and Equity, Medical College of Wisconsin

07/2023 - Present Member, Seminar Committee, Division of Biostatistics, Institute for Health and Equity, Medical College of Wisconsin

MEDICAL COLLEGE TEACHING ACTIVITIES:
Graduate Student Education
01/2022 - 05/2022 BIOS 04232 Statistical Models and Methods II

05/2022 - Present BIOS 04295 Reading and Research

01/2023 - 05/2023 Linear Models I

01/2024 - 05/2024 BIOS 04232 Statistical Models and Methods II

EXTRAMURAL STUDENTS, FACULTY, RESIDENTS, AND CLINICAL/RESEARCH FELLOWS MENTORED:
Graduate Students
PhD Committees
Chima Anyanwu, 05/2022 - Present

Shana Terai Lara, 01/2024 - Present
PhD Students Advised
Haoran Teng, 01/2023 - Present

BIBLIOGRAPHY

Refereed Journal Publications/Original Papers
1. Yang K, Qiu P. Spatiotemporal incidence rate data analysis by nonparametric regression. Stat Med. 2018 Jun 15;37(13):2094-2107.
2. Iqbal A, Khan A, George TJ, Tan S, Qiu P, Yang K, Trevino J, Hughes S. Objective Preoperative Parameters Predict Difficult Pelvic Dissections and Clinical Outcomes. J Surg Res. 2018 Dec;232:15-25.
3. Yang K, Qiu P. Nonparametric estimation of the spatio-temporal covariance structure. Stat Med. 2019 Oct 15;38(23):4555-4565.
4. Kirkpatrick AF, Saghafi A, Yang K, Qiu P, Alexander J, Bavry E, Schwartzman R (2020). Optimizing the Treatment of CRPS with Ketamine. The Clinical Journal of Pain, 36, 516-523.
5. Riner AN, Underwood PW, Yang K, Herremans KM, Cameron ME, Chamala S, Qiu P, George TJ, Permuth JB, Merchant NB, Trevino JG. Disparities in Pancreatic Ductal Adenocarcinoma-The Significance of Hispanic Ethnicity, Subgroup Analysis, and Treatment Facility on Clinical Outcomes. Cancer Med. 2020 Jun;9(12):4069-4082. PMCID: PMC7300394
6. B Allen, R Christenson, S Cohen, R Nowak, G Wilkerson, B Mumma, T Madsen, J McCord, M Huis In'T Veld, M Massoomi, J Stopyra, C Montero, M Weaver, K Yang, S Mahler. Evaluation of European Society of Cardiology (ESC) 0/1-hour algorithm in the diagnosis of 90-day major adverse cardiovascular events: a multicenter United States cohort study European Heart Journal. 2020; 41: ehaa946.1671.
7. Yang K, Qiu P. Online sequential monitoring of spatio-temporal disease incidence rates IISE Transactions. 1

November 2020;52(11):1218-1233.

8. Allen BR, Christenson RH, Cohen SA, Nowak R, Wilkerson RG, Mumma B, Madsen T, McCord J, Huis In't Veld M, Massoomi M, Stopyra JP, Montero C, Weaver MT, Yang K, Mahler SA. Diagnostic Performance of High-Sensitivity Cardiac Troponin T Strategies and Clinical Variables in a Multisite US Cohort. Circulation. 2021 Apr 27;143(17):1659-1672.

9. Yang K, Qiu P. Adaptive Process Monitoring Using Covariate Information Technometrics. 2021;63(3):313-328.

10. Qiu P, Yang K. Effective disease surveillance by using covariate information. Stat Med. 2021 Nov 20;40(26):5725-5745.

11. Yang K, Qiu P. A three-step local smoothing approach for estimating the mean and covariance functions of spatio-temporal Data Annals of the Institute of Statistical Mathematics. February 2022;74(1):49-68.

12. Wynne N, Cava JA, Gaffney M, Heitkotter H, Scheidt A, Reiniger JL, Grieshop J, Yang K, Harmening WM, Cooper RF, Carroll J. Intergrader agreement of foveal cone topography measured using adaptive optics scanning light ophthalmoscopy. Biomed Opt Express. 2022 Aug 01;13(8):4445-4454. PMCID: PMC9408252

13. Yang GS, Yang K, Weaver MT, Lynch Kelly D, Dorsey SG, Jackson-Cook CK, Lyon DE. Exploring the relationship between DNA methylation age measures and psychoneurological symptoms in women with early-stage breast cancer. Support Care Cancer. 2022 Dec 20;31(1):65.

14. Yang K, Qiu P. Design variable-sampling control charts using covariate information IISE Transactions. 2022;54(5):505-519.

15. Qiu P, Yang K. Spatio-temporal process monitoring using exponentially weighted spatial LASSO Journal of Quality Technology. 2023;55(2):163-180.

16. Yang K, Qiu P. SpTe2M: An R package for nonparametric modeling and monitoring of spatiotemporal data Journal of Quality Technology. 2023.

17. Patel M, Liu X-C, Yang K, Tassone C, Escott B, Thometz J. 3D back contour metrics in predicting idiopathic scoliosis progression: retrospective cohort analysis, case series report and proof of concept Children. 2024.

18. Patel, M., Liu, X-C., Tassone, C., Escort, B., Yang, K., Thometz, J.. Correlation of transverse rotation of the spine using surface topography and 3D reconstructive radiography in children with idiopathic scoliosis Spine Deformity. 2024.

Books, Chapters, and Reviews

1. Qiu P, Yang K, You L. Discussion of 'Post selection shrinkage estimation for high-dimensional data analysis' Applied Stochastic Models in Business and Industry. 1 March 2017;33(2):123-125.

2. Yang K, Qiu P. BCEWMA: a new and effective biosurveillance system for disease outbreak detection. In Statistical Methods for Global Health and Epidemiology (edited by Xinguang Chen and Ding-Geng Chen), 2020, 335-352, Springer.

Editorials, Letters to Editor, Other

1. Allen BR, Christenson RH, Cohen SA, Weaver MT, Yang K, Mahler SA. Response by Allen et al to Letter Regarding Article, "Diagnostic Performance of High-Sensitivity Cardiac Troponin T Strategies and Clinical Variables in a Multisite US Cohort". Circulation. 2021 Nov 09;144(19):e285-e286.