Ping-Han Huang

Assistant Professor

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ACADEMIC APPOINTMENT

Assistant Professor, Institute of Service Science, National Tsing Hua University (2026-Present)

EDUCATION

Ph.D. in Statistics | Arizona State University, 2026

- Dissertation: Adaptive Design of Decision Making Under Uncertainty.

M.A. in Statistics | Arizona State University, May 2023

B.S. in Economics | Arizona State University, May 2020

RESEARCH INTERESTS

Adaptive AI for Decision Making; Machine Learning and Predictive Modeling; Business Analytics and Statistics; Experimental Design; Bayesian Optimization; Uncertainty Quantification; Simulation.

PROGRAMMING SKILLS

R, Python, SQL, MATLAB, SAS, Stata, SAS JMP, Java, C/C++

PUBLICATIONS

Refereed Journal Articles (Published / Accepted)

- Kao, M.-H., & Huang, P.-H. (2025). Optimal Designs for Functional Principal and Empirical Component Scores. Statistica Sinica, 35, 1-24. https://doi.org/10.5705/ss.202023.0051. (SCIE)
- Kao, M.-H., & Huang, P.-H. (2024). Hybrid Exact-approximate Design Approach for Sparse Functional Data. Computational Statistics & Data Analysis, 190, 107850. https://doi.org/10.1016/j.csda.2023.107850. (SCIE)
- Mellon, W. J., Sterner, B., Ågren, J. A., Vincze, O., Marx, M. T., Kapsetaki, S. E., Huang, P.-H., Yavari, B., McCollum, H. W., Natterson-Horowitz, B., et al. (2025). Leveraging Comparative Phylogenetics for Evolutionary Medicine: Applications to Comparative Oncology. Evolution, Medicine, and Public Health. https://doi.org/10.1093/emph/eoaf039. (SCIE)

Manuscripts Under Review

- Huang, P.-H., & Kao, M.-H. New Pilot-Study Design in Functional Data Analysis with Application to a Longitudinal Biological Study. Journal of the Royal Statistical Society: Series C (Applied Statistics). Under review. (SCIE)

Work in Progress

- Huang, P.-H. & Zhou, S. Bayesian Approach for Adaptive Decision-Making. Working paper.

CONFERENCE PRESENTATIONS

- Huang, P.-H. & Zhou, S. Bayesian Sequential Approach for AI Adaptive Decision-Making. INFORMS Workshop on Data Science, Atlanta, USA, 2025.
- Huang, P.-H., Zhou, S., & Kao, M.-H. Bayesian Sequential Batch Design in Functional Data. Joint Mathematics Meetings, Seattle, USA, January 2025.
- Huang, P.-H., & Kao, M.-H. New Pilot Study Designs on Functional Data Analysis. WNAR / IMS / Graybill Annual Meeting, Colorado, USA, June 2024.
- Huang, P.-H., & Kao, M.-H. Pilot Study Designs for Sparse Functional Data. CMStatistics, London, UK, December 2022.

TEACHING

Business Analytics Using Simulation | National Tsing Hua University

- Course on simulation-based decision-making, managerial uncertainty, AI-assisted analytics workflows, marketing analytics, and supply chain simulation.

Guest Lecturer | Arizona State University, Fall 2022 and Fall 2024

- Analysis of Longitudinal Data: linear mixed modeling and functional data analysis in R on complex longitudinal datasets.

Teaching Assistant | Arizona State University, Aug 2022- May 2026

- Probability; Theory of Statistics I and II; Bayesian Statistics.

FELLOWSHIPS AND AWARDS

- Joint Mathematics Meetings Travel Grant, American Mathematical Society, 2024. Nationally competitive, merit-based award recognizing exceptional doctoral scholars in mathematics for research excellence and impact.
- Block Summer Research Grant Award, Graduate College, Arizona State University, 2022. Competitive university-wide fellowship supporting cutting-edge research projects by promising scholars.
- Dennis Young Graduate and Early Scholar Statistics Award, College of Liberal Arts and Sciences, Arizona State University, 2022. Departmental honor recognizing emerging statisticians with exceptional academic achievement and research potential.

ACADEMIC SERVICE AND OUTREACH

Reviewer, International Conference on Artificial Intelligence and Statistics (AISTATS 2026) | 2025

Conducted double-blind reviews and evaluated rigor, novelty, reproducibility, and contribution to AI and statistical learning.

Reviewer, Workshop on Information Technologies and Systems (WITS) | 2025

Assessed rigor of submissions, evaluated theoretical and practical contributions, and provided constructive feedback.

Reviewer, Journal of the Korean Statistical Society | 2024

Evaluated manuscript rigor and clarity, assessed novelty and significance, and ensured adherence to high scientific standards.

Regeneron International Science and Engineering Fair (ISEF) | 2026

Evaluated projects at the world's largest international pre-college STEM competition, assessing originality, analytical rigor, presentation quality, and scientific contribution.

Judge, Statistics Project Competition | 2023-2026

Evaluated research rigor, statistical methods, and creativity in high school student submissions; provided constructive feedback to support learning and development.

Senior-Division Judge, Arizona Science and Engineering Fair | 2024-2026

Evaluated top statewide high school projects; assessed motivation, analytical methods, and impact, and collaborated with judges to score entries and select winners advancing toward ISEF-level recognition.

Head Judge, Technovation Girls | 2024

Served for a global competition empowering girls aged 8-18 to address community challenges through mobile app or AI solutions; evaluated problem statements, pitch videos, and project impact on users, communities, and the environment.

Judge, The Global Undergraduate Awards | 2024

Served for the world's largest undergraduate academic awards, assessing submissions across disciplines and universities worldwide; evaluated articulation, originality, structure, and presentation to help select final winners.