Tsung-Hung Yao
TYao@mdanderson.org

RESEARCH INTEREST

Method Bayesian Nonparametric, Graphical Model, Approximate Bayesian Computation

Science Precision Medicine, Imaging Data, Clinical Oncology

EDUCATION

2023 **University of Michigan School of Public Health**, Ann Arbor, MI
Ph.D. in Biostatistics
Advisor: Veerabhadran Baladandayuthapani and Zhenke Wu

2017 **University of Michigan School of Public Health**, Ann Arbor, MI
M.Sc in Biostatistics
Advisor: Hyun Min Kang

PROFESSIONAL ACTIVITIES AND EXPERIENCE

2025 - Present **Institute for Data Science in Oncology Fellowship**
The University of Texas MD Anderson Cancer Center
Mentor: Suprateek Kundu

2023 - Present **Postdoctoral Fellow**
The University of Texas MD Anderson Cancer Center
Mentor: Suprateek Kundu

2019 - 2023 **Research Assistant**
University of Michigan School of Public Health
Advisor: Veerabhadran Baladandayuthapani and Zhenke Wu

2017 **Intermediate Statistician Intern**
University of Michigan, Opioid Prescribing Engagement Network
Principal Investigator: Chad Brummett

PUBLICATION

Theory and Statistical Methodology

Yao, T. H., and Kundu, S. (2025). Flexible Bayesian Nonparametric Product Mixtures for Multi-scale Functional Clustering. *Under Revision at Bayesian Analysis. https://arxiv.org/abs/2412.09792*

Yao, T. H., Wu, Z., Bharath, K., and Baladandayuthapani, V. (2025). Geometry-driven Bayesian Inference for Ultrametric Covariance Matrices. *Under Revision at The Journal of the Royal Statistical Society, Series B. https://arxiv.org/abs/2401.11515*

Yao, T. H., Ni, Y., Bhadra, A., Kang, J., and Baladandayuthapani, V. (2025). Robust Bayesian Graphical Regression Models for Assessing Tumor Heterogeneity in Proteomic Networks. *Biometrics. DOI: 10.1093/biomtc/ujae160*

Yao, T. H., Wu, Z., Bharath, K., Li, J., and Baladandayuthapani, V. (2023). Probabilistic Learning of Treatment Trees in Cancer. *The Annals of Applied Statistics* 17, 3:1884-1908. DOI: 10.1214/22-AOAS1696

Interdisciplinary Application

Yao, T. H., Treekitkarnmongkol, W.,Putluri, N., Sankaran, D., Nguyen, T., Balasenthil, S., Hurd, M. W., Chen, M., Brand, R. E., Lampe, P. D., Hu, T. Y., Maitra, A., Koay, E. J., Killary, A. M., Sen, S., and Kundu S. (2025) Machine Learning-Based Multimodal Biomarkers Enable Accurate Diagnosis and Early Detection of Pancreatic Ductal Adenocarcinoma. *Submitted*

Pirhoushiaran, M., Walker-Charles, K., **Yao, T. H.**, Putluri, S., Patel, N., Wang, D., Wang, I., Arjuna, S., Dono, A., Bueno-Alvarez, A., Nguyen, S., Balar, A., Huse, J., Kundu, S., Esquenazi, Y., Patel, C., Prabhu, S., Lang, F., and Ballester, L. (2025) Exploring CSF MicroRNA Signatures as Diagnostic Biomarkers in Adult-type Diffuse Gliomas. *Submitted*

Yao, T. H., Reinhardt, A., Hollis, R., Jacobson, G., Roach, M., Badawy, M., Park, P., Beretta, L., Fuentes, D., Nikzad, N., Jalal, P., Koay, E., and Kundu, S. (2025) Risk Prediction in Cancer Imaging Using Enriched Radiomics Features. *Submitted*

Arzola, A., Jackson, A., **Yao, T. H.**, Corrigan, K., Taku, N., You, N., Das, P., Smith, G., Nebgen, D., Kundu, S., and Holliday, E. (2025) Estrogen Prescriptions After Pelvic Radiation for Women with Young-onset Rectal Cancer. *Under Review*

Lane, M., Ives, G. C., Sluiter, E. C., Waljee, J. F., **Yao, T. H.**, Hu, H. M., and Kuzon, W. M. (2018). Trends in Gender-affirming Surgery in Insured Patients in the United States. *Plastic and reconstructive surgery. Global open*, *6*(4), e1738. https://doi.org/10.1097/GOX.0000000000001738

CONFERENCE

Invited Session

2025 International Chinese Statistical Association Applied Statistics Symposium
2025 Statistical Methods in Imaging
2024 Statistical Methods in Imaging
2022 The 5th International Conference on Econometrics and Statistics

Contributed Presentation and Poster

2025 Joint Statistical Meeting

2023 Joint Statistical Meeting
2022 International Society for Bayesian Analysis
2021 Eastern North American Region
2019 American Society of Human Genetics

HONOR AND AWARDS

2022 International Society for Bayesian Analysis Travel Award
2019 Outstanding Graduate Student Instructor, Biostatistics Department
2018 Rackham Conference Travel Grant

TEACHING

Invited Instructor, The University of Texas MD Anderson Cancer Center

2025 Introduction to Bioinformatics

Graduate Student Instructor, University of Michigan at Ann Arbor

2022 Theory and Applications of Longitudinal Analysis
2019 Generalized Linear Model
2017 Biostatistical Modeling in Clinical Research
2016 Statistical Methods in Epidemiology