

Room 255, Science Building 5  
5 Yiheyuan Road  
Peking University  
Beijing 100871, China

Phone: +86 10 6276 0736  
Fax: +86 10 6276 0736  
Email: fyao"AT"math.pku.edu.cn  
Web:

**Education**

2003      Ph.D., University of California, Davis  
2002      M.S., University of California, Davis  
2000      B.S., University of Science and Technology of China

**Employment**

2019-      Chair Professor, School of Mathematical Sciences, Peking University  
2014-2018    Professor, Department of Statistics, University of Toronto  
2008-2014    Associate Professor, Department of Statistics, University of Toronto  
2006-2008    Assistant Professor, Department of Statistics, University of Toronto  
2003-2006    Assistant Professor, Department of Statistics, Colorado State University

**Research Interest**

- Complex-structured data analysis, including functional, high-dimensional, manifold and non-Euclidean data objects;
- Incorporating machine learning methods and theory, ordinary/partial differential equations with statistical modeling and inference;
- Applications involving functional, high-dimensional and differential dynamics in biomedical studies, human genetics, neuroimaging, finance and economics, engineering etc.

**Editorial Boards**

- Editor for Canadian Journal of Statistics, 2019-2021.
- Associate Editor for Journal of the American Statistical Association, 2014-present.
- Associate Editor for Journal of Computational and Graphical Statistics, 2012-present.
- Associate Editor for Statistica Sinica, 2011-2014, 2017-present.
- Completed Associate Editor terms: Annals of Statistics (2008--2009, 2013--2015), Bernoulli Journal (2013--2015), Electronic Journal of Statistics (2010--2012), Journal of Multivariate Analysis (2016-2018), Journal of Statistical Planning and Inference (2012--2014).

**Honors and Awards**

- Fellow, American Statistical Association (ASA)
- Fellow, Institute of Mathematical Statistics (IMS)
- CRM-SSC Prize in Statistics: Awarded in 2014 by the Centre de recherches mathématiques (Montréal)

and the Statistical Society of Canada to recognize a statistical scientist's professional accomplishments in research during the first 15 years after earning a doctorate.

- Discovery Accelerator Supplements (DAS) Award: Substantial and timely additional resources provided by NSERC for 2012-2014 to accelerate progress and maximize the impact of superior research programs.

## Selected Publications

(students/trainees underlined, co-first authors #, corresponding authors \*, or alphabetical order)

- Shao, L.#, Lin Z.#, and Yao, F\*. (2022) [Intrinsic Riemannian functional data analysis for sparse longitudinal observations \(supplementary material\)](#). *The Annals of Statistics*, accepted .
- Ying, Y., and Yao, F\*. (2021) [Online estimation for functional data. \(supplementary material\)](#). *Journal of the American Statistical Association*, published online, <https://doi.org/10.1080/01621459.2021.2002158>.
- Liang, D., Huang, H., Guan, Y., and Yao, F\*. (2021) [Test of weak separability for spatially stationary functional field. \(supplementary material\)](#). *Journal of the American Statistical Association*, published online, <https://doi.org/10.1080/01621459.2021.2002156>.
- Chen, H., Ren, H., Yao, F.\* , and Zou, C. (2021) [Data-driven selection of the number of change-points via error rate control. \(supplementary material\)](#). *Journal of the American Statistical Association*, published online, <https://doi.org/10.1080/01621459.2021.1999820>.
- Lin, Z., and Yao, F\*. (2021). [Functional regression on manifold with contamination \(supplementary material\)](#). *Biometrika*, 108 (2), 167-181.
- Xue, K., and Yao, F.\* (2020). [Distribution and correlation free two-sample test of high-dimensional means](#). *The Annals of Statistics*, 48, 1304-1328.
- Lin, Z., and Yao, F.\* (2019). [Intrinsic Riemannian functional data analysis](#). *The Annals of Statistics*, 47, 3533-3577.
- Koudstaal, M., and Yao, F.\* (2018). [From mutiple Gaussian Sequences to functional data and beyond: a Stein estimation approach \(supplementary material\)](#). *Journal of the Royal Statistical Society, Series B*, 80, 319-342.
- Lin, Z., Müller, H. G., and Yao, F.\* (2018). [Mixture inner product spaces and their application to functional data analysis](#). *The Annals of Statistics*, 45, 370-400.
- Dai, X., Müller, H. G., and Yao, F.\* (2017). [Optimal Bayes classifiers for functional data and density ratios \(supplementary material\)](#). *Biometrika*, 104, 545-560 .
- Kong D.#, Xue, K.#, Yao, F.\* , and Zhang, H. H. (2016). [Partially functional linear regression in high dimensions \(supplementary material\)](#). *Biometrika*, 103, 147-159.
- Yao, F.\* , Wu, Y., and Zou, J. (2016). [Probability enhanced effective dimension reduction for classifying sparse functional data \(Rejoinder to comments\)](#). *Test*, 25, 1-22, 52-58.
- Yao, F.\* , Lei, E., and Wu, Y. (2015). [Effective dimension reduction for sparse functional data](#). *Biometrika*, 102, 421-437.
- Zhu, H., Yao, F.\* , and Zhang, H. H. (2014). [Structured functional additive regression in reproducing kernel Hilbert spaces](#). *Journal of the Royal Statistical Society, Series B*, 76, 581-603.
- Müller, H. G., Wu, Y., and Yao, F.\* (2013). [Continuously additive models for nonlinear functional regression](#). *Biometrika*, 100, 607-622.
- Acar, E., Craiu, R. V., and Yao, F.\* (2011). [Dependence calibration in conditional copulas: a nonparametric approach \(web appendix\)](#). *Biometrics*, 67, 445-453.

