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教育经历

2003.7　博士（统计学），美国加利福尼亚大学戴维斯分校

2002.7　硕士（统计学），美国加利福尼亚大学戴维斯分校

2000.7　学士（统计学）, 中国科学技术大学

工作经历

2021.9–至今　北京大学数学科学学院概率统计系主任

2019.11–至今　北京大学统计科学中心主任

2019.3–至今　讲席教授，北京大学数学科学学院、统计科学中心

2017.3–2019.3　访问教授，北京大学数学科学学院、统计科学中心

2015.7–2017.6　副系主任, 多伦多大学统计科学系

2014.7–2019.3　长聘正教授，多伦多大学统计科学系

2008.8–2014.6　长聘副教授，多伦多大学统计科学系

2006.7–2008.6　准聘助理教授，多伦多大学统计科学系

2003.8–2006.6　准聘助理教授，美国克罗拉多州立大学统计系

研究兴趣

- 复杂结构数据分析，包括函数型数据、高维数据、流形和非欧数据等；
- 机器学习的统计学方法与理论，微分方程（ODE/PDE）的统计建模与推断；
- 函数型、高维数据分析和微分动力系统在生物医药研究、人类基因组学、神经影像学、金融和经济学、工程学等中的应用。

科研服务

- Canadian Journal of Statistics主编, 2019-2021；
- Journal of the American Statistical Association编委, 2014-至今；
- Journal of Computational and Graphical Statistics编委, 2012-至今；
- Statistica Sinica编委, 2011-2014, 2017-至今；
- 往届编委任职: 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)。

代表性科研成果

(下划线代表指导的学生, #代表联合第一作者, *代表通讯作者或者字母序)

- 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.
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- 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.
- Yao, F.*, Fu, Y., and Lee, T. C. M. (2011). Functional mixture regression (web appendix). ***Biostatistics***, 12, 341-353.
- Müller, H. G., and Yao, F. (2010). Additive modeling of functional gradients. ***Biometrika***, 97, 791-805.
- Müller, H. G., and Yao, F. (2010). Empirical dynamics for longitudinal data. ***The Annals of Statistics***, 38, 3458-3486.
- Yao, F., and Müller, H. G. (2010). Functional quadratic regression. ***Biometrika***, 97, 49-64.

- Lai, R. C. S., Lee, T. C. M., Wong, R. K. W., and Yao, F. (2010). Nonparametric ceptrum estimation via optimal risk smoothing. ***IEEE Transactions on Signal Processing***, 58, 1507-1514.
- Hall, P., Müller, H. G., and Yao, F. (2009). Estimation of functional derivatives. ***The Annals of Statistics***, 37, 3307-3329.
- Müller, H. G., and Yao, F. (2008). Functional additive models. ***Journal of American Statistical Association***, 103, 1534-1544.
- Hall, P., Müller, H. G., and Yao, F. (2008). Modeling sparse generalized longitudinal observations with latent Gaussian processes. ***Journal of the Royal Statistical Society, Series B***, 70, 703-723.
- Yao, F., and Lee, T. C. M. (2007). Spectral density estimation using sharpened periodograms. ***IEEE Transactions on Signal Processing***, 55, 4711-4716.
- Yao, F. (2007). Functional principal component analysis for longitudinal and survival data. ***Statistica Sinica***, 17, 965-983.
- Yao. F. (2007). Asymptotic distributions of nonparametric regression estimators for longitudinal or functional data. ***Journal of Multivariate Analysis***, 98, 40-56.
- Müller, H. G., Stadtmüller, U., and Yao, F. (2006). Functional variance processes. ***Journal of American Statistical Association***, 101, 1007-1018.
- Yao, F.*, and Lee, T. C. M. (2006). Penalized spline models for functional principal component analysis. ***Journal of the Royal Statistical Society, Series B***, 68, 3-25.
- Yao, F., Müller, H. G., and Wang, J. L. (2005). Functional linear regression analysis for longitudinal data. ***The Annals of Statistics***, 33, 2873-2903.
- Yao, F., Müller, H. G. and Wang, J. L. (2005). Functional data analysis for sparse longitudinal data. ***Journal of the American Statistical Association***, 100, 577-590.
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