

# Curriculum Vitae

Dr. Ruoxu Tan

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## EDUCATION

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- Ph.D. in statistical theory 2017.3 – 2021.7  
School of Mathematics and Statistics, the University of Melbourne, Melbourne, Australia.  
Thesis advisor: Prof. Aurore Delaigle.
- B.Sc. in mathematics and applied mathematics 2012.9 – 2016.7  
School of Mathematics, Jilin University, Changchun, China.

## EMPLOYMENT

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- *Assistant Professor* 2023.9 – Present  
School of Mathematical Sciences and School of Economics and Management, Tongji University, Shanghai, China.
- *Postdoctoral Fellow* 2021.8 – Present  
Department of Statistics and Actuarial Science, the University of Hong Kong, Hong Kong SAR, China.  
Host: Prof. Guosheng Yin.
- *Research Assistant* 2021.5 – 2021.8  
School of Mathematics and Statistics, the University of Melbourne, Melbourne, Australia.  
Host: Prof. Aurore Delaigle.

## RESEARCH INTERESTS

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- Causal inference, missing data analysis
- Functional data analysis
- Manifold data analysis, manifold learning

## TEACHING EXPERIENCE

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Tongji University:

- 122162: Statistical Computing and Software Semester 1, 2024
- 4000590000401: Big Data Analysis and Data Mining Semester 2, 2023
- 50005900006: Mathematical Statistics Semester 2, 2023

The University of Hong Kong:

- DASC7011: Statistical Inference for Data Science Semester 1, 2022
- STAT2601: Probability and Statistics I Semester 2, 2021

• STAT1602: Business Statistics	Semester 1, 2021
The University of Melbourne:	
• MAST20005: Statistics	Semester 2, 2020
• MAST20006: Probability for Statistics	Semester 1, 2020
• MAST20005: Statistics	Semester 2, 2019
• MAST20006: Probability for Statistics	Semester 1, 2019
• MAST20009: Vector Calculus	Semester 2, 2018

## AWARDS AND CERTIFICATES

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- China Scholarship Council (CSC)–University of Melbourne Ph.D. Scholarship
- The Second National Prize of Contemporary Undergraduate Mathematical Contest in Modeling (CUMCM) 2013

## PRESENTATIONS

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- Contributed talk: *Causal effect of functional treatment*, the Second Joint Conference on Statistics and Data Science in China (2024), Yunnan, China.
- Invited talk: *Causal effect of functional treatment*, IMS-China International Conference on Statistics and Probability (2024), Ningxia, China.
- Invited talk: *Estimation of functional treatment effect using generalized empirical likelihood stabilized weights*, 5th International Conference on Econometrics and Statistics (EcoSta 2022), Kyoto, Japan.
- Contributed talk: *Group testing regression analysis with missing data*, Young Statisticians Conference 2019, Canberra, Australia.

## PUBLICATIONS

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(\* denotes the corresponding author.)

- [9] Tan, R.\* and Zang, Y. (2024+) Supervised manifold learning for functional data. *Submitted*.
- [8] Gu, J., Tan, R.\* and Yin, G. (2024+) Delaunay weighted two-sample test for high-dimensional data by incorporating geometric information. *Submitted*.
- [7] Tan, R.\* and Yin, G. (2024+) Model averaging for manifold learning. *Submitted*.
- [6] Tan, R., Huang, W.\*, Zhang, Z. and Yin, G. (2024+). Causal effect of functional treatment. *Submitted*.
- [5] Tan, R.\*, Zang, Y. and Yin, G. (2024). Nonlinear dimension reduction for functional data with application to clustering. *Statistica Sinica*, **34**, 1391–1412.
- [4] Delaigle, A. and Tan, R.\* (2024). Group testing regression analysis with missing data and imperfect tests. *Statistica Sinica*, **34**, 201–228.
- [3] Tan, R.\* (2023). Nonparametric regression with nonignorable missing covariates and outcomes using bounded inverse weighting. *Journal of Nonparametric Statistics*, **35**, 927–946.
- [2] Delaigle, A. and Tan, R.\* (2023). Group testing regression analysis with covariates and specimens subject to missingness. *Statistics in Medicine*, **42**, 731–744.
- [1] Tan, R.\* (2021). Nonparametric techniques with missing data. *PhD Thesis*.