

统计学（理学）博士

新生必读书目：

- (1) 《The Elements of Statistical Learning: Data Mining, Inference, and Prediction》, Guilherme J. M. Rosa 编著, Blackwell
- (2) 《Multivariate Statistics: High-Dimensional and Large-Sample Approximations》, Fujikoshi Yasunori, Ulyanov Vladimir V, Shimizu Ryoichi 编著, John Wiley & Sons
- (3) 《Nonparametric and Semiparametric Models》, Wolfgang Härdle, Springer
- (4) 《统计学习方法》, 李航, 清华大学出版社
- (5) 《神经网络与深度学习》, Michael Nielsen (电子书)
- (6) 《Pattern Recognition and Machine Learning》, Christopher Bishop, Springer
- (7) 《Weak Convergence and Empirical Processes》, Aad van der vaart, Jon Wellner 编著, Springer
- (8) 《Dive into Deep Learning》, Aston Zhang, Zachary C. Lipton, Mu Li, Alexander J. Smola 编著 (网上公开暂时只有手稿)
- (9) 贝叶斯数据分析 第 3 版 英文版 格尔曼等著 Bayesian Data Analysis. 引进版 ISBN: ISBN: 9787111525844.
- (10) Applied Predictive Modeling. by Max Kuhn and Kjell Johnson 版权已开源。网上有开源版本。 <http://appliedpredictivemodeling.com/>

经典文献推荐：

- [1] Nicolai Meinshausen, Peter Bühlmann. Stability selection[J]. Journal of the Royal Statistical Society, 2010, 72(4):417-473.
- [2] Koenker R, Bassett G W. Regression Quantiles[J]. Econometrica, 1977, 50:43~61.
- [3] Fan J, Zhang Z. Generalized Likelihood Ratio Statistics and Wilks Phenomenon[J]. Annals of Statistics, 2001, 29(1):153-193.
- [4] Geman S. Stochastic Relaxation, Gibbs Distributions, and the Bayesian Restoration of Images[J]. IEEE Trans. Pattern Anal. Mach. Intell, 1984, 6.
- [5] Aitchison J. The Statistical Analysis of Compositional Data [J]. Journal of the Royal Statistical Society. Series B (Methodological), 1982, 44(2):139-177.
- [6] Ghosal Subhashis, Ghosh Jayanta K, van der Vaart Aad W. Convergence rates of posterior distributions[J]. Ann. Statist. 2000.
- [7] Besag J. Spatial Interaction and the Statistical Analysis of Lattice Systems[J]. Journal of the Royal Statistical Society: Series B (Methodological), 1974, 36(2).
- [8] Tyler D E, Yi M. Lassoing eigenvalues[J]. Biometrika, 2020, 107(2): 397-414.

[9] Cui H, Li R, Zhong W. Model-free feature screening for ultrahigh dimensional discriminant analysis[J]. Journal of the American Statistical Association, 2015, 110(510): 630-641.

[10] Fan J, Song R. Sure independence screening in generalized linear models with NP-dimensionality[J]. The Annals of Statistics, 2010, 38(6): 3567-3604.

[11] Using the Propensity Score Method to Estimate Causal Effects: A Review and Practical Guide. By Mingxiang Li. Organizational Research Methods (2012).

[12] <https://www.cebma.org/wp-content/uploads/Li-Using-the-Propensity-Score-Method-to-Estimate-Causal-Effects.pdf>