

2025 SIMIS-CDEF Seminar Series: No. 4

Time: October 27th, 2025 (Monday), 2.00-4.00 pm (Beijing Time)

Venue: R910, Level 9, Block A, International Innovation Plaza, No. 657 Songhu Road, Yangpu District, Shanghai

Organizer: SIMIS Center for Digital Economy and Finance, SIMIS-CDEF

Chair: Qingfu Liu (刘庆富), Fudan University & SIMIS

Talk One:

Beyond First-Order Bias in Predictive Regressions: Estimation, Inference, and Return Predictability

Authors: Liang Jiang, Ron Kaniel, Yayi Yan, Jun Yu

Speaker: Yayi Yan (严雅毅), Shanghai University of Finance and Economics



Abstract: This paper exposes significant higher-order bias in predictive regressions and its critical distortion of inferences about return

predictability. While conventional methods address first-order bias, we show that higher-order biases, especially for persistent predictors and long predictive horizons in small samples, severely distort both statistical and economic conclusions. To resolve this, we introduce iBoot, a unified framework that combines indirect inference and bootstrap techniques to correct first- and higher-order biases simultaneously in short- and long-horizon regressions. Simulations demonstrate iBoot's advantages: maximal bias reduction, accurate confidence interval coverage, exact size control, and high power. Applied to canonical stock return predictors, iBoot rejects perceived significance for the dividend-price ratio, book-to-market ratio, and term spread, while confirming the cross-sectional premium as a robust monthly predictor. These findings necessitate addressing higher-order bias in predictive modeling and equipping researchers with a reliable toolkit for disentangling statistical artifacts from genuine economic relationships.

Speaker Bio: 严雅毅，上海财经大学统计与数据科学学院副教授，2022 年获莫纳什大学计量经济学博士学位。主要研究领域为计量经济学理论、实证资产定价等，已在 Journal of the American Statistical Association、Journal of Econometrics、Journal of Business & Economic Statistics、Econometric Theory 等期刊发表 10 余篇论文。获国家自然科学基金资助，并入选上海市领军人才（海外）青年项目。

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