

# SHENG CHAO HO

## Contact Information

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## Education

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2019-Present	Ph.D. in Economics, University of Pennsylvania (Expected: May 2024) <i>Committee: Xu Cheng (advisor), Frank Schorfheide (advisor), Petra Todd</i>
2017-2019	MPhil in Economics, University of Oxford, Nuffield College
2014-2017	B.Sc in Economics, National University of Singapore

## Research Interests

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Econometrics, Empirical Bayes Methods

## Research

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### Working Papers

#### 1. Estimation of Unit-specific Parameters Under Unknown Heteroskedasticity (*Job Market Paper*)

Abstract: This paper studies the optimal estimation of many unit-specific parameters in a model with normal sampling distributions under unknown heteroskedasticity. We characterize the optimal estimators of the unit-specific means and variances, and further argue that the unit-specific quantiles are an important complement to the means, which have been the focus of the literature in point estimation. As a result, we also characterize the optimal estimators of the unit-specific quantiles. Theoretical guarantees are provided for our proposed feasible counterparts to the optimal estimators, and we demonstrate the performance of the proposed estimators through simulations and an empirical application of assessing teachers' effects on students' performances using matched student-teacher dataset.

#### 2. Shrinkage Estimation of Fixed Effects on Matched Data

Abstract: This paper develops a shrinkage estimator for a panel data model with two-way fixed effects. The hyperparameters that control the variance (degree of shrinkage) and the location of the prior are determined by minimizing an unbiased risk estimate. We established optimality of the proposed estimator by showing that it asymptotically attains the same loss as an oracle estimator with a hyperparameter that is chosen based on the knowledge of the fixed effects. In a Monte Carlo study we show that the proposed estimator outperforms a number of competitors, including the least squares estimator. The method is applied to the estimation of teacher values-added from a linked student-teacher data set obtained from the North Carolina Education Research Data Center.

## Research Experience

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2023	Research Assistant for Prof. Xu Cheng (University of Pennsylvania)
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## Conferences

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2023	Asia Meeting of the Econometric Society, Singapore
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## Grants and Awards

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2023	Teece Research Award, University of Pennsylvania
2019-2024	Overseas Postgraduate Scholarship, Singapore Management University

## Skills

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Programming: R, Julia, L<sup>A</sup>T<sub>E</sub>X

Languages: English (Native), Chinese (Fluent)