

James Philip Martin

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Citizenship: British

EMPLOYMENT AND EDUCATION

Yale-NUS College	2022 - present
Lecturer in Economics	
National University of Singapore (NUS)	2017 – 2022
Ph.D. in Economics	
University of Bristol	2015 – 2017
MRES in Economics (with distinction)	
University of Bristol	2012 – 2015
BSc in Mathematics (1 st Class honours)	

RESEARCH AREAS

Econometric theory: nonparametric statistics, hypothesis testing and measurement error.

WORKING PAPERS

Copula-Based Nonparametric Tests for Positive Quadrant Dependence Allowing for Arbitrary Marginal Distributions (Job Market Paper)

Abstract: Positive quadrant dependence (PQD) is a common relationship between economic variables. Existing tests for PQD require all marginal distributions to be continuously (or discretely) distributed. This is often very restrictive in practice because many economic relationships involve both continuous and discrete variables. In this paper, we extend copula-based tests for PQD to a general setting that allows for arbitrary marginal distributions. This extension is achieved by replacing the empirical copula with the multilinear empirical copula in the continuous setting test statistics. We provide conditions for validity and consistency of a Kolmogorov-Smirnov (KS) type test and a Cramer-von Mises (CvM) type test with critical values determined by a multiplier bootstrap. In the empirical application, we use the proposed tests to investigate the dependence between intergenerational wages.

Testing Inequality Restrictions Involving Density Functions

Abstract: Many economically relevant concepts such as density ratio ordering and survival function ordering can be written in terms of an inequality restriction involving density functions. Existing tests for these concepts require two steps: density estimation and test statistic calculation. In this paper, we introduce a one-step methodology that can test many inequality restrictions written in this form. We do this by transforming the inequalities to an equivalent condition using the distribution functions. This transformed condition is much more natural to test using existing empirical process theory. We propose a Kolmogorov-Smirnov (KS) test with critical value calculated by an appropriately recentered bootstrap. The key advantage over existing methods is that we avoid density estimation and the choice of the bandwidth parameter. The test can be combined with contact set estimation to improve power against some alternatives. Simulations show that our methodology has more power than existing two-step tests for density ratio ordering, even without contact set estimation.

WORKS IN PROGRESS

- A Copula-Based Goodness of Fit Test without the Continuous Marginal Assumption
- Deconvolution under Weak Assumptions
- Quantile Regression Analysis with Errors on Both Sides of the Equation with Application to Engle Curve Estimation.

TEACHING EXPERIENCES

Yale-NUS College

Lecturer, YSS1203 Principles of Economics (UG)	Fall, 2022
Lecturer, YSS1205 Introduction to Game Theory (UG)	Spring, 2022
Lecturer, YSS2203 Intermediate Microeconomics (UG)	Fall, 2021
Statistic Tutor (UG)	2018 – 2022

NUS

Teaching Assistant, EC3304 Econometrics II (UG)	Spring, 2020
Teaching Assistant, EC3304 Econometrics II (UG)	Fall, 2019
Teaching Assistant, EC3304 Econometrics II (UG)	Spring, 2019

AWARDS

KR Chou PhD Scholarship (NUS)	2021 – 2022
Graduate Students' Teaching Award (EC3304)	Fall, 2019
Commonwealth Scholarship (NUS)	2017 – 2021

PROFESSIONAL ACTIVITIES

Supervise four capstone students in Yale-NUS College	2022 - Present
The 6th IAER Econometrics Workshop	2022

OTHER SKILLS

Computing: Matlab, R, Stata, Python, Latex.
Languages: English (Native), Chinese (HSK 4 and HSKK 中级)

REFERENCES

Gregory COX (Supervisor)	Assistant Professor (Presidential Young Professor)	ecsgfc@nus.edu.sg
Eugene CHOO	Associate Professor	eugene.choo@yale-nus.edu.sg
Juwon SEO	Assistant Professor	ecssj@nus.edu.sg
Denis TKACHENKO	Senior Lecturer	ecstd@nus.edu.sg