

## Yu-Chin Hsu

(許育進)

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### PERSONAL INFORMATION

Gender: Male  
Date of Birth: 10/02/1978  
Citizenship: Taiwan

### CURRENT EMPLOYMENT

Research Fellow, Institute of Economics, Academia Sinica,  
April 2019 – present  
Adjunct Professor, Department of Finance, National Central University,  
August 2019 – present  
Adjunct Professor, Department of Economics, National Chengchi University,  
August 2019 – present  
Researcher, CRETA, National Taiwan University  
January 2019 -- present

### PAST EMPLOYMENT

Associate Research Fellow, Institute of Economics, Academia Sinica,  
November 2014 – April 2019  
Adjunct Associate Professor, Department of Finance, National Central University,  
August 2017 – August 2019  
Adjunct Associate Professor, Department of Economics, National Chengchi University,  
March 2018 – August 2019  
Assistant Research Fellow, Institute of Economics, Academia Sinica,  
August 2012 – November 2014  
Assistant Professor, Department of Economics, University of Missouri at Columbia,  
September 2010 -- May 2012

### EDUCATION

Ph.D. Economics, University of Texas at Austin	May 2010
<b>Dissertation:</b> Three Essays on Hypotheses Testing Involving Inequality Constraints	
<b>Committee Chair:</b> Stephen G. Donald	
M.S. Economics, University of Texas at Austin	May 2006
M.A. Economics, National Taiwan University, Taipei, Taiwan	May 2002
B.S. Mathematics, National Taiwan University, Taipei, Taiwan	May 2000

### FIELDS OF SPECIALIZATION

Econometric theory

## PROFESSIONAL SERVICE

Associate Editor: Taiwan Economic Review, August 2018 – present  
Taipei Economic Inquiry, August 2020 – present  
Academia Economic Papers, September 2020 – present

## FELLOWSHIPS, HONORS, AND AWARDS

Young Scholar Award, Taiwan Econometric Society	2018
Outstanding Research Award, Ministry of Science and Technology	2018
Young Scholar Award, TRIA Taiwan Risk and Insurance	2017
Young Scholar's Creativity Award, Foundation for the Advancement of Outstanding Scholarship, Taiwan	2017
TWAS Young Affiliate, The World Academy of Sciences	2016
Fubon Paper Award, International Conference of Taiwan Finance Association	
"Testing Cross-Sectional Stock Returns Predictability without Data Snooping Bias" (shared with Kendro Vincent)	2016
Junior Research Investigators Award, Academia Sinica	2015
Career Development Award, Academia Sinica	2015-2019
Ministry of Science and Technology Wu Ta-Yu Memorial Award	2014
Young Faculty Award and Scholarship, (5-year term), Foundation for the Advancement of Outstanding Scholarship, Taiwan	2012-2017
Gordon Fellowship in Institutional Economics	Fall 2008, Spring 2009
Hale Fellowship	Summer 2007, 2008
Murray S. Johnson Fellowship in Economics	Summer 2006, 2008, 2009
Phi-Tau-Phi Scholastic Honor of Society Award	2001

## GRANTS

Ministry of Science and Technology Grant 107-2410-H-001-034-MY3	2018-2021
Ministry of Science and Technology Grant for Excellent Young Researcher 103-2628-H-001-001-MY4	2014-2018
National Science Council Grant 101-2410-H-001-109-MY2	2012-2014

## PUBLICATIONS

1. "Change-point Estimation of Nonstationary I(d) Process," *Economics Letters*, 98, 115-121, 2008 (joint with Chung-Ming Kuan).
2. "Assessing Value at Risk with CARE, the Conditional AutoRegressive Expectile Models," *Journal of Econometrics*, 150, 261-270, 2009 (joint with Chung-Ming Kuan and Jin-Huei Yeh).
3. "Testing the Predictive Ability of Technical Analysis Using A New Stepwise Test without Data Snooping Bias," *Journal of Empirical Finance*, 17, 471-484, 2010 (joint with Po-Hsuan Hsu and Chung-Ming Kuan).

4. "A New Test for Linear Inequality Constraints When the Variance Covariance Matrix Depends on the Unknown Parameters," *Economics Letters*, 113, 241-243, 2011 (joint with Stephen G. Donald).
5. "Incorporating Covariates in the Measurement of Welfare and Inequality: Methods and Applications," *Econometrics Journal*, 15, C1-C30, 2012 (joint with Stephen G. Donald and Garry F. Barrett).
6. "Cyclical Co-movement between Output, the Price Level, and Inflation," in Dek Terrell, Daniel Millimet (ed.) *30th Anniversary Edition (Advances in Econometrics, Volume 30)*, Emerald Group Publishing Limited, 359-384, 2012 (joint with Joseph H. Haslag).
7. "Estimation and Inference for Distribution Functions and Quantile Functions in Treatment Effect Models," *Journal of Econometrics*, 178, 383-397, 2014 (joint with Stephen G. Donald). A previous version was circulated under the title "Testing for Stochastic Dominance in Treatment Effects."
8. "Testing Over-Identifying Restrictions without Consistent Estimation of the Asymptotic Covariance Matrix," *Journal of Econometrics*, 181, 181-193, 2014 (joint with Wei-Ming Lee and Chung-Ming Kuan).
9. "Testing the Unconfoundedness Assumption via Inverse Probability Weighted Estimators of (L)ATT," *Journal of Business and Economic Statistics*, 32, 395-415, 2014 (joint with Stephen G. Donald and Robert P. Lieli).  
This paper contains partial results of a paper which was previously circulated under the title "Inverse Propensity Score Weighted Estimation of Local Average Treatment Effects and a Test of the Unconfoundedness Assumption."
10. "A Generalized Stepwise Procedure with Improved Power for Multiple Inequalities Testing," *Journal of Financial Econometrics*, 12, 730-755, 2014 (joint with Chung-Ming Kuan and Meng-Feng Yen).
11. "Inverse probability Weighted Estimation of Local Average Treatment Effects: A Higher Order MSE Expansions," *Statistics and Probability Letters*, 95, 132-138, 2014 (joint with Stephen G. Donald and Robert P. Lieli).  
This paper contains partial results of a paper which was previously circulated under the title "Inverse Propensity Score Weighted Estimation of Local Average Treatment Effects and a Test of the Unconfoundedness Assumption."
12. "Robust Hypothesis Tests for M-Estimators with Possibly Non-differentiable Estimating Functions," *Econometrics Journal*, 18, 95-116, 2015 (joint with Wei-Ming Lee and Chung-Ming Kuan).
13. "Trend Definition or Holding Strategy: What Determines the Profitability of Candlestick Technical Trading Strategies?" *Journal of Banking and Finance*, 61, 172-183, 2015 (joint with Tsung-Hsun Lu and Yi-Chi Chen).
14. "Estimating Conditional Average Treatment Effects," *Journal of Business and Economic Statistics*, 33, 485-505, 2015 (joint with Jason Abrevaya and Robert P. Lieli).

15. "Improving the Power of Tests of Stochastic Dominance," *Econometric Reviews*, 35, 553-585, 2016 (joint with Stephen G. Donald).
16. "Consistent Tests for Poverty Dominance Relations," *Journal of Econometrics*, 191, 360-373, 2016 (joint with Garry F. Barrett and Stephen G. Donald).
17. "Consistent Tests for Conditional Treatment Effects," *Econometrics Journal*, 20, 1-22, 2017.
18. "Model Selection Tests for Conditional Moment Restriction Models," *Econometrics Journal*, 20, 52-85, 2017 (joint with Xiaoxia Shi).
19. "Analyzing the Performance of Multi-Factor Investment Strategies under Multiple Testing Framework," *Journal of Portfolio Management*, 44, 113-126, 2018 (joint with Kendro Vincent and Hsiou-Wei Lin).
20. "Nonparametric Estimation of Natural Direct and Indirect Effects Based on Inverse Probability Weighting," *Journal of Econometric Methods*, 1, 2018 (joint with Martin Huber and Tsung-Chih Lai).
21. "Treatment Effect Models: A Brief Review," (in Chinese) *Taiwan Economic Review*, 46, 501-521, 2018 (joint with Tsung-Chih Lai).
22. "Using the Area under an Estimated ROC Curve to Test the Adequacy of Binary Predictors," *Journal of Nonparametric Statistics*, 31, 100-130, 2019 (joint with Robert P. Lieli).  
This article is based on two earlier working papers; one with the same title and one titled "The Null Distribution of the Empirical AUC for Classifiers with Estimated Parameters: a Special Case".
23. "Testing Treatment Effect Heterogeneity in Regression Discontinuity Design," *Journal of Econometrics*, 208, 468-486, 2019 (joint with Shu Shen).
24. "Robust Uniform Inference for Quantile Treatment Effects in Regression Discontinuity Designs," *Journal of Econometrics*, 211, 589-618, 2019 (joint with Harold D. Chiang and Yuya Sasaki).
25. "Testing Generalized Regression Monotonicity," *Econometric Theory*, 35, 1146-1200, 2019 (joint with Chu-An Liu and Xiaoxia Shi).
26. "A Stochastic Frontier Model with Endogenous Treatment Status and Mediator," forthcoming in *Journal of Business and Economic Statistics*, 38, 243-256, 2020 (joint with Yi-Ting Chen and Hung-Jen Wang).
27. "Quantile Structural Treatment Effect: Application to Smoking Wage Penalty and its Determinants," forthcoming in *Econometric Reviews*, (joint with Kamhon Kan and Tsung-Chih Lai).  
A previous version was circulated under the title "Distribution and Quantile Structural Functions in Treatment Effect Models: Application to Smoking Effects on Wages."

28. "Direct and Indirect Effects of Continuous Treatments Based on Generalized Propensity Score Weighting," forthcoming in *Journal of Applied Econometrics*, (joint with Martin Huber, Ying-Ying Lee and Layal Pipoz).
29. "Counterfactual Treatment Effects: Estimation and Inference," forthcoming in *Journal of Business and Economic Statistics*, (joint with Tsung-Chih Lai and Robert P. Lieli).  
A previous version was circulated under the title "Forecasting Treatment Effects" and "Estimation and Inference for Counterfactual Treatment Effects".
30. "Estimating Conditional Average Treatment with High-Dimensional Data," forthcoming in *Journal of Business and Economic Statistics*, (joint with Qingliang Fan, Robert P. Lieli and Yichong Zhang).
31. "Investment Styles and the Multiple Testing of Cross-Sectional Stock Return Predictability," forthcoming in *Journal of Financial Markets*, (joint with Hsiou-Wei Lin and Kendro Vincent).
32. "Testing Monotonicity of Conditional Treatment Effects Under Regression Discontinuity Designs," forthcoming in *Journal of Applied Econometrics*, (joint with Shu Shen). [pdf]  
A previous version was circulated under the title "Monotonicity Test for Local Average Treatment Effects under Regression Discontinuity."
33. "Nonlinear Panel Data Models with Distribution-Free Correlated Random Effects," forthcoming in *Econometric Theory*, (joint with Ji-Liang Shiu).  
A previous version was circulated under the title "Internally Consistent Estimation of Nonlinear Panel Data Models with Correlated Random Effects."

## WORKING PAPERS

1. "Estimation of Partial Effects in Non-linear Panel Data Models," (joint with Jason Abrevaya).
2. "Estimation and Inference for Distribution Functions and Quantile Functions in Endogenous Treatment Effect Models," (joint with Tsung-Chih Lai and Robert P. Lieli).
3. "Multiplier Bootstrap for Empirical Processes."
4. "Can Investing in Hedge Funds Improve Efficiency for Economically Important Investors?" (joint with Rachel J. Huang, Larry Y. Tzeng, Christine W. Wang).
5. "Testing Unobserved Heterogeneity of Individual Treatment Effects with Endogenous Treatment," (joint with Ta-Cheng Huang and Haiqing Xu).
6. "Two-step Series Estimation and Specification Testing of (Partially) Linear Models with Nonparametrically Generated Regressors," (joint with Jen-Che Liao and Eric S. Lin).
7. "Quantile Treatment Effects in Regression Discontinuity Designs with Covariates," (joint with Chung-Ming Kuan and Giorgio Teng-Yu Lo).

8. "Testing Identifying Assumptions in Fuzzy Regression Discontinuity Designs," (with Yoichi Arai, Toru Kitagawa, Ismael Mourifie and Yuanyuan Wan).
9. "Estimating Treatment Effects in Regression Discontinuity Designs with Multiple Assignment Variables," (joint with Chung-Ming Kuan and Giorgio Teng-Yu Lo).
10. "Strategic Momentum for Most Investors," (joint with Mi-Hsiu Chiang, Hsin-Yu Chiu and Rachel J. Huang).

### **WORK IN PROGRESS**

1. "Inference for ROC Curves Based on Estimated Predictive Indices," (joint with Robert P. Lieli).
2. "Nonparametric Inference for Partially Identified Parameters in Moment Inequality Models," (joint with Shengjie Hong and Yuanyuan Wan).
3. "Expectile Curves without Crossing," (joint with Mengmeng Guo and Zaichao Du).
4. "Direct and Indirect Treatment Effects in Regression Discontinuity Models," (joint with Ying-Ying Lee and Shu Shen).
5. "Lack of Identification Diagnostics in GMM Contexts," (joint with Stephen G. Donald and Shu Shen).
6. "Endogeneity in Semiparametric Nonseparable Models without Monotonicity," (joint with Ji-Liang Shiu and Xun Tang).
7. "Estimating Semi-parametric Measurement Error Models without Side Information," (joint with Ji-Liang Shiu).
8. "Testing Treatment Effect Monotonicity under Unconfoundedness Assumption," (joint with Tsung-Chih Lai and Jen-Che Liao).
9. "Testing Treatment Effect Monotonicity in Continuous Treatment Effects Models," (joint with Martin Huber, Ying-Ying Lee and Chu-An Liu).
10. "Robust Tests for Symmetry with Weakly Dependent Data," (joint with Wei-Ming Lee and Chung-Ming Kuan).
11. "Note on Sample Selection Models with Bivariate Selection Rules," (joint with Keng-Yu Ho and Jen-Che Liao).

### **RESEARCH EXPERIENCE**

Research Assistant, University of Texas at Austin  
 For Stephen G. Donald, Daniel S. Hamermesh and Yingyao Hu. Spring 2007

Research Assistant, Academia Sinica, Taiwan  
 For Chung-Ming Kuan. January 2004--June 2004

## **TEACHING EXPERIENCE**

Instructor, University of Missouri at Columbia	
Advanced Topics in Econometrics I (graduate)	Fall 2011
Introductory Econometrics (undergraduate)	Spring 2011, Spring 2012
Econometric Methods I (graduate)	Spring 2011, Spring 2012
Instructor, University of Texas at Austin	
Math Camp for incoming Ph.D. students	Summer 2006, 2008, 2009
Teaching Assistant, University of Texas at Austin	
Advanced Econometrics II: Panel Data	Spring 2009
Advanced Econometrics II: Time Series Econometrics	Fall 2008, Spring 2008
Econometrics II	Fall 2007, Fall 2006
Econometrics I	Spring 2006
Probability and Statistics	Fall 2005
Undergraduate Statistics	Spring 2005, Fall 2004
Teaching Assistant, National Taiwan University, Taiwan	
Undergraduate Statistics	Fall 2000--Spring 2002

## **PROFESSIONAL SERVICE AND ACTIVITIES**

Referee for:

Annals of Statistics, Economic Inquiry, Emerging Markets Finance and Trade, Econometric Reviews, Econometric Theory, Economics Bulletin, European Journal of Operational Research, International Economic Review, International Journal of Forecasting, Journal of Applied Econometrics, Journal of Business and Economic Statistics, Journal of Econometric Methods, Journal of Econometrics, Mathematics and Computers in Simulation, Oxford Bulletin of Economics and Statistics, Review of Economics and Statistics, Statistics and Probability Letters.

## **LANGUAGE**

English (fluent), Chinese (native)