



Jian Zhang

(Updated: Sept. 2020)

Department of Economics
University of Wisconsin-Madison
1180 Observatory Drive, Rm 7439
Madison, WI 53706

Phone: (608) 960-5686
Email: jzhang648@wisc.edu
Website: sites.google.com/view/jian-zhang
Citizenship: China

Education

University of Wisconsin - Madison - PhD in Economics (*Expected* June 2021)
University of Wisconsin - Madison – M.S. in Economics (2017)
Shanghai University of Finance and Economics – M.Phil. in Quantitative Economics (2015)
Nankai University – B.A. in Economics & B.S. in Math (2012)

Dissertation

“Essays on Transformed Model”

Abstract Summary: This dissertation discuss different aspects upon transformed model. In the first chapter, it provides a specification test method for a transformed additive model. This method does not require the estimation of this transformed additive model as an initial step. Also, the test condition of this method is equivalent to the functional structure of transformed additive model. The failure to pass the test indicate that the true underlying model is not additively separable after all forms of transformation. In the second chapter, it considers the semiparametric estimation and inference of parameters in transformed model with potentially high dimension nuisance variable. The model includes traditional transformed model, binary choice model and accelerated failure time model as special cases. To provide a root-n consistent and asymptotic normal results of parameters of interest, it propose a double machine learning estimator. Even though the construction of this estimation is based on conditional mean independent assumption, it extends this estimator to allow for quantile independent assumption.

References:

Bruce E. Hansen (Primary Advisor)
University of Wisconsin - Madison
(608)263-3880
bruce.hansen@wisc.edu

Jack Porter
University of Wisconsin - Madison
(608)263-3870
jrporter@wisc.edu

Joachim Freyberger
University of Bonn
+49-228-739268
freyberger@uni-bonn.de

Research Fields

Econometric Theory, Nonparametric Estimation

Research Papers

“Doubly Robust Estimation and Inference of High dimensional Transformed model”, Job Market Paper
“Specification test for Generalized Additive Model with an Unknown Link Function”, working paper
“Nonparametric Estimation of Additive Model” (with Songnian Chen, Yahong Zhou), in progress

Teaching Experience

ECON 711: Economic Theory – Microeconomics Sequence (Fall 2016)
ECON 710: Economic Statistics and Econometrics II (Spring 2020)
ECON 709: Economic Statistics and Econometrics I (Fall 2019-2020)



ECON 705: Econometrics II (Spring 2018)
ECON 704: Econometrics I (Fall 2017)
ECON 301: Intermediate Microeconomic Theory (Spring 2017)
ECON 101: Principles of Microeconomics (Fall 2015, Spring 2016)

Research Experience and Other Employment

Project Assistant for Prof. Joachim Freyberger, University of Wisconsin – Madison, Fall 2018 – Spring 2019
Research Assistant for Prof. Tao Chen, University of Waterloo, Fall 2014 - Spring 2015
Research Assistant for Prof. Yahong Zhou, Shanghai University of Finance and Economics, 2013 - 2014

Honors, Scholarships and Fellowships

Julia Plant Grainger Teaching Excellence Scholarship, 2018

Conferences and Seminars

Econometric Lunch Seminar, University of Wisconsin – Madison, 2019 & 2020
14th International Conference (WEAI), University of Newcastle, 2018

Programming Languages

R, Matlab, Stata, Python(Basic)

Languages

Chinese (native) English (fluent)