

Yaojue Xu

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Education

University of California, Riverside
Ph.D. in Economics

Riverside, CA, USA
June 2022 (Expected)

University of Southern California
M.A. in Economics

Los Angeles, CA, USA
May 2017

Research Interests

Econometrics, Applied Econometrics, Financial Econometrics, Macroeconomics, Forecasting, Time Series Models

Research Papers

Drafts are available upon request.

1. "Combining Nested Value-at-Risk Forecast Models" (with Y Ge and TH Lee)
2. "Comparing Predictive Ability of Expectile Regression Models" (with TH Lee)
3. "Granger Causality Test in Predictive Conditional Modal Regressions" (with TH Lee)
4. "Forecast Encompassing and Granger Causality in Predictive Models of Expected Shortfalls and Growth Shortfalls" [**Job Market Paper**]
5. "Granger Causality Test of Elicitable Functionals of Conditional Distribution Using Logarithmic Scores by Encompassing Principle"
6. "Evaluation of Density Forecasts Using the Continuous Ranked Probability Score by Encompassing Principle"
7. "Higher Order Elicitability and Forecast Encompassing for Volatility Forecasts by Bregman Functions"

Publication

"Granger Causality Test in Predictive Conditional Modal Regressions." In *JSM Proceedings*, Statistical Computing Section. 2021, Alexandria, VA: American Statistical Association. (with TH Lee)

Teaching Experience

Teaching Assistant, University of California, Riverside

Ph.D. Core Course:

Econometrics Method III: Time Series Econometrics

Spring 2021 (Eval: 6.93/7)

Undergraduate Courses:

Econ 135, Stock Market

Fall 2021 (Eval: currently in progress)

Econ 101, Statistics for Economics

Winter 2021 (Eval: 6.50/7)

Econ 103, Intermediate Macroeconomics

Winter 2020 (Eval: 5.71/7), Fall 2020 (Eval: 6.65/7)

Econ 002, Introduction to Macroeconomics

Fall 2018 (Eval: 5.31/7), Spring 2019 (Eval: 5.67/7)

Econ 003, Introduction to Microeconomics

Winter 2019 (Eval: 5.00/7), Fall 2019 (Eval: 6.00/7),

Spring 2020 (Eval: 6.43/7)

Summer Sessions:

Econ 002 (Summer 2019, 2021), Econ 103 (Summer 2019), Econ 101 (Summer 2020, 2021)

Awards and Honors

Outstanding Teaching Assistant Award, UC Riverside	2021
Graduate Student Travel Grant, Graduate Student Association, UC Riverside	2021
Teaching Assistantship, University of California, Riverside	2018-Present
Dean's Distinguished Fellowship, University of California, Riverside	2017-Present

Conference and Seminar Presentations

Econometrics Colloquium, University of California, Riverside	Oct 2021
<i>"Granger-Causality in Elicitable Functionals of Conditional Distribution by Encompassing Principle"</i>	
Joint Statistical Meetings (JSM)	Aug 2021
<i>"Granger Causality Test in Predictive Conditional Modal Regressions"</i>	
International Conference on Econometrics and Statistics (EcoSta)	Jun 2021
<i>"Granger Causality Test in Predictive Conditional Modal Regressions"</i>	
Western Economics Association International Annual Meeting (WEAI)	Jun 2021
<i>"Comparing Predictive Ability of Expectile Regression Models"</i>	
Econometrics Colloquium, University of California, Riverside	Feb 2021
<i>"Forecast Encompassing and Granger Causality in Conditional Variance Models"</i>	

Professional Services

Journal Referee: *Economic Modelling*

Skills

Software: MATLAB, Python, R, STATA, EViews, Microsoft Office, L^AT_EX

Language: English (Fluent), Chinese (Native)

References

Gloria Gonzalez-Rivera Professor of Economics UC Riverside ☎: +1 (951) 827-1590 ✉: gloria.gonzalez@ucr.edu	Tae-Hwy Lee (Advisor) Professor of Economics UC Riverside ☎: +1 (951) 827-1509 ✉: tae.lee@ucr.edu	Aman Ullah Distinguished Professor of Economics UC Riverside ☎: +1 (951) 827-1591 ✉: aman.ullah@ucr.edu
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Research Contributions

- I have developed the general framework to test for Granger-causality in various predictive "functionals" of the conditional distribution of Y given X.
- Examples of functionals are the conditional mean of Y given X, the conditional quantiles of Y given X, the conditional expectiles of Y given X, the conditional mode of Y given X, the conditional variance of Y given X, the conditional Expected Shortfall of Y given X, the conditional skewness of Y given X, the conditional kurtosis of Y given X, the conditional density of Y given X, the conditional duration of Y given X, the conditional Growth-at-Risk/Growth Shortfall of Y given X, and etc.
- The framework I have developed is based on forecast encompassing principle.
- The construction of the forecast encompassing test critically hinges on the existence of a "strictly consistent" loss function of an "elicitable" functional. For the "elicitable" functional, I can compare the forecasts in terms of a "consistent" loss function.
- Some functionals are not "elicitable". In those cases, I derive "strictly consistent" scoring functions for "higher-order elicitable" functionals.
- I consider various elicitable functionals with corresponding strictly consistent scoring functions to construct the forecast encompassing test for Granger-causality in each functional.