Yang Yang

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Citizenship and Visa Status
China (F-1 visa)

Education
Ph.D. Economics, The Ohio State University, 2022 (expected)
    Dissertation: "Essays on Spatial Econometrics"
    Committee: Lung-Fei Lee (chair), Robert de Jong, Jason Blevins
M.A. Economics, The Ohio State University, 2018
M.S. Economics, Georgia Institute of Technology, 2015
B.A. Economics, Nankai University, 2014

Teaching and Research Fields
Primary fields: Econometrics
Secondary fields: Finance, Labor Economics

Research Experience and Other Employment
Spring and Summer 2021   Research assistant for Professor Bruce Weinberg, OSU

Honors, Scholarships, and Fellowships
2020   G.S. Maddala Student Prize in Econometrics, OSU
2017-2018   Distinguished Department of Economics Fellowship, OSU

Teaching Experience
Autumn 2021   Econ 2002.01 (Introductory Level Macroeconomics), teaching assistant
                  for Jeffrey Buser
Autumn 2019, 2020   Econ 8731 (Econometrics I), teaching assistant for Prof. Lung-Fei Lee

Research Papers
"Conditional Heteroskedasticity with Risk Spillover Through Networks: An Exponential GARCH Approach" **(Job Market Paper)**

Abstract:

   By introducing both intra-temporal and inter-temporal risk spillover through network, we propose a new multivariate conditional volatility model. For stationary case, the model can capture the dynamic of conditional heteroskedasticity structure when there are long-run stable links among multiple markets, and it is easy to be estimated consistently by QMLE approach. By Monte Carlo simulations, we show good finite sample performance when $n/T \to 0$. When applying the model to monthly stock return innovations of 11 eurozone countries from March 1999 to April 2021, by using geographical and institutional links to capture the network between the countries, the performance of our model dominates single variate GARCH(1,1), EGARCH(1,1) and multivariate GARCH with both constant correlation and dynamic conditional correlation settings by likelihood values and AIC criteria.

"Networks with Observed Heterogeneity and Unobserved Group Effects: A Likelihood Approach" *(with Yanli Lin)*

Abstract:

   This paper considers social interaction models with unobserved group effects and observed heterogeneity among agents. By likelihood approach, both endogenous peer effects and exogenous contextual effects associated with heterogeneous agents can be identified and estimated consistently. Under some regularity assumptions, we prove the consistency and asymptotic normality of the QMLE. Monte Carlo simulation results show that our QMLE has good finite sample properties. For application, we investigate the China Education Panel Survey (CEPS), and focus on gender heterogeneity on educational outcomes of Grade 8 students in junior high school. We identify that male students receive much larger peer effects from their classmates than females students for all the three major subjects.

"LM Tests for Heterogeneous Spatial Correlations with Application in Housing Market"

Abstract:

   We consider a spatial autoregressive model with heterogeneous coefficients associated with different type of agents, and develop two different Lagrange multiplier tests, for existence of spatial correlation and the heterogeneity of spatial correlation. With proper assumptions, the two test statistics both have nice asymptotic distributions. For relatively small sample, Monte Carlo simulations show good performance when using asymptotic critical values. Especially, when only part of the individuals are affected by their neighbors, our test for existence of spatial correlation is much more sensitive than the Moran I test. In our empirical application, we investigate the short-run relationship between city size and housing price in northeastern US. From 2006 to 2014, both direct city size effect and neighborhood spillovers to large city areas are dynamic which are potentially driven by credit cycle and heterogeneity among regional income distribution.

"Spatial Heteroskedasticity and Spill-over Effect on Volatility: A GARCH-like Model"

Abstract:

   We develop a GARCH-like model for capturing spatial heteroskedasticity and spill-over effect on volatility level. By proving the α-mixing property of the DGP, we derive the maximum-likelihood estimator and prove some asymptotic properties. Monte Carlo simulations show good finite sample properties of the MLE. When applying this model to US housing market, we identify the spatial spillover effect on volatility of county level housing prices in Northeastern US which cannot be explained by SAR model.

Research in Progress
"Dynamic Spatial Panel with Markov-Switching Common Shocks" (with Pingchuan Ma)
"Go with the flow? The role of Cohort Peers on Post-graduation Location Choices" (with Bo Wang)

References

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