# William (Yu) Wang

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# **Education**

#### University of Guelph, Guelph, Ontario

2025 (Expected)

Ph.D. in Economics

Committee: Dr. <u>Yiguo Sun</u> (supervisor), Dr. <u>Thanasis Stengos</u>, Dr. <u>Alex Maynard</u>, Dr. <u>Ilias Tsiakas</u>

Johns Hopkins University, Baltimore, Maryland

M.A. in Economics with completion of all PhD level courses 2018

B.A. in Economics and Applied Mathematics & Statistics

2016

Minors in Financial Economics and Accounting

# **Research Interests**

• Applied Econometrics, Financial Economics, Time Series Analysis, Spatial Dependence

#### **Publication**

• "A threshold effect of COVID-19 risk on oil price returns" with Yiguo Sun, Delong Li, and Chenyi Suo, *Energy Economics*, Volume 120, 2023, 106618, ISSN 0140-9883

#### **Working Papers**

- Idiosyncratic contagion between ETFs and stocks: A high dimensional network perspective
   Revise & resubmit (R&R) at <u>Journal of Financial Stability</u>
- Style rotation in ETFs: Forecasting systematic risk factors with monetary and fiscal policy variables (job market paper)
- Information spillover augmented asset pricing models: An ETF-momentum factor (work in progress)

# Scholarships, Honors, Awards

•	SSHRC Doctoral Fellowship, Social Sciences and Humanities Research Council	2024
•	Deans' Tri-Council Scholarship, University of Guelph	2024
•	Dean's List, Johns Hopkins University 2012	2 - 2016

#### **Conference Presentations**

•	Western Economic Association International (WEAI) Annual Conference	2024
	o Seattle, Washington	
•	International Conference on Empirical Economics	2023
	o Penn State University, Altoona, Pennsylvania	
•	Student Conference in Statistics, Actuarial Science, and Finance	2022
	<ul> <li>University of Waterloo, Waterloo, Ontario</li> </ul>	

#### **Referee Services**

• International Review of Financial Analytics, Journal of Economic Asymmetry (x2), Economics Bulletin, Empirical Economics, Economics (x2)

# **Teaching Experience**

• Teaching assistant, University of Guelph

2021 - 2024

- Advanced Topics in Macroeconomics; International Finance; Corporate Finance (x2);
   Financial Econometrics (x2); Introduction to Econometrics; Advanced Topics in
   Finance; Money, Credit, and the Financial System
- Teaching assistant, Johns Hopkins University

2017 - 2018

o Elements of Macroeconomics; Macroeconomic Theory

### **Past Employment**

•	Research Assistant	2022 - 2024
	Department of Economics and Finance	
	University of Guelph, Guelph, Ontario	
•	Senior Analyst	2019 - 2020
	Analyst	2018 - 2019
	Market Research Consulting	
	Collage Group, Bethesda, Maryland	
•	Policy Analyst Intern	2015
	Center for Fiscal Policy	
	Texas Public Policy Foundation, Austin, Texas	

# **Computer Skills**

- Programming: R (RStudio and R Server), SQL, Stata, Matlab, Python
- Data science: AB testing, Machine Learning
- Applications: Latex (Overleaf), Excel VBA

#### References

Yiguo Sun (supervisor)

Professor of Economics and University Research Leadership Chair

University of Guelph

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René Kirkegaard Delong Li
Professor of Economics Associate

University of Guelph Cornerstone Research

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# **Paper Outlines**

- "A threshold effect of COVID-19 risk on oil price returns", Energy Economics, Volume 120, 2023, 106618, ISSN 0140-9883, with Yiguo Sun, Delong Li, and Chenyi Suo Using U.S. data, we investigate how the COVID-19 pandemic influences oil price returns in an asset pricing framework. Unlike earlier studies, we consider a threshold model to allow for the possibility that COVID-19 risk may not play a role until it reaches a certain level. Based on WTI crude oil spot price data from January 2020 to December 2021, our findings show that oil returns significantly decline with the daily number of COVID-19 deaths but only if the daily death toll exceeds approximately 2100. In addition, a more severe COVID-19 pandemic can substantially increase the exposure of oil returns to various systematic risk factors, which has not been documented in previous literature.
- Idiosyncratic contagion between ETFs and stocks: A high dimensional network perspective (Revise and resubmit at Journal of Financial Stability)
  This paper employs high-dimensional vector autoregressive modelling and financial network analysis to explore return spillovers between ETFs and stocks. The study reveals important industry patterns in spillovers, with sectors like Utilities and Real Estate showing robust connections, while other sectors like Consumer Discretionary exhibit more external influences. The findings contribute to the literature by identifying previously overlooked spillover effects during periods of high market volatility.
- Style rotation in ETFs: forecasting systematic risk factors with monetary and fiscal policy variables (Job market paper)
  This paper focuses on style rotation in ETFs, where I apply a threshold regression model to predict market systematic risk factors based on shifts in monetary and fiscal policies. The predicted systematic risk factors are then used to construct a quarterly rebalanced portfolios of a pool of ETFs via a mean-variance optimization strategy. The study demonstrates that my proposed strategy generates excess returns that strongly correlate with changes in economic policy uncertainty, underscoring the model's ability to capture key policy-driven threshold effects.
- Information spillover augmented asset pricing models: An ETF-momentum factor (work in progress)
  - This paper introduces an innovative asset pricing model that augments the traditional six-factor framework by incorporating characteristic-based (CB) local factors. These local factors are designed to capture cross-sectional stock return dependencies due to peer effects. The model, which can be seen as a spatial autoregressive framework with time-varying spatial weights, provides deeper insights into stock return dependencies beyond standard risk factors.