Yueliang (Jacques) Lu

Curriculum Vitae

October 2020

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EDUCATION

2018 - 2023 **Ph.D. in Finance and Economics** — University of North Carolina - Charlotte
Co-advised by Profs. Yufeng Han & Weidong Tian — *GPA: 4.00/4.00*

2016 - 2017 **M.Sc. in Quantitative Finance** & **Risk Analytics** — Rensselaer Polytechnic Institute
Advised by Prof. Aparna Gupta — *GPA: 3.97/4.00*

2012 - 2016 **B.A. in Finance and Economics** — Beijing Foreign Studies University
Dual degree in English Language & Literature

RESEARCH INTERESTS

– *Asset Pricing*: Empirical Asset Pricing, Anomalies, Derivatives, Quantitative Finance

– *Financial Risk Management*: Systemic Risk, Longevity Risk, Asset-Liability Management

– *Application of Machine Learning in Finance*

PUBLICATIONS

1. "Addressing Systemic Risk Using Contingent Convertible Debt - A Network Analysis" **European Journal of Operational Research** (with Aparna Gupta and Runzu Wang, forthcoming).

- Best Paper Award, FMA Annual Meeting, 2018
- Best Student Paper Award Finalist, INFORMS Annual Meeting, 2018
- Masters Research Fellowship, Global Association of Risk Professionals (GARP), 2017

WORKING PAPERS & WORK IN PROGRESS

1. **The Causal Effect of Short-Selling Supply on Anomalies** (*with Yufeng Han, Weike Xu & Guofu Zhou*)

- Presented at American Finance Association 2021 Ph.D. Poster Session (*Scheduled, January 2021*), Southern Finance Association 2020 Annual Meeting (*Scheduled, November 2020*)
- We study the effect of short-selling constraints on asset pricing anomalies by exploiting a plausibly exogenous shock to shorting supply around the dividend record dates. Using a difference-in-differences (DID) framework, we find that anomalies become stronger during dividend record months after JGTRRA. The effect is more pronounced for stocks with higher limits to arbitrage and when investor sentiment is higher. Furthermore, the effect mainly comes from the short sides of the anomaly portfolios. Overall, our results suggest that short-selling supply constraints deteriorate market efficiency.

2. **An On-line Machine Learning Return Prediction** (with *Weidong Tian*)

- Presented at INFORMS 2020 Annual Meeting (*Scheduled, November 2020*), International Risk Management Conference 2020 Annual Meeting; Accepted (canceled/postponed due to COVID-19) by the annual meetings of FMA European 2020 and EFMA 2020.

- This paper presents a new prediction methodology on relative stock index returns - the ratio of a stock index return to an interest rate. This prediction methodology relies on the on-line universal portfolio construction motivated by information theory. We derive a closed-form predicting formula whose coefficients are solely determined by historical data, and we demonstrate that the daily predictive errors in the 2010-2018 period can be as small as 2 percent. This approach provides a promising application of on-line machine learning to stock return prediction.

3. **Long-term Asset-Liability Management for Variable Annuities** (with *Aparna Gupta*)
   - Presented at the Masters' Scholars Research Program, Rensselaer Polytechnic Institute
4. **Certainty Equivalent Interest Rate Parity** (with *Lloyd Blenman*)

TEACHING EXPERIENCES

University of North Carolina - Charlotte

1. BPHD 8220 Financial Economic Theory II, TA for Prof. Weidong Tian — Fall 2020
   - Second-year PhD course that emphasizes the asset pricing in continuous time and its applications.
   - Topics include: Optimal portfolio choice, Equilibrium, Real Option Models, Production Models, and Term Structure Model.
2. BPHD 8200 Financial Economic Theory I, TA for Prof. Weidong Tian — Fall 2020
   - First-year PhD course that emphasizes the fundamental ideas, mathematical techniques and main results in the area of asset pricing theory.
   - Topics include: Optimal Portfolio choice, Market Equilibrium, and Fundamental Theorems.
3. FINN 6216 Quantitative Risk Management, TA for Prof. Weidong Tian — Spring 2020
   - This course offers quantitative techniques and tools for the risk management
   - Topics include: VaR and Expected Shortfall, univariate and multivariate models, copulas and tail dependence, and back testing

Rensselaer Polytechnic Institute

1. Math 1010 Calculus I, TA (with recitation session) for Prof. Gina Kucinski — Fall 2017
   - Gave recitation class to 120 undergraduate students, 4 hours per week
   - Assisted in the Math Mentoring Program with the goal that all Engineering and Science students should become proficient in solving calculus and other basic problems

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HONORS AND AWARDS

Ph.D. Graduate Assistantship, University of North Carolina - Charlotte. 2018 - 2023
Seth Bonder Foundation Student Registration Grant, INFORMS Annual Meeting 2020
Ph.D. Travel Grant, American Finance Association (AFA) Annual Meeting 2020
Summer Research Assistantship, University of North Carolina - Charlotte 2019
Best Paper Award, Financial Management Association (FMA) Annual Meeting 2018
Best Student Paper Award Finalist, INFORMS Annual Meeting (Finance Section) 2018
Highlighted on RPI Admissions Website as Outstanding Graduate Scholar (Links) 2018
Masters Research Fellowship Award, Global Association of Risk Professionals 2017
Graduate Teaching Assistantship, Rensselaer Polytechnic Institute 2017
Summer Research Assistantship, Rensselaer New Knowledge and Innovation Program 2017
Masters' Scholars Research Program Award, Lally School Rensselaer Polytechnic Institute 2017
Best Student Paper Award, Beijing Foreign Studies University 2016
Social Service Award, Beijing Foreign Studies University 2014

CONFERENCE AND SEMINARS (*presented by co-authors)

2021 American Finance Association Ph.D. Poster Session *(Scheduled)*

2020 Southern Finance Association Annual Meeting *(Scheduled)*,
INFORMS Annual Meeting *(Scheduled)*
International Risk Management Conference
European Financial Management Association Annual Meeting *(Canceled due to COVID-19)*
Financial Management Association European Meeting *(Postponed due to COVID-19)*

2019 UNC Charlotte Joint Doctoral Workshop

2018 INFORMS Annual Meeting (Financial Engineering Section)
INFORMS Annual Meeting (Best Student Paper Competition)
Financial Management Association Annual Meeting*
European Financial Management Association Annual Meeting*
International Risk Management Conference Annual Meeting*

PROFESSIONAL SERVICE

Discussant Financial Management Association Annual Meeting 2020
UNC Charlotte Joint Doctoral Workshop

Session Chair Financial Management Association Annual Meeting 2020

PROFESSIONAL MEMBERSHIP

American Finance Association (AFA)
Financial Management Association (FMA)
Global Association of Risk Professionals (GARP)
Institute for Operations Research and the Management Sciences (INFORMS)
Southern Finance Association (SFA)

SKILLS AND CERTIFICATIONS

Certifications FRM Passed Part I and Part II, CFA Level III Candidate, Bloomberg Market Concept Certified.
Technical Skills Numerical/Simulation Analysis, Computational Optimization, Stochastic Calculus, Network Science, Bayesian/Time Series Analysis, Machine Learning.
Programming Languages R, MATLAB, Python, Jupyter Notebook, Stata, Neo4j, Gephi, AMPL, and LaTeX.
Native in Chinese, fluent in English, and active learner in Spanish.

REFERENCE

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