# Yueliang (Jacques) Lu Curriculum Vitae

December 2020

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# **EDUCATION**

| 2018 - 2023 | Ph.D. in Finance and Economics Co-advised by Profs. Yufeng Han & Weidong Tian     | University of North Carolina - Charlotte<br>GPA: 4.00/4.00 |
|-------------|---|--|
| 2016 - 2017 | M.Sc. in Quantitative Finance & Risk Analytics<br>Advised by Prof. Aparna Gupta   | Rensselaer Polytechnic Institute<br>GPA: 3.97/4.00         |
| 2012 - 2016 | <b>B.A. in Finance and Economics</b> Dual degree in English Language & Literature | Beijing Foreign Studies University                         |

#### RESEARCH INTERESTS

- Asset Pricing: Empirical Asset Pricing, Anomalies, Derivatives and Options, Quantitative Finance
- Financial Risk Management: Systemic Risk, Correlation 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. Mispricing and Anomalies: An Exogenous Shock to Short Selling from the Dividend Tax Law Change (with Yufeng Han, Weike Xu & Guofu Zhou)
  - Presented at American Finance Association 2021 Annual Meeting (Scheduled, January 2021), Midwest Finance Association 2021 Annual Meeting (Scheduled, March 2021), Southern Finance Association 2020 Annual Meeting, and WashU Olin Finance Brownbag
  - We study the causal effect of short selling on asset pricing anomalies by exploiting a novel exogenous shock to short selling. After the Job and Growth Tax Relief Reconciliation Act (JGTRRA) of 2003, equity lenders are reluctant to lend shares around the dividend record dates because substitute dividends that they would receive are taxed at ordinary income rates while qualified dividends are taxed at 15 percent, thus creating a negative shock to short selling. Using arguably the most comprehensive set of anomalies to date and the difference-in-differences (DID) regression framework, we find that anomalies become stronger after the dividend record months in the post-JGTRRA periods, driven by stronger mispricing in the dividend record months. We further show that the effect mainly comes from the overpriced stocks. Overall, our results provide strong evidence that most anomalies are likely due to mispricing, with valuation anomalies as an exception.
- 2. An On-line Machine Learning Return Prediction (with Weidong Tian)

- R&R, Operations Research Letters
- Presented at INFORMS 2020 Annual Meeting, International Risk Management Conference 2020 Annual Meeting; Accepted (canceled due to COVID-19) by FMA European 2020 and EFMA 2020.
- This paper presents a new prediction methodology on relative stock index return the ratio of a stock index return to an interest rate. The prediction methodology relies on the on-line universal portfolio construction. We derive a closed-form predicting formula whose coefficients are solely determined by historical data and demonstrate that the average daily predictive error in 2010-2018 can be as small as 2 percent. This approach provides a promising application of on-line machine learning to 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**

#### **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

#### **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 Annual Meeting (Scheduled)
Midwest Finance Association Annual Meeting (Scheduled)

2020 Southern Finance Association Annual Meeting

WashU Finance Brownbag INFORMS Annual Meeting

International Risk Management Conference Annual Meeting

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

INFORMS Annual Meeting (Best Student Paper Competition)

Financial Management Association Annual Meeting\*

European Financial Management Association Annual Meeting\* International Risk Management Conference Annual Meeting\*

# **DISCUSSIONS**

2020 SFA "Range-based Expectations", by Natalie Zhu

FMA "The Early Exercise Risk Premium", by Kevin Aretzy and Adnan Gazi

# PROFESSIONAL SERVICE

Session Chair Southern Finance Association Annual Meeting 2020

Financial Management Association Annual Meeting 2020

**Committee Reviewer** Eastern Finance Association Annual Meeting 2021

#### 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)
Society for Financial Studies
Southern Finance Association (SFA)

# **SKILLS AND CERTIFICATIONS**

Certifications FRM Passed Part I and Part II, CFA Level III Candidate, Bloomberg Market Concept Certified.

(704)-687-7702

Technical Skills Numerical/Simulation Analysis, Computational Optimization, Stochastic Calculus,

Network Science, Bayesian/Time Series Analysis, Machine Learning.

Programming R, MATLAB, Python, Jupyter Notebook, Stata, Neo4j, Gephi, AMPL, and LTEX.

**Languages** Native in Chinese, fluent in English, and active learner in Spanish.

#### **REFERENCE**

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