



Dr. Yulin Liu

日月相推而明生焉

Brightness derives from days and nights' deduction.

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Quantum Economics

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Current Positions

SciEcon CIC, London — *Founding President & Chief Scientist*

June 2021 - Present

NPO registered in the UK to host educational events such as interdisciplinary seminars, symposiums, conferences for a hub of global students, researchers, scholars, and beyond.

Bochsler Technology, Shanghai & Tokyo — *Founder & CEO*

January 2021 - Present

Build decentralized protocols, e.g. NFT Marketplace, Decentralized Finance, Metaverse etc.

Origyn Foundation, Neuchatel — *Chief Economist ⇒ Economics Advisor*

September 2020 - Present

A Swiss based not-for-profit organization that leverages AI and big data to authenticate luxuries and art pieces.

Liquity AG, Zug — *Chief Economist ⇒ Economics Advisor*

September 2020 - Present

Liquity is a decentralized borrowing protocol that allows users to draw interest-free loans on Ethereum.

Past Positions

Bochsler Finance, Neuchatel — *Partner & Head of Research*

October 2020 - December 2021

Incubation of decentralized protocols that reshape the world's IT, business and financial landscapes.

[Huazhong University of Science and Technology](#), Wuhan — *Affiliated Economics Professor*

September 2018 - September 2021

Research on monetary theory, banking supervision and token economics.

[Dfinity Foundation](#), Zurich — *Economics Research Lead*

June 2018 - September 2020

Lead research on crypto economics and governance system, e.g. gas fee design, gas coin stability mechanism, token dynamics modeling and simulation, cryptocurrency valuation, blockchain governance design, decentralized finance, decentralized exchange, token standard and stable coin PHI, etc.

[ETH Zurich](#), Zurich — *Postdoctoral Researcher*

June 2016 - June 2018

Research and teaching of macroeconomics and monetary policy.

[Bank of Finland](#), Helsinki — *Visiting Scholar*

December 2017 - January 2018

Invited for talks on monetary policy and macroprudential policy to economists and policy makers.

Education

[ETH Zurich](#), Zurich — *Ph.D. in Economics*

October 2012 - June 2016

Ph.D. dissertation on Monetary Policy and Monetary Theory

Title: [An analysis of three variants of forward guidance contracts](#)

Supervisor: [Prof. Dr. Hans Gersbach](#)

Co-supervisor: [Prof. Dr. Jan-Egbert Sturm](#)

[Swiss National Bank Study Center](#), Gerzensee — *Advanced Doctoral Studies*

2014, 2016

Courses on financial stability, international finance and financial friction.

[ETH Zurich](#), Zurich — *Master in Quantum Physics*

September 2010 - June 2012

Master thesis on building a superconducting quantum chip.

[UCBL 1](#), Lyon — *Bachelor in Science (with Distinction)*

September 2008 - June 2010

Bachelor thesis on Nanophysics in French National Center for Scientific Research.

Wuhan University, Wuhan — *Bachelor in Science (with Distinction)*

September 2006 - June 2008

Major in Physics and Minor in French.

Research

Refereed Journals

Yulin Liu, Yuxun Lu, Kartik Nayak, Fan Zhang, Luyao Zhang and Yinhong Zhao, 2022. “[Empirical Analysis of EIP-1559: Transaction Fees, Waiting Time, and Consensus Security](#).” Forthcoming on The ACM Conference on Computer and Communications Security.

Yulin Liu, Luyao Zhang and Yinhong Zhao, 2022. “[Deciphering Bitcoin Blockchain Data by Cohort Analysis](#).” Forthcoming on *Nature: Scientific Data*.

Hans Gersbach, Yulin Liu, and Martin Tischhauser, 2021. “[Versatile Forward Guidance: Escaping or Switching](#).” *Journal of Economic Dynamics and Control*, 127.

Hans Gersbach, Volker Hahn, and Yulin Liu, 2019. “[Forward Guidance Contracts](#).” *Macroeconomics Dynamics*, 23 (8): 3386-3423.

Working Papers

[Cryptocurrency Valuation: an explainable AI approach](#) with Luyao Zhang, Submitted to *Review of Financial Studies*

[Macroprudential Policy in the New Keynesian World](#) with Hans Gersbach and Volker Hahn

[Optimal Algorithmic Monetary Policy](#) with Luyao Zhang

[Decentralized Index](#) with Xinshi Ma and Luyao Zhang (upon request)

Medium Articles

[Cryptocurrency Valuation](#)

[Token Offering on Blockchain](#)

[What are the flaws of the Cosmos and how to tackle them?](#)

[AI-Based Stable Coin](#)

[A glimpse of the blockchain governance system](#) with Huang Lin

Teaching & Projects Supervision

Decentralized Finance (project co-lead), Duke CS+ Summer Program, Department of Computer Science, Duke University, Jun. - Aug. 2021

Algorithmic Stablecoin on the Internet Computer (advising Oli Chen and Gina Joerger with Profs. Olivier Marin and Luyao Zhang), NYU Shanghai, Spring 2021

Financial Technology, Cryptocurrency and AI (joint lectures), RMDS Lab, Summer 2020

Money, Blockchain and Decentralized Finance (Business school course & projects), ECNU, Spring 2020

Economics of Growth, Cycles and Policy (Master and PhD core course), ETH Zurich, Spring 2018

Economics of Growth, Cycles and Policy (Master and PhD core course), ETH Zurich, Spring 2016

Economics of Growth, Cycles and Policy (Master and PhD core course), ETH Zurich, Spring 2015

Economics of Innovation and Growth (Master and PhD elective course), ETH Zurich, Fall 2014

Invited Talks & Conferences

Duke CS+ & SciEcon Symposium “Decentralized Finance: Cryptocurrency and Blockchain on the Internet Computer,” Aug. 5, 2021 (panelist)

Algorithmic Monetary Policy, Econ 204: Intermediate Macroeconomics by Prof. Luyao Zhang, Duke Kunshan University, Dec. 10, 2020 (invited guest speaker)

WEAI 95th Annual Conference, Denver, U.S.A, Jun. 26–30, 2020 (online presentation)

11th Swiss Winter Conference on Financial Intermediation, 2018 (presenter)

4th RES Symposium of Junior Researchers, Royal Economic Society, 2018 (presenter)

1st RCEA Warsaw Money-Macro-Finance Conference, 2018 (presenter)

China International Conference in Macroeconomics, Tsinghua University, 2018 (presenter)

The Rimini Conference in Economics and Finance 2018 (chair, presenter and discussant)

Research Seminars, Bank of Finland, 2017 (invited talk)

Fed St.Louis-JEDC-SCG-SNB-UniBern Conference, Swiss National Bank, 2017 (participant)

Workshop “Monetary Policy in Non-standard Times”, European Central Bank, 2017 (participant)

Annual Congress, European Economic Association, 2017 (presenter)

Annual Congress, German Economic Association, 2017 (presenter)

Journal of Monetary Economics and Swiss National Bank Conference, 2016 (participant)

9th Swiss Winter Conference on Financial Intermediation, 2016 (presenter)

Annual Congress, European Economic Association, 2016 (presenter)

Annual Congress, German Economic Association, 2016 (presenter)

Annual Congress, Swiss Society of Economics and Statistics, 2016 (presenter)

Honors, Awards & Grants

Grand Prize of DFINITY Hackthon, DFINITY Foundation, 2020

EEA Student Travel Award, European Economic Association, 2016

Saint-Gobain Scholarship, Ecole Polytechnique, 2010

Excellent Undergraduate Scholarship, Wuhan University, 2007-2008

Excellent Freshman Scholarship, Wuhan University, 2006

Referee Activities

International Journal of Central Banking, Review of World Economics, Macroeconomic Dynamics, Journal of Economic Dynamics and Control

Languages

Mandarin (native), English (fluent), French (C1), German (B1)