

Shuo YANG

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Education

National University of Singapore

2021–present

PhD Candidate in Economics

Expected Completion Date: June 2026

University of Pennsylvania

2018–2021

M.A. in Economics

National University of Singapore

2014–2018

B.Sc. in Economics, First Class Honours

Research Interests

Primary *Applied Theory, Political Economy*

Secondary *Development*

Working Paper

“A Tale of Three Kingdoms – Conflict, Alliances, and Balance of Power” With Sam JINDANI

This paper studies the stability of international systems with endogenous coalition formation and stochastic fluctuations in power. We develop a model in which rulers control territories that determine baseline power, while effective power fluctuates due to stochastic shocks. Stability is defined recursively: a coalition is stable if it cannot be blocked by sufficiently strong subcoalitions that are themselves stable. The model yields predictions on how stability depends jointly on the distribution of power and the magnitude of uncertainty. When shocks are moderate, three-player systems can be stable if the largest power is sufficiently constrained by the combined strength of the two smaller players. However, when shocks are sufficiently small, symmetric multi-player systems can be unstable. The analysis highlights how both concentrated and dispersed power structures can arise as stable outcomes.

Work in Progress

“Unification or Fragmentation? The Intersection of Geography and Bounded Rationality” With Sam JINDANI and Tuan-Hwee SNG

This paper studies how geography and bounded rationality shape the evolution of the global political landscape. We develop a model of one-period forward-looking rulers who derive power from territorial size, initiate attacks and form alliances in response to threats. Power fluctuates over time while conflict outcomes are deterministic. We characterize the model’s equilibrium and implement it in simulations on the world map to examine whether political fragmentation or unification is more likely to emerge under different geographic conditions.

“Four Lessons on Buffer Zones”

This paper develops a two-player model of how buffer zones affect the incidence of conflict. Under complete information, a buffer zone can mitigate conflict by weakening each side’s incentive to strike preemptively. This effect is undone, however, when the zone’s strategic value is high enough that seizing it becomes attractive in its own right. Under incomplete information, where each player is privately informed about its strength, the buffer zone can additionally serve as a signalling device, but only when its resource value is sufficiently high. Yet, when both players are likely strong, a buffer zone can disrupt peace rather than promote it.

Research Experience

2024 Research Assistant for Professor Sam Jindani
2019–21 Research Assistant for Professor Fernando FERREIRA and Professor Maisy WONG
2017–18 Research Assistant for Professor Lorenz GOETTE

Teaching

National University of Singapore EC5104 Mathematics for Economists I
TA for Prof. Sam JINDANI, Fall 2025 & Fall 2026

Graduate Economics Math Camp
Instructor for Real Analysis, Summer 2024

EC3303 Econometrics I
TA for Dr. Thanh Hai VU, Spring 2024

HS2909 The Rise and Fall and Rise of China
TA for Prof. Tuan-Hwee SNG & Prof. Khee Heong KOH, Fall 2023

EC3101 Intermediate Microeconomics
TA for Dr. Timothy WONG, Fall 2023 &
TA for Prof. Tuan-Hwee SNG, Spring 2023

University of Pennsylvania ECON701 Microeconomic Theory
TA for Prof. Steven MATTHEWS & Prof. Andrew POSTLEWAITE, Fall 2019

Awards & Honors

Graduate Students’ Teaching Award
National University of Singapore 2026

NUS Research Scholarship
National University of Singapore 2021–2025

Best Performance in Microeconomics
University of Pennsylvania 2019

Dean’s List Scholar
National University of Singapore 2016, 2018

Professional Activities

17th Australasian Public Choice Conference

2026 (Scheduled)

Presenter

ACES Summer School in Political Economy

2024

Attendee

Applied Economics Student Workshop (AESW)

Co-Organiser with Liaoliang ZHANG and Jingman CAO

2024-2025

Referee for Economic Inquiry

Professional Skills

Programming Skills: R, MATLAB, STATA, $\text{\LaTeX}$

Languages: Chinese (Native), English (Fluent), French (DELF B1)