

# FAN WU

## CONTACT INFORMATION

---

California Institute of Technology  
Division of the Humanities and Social Sciences

Website: [fanwu.info](http://fanwu.info)  
Email: [fwu2@caltech.edu](mailto:fwu2@caltech.edu)

## EDUCATION

---

### California Institute of Technology

Ph.D., Economics

September 2020 – June 2025 (expected)

### Tsinghua University

M.S., Finance,

2019

### Peking University

B.S., Physics,

2017

## RESEARCH FIELDS

---

Microeconomic Theory: information acquisition, information design, and mechanism design.

## REFERENCES

---

Omer Tamuz  
Professor of Economics and Mathematics  
California Institute of Technology  
[omertamuz@gmail.com](mailto:omertamuz@gmail.com)

Luciano Pomatto  
Professor of Economics  
California Institute of Technology  
[luciano@caltech.edu](mailto:luciano@caltech.edu)

Alexander W. Bloedel  
Assistant Professor of Economics  
University of California, Los Angeles  
[abloedel@econ.ucla.edu](mailto:abloedel@econ.ucla.edu)

Peter Caradonna  
Assistant Professor of Economics  
California Institute of Technology  
[ppc@caltech.edu](mailto:ppc@caltech.edu)

## JOB MARKET PAPER

---

### Incentivizing Information Acquisition

**Abstract:** I study a principal-agent model in which a principal hires an agent to collect information about an unknown continuous state. The agent acquires a signal whose distribution is centered around the state, controlling the signal's precision at a cost. The principal observes neither the precision nor the signal, but rather, using transfers that can depend on the state, incentivizes the agent to choose high precision and report the signal truthfully. I identify a sufficient and necessary condition on the agent's information structure which ensures that there exists an optimal transfer with a simple cutoff structure: the agent receives a fixed prize when his prediction is close enough to the state and receives nothing otherwise. This condition is mild and applies to all signal distributions commonly used in the literature.

## WORKING PAPERS

---

Nonparametric Estimation of Selection Models, with Yi Xin

Competing on Information in Selection Markets: Evidence from Auto Insurance, with Marco Cosconati, Yi Xin, Yizhou Jin

## PUBLICATIONS

---

Implementing Randomized Allocation Rules with Outcome-Contingent Transfer, with Yi Liu,  
**Journal of Economic Theory**, 2024

Linear Riley Equilibria in Quadratic Signaling Games, with Xi Weng,  
**Journal of Economic Theory**, 2023

Quantum phase space with a basis of Wannier functions, with Yuan Fang and Biao Wu,  
**Journal of Statistical Mechanics**, 2018.

## TEACHING/WORKING EXPERIENCE

---

Teaching Assistant (for Prof. Jaksza Cvitanic), MA 003 Probability Theory, Winter 2023

Teaching Assistant (for Prof. Andrew Sinclair), BEM 114 Hedge Fund, Spring 2023

Teaching Assistant (for Prof. Andrew Sinclair), BEM 109 Understanding China through Finance, Fall 2023

Teaching Assistant (for Prof. Antonio Rangel), EC 11 Introduction to Economics, Winter 2024

## TECHNICAL STRENGTHS

---

Computer Languages: R, Matlab

Software & Tools: LaTeX, Excel