

Peiyu Wei

Postdoctoral Researcher

PBC School of Finance, Tsinghua University

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Academic Appointments

PBC School of Finance, Tsinghua University

2026–present

Postdoctoral Researcher

Education

The University of Hong Kong

2026

Ph.D. in Economics (Supervisor: Professor Wing Suen)

Nankai University

2018

B.S. in Physics; B.Econ. in Finance (second degree)

Working Papers

Trade Delay in Bargaining over Lemons

A seller holds a good that may be high or low quality and proposes prices over time to a buyer who receives an exogenous imperfect private message about the quality before bargaining begins. In a benchmark with an uninformed seller, the Coase conjecture emerges and is driven by two key properties: the market-clearing price is invariant to the seller's deviation, and the seller becomes increasingly pessimistic after repeated rejections. By contrast, when the seller privately observes quality, prices serve not only as offers but also as signals that affect the buyer's expected valuation. When no message can reveal the seller to be of the low type, deviations can induce sufficiently pessimistic off-path beliefs, so the off-path market-clearing price falls below the on-path one. This breaks the invariance of the market-clearing price and makes early market clearing suboptimal. When some message reveals the seller to be of the low type, the high-type seller knows with certainty that the buyer is optimistic; this breaks the seller-pessimism property and allows the high type to separate through delay. Both cases lead to a breakdown of the Coase conjecture and to trade delay in the limit, but differ in the strength of persistence: in the former, delay is merely sustainable, whereas in the latter it is uniformly bounded away from zero. The paper thus identifies two distinct channels through which the interaction between lemons-market valuation and second-order uncertainty breaks the Coase conjecture.

Accuracy Discrimination in Personalized Product Recommendation

I examine how a platform designs personalized product recommendations with discriminatory accuracy based on consumers' preference intensities to maximize the probability of trade. The platform can increase recommendation accuracy for a consumer at the cost of the consumer's privacy and higher endogenous prices set by third-party firms. When consumers' types are observable, the platform's optimal mechanism is perfectly misaligned with consumer preferences: it offers accurate recommendations only to "picky" consumers who benefit the least, thereby minimizing ex post consumer surplus. In contrast, when the platform must screen consumers, it behaves as if maximizing ex post consumer surplus by allowing consumers to self-select their most preferred accuracy levels. The results highlight the importance of requiring platforms to obtain consumers' consent before providing personalized services, even when the platform's interests are partly aligned with those of consumers.

Earlier Publications

Bayesian truncation errors in equations of state of nuclear matter with chiral nucleon-nucleon potentials, with Jinniu Hu and Ying Zhang. *Physics Letters B* 798 (2019): 134982.

How Does the New Rural Cooperative Medical System Affect Labor Supply among Middle-Aged and Older Rural Residents? An Analysis Using a Dynamic Stochastic Model, with Na Zhao. *Finance and Economics*, no. 2 (2019): 74–90. (In Chinese; English title translated.)

Conference Presentations

Econometric Society World Congress, Seoul, Republic of Korea	2025
Econometric Society Australasian Meetings, Melbourne, Australia	2024

Teaching Experience

<i>The University of Hong Kong</i>	Semester 2, 2025
Teaching Assistant	
ECON6078: Topics in Economic Research II (Professor Wing Suen)	

Honors and Awards

Postgraduate Scholarship	2018–2022
Faculty of Business and Economics Ph.D. Entrance Scholarship	2018–2019

Languages

English, Mandarin, Cantonese