# KUN ZHANG

☐ +1 608-571-8496    ✉ kunzhang@asu.edu    ⌂ www.zhangkun.me

## ARIZONA STATE UNIVERSITY

Placement Director: Gustavo Ventura                    gustavo.ventura@asu.edu    480-965-5881
Placement Coordinator: Laura Talts                             ltalts@asu.edu    480-727-7931

## EDUCATION

PhD in Economics, Arizona State University, 2017 to present

Thesis Title: Essays in Information Economics

Expected Completion Date: May 2023

References:

Professor Hector Chade (Chair)
Arizona State University
480-965-4714
hector.chade@asu.edu

Professor Andreas Kleiner
Arizona State University
480-727-3424
andreas.kleiner@asu.edu

Professor Alejandro Manelli
Arizona State University
480-965-4682
alejandro.manelli@asu.edu

Professor Mark Whitmeyer
Arizona State University
704-330-0389
mwhitmey@asu.edu

MS (Terminal) in Economics, University of Wisconsin-Madison, 2017

BA in Economics, Renmin University of China, 2015

## RESEARCH AREAS

Information Economics, Industrial Organization

## TEACHING EXPERIENCE

**As instructor**

ECN312: Intermediate Microeconomics, Arizona State University, Summer 2022

ECN594: Math Economics (Math Bootcamp), Arizona State University, Summer 2020, Summer 2021, Summer 2022

**As teaching assistant**

ECN712: Microeconomics Analysis I, Arizona State University, Fall 2018, Fall 2019

ECN714: Microeconomics Analysis II, Arizona State University, Spring 2019, Spring 2022

## PROFESSIONAL EXPERIENCE

Research assistant to Professor Andreas Kleiner, Summer 2021

Research assistant to Professor Alejandro Manelli, Spring 2020 to Spring 2021

## PRESENTATIONS

2022: ASU, Spring Midwest Economic Theory Conference, Asian Meeting of the Econometric Society, Stony Brook International Conference on Game Theory (x2), ASU Economics Alumni Conference*, Stony Brook*, Southern Economic Association Annual Meeting* (*: scheduled)

2021: ASU

## HONORS AND AWARDS

Distinguished Economics Graduate Instructor (Awarded joint with Siyu Shi), 2022

Best Progress Towards Dissertation, 2022

Performance Award, 2020, 2021, 2022

Hardison Award for Best Performance in Qualifying Exams: Microeconomic and Macroeconomics, 2018

Graduate Fellowship, 2017

## COMPUTATIONAL SKILLS

Stata, MATLAB, Mathematica

## RESEARCH PAPERS

"Uncharted Waters: Selling a New Product Robustly" **Job Market Paper**

**Abstract:** A seller introduces a novel product to an unfamiliar market. The seller sets a price and chooses how much information to disclose about the product to a representative buyer, who may incur a search cost to discover an outside option. The buyer knows her outside option distribution, but the seller only knows its mean and an upper bound on its support, and evaluates any selling strategy by its guaranteed profit. The robustly optimal strategy balances the trade-off between demand versus extraction: information design can boost demand by deterring the buyer's search, but this requires providing her with a high payoff via a low price. I find that price is not monotone in search cost, and disclosure is fully informative only if the search cost is high. These results shed light on the practice of noisy disclosure in selling new products, and suggest that improvements in information technology that reduce search costs may increase price and make information provision noisier.

"Costly Evidence and Discretionary Disclosure" (with Mark Whitmeyer) *Submitted*

**Abstract:** A sender flexibly acquires evidence–which she may pay a third party to certify–to disclose to a receiver. When evidence acquisition is overt, the receiver observes the evidence gathering process irrespective of whether its outcome is certified. When acquisition is covert, the receiver does not. In contrast to the case with exogenous evidence, the receiver prefers a strictly positive certification cost. As acquisition costs vanish, equilibria converge to the Pareto-worst free-learning equilibrium. The receiver always prefers covert to overt evidence acquisition.

"Withholding Verifiable Information" *Submitted*

**Abstract:** I study a class of verifiable disclosure games where the sender's payoff is state

independent and the receiver's optimal action only depends on the expected state. In such games, what is the sender's preferred equilibrium? When does the sender gain nothing from having commitment power? I identify conditions for an information design outcome to be an equilibrium outcome of the verifiable disclosure game, and give simple sufficient conditions under which the sender does not benefit from commitment power. These results help me to characterize the sender's preferred equilibria and her equilibrium payoff set in a class of verifiable disclosure games. I apply these insights to study influencing voters and selling with quality disclosure.

"Buying Opinions" (with Mark Whitmeyer) *Submitted*

**Abstract:** A principal hires an agent to acquire soft information about an unknown state. Even though neither *how* the agent learns (the experiment chosen by the agent) nor *what* the agent discovers (the realization of the experiment) are contractible, the principal is nevertheless unconstrained as to what information the agent can be induced to acquire and report honestly. When the agent is risk neutral, and a) is not asked to learn too much, b) can acquire information sufficiently cheaply, or c) can face sufficiently large penalties, the principal can attain the first-best outcome. Risk aversion (by the agent) introduces inefficiencies: the first-best is unattainable, though whether the agent obtains rents depends on whether he may exit to take his outside option after learning.

"Optimal Procurement Design: A Reduced Form Approach"

**Abstract:** Standard procurement models make the implicit assumption that the buyer knows the quality of the object at the time she procures, but in many cases, the quality is learned long after the procurement. I study procurement settings where the buyer's valuation of the good supplied depends directly on its quality, and the quality is both unverifiable and unobservable to the buyer. For a wide class of procurement problems, I solve for the procurement mechanisms that maximize the buyer's expected payoff and the expected social surplus, respectively. In both cases, the optimal mechanism can be implemented by a dynamic combination of the two commonly used procurement methods: auction and negotiation. Procurement mechanisms of this kind are used in the Italian public procurement system.

**RESEARCH PAPER IN PROGRESS**

"Oligopolistic Markets of Information" (with Hector Chade)