

# YING GAO

## OFFICE CONTACT INFORMATION

MIT Department of Economics  
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## HOME CONTACT INFORMATION

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**RESEARCH FIELDS** Microeconomic Theory, Signaling Games, Information Design

**ACADEMIC POSITIONS** Assistant Professor, Department of Economics, University of British Columbia

**DOCTORAL STUDIES** Massachusetts Institute of Technology (MIT)  
PhD, Economics, Expected completion June 2024  
DISSERTATION: “*Essays on Signaling and Disclosure*”

## DISSERTATION COMMITTEE AND REFERENCES

Professor Drew Fudenberg  
MIT Department of Economics  
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Professor Stephen Morris  
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Professor Robert Gibbons  
MIT Sloan School of Business  
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**PRIOR EDUCATION** Massachusetts Institute of Technology (MIT) 2018  
B.S, Math and Economics, Phi Beta Kappa

**CITIZENSHIP** USA **GENDER** Female

**LANGUAGES** English (native), Chinese (fluent)

**FIELDS** Primary Fields: Theory  
Secondary Fields: Organizational

**TEACHING EXPERIENCE** 14.124 Microeconomic Theory IV 2024  
Teaching Assistant for Professor Alexander Wolitzky  
14.284 Advanced Organizational Economics II 2024  
Teaching Assistant for Professor Charles Angelucci  
14.283 Advanced Organizational Economics I 2024

	Teaching Assistant for Professor Robert Gibbons	
	14.122 Microeconomic Theory II	2020-22
	Teaching Assistant for Professor Glenn Ellison	
	14.121 Microeconomic Theory I	
	Teaching Assistant for Professor Jonathan Weinstein	2022
	14.127 Advanced Game Theory	2021
	Teaching Assistant for Professor Drew Fudenberg	
	14.125 Market Design	2021
	Teaching Assistant for Professor Parag Pathak	
	14.26 Organizational Economics	2021
	Teaching Assistant for Professor Charles Angelucci	
<b>RELEVANT POSITIONS</b>	Research Intern, Microsoft Research New England	2022
	Research Assistant for Professor Robert Gibbons	2021
	Research Assistant for Professor Drew Fudenberg	2020
	Research Assistant for Professor Alex Wolitzky	2019
	Research Assistant for Prof. Whitney Newey & Prof. Jerry Hausman	2016-20
	Winter Intern, NERA Economic Consulting	2017
<b>FELLOWSHIPS, HONORS, AWARDS</b>	Jerry A. Hausman Fellowship, MIT	2020-23
	MIT Presidential Fellowship, MIT	2018-20
	Phi Beta Kappa	2018
<b>PROFESSIONAL ACTIVITIES</b>	<u>Presentations</u>	
	2024: Stanford Institute for Theoretical Economics (scheduled), North American Summer Meeting of the Econometric Society (scheduled), Canadian Economic Theory Conference, Southern Methodist University, London School of Economics (Managerial Economics and Strategy), UBC, Rutgers, UC Davis	
	2023: MIT Theory lunch seminar, MIT Organizational Economics seminar	
	2022: Stony Brook, European Summer Meeting of the Econometric Society, Econometric Society Summer School in Economic Theory, Stony Brook International Conference on Game Theory, MIT Theory lunch seminar	
	2021: MIT Theory lunch seminar, MIT Organizational Economics lunch seminar	
	<u>Refereeing</u>	
	<i>Economic Theory</i>	
	<u>Service</u>	
	MIT Economics Theory Lunch organizer, 2021-2022	
	MIT Graduate Economics Association Social Chair, 2020-2021	
	MIT PRIMES Circle Mentor, 2016-2018	
<b>PUBLICATIONS</b>	<a href="#"><b>“A Reputation for Honesty”</b></a> (with Drew Fudenberg and Harry Pei)	
	Journal of Economic Theory, September 2022.	
	We analyze situations where players build reputations for honesty rather than for playing particular actions. A patient player faces a sequence of short-run opponents. Before players act, the patient player announces their intended	

action after observing both a private payoff shock and a signal of what actions will be feasible that period. The patient player is either an honest type who keeps their word whenever their announced action is feasible, or an opportunistic type who freely chooses announcements and feasible actions. Short-run players only observe the current-period announcement and whether the patient player has kept their word in the past. We provide sufficient conditions under which the patient player can secure their optimal commitment payoff by building a reputation for honesty. Our proof introduces a novel technique based on concentration inequalities.

**RESEARCH  
PAPERS**

**[“Inference from Selectively Disclosed Data”](#)**

We consider the disclosure problem of a sender with a large dataset of hard evidence. The sender has an incentive to drop observations before submitting the data to the receiver to persuade them to take a favorable action. We predict which observations the sender discloses using a model with a continuum of data, and show that this model approximates the outcomes with large, multi-variable datasets. In the receiver's preferred equilibrium, the sender plays an imitation strategy, under which they submit evidence that imitates the natural distribution under some more desirable target state. As a result, it is enough for an experiment to record data on outcomes that maximally distinguish higher states. A characterization of these strategies shows that senders with little data or a favorable state fully disclose their data, but still suffer the receiver's skepticism, and therefore are worse-off than they are under full information. On the other hand, senders with large datasets can benefit from voluntary disclosure by dropping observations under low states.

**[“Model \(non-\)disclosure in supervisory stress tests”](#)** (with Marc de la Barrera and Bumsoo Kim)

We study the Federal Reserve's problem of disclosing the models it uses in supervisory stress tests of large banks. Banks argue that nondisclosure leads to inefficiencies stemming from uncertainty, but regulators are concerned that full disclosure can lead to banks gaming the system. We formalize the intuition behind this trade-off in a stylized model where both the regulator and banks have imperfect, private “models” about a risky asset, and the regulator uses its own model to “stress test” the investment. We show that if the regulator uses its model to test the banks' investment, full disclosure is suboptimal, and the regulator may benefit from hiding the model when the bank's model is more precise than the regulator's own model. The key idea is that hiding the regulator's model forces the bank to guess it using the bank's own models, effectively eliciting the bank's private information. We also show that if the regulator can fine-tune disclosure policies, the regulator can approximately enforce the first-best action of banks, as if the regulator fully knew all the private information held by banks. The intuition is closely related to the Cremer and McLean (1988) information rent extraction result.

**RESEARCH IN  
PROGRESS**

**“A Model of Information Transmission in Organizations”** (with Nicole Immorlica, Brendan Lucier, and Markus Mobius)

Middle managers in organizational hierarchies have local information about the

projects they manage that can inform selection and funding decisions. We consider how managers who are aligned with the principal can use their private information to give reports or feedback to alter incentives in a final selection process that is a winner-take-all contest in which individual agents are responsible for generating evidence at a nonproductive cost. We show that the problem can be broken down into how the manager affects the perception of the agent's relative ranking within-group, and how they influence the standards the agent faces for across-group comparison. In an example, we show that the costs of signaling are minimized by fully reporting the manager's information to the principal, but giving no feedback to agents.

**“Ridge Estimation of Panel Average Effects”** (with Ben Deaner, Jerry Hausman, and Whitney Newey)

*Last updated: Jun 2, 2024*