

## DELONG MENG

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### **EDUCATION**

Ph.D. in Economics, Stanford University, Expected Completion: June 2019.

B.Sc. in Mathematics, Massachusetts Institute of Technology, 2009-2013.

### **DISSERTATION COMMITTEE**

Prof. Gabriel Carroll (Primary)  
Economics Department, Stanford University  
(650) 725-8703  
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Prof. Matthew Gentzkow  
Economics Department, Stanford University  
(650) 721-8375  
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Prof. Takuo Sugaya  
Graduate School of Business, Stanford University  
(650) 724-3739  
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Prof. Alvin Roth  
Economics Department, Stanford University  
(650) 725-9147  
[alroth@stanford.edu](mailto:alroth@stanford.edu)

### **RESEARCH AND TEACHING FIELDS**

Primary field: Microeconomic Theory.

Secondary fields: Behavioral Economics, Political Economy.

### **SCHOLARSHIPS, HONORS, AND AWARDS**

2018 Kapnick Dissertation Fellowship, SIEPR.  
2017 John M. Olin Fellowship in Law and Economics.  
2013-2014 Stanford Economics Department Fellowship.  
2009 International Mathematical Olympiad, Silver Medal.

### **PROFESSIONAL ACTIVITIES**

Referee for *Econometrica* and *Conference on Web and Internet Economics (WINE)*.

Presenter: American Economic Association Meeting, 2017.

Presenter: American Real Estate Society Conference, 2018.

## **TEACHING EXPERIENCE**

- 2016-2017 Teaching Assistant for Prof. Marcelo Clerici-Arias, Econ 198 (Honors Thesis).  
Teaching Assistant for Prof. Marcelo Clerici-Arias, Econ 178 (Behavioral Economics).  
Teaching Assistant for Prof. Chris Makler, Econ 50 (Intro to Microeconomics).
- 2015-2016 Teaching Assistant for Prof. Jonathan Levin, Econ 136 (Market Design).  
Teaching Assistant for Prof. Ran Abramitzky, Econ 50 (Intro to Microeconomics).
- Various Summers Taught mathematics and graded tests at the Math Olympiad Summer Program.

## **OTHER EXPERIENCES**

- Speaker at Passion Talks:
- 2018 *Is Any Belief Rational?*, Google, Mountain View.  
2016 *Religion and Social Science*, Convergent House of Prayer, Fremont.  
2015 *The Problem of Evil: A Contract Theory Approach*, Stanford.
- 2016 Participant (with Full Funding), Abigail Adams Institute Summer Workshop:  
Religion in the Social Sciences, Harvard University.
- 2015-2016 Small Group Leader, Intervarsity Christian Fellowship:  
Organized weekly discussions on Christian apologetics, philosophy, and theology.
- 2011 Problem Czar, Harvard-MIT Math Tournament:  
Recruited 30 students to write problems; edited over 100 problems for the contest.

## **JOB MARKET PAPER**

### *Optimal Mechanisms for Repeated Communication*

We study repeated communication between a long-run sender and a long-run receiver. In each period the sender observes the state of the world -- which is i.i.d. across time -- and reports the state to the receiver. The receiver takes an action based on the history of the sender's reports and public randomization signals. The receiver fully commits to her action at each point in history, and the sender commits to nothing. We allow arbitrary state space, action space, and preferences. We characterize the set of possible payoffs for the sender and the receiver when both are infinitely patient -- i.e., as the discount factor goes to one. We also study the payoff set when the discount factor is less than (but close to) one. In particular we bound the rate of convergence to points on the frontier of the limit payoff set; the rate of convergence differs radically for discrete and continuous models, and we provide a unified view of the rate of convergence results based on the shape of the frontier of the limit payoff set. We discuss three applications of our results. First for dynamic CEO compensation we characterize the firm's revenue from the optimal contract as the interest rate goes to zero. Second we show that dynamic delegation -- a common problem in agencies -- is equivalent to our model. Third we study a reputation problem where the sender's preference is unknown, and we give a lower bound for the receiver's expected payoff as the discount factor goes to one.

## **JOURNAL PUBLICATIONS**

*Robust Contracting with Additive Noise* (with Gabriel Carroll)  
Journal of Economic Theory 166, 2016, 586-604.

We investigate the idea that linear contracts are reliable because they give the same incentives for effort at every point along the contract. We ask whether this reliability leads to a microfoundation for linear contracts, when the principal is profit-maximizing. We consider a principal-agent model with risk neutrality and limited liability, in which the agent observes the realization of a mean-zero shock to output before choosing how much effort to exert. We show that such a model can indeed provide a foundation for reliable contracts, and illustrate what elements are required. In particular, we must assume that the principal knows a lower bound, but not an upper bound, on the shocks.

*Robust Contracts for Moral Hazard* (with Gabriel Carroll)  
Journal of Mathematical Economics 62, 2016, 36-51.

We consider a moral hazard problem in which the principal has a slight uncertainty about how the agent's actions translate into output. An incentive contract can be made robust against an  $\varepsilon$  amount of uncertainty, at the cost of a loss to the principal on the order of  $\varepsilon^{1/2}$  by refunding a small fraction of profit to the agent. We show that as  $\varepsilon$  goes to zero, this construction is essentially optimal, in the sense of minimizing the worst-case loss, among all modifications to the contract that do not depend on the details of the environment.

## **WORKING PAPERS**

*Learning from Like-Minded People*

We study a social learning model in which people choose who to talk to and strategically exchange information. Agents start with heterogeneous priors about an unknown state of the world. First each agent chooses a partner. Then everyone observes a private i.i.d. signal and sends a message to her partner. Finally everyone takes an action based on her prior, her private signal, and her partner's message. Our main finding is that when the signal space and action space are binary, assortative matching arises in equilibrium, but it is generally inefficient for social welfare and information aggregation. In addition we construct counter-examples (non-assortative matching) in the case of multiple signals or multiple actions.

*How to Set a Deadline for Auctioning a House?* (with Alina Arefeva)  
Presented at the American Economic Association Meeting, 2017

We investigate the optimal choice of an auction deadline by a seller who commits to this deadline prior to the arrival of any buyers. In our model buyers have evolving outside options, and their bidding behaviors change over time. We find that if the seller runs an optimal auction, then she should choose a longer deadline. However, if the seller runs a second-price auction, then a shorter deadline could potentially help her. Moreover, the seller can extract information about buyers' outside options by selling them contracts similar to European call options. Finally, the optimal dynamic mechanism is equivalent to setting a longer deadline and running an auction in the last day.

## **WORK IN PROGRESS**

### *A Dynamic Model of College Admission*

We propose a model of college admission in which a university wants to maximize its total contribution to society's intellectual capital. A university is facing a budget constraint, so donors' preferences influence its admission and financial aid policy. A university must balance the trade-off between pleasing current donors and producing future donors (today's students become future donors). Our model helps explain why universities give preferential treatment to legacy, athletes, and under-represented minorities. We characterize the optimal admission and financial aid policy, and we analyze the comparative statics of donors' preferences. We also discuss the implications of our model, particularly on affirmative action.

### *Community and Motivated Belief* (with Daniel Walton)

We explore a model of motivated belief where a person chooses their community, and the community affects their belief. In the first period everyone is born in some community. Thereafter everyone could choose to join a different community at some switching cost. Once a person joins a community they adjust their beliefs according to the beliefs of everyone else in the community. A person's utility depends on the distance between their belief and the beliefs of others in the same community, and they could put different weights on different members (e.g. more weights on family and friends). We characterize the steady state community formation as well as the steady state beliefs. Applications include religious conversion and political affiliation.