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Contact Information

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Personal Information:

Citizenship: United States
Language: English (native)

Undergraduate Studies:

B.A., Economics (High Honors) and Mathematics, Oberlin College, 2014

Masters Level Work:

A.M., Economics, University of Pennsylvania, 2018

Graduate Studies:

University of Pennsylvania, 2014-2015 and 2016-present

Thesis Title: *Incentives and Information for Teams*

Expected Completion Date: May 2021

Thesis Committee and References:

Professor George J. Mailath (Advisor)
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Professor J. Aislinn Bohren
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Fields: Microeconomic Theory, Industrial Organization, Matching and Market Design

Teaching:

Sole Instructor

Fall 2017 ECON 101: Intermediate Microeconomics, University of Pennsylvania
Avg. Evaluation: 3.25 on a 0-4 scale.

TA (Graduate)

Spring 2020 ECON 682: Game Theory, University of Pennsylvania
Instructor: J. Aislinn Bohren Avg. Evaluation: 3.54 on a 0-4 scale.

TA (Undergraduate)

Fall 2019 ECON 013: Strategic Reasoning, University of Pennsylvania
Instructor: David Dillenberger Avg. Evaluation: 3.29 on a 0-4 scale.

Spring 2018 ECON 235: Industrial Organization, University of Pennsylvania
Instructor: J. Aislinn Bohren Avg. Evaluation: 3.40 on a 0-4 scale.

Spring 2017 ECON 211: Social Choice, University of Pennsylvania
Instructor: SangMok Lee Avg. Evaluation: 3.79 on a 0-4 scale.

Fall 2016 ECON 001: Intro Microeconomics, University of Pennsylvania
Instructor: Rebecca Stein Avg. Evaluation: 2.16 on a 0-4 scale.

Fall 2012/2013 ECON 255: Intro Econometrics, Oberlin College
Instructor: Barbara Craig

Teaching Awards and Training:

Spring 2018 Joel Popkin Graduate Student Teaching Prize in Economics
Fall 2017 Center for Teaching and Learning (CTL) Teaching Certificate

Research Assistance:

2020-present University of Pennsylvania, George J. Mailath and Rakesh V. Vohra
Spring 2019 University of Pennsylvania, Rohit Lamba
2018-2019 University of Pennsylvania, George J. Mailath and Andrew Postlewaite
Summer 2017 University of Pennsylvania, Camilo Garcia-Jimeno
Summer 2013 Boston University, Laurence J. Kotlikoff
Spring 2012 Oberlin College, Ron Cheung

Other Employment:

Summer 2018 Copy Editor for "Modeling Strategic Behavior" by George J. Mailath
2013-2014 Oberlin College, Academic Ambassador (Peer Advisor)
Spring 2013 White House Council of Economic Advisers, Intern
Summer 2012 United States Department of Justice, Antitrust Division, Intern

External Presentations

2021 6th World Congress of the Game Theory Society (scheduled)
2020 12th World Congress of the Econometric Society
2018 29th Stony Brook International Conference on Game Theory
2018 Pennsylvania Economic Theory Conference (poster)
2017 28th Jerusalem School in Economic Theory (poster)

Scholarships and Honorary Societies:

2014-2019 University Fellowship, University of Pennsylvania
2014 Phi Beta Kappa, Oberlin College
2014 Omicron Delta Epsilon, Oberlin College

Research Papers:

Robust Performance Evaluation (Job Market Paper)

Can team-based incentive pay be justified in the absence of task interdependency or correlation in individual performances? My paper answers: Yes, if *robustness* is a concern. In a moral hazard in teams model in which a principal knows that the agents she compensates are identical and technologically independent, but does not know all of the common actions they can take, I show that any worst-case optimal contract is *nonlinear* with respect to total output and exhibits *joint performance evaluation*. This result establishes a fundamentally new channel leading to the optimality of joint performance evaluation and formalizes a longstanding idea that interdependent incentive schemes are advantageous due to their flexibility. It contrasts with the recent literature on robust contracting with unbounded uncertainty, which finds *linear* incentive schemes to be worst-case optimal, and with the classical theory of incentives, which finds *independent performance evaluation* to be Bayesian optimal.

The Optimal Assortativity of Teams Inside the Firm (with Carlos Segura-Rodriguez)

How does a profit-maximizing manager form teams and compensate workers in the presence of both adverse selection and moral hazard? Under complete information, it is well known that any complementarity in characteristics implies that positive assortative matching is productively efficient. But, under asymmetric information, we uncover the problem of *disassortative incentives*: incentive costs may increase in assortativity. Profit maximization thus prescribes either random or negative assortative matching, both productively inefficient, when complementarities are weak and effort costs are high enough. When this is the case, the manager may instead prefer to delegate matching, allowing workers to sort themselves into teams. Our results shed light on recent empirical work documenting patterns of non-assortative matching inside of firms.

Matching to Produce Information: A Model of Self-Organized Research Teams (with Carlos Segura-Rodriguez and Peng Shao)

In recent decades, research organizations have brought the “market inside the firm” by allowing workers to sort themselves into teams. How do research teams form absent a central authority? We introduce a model of team formation in which workers first match and then non-cooperatively produce correlated signals about an unknown state. We uncover a novel form of moral hazard: an efficient team of workers producing complementary signals may be disrupted if one of its members can form an inefficient team in which she exerts less effort. This inefficiency rationalizes targeted management interventions which designate specific workers as “project leaders” with more assumed responsibilities.

Payoff Continuity in Games of Incomplete Information: An Equivalence Result

Monderer and Samet (1996) and Kajii and Morris (1998) define notions of proximity for countable, common prior information structures that preserve equilibrium payoff continuity. Monderer and Samet (1996) fix a common prior and perturb lists of partitions, while Kajii and Morris (1998) fix a type space and perturb common priors. Due to these differences, the precise relationship between the two papers has remained an open question. We establish an equivalence between them by mapping pairs of partition lists to pairs of common priors, and vice-versa. The key condition of the mapping ensures that belief types are changed independently of payoff types in the Kajii and Morris (1998) perturbation.

Research Papers in Progress:

Search Committees with Disparate Costs (with S. Nageeb Ali and J. Aislinn Bohren)