UNIVERSITY of PITTSBURGH

Center for Analytical Approaches to Social Innovation
Graduate School of Public and International Affairs

PRESENTS THE 50TH ANNIVERSARY

NATIONAL BUREAU OF ECONOMIC RESEARCH DECENTRALIZATION CONFERENCE

MECHANISM DESIGN FOR VULNERABLE POPULATIONS

APRIL 15 - 17, 2021

REGISTER NOW

We are delighted to share that the 2021 NBER Decentralization conference, which had to be postponed from 2020 due to COVID-19, will take place virtually on April 15-17 this year! This conference series is funded by the National Science Foundation and is administered through the National Bureau of Economic Research (NBER). This is the 50th anniversary of the Decentralization conference - the first Decentralization Conference was held at UC Berkeley in 1971.

The goal of this year's conference is to apply and extend mechanism design to the practical needs of institutions that serve vulnerable populations. These populations pose conceptual and technical challenges for the designer due to the high stakes decision making environments, complex constraints on agents' action space, and the cumulative effects of disadvantaged participation in previous mechanisms. We are excited to have Tuomas Sandholm (Carnegie Mellon University) and M. Utku Unver (Boston College) as keynote speakers. Carissa Slotterback (GSPIA Dean, University of Pittsburgh) and Chris Shannon (UC Berkeley) will give introductory remarks.

Talks (including discussions) are 30-45 minutes and span general mechanism design theory as well as topics such as matching and assignment problems in foster care, refugee resettlement, low-income housing, affirmative action, and criminal justice. Each module will be followed by an open 20-30 minute chat between presenters, audience and discussants. Modules B and C will include conversations with practitioners.

Organizers:	**Program Committee:**
Sera Linardi (University of Pittsburgh)	Rediet Abebe (Harvard University)
Scott E. Page (University of Michigan)	Yan Chen (University of Michigan)
Alexander Teytelboym (University of Oxford)	Selman Erol (Carnegie Mellon University)
	Osea Giuntella (University of Pittsburgh)
Robizon Khubulashvili (University of Pittsburgh)	Daniel B. Jones (University of Pittsburgh)
	John Ledyard (California Institute of Technology)
Mallory Avery (University of Pittsburgh)	Irene Lo (Stanford University)
Prottoy A. Akbar (University of Pittsburgh)	Adam Kapor (Princeton University)
Daniel Pieratt (University of Pittsburgh)	Luca Rigotti (University of Pittsburgh)
	M. Utku Unver (Boston College)
	Richard Van Weelden (University of Pittsburgh)
	M. Bumin Yenmez (Boston College)

2021 NBER Decentralization Conference: Mechanism Design for Vulnerable Populations

Module A: Theory 1, Thu April 15, 12:00 - 14:20 EST
Module F: Theory 2, Sat April 17, 12:00 - 14:40 EST

Module A focuses on big data, machine learning, and fairness in AI with motivating examples from criminal justice and the insurance industry. Module F presents three papers on the current advances in classic mechanism design.

Register for Modules A & F at http://tinyurl.com/DeCent21

Keynote: Sample Complexity of Mechanism Design
Presenter: Tuomas Sandholm (Carnegie Mellon University) is the first recipient of the Angel Jordan Professorship in Computer Science and a serial entrepreneur. His research focuses on the convergence of artificial intelligence, economics, and operations research. He is the Co-Director of CMU AI and the Founder and Director of the Electronic Marketplaces Laboratory. With over 500 published peer-reviewed papers, he has an h-index of 86. **12:00 - 12:40 April 15**

Inverse Selection

Presenter: Rohit Lamba (Penn State University) is an economist at Pennsylvania State University currently doing research on behavioral epidemiology, big data in insurance, dynamic pricing, dynamic choice, and treasury auctions. **12:40 - 13:20 April 15**

Fair Prediction with Endogenous Behavior

Presenter: Changhwa Lee (University of Pennsylvania) is a Ph.D. student studying microeconomic theory, information design, and information theory along with their applications to algorithmic fairness, the economics of data, and statistical calibration. **13:20 - 14:00 April 15**

Module A discussion with the presenters, Alex Albright (Harvard University), and Bo Cowgill (Columbia Business School). **13:20 - 14:00 April 15**

Module F Introduction: Chris Shannon (University of California, Berkeley), is the Richard and Lisa Steiny Professor of Economics and a Professor of Mathematics. She is one of the leading economic theorists of her cohort and has been especially influential in the incorporation of theories of choice under ambiguity into general equilibrium theory. **12:00 - 12:10 April 17**

Informationally Simple Implementation

Presenter: Agathe Pernoud (Stanford University) is a Ph.D. candidate in Economics. Her work focuses on microeconomic theory, especially that related to mechanism design, and behavioral economics. **12:10 - 12:50 April 17**

Learning with Limited Memory: Bayesianism vs Heuristics

Presenter: Tai-Wei Hu (University of Bristol) is a Professor of Economics. His main research interests include game theory, bounded rationality, monetary economics, macro-finance, financial networks, and credit markets. **12:50 - 13:30 April 17**

Adapting the Groves-Ledyard Mechanism to Reduce Failures of Individual Rationality

Presenter: Paul J. Healy (Ohio State University) is a Professor of Economics. His primary interests are economic theory and game theory. He uses both theoretical and experimental methodologies in his work, much of which is centered on mechanism design theory and behavioral mechanism design. **13:30 - 14:10 April 17**

Module F discussion with the presenters, Doron Ravid (University of Chicago), Simon Grant (Australian National University), and John Ledyard (Caltech). **14:10 - 14:30 April 17**

2021 NBER Decentralization Conference: Mechanism Design for Vulnerable Populations

Module B: Research to Practice, Thu April 15, 14:30 - 17:30 EST

Talks and focused discussions with practitioners and academics on practical issues in service provision: assigning the vulnerable to resources (in foster care, nutritional assistance, and post-incarceration services) and encouraging experts to volunteer.

Register for Module B at http://tinyurl.com/DeCent21

Opening Remarks*:* Carissa Slotterback is the Dean of the Graduate School of Public and International Affairs (GSPIA). She has an extensive background in developing strategic initiatives to advance interdisciplinary and engaged research. **14:30 - 14:40**

Motivating Experts to Contribute to Public Goods: A Field Experiment on Wikipedia

Presenter: Yan Chen (University of Michigan) is the Daniel Kahneman Collegiate Professor of Information. She is a leader in behavioral market design research and its implementation in real-world labor markets. **14:40 - 15:15**

Who Gets Placed Where and Why? An Empirical Framework for Foster Care Placement

Presenter: Alejandro Robinson-Cortes (University of Exeter) is an economist working at the intersection of empirical industrial organization and market design. **15:15 - 15:50**

Behavioral Food Subsidies: An Experiment with SNAP

Presenter: Andy Brownback (University of Arkansas) is an Assistant Professor of Economics who uses laboratory, field, and online experiments to study questions about education and public policy. **15:50 - 16:25**

Service Utilization Among the Previously Incarcerated

Presenter: Sera Linardi (University of Pittsburgh) is an Associate Professor of Economics who does extensive experimental and community engagement work. She directs the Center for Analytical Approaches in Social Innovation (CAASI). **16:25 - 17:00**
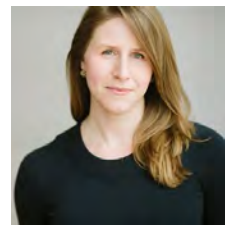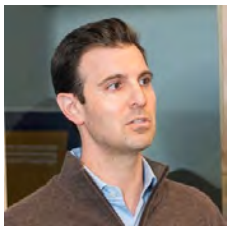
Breakout discussion on motivating highly-skilled professionals to volunteer their talent for social good, along with the long-term effects of heterogeneity in the quality of foster care, measurements of the effectiveness of nutrition assistance programs, and the role of wraparound services in reintegration and reentry

with (left to right)
(row one) Chris Deluzio (Pitt Cyber), Jana Gallus, (UCLA Anderson), Joseph Doyle (MIT Sloan), Mike Shaver (Children's Home & Aid), Erin Henderlight (Benefits Data Trust),
(row two) Osea Giuntella (University of Pittsburgh), Deacon Keith Kondrich (Foundation of HOPE), Rev. Anais Hussian (Foundation of HOPE) and Jennifer Doleac (Texas A&M Justice Tech Lab) **17:00 - 17:30**

Module C: Migration and Refugees, Fri April 16, 9:00 - 12:00 EST

Module C brings together academics across disciplines as well as international, national, and local practitioners to discuss the current refugee crisis. The module will explore the huge scope for (re)design of institutions. In addition to a presentation and a panel, we will host three problem-solving sessions to help academics get acquainted with the challenges facing refugees and practitioners and to allow practitioners to tap into the expertise of the academic community.

Register for Module C at http://tinyurl.com/DeCent21

Opening Remarks*: "Mechanism Design to Help Refugees"* Tommy Andersson (Lund University) is a Swedish economist and one of the founders of the Scandiatransplant Paired Kidney Exchange Program and a co-founder of project Annie MOORE (Matching and Outcome Optimization for Refugee Empowerment), the world's first software that helps resettlement agencies optimize their initial placement of refugees within host countries. **9:00 - 10:00**

Practitioner Panel: 10:00 - 11:00
What are the main roadblocks to improving the lives of refugees? Perspectives from work on local, national, and international levels will be shared by the following panelist:

Kheir Mugwaneza is the Senior Program Manager at the Center for Inclusion Health at Allegheny Health Network. There, he serves as a liaison between the growing immigrant community and Allegheny Health Network through the Immigrant Health Program. He has served refugees for more than 10 years in his previous role at Catholic Charities of Pittsburgh and at NAMS.

Alicia Wrenn is the Senior Director of Resettlement and Integration at HIAS, the oldest refugee resettlement organization in the world, which dates back to the 1880s. HIAS works in 16 countries, protecting refugees who have been forced to flee their homelands due to their identities as ethnic, religious, and sexual minorities.

Alexander Betts is the Leopold Muller Professor of Forced Migration and International Affairs at the University of Oxford. He served as Director of the Refugee Studies Centre between 2014 and 2017; his research focuses mainly on the political economy of refugee assistance, with a focus on Africa.

Problem-solving Sessions: 11:00 - 12:00
"Implementing Tools for Refugee Resettlement" These problem-solving sessions will be split into three area groupings: local issues, national issues, and international issues. They will be led by the following moderators:

Local issues: Ariel Procaccia is the Gordon McKay Professor of Computer Science at Harvard University. He works on a broad and dynamic set of problems related to AI, algorithms, economics, and society. To make his research accessible to the public, he founded the not-for-profit websites Spliddit.org and RoboVote.org and regularly contributes opinion pieces.

Alexander Teytelboym is an Associate Professor of Economics at the University of Oxford. He is a co-founder of project Annie MOORE (with Tommy Andersson) and Refugees.AI, an organization that is developing new technology for refugee resettlement. His research interests lie in market design and the economics of networks.

National issues: Irene Lo is an Assistant Professor in the Department of Management Science & Engineering at Stanford University. Her research builds on tools from algorithms and economics to design matching markets and assignment processes with a focus on public sector and non-profit applications.

International issues: Rediet Abebe is an Assistant Professor of Computer Science at UC Berkeley and a Junior Fellow at the Harvard Society of Fellows. Her research is in artificial intelligence and algorithms with a focus on equity and justice concerns. She co-founded the Mechanism Design for Social Good (MD4SG) research initiative and Black in AI.

Module D: Reducing Educational Disparities, Fri April 16, 14:00 -17:30 EST

This module addresses various mechanisms used to decrease educational disparities between groups, including their intended and unintended consequences. Follow-up discussions will address connecting the results of these works to practical policy implications.

Register for Module D at http://tinyurl.com/DeCent21

Keynote: A Market Design Solution to Unfair Distribution of Teachers in Schools

Presenter: M. Utku Unver (Boston College) is a leader in matching market design, using theoretical concepts to design matching markets for school choice and organ donation. He helped found and co-designed the matching algorithm for the New England Program for Kidney Exchange and the Alliance for Paired Donation, advised for the Pennsylvania State-wide Adoption Network, and advised for the national kidney exchange program. **14:00 - 14:45**

Standardized Tests and Affirmative Action: The Role of Bias and Variance

Presenter: Faidra Monachou (Stanford University) is a Ph.D. Candidate in Operations Research studying the real-life socioeconomic problems of discrimination, diversity, and inequality that arise in markets and on digital platforms. **14:45 - 15:30**

Identifying the Sources of Returns to College Education Using Affirmative Action Policy

Presenter: Brent Hickman (Washington University in St. Louis) is an Assistant Professor in Economics using mechanism design, experiments, and applied techniques to analyze auction design as well as the impact of affirmative action in higher education. **15:30 - 16:15**

Affirmative Action with Overlapping Reserves

Presenter: M. Bumin Yenmez (Boston College) uses mechanism design and choice theory to analyze and develop markets for affirmative action and diversity, school choice, organ donation and allocation, and fair resource allocation. The market design from his paper "Effective Affirmative Action in School Choice" has been implemented in various school systems. **16:15 - 17:00**

Breakout discussions on centralized markets for teachers, best uses for affirmative action, policy alternatives to affirmative action, and the impact of standardized testing

with Jonah Rockoff (Columbia), Camille Terrier (HEC Lausanne), M. Najeeb Shafiq (University of Pittsburgh), Caterina Calsamiglia (IPEG), Umut Dur (North Carolina State University), Neeraja Gupta (University of Pittsburgh), Scott Duke Kominers (Harvard), and Julien Combe (Ecole Polytechnique) **17:00 - 17:20**

2021 NBER Decentralization Conference: Mechanism Design for Vulnerable Populations

Module E: Targeting Vulnerable Populations, Sat April 17, 9:00 - 11:45 EST

A substantial barrier to assisting vulnerable populations is the effective targeting of that assistance. These research talks propose methodological innovations to improve targeting in the design of experiments, subsidies, and waitlists. Talks will be followed by open discussions on each topic. **Register for Module E at** http://tinyurl.com/DeCent21

Incorporating Ethics and Welfare Into Randomized Experiments

Presenter: Yusuke Narita (Yale University) studies the design of education and labor markets. His paper proposes an experimental design for randomized controlled trials (RCTs) to efficiently allocate participants with the greatest needs into treatments. The approach is then applied to a water cleaning experiment in Kenya. **9:00 - 9:45**

Pricing People Into the Market: Targeting Through Mechanism Design

Presenter: Terence Johnson (University of Virginia) studies informational and institutional inefficiencies in developing countries. His paper proposes a price-setting mechanism to strategically distribute subsidy aid to poor households and applies the solution to the use of a human fecal sludge removal service in Burkina Faso. **9:45 - 10:30**

Design of Lotteries and Waitlists for Affordable Housing Allocation

Presenter: Nick Arnosti (Columbia University) studies market designs with an emphasis on the allocation of social goods. His paper investigates how the allocation of affordable housing could better target individuals with the greatest needs while matching individuals to housing that is well-suited to those needs. **10:30 - 11:15**

Breakout discussions on deploying adaptive designs in experiments, non-pecuniary options for aid programs, and allocation of public housing with Vivek Bhattacharya (Northwestern University), Bibhas Chakraborty (Duke-NUS), Michael Hamilton (University of Pittsburgh), Maximilian Kasy (Oxford University), Dilip Mookherjee (BU), Anja Sautmann (World Bank), and Daniel Waldinger (NYU). **11:15 - 11:45**