

# Selman Erol

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## Employment

Assistant Professor, CMU Tepper School of Business, 2017 - current

Postdoctoral Associate, MIT Department of Economics, 2016 - 2017, hosted by Daron Acemoglu

## Other Appointments

Director of Undergraduate Research in Economics, CMU Tepper School of Business, 2022 - current

Member, Finance Theory Group, 2016 - current

## Education

Ph.D. Economics, University of Pennsylvania, 2016

Dissertation: *Network Formation and Its Impact on Systemic Risk*. Advised by Rakesh Vohra

M.A. Economics, Bilkent University, 2009

B.Sc. Mathematics, Bilkent University, 2007

## Research

### *Journal Publications*

- Contagion in Graphons  
with Francesca Parise and Alexander Teytelboym  
**Journal of Economic Theory**, 211: 105673, 2023
- Relationship Externalities  
with Rakesh Vohra  
**Journal of Economic Theory**, 206: 105567, 2022
- Network Formation and Systemic Risk  
with Rakesh Vohra  
**European Economic Review**, 148: 104213, 2022
- Network Reactions to Banking Regulations  
with Guillermo Ordoñez  
**Journal of Monetary Economics** CRNYU, 89: 51-67, 2017
- Negative Certainty Independence without Betweenness  
with David Dillenberger  
**Economics Letters**, 120(3): 596-598, 2013
- Existence, Optimality and Dynamics of Equilibria with Endogenous Time Preference  
with Cuong LeVan and Cagri Saglam  
**Journal of Mathematical Economics**, 47: 170-179, 2011

### *Other Publications*

- Poster: Timestamp Verifiability in Proof-of-Work  
with Tzuo Hann Law and Lewis Tseng, [**MobiHoc 2023**]
- Extended abstract: Contagion in Graphons  
with Francesca Parise and Alex Teytelboym, [**EC 2020**]

### *Working Papers*

- Interbank Networks in the Shadows of the Federal Reserve Act  
with Haelim Anderson and Guillermo Ordoñez  
Revise and resubmit at **Review of Economic Studies**  
Western Finance Association, Elsevier **Best Paper** on Financial Institutions, 2020
- Civil Liberties and Social Structure  
with Camilo García-Jimeno  
Revise and resubmit at **Journal of Economic Theory**
- Insider Networks  
with Michael Junho Lee  
Revise and resubmit at **Journal of Economic Theory**
- Regulating Clearing in Networks  
with Pablo D'Erasmus and Guillermo Ordoñez  
**Submitted**
- Network Hazard: Resilience and Moral Hazard in Network Formation  
**Submitted**
- Network Hazard and Bailouts  
Finance Theory Group, **Best Job Market Paper**, Runner-up Prize, 2016
- Financial System Architecture and Technological Vulnerabilities  
with Michael Junho Lee
- Network Hazard and Superspreaders  
with Musa Eren Celdir
- Stability Pass-through to Shadow Banking  
with Haelim Anderson and Guillermo Ordoñez
- Social and Economic Distancing  
with Guillermo Ordoñez

### *Work in progress*

- Politics of Bailouts and Democratic Risk Shifting
- Inefficient Lending Chains and Financial Collapse (with Daron Acemoglu)
- Excessive Complexity in Financial Products (with Daron Acemoglu)
- The (in)Security of Platforms (with Michael Junho Lee)
- Agency Independence and Regulatory Capture (with Stephen E. Spear)
- Strong Stability and Contagion

### **Presentations**

*Upcoming:* Econometric Society NAWM , U. Maryland.

2024: Pan Asian Macro-Finance, Stony Brook Game Theory, Essex-UCL Decentralized Financial Markets, Bosphorus Workshop in Economic Design, FED Interconnectedness of Financial Systems.

2023: UW Madison, Ozyegin U., Retreat on Information Networks and Social Economics, Search and Matching in Macro and Finance, Institute for Mathematical Sciences NUS Workshop on Games on Networks, Western Finance Association, Bank of Canada Networks in Finance, Financial Intermediation Research Society, Society for Financial Studies Cavalcade, NSF Network Science.

2022: European Finance Association.

2020: UT Austin McCombs (brownbag), American Finance Association (discussion), Federal Reserve Short-Term Funding Markets, USC Fixed Income and Financial Institutions, Western Finance Association.

2019: Stony Brook U., Einaudi Institute for Economics and Finance, U. Bristol, U. Edinburgh, U. Cambridge, U. Oxford, Oxford Said, LBS, PSE, IESE Business School, Wash.U. Corporate Finance (discussion), Federal Reserve Short-Term Funding Markets (discussion), Retreat on Information Networks and Social Economics, Society for Economic Dynamics, Tepper-LAEF, NBER Summer Institute, NSF Network Science, Pennsylvania Economic Theory, Barcelona GSE Summer Forum.

2018: Sabanci SOM, Cleveland FED, Bilkent U., U.Miami, CSEB, U.Penn Warren Center, Columbia U. INET, Laboratory for Aggregate Economics and Finance OTC workshop, NSF Network Science Co.

2017: Yale SOM, Office of Financial Research, MIT Econ (brownbag), MIT LIDS, U.Pitt, PUCC, Yale Cowles Macro (discussion), USC Fixed Income and Financial Institutions (discussion), Society for Economic Dynamics, Finance Theory Group, NASN, Laboratory for Aggregate Economics and Finance OTC workshop.

2016: UNC Chapel Hill, Columbia U. INET, Boston U., U. Rochester, JHU Carey, U. Maryland Smith, CMU Tepper, MIT Sloan, IFRRG Philadelphia FED Co., Bosphorus Workshop in Economic Design, Carnegie-Rochester-NYU, Econometric Society Summer Meeting, NSF Network Science.

2015: Philadelphia FED, CMU Tepper, Midwest Economic Theory, World Congress of the Econometric Society, Econometric Society Summer School, NSF Network Science.

## Organization

Co-organizer, Workshop on Networks in Finance, Warren Center, UPenn, 2023 (with Ordoñez and Vohra)  
Program Committee, NSF/NBER/CEME Decentralization, 2021

Program Committee, SED, 2019,2021

Co-organizer, Tepper-LAEF, 2019 (with Davydiuk, Gupta, and Kydland)

Co-organizer, FTG Spring Meeting, 2019 (with Gupta and Zetlin-Jones)

Co-organizer, Workshop on Networks and Systemic risk, Warren Center, UPenn, 2015 (with Vohra)

## Referee Service

American Economic Review, Econometrica, Journal of Political Economy, Journal of Finance, Review of Financial Studies, Management Science, American Economic Journal: Microeconomics, Economic Theory, European Economic Review, Games and Economic Behavior, International Economic Review, International Journal of Central Banking, International Journal of Game Theory, Journal of Economic Behavior & Organization, Journal of Economic Dynamics and Control, Journal of Economic Theory, Journal of European Economic Association, Journal of Financial Services Research, Journal of Monetary Economics, Journal of Public Economics, Mathematical Social Sciences, National Science Foundation, Theoretical Economics, Theory and Decision.

## Honors, Awards, and Grants

- Elsevier **Best Paper** on Financial Institutions, Western Finance Assoc., 2020
- **National Science Foundation** Grant 1919351, 2019-2023

- Richard M. Cyert **Excellence in Teaching** Award, CMU, 2019
- Hakan Orbay **Young Researcher** Award, Sabanci University, 2018
- The Berkman Faculty Development grant, CMU, 2018
- William Polk Carey Prize for **best dissertation**, UPenn, 2017 (shared with Max Wei)
- **Young Scholar** Award, Turkish American Scientists and Scholars Association, 2017
- Second place for **Best Job Market Paper** Award, Finance Theory Group, 2016
- Lawrence Robbins Prize for **best student** in the first year, UPenn 2010 (shared with Zehao Hu)
- Silver Medal, 44th **International Math Olympiads**, Japan, 2003

## Teaching and advising

### *Teaching*

- Undergraduate Intermediate Microeconomics, ECO-73230, CMU, 2017-2021, 2022-present  
Richard M. Cyert **Excellence in Teaching Award**, CMU, 2019
- Doctoral Economics of Networks, BUS-47886, CMU, 2022-present
- Undergraduate Game Theory for Economists, ECO-73347, CMU, 2019-2021

### *Advising*

- **Director of Undergraduate Research** in Economics, CMU, 2022 - current
- Undergraduate advising at CMU: Buckley DeJardin, Margaret Chai, Joanna Tan
- Doctoral advising at CMU: Zahra Ebrahimi (Finance), Musa Eren Celdir (Operations Management), Ali Oguz Polat (Economics)