

TOPICS IN MICROECONOMICS B
Universidad Carlos III-Spring 2023
Professor: Antonio Cabrales

A. Experimental Economics

Course Description:

Within the past few decades, experimental economics has proven useful in testing the validity of standard economic theories. When human behaviour departs from standard theories, new theories are constructed to better explain the data. Economic experiments replicate real-world incentives and are conducted either in the laboratory or in the field. This course will review some active research areas in experimental economics. The course will also cover important methodological tools used in designing, running and making use of experimental data.

Textbooks:

- Experimental Economics – Vol. I: Economic Decisions and Vol. II: Economic Applications (2015), edited by Pablo Brañas-Garza and Antonio Cabrales. Springer Nature.
- Handbook of Experimental Economics Results (2008), edited by Charles Plott and Vernon Smith. Elsevier.
- Behavioral Game Theory: Experiments in strategic interaction (2003), by Colin Camerer. Princeton University Press.
- The Handbook of Experimental Economics Vols 1 and 2 (1997, 2016), edited by Alvin Roth and John Kagel. Princeton University Press.
- Experimental Economics (1992), by Douglas Davis and Charles Holt. Princeton University Press.

Lecture Topics:

1. Practical aspects of experimental design.
2. Cheap talk: language evolution (Blume et al, 1998, 2001); Lying aversion (Sanchez-Pages and Vorsatz, 2007; Wang et al, 2010); Deception (Gneezy 2005); Promises (Charness and Dufwenberg 2006); market for information (Cabrales et al. 2020).
3. Trust, and social preferences: trust (Berg, Dickhaut and McCabe, 1995, Zak and Knack 2001, Algan and Cahuc 2010, Johnson and Mislin 2010), trust and institutions (Aghion et al. 2010, Pinotti 2012, Cabrales et al. 2020), trust and reflection (Rand 2016, Cabrales et al. 2017), Social preferences (Fehr and Schmidt 1999, Charness and Rabin 2002, Levitt and List 2007, Cabrales et al. 2010, Cabrales and Ponti 2017).
4. Political economy: Voting (Palfrey 2009); market for votes (Casella, Llorente-Saguer, Palfrey 2012); redistribution (Cabrales, Nagel, Rodríguez-Mora 2012).
5. Experiments in networks: coordination (Keser et al. 1998, Berninghaus et al 2002, Cassar 2007), strategic complements games (Gallo and Yan 2015), strategic substitutes games (Rosenkrantz and Weitzel 2012, Goyal et al. 2017).

Assessment:

You will need to submit a fully worked out experimental paper proposal. The paper needs to be well motivated and carefully written with a thoughtful connection to an organizing piece of theory and relevant previous experimental literature. The paper should also give a very specific description of how each of the paper's hypotheses will be tested with reference to appropriate statistical tests/techniques.

References:

Cheap talk

- Blume, A., DeJong, D. V., Kim, Y. G., & Sprinkle, G. B. (1998). Experimental evidence on the evolution of meaning of messages in sender-receiver games. *American Economic Review*, 1323-1340.
- Blume, A., DeJong, D. V., Kim, Y. G., & Sprinkle, G. B. (2001). Evolution of communication with partial common interest. *Games and Economic Behavior*, 37(1), 79-120.
- Antonio Cabrales, Francesco Feri, Piero Gottardi, and Miguel Angel Meléndez (2020), Can there be a market for cheap-talk information? Some experimental evidence. *Games and Economic Behavior*, 121: 368-381.
- Charness, G., & Dufwenberg, M. (2006). Promises and partnership. *Econometrica*, 74(6), 1579-1601.
- Crawford, V. P., & Sobel, J. (1982). Strategic information transmission. *Econometrica*, 50(6), 1431-1451.
- Gneezy, U. (2005). Deception: The role of consequences. *American Economic Review*, 95(1), 384-394.
- Wang, J. T. Y., Spezio, M., & Camerer, C. F. (2010). Pinocchio's Pupil: Using eyetracking and pupil dilation to understand truth telling and deception in sender receiver games. *American Economic Review*, 100(3), 984-1007.

Trust

- Aghion, Philippe, Yann Algan, Pierre Cahuc, & Andrei Shleifer (2010), "Regulation and Distrust", *Quarterly Journal of Economics* 125 (3), 1015-1049.
- Algan, Yann, & Pierre Cahuc (2010), "Inherited Trust and Growth," *American Economic Review* 100, 2060-2092.
- Berg, Joyce E., John W. Dickhaut, & Kevin McCabe (1995), "Trust, Reciprocity, and Social History," *Games and Economic Behavior* 10, 122-142.
- Antonio Cabrales, Irma Clots-Figueras, Roberto Hernán-González and Praveen Kujal (2020), Institutions, opportunism and prosocial behavior: Some experimental evidence.
- Johnson, Noel D., & Alexandra A. Mislin (2011), "Trust games: A meta-analysis." *Journal of Economic Psychology* 32: 865-889.
- Jordan, Jillian J., Moshe Hoffman, Martin A. Nowak, and David G. Rand, (2016) "Uncalculating cooperation is used to signal trustworthiness." *Proceedings of the National Academy of Sciences* 113.31: 8658-8663.
- Pinotti, Paolo (2012), "Trust, Regulation and Market Failures," *Review of Economics and Statistics* 94, 650-658.
- Zak, Paul J., and Stephen Knack. (2001), "Trust and growth." *The economic journal* 111.470: 295-321.

Social preferences

- Antonio Cabrales, Raffaele Miniaci, Marco Piovesan and Giovanni Ponti (2010), Social Preferences and Strategic Uncertainty: an Experiment on Markets and Contracts. *American Economic Review*, 100:2261-2278.
- Charness, Gary, and Matthew Rabin. 2002. "Understanding Social Preferences with Simple Tests." *Quarterly Journal of Economics*, 117(3): 817–69.
- Fehr, Ernst, and Klaus M. Schmidt. 1999. "A Theory of Fairness, Competition, and Cooperation." *Quarterly Journal of Economics*, 114(3): 817–68.
- Levitt, Steven D., and John A. List. "What do laboratory experiments measuring social preferences reveal about the real world?." *Journal of Economic perspectives* 21.2 (2007): 153-174.

Political Economy

- Casella, Alessandra, Aniol Llorente-Saguer, and Thomas R. Palfrey (2012). "Competitive equilibrium in markets for votes." *Journal of Political Economy* 120.4: 593-658.
- Palfrey, Thomas R. (2009) "Laboratory Experiments in Political Economy," *Annual Review of Political Science* 12:379–88.
- Cabrales, Antonio, Rosemarie Nagel, and José V. Rodríguez Mora (2012). "It is Hobbes, not Rousseau: an experiment on voting and redistribution." *Experimental Economics* 15.2: 278-308.

Social networks

- Berninghaus, Siegfried K., Karl-Martin Ehrhart, and Claudia Keser. "Conventions and local interaction structures: experimental evidence." *Games and Economic Behavior* 39.2 (2002): 177-205.
- Cassar, Alessandra (2007). "Coordination and cooperation in local, random and small world networks: Experimental evidence." *Games and Economic Behavior* 58.2 (2007): 209-230.
- Gallo, Edoardo, and Chang Yan (2015). "Efficiency and equilibrium in network games: An experiment."
- Goyal, Sanjeev, Rosenkranz, S., Weitzel, U., & Buskens, V (2017). "Information acquisition and exchange in social networks." *The economic journal* 127.606 (2017): 2302-2331.
- Keser, Claudia, Karl-Martin Ehrhart, and Siegfried K. Berninghaus (1998). "Coordination and local interaction: experimental evidence." *Economics Letters* 58: 269-275.
- Rosenkranz, Stephanie, and Utz Weitzel (2012). "Network structure and strategic investments: An experimental analysis." *Games and Economic Behavior* 75.2: 898-920.

B. Social and Economic Networks

Course description:

Networks pervade socio-economic life. They also pervade our discipline. The work in the area has connections with many different sub-fields of game theory, from cooperative games, to refinements, evolutionary games, bargaining and other interesting topics. At the same time there are numerous applications in different fields. Just to name a few: industrial organization, labor economics, organization theory and information theory. So I expect this course to be of interest to people coming from many different backgrounds.

Textbooks:

- Social and Economic Networks (2007), by Matthew O. Jackson. Princeton University Press-
- Connections: An Introduction to the Economics of Networks (2007), by Sanjeev Goyal. Princeton University Press.
- Complex Social Networks (2007), by Fernando Vega-Redondo. Cambridge University Press.
- The Oxford handbook of the economics of networks (2016), edited by Yann Bramoullé, Andrea Galeotti, and Brian Rogers. Oxford University Press.

Lecture topics:

1. Network formation: stability and efficiency (Jackson and Wolinsky 1996).
2. Games played on networks I, strategic complements (Ballester, Calvó-Armengol and Zenou 2006, Cabrales, Calvó-Armengol and Zenou 2011).
3. Games played on networks II, strategic substitutes (Bramoullé and Kranton 2007, 2014).
4. Games played on networks III, information and coordination (Morris 2000, Chwe 2000, Galeotti and Goyal 2010).
5. Financial contagion in networks (Acemoglu, Ozdaglar, and Tahbaz-Salehi 2015, Elliott, Golub and Jackson 2014, Cabrales, Gale and Gottardi 2016, Cabrales, Gottardi and Vega-Redondo 2017).

Assessment

Each of you will read, present and write a review of either a chapter of the Oxford Handbook, or a specific paper in the area, after consulting with the lecturer.

References

Network formation

M. Jackson and A. Wolinsky (1996), "A Strategic Model of Economic and Social Networks," *Journal of Economic Theory*, 71:44-74.

Games played on fixed networks I, strategic complements

C. Ballester, A. Calvó-Armengol and Y. Zenou (2006), "Who's Who in Networks. Wanted: The Key Player," *Econometrica* 75:1403-1418.

Antonio Cabrales, Antoni Calvó-Armengol and Yves Zenou (2011), Social Interactions and Spillovers: Incentives, Segregation and Topology. *Games and Economic Behavior*, 72:339-360.

Games played on fixed networks II, strategic substitutes

Y. Bramoullé and R. Kranton (2007), "Public Goods in Networks" , *Journal of Economic Theory* , 135:478-494.

Bramoullé, Yann, Rachel Kranton, and Martin D'amours. "Strategic interaction and networks." *American Economic Review* 104.3 (2014): 898-930.

Games played on fixed networks III, communication and coordination

S. Morris (2000), "Contagion," *Review of Economic Studies*, 67:57-78.

M. Chwe (2000), "Communication and Coordination in Social Networks," *Review of Economic Studies*, 67:1-16.

A. Galeotti, Andrea, and S. Goyal (2010) "The law of the few." *American Economic Review* 100 1468-92.

Contagion in financial networks

Acemoglu, D., A. Ozdaglar, and A. Tahbaz-Salehi. 2015. Systemic Risk and Stability in Financial Networks. *American Economic Review* 105:564-608

Cabrales, A., D. Gale and P. Gottardi. 2016. Financial Contagion in Networks. In Y. Bramoullé, A. Galeotti and B.W. Rogers (Eds.), *The Oxford Handbook of Network Economics*. Oxford: OUP.

Antonio Cabrales, Piero Gottardi and Fernando Vega (2017), Risk Sharing and Contagion in Networks. *Review of Financial Studies*, 30:3086-3127.

Elliott, M., B. Golub and M. O. Jackson. 2014. Financial Networks and Contagion. *American Economic Review*, 104: 3115-3153.