Doctoral Program in Economics

UNIVERSITÀ DEGLI STUDI FIRENZE | UNIVERSITÀ DI SIENA | UNIVERSITÀ DI PISA

Academic year 2025/26

EXPERIMENTAL ECONOMICS

Period:
IV Term
Course hours: 20
Teachers:
Luigi Luini (10) Vincenzo Valori (10)

Aims of the Course:

Economists' typical interests in strategic and market-based interactions raise particular methodological challenges and opportunities that are uniquely well-suited for testing economic theories with experiments. The aims are: to provide and discuss the foundations of experimental economics; theory, design and running of Lab-Field experiments; to introduce a methodology for doing experimental research and achieving high internal and external validity. To present important empirical findings in substantive areas of application: Games with social preferences, Rationality, Neighborhood effects, Cooperation: Voluntary contributions to public goods, Team decision, Oligopoly and learning, Cheating in the Lab, Experiments in macroeconomics and Intertemporal choices.

Exam method:
As a final assignment, each student will have to select their own specific topic within the broad areas covered in the ten classes and thereby develop a well-grounded research proposal. A 2-page proposal is due Saturday, June 21, 2025, whereas the final written essay is due within *Wednesday, July 2, 2025* (approximate length: 8 pages).

Prerequisites:
Microeconomics, Game Theory
Program

1. Lab and Field Methodology *(Lecturer: Luigi Luini)*

This lecture is designed to familiarize the student with experimental methodology and the range of application of experimental methods in economics, in order to investigate the merits (and limits) of experiments, the principles of conducting an experiment, and provide an overview for the different type of experiments. A major advantage of experiments is that exogenous treatment variations allow identifying causal relationships between treatment and observed behavior. At the same time experimental datasets often come with small sample size, variables might be discrete, and interaction between subjects in the laboratory or repeated measurements create violations of independency assumptions.

References

-Fréchette, G.R., A Schotter. (eds.), 2015, *Handbook of Experimental Economic Methodology*. Oxford UP

-Ostrom, E., 2010, Revising theory in light of experimental findings, *Journal of Economic Behavior & Organization*

-Egami, N; E Hartman (2023) Elements of external validity: Framework, design, and analysis, American Political Science Review

*Plott, C., 1987, Dimensions of Parallelism: Some Policy Applications of Experimental Methods, in: Roth, A., *Experimental Economics: Six Points of View*, Cambridge UP

-Duersch, P., J Oechssler, B.C. Schipper, 2009, Incentives for subjects in internet experiments, *Economics Letters*

-Camerer, C., R. Hogarth, 1999, The Effects of Financial Incentives in Experiments, *Journal of Risk and Uncertainty*

-Levitt, S. D. and List, J. A., 2009, Field experiments in economics: The past, the present, and the future, *European Economic Review*

-Guala, F., 2005, The Methodology of Experimental Economics, Cambridge UP

-*Niederle, M*, 2025, Experiments: Why, How, and A Users Guide for Producers as well as Consumers, NBER Working Paper No. 33630, March

2. Neighborhood effects and other-regarding preferences *(Lecturer: Luigi Luini)*

Individual choices are seldom completely self-determined. We review the main results of the experimental literature on social preferences with particular reference to neighborhood effects.

References

-Fehr E, G Charness (2023) Social Preferences: Fundamental Characteristics and Economic Consequences, WP

-Cooper D, J H Kagel, 2013, Other-Regarding Preferences: A selective Survey of Experimental Results, in: *The Handbook of Experimental Economics*, Kagel, JH, A. Roth, Eds, Princeton UP;

*Luini, L., A.M. Nese, P. Sbriglia 2014, Social influence in trustors' neighborhood, *Journal of Behavioral and Experimental Economics*

-Camerer, C.F., E. Fehr, 2006, When Does 'Economic Man' Dominate Social Behavior?, *Science,* 311, 6

3. Team decision: Financial and symbolic incentives *(Lecturer: Luigi Luini)*

Discussion of how (different styles of) leadership and (different types of) incentives interact in teams.

References

-Akerlof, G.A., R.E Kranton, 2005, Identity and the economics of organizations, *Journal of Economic Perspectives*

-Fleckinger, P, D Martimort, N Roux, 2024, Should They Compete or Should They Cooperate? The View of Agency Theory, *wp*

-Benson A, D Li, K Shue 2019, Promotions and the Peter Principle *The Quarterly Journal of Economics*

*Farolfi, F., L. Luini, 2020, The impact of transactional and charismatic leadership on cooperation: An experimental study, *wp*

-Lungeanu A, L A DeChurch, N S Contractor, 2022, Leading teams over time through space: Computational experiments on leadership network archetypes, *The Leadership Quarterly*

4. Oligopoly: Learning to intensify and relax competition *(Lecturer: Luigi Luini)*

Experimental games under different information structures reveal that the level of competiton is strongly influenced by the number of oligopolists, by the type of interaction (one-shot versus repeated), and by communication (compulsory versus voluntary). Presentation of experiments in which the level of competition increases/decreases.

References

-Normann, S.H., H.T. Oechssler, 2004, Two are few and four are many: Number effects in experimental oligopolies. *Journal of Economic Behavior and Organization*

*Altavilla, C., L. Luini, P. Sbriglia, 2006, Social learning in market games, *Journal of Economic Behavior and Organization*

-Fonseca, M.A., H.T. Normann, 2012, Explicit vs. tacit collusion: The impact of communication in oligopoly experiments, *European Economic Review*

-Engel, C. (2007). How much collusion? A meta-analysis of oligopoly experiments, *Journal of Competition Law and Economics*

-Abbink, K., J. Brandts, (2009) Collusion in growing and shrinking markets: Empirical evidence from experimental duopolies, WP

-Slonim, R.; A.E. Roth, 1998, Learning in High Stakes Ultimatum Games: An Experiment in the Slovak. Republic, *Econometrica*

-Calvano, E, G Calzolari, V Denicolò, S Pastorello 2020, Artificial Intelligence, Algorithmic Pricing, and Collusion*, American Economic Review*

5. Playing games having Social Preferences: Ultimatum, Dictator and Trust *(Lecturer: Vincenzo Valori)*

In this lecture we will introduce and discuss three relevant games whose experimental results are usually at odds with classical game theory predictions. Alternative possible explanations of these deviations between theory and empirical observations will be presented with a focus on the concept of Social Preferences.

References

- Camerer, C., Thaler, R., 1995. Anomalies: Ultimatums, Dictators and Manners. *The Journal of Economic Perspectives, 9*(2), 209-219.

- Thaler, R., 1988. Anomalies: The Ultimatum Game. *The Journal of Economic Perspectives, 2*(4), 195-206.

* Güth, W., Schmittberger, R., Schwarze, B., 1982. An experimental analysis of ultimatum bargaining. *Journal of Economic Behavior & Organization,* 3(4), 367-388.

- Binmore, K.,Shaked, A., Sutton, J., 1985. Testing Noncooperative Bargaining Theory: A Preliminary Study. *The American Economic Review,* 75(5), 1178-1180.

- Gueth, W., Tietz, R., 1986. Ultimatum Bargaining for a Shrinking Cake — An Experimental Analysis. In Tietz R., Albers W., Selten R. (eds) Bounded Rational Behavior in Experimental Games and Markets. Lecture Notes in Economics and Mathematical Systems. Vol. 314.

- Forsythe, R., Horowitz, J.L., Savin, N.E., Sefton, M., 1994. Fairness in Simple Bargaining Experiments. *Games and Economic Behavior*. 6(3), 347-369.

* Berg, J., Dickhaut, J., McCabe, K., 1995. Trust, Reciprocity, and Social History. *Games and Economic Behavior*. 10(1), 122-142.

- Sutter, M., Kocher, M.G., 2007. Trust and trustworthiness across different age groups. *Games and Economic Behavior*. 59(2), 364-382.

- Fehr, E., Kirchsteiger, G., Riedl, A., 1993. Does Fairness Prevent Market Clearing? An Experimental Investigation. The *Quarterly Journal of Economics*, 108(2), 437-459.

- Fehr, E., Falk, A., 1999. Wage Rigidity in a Competitive Incomplete Contract Market. *Journal of Political Economy, 107*(1), 106-134.

6. Cooperation: Experiments on voluntary contributions to public goods *(Lecturer: Vincenzo Valori)*

Introduction to public good games among peers, with and without punishment.

References

-Andreoni, J., J.H. Miller, 1993, Rational cooperation in the finitely repeated prisoner's dilemma: Experimental evidence, *Economic Journal*

-Casari, M; L. Luini, 2012, Peer Punishment in Teams: Expressive or Instrumental Choice, *Experimental Economics*, 241–259

-Fehr, E., Gächter, S., 2002. Altruistic punishment in humans, *Nature,* 415, 137–140.

*Fehr, E., Gächter, S., 2000. Cooperation and punishment in public goods experiments, *American Economic Review,* 980–994.

*Isaac, M., Walker, J., 1988. Group Size Effects in Public Goods Provision: The Voluntary Contributions Mechanism, *Quarterly Journal of Economics,* 179-199.

-Andreoni, J., 1995. Cooperation in Public-Goods Experiments: Kindness or Confusion?, *American Economic Review*, 891-904

-Houser, D., Kurzban, R., 2002. Revisiting Kindness and Confusion in Public Goods Experiments, *Am. Econ. Rev.*, 1062-69

-Palfrey, B., Prisbrey, J., 1997. *Anomalous Behavior in Public Goods Experiments: How Much and Why?, Am. Econ. Rev., 829-846*

7. Rationality in Games *(Lecturer: Vincenzo Valori)*

A way to account for subjects making unpredictable choices in experimental games is to invoke a lack of rationality. Is this a viable explanation of observed behavior (at least under certain circumstances)?

References

* Nagel, R., 1995. Unraveling in Guessing Games: An Experimental Study. *American Economic Review*, 85(5), 1313-1326.

- Duffy, J., Nagel, R. 1997. On the robustness of behaviour in experimental 'beauty contest' games. *Economic Journal*, 107, 1684-1700.

- Ho, T., Camerer, C., Weigelt, K., 1998. Iterated Dominance and Iterated Best Response in Experimental "p-Beauty Contests". *The American Economic Review, 88*(4), 947-969.

- Bosch-Domènech, A., Montalvo, J., Nagel, R., Satorra, A., 2002. One, Two, (Three), Infinity,Newspaper and Lab Beauty-Contest Experiments. *The American Economic Review*, 92(5), 1687-1701.

- *Grosskopf, B., Nagel, R., 2008. The two-person beauty contest. Games and Economic Behavior, 62, 93-99.*

- Grehl S., Tutić A., 2015. Experimental Evidence on Iterated Reasoning in Games. *PLoS ONE, 10(8).*

* Goeree, J., & Holt, C., 2001. Ten Little Treasures of Game Theory and Ten Intuitive Contradictions. *The American Economic Review, 91(5), 1402-1422.*

8. Cheating in the Lab *(Lecturer: Vincenzo Valori)*

An introduction to experiments on "cheating" which are studied to understand the prevalence of antisocial behavior and the extent to which the ethics of individuals can be manipulated.

References

- Cohn, A., Fehr, E., Maréchal, M., 2014. Business culture and dishonesty in the banking industry. *Nature*, 516, 86-89.

- Cohn, A., Marechal, M., Tannenbaum, D., Zuend, C.L., 2019. Civic honesty around the globe. *Science*, 365, 70-73.

* Fischbacher, U., Foellmi-Heusi, F., 2013. Lies in disguise: an experimental study on cheating. *Journal of the European Economic Association*, 11(3), 525-547.

- Gächter, S., Schulz, J., 2016. Intrinsic honesty and the prevalence of rule violations across societies. *Nature*, 531, 496-499.

- Kroher, M., Wolbring, T., 2015. Social control, social learning, and cheating: Evidence from lab and online experiments on dishonesty. *Social Science Research*, 53, 311-324.

* Mazar, N., Amir, O., Ariely, D., 2008. The Dishonesty of Honest People. *Journal of Marketing Research*, 15, 633-644.

9. Experiments in macroeconomics *(Lecturer: Vincenzo Valori)*

An introduction to the use of experiments in macroeconomics, with a focus on 'Learning to Forecast' experiments.

References

- Assenza, T., Bao, T., Hommes, C., & Massaro, D., 2014, Experiments on expectations in macroeconomics and finance. In *Experiments in macroeconomics* (Vol. 17, pp. 11-70). Emerald Group Publishing Limited.

- Colucci, D., & Valori, V. , 2006, Ways of learning in a simple economic setting: a comparison. *Chaos, Solitons & Fractals*, *29*(3), 653-670.

- Cornand, C., & Heinemann, F., 2019, Experiments in macroeconomics: methods and applications. In *Handbook of Research Methods and Applications in Experimental Economics* (pp. 269-294). Edward Elgar Publishing.

- Duffy, J., 2010, Experimental macroeconomics. In *Behavioural and Experimental Economics* (pp. 113-119). London: Palgrave Macmillan UK.

- Duffy, J. (Ed.)., 2014, *Experiments in macroeconomics*. Emerald Group Publishing.

- Duffy, J., 2017, 1. Macroeconomics: A Survey of Laboratory Research. In J. Kagel & A. Roth (Ed.), *The Handbook of Experimental Economics, Volume 2* (pp. 1-90). Princeton: Princeton University Press.

* Hommes, C., 2021, Behavioral and experimental macroeconomics and policy analysis: A complex systems approach. *Journal of Economic Literature*, 59(1), 149-219.

- Ricciuti, R., 2008, Bringing macroeconomics into the lab. *Journal of Macroeconomics*, 30(1), 216-237.

10. Contextual Determinants of Cheating: Insights from Lab-in-the-Field Experiments *(Lecturer Marco Stimolo)*

This lecture aims to offer a foundational overview of recent experimental literature on lab-inthe-field experiments, with a particular focus on how individual propensities to engage in cheating behavior are shaped by core features of the surrounding social environment. Additionally, the lecture will discuss prospective research projects involving lab-in-the-field experiments centered on corruption games that are currently in the planning stages.

References

-Abeler, J., A. Becker, and A. Falk, 2014, Representative evidence on lying costs. *Journal of Public Economics* 113, 96–104.

-Gill, D., V. Prowse, and M. Vlassopoulos, 2013, Cheating in the workplace: An experimental study of the impact of bonuses and productivity. *Journal of Economic Behavior & Organization* 96, 120–134.

-Gneezy, U., A. Leibbrandt, and J. A. List, 2016, Ode to the sea: Workplace organizations and norms of cooperation. *The Economic Journal* 126 (595), 1856–1883.

-Gächter, S. and J. F. Schulz, 2016, Intrinsic honesty and the prevalence of rule violations across societies. *Nature* 531 (7595), 496–499.

-Nese, A., N. O'Higgins, P. Sbriglia, and M. Scudiero, 2018, Cooperation, punishment and organized crime: a lab-in-the-field experiment in southern italy. *European Economic Review* 107, 86–98.

* Parrotta, P., Stimolo, M., Stringhi, A., YOUTH. Youngster Observing Unlawful Tendency High-crime areas. Project.

* Potters, J., & Stoop, J., 2016, Do cheaters in the lab also cheat in the field?. *European Economic Review*, 87, 26-33.

Bibliographical references

The reading list should be regarded as a reference list and most of the attention will be devoted to readings with a star *, which are recommended readings.

General references:

-Bardsley, N., R. Cubitt, G. Loomes, P. Moffatt, C. Starmer, R. Sugden, 2010, *Experimental Economics: Rethinking the Rules*, Princeton University Press

-Camerer, C., 2003, *Behavioral Game Theory. Experiments in Strategic Interaction*, Princeton University Press

-Kagel, J. H. and Roth, A. E., eds, 1995, *The Handbook of Experimental Economics*, Princeton University Press

-Plott, C. R., V. L., Smith, eds., 2008, *Handbook of Experimental Economics Result in Economics*, Elsevier, North-Holland

-Friedman, D., S. Sunder, 1994, *Experimental Methods: A Primer for Economists*, Cambridge University Press

-Guala, F., 2005, *The Methodology of Experimental Economics*, Cambridge University Press

-Fréchette, G.R., and Schotter, A. (eds.), 2015, *Handbook of Experimental Economic Methodology*, Oxford UP

-Holland, P. W., 1986, Statistics and causal inference, *Journal of the American Statistical Association*

Introduction to experiments:

-Smith, V.,1962, An Experimental Study of Competitive Market Behavior, *Journal of Political Economy*

-Smith, V., 1982, Microeconomic Systems as an Experimental Science, *American Economic Review*

-Mullainathan, S., R. Thaler, 2000, *Behavioral Economics*, International Encyclopedia of the Social and Behavioral Sciences