

Empirical Trade and Regional Economics

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1 Overview

The course intends to provide an intensive training course for graduate students and young researchers who are working in the fields of international economics. It will focus on two topics: 1) the new theory and empirics of gravity models, 2) the empirics of Economic Geography. Those two topics are very closely related both in terms of research interest and in terms of the methods used. I will first cover the empirical relevance, theoretical foundations, and proper estimation methods for the gravity equation, one of the most robust and reliable examples of law-like behavior in the social sciences. Then I will move to Economic Geography, the set of papers that have studied determinants of the location of economic activity in the context of modern trade models where firms have to deal with imperfect competition and frictions to movements of both goods and factors.. Although important advances have been made in the last decade, much interesting work remains to be done. The course will take students to the frontier of current knowledge and equip them with tools to facilitate continued exploration.

2 Syllabus:

Day 1 : From 18th to 21st Century Gravity

- Lecture 1: Gravity is nontrivial and true.
- Lecture 2: First foundations for gravity equations
- Lecture 3: Ricardian models, theory-consistent estimation, measuring and interpreting trade policy effects

Day 2 : Gravity with heterogeneous firms

- Lecture 4: Heterogeneous firms models, gravity and gains from trade
- Lecture 5: Margins of trade

Day 3 : Recent debates and empirical applications

- Lecture 6: Heteroskedasticity, Zeros, with application to the distance puzzle
- Lecture 7: From firm-level gravity to aggregate gravity

Day 4 : The empirics of New Economic Geography, part 1

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- Lecture 8: Wage equations.
- Lecture 9: Firm-level location choice.
- Lecture 10: The Home Market Effect.

Day 5 : The empirics of New Economic Geography, part 2

- Lecture 11: The determinants of agglomeration.
- Lecture 12: How resilient are agglomerations?

3 Readings

1. Head, K. and T. Mayer, 2014, “Gravity Equations: Workhorse, Toolkit, Cookbook” Handbook of International Economics, Volume 4, (eds Elhanan Helpman, Gita Gopinath and Kenneth Rogoff), Elsevier: North Holland, Chapter 3.
2. “Modern Gravity Classics” I refer often to (full references in Gravity Handbook chapter)
 - (a) Anderson and van Wincoop, 2003, *American Economic Review*
 - (b) Eaton and Kortum, 2002, *Econometrica*
 - (c) Eaton, Kortum and Kramarz, 2011, *Econometrica*
 - (d) Santos Silva and Tenreyro, 2006, “The Log of Gravity,” *Rev. of Economics and Statistics*
 - (e) Chaney, 2008, *American Economic Review*
 - (f) Helpman, Melitz, and Rubinstein, 2008, *Quarterly Journal of Economics*
 - (g) Arkolakis, Costinot, and Rodríguez-Clare, 2012, *American Economic Review*
3. Melitz, M. and S. Redding, 2014, “Heterogeneous Firms and Trade”, Handbook of International Economics, Volume 4, (eds Elhanan Helpman, Gita Gopinath and Kenneth Rogoff), Elsevier: North Holland, Chapter 1.
4. Bernard, A., B. Jensen, S. Redding and P. Schott, 2012, “The Empirics of Firm Heterogeneity and International Trade”, Annual Review of Economics, 4, 283-313.
5. Bernard, A., B. Jensen, S. Redding and P. Schott, 2007, “Firms in International Trade” Journal of Economic Perspectives.
6. Mayer T. and G.I.P. Ottaviano, 2007, The happy few: new facts on the internationalization of European firms, Bruegel-CEPR EFIM2007 Report, Bruegel Blueprint Series.
7. Redding, S., 2011, “Economic Geography: a Review of the Theoretical and Empirical Literature”, Chapter 16 in The Palgrave Handbook of International Trade
8. Combes, P-P., Mayer, T., Thisse, J-F. 2008. Economic Geography, Princeton University Press, Princeton
9. Head, K., and T. Mayer, 2004, “The Empirics of Agglomeration and Trade”, chapter 59 in the Handbook of Regional and Urban Economics Vol. 4 edited by V. Henderson and J.F. Thisse.