

Spatial Economics

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Chair of Economics and Social Policy



Syllabus

- Prerequisites: Microeconomics, Econometrics I
- Language: English
- Availability: annually (summer semester)
- Credible for MSc Economics (Public Economics & Labor Economics)
- Workload 150 h (including 60 contact hours) $\equiv$ 5 ECTS
- Lecture (2 h per week) + tutorial (2 h per week)
- 60-minutes written examination (80%) + presentation (20%)
- Exam covers lecture + tutorial
- Voluntary presentation on a research paper to improve the grade by up to 0.7
- Slides, papers, exercises, data etc. on StudON (password protected)
- Instructor: Luisa Schneider (luisa.schneider@fau.de)

Aim

- At the end of this course,
 - Students are able to describe and to internationally compare the regional patterns of major economic activities in terms of stylized facts.
 - Students are able to present, interpret, and discuss selected theories in regional and urban economics.
 - Students are able to assess empirical tests of selected hypotheses derived from theories in regional and urban economics to evaluate and critically examine their informative value.
 - Students are able to discuss and critically examine economic policy implications of selected theories in regional and urban economics.
 - Students will assess, evaluate and discuss selected recent research papers in English.

Contents

- Part I: Foundations
- Part II: Fundamentals of empirical spatial economics
- Part III: Fundamentals of theoretical spatial economics
- Part IV: Selected studies

Papers designated for voluntary presentation

- Dauth, W., Findeisen, S., Moretti, E. & Südekum, J. (2018). Matching in Cities. NBER Working Paper 25227.
- Duranton G. & Turner M.A. (2011). The Fundamental Law of Road Congestion: Evidence from U.S. Cities. American Economic Review 101(6). 2616-2652.
- De la Roca, J. & Puga, D. (2017). Learning by Working in Big Cities. Review of Economic Studies 84(1). 106-142.
- Heblich, S., Redding, S., Sturm D. (2018). The Making of the Modern Metropolis: Evidence from London. NBER Working Paper 25047.
- Moretti, E. (2013). Real Wage Inequality. American Economic Journal: Applied Economics 5(1). 65-103.

Papers designated for selected studies

- Albouy, D. & Bert Lue, B: (2015). Driving to Opportunity: Local Rents, Wages, Commuting, and Sub-metropolitan Quality of Life. *Journal of Urban Economics* 89. 74-92.
- Pflüger, M. & Südekum, J. (2008). Integration, Agglomeration and Welfare. *Journal of Urban Economics* 63. 544-566.
- Kline, P. & Moretti, E. (2014). People, Places, and Public Policy: Some Simple Welfare Economics of Local Economic Development Programs. *Annual Review Economics* 6. 629-662.
- Becker, S.O., Egger, P.H. & von Ehrlich, M. (2010). Going NUTS: The Effect of EU Structural Funds on Regional Performance. *Journal of Public Economics* 94. 578-590.

Textbooks

- Brakman, S., Garretsen, H. & van Marrewijk, C. (2010). *The New Introduction to Geographical Economics*. Second Edition. Cambridge, UK: Cambridge University Press.
- Brueckner, J.K. (2011). *Lectures on Urban Economics*. Cambridge: MIT Press.
- Combes, P.-P., Mayer, T. & Thisse, J.-F. (2008). *Economic Geography*. Princeton and Oxford: Princeton University Press.
- Fujita, M. & Thisse, J.-F. (2002). *Economics of Agglomeration. Cities, Industrial Location, and Regional Growth*. Cambridge, UK: Cambridge University Press.

Selected surveys

- Baum-Snow, N. & Ferreira, F. (2015). Causal Inference in Urban and Regional Economics. In: Duranton, G. Henderson, J.V. & Strange, W.C. (Ed.) *Handbook of Regional & Urban Economics*. Vol. 5A. 3-68.
- Moretti, E. (2011). Local Labor Markets. In: D. Card & O. Ashenfelter (Ed.). *Handbook of Labor Economics*. Vol. 4b. 1237-1313.
- Neumark, D. & Simpson, H. (2014). Place-Based Policies. *NBER Working Paper* 20049.
- Ottaviano, G. & Thisse, J.-F. (2004). Agglomeration and Economic Geography. In: Henderson, J.V. & J.-F. Thisse (Eds.). *Handbook of Regional and Urban Economics* vol. 4. Elsevier. Amsterdam. 2563-2608.
- Rosenthal, S. & Strange, W. (2004). Evidence on the Nature and Sources of Agglomeration Economies. In: J.V. Henderson & J.F. Thisse (eds.). *Handbook of Regional and Urban Economics*, vol. 4. Elsevier, North Holland. 2713-2739.

Some sources/organizations

- Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR) [Federal Institute for Research on Building, Urban Affairs and Spatial Development]: www.bbsr.bund.de, www.inkar.de
- Bundesinstitut für Bevölkerungsforschung (BIB) [Federal Institute for Population Research]: www.bib-demografie.de
- Deutsches Institut für Urbanistik (DIFU) [German Institute of Urban Affairs]: www.difu.de
- Bayerisches Landesamt für Statistik und Datenverarbeitung:
www.statistik.bayern.de/regionalstatistik/
- Regionaldatenbank Deutschland der Statistischen Ämter des Bundes und der Länder (Statistical Offices of the Federation and the Länder): www.regionalstatistik.de
- EU Commission - Regional Policy: ec.europa.eu/regional_policy/en/

Academic field journals

- Spatial economics:
 - Journal of Urban Economics
 - Journal of Economic Geography
 - Regional Science and Urban Economics
 - Journal of Regional Science
 - Land Economics
 - Urban Studies
 - Annals of Regional Science
 - Papers in Regional Science
- Related fields:
 - Journal of Public Economics
 - Transportation Research Part B: Methodological

Further references

- Albouy, D. (2009). The Unequal Geographic Burden of Federal Taxation. *Journal of Political Economy* 117. 635-667.
- Albouy, D. & Bert Lue, B: (2015). Driving to Opportunity: Local Rents, Wages, Commuting, and Sub-metropolitan Quality of Life. *Journal of Urban Economics* 89. 74-92.
- Anselin, L. (1999). *Spatial Econometrics*. Mimeo.
- Bacolod, M., Blum, B. & Strange, W.C. (2009). Skills and the City. *Journal of Urban Economics* 65. 136-153.
- Baldwin, R., Forslid, R., Martin, P., Ottaviano G. & Robert-Nicoud, F. (2003). *Economic Geography and Public Policy*. Princeton and New Jersey: Princeton University Press.
- Baldwin, R. & Wyplosz, C. (2009). *The Economics of European Integration*. Third Edition. Maidenhead: McGraw-Hill.
- Baum-Snow, N. & Ferreira, F. (2015). Causal Inference in Urban and Regional Economics.

In: Duranton, G. Henderson, J.V. & Strange, W.C. (Ed.) *Handbook of Regional & Urban Economics*. Vol. 5A. 3-68.

- Baum-Snow, N. & Pavan, R. (2013). Inequality and City Size. *Review of Economics and Statistics* 95. 1535-1548.
- Baum-Snow, N. & Pavan, R. (2012). Understanding the City Size Wage Gap. *Review of Economic Studies* 79. 88-127.
- Becker, S.O., Egger, P.H. & von Ehrlich, M. (2010). Going NUTS: The Effect of EU Structural Funds on Regional Performance. *Journal of Public Economics* 94. 578-590.
- Becker, S.O., Egger, P.H. & von Ehrlich, M. (2012). Too Much of a Good Thing? On the Growth Effects of the EU's Regional Policy. *European Economic Review* 56. 648-668.
- Becker, S.O., Egger, P.H. & von Ehrlich, M. (2013). Absorptive Capacity and the Growth and Investment Effects of Regional Transfers: A Regression Discontinuity Design with Heterogeneous Treatment Effects. *American Economic Journal: Economic Policy* 5. 29-77.

- Behrens, K., Duranton, G. & Robert-Nicoud, F. (2014). Productive Cities: Sorting, Selection, and Agglomeration. *Journal of Political Economy* 122. 507-553.
- Berry, C.R. & Glaeser, E.L. (2005). The Divergence of Human Capital Levels across Cities. *Papers in Regional Science* 84. 407-444.
- Borck, R., Pflüger, M. & Wrede, M. (2010). A Simple Theory of Industry Location and Residence Choice. *Journal of Economic Geography* 10. 913-940.
- Borck, R. & Wrede, M. (2008). Commuting Subsidies with Two Transport Modes. *Journal of Urban Economics* 63. 841-848.
- Borck, R. & Wrede, M. (2009). Subsidies for Intracity and Intercity Commuting. *Journal of Urban Economics* 66. 25-32.
- Borjas, G.J. (1987). Self-selection and the Earnings of Immigrants. *American Economic Review* 77. 531-553.
- Brakman, S. & van Marrewijk, C. (2013). Reflections on Cluster Policies. *Cambridge Journal of Regions, Economy and Society*. doi:10.1093/cjres/rst001

- Brueckner, J.K., Thisse, J.-F. & Zenou, Y. (1999). Why is Central Paris Rich and Downtown Detroit Poor? An Amenity-based Theory. *European Economic Review* 43. 91-107.
- Buettner, T. & Ebertz, A. (2009). Quality of Life in the Regions: Results for German Counties. *Annals of Regional Science* 43. 89-112.
- Busso, M., Gregory, J. & Kline, P. (2013). Assessing the Incidence and Efficiency of a Prominent Place Based Policy. *American Economic Review* 103. 897-947.
- Cheshire, P.C., Nathan, M. & Overman, H.G. (2014). *Urban Economics and Urban Policy*. Cheltenham, UK: Edward Elgar.
- Ciccone, A. & Hall, R.E. (1996). Productivity and the Density of Economic Activity. *American Economic Review* 86. 54-70.
- Combes, P.-P., Duranton, G. & Gobillon, L. (2008). Spatial Wage Disparities: Sorting Matters! *Journal of Urban Economics* 63. 723-742.
- Combes, P.-P., Duranton, G., Gobillon, L. & Roux, S. (2010). Estimating Agglomeration Economies with History, Geology, and Worker Effects. In: E.L. Glaeser (ed.). *The Economics of Agglomeration*. Cambridge (Mass.). National Bureau of Economic Research. 15-65.

- Combes, P.-P., Duranton, G., Gobillon, L. & Roux, S. (2012). Sorting and Local Wage and Skill Distributions in France. *Regional Science and Urban Economics* 42. 913-930.
- Davis, D.R. & Dingel, J.I. (2012). A Spatial Knowledge Economy. *NBER Working Paper* 18188.
- Drukker, D.M., I.R. Prucha, & R. Raciborski (2013a). Maximum Likelihood and Generalized Spatial Two-stage least-squares Estimators for a Spatial-autoregressive Model with Spatial-autoregressive Disturbances. *Stata Journal* 13. 221-241.
- Drukker, D.M., I.R. Prucha, & R. Raciborski (2013b). A Command for Estimating Spatial-autoregressive Models with Spatial-autoregressive Disturbances and Additional Endogenous Variables *Stata Journal* 13. 287-301.
- Eckey, H.-F., Kosfeld, R. & Türrck, M. (2006). Räumliche Ökonometrie. *WiSt.* 548-554.
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- Elhorst, J.P. (2014a). Spatial Panel Methods. In: Fischer, M.M. & Nijkamp P. (Ed.) *Handbook of Regional Science*. Berlin, Heidelberg: Springer-Verlag.

- Elhorst, J.P. (2014b). *Spatial Econometrics*. Berlin, Heidelberg: Springer-Verlag.
- Ellison, G., Glaeser, E.L. & Kerr, W. (2010). What Causes Industry Agglomeration? Evidence from Co-agglomeration Patterns. *American Economic Review* 100. 1195-1213.
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Henderson, J.V. & Strange, W.C. (Ed.) *Handbook of Regional & Urban Economics*. Vol. 5A. 115-168.

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- Glaeser, E. (2003). Reinventing Boston: 1640-2003. *Harvard Discussion Paper* 2017.
- Glaeser, E. (2008). *Cities, Agglomeration and Spatial Equilibrium*. Oxford: Oxford University Press.
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- Glaeser, E.L. & Mare, D.C. (2001). Cities and Skills. *Journal of Labor Economics* 19. 316-342.
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Economics of Local Economic Development Programs. *Annual Review Economics* 6. 629-662.

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- Wrede, M. (2009). A Distortive Wage Tax and a Countervailing Commuting Subsidy. *Journal of Public Economic Theory* 11. 297-310.
- Wrede, M. (2013). Heterogeneous Skills and Homogeneous land: Segmentation and Agglomeration. *Journal of Economic Geography* 13. 767-798.
- Wrede, M. (2015a). Akzeptanz der Förderung gleichwertiger Lebensverhältnisse und Arbeitsbedingungen. *Review of Regional Research*. 35. 103-119.
- Wrede, M. (2015b). Wages, Rents, Unemployment, and the Quality of Life: A Consistent Theory-based Measure. *Journal of Regional Science* 55. 609-625.
- Wrede, M. (2015c). A Continuous Logit Hotelling Model with Endogenous Locations of Consumers. *Economics Letters* 126. 81-83.

- Wrede, M. (2015d). A Continuous Spatial Choice Logit Model of a Polycentric City. *Regional Science and Urban Economics* 53. 68-73.
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- Zenou, Y. (2009). *Urban Labor Economics*. Cambridge, U.K.: Cambridge University Press.

Publications on regions in Europe and the OECD

- Eurostat (2018). Eurostat Regional Yearbook 2018. Luxembourg.
- OECD (2018). OECD Regional Outlook 2018. Paris.
- OECD (2018). Regions and Cities at a Glance 2018. Paris.

