

SPS: Spatial Environmental Economics

Augusto Ospital

Ludwig Maximilian University of Munich

Introductory Meeting, Winter Semester 2025

Your instructor

- Augusto Ospital
- In Munich since September 2024
- Previously at the Toulouse School of Economics
- PhD from the University of California, Los Angeles (UCLA) in 2023
- Contact
 - ▶ Email: a.ospital@lmu.de
 - ▶ Office: Ludwigstr. 28 VG, room 217 (2nd floor)
 - ▶ Website: www.aospital.com

What are the goals of this SPS?

- ① Learn how to evaluate the quality of academic research
- ② Learn how to write about research (without also having to produce it!)
 - ▶ **Content:** e.g., clear explanation of research strategy, clear interpretation of results
 - ▶ **Format:** e.g., how to properly cite papers, how to structure and format your writing
- ③ Learn how to talk about research
 - ▶ Present your thinking clearly and with effective slides
- ④ Learn about the research frontier in a specific, important and current area:
economic geography and the environment

Roadmap

- ① Introduction
- ② Economic geography and the environment
- ③ Assignment #1: written paper
- ④ Assignment #2: slides and presentation
- ⑤ Course logistics

What is spatial economics?

- Broadly, aims to explain the causes and consequences of economic activity being concentrated across space
 - ▶ The causes and determinants of “**economic geography**”
 - ▶ “Despite spectacular drops in communication and transport costs, distance and location have not disappeared from economic life.” (Proost & Thisse, JEL 19)
- Constituent (?) subfields:
 - ▶ Urban economics
 - ▶ Regional economics
 - ▶ Transportation economics
- Relation to Trade?
 - ▶ Trade studies locations’ comparative advantage and production patterns
 - ▶ Trade typically holds factor endowments fixed, while Spatial emphasizes labor mobility

Why do we care about spatial economics?

- ① Economic outcomes exhibit spatial **variation**: wages, employment, output
- ② Many economic **mechanisms** have a spatial nature or depend on distance
 - ▶ Housing is large part of household consumption basket, school choice
 - ▶ Labor demand & supply: migration, commuting, thick labor markets
 - ▶ Knowledge/productivity/amenity spillovers
 - ▶ Impact of transportation infrastructure
- ③ Many **policies** are spatially concentrated
 - ▶ Opportunity Zones, discretionary tax breaks
 - ▶ Infrastructure investment
- ④ Political representation is spatial

How does space matter for environmental economics?

- The supply of natural resources is unequally distributed in space
 - ▶ E.g. low-cost oil fields concentrated in OPEC countries
- Climate change is a spatial phenomenon
 - ▶ Driven by local policies and actions (e.g., Amazon deforestation)
 - ▶ The effects of climate change are local (e.g., temperature, extreme weather)
 - ★ Countries: poorer countries will be more exposed
 - ★ Regions: coastal parts of countries more exposed
 - ★ Sectors: weather-dependent agriculture vs. manufacturing
 - ▶ Spatial mechanisms can matter for both causes and effects: migration, location choices
- Spatial models can help with:
 - ▶ Valuing environmental benefits and harms
 - ▶ Evaluating climate change damages with adaptation

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Your assignment

- I selected papers that look at a specific aspect in this larger area of economic research
 - ▶ Different research questions/angles/perspectives
 - ▶ Different methods in applied econometrics
 - ▶ Very recent, including 'hot', not even yet published papers
 - ▶ Different quality of papers: helps to distinguish good from not so good research
- Each student gets one paper assigned + a 'role' for each paper
 - ▶ **Positive role:** assume you are the author, you are convinced of the quality of your paper; you identify everything that is great about the paper and try to convince everyone else about it
 - ▶ **Negative role:** assume you are the editor of a journal, and you don't want to make a mistake of publishing a paper that is wrong/mistaken; you find everything that could potentially be bad/wrong/misleading in the paper and try to convince everyone else about it

Paper assignment process

- Download the paper package from Moodle and take a look at the papers
- By Sept 1, enter your 3 most preferred papers on Moodle
- I will then assign each student
 - ▶ one paper, trying to take your preferences into account
AND
 - ▶ your role: either positive or negative
- I will announce assigned papers and roles on Sept 15, the beginning of the writing period

What to write about?

- You have to write a paper composed of the following four sections:
 - ▶ **Introduction**: one paragraph overview (what are you going to do)
 - ▶ Chapter 1: **Summary** of the paper
 - ▶ Chapter 2: **Opinion** about the paper. Depending on your role, EITHER
 - ★ Positive role: why the paper is great
 - ★ Negative role: why the paper has flaws
 - ▶ **Conclusion**: one paragraph of conclusion (what did you learn)
- Chapter 1 and chapter 2 must be of the same length!

Chapter 1, the paper summary, should include:

1. What is the **research question** of the paper?
 - ▶ Notice that this is a sentence that ends with a question mark!!!!
 - ▶ Sometimes the research question of a paper is not so clear, and sometimes there are more than one — discuss and explain this!
2. Why is it **important** to know the answer to this research question?
 - ▶ Motivation of the paper: what do we know, what do we not know, what kind of academic questions or policy questions could the answer to this question inform
 - ▶ This should go beyond what the authors say in the paper

Chapter 1, the paper summary, should include:

3. Which **answers** may we get to the research question?
 - ▶ This part is called hypothesis formation. Which hypotheses do the authors have? Which hypotheses would you, or other papers in the literature have?
 - ▶ Explain the Economic mechanisms driving the different answers — this is where Economics comes in, and where Economics differs from Statistics!
4. Which **method** is used to answer the research question?
 - ▶ Describe the empirical method used
5. What do the authors **find**?

Chapter 2, the opinion about the paper, should include:

- 'Worst case': What would be the naive regression?
 - ▶ What would be wrong when running a naive regression of the outcome on the regressor of interest?
 - ▶ What are the main challenges in running such a naive regression?
- 'Best case': What would be the 'ideal' experiment?
 - ▶ What would be the ideal setting, experiment (e.g., RCT), analysis to answer the research question?
 - ▶ This is NOT what the paper will have, and does not have to be realistic (e.g., a helicopter randomly drops money over people ...)

Chapter 2, the opinion about the paper, should include:

- If you take the role of the **positive view**:
 - ▶ Highlight everything that shows that the analysis in the paper is close to the ideal experiment, and solves problems in the naive regression
 - ▶ Foresee criticism (from the negative role), and explain how the paper addresses potential criticism
 - ▶ Go beyond what the authors explain, think on your own about what the paper does well, and how the data in the paper could be used to address even more challenges
- If you take the role of the **negative view**:
 - ▶ Highlight everything in which the analysis differs from the ideal experiment and how it is more similar to the naive, wrong regression
 - ▶ Explain in which way the findings may be wrong (e.g., we overestimate the negative effect; biased of finding a positive effect where there may be a true negative effect)
 - ▶ Explain what you find not convincing in the arguments of the paper
 - ▶ Even explain how possible counterarguments by the authors to critiques are not convincing

Overall: writing

- This 'role play' is an exercise to make you think deeper about the analysis
- Take it seriously, make the best case for/against a paper
- Be assertive and strong in your views, do not concede!
- Easier for some papers than for others—don't worry, I take this into account when grading
- There will be office hours during the writing period to clarify questions about the papers

Format of your paper

- Follow the writing guidelines uploaded on Moodle!
- Upload the following files by the end of the writing period on Moodle: October 13
 - ▶ One compiled pdf
 - ▶ The paper in the native format you used (e.g. docx, latex file)
 - ▶ You should include all figures and tables to replicate the pdf (e.g. if in latex, include the bibtex file and all additional figures and tables)

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Prepare one slide deck

- You will receive feedback on your writing late October on Moodle
- Incorporate this feedback and prepare a 20 min presentation
 - ▶ 10 mins: summary of the paper
 - ▶ 10 mins: your assigned opinion of the paper
- Each presentation should take exactly 20 minutes (practice and time it beforehand!)
- I will offer extra office hours where you can ask questions about the slides
- Submit slide deck (pdf) the day before the workshop on Moodle: November 12

Student presentations in workshop: November 13-14

- In the workshop, we will use role play to debate the quality of each paper
- Act like a lawyer: make the best case for your point of view!

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Timeline

- **July 15:** introductory meeting
- **Sept 1:** deadline for posting paper preferences
- **Sept 15:** writing period starts, you learn about your assigned paper on Moodle
- **Sept 15-Oct 13:** weekly office hours (one-on-one)
 - ▶ Tentative dates: September 17, September 24, October 2, October 10
 - ▶ Time: TBD
 - ▶ Location: my office in Ludwigstr. 28, room 217; OR via zoom
 - ▶ Email me if you plan to come to get an approximate time slot to reduce waiting times
 - ▶ **I recommend we meet at least twice during the writing period!**
- **Oct 13:** writing period ends, upload your files on Moodle (strict deadline at midnight!!!)
- **Late Oct:** receive written feedback on Moodle
- **Mid Oct - mid Nov:** prepare presentation (ppt or overleaf)
- **tbd:** office hours to ask questions about the slides
- **Nov 12:** upload your presentation (pdf version) on Moodle
- **Nov 13-14:** workshop with student presentations

Course logistics

- Use Moodle page for all course related communication and information
 - ▶ Course name: “SPS Economic Geography and the Environment (Winter 25/26)”
 - ▶ Self enrollment key: EGE
 - ▶ Link: <https://moodle.lmu.de/course/view.php?id=41030>
- Signing up: with your attendance today, you are now signed up officially for the SPS
- Language: the seminar is in English; the paper, presentation, and discussion are in English
- Plagiarism: team work is NOT allowed, this is an individual assignment
 - ▶ Each student needs to write their own summary of the paper
 - ▶ You can help each other *understand* the paper, but everybody needs to write their own!