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Economics of Innovation
Summer Term 2021

Institut für Wirtschaftsforschung

**Juniorprofessur für Quantitative Labor
Economics**

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Syllabus „Economics of Innovation“

Aim of the course

The lecture provides an introduction to economic issues of innovation and new ideas. The course first sets out general problems in the economics of innovation such as the public goods nature of ideas and the importance of innovation for economic prosperity. In the second part, the course discusses labor and personnel issues in innovation policy, for example the impact of immigration on innovation. In the last part, the course analyses issues in intellectual property rights and public economics topics such as public funding of research and the consequences of innovation for inequality.

In the tutorials, we will read current papers at the frontier of research. I expect students to read the papers before class and send me brief answers to questions about the papers until the end of the week before the tutorial.

Students should be familiar with undergraduate micro- and macroeconomics. They should also have an understanding of empirical methods to estimate treatment effects.

The course will be held online via Zoom. At the end, there will be a 90-minute exam covering the content of the lecture and of some of the papers from the tutorials. The results from this exam will determine the grade.

The course is mostly complementary and slightly overlapping with the course „Labor Markets in the Knowledge Economy“, which is offered each winter term.

Topics

1. Introduction to the Economics of Innovation
2. Innovation and Economic Growth
3. Measurement of Innovation
4. The Supply of Inventors
5. Immigration and Innovation
6. Incentives for Innovation
7. Intellectual Property Rights
8. Taxes and Innovation
9. Public Funding of Research
10. Economics of Science
11. Innovation and Inequality

If you have any questions about the content, please let me know.

(for a preliminary reading list, please see the next page)

Reading List

a) Textbooks

Angrist, Joshua and Jörn-Steffen Pischke (2008). "Mostly Harmless Econometrics", Princeton University Press.

b) General Reading

Arrow, Ken (1962), "Economic Welfare and the Allocation of Resources for Invention," in *The Rate and Direction of Inventive Activity*: 609-619, National Bureau of Economic Research.

Bloom, Nicholas, John Van Reenen and Heidi Williams (2019): "A Toolkit of Policies to Promote Innovation," *Journal of Economic Perspectives* 33(3): 163-184

Bryan, Kevin and Heidi Williams (forthcoming): "Markets for innovation: Market failures and public policies", *Handbook of Industrial Organization*

c) Papers for the Tutorials by topic (preliminary, final decision announced 2 weeks in advance)

2. Bloom, Nick, Jones, Charles I., Van Reenen, John, and Webb, Michael (2020). „Are Ideas Becoming Harder to Find?“, *American Economic Review*, 110(4), 1104-1144.

3. Kogan, Leonid, Papanikolaou, Dimitries, Seru, Amit, and Stoffman, Noah (2017). "Technological Innovation, Resource Allocation, and Growth", *Quarterly Journal of Economics*, 132(2), 665-712.

4. Agarwal, Ruchir, and Patrick Gaule (2020). "Invisible Geniuses: Could the Knowledge Frontier Advance Faster?" *American Economic Review: Insights*, 2(4): 409-24.

5. Moser, Petra, Alessandra Voena, and Fabian Waldinger (2014). "German Jewish Émigrés and US Invention", *American Economic Review* 104(10): 3222–3255.

6. Azoulay, Pierre, Joshua S. Graff Zivin, and Gustavo Manso (2011). "Incentives and creativity: evidence from the academic life sciences." *RAND Journal of Economics* 42(3): 527-554.

7. Moscona, Jacob (2021). "Flowers of Invention: Patent Protection and Productivity Growth in US Agriculture." Mimeo.

8. Moretti, Enrico and Daniel J. Wilson (2017). "The Effect of State Taxes on the Geographical Location of Top Earners: Evidence from Star Scientists", *American Economic Review* 107(7): 1858–1903.
9. Myers, Kyle. 2020. "The Elasticity of Science." *American Economic Journal: Applied Economics*, 12(4): 103-34.
10. Stern, Scott (2004): "Do Scientists Pay to Be Scientists?", *Management Science* 50(6), 835-853.
11. Jaravel, Xavier (2019). "The Unequal Gains from Product Innovations: Evidence from the U.S. Retail Sector", *Quarterly Journal of Economics* 134(2): 715–783.