

# Enrico Berkes

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<b>Citizenship</b>	Swiss (Green Card holder)	
<b>Research Fields</b>	Innovation, Urban Economics, Applied Microeconomics	
<b>Academic Positions</b>	Postdoctoral Researcher, Ohio State University, August 2018-	
<b>Education</b>	Ph.D., Economics, Northwestern University, Evanston, Illinois, 2018 Dissertation: The Geography, Determinants, and Effects of Innovation M.A., Economics, Northwestern University, Evanston, Illinois, 2014 M.A., International Studies (Economics), Graduate Institute, Geneva, Switzerland, 2010 M.Sc. ETH, Mathematics, Swiss Federal Institute of Technology, Zurich, Switzerland, 2007	
<b>Journal Publications</b>	<p>“Income Segregation and the Rise of the Knowledge Economy,” with Ruben Gaetani, <i>American Economic Journal: Applied Economics</i>, forthcoming.</p> <p>“Lockdowns and Innovation: Evidence from the 1918 Flu Pandemic,” with Olivier Deschênes, Ruben Gaetani, Jeffrey Lin, and Christopher Severen, <i>The Review of Economics and Statistics</i>, conditionally accepted.</p> <p>“The Census Place Project: A Method for Geolocating Unstructured Place Names,” with Ezra Karger, and Peter Nencka, <i>Explorations in Economic History</i>, forthcoming.</p> <p>“Women are Credited Less in Science than are Men,” with Matthew Ross, Britta Glennon, Raviv Murciano-Goroff, Bruce Weinberg, and Julia Lane, <i>Nature</i>, 608(7921): 135-145, August 2022.</p> <p>“The Ripple Effects of Funding on Researchers and Output,” with Reza Sattari, Jung Bae, and Bruce Weinberg, <i>Science Advances</i>, 8(16), April 2022.</p> <p>“The Geography of Unconventional Innovation,” with Ruben Gaetani, <i>The Economic Journal</i>, 636(131), 1466–1514, May 2021. <i>Awarded the 2021 Austin Robinson Memorial Prize</i></p> <p>“Too Much Finance?,” with Jean-Louis Arcand and Ugo Panizza, <i>Journal of Economic Growth</i>, 20(2): 105–148, 2015.</p> <p>“Afghanistan: Balancing Social and Security Spending in the Context of a Shrinking Resource Envelope,” with Aqib Aslam, Martin Fukac, Jeta Menkulasi and Axel Schimmelpfennig, <i>Asian Development Review</i>, 31(2): 165–197, 2014.</p>	

**Other Publications**

“Too Much Finance or Statistical Illusion: A comment,” with Jean-Louis Arcand and Ugo Panizza, IHEID Working Papers 12-2015, Economics Section, The Graduate Institute of International Studies, 2015.

“Assessing Bias and Accuracy in the World Bank-IMF’s Debt Sustainability Framework for Low-Income Countries,” with Andrew Berg, Catherine A. Pattillo, Andrea Presbitero, and Yorbol Yakhshilikov, IMF Working Papers 14/48, International Monetary Fund, 2014.

“Money Targeting in a Modern Forecasting and Policy Analysis System: An Application to Kenya,” with Michal Andrle, Andrew Berg, Rafael Portillo, Jan Vlcek, and Armando Morales, IMF Working Paper No. 13/239, 2013.

“Finance and Economic Development in a Model with Credit Rationing,” with Jean-Louis Arcand and Ugo Panizza, in V. Acharya, T. Beck, D. Evanoff, G. Kaufman, and R. Portes (Eds.), *The Social Value of The Financial Sector: Too Big to Fail or Just Too Big?*, pp. 67-80, 2012.

**Work in Progress**

**“Technological Waves and Local Growth”** with Ruben Gaetani and Martí Mestieri

*Job Market Paper*

We develop a spatial model of economic growth to study the effect of changes in the technological landscape on the spatial distribution of economic activity. In the model, innovation via frictional idea diffusion makes cities’ growth trajectories sensitive to “technological waves,” defined as long-term shifts in the importance of different knowledge fields. We calibrate the model using a new dataset of historical geolocated patents, and find that cities’ differential exposure to technological waves explains 15%-20% of the variation in local population growth in the United States over the twentieth century. Counterfactual experiments suggest large geographical effects of future technological scenarios.

**“Knowledge Access: The Effects of Carnegie Libraries on Innovation”** (*R&R RESTAT*) with Peter Nencka

*Alternative Job Market Paper*

Between 1883 and 1919, Andrew Carnegie donated approximately \$1 billion in 2019 dollars to fund the construction of more than 1,500 public libraries across the United States. We show that this historical rollout of public libraries—which promoted access to knowledge for millions of people—increased the innovation output of recipient towns. To identify the causal effect of Carnegie libraries on innovation, we use new data on city-level patenting and a novel control group: cities that qualified to receive a library grant, applied for the program, received preliminary construction approval, but ultimately did not build a Carnegie library. Patenting in recipient towns increased by 8-13 percent in the 20 years following library entry. We show that this increase is concentrated in technology classes that overlap with library holdings. The number of women and immigrant inventors also increased after libraries opened. We provide evidence that additional access to scientific knowledge and opportunities to interact with fellow patrons are possible mechanisms.

**“Comprehensive Universe of U.S. Patents (CUSP): Data and Facts”**

Patents are commonly used as the main source of data for empirical studies related to innovation and technological change. The large amount of information about the underlying innovative process contained in each patent has certainly contributed to their popularity. Nevertheless, due to the lack of reliable data, historical analysis has concentrated on relatively small time frames or on specific dimensions of patents data. The goal of this paper is to bridge this gap. I build and release a comprehensive time series of the universe of U.S. patents. The data set contains all the variables commonly used in the literature and, importantly, geolocates every inventor and assignee reported in each grant over the period 1836-2016.

**“Global Innovation Spillovers and Productivity: Evidence from 100 years of World Patent Data”**  
with Kristina Manysheva and Martí Mestieri

We use a panel of historical patent data covering a large range of countries over the past century to study the evolution of innovation across time and space and its effect on productivity. We document a substantial rise of international knowledge spillovers as measured by patent citations since the 1990s. This rise is mostly accounted for by an increase in citations to US and Japanese patents in fields of knowledge related to computation, information processing, and medicine. We estimate the causal effect of innovation induced by international spillovers on sectoral output per worker and TFP growth in a panel of country-sectors from 2000 to 2014, and on aggregate income per capita since 1960. To assess causality, we develop a shift-share instrument that leverages pre-existing citation linkages across countries and fields of knowledge, and heterogeneous countries' exposure to technology waves. On average, an increase of one standard deviation in log-patenting activity increases sectoral output per worker growth by 1.1 percentage points. We find results of similar magnitude for sectoral TFP growth and long-run aggregate income per capita growth.

**Fellowships,  
Awards, & Grants**

2021 Austin Robinson Memorial Prize for best paper published in *The Economic Journal*  
by authors who are within five years of receiving their PhDs, 2022  
National Institute of General Medical Sciences/National Institute of Health, “Invisible Collaborators:  
Underrepresentation, Research Networks, and Outcomes,” Co-PI (\$869,402), 2020-2024  
The Ohio State University President’s Postdoctoral Scholars Program, 2018-2019  
Northwestern University Dissertation Scholarship, 2017  
Ewing Marion Kauffman Foundation Dissertation Fellowship, 2017  
Susan Schmidt Bies Prize for Doctoral Student Research on Economics and Public Policy, 2015  
Northwestern University Fellowship, 2012-2017

**Teaching Experience**

Teaching assistant, Northwestern University  
Spring Quarter 2018, Intermediate Microeconomics  
Summer/Spring/Winter Quarter 2016, Intermediate Microeconomics  
Teaching assistant, Swiss Federal Institute of Technology, Zurich  
Summer Semester 2008, Computational Statistics (graduate)  
Winter Semester 2006/07, Statistics  
Summer Semester 2006, Analysis II  
Winter Semester 2005/06, Analysis I

**Conferences and  
Seminars**

(\*: presented  
by coauthor)

**2023 (scheduled)**  
Penn State University, State College  
**2022**  
17th End-of-Year Conference of Swiss Economists Abroad, Basel, Switzerland (scheduled)  
Università della Svizzera Italiana, Lugano, Switzerland  
Western Economic Association Conference, Portland (\*)  
European Econometric Society Conference, Milano, Italy (\*)  
**2021 (virtual presentations)**  
16th Virtual End-of-Year Conference of Swiss Economists Abroad  
ASSA 2021 Virtual Annual Meeting  
University of Colorado, Boulder  
10th European Meeting of the Urban Economics Association (\*)  
Barcelona GSE Summer Forum (\*)  
NBER Summer Institute 2021, Economic Growth Workshop (\*)  
Auburn University, Auburn  
New York University, New York City

**2020 (virtual presentations)**

15th Virtual End-of-Year Conference of Swiss Economists Abroad  
 2020 Virtual Meeting of the Urban Economics Association (\*)  
 World Congress of the Econometric Society  
 NBER Summer Institute 2020, Urban Economics Workshop  
 EPFL Virtual Innovation Seminar  
 University of Toronto Brown Bag  
 NBER Productivity Brown Bag

**2019**

14th End-of-Year Conference of Swiss Economists Abroad, Geneva, Switzerland  
 Graduate Institute of International and Development Studies (IHEID), Geneva, Switzerland  
 Social Science History Association Conference, Chicago  
 14th Meeting of the Urban Economics Association, Philadelphia  
 University of Pittsburgh, Pittsburgh  
 NBER Summer Institute 2019, DAE Workshop, Boston  
 Econometric Society - 2019 North American Summer Meeting, Seattle (\*)  
 Society of Economic Dynamics - 2019 Annual Meeting, St. Louis  
 9th European Meeting of the Urban Economics Association, Amsterdam, Netherlands  
 Cliometric Society Conference 2019, Columbus (\*)  
 Max Planck Institute, Munich, Germany  
 1st Swiss Workshop on Local Public Finance and Regional Economics, Lugano, Switzerland  
 Carnegie Mellon University, Pittsburgh

**2018**

13th End-of-Year Conference of Swiss Economists Abroad, Zurich, Switzerland  
 Università della Svizzera Italiana, Lugano, Switzerland  
 Conference of Urban and Regional Economics, Philadelphia  
 13th Meeting of the Urban Economics Association, New York City  
 NBER Summer Institute 2018, Innovation Workshop, Boston (\*)  
 8th European Meeting of the Urban Economic Association, Dusseldorf, Germany (\*)  
 NBER Trade and Geography Conference, Boston (\*)  
 Bocconi University, Milan, Italy  
 Einaudi Institute for Economics and Finance, Rome, Italy  
 CREI, Barcelona, Spain  
 INSEAD, Fontainebleau, France  
 Toulouse School of Economics, Toulouse, France  
 The Ohio State University, Columbus

**2017**

7th European Meeting of the Urban Economic Association, Copenhagen, Denmark  
 12th Meeting of the Urban Economics Association, Vancouver, Canada (\*)

**2016**

11th End-of-Year Conference of Swiss Economists Abroad, Bern, Switzerland

**2015**

2015 Econometric Society World Congress, Montreal, Canada (\*)  
 Society of Economic Dynamics - 2015 Conference, Warsaw, Poland (\*)  
 M&M Workshop, Federal Reserve of Chicago, Chicago (\*)  
 10th End-of-Year Conference of Swiss Economists Abroad, Fribourg, Switzerland

**2014**

9th End-of-Year Conference of Swiss Economists Abroad, Zurich, Switzerland

**2013**

8th End-of-Year Conference of Swiss Economists Abroad, St. Gallen, Switzerland

**2012**

15th Annual International Banking Conference, Federal Reserve of Chicago  
7th End-of-Year Conference of SEA, Luzern, Switzerland

**Conferences Organized**

16th End-of-Year Virtual Conference of Swiss Economists Abroad, 2021  
15th End-of-Year Virtual Conference of Swiss Economists Abroad, 2020  
14th End-of-Year Conference of Swiss Economists Abroad, Geneva, Switzerland, 2019  
13th End-of-Year Conference of Swiss Economists Abroad, Zurich, Switzerland, 2018  
12th End-of-Year Conference of Swiss Economists Abroad, Lugano, Switzerland, 2017  
11th End-of-Year Conference of Swiss Economists Abroad, Bern, Switzerland, 2016  
10th End-of-Year Conference of Swiss Economists Abroad, Fribourg, Switzerland, 2015

**Research & Work Experience**

Research Assistant to Prof. Matthias Doepke, Northwestern University, September 2016–December 2016  
Research Assistant to Prof. Lorenz Kueng, Northwestern University, September 2014–December 2015  
Research Assistant to Prof. Joerg Spenkuch, Northwestern University, September 2013–June 2014  
Project Officer, International Monetary Fund, Research Department, August–September 2013  
Research Officer, International Monetary Fund, Research Department, August 2010–June 2012  
Intern at Scottish International Relief Malawi, Malawi, June–September 2009

**Refereeing**

The Review of Economics and Statistics, AEJ: Policy, Journal of Economic Growth, Review of Economic Dynamics, Journal of Economic Theory, European Economic Review, Journal of Urban Economics, Journal of Economic Geography, National Science Foundation, Journal of Economic Behavior & Organization, Journal of Financial Services Research, Regional Science and Urban Economics, Empirical Economics, The Annals of Regional Science, Economic Inquiry, Empirical Economics, Journal of Financial Stability, International Review of Economics and Finance, Review of World Economics, Review of Economics and Institutions, International Review of Economics and Finance, Journal of Multinational Financial Management, Stability: International Journal of Security & Development, World Development, Empirical Economics, Economic Notes, Journal of African Economies, The Economics of Transition, The Journal of Economic Inequality

**Languages**

English (fluent), Italian (native), French (working knowledge), German (working knowledge)

**References**

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