

Enrico Berkes

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Citizenship	Swiss (Green Card holder)	
Research Fields	Innovation, Urban Economics, Applied Microeconomics	
Academic Positions	Pausch Assistant Professor, Department of Economics, University of Maryland Baltimore County, 2023- Postdoctoral Researcher, The Ohio State University, 2018-2023	
Education	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	
Journal Publications	<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>, forthcoming.</p> <p>“Income Segregation and the Rise of the Knowledge Economy,” with Ruben Gaetani, <i>American Economic Journal: Applied Economics</i>, 15(2): 69–102, April 2023 .</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>, 87, January 2023.</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

We develop a spatial model of endogenous growth via frictional knowledge diffusion to examine the effect of technological waves—defined as long-term shifts in the importance of specific knowledge fields—on local population dynamics. We calibrate the model using a new dataset of historical geolocated patents, and find that frictions to idea diffusion across locations and technological fields account for more than half of the empirical relationship between exposure to technological waves and local growth in the United States during the twentieth century. Counterfactual experiments suggest that future technological scenarios will have large geographical effects.

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

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 Manyasheva 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
IP Day, Boston University, Boston
Cleveland State University (virtual)
University of Maryland Baltimore County, Baltimore
Penn State University, State College
Northwestern University (Center for Science of Science & Innovation), Evanston

2022
Cornell University (Dyson), Ithaca
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, Management Science, 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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