

**PERSONAL INFORMATION** Fernando Stipanivic Márquez

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Date of birth 12<sup>th</sup> February 1992 | Nationality Uruguayan, Spanish

**RESEARCH & TEACHING INTERESTS**

- Innovation
- International Trade
- Spatial Economics

**EDUCATION**

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| September 2017 – June 2022    | <b>PhD Candidate in Economics</b><br>Toulouse School of Economics, France.<br>Advisor: Christian Hellwig.          |
| September 2016 – June 2017    | <b>Master in Economic Theory and Econometrics</b><br>Toulouse School of Economics, France.                         |
| March 2016 – July 2016        | <b>Graduate Exchange Student</b><br>School of Economics, Business and Accounting, University of Sao Paulo, Brazil. |
| March 2010 – January 2015     | <b>Bachelor in Economics</b><br>School of Economics and Business, Universidad de la República, Uruguay.            |
| September 2014 - January 2015 | <b>Undergraduate Exchange Student</b><br>University of Graz, Austria.  |

**JOB MARKET PAPER**

- **THE DIFFUSION OF KNOWLEDGE: EVIDENCE FROM THE JET AGE (2021)**, joint with [Stefan Pauly](#).

This paper studies the impact of travel time on the diffusion and creation of knowledge. We provide causal evidence by exploiting the beginning of the Jet Age as a natural experiment. We digitize airlines' historical flight schedules and construct a novel data set of the flight network in the United States. Between 1951 and 1966, travel time between locations more than 2,000km apart decreased on average by 41%. We use patent data as a measure of knowledge creation and diffusion. For research establishments located more than 2,000km apart, the reduction in travel time increased citations by 7.6%, accounting for 36.1% of the observed increase in citations in this distance interval. The decrease in travel time also led to an increase in knowledge access of each location which spurred the creation of new patents. The effect was stronger in initially less innovative locations, leading to a yearly growth rate of patenting 1.2 percentage points higher relative to more innovative locations. The predicted difference accounts for 23.5% of the convergence rate observed. We uncover one mechanism through which convergence occurred: expansion of multi-establishment firms. We find that the reduction in travel time to headquarters led to an increase in the amount of subsidiaries in other locations, with a larger relative increase of subsidiaries in initially less innovative locations.

**Best paper award Research in International Economics and Finance (RIEF) Network Conference 2021**

## OTHER RESEARCH

▪ **HIGH-SPEED TRAINS AND THE GEOGRAPHY OF INNOVATION: EVIDENCE FROM FRANCE (2021)**, joint with Gabrielle Gambuli

We study the effect of high speed trains on the spatial distribution of innovation, research collaboration, firms' organization and inventors' mobility. We use French micro data of firms, matched employer-employee information and patent data. We construct a dataset of city-to-city travel time by train in France covering the period 1980-2020. We exploit the rollout of high speed trains to provide causal evidence. Preliminary results show that a decrease in travel time led to an increase in collaboration between inventors located in different departments.

▪ **RAILROADS AND INNOVATION: EVIDENCE FROM 19TH CENTURY US (2019)**, joint with [Stefan Pauly](#)

We study the impact of the expansion of US railroads in the late 19th century on patenting activity. We combine historical data on patents and the railroad network. We find that once a county is better connected to other counties with high patenting activity, patenting in that county goes up, controlling for increased market access. This effect is stronger if innovation in the connected counties is complementary, calculated as the technological proximity in an input-output matrix of patent citations. We derive a model based on the framework in Eaton and Kortum (2002) that rationalizes these findings.

▪ **INNOVATION RESPONSE TO EXPORT DEMAND: MULTI-COUNTRY EVIDENCE (2018)**

This paper studies empirically the impact of foreign demand on domestic innovation. I use multi-country multi-product data on patents and international trade for the period 1995-2010. I construct a measure of foreign demand for each product and country, and relate it to changes in patenting within that country. The results are in line with the theoretical predictions of Aghion et al. (2018) where initially more productive exporters increase the innovation effort as response to an exogenous increase in demand.

WORK & TEACHING  
EXPERIENCE

June 2021 – August 2021

**PhD Intern at International Monetary Fund**

- Research Department. Project: Impact of transport infrastructure improvements on international trade of Colombian firms. Supervisors: Camila Casas and Masha Brussevich.

October 2020 – April 2021

**Visiting Researcher at World Trade Organization**

- Research internship. Mentors: Stela Rubinova and Victor Stolzenburg.

January 2020 – December 2020

**Teaching Assistant – Macroeconomics**

- Macroeconomics (Phd level). Professor: Fabrice Collard and Christian Hellwig.
- Macroeconomics (graduate). Professor: Tiziana Assenza and Nicolas Werquin.

2017 - 2020

**Research Assistant**

- October 2019 – April 2020. For Professors Thomas Chaney and Johannes Boehm. Sciences Po Paris, France. Task: data analysis, processing of big data sets.
- August 2017. For professors Bruno Jullien and Alessandro Pavan. Task: approximate solution of a set of simultaneous non-linear equations using quasi-Monte Carlo methods. Toulouse School of Economics, France.

May 2014 – April 2016

**Consultant for the Inter-American Development Bank**

Located at the Central Bank of Uruguay [www.bcu.gub.uy](http://www.bcu.gub.uy)

- Statistics / Department of National Accounts. Tasks: update of Base Year in National Accounts, Estimation of Investment in Energy, R&D and Real Estate sectors, analysis of Current Account and Balance of Trade at the sector level, design and performance of surveys, elaboration of reports.

## SKILLS

- Spanish (native), English (fluent), Portuguese (fluent), French (intermediate)
- R, Python, Matlab, Stata, Microsoft office, Latex

PRESENTATIONS

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- 2021 Geneva Local GTDW, Paris GSIE Seminar, Collège de France, European Meeting UEA, UAB Lunch Webinar, Augustin Cournot Doctoral Days, CIREQ PhD, ITFA Annual Conference, African Meeting ES, Annual Conference AFSE, IAAE Annual Conference, CIEC ESPOL, Annual Conference ITEA, IMF, Bavarian Young Economist Meeting, SED Annual Meeting, Australasian Meeting ES, International Schumpeter Society, YES Princeton, European Economics Association, ifo Dresden Regional Economics, RIEF Paris, ENTER Jamboree Barcelona
- 2020 WTO Research Workshop, Montevideo Graduate Workshop

REFERENCES

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- [Christian Hellwig](mailto:christian.hellwig@tse-fr.eu) – Toulouse School of Economics. [christian.hellwig@tse-fr.eu](mailto:christian.hellwig@tse-fr.eu)
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- [Mohamed Saleh](mailto:mohamed.saleh@tse-fr.eu) – Toulouse School of Economics. [mohamed.saleh@tse-fr.eu](mailto:mohamed.saleh@tse-fr.eu)
- [Ulrich Hege](mailto:ulrich.hege@tse-fr.eu) – Toulouse School of Economics. [ulrich.hege@tse-fr.eu](mailto:ulrich.hege@tse-fr.eu)