

François MAUBLANC

DATE AND PLACE OF BIRTH: 29 June 1990 — La Teste de Buch (FRANCE)
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EDUCATION

- 2013-2018 PhD. in Economics
University of Bordeaux
Competition, Interdisciplinarity and Teams in Science
Thesis defended on December 13th, 2018
Under the supervision of Professor Nicolas CARAYOL and Professor Sébastien ROUILLON
MEMBERS OF THE JURY:
Professor **Francis BLOCH**, *Paris School of Economics*
Professor **Luis CORCHÓN**, *Universidad Carlos III de Madrid*
Professor **Pierre MOHNEN**, *Maastricht University (UNU-MERIT)*
- 2011-2013 Master's degree in Mathematical, Statistical and Economic Engineering
University of Bordeaux
Specialty in *Economic and Financial Risk Engineering*
- 2008-2011 Bachelor's degree in Economics
University of Bordeaux
Specialty in *Policy, Strategy and Economic Decisions*

ACADEMIC POSITIONS

- 2019 - Lecturer in Economics
CY Cergy Paris Université
Graduate School of Engineering in Computer Science, Mathematics and Economics (CY-Tech), Cergy-Pontoise
- 2019 Post-doc Researcher
University of Bordeaux
- 2018 Teaching Assistant
ESSCA Business School Bordeaux
- 2013-2018 Doctoral student under contract from the Ministry of Education
University of Bordeaux
- 2013-2016 Study officer for Excellence Initiatives (IDEX)
University of Bordeaux

PUBLICATIONS

Maublanc, F., Rouillon, S. (2023). Contests with an uncertain number of prizes with a fixed total value. *Mathematical Social Sciences*, 121, 20-25. [CNRS 2, HCERES A]

We study multiple-prize contests where the number of prizes to be awarded is a random variable. We determine conditions under which a unique symmetric Nash equilibrium exists. We compare the equilibrium efforts according to different probability distributions of the number of prizes. We show that each player's effort decreases with the average number of prizes (first order stochastic dominance) and may increase or decrease with the risk in the number of prizes (second-order stochastic dominance) depending on the prize allocation mechanism.

SUBMITTED PAPERS

Can Money Buy Scientific Leadership? The Impact of Excellence Programs on German and French Universities. (with *Nicolas Carayol*) Under Review at *Research Policy* [CNRS 1, HCERES A, FNEGE 1*]

German and French governments have had, quasi simultaneously, this ambitious goal to push forward national champions on the global higher education and research market via, as they called it, "excellence programs". Both governments selected less than ten university sites each via international committees, which have submitted projects to significantly improve their institutions. We develop a difference-in-difference approach to identify the impact of such non standard research policy on the selected universities. Our identification strategy builds upon matching those entities to non-treated European universities and upon controlling for a number of potential confounding factors via regression adjustment. We find a positive effect on the treated on the number of scientific papers (in particular internationally coauthored one and with private partners). However, everything works as if excellence policy essentially preserved treated universities from losing their scientific competitive edge, whereas the competitive position of non-selected universities in those countries have essentially waned both in their national and in the European context.

POLICY REPORTS

L'impact de l'IdEx. Une Etude au Niveau Etablissement avec Comparaison Européenne (avec *Nicolas Carayol*, janvier 2022).

Développement d'une méthode d'étude de l'impact des laboratoires d'excellence (Labex), initiatives d'excellence (IdEx, I-Sites) et Initiatives d'excellence en Formations Innovantes (Idefi). Rapport commandé par le SGPI (*Secrétariat Général Pour l'Investissement*).

WORKING PAPERS

Teams, Interdisciplinarity and the Rising Complexity of Research. (with *Nicolas Carayol*)

We conceptualize a research project as a CES knowledge production function whose factors are sub-team efforts, each one in a distinct field of expertise. We abstract from the intra-team coordination and free-riding issues to focus on the team decision problem when it competes in a Tullock contest to win a given prize, or say investors', users' or even peers' attention. At equilibrium all team's outcomes as well as the distribution of factors contribution are tied to a synthetic index which characterizes the complexity of the research production function,

in essence the very nature of the problem addressed and the research strategy. Complexity decreases the probability to participate in the contest, the production outcome and the winning probability but raises the diversity of factors contributions. We apply this theory to research teams in science and technology using backward citations as proxies of factors (expertise in the different scientific or technology fields) contributions to the output. We show on datasets of eight million scientific articles and of nearly seven million USPTO patents that the diversity of factors contributions increases over the years at a growth rate consistent with the rate at which research productivity declines. On a more limited but disambiguated dataset of 0.4 million articles, interdisciplinarity is, consistently with the theoretical model, negatively related to citations, a typical proxy for peers' interest. We discuss declining research productivity as potentially resulting from a rising complexity of teams knowledge production function.

WORK IN PROGRESS / ONGOING PROJECT

Group contest with homogeneous impact function.

Industrial Dynamics of Artificial Intelligence in Europe: Using geo-localized individual profiles as an entry point.

Joint project under the supervision of Jackie Krafft and with the participation of Marco Baudino, Martin Cimiterra, Olha Nahorna, Valerio Sterzi, Michele Pezzoni and Diego Useche. Submitted to ANR (PRC) as a partner.

CONFERENCE AND SEMINAR PRESENTATIONS

Presentations

- 2021 Internal Seminar (**THEMA**), Cergy-Pontoise (online)
37th Applied Microeconomic Days (**JMA**), Annecy (online)
Summerschool KID 2021 Knowledge Dynamics, Industry Evolution, Economic Development, CNRS Nice
Septième conférence de l'Evaluation des Politiques Publiques (EPP 2021), Ministère de l'Economie, des Finances et de la Relance
- 2020 Annual Congress of the European Economic Association (**EEA**), Rotterdam (online)
- 2019 46th Annual Conference of the European Association for Research in Industrial Economics (**EARIE**), Barcelona
BRICK 2019: The Organisation, Economics and Policy of Scientific Research, Bordeaux.
19th Annual **SAET** (Society for the Advancement of Economic Theory) Conference, Ischia.
8th **ZEW/MaCCI** Conference on the Economics of Innovation and Patenting, Mannheim.

- 2018 1st Junior Researcher Workshop: From Science To Innovation (Max Planck Institute for Innovation and Competition), Munich.
 35th Applied Microeconomics Days (**JMA**), Bordeaux.
Barcelona GSE Workshop on Economics of Science and Innovation (**ESI**), Barcelone.
 Workshop on the Economics of Research and the Design of Science Policy, Bordeaux.
- 2017 Public Economic Theory (**PET**), Paris.

Organisation

- 2019 Member of the organisation committee of **BRICK 2019**: The Organisation, Economics and Policy of Scientific Research, Bordeaux.
- 2018 Member of the organisation committee of Applied Microeconomics Days (**JMA**), Bordeaux.

TEACHING

- ING3 Introduction to Finance (CM & TD, 77 hours)
 Panorama of the Financial Industry (CM & TD, 70 hours)
- ING2/M1 Microeconomics (CM & TD, 120 hours)
 Macroeconomics (CM & TD, 54 hours)
 Applied Modeling (TD, 60 hours)
 Corporate Finance (CM & TD, 90 hours)
- L3 Dynamic macroeconomics (30 hours)
 Introduction to econometrics (30 hours)
- L2 Microeconomics (TD, >200 hours)
 Computer Science Applied to Economics and Management (TD, 6 hours)
- L1 Principles of Finance (*in English*, CM & TD, 60 hours)

LANGUAGES AND COMPUTER SKILLS

- Languages French (native), English (C1), German (A2)
- Computer Skills Econometrics (Stata, R), Writing of Scientific Documents (**L^AT_EX**), Office Software (Word, Powerpoint, Excel, Access), Visual Basic (VBA), Computer Programming (HTML, CSS)

HOBBIES

- Semi-professional musician (certificate in music studies): trombone, euphonium and tuba.
- Bands Sanguinet Jazz Band
 Brass Born Quintet (President of the Association)
 Brass Landes

REFERENCES

Francis Bloch

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