

César Barilla

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PLACEMENT CHAIRS:

Sandra Black
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PLACEMENT ADMINISTRATORS:

Amy Devine
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RESEARCH INTERESTS

Microeconomic Theory, Information Economics, Dynamic Games.

REFERENCES

Yeon-Koo Che

Kelvin J. Lancaster Professor of Economic Theory

Department of Economics
Columbia University
yc2271@columbia.edu

Navin Kartik

Professor

Department of Economics
Columbia University
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Elliot Lipnowski

Associate Professor

Department of Economics
Yale University
elliott.lipnowski@yale.edu

Laura Doval

Chong Khoon Lin Professor of Business

Economics Division
Columbia Business School
md3958@columbia.edu

EDUCATION

Columbia University, New York

PhD in Economics

2025 (*expected*)

M.Phil in Economics (*en route*)

2022

M.A. in Economics (*en route*)

2021

Paris School of Economics, Paris

Masters in Economics, APE (Analysis and Economic Policy)

2019

Université Paris 6 (Pierre et Marie Curie – Jussieu), Paris

MSc in Mathematics, specialized in Mathematics for Modeling

2018

École Normale Supérieure, Paris

Élève Fonctionnaire Stagiaire (Student civil servant, 4 years fellowship)

2015–2019

RESEARCH

JOB MARKET PAPER

When and what to learn in a changing world

Short summary: I propose and study a new model of infrequent information acquisition about a changing state, in which a decision-maker facing repeated choices controls both the timing and content of periodic updates about current circumstances. I derive a general characterization of solutions, which relies on a novel decomposition of the problem. This pins down long run dynamics of beliefs, which reduce to a simple cyclical pattern despite the richness of the policy space. I use the model to study the effect of the environment (costs, underlying volatility) on the optimal information acquisition dynamics, as well as an application to a stylized investment problem.

PUBLICATIONS

The dynamics of instability

with Duarte Gonçalves, *Theoretical Economics*, 2024.

Short summary: Even if pure instability does not generate any short term expected gains, players with opposed interests can leverage it to obtain long term changes. In equilibrium, the least favored player uses instability in a decreasing manner as we get closer to a stable state; long run outcome exhibit path dependency and can sustain high inequity.

A mean-field game model for the evolution of cities

with Guillaume Carlier and Jean-Michel Lasry, *Journal of Dynamics & Games*, 2021.

Short summary: We propose a MFG model for the evolution of residents and firms densities, coupled both by labour market equilibrium conditions and competition for land use; the former induces a new optimal transport coupling in the system of two HJB and two Fokker-Planck equations. This MFG has a convex potential which enables us to find weak solutions by a variational approach. In the case of quadratic Hamiltonians, we reformulate the problem in Lagrangian terms and develop a numerical solution method.

WORKING PAPERS

Cultural transmission and historical origins of beliefs about climate risk

with Palaash Bhargava.

Short summary: The realized intensity of deviations from typical climatic conditions in ancestral generations influences how much descendants care about the environment. The effect exhibits a U-shape where more stable and more unstable climates lead to higher attention, with a dip for intermediate realizations. We propose a theoretical framework where the value of costly attention to environmental conditions depends on the perceived stability of the environment; prior beliefs about which are shaped through cultural transmission by the experience of ethnic ancestors.

WORK IN PROGRESS

Dynamic information acquisition with memory loss

with Arslan Ali.

Short summary: Does memory loss lead to more or less information acquisition? When information may be forgotten before it can be used to make decisions, the marginal value of an individual signal is subject to two opposite forces: it decreases since it is less likely to improve decisions and improves since having more information may improve overall retention. This leads to asymmetric distortions in sequential optimal information acquisition: memory loss leads to lower standards for information that confirms the status quo but over-confirmation for information that contradicts it.

OLDER WORK

Stability with complementarity in many-to-one matching markets

Masters Thesis, Paris School of Economics, 2019, supervised by Alfred Galichon

Optimal transport coupling in multi-population mean field games

Masters Thesis in Mathematics, Université Paris-Dauphine and INRIA Paris, 2018
supervised by Guillaume Carlier and Jean-Michel Lasry

TEACHING

INSTRUCTOR

Math Camp, Economics MA

Summer 2021

Game Theory, Undergraduate Elective

Summer 2022, Summer 2023

TEACHING FELLOW

Math Methods, Economic MA

Fall 2021, Fall 2020

for Profs. Ceyhun Ergin (2020) and Evan Sadler (2021)

Advanced Microeconomics II (PhD)

Spring 2022

for Profs. Yeon-Koon Che and Elliot Lipnowski

Microeconomic Analysis II (MA)

Spring 2023

for Prof. Guillaume Haeringer

(All classes at Columbia University.)

PROFESSIONAL SERVICE

REFEREEING

AEJ:Micro, Games and Economic Behavior.

ORGANIZING

Student organizer for Columbia's Microeconomic Theory Colloquium (2021-2022).

AWARDS AND HONORS

Wueller Award for Best TA for a PhD Course, Columbia University Economics Department	2022
Vickrey Award for Best Third Year Paper, Columbia University Economics Department	2022
Lewis A. Sanders Fellowship in Economics, Columbia University	2021-2022
Harris Award for Best Second Year Paper, Columbia University Economics Department	2021
Research Fellow Summer Grant, Program for Economic Research, Columbia University	2020
Economics Department Fellowship, Columbia University	2019-2024
Dean's Fellowship, Columbia University	2019-2024
Élève Fonctionnaire Stagiaire, ENS Ulm, reçu au concours B/L	2015-2019

RESEARCH ASSISTANCE

Columbia University

Yeon-Koo Che	2021-2022
Navin Kartik	2020-2021, 2023

Observatoire Français des Conjonctures Économiques (OFCE)

Jérôme Creel	2016
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OTHER

Nationality	French
Programming Languages	Python, Julia, Mathematica, Matlab, Freefem++, R, Stata, L ^A T _E X.
Languages	French (Native) English (Fluent) Spanish (Good) Hindi (Elementary)