

# Marcelo Gallardo

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Department of Mathematics  
[Pontificia Universidad Católica del Perú](#)  
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## Education

B.s. in Mathematics 2020-2025 (E) and M.A. (c) in Economics and Applied Mathematics (2023-2025). [Pontificia Universidad Católica del Perú](#).

Cycle Propédeutique, Physique 2019-2020. [École Polytechnique Fédérale de Lausanne](#).

## Summer and winter school

[QLab Summer School](#), Lima, Pe. Jan-Feb. 2022, 2023, 2024.

[QLab Winter School](#), Lima, Pe. Aug. 2024.

[Harvard University](#), Ethics of Artificial Intelligence in Business, MA. Aug. 2024.

## Academic Statement

Relevant coursework at PUCP [here](#).

## Experience

Research Assistant (2021-)

[UNSW](#) Sydney, Au. Working with PhD [Juan Carlos Carbajal](#). 2024-.

[GRADE](#), Lima, Pe. Working with PhD [Juan León Jara-Almonte](#). 2022-2024.

[PUCP](#), Lima, Pe. Working with PhD [Jorge Richard Chávez Fuentes](#). 2021-.

Teaching Assistant (2022-)

[Mathematics for Economics and Finance 3](#). With PhD Jorge Richard Chávez Fuentes.

[Mathematics for Economists](#). With PhD Jorge Richard Chávez Fuentes.

[Optimization I](#). With PhD Jorge Richard Chávez Fuentes.

**Guest professor:** PhD [Federico Echenique](#) (UC Berkeley).

[Functional Analysis](#). With PhD [Percy Braulio Fernández](#).

[Microeconomics 2](#). With PhD [Pavel Coronado Castellanos](#).

[Financial Microeconomics](#). With PhD (a.b.d.) [José David Gallardo Kú](#).

## Working papers and publications

[Congestion and Penalization in Optimal Transport](#). With PhD Jorge Richard Chávez Fuentes and Manuel Loaiza. Submitted.

[Harnessing Twitter and GPT for a Novel Political Uncertainty Index for Peru: Implications for USD/PEN Exchange Rate Fluctuations](#). With Manuel Loaiza and PhD Gabriel Rodríguez Briones. Working paper.

Irregular wave dynamics driven by a random force within the Burgers equation. With [Marcelo Flamarion](#).

## Books and lecture notes

[Linear Algebra and Optimization for Economists](#). With PhD Jorge Richard Chávez Fuentes. Pre-published book.

[Optimal Control and Dynamical Systems for Economic Analysis in Continuous Time](#). With PhD Jorge Richard Chávez Fuentes. Working book.

[Fundamentals of Econometric Theory](#). With PhD Juan León Jara-Almonte. Lecture notes.

## Awards

Mention [Très Bien](#) au BAC (19.91/20). [Lycée Franco Péruvien](#), Lima Pe, 2018.

[Admission](#) to l'X Bachelor Program. Paris, Fr, 2019.

[Winner of the contest Initiation to Scientific Research](#). PUCP, Lima, Pe, 2020.

[Winner of the contest Initiation to Scientific Research](#). PUCP, Lima, Pe, 2021.

Ranked first in my class in the Mathematics major. PUCP, Lima, Pe.

[Excellence Scholarship](#) PUCP, Lima, Pe, 2024.

## Skills

Programming: Python,  $\text{\LaTeX}$ , STATA.

Languages: Spanish (Native), French (Advanced), English (Proficient).

## Research interests

Convex optimization. Matching theory. Consumer Theory. General Equilibrium. Contract Theory, Optimal Control Theory. Optimal Transport.

## References

[Jorge Richard Chávez](#). Professor of the Mathematics Department at Pontificia Universidad Católica del Perú.

[Juan Carlos Carbajal](#). Associate Professor and Post-Graduate Coordinator of the School of Economics at the UNSW Sydney.

[Juan León Jara](#). Associate Professor of the Economics Department at Pontificia Universidad Católica del Perú and Research Associate at GRADE.

[Alfredo Bernardo Poirier](#). Professor of the Mathematics Department at Pontificia Universidad Católica del Perú.

[Marcelo Flamarion](#). Tenure Track of the Mathematics Department at Pontificia Universidad Católica del Perú.