

# Marcelo Gallardo

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Department of Mathematics  
[Pontificia Universidad Católica del Perú](#)  
Lima, Pe.  
[marcelo.gallardo@pucp.edu.pe](mailto:marcelo.gallardo@pucp.edu.pe)

## CV

### Education

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

General Humanistic Studies (2019-1). [Pontificia Universidad Católica del Perú](#).

### 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.

### 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](#). Under review.

Irregular wave dynamics driven by a random force within the Burgers equation. With PhD [Marcelo Flamarion](#). Submitted to Trends in Computational and Applied Mathematics.

X political and economic uncertainty index for Peru. With Manuel Loaiza and PhD [Gabriel Rodríguez Briones](#). Working paper.

Novel innovation indicator for Peruvian universities. With PhD Juan León Jara-Almonte. Under review.

Price Information and Oligopolistic Competition with Seller Cost Uncertainty with Advertising. With PhD Jorge Richard Chávez Fuentes. Working paper.

## Books and lecture notes

[Linear Algebra and Optimization for Economists](#). With PhD Jorge Richard Chávez Fuentes. Pre-published book. Foreword from Professor [César Martinelli](#). Submitted to [Fondo Editorial PUCP](#).

[Dynamical Systems and Optimal Control for Economists](#). With PhD Jorge Richard Chávez Fuentes. Under review.

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

[Notes on Optimal Transport Theory and its Applications in Economics and Finance](#). With Carlos Cosentino.

## 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.

Top 2.5% in the Faculty of Sciences and Engineering in PUCP (more than 4000 students).

## Skills

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

Languages: Spanish (Native), French (Advanced, BAC 2019), English (Proficient, FCE 2017).

## Research interests

Microeconomic Theory. Matching theory. Consumer Theory. General Equilibrium. Contract Theory, Optimization and Control Theory. Auction 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.