Marcelo Gallardo

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Department of Mathematics
Pontificia Universidad Católica del Perú
Lima, Pe.
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CV

Education

B.s. in Mathematics March 2020 - July 2025 (expected) and M.A. (courses) 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.

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 to Journal of Mathematical Economics.

Irregular wave dynamics driven by a random force within the Burgers equation. With PhD Marcelo Flamarion. Preprint.

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 Rodriguez Briones. Working paper.

Innovation and overeducation in Peruvian universities. With PhD Juan León Jara-Almonte. 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.

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. R&R to DECON PUCP.

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 Scholarhsip PUCP, Lima, Pe, 2024.

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

Skills

Programming: 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.