### Marcelo Gallardo

# marcelo.gallardo@pucp.edu.pe marcelogallardob.github.io

Department of Mathematics

Pontificia Universidad Católica del Perú, Lima, Pe.

### Education

Courses in the Graduate school in Applied Mathematics and Economics. 2023-2025. Pontificia Universidad Católica del Perú.

B.s. and Lic. in Mathematics and 2020 - 2025. Pontificia Universidad Católica del Perú. 19.2/20 (Faculty of Sciences and Engineering) and 18.24/20 (Overall).

General Humanistic Studies (2019). Pontificia Universidad Católica del Perú. 19/20.

Baccalauréat Scientifique (2017-2019). Lycée Franco Péruvien. 19.91/20.

## 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-)

PUC Chile Santiago, Ch. With Professor Carlos Noton. 2025-.

UNSW Sydney, Au. With Professor Juan Carlos Carbajal. 2024-.

GRADE, Lima, Pe. With Professor Juan León Jara-Almonte. 2022-2024.

PUCP, Lima, Pe. With Professor Jorge Richard Chávez Fuentes. 2021-2025.

Teaching Assistant (2022-)

Mathematics for Economics and Finance 3. With Professor Jorge Richard Chávez Fuentes.

Mathematics for Economists (IV). With Professor Jorge Richard Chávez Fuentes.

Optimization I. With Professor Jorge Richard Chávez Fuentes.

Guest professor: Federico Echenique (UC Berkeley).

Functional Analysis. With Professor Percy Braulio Fernández.

Microeconomics 2. With Professor Pavel Coronado Castellanos.

Financial Microeconomics. With Professor José David Gallardo Kú.

Applied Differential Equations. With Professor Marcelo Flamarion.

## Working papers

Field Experiments on Seasonal Products and Markdown Pricing. With Carlos Noton.

## Completed manuscripts

Congestion and Penalization in Optimal Transport. With Jorge Richard Chávez Fuentes and Manuel Loaiza.

Heterogeneous Quadratic Regularization in Optimal Transport. With Jorge Richard Chávez Fuentes and Manuel Loaiza.

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

### **Books**

Linear Algebra and Optimization for Economists. With Jorge Richard Chávez Fuentes. Pre-published book. Foreword from Professor César Martinelli. Forthcoming at Fondo Editorial PUCP.

Dynamical Systems and Optimal Control for Economists. With Jorge Richard Chávez Fuentes. Under review at Springer.

#### Awards

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

Admission to l'X (École Polytechnique) 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, 2025.

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, Matlab.

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

#### Research interests

Mechanism design. Matching. Decision theory. Optimal Transport. Optimal Control.

# Academic presentations

XXXVIII Colloquium of the Peruvian Mathematical Society. Aug. 2025.

### References

César Martinelli. Professor of economics at George Mason University.

Carlos Noton. Assistant Professor at the School of Management the Pontificia Universidad Católica de Chile.

Juan Carlos Carbajal. Associate Professor at the UNSW Sydney.

Jorge Richard Chávez. Professor of the Mathematics Department at Pontificia Universidad Católica del Perú.

Juan León Jara. Associate Professor of the Economics Department at Pontificia Universidad Católica del Perú and Research Associate at GRADE.