

José Giral Barajas

PHD STUDENT · MATHEMATICS RESEARCH

Imperial College London, South Kensington, London, SW7 2AZ, UK

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Education

Imperial College London

PH.D. MATHEMATICS

- Advisor: Professor Paul C Bressloff

London, UK

2022 - present

Universidad Nacional Autónoma de México (UNAM)

M.Sc. MATHEMATICS

- Advisor: Dr. Sergio I. López Ortega
- Thesis: Probabilistic epidemiological model for heterogeneous populations
- Qualifying exams in partial differential equations, probability and stochastic processes and graph theory.

Mexico City, Mexico

2022 - 2024

Universidad Nacional Autónoma de México (UNAM)

B.Sc. APPLIED MATHEMATICS

- Advisor: Dr. Sergio I. López Ortega
- Thesis: Probabilistic epidemiological model with microdynamics and reverse time (Spanish)
- First-class honours, ranked top of the and awarded the Gabino Barreda medal

Mexico City, Mexico

2017 - 2021

Professional Experience

2021-2022 **Business Intelligence Specialist**, Totalplay Telecomunicaciones, S.A. de C.V., Mexico City, Mexico

Publications

JOURNAL PAPERS

1. **J. Giral-Barajas**, C. I. Herrera-Nolasco, M. A. Herrera-Valdez and S. I. López. A probabilistic approach for the study of epidemiological dynamics of infectious diseases: Basic model and properties. *J. Theor. Biol.* **572** 111-576 (2023).

PREPRINTS

1. **J. Giral-Barajas** and P. C. Bressloff. Stochastic 1D search-and-capture as a G/M/c queueing model. arXiv preprint: 2503.21883

Scholarships and Awards

2024 **Roth Scholarship for Ph.D. Degree**, Department of Mathematics, Imperial College London, UK

2022 **Graduate Scholarship for M.Sc. Degree**, National Council of Humanities, Sciences and Technologies (CONAHCyT), Mexico

2022 **Gabino Barreda medal**, Universidad Nacional Autónoma de México (UNAM), Mexico

Teaching Experience

Spring 2025 **Imperial College London**, Graduate Teaching Assistant, Probability and statistics

Spring 2024 **UNAM**, Graduate Teaching Assistant, Stochastic processes

Fall 2023 **UNAM**, Teaching Assistant, Probability

Spring 2022 **UNAM**, Teaching Assistant, Mathematical Modelling Workshop