José Giral Barajas

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EDUCATION

2022-   Universidad Nacional Autónoma de México, M.Sc. Mathematical Sciences.

2021   Universidad Nacional Autónoma de México, B.Sc. Applied Mathematics.
First-class honours, ranked top of the class of 139 students and awarded the Gabino Barreda medal.

- Thesis: Probabilistic epidemiological model with micro-dynamics and reverse time[1]
- Keywords: Epidemiology, Stochastic SI, Moran process, Lookdown model

PROFESSIONAL EXPERIENCE

2022   Totalplay Telecomunicaciones, S.A. de C.V., Business Intelligence Specialist

RESEARCH EXPERIENCE

2023-   Universidad Nacional Autónoma de México, Research Assistant. Mentor: Pablo Padilla-Longoria. Estimates of the Fokker-Planck equation.

2021-2022   Universidad Nacional Autónoma de México, Undergraduate research and Research Assistant. Mentors: Sergio I. López and Marco Arieli Herrera-Valdez. Development of a probabilistic epidemiological model based on multinomial samplings.

TEACHING EXPERIENCE

2021-2023   Universidad Nacional Autónoma de México, Teaching Assistant. Courses: Mathematical Modeling Workshop and Introduction to Probability Theory.

RESEARCH PUBLICATIONS

Giral-Barajas, J., Herrera-Nolasco, C. I., Herrera-Valdez, M. A., & López, S. I. A probabilistic approach for the study of epidemiological dynamics of infectious diseases: Basic model and properties. *Journal of Theoretical Biology* **572**, 111-576 (2023). https://www.sciencedirect.com/science/article/abs/pii/S002251932300173X

POSTERS

Giral-Barajas, J. "A probabilistic approach for the study of epidemiological dynamics of infectious diseases: Basic model and properties" Poster at Red Mexicana de Biología & matemáticas, 2023.

COMPUTER SKILLS

Languages: MatLab, R, Python, Julia.

Applications: LaTeX, MS Office.

LANGUAGES

Spanish: native speaker.

English: good command.

Japanese: basic command.

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[1] Written in Spanish