

Bernardo Williams

PHD STUDENT · COMPUTER SCIENCE

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Education

University of Helsinki

PHD COMPUTER SCIENCE, PROBABILISTIC MACHINE LEARNING LAB

- Advisors: Arto Klammi and Marcelo Hartmann

Helsinki, Finland

2023 - present

University of Helsinki

MS MATHEMATICS AND STATISTICS

- Thesis: Generalized No-U-Turn Sampler for Lagrangian Monte Carlo

Helsinki, Finland

2020 - 2022

Universidad Nacional Autónoma de México

BS ACTUARIAL SCIENCES

- Thesis: Statistical Learning Methods and Their Applications in Banking

Mexico City, Mexico

2013 - 2018

Employment

2023 **Doctoral Researcher**, University of Helsinki

2019-2022 **Junior Data Scientist**, Integra

2017-2019 **Manager, Analytics**, Banorte Financial Group

2017-2021 **Teaching Assistant**, Statistical Inference, Probability 1, Time Series Analysis and Operations Research

Selected Publications

Categorical Flow Matching via Simplex-to-Euclidean Bijections (NeurIPS FPI Workshop 2025) Williams, B, et al.

Geodesic Slice Sampler for Multimodal Distributions with Strong Curvature (UAI, 2025) Williams, B et al.

Stochastic variance-reduced Gaussian variational inference on the Bures-Wasserstein manifold (ICLR 2024) Luu, HPH et al.

Non-geodesically-convex optimization in the Wasserstein space (NeurIPS 2024) Luu, HPH et al.

Riemannian Laplace Approximation with the Fisher Metric. (AISTATS 2024) Yu, H. et al.

Geometric No-U-Turn samplers: Concepts and evaluation (PGM 2024) Williams, B, et al.

Awards, Fellowships, & Grants

2023 **Best Poster Award**, Bayes Comp 2023

2021 **Second Year Grant**, for being the top student of the program

References

Arto Klami

PROFESSOR

University of Helsinki

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Marcelo Hartmann

ACADEMY RESEARCH FELLOW

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