

Dr. MATHEUS HOSTERT

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Interested in research, data science, and software development. Strong background in programming and statistics. Demonstrated creative problem-solving, leadership, and communication skills. Thrives on teamwork and tackling new ambitious challenges.

Technical Skills

Programming skills — Python ●●●●● C++ ●●●●● Mathematica ●●●●● Julia ●●○○○ Java ●●○○○

— Responsible for developing several small and medium-sized projects in Python and C++ programming languages, including open-source tools for Particle Physics applications. Extensive knowledge of object-oriented programming. Contributed to large-scale open-source projects in the field.

— Extensive experience with collaborative Git projects using GitHub and GitLab, including software packaging and deployment with PyPI.

Data Analysis and Statistics — Experience with statistical modeling, hypothesis testing, and probability theory. Expert in data analysis with NumPy and Pandas, and has some experience with TensorFlow.

Data Visualization — Excellent data visualization skills using Python's Matplotlib and Dash.

NumPy ●●●●● Pandas ●●●●● Matplotlib ●●●●● GitHub ●●●●● TensorFlow ●●○○○

Core Competencies

Leadership — Led 18 research projects to completion, resulting in peer-reviewed publications in internationally-renowned journals.

— Overall, contributed to 22 peer-reviewed publications and was the co-editor of four community white papers. Publication record with over 500 citations in five years.

— Co-supervised six graduate students in particle physics publications and acted as an academic mentor for two graduate and one undergraduate student.

— Organized and chaired two international conferences with over 300 participants.

Communication — Gave 25 invited talks at international conferences and 29 seminars at research institutes and Universities.

— Was featured in three popular science articles on the American Physics Society website and the Symmetry Magazine.

Outreach — Has also engaged with high-school students, teachers, and the public in large outreach events.

— Co-organizer for exhibitions at the Royal Society Summer Exhibition, the Orkney Science Festival, and Pint of Science in the UK. Tutor for the International Summer School for Young Physicists at the Perimeter Institute.

Languages — Portuguese (native tongue) English ●●●●● Spanish ●●○○○ French ●○○○○

Progression History

Postdoctoral Researcher — Harvard University Sep 2023 — present

- Receipt of the Neutrino Theory Network fellowship, an initiative of the Department of Energy.

Post-Doctoral Researcher — Perimeter Institute and University of Minnesota Sep 2019 — Sep 2023

Ph.D. in Theoretical Physics – Durham University, United Kingdom Oct 2015 — Sep 2019

- Receipt of excellence-based scholarship for full Ph.D. at Durham University, UK.

B.S. in Physics – Federal University of Santa Catarina, Brazil Mar 2011 — Jun 2015