

# MATHEUS HOSTERT

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Interested in research, data science, and software development. Strong background in Python and C++ programming. I am at my best when learning and solving new challenges.

## Positions

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**Post-Doctoral Researcher** — Perimeter Institute

Oct 2019 — Present

Joint appointment with the University of Minnesota.

Developing computer simulations of complex physical systems, analyzing experimental data with statistical methods, leading graduate and master level students, and presenting results at international conferences. Experience with working under time pressure.

## Education

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Receipt of excellence-based scholarship for partial undergraduate and full Ph.D. in Durham.

**Ph.D.** in Theoretical Physics – Durham University, United Kingdom

Oct 2015 — Sep 2019

**B.S.** in Physics – Federal University of Santa Catarina, Brazil

Mar 2011 — Jun 2015

## Technical Skills

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**Python** and **C++** — Extensive experience with Python and C++ development. Worked mostly on small and medium-sized projects. Created a Monte-Carlo generator in C++, and multiple Python tools for Particle Physics. Contributed to a few open-source projects in the field.

**Data Analysis** — Expert on Numpy and Pandas libraries, some experience with TensorFlow and PyTorch. Also an expert in Microsoft Excel and Mathematica.

**Visualization** — Advanced data visualization skills. Expert in Python's Matplotlib and Dash for graphs and dashboards.

**Git** — Extensive experience with collaborative Git projects on GitHub and GitLab.

**Unix** — Extensive experience with Bash on Linux and Darwin Unix operating systems.

## Core Competencies

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**Leadership** — Led dozens of research projects, and chaired two international and four national conferences. Mentored over six graduate students in research projects, working in teams of small and large sizes.

**Problem-solving** — Proven through multiple academic achievements in theoretical physics, and also via programming projects, where extensive use of efficient algorithms were necessary.

**Communication** — Over 50 talks given at international conferences and institutions. Has also engaged with high-school students, teachers, and the general public in outreach events.

**Writing** — Extensive experience writing scientific and technical articles. Expert in Latex and Microsoft Word. Published over 20 peer-reviewed articles in internationally renowned journals.

**Languages** — Native speaker of Portuguese, fluent in English, and basic knowledge of Spanish and French.