Joseph Wilson

Curriculum Vitae

Christchurch
New Zealand
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Master of mathematics and physics, working at Statistics New Zealand.

Skills and Interests

Passionate learner and teacher with strong analytical and technical abilities. Enthusiastic scientific researcher and communicator.

Technologies
- Julia, R, Python, Mathematica
- Unix systems, GIT version control
- LaTeX scientific typesetting
- Web (html-js-css)

I spend my free time developing open-source software, playing piano and learning French.

Interests
- Mathematics and theoretical physics
- Teaching with visuals and interactivity
- Geometric algebra
- Scientific computing

Publications

2022   Wilson J., *Geometric Algebra for Special Relativity and Manifold Geometry*, Open Access University of Wellington. MSc thesis.

2021   Wilson J., Visser M., *Explicit Baker–Campbell–Hausdorff–Dynkin formula for Spacetime via Geometric Algebra* in Int. J. of Geometric Methods in Modern Physics, V18.14, No. 2150226.

Qualifications

Graded A^+ in all tertiary-level courses, research projects and theses.

2021-2022   **Master of Science with Distinction**, Victoria University of Wellington.

2020   **Postgraduate Certificate in Science**, University of Canterbury.
Self-directed research project in astronomy, *An Overview of the Strong CP Problem and Axion Cosmology* supervised by Dr. Jenni Adams.

2017–2019   **Bachelor of Science with Honours**, University of Canterbury.
Honours project, *Asymptotic Structure and Symmetries of FLRW Universes* supervised by Dr. David Wiltshire.
- University of Canterbury Senior Scholarship
- University of Canterbury Mathematics & Statistics Scholarship
- New Zealand Institute of Physics Prize
- Madam Tiong Guok Hua Memorial Prize in science
- Vice-Chancellor's Excellence Award

Work Experience

2022–2023   **Statistical and Data Analyst** in Research and Development at Statistics New Zealand.

2021   Mathematics tutor and physics lab demonstrator at Victoria University of Wellington.

References

Academic and professional references available upon request.