William Troiani

William.a.troiani@gmail.com
https://williamtroiani.github.io
(+61) 408 787 892

List of publications:

Gentzen-Mints-Zucker Duality
(https://arxiv.org/abs/2008.10131) Logic in Computer Science (submitted).

The Internal Logic and Finite Colimits
(https://williamtroiani.github.io/pdfs/FiniteColimitsInternalLanguageTaAC.pdf) Logica Universalis.

Elimination and Cut-elimination in Multiplicative Linear Logic
(https://arxiv.org/abs/2207.10871?context=cs.LO) Logic in Computer Science (submitted).

Proofs as Codes
https://arxiv.org/abs/2405.19051 (in preparation)

Linear Logic and the Hilbert Scheme (in preparation)

Structural Bayesianism and Turing Machines (in preparation)

Qualifications:

2019 - 2024	Doctor of Philosophy (Mathematics and Statistics).
	Univesity of Melbourne, studied abroad for two years at the University of Paris Thirteen (Université Sorbonne Paris Nord).
Specialisation:	Pure mathematics, algebraic geometry, mathematical logic, theoretical computer science.
Thesis Topic:	Geometry of Interaction and computation as the splitting of idempotents.
Supervisors:	Daniel Murfet (University of Melbourne), Thomas Seiller (Université Sorbonne Paris Nord), Nora Ganter (University of Melbourne).
2017 – 2019	Master of Science (Mathematics and Statistics).
	University of Melbourne.
Thesis Topic:	(Finite) Simplicial Set are Algorithms (http://therisingsea.org/notes/MScThesisWillTroiani.pdf).
Supervisor:	Daniel Murfet (University of Melbourne).
2013 – 2016	Bachelor of Science (Mathematics and Statistics).
	University of Melbourne.

Other academic activity:

Seminars: I have presented many seminars across Australia and Europe. I also hosted a conference on the topic of Differential Linear Logic.

Research assistant: http://therisingsea.org/notes/seminar-2018-sem1.pdf Funded by DST Group https://www.dst.defence.gov.au/, also coded a parser for differential λ-calculus funded by an AMSI vacation scholarship.

Supervision: main academic supervisor for Lydia Bakiri's Final Student Research Program (partial requirement for her graduation).

Lecturing: Conducted and lectured a course in Category Theory whilst abroad in France.

Tutoring: Several years of tutoring experience, including head tutor.

Academic Referees:

Daniel Murfet: (Lecturer Level B, University of Melbourne), d.murfet@unimelb.edu.au, 0497 999 559 (email preferred).

Marcy Robertson: (Associate Professor, University of Melbourne), mdr574@gmail.com

Morgan Rogers: rogers@lipn.univ-paris13.fr, +44 780 789 6570.

Thomas Seiller: (Research Scientist, CNRS), seiller@lipn.univ-paris13.fr