

Michelle Strumila

School of Mathematics and Statistics, University of Melbourne – Parkville, VIC, 3010
Australia

☎ +61 415 214 343 • ✉ mstrumila@student.unimelb.edu.au
🌐 www.michellestrumila.com

*Research in algebraic topology: cyclic and modular operads,
dendroidal and asteroidal sets, and topological quantum field
theories (TQFTs)*

Education

University of Melbourne

PhD. Mathematics

Infinity cyclic operads and surfaces

Supervisor: Marcy Robertson

Melbourne, Australia

Expected 2019

Monash University

Bachelor of Science (Adv) with honours

○ Honours thesis: TQFTs, contact geometry, and information theory

Supervisor: Daniel Mathews

○ Undergraduate thesis: Inhomogeneous Cosmology in an Anisotropic Universe

Supervisor: Daniel Price

Melbourne, Australia

2015

Awards and Grants

Cheryl Praeger Travel Grant: Women in Topology, Germany, 2019, \$3000

○ Fusion categories

With Natalia Castellana (Barcelona), Kathrine Lesh (Union College), Jelena Grbic (University of Southampton)

Student Support Scheme: AustMS, Adelaide, 2018, \$600

○ The mapping Class Group Operad

Supervisor: Marcy Robertson

MSRI travel grant: Derived geometry and higher categorical structures in geometry and physics, 2018, \$1,400

WIMSIG travel grant: Women in mathematics conference, Adelaide, 2017, \$600

○ Coloured Cyclic Operads

Supervisor: Marcy Robertson

AMSI travel grant: Summer school, 2015

AMSI research award: Vacation research project, 2014, \$2700

○ Topological Quantum Field Theory and Information Theory

Supervisor: Daniel Mathews

Conferences (Selected)

Category theory session at AustMS: University of Adelaide, Australia, 2018

○ The Mapping Class Group Operad

Topology in Australia and South Korea: IBS-CGP, Pohang, South Korea, 2018

Category theory, algebraic topology, and K-theory session at AustMS: Macquarie University, Sydney, Australia, 2017

WIMSIG conference: University of South Australia, Australia, 2017

○ Coloured cyclic operads

Topology in Australia and South Korea: University of Melbourne, Australia, 2017

Higher structures in Geometry and Physics: Matrix, Creswick, Australia, 2016

AMSI VRS: University of New South Wales, 2014

- Topological Quantum Field Theory and Information Theory

Teaching

Monash University

Melbourne, Australia

Teaching Assistant

2014–

- *MTH2010: Multivariable calculus*

Finding and proving limits in two variables (including $\varepsilon - \delta$ proofs), partial derivatives, Green's theorem and Stoke's theorem

- *MTH1030: Techniques for modelling*

Calculus and linear algebra

- *MAT2003: Continuous mathematics for computer science*

Combinatorics, probability, calculus, linear algebra

- *MAT1830: Discrete mathematics for computer science*

Logic, induction, recursion, graph theory, combinatorics

Educational Support

- *MTH3121: Algebra and number theory I*

Group theory, prime factorisations, RSA

- *MTH2132: The nature and beauty of mathematics*

diverse topics, including symmetry, juggling, optimisation, golden ratio

University of Melbourne

Melbourne, Australia

Educational support

2016–

- *MAST90029: Differential topology* exam marking

Private tutor

MAST90027: Algebraic topology

2018

Service

Graduate topology seminar: Co-organised with Xing Gu, Semester 2, 2018

World Maths Competition: Supervisor and judge, University of Melbourne, 2018

Graduate student website: Creating content (including video lectures) for a graduate student website, University of Melbourne, 2017

Peer mentoring: Monash University, 2015

Open day: Monash University, 2014

Languages

English: Fluent

Mother tongue

Italian: Moderate

Completed VCE, visited Italy, currently out of practice

Russian, Ukrainian, Latin, Korean: Basic

Have studied at university level

Computer skills

Confident: \LaTeX , Excel, Word, Access, GIMP (Photoshop)

Some knowledge: Mathematica, Autohotkey, Linux, Fortran, Python, Lua, Visual Basic