Michael Law — Curriculum Vitae

Research Experience

2021, Australian National University (honors thesis)
Uniqueness of tangent flows in mean curvature flow, supervised by Prof. Ben Andrews. My thesis is an exposition to mean curvature flow followed by a detailed discussion of two influential papers. [link to thesis]

2020–21, Australian Mathematical Sciences Institute
Topological phases in quantum spin systems, supervised by Dr. Thomas Quella. Using analytical and numerical methods, I investigated symmetry protection in the q-deformed AKLT model of quantum spin chains. The results of this research are being prepared for publication. [link to report]

2019–20, University of Melbourne
Label-noise generative adversarial networks, supervised by Dr. Mingming Gong. I designed and implemented models for image generation in the presence of corrupt training data. [link to report]

Education

2021, Australian National University, Canberra, Australia.
Bachelor of Mathematical Sciences (Honors), GPA 7.00/7.00.

2018–20, University of Melbourne, Melbourne, Australia.
Bachelor of Science (Mathematics and Statistics), weighted average 94/100.

2011–17, Sha Tin College, Hong Kong.
International Baccalaureate Diploma Program, 45/45, valedictorian.

Honors and Awards

2021, ANU Mathematical Sciences Institute Honors Scholarship
Merit scholarship (value: AUD 5000)

2020, Dixson Prize
Top student for third year pure mathematics (AUD 430)

2018, 2020, University of Melbourne Dean's Honors
Top 3% of students in each faculty *(ineligible for the 2019 award due to program transfer)*

2019, Maurice H. Belz Prize in Statistics
Top scorer in the subjects *Probability* and *Statistics* (AUD 410)

2018–20, University of Melbourne Chancellor's Scholarship
Entrance scholarship (full tuition + AUD 10000 p.a. for duration of degree)

Talks

Gauge Theory and Symplectic Geometry, ANU, 2021. *The Chern–Weil construction.*

ANU MSI Honors Conference, 2021. *Uniqueness of tangent flows in mean curvature flow.* [link to slides]

ANU MSI Honors Conference, 2021. *Singularities in the mean curvature flow.* [link to slides]

AMSIConnect Student Conference, 2021. *Topological phases in quantum systems with quantum group symmetries.* [link to slides]

University of Melbourne, 2020. *Label-noise robust twin auxiliary classifier GANs.* [link to slides]

Work Experience

2021, Teaching Assistant, Australian National University.
I tutored ∼40 students per semester in MATH1005 (Discrete Mathematical Models) and MATH1013 (Mathematics and Applications 1). I gave weekly workshops and graded assignments.

2018–20, Mentor, The Institute for Enquiring Minds.
I volunteered to teach mathematics to Year 11–12 students from financially disadvantaged backgrounds, after school on a one-to-one basis.

2017–20, Tutor, self-employed.
I delivered over 600 hours of tutoring in math, physics and economics at IB and VCE levels.

2018–19, Business Analyst Intern, SW Global Consulting Ltd.
I conducted due diligence to advise clients on investment decisions.

PROGRAMMING Python (proficient, ∼3.5 years), C (intermediate, ∼2 years)

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Languages: English (native), Cantonese (fluent), Mandarin (reading/listening only)
Citizenship: Dual Hong Kong/Australia