

HONGJIA CHEN

Email: hongjia.chen@auckland.ac.nz

Phone: (+64) 21 08 695700

EDUCATION

Bachelor of Arts (Honours) in Mathematics 2020

University of Auckland, New Zealand

Dissertation: *Mathematical billiards: Periodic orbits in quadrilaterals* supervised by Prof. Hinke Osinga

GPA: 9.0/9.0

Bachelor of Science in Statistics and Applied Mathematics 2017 - 2019

University of Auckland, New Zealand

GPA: 9.0/9.0

EMPLOYMENT

Forecasting Analyst 2021 - Present

TESLA Asia Pacific, New Zealand

Artificial Intelligence Engineer 2020 - 2021

Xtracta, New Zealand

Graduate Teaching Assistant 2018 - 2021

University of Auckland, New Zealand

Co-founder and Treasurer 2017 - 2020

University of Auckland Data Science Club

Intern 2016 - 2018

G2 Ventures, New Zealand

PUBLICATIONS

2. Cahan, D., **Chen, H. H.**, Christie, L., and Slinko, A. Spatial competition on 2-dimensional markets and networks when customers don't always go to the closest firm. *International Journal of Game Theory*. (2021).
1. **Chen, H. H.**, Alexander J. T., Oliveira, M.F. D., and Altmann, G. E. Scaling laws and dynamics of hashtags on Twitter. *Chaos* 30, 603112 (2020).

AWARDS

University of Auckland Distinguished Graduate Award 2021

Prestigious award granted to graduates with the most holistic achievements at the University of Auckland.

Heidelberg Laureate Forum Young Researcher 2021

Awarded to the top 100 graduate, doctoral and post-doctoral mathematicians worldwide.

David Robinson Prize 2021

Awarded to the graduate student who has exhibited the most potential to succeed in mathematical physics.

Kalman Summer Scholarships 2021

Awarded to mathematics Honours, Masters or PhD students, and will be considered in terms of the academic merit to assist with their costs in attending this conference.

- University of Auckland Summer Research Scholarship** 2020
Can undergraduates convert \$100 to a foreign currency?, supervised by Dr. Igor' Kontorovich.
- University of Auckland Postgraduate Scholarship** 2020
Awarded to students who obtained their most recent qualifying programme at a recognised university and have achieved a GPA of 8.00 or above in that programme.
- University of Auckland Senior Scholar** 2020
Awarded to graduating students who obtained the highest marks in undergraduate.
- University of Sydney Denison Research Scholarship** 2019
Dynamics of hashtags in Twitter, supervised by Professor Eduardo Altmann.
- University of Auckland Summer Research Scholarship** 2019
Modelling occurrence times of earthquakes, supervised by Dr. Charlotte Jones-Todd.
- University of Auckland Summer Research Scholarship** 2018
Equilibria on circular markets, supervised by Professor Arkadii Slinko.
- Faculty of Science Undergraduate Scholarship** 2018
Awarded for excellence in the study of subjects in the Faculty of Science. Up to 4 awarded annually.
- First in Course Awards** 2017 - 2020
Awarded for obtaining the highest overall mark in a taught course.
 Awarded in 12 out of 24 of my undergraduate courses and 5 out of 5 of my eligible graduate courses.
 Notable courses include:
- Dynamical Systems (MATHS761)
 - Nonlinear Partial Differential Equations (MATHS762)
 - Advanced Partial Differential Equations (MATHS763)
 - Stochastic Partial Differential Equations (MATHS769)
 - Foundations of Stochastic Processes (STATS721)
- University of Auckland Academic Potential Scholarship** 2016
Awarded to students who have achieved academically, but are experiencing hardships or who may have been disadvantaged due to their personal circumstances.

SELECTED CONFERENCES, SEMINARS AND TALKS

- 9th UA Global Summit** 2021
 Mathematical billiards: Parameter continuation and applications within quadrilaterals
- 1st Annual JYI Research Conference** 2021
 Mathematical billiards within quadrilaterals
- 15th New Zealand Mathematics and Statistics Postgraduate Conference** 2020
 An introduction to mathematical billiards and its applications
- University of Auckland Student Mathematics Research Conference** 2020
 Mathematical billiards in quadrilaterals
- 2nd University of Auckland Science Students Association Academic Symposium** 2020
 One thing leads to another: Modelling earthquake occurrences

2nd Games, Agents and Incentives Workshop *2020*

Spatial competition on 2-dimensional markets and networks when customers don't always go to the closest firm

95th Western Economic Association International (WEAI) annual conference *2020*

Spatial competition on 2-dimensional markets and networks when customers don't always go to the closest firm

1st University of Auckland Science Students Association Academic Symposium *2019*

Convergent Nash equilibria on complete graphs.

TEACHING

University of Auckland

Partial Differential Equations, Tuakana Teaching Assistant Specialist *Semester 1, 2020*

Advanced Modelling and Computation, Tuakana Teaching Assistant Specialist *Semester 1, 2020*

Statistics and Mathematics Laboratory, Lab Demonstrator. *2019 - Present*

Real and Complex Calculus, Tuakana Teaching Assistant Specialist *Semester 2, 2019 - 2020*

Methods in Applied Mathematics, Tuakana Teaching Assistant Specialist *Semester 2, 2019 - 2020*

PROFESSIONAL MEMBERSHIPS

New Zealand Mathematical Society

Australia and New Zealand Industrial and Applied Mathematics

New Zealand Statistical Association