

# Alexander Elzenaar

aelz176@aucklanduni.ac.nz • <https://aelzenaar.github.io/>

## EDUCATION

### The University of Auckland, New Zealand

- MSc. in Mathematics 2021 – ongoing
  - Thesis topic: Deformation spaces of Kleinian groups
  - Advisors: Distinguished Prof. Gaven Martin (NZ Inst. of Adv. Study, Massey Uni.), Dr. Jeroen Schillewaert
- BSc. (hons) in Mathematics with First Class Honours Jan 2020 – Dec 2020
  - Dissertation: Toric varieties
  - Advisor: Dr. Jeroen Schillewaert
- Certificate in Languages Jul 2019 – May 2020
  - Russian and Ancient Egyptian
- BSc. in Mathematics Dec 2016 – Nov 2019
  - Between 2016 and 2019, I was enrolled in a conjoint Mathematics (BA)/Physics (BSc) degree
  - Exchange student at the University of Toronto, 2018 fall semester

### The University of Canterbury, New Zealand

- STAR programme 2016
  - First year university mathematics program for secondary school students

## RESEARCH EXPERIENCE

### The University of Auckland, New Zealand

- Research assistant (Professional Casual Staff) 2020 – ongoing
  - Studying properties of the real algebraic variety of spherical  $(t, t)$ -designs
  - Supervisor: Dr. Shayne Waldron
- Summer research project in Mathematics Dec 2019 – Feb 2020
  - Project: Numerical construction of spherical  $(t, t)$ -designs
  - Advisor: Dr. Shayne Waldron

## TEACHING AND MARKING EXPERIENCE

### The University of Auckland, New Zealand

- Tutor and marker in the Department of Mathematics 2019 – ongoing
  - Tutoring: single- and multi-variate calculus; linear algebra; mathematics for computer science; computational mathematics; mathematics for non-mathematicians (infinities, topology, fractals); real analysis
  - Marking: As for tutoring, with the addition of complex calculus, and logic and proofwriting.
  - In addition, some work editing and expanding the undergraduate linear algebra coursebook.

## AWARDS & SCHOLARSHIPS

- University of Auckland Department of Mathematics Student Research Conference prize 2021
- University of Auckland Postgraduate Honours / PG Diploma Scholarship 2020
- University of Auckland Summer Research Scholarship Dec 2019 – Feb 2020
- University of Auckland Faculty of Arts Deans List 2017
- NZQA Outstanding Scholar Award 2016
  - Limited to top 40–60 secondary school students in New Zealand

## OTHER WORK EXPERIENCE

### MyTuition

- Secondary school tutor 2017 – 2019
  - Mathematics, physics, chemistry, geography

[2021-09-03]