

# Alexander Elzenaar

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## RESEARCH AND TEACHING POSITIONS

**Max-Planck-Institut für Mathematik in den Naturwissenschaften**, Leipzig, Germany

- PhD student Apr. 2022 – ongoing
  - Supervisor: Prof. Dr. Michael Joswig

**The University of Auckland**, New Zealand

- Research assistant (Professional Casual Staff) 2020 – 2021
  - Studying properties of the real algebraic variety of spherical  $(t, t)$ -designs
  - Supervisor: Dr. Shayne Waldron
- Tutor and marker in the Department of Mathematics 2019 (Sem. 2) – 2022 (Summer sem.)
  - Tutoring and marking: single- and multi-variate calculus; complex calculus; linear algebra; logic and proofwriting; mathematics for computer science; computational mathematics; mathematics for non-mathematicians (infinities, topology, fractals); real analysis

## EDUCATION

**The University of Auckland**, New Zealand

- MSc. in mathematics 2021 – 2022 (thesis submitted)
  - Thesis: *Deformation spaces of Kleinian groups*
  - Advisors: Dist. Prof. Gaven Martin (NZ Inst. of Adv. Study, Massey Uni.), Dr. Jeroen Schillewaert
- BSc. (hons) in mathematics with first class honours 2020
  - Dissertation: Toric varieties
  - Advisor: Dr. Jeroen Schillewaert
- Certificate in Languages awarded 2020
  - Russian and Ancient Egyptian
- BSc. in mathematics 2017 – 2019
  - Between 2016 and early 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

## 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 2019 – 2020
  - Project: Numerical construction of spherical  $(t, t)$ -designs
  - Advisor: Dr. Shayne Waldron
- 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

## PUBLICATIONS AND PREPRINTS

- [1] [A. Elzenaar](#), G. Martin, and J. Schillewaert, “Approximations of the Riley slice” (preprint), arXiv:2111.03230 [math.GT], 2021.

## PROFESSIONAL AFFILIATIONS

**New Zealand Mathematical Society**, Student member

[2022-03-19]