Aleksa Vujičić

aleksa@vujicic.com aleksa.vujicic.com +1 (548) 384 1193

Education

2020 – 2025 **Ph.D. Pure Mathematics** at University of Waterloo.
Thesis title: *Fourier Analysis of Local Fell Groups.*

2018 – 2019 **M.Sc. Mathematics (Distinction)** at Victoria University of Wellington. Thesis title: *Characterisations of Pseudo-Amenability.*

2013 – 2017 **B.Sc. (First Class Hons, A+) Mathematics** at Victoria University of Wellington.

Employment History

2022, 2023 **Course Instructor** at University of Waterloo. *Waterloo ON, Canada*
Taught two undergraduate math courses, the first an introductory linear algebra course, and the second a multivariable calculus course. Tasks included preparing and delivering lectures, designing assessments and exams, running office hours, handling administrative tasks, and responding to student requests.

2015 – 2025 **Teaching Assistant** at Victoria University of Wellington *(Wellington, New Zealand)* & University of Waterloo *(Waterloo, ON, Canada)*.
Responsible for marking assessments, proctoring exams, running tutorials and providing office hours. Supported students across a range of undergraduate mathematics courses with varying size and level.

2019 – 2020 **Data Modeller** at Open Polytechnic. *Lower Hutt, New Zealand*
Developed predictive models for student success to help guide students toward effective learning strategies. Used SQL for querying databases and R for statistical analysis and data visualisation.

Additional Experience

2025 **Directed Reading Program - Women in Math** at University of Waterloo.
Supervised students from underrepresented groups in a mathematical reading program. Responsible for designing a suitable project for the students, and mentoring them throughout.

2024 – 2025 **Seminar Organiser** at University of Waterloo.
Organised the Harmonic Analysis Learning Seminar. Tasks included arranging speakers, and communicating regular announcements.

2023 **CTE: New Instructor Foundations Program** at University of Waterloo.
A 3-day program which provided information to lecturers teaching a course for the first time. Information presented covered a broad range of topics, from designing course outlines to handling unexpected situations.

University Mathematics Teaching Techniques at University of Waterloo.
An introductory course for teaching mathematics at university level. Material covered included course design, lecture delivery, writing assessments, the flipped classroom model and more. Furthermore, this course provided practical experience teaching in a classroom.

2019 **High School Outreach** at Victoria University of Wellington.
A weekly outreach initiative by the School of Mathematics and Statistics. Helped local high school students from diverse backgrounds prepare for the national mathematics exams (NCEA).

Research Publications

1. A. Vujičić, "Characterisations of pseudo-amenability," *Studia Mathematica*, vol. 262, no. 2, 2022. DOI: 10.4064/sm200704-20-1.

Two additional publications forthcoming, with preprints expected by July 2026.

Talks

2026 **The Fourier spine of Fell groups**.
VUW Operator Algebras Seminar
at *Victoria University of Wellington, New Zealand*

2025 **The Spine of Local Fell Groups**.
Canadian Mathematical Society (CMS) - Summer Meeting
at *Université Laval, Quebec City, QC*

The Spine of a Fourier Algebra.
Analysis Seminar
at *University of Waterloo, Waterloo, ON*

2024 **Rajchman Algebras of Local Fields**.
Ontario Graduate Mathematics Conference
at *University of Waterloo, Waterloo, ON*

Amenability of the Central Fourier Algebra.
VUW Operator Algebras Seminar
at *Victoria University of Wellington, New Zealand*

2023 **Amenability conditions for certain group algebras**.
Canadian Abstract Harmonic Analysis Symposium
at *Université de Saint-Boniface, Winnipeg, MB*

2022 **The Problem with Braid**.
Joint Pure Math/C&O Grad Colloquium
at *University of Waterloo, Waterloo, ON*

Characterisations of Pseudo-Amenability.
Analysis Seminar
at *University of Waterloo, Waterloo, ON*

Teaching and Teaching Assistant Roles

University of Waterloo

Fall 2025 **MATH115**: Linear Algebra for Engineering

MATH600: Introduction to Mathematical Software for Teachers (0.5 Units)

MATH692: Reading, Writing and Discovering Proofs

Spring 2025 **MATH640**: Number Theory for Teachers

Tutorial Centre:

Winter 2025 **MATH648**: Foundations of Calculus II

Tutorial Centre:

Fall 2024 **MATH685**: Math and Peace for Teachers

PMATH330: Introduction to Mathematical Logic

Spring 2024 **Tutorial Centre**:

Winter 2024 **MATH148**: Calculus 2 (Advanced Level)

Tutorial Centre:

Teaching and Teaching Assistant Roles (continued)

Fall 2023	**MATH237**: Calculus 3 for Honours Mathematics *(Lecturer)*
Spring 2023	**MATH245**: Linear Algebra 2 (Advanced Level)
Winter 2023	**PMATH451/651**: Measure and Integration (1.5 Units)
	PMATH810: Banach Algebras and Operator Theory (0.5 Units)
Fall 2022	**MATH115**: Linear Algebra for Engineering
	Tutorial Centre:
Spring 2022	**MATH136**: Linear Algebra 1 for Honours Mathematics *(Lecturer)*
Winter 2022	**MATH135**: Algebra for Honours Mathematics
	MATH235: Linear Algebra 2 for Honours Mathematics

Scholarships and Awards

2020–2024	**UW Graduate Scholarship** at University of Waterloo.
	International Doctoral Student Award at University of Waterloo.
2018	**Victoria University Medal** at Victoria University of Wellington.
	Victoria Master's Scholarship at Victoria University of Wellington.
2017	**VUW Graduate Award** at Victoria University of Wellington.
2013 – 2015	**Victoria Excellence Scholarship** at Victoria University of Wellington.

Skills

Academic	Conducting academic research.
	Writing and formatting publications using LaTeX.
Mathematical	Research background in harmonic analysis, Fourier analysis, and abstract algebra.
	Strong analytical and problem-solving skills.
Programming	Strong background in Java, with additional experience in Python, R, SQL and Perl.
	Comfortable with Linux: primary operating system for 20 years.
	Proficient with Git.
Communication	Native English speaker; conversational Serbian.
	Effective educator with strong evaluations from students.