

Joe Tran

CONTACT INFORMATION	Graduate Student, Mathematics and Statistics Department of Mathematics and Statistics York University	Email: joetran0@my.yorku.ca Citizenship: Canadian
EDUCATION	<p>Ph.D. Mathematics and Statistics (Applied Mathematics) 09/2025 (<i>expected</i>) <i>York University, Faculty of Graduate Studies, Department of Mathematics and Statistics</i></p> <ul style="list-style-type: none">• Supervisor: Woldegebriel Assefa Woldegerima• Research Area: Mathematical Epidemiology, Dynamical Systems• Admitted to the Ph.D. program at York University. <p>M.A. Mathematics and Statistics (Pure Mathematics) 09/2024-08/2025 <i>York University, Faculty of Graduate Studies, Department of Mathematics and Statistics</i></p> <ul style="list-style-type: none">• Supervisor: Pavlos Motakis• Research Area: Functional Analysis and Banach Space Theory• Project: <i>Projections and Complemented Subspaces in Banach Spaces</i> <p>B.Sc. Mathematics for Education 09/2020-04/2024 <i>York University, Faculty of Science, Department of Mathematics and Statistics</i></p> <ul style="list-style-type: none">• Specialized Honours• With Distinction• GPA: 7.90/9.00	
RESEARCH INTERESTS	Mathematical epidemiology, dynamical systems in population health, compartmental models (SIR, SEIR, SEIRS), geometric singular perturbation theory (GSPT).	
PUBLICATIONS	1. J. Tran, W. A. Woldegerima, <i>Singular perturbation analysis of a two-time scale model of vector-borne disease: Zika virus model as a case study</i> , Chaos, Solitons & Fractals 194 (2025), 116209.	
PROJECTS	<p><i>Projections and Complemented Subspaces in Banach Spaces</i> M.A. Survey Paper 12/2024-08/2025 <i>Singular perturbation analysis of a two-time scale model of vector-borne disease: Zika virus model as a case study</i> Summer Research Assistant 05/2024-03/2025 <i>The Distance From Rank r Projection Operators to the Nilpotent Operators on \mathbb{C}^n</i> NSERC Undergraduate Summer Research Award 05/2023-08/2023 <i>Predicting Wordle Results</i> Mathematical Contest in Modelling 02/2023</p>	

PRESENTATIONS	• <i>Projections and Complemented Subspaces in Banach Spaces</i> , M.A. Survey Paper Colloquium	08/2025
	• <i>On Almost All Trees Have Quantum Symmetry</i> , Mathematics Seminar	07/2025
	• <i>Singular perturbation analysis of a two-time scale model of vector-borne disease: Zika virus model as a case study</i> , Mathematics Seminar	05/2025
	• <i>Guest Speaker From York University: Q&A and Turning DNA into Numbers</i> , Dr. Norman Bethune Collegiate Institute (Bethune Math Club)	03/2024
	• <i>The Distance From Rank r Projection Operators to the Nilpotent Operators on \mathbb{C}^n</i> , Faculty of Science Summer Research Conference	08/2023
VOLUNTEER SERVICE	Department of Mathematics and Statistics, York University.	
	• Panellist at the <i>Ask me anything: Data Science, Math and Actuarial Science</i> Information Session	03/2025
	• York Science 101 Panelist at the <i>Fall Open House</i> Event	11/2024
	• Science Faculty Council	09/2024-04/2025
	• Graduate Curriculum Committee	09/2024-04/2025
	• Science Student Ambassador	09/2024-04/2025
	• President of Club Infinity	06/2024-Present
	• Brunch at York Science	04/2024
	• Mathematics for Education Panellist at the <i>Ask Me Anything: Mathematics and Statistics Programs</i> Webinar Event	03/2024
	• Volunteer for <i>Fall Open House</i>	11/2023
	• Member of the Tenure and Promotion Adjudicating Committee of the Pure Mathematics Section	09/2023-04/2024
	• Event Coordinator of Club Infinity	05/2023-06/2024
	• Science Rendezvous	05/2023
	• Volunteer for <i>Spring Open House</i>	03/2023
HONOURS, BURSARIES, & AWARDS	• YU Graduate Fellowship - Masters Domestic	09/2024, 01/2025
	• York Graduate Scholarship	09/2024
	• York University Undergraduate Bursary	04/2024
	• York University Continuing Student Scholarship	02/2024
	• NSERC Undergraduate Student Research Award	05/2023-08/2023
	• Member of Dean's Honour Roll	04/2021, 04/2023
	• Abe Karass/Donald Solitar Award	03/2023
	• Chair's Honour Roll in Mathematics and Statistics	11/2022
	• York University Continuing Student Scholarship	08/2022
	• York University Automatic Entrance Scholarship	08/2020

TEACHING
EXPERIENCE

Teaching Assistant at York University.

- MATH 1013, Applied Calculus I – F23, W24, F24
- MATH 1014, Applied Calculus II – S23, W24, S25
- MATH 1021, Linear Algebra I – S23
- MATH 1025, Applied Linear Algebra – F23
- MATH 1200, Problems, Conjectures, and Proofs – F23 (TL), F24 (TL), W25 (TL)
- MATH 1300, Differential Calculus with Applications – S23, W25
- MATH 1506, Mathematics I for the Biological and Health Sciences – S24 (TL)
- MATH 1507, Mathematics II for the Biological and Health Sciences – W25
- MATH 1581, Business Mathematics I – S23
- MATH 2001, Real Analysis I – F24
- MATH 2015, Applied Multivariate and Vector Calculus – S25
- MATH 2022, Linear Algebra II – W24, W25