Joe Tran

Contact Information

Graduate Student, Mathematics and Statistics

Department of Mathematics and Statistics

York University

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Citizenship: Canadian

Education

BSc. (With Distinction) Mathematics for Education (09/2020-04/2024)
- Specialized Honours
- York University, Faculty of Science, Department of Mathematics and Statistics
- Cumulative Grade Point Average: 7.90/9.00 (Major 1 Grade Point Average: 8.04/9.00)

MA Mathematics and Statistics (Pure Mathematics) (09/2024-Present)
- York University, Faculty of Graduate Studies, Department of Mathematics and Statistics

Research Interests

Functional Analysis, Algebra, Operator Theory, Topology

Projects

1. *Survey Paper on Banach Space Theory*, MA Survey Paper, December 2024, J. Tran, P. Motakis (Supervisor)
2. *Systematic review or (survey) Review of Geospatial, spatiotemporal, geospatial artificial intelligence (geoAI), and Phylodynamic analysis for Infectious Disease Surveillance: Mathematical and computation approach*, WAW Lab, September 2024, J. Tran, A. Naeem, F. Al Hashimi, N. Golooba, Q. Deng, W. A. Woldegerima (Supervisor)
3. *Singular Perturbation Analysis of a Two-Time Scale Model of Vector-Borne Disease: Zika Virus Model as a Case Study*, Summer Research Assistant, May 2024, J. Tran, W. A. Woldegerima (Supervisor)
4. *Investigating Solutions to Cubic and Quartic Equations*, Individual Reading Project, April 2024, J. Tran
5. *A Project in Group Theory: Classifying All Finite Groups up to Isomorphism*, Individual Project, December 2023, J. Tran
6. *The Distance From Rank r Projection Operators to the Nilpotent Operators on $\mathbb{C}^n$*, NSERC Undergraduate Summer Research Award, May 2023, J. Tran, M. Azeem, P. Skoufranis (Supervisor)
7. *Exploring the Wonders of Projective Geometry*, MATH 3052 Exploring Geometries Final Project, April 2023, J. Tran, G. Chen, J. S. Kang
8. *Predicting Wordle Results*, Mathematical Contest in Modelling, February 2023, J. Tran, G. Chen
9. *Spirographs*, MATH 3090 Computational Mathematics Final Project, November 2022, J. Tran, U. Pham, L. Xu, S. Dinh
10. *Average Localization Error*, MATH 3330 Regression Analysis Final Project, June 2022, J. Tran, L. Xu

Presentations & Conferences

- *Guest Speaker From York University: Q&A and Turning DNA Into Numbers*, Dr. Norman Bethune Collegiate Institute (Bethune Math Club), March 2024, 1 hour
- *The Distance From Rank r Projection Operators to the Nilpotent Operators on $\mathbb{C}^n$*, Faculty of Science Summer Research Conference 2023, August 2023, 10 min

Volunteer Service

Department of Mathematics and Statistics, York University
- York Science 101 Panelist at the *Fall Open House* Event (November 2024)
- Volunteer for the Fall Open House (November 2024)
- Science Faculty Council (September 2024-Present)
- Graduate Curriculum Committee (September 2024-Present)
- Science Student Ambassador (September 2024-Present)
- President of Club Infinity (June 2024-Present)
- WAW Lab Meeting Organizer (June 2024-Present)
- Brunch at York Science (April 2024)
- Mathematics for Education Panelist at the *Ask Me Anything: Mathematics and Statistics Programs* Webinar Event (March 2024)
- Volunteer for the Fall Open House (November 2023)
- Member of the Tenure and Promotion Adjudicating Committee of the Pure Mathematics Section (September 2023-April 2024)
- Mathematics for Education Speaker at the Student Panel for Academic Orientation Day (August 2023)
- Event Coordinator for Club Infinity (May 2023-June 2024)
- Science Rendezvous (May 2023)
- Volunteer for the Spring Open House (March 2023)
- Note Taker for MATH 2131 Introduction to Statistics II (January 2022-April 2022)

Teaching Experience

Teaching Assistant at York University:
- Applied Calculus I (MATH 1013)
  Fall 2024, Section I, Instructor: Allysa Lumley
- Tutorial Leader for Problems, Conjectures, and Proofs (MATH 1200)
  Fall 2024, Section B, Instructor: Natasha May
- Tutorial Leader for Problems, Conjectures, and Proofs (MATH 1200)
  Fall 2024, Section C, Instructor: Nantel Bergeron
- Real Analysis I (MATH 2001)
  Fall 2024, Section A, Instructor: Mohamad Omar
- Tutorial Leader for Mathematics I for the Biological and Health Sciences (MATH 1506)
  Summer 2024, Section A, Instructor: Carl Wolfe
- Tutorial Leader for Mathematics I for the Biological and Health Sciences (MATH 1506)
  Summer 2024, Section B, Instructor: Mohammed Reza Peyghami
- Tutor at the Math Help Center at York University
  Summer 2024
- Applied Calculus I (MATH 1013)
  Winter 2024, Section M, Instructor: Gordon Craig

- Applied Calculus I (MATH 1013)
  Winter 2024, Section N, Instructor: Saiful Zaman
- Applied Calculus II (MATH 1014)
  Winter 2024, Section T, Instructor: Mina Shafadeh
- Linear Algebra II (MATH 2022)
  Winter 2024, Section M, Instructor: Jessie Jihyeon Yang
- Applied Calculus I (MATH 1013)
  Fall 2023, Sections A and D Instructor: Amenda Chow
- Applied Linear Algebra (MATH 1025)
  Fall 2023, Section A Instructor: Safia Athar
- Tutorial Leader for Problems, Conjectures, and Proofs (MATH 1200)
  Fall 2023, Section A Instructor: Sooyeong Kim
- Applied Calculus II (MATH 1014)
  Summer 2023, Section B Instructor: Sirous Homayouni
- Linear Algebra I (MATH 1021)
  Summer 2023, Section A Instructor: Sergio Garcia Balan
- Differential Calculus with Applications (MATH 1300)
  Summer 2023, Section A Instructor: Md Abdur Rahman
- Business Mathematics I (MATH 1581)
  Summer 2023, Section A Instructor: Philip Morenz

Honours, Bursaries & Awards

- YU Graduate Fellowship - Masters Domestic (September 2024)
- York Graduate Scholarship (September 2024)
- York University Undergrad Bursary (April 2024)
- York University Continuing Student Scholarship (February 2024)
- NSERC Undergraduate Student Research Award (May 2023-August 2023)
- Member of Dean's Honour Roll (April 2021, April 2023)
- Abe Karass/Donald Solitar Award (March 2023)
- Chair's Honour Roll in Mathematics and Statistics (November 2022)
- York University Continuing Student Scholarship (August 2022)
- York University Automatic Entrance Scholarship (August 2020)