

Calder Morton-Ferguson

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Education

University of Toronto

Honours Bachelor of Science, June 2019. GPA: 4.0/4.0.
Mathematics Specialist, Computer Science Minor

John F. Ross, CVI

Ontario Secondary School Diploma, 2015.
Provincial French Immersion Certificate.

Research

NSERC Undergraduate Student Research Award, 2018

Topology of quiver flag varieties, supervised by Professor Joel Kamnitzer

NSERC Undergraduate Student Research Award, 2017

3-manifold topology, supervised by Professor Dror Bar-Natan

Undergraduate Research Project in Combinatorics, 2016

The combinatorics of nested recursions, supervised by Professor Steve Tanny

Conference Presentations

Canadian Undergraduate Math Conference, 2018

“Quivers, Flags, and Varieties: Investigating a Conjecture by Counting”
July 11-15, 2018. University of Saskatchewan, Saskatoon, SK.

Canadian Undergraduate Math Conference, 2017

“Visualizing the Prime Decomposition of 3-Manifolds” July 19-23, 2017.
University of Quebec at Montreal, Montreal, QC.

Canada Math Camp, 2017

“Conway’s Sequences and Nested Recursions” July 31-August 4, 2017.
University of Toronto, Toronto, ON.

Crime and Punishment at 150, 2016

“The Changing Role of Urban Environments Since *Crime and Punishment*.” October 20-22, 2016. University of British Columbia, Vancouver, BC.

Canadian Undergraduate Math Conference, 2016

“Why Some Sequences Are More Special Than Others.” July 13-17, 2016.
University of Victoria, Victoria, BC.

Papers

(with Anne Dranowski) Appendix to *The MV basis for the ring of functions on the unipotent subgroup* by Baumann, P., Kamnitzer, J., and Knutson, A.; arXiv:1905.08460.

Workshops & Seminars

Thematic Program in Geometric Representation Theory

June 11-15, 2018. Notre Dame University, IN.

2018-2019 Geometric Representation Theory Seminar

September 2018-June 2019. Fields Institute, Toronto, ON.

University of Toronto Perverse Sheaves Seminar

September 2018-April 2018. University of Toronto.

Alexander Grothendieck Memorial Day

December 10, 2015. Fields Institute, Toronto, ON.

Teaching

Teaching Assistant, University of Toronto

MAT257Y1 (Analysis II) 2018-2019

MAT137Y1 (Calculus) 2017-2018

MAT136H1 (Calculus 1B) Spring 2017

MAT135H1 (Calculus 1A) Fall 2016

Awards

MIT Presidential Fellowship, 2019

Top 500, William Lowell Putnam Mathematical Competition, 2018

Norman Stuart Robertson Scholarship in Mathematics, 2018

Samuel Beatty In-Course Scholarship, 2018

Margaret Taylor and Thomas Taylor Scholarships in Mathematics, 2017

University of Toronto Scholar, 2016-2018

University of Toronto President's Entrance Scholarship, 2015

John F. Ross English Department Award of Excellence, 2015

John F. Ross Mathematics Faculty Award, 2015

Ontario Scholar, 2015

Euclid Mathematics Contest Regional Winner, 2015

Experience

University of Toronto Mathematics Union

President, 2017-2018. Vice-President Communications, 2016-2017.

Research Assistant, Summer 2016

TorchLight Canada

Tutor and Student Transition Mentor, 2013-2015

John F. Ross CVI, Guelph

Pianist and Volunteer, 2013-2015

The Royal On Gordon Retirement Home, Guelph

Legislative Page, Fall 2010

Legislative Assembly of Ontario

Languages & Skills

Fluent in English, French, Java, and Python.

Piano, accordion, and trombone; classical and jazz composition.

National Novel Writing Month Winner, 2012.