

# Darien DeWolf

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## Employment

<b>St. Francis Xavier University</b> <i>Assistant Professor</i>	<b>Antigonish, N.S.</b> <i>August 2017 – Present</i>
<b>Mount Saint Vincent University</b> <i>Part-Time Faculty Member</i>	<b>Halifax, N.S.</b> <i>July 2014 – August 2018</i>
<b>Mount Saint Vincent University</b> <i>Lab Instructor (Statistics)</i>	<b>Halifax, N.S.</b> <i>January 2014 – April 2014</i>
<b>Dalhousie University</b> <i>Teaching Assistant (Mathematics and Statistics)</i>	<b>Halifax, N.S.</b> <i>September 2012 – April 2014</i>
<b>Mount Saint Vincent University</b> <i>Teaching Assistant (Mathematics, Statistics and Chemistry)</i>	<b>Halifax, N.S.</b> <i>September 2010 – June 2012</i>

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## Publications and Preprints

Darien DeWolf, Dorette Pronk. The Ehresmann-Schein-Nambooripad Theorem for inverse categories. *Theory and Applications of Categories*. 33:813–831, 2018.

PDF: [On my website](#).

TAC: [Abstract](#)

Darien DeWolf, Charles Edmunds, Christopher Levy. On commutation semigroups of dihedral groups. *Semigroup Forum*. 87:467–488, 2013.

PDF: [On my website](#).

DOI: [s00233-013-9483-x](https://doi.org/10.1007/s00233-013-9483-x)

Commutation Semigroups of Finite Metacyclic Groups with Trivial Centre (with Charles C. Edmunds). 2018. (Submitted to *Semigroup Forum*.)

Preprint PDF: [On my website](#).

arXiv: [1807.10389](https://arxiv.org/abs/1807.10389)

On double inverse semigroups (with Dorette Pronk). 2015.

Preprint PDF: [On my website](#).

arXiv: [1501.03690](https://arxiv.org/abs/1501.03690)

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## Education

<b>Dalhousie University</b> <i>Ph.D. Mathematics</i>	<b>Halifax, N.S.</b> <i>October 2017</i>
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– Thesis: *Restriction category perspectives of partial computation and geometry*

– Advisor: Dr. Dorette Pronk

– PDF: [On my website](#).

<b>Dalhousie University</b> <i>M.Sc. Mathematics</i>	<b>Halifax, N.S.</b> <i>October 2013</i>
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– Thesis: *On double inverse semigroups*

– Advisor: Dr. Dorette Pronk

– PDF: [On my website](#).

**Mount Saint Vincent University***B.Sc. Mathematics*

- First Class Honours
- Minor: Computer Science
- Thesis: *Commutation semigroups of dihedral groups of order  $2n$  where  $n$  is even*
- Advisor: Dr. Charles Edmunds
- PDF: [On my website.](#)

Halifax, N.S.

May 2012

**Scholarships and Awards****Izaak Walton Killam Predoctoral Scholarship***September 2016: \$25,000, September 2015: Honorary*

Dalhousie University

**Nova Scotia Graduate Scholarship***September 2014 and 2015: Honorary*

Dalhousie University

**NSERC CGS-D3 Research Scholarship***September 2013, 2014 and 2015: \$35,000 per year*

Dalhousie University

**Dalhousie University President's Award***September 2013 and 2014: Tuition Waiver*

Dalhousie University

**NSERC CGS-M Research Scholarship***December 2012: \$17,500*

Dalhousie University

**Frank Bennett Research Award***May 2012*

Mount Saint Vincent University

**Dr. Len Parent Computer Science Award***May 2011*

Mount Saint Vincent University

**Presentations and Talks****Groupoids Associated to Join Inverse Categories***Category Theory*

University of the Azores, Azores, Portugal

[Slides \(PDF\)](#)*July 13, 2018***Groupoids Associated to Join Inverse Categories***CMS Summer Meeting 2018*

University of New Brunswick, Fredericton, N.B.

*June 4, 2018***Monads as Models of Computation***Honour's Seminar*

St. Francis Xavier University, Antigonish, N.S.

*January 15, 2018***Restriction Bicategories: Two Approaches***@Cat Seminar*

Dalhousie University, Halifax, N.S.

[Slides \(PDF\)](#)*October 24, 2017***An Element-Based Reformulation of Restriction Monads***International Category Theory Conference*

University of British Columbia, Vancouver, B.C.

[Slides \(PDF\)](#)*July 20, 2017***An Element-Based Reformulation of Restriction Monads***Foundational Methods in Computer Science*

University of Ottawa, Ottawa, Ont.

*June 8, 2017*

- Restriction Monads and Their Algebras** [Slides \(PDF\)](#)  
*Union College Mathematics Conference* December 4, 2016  
 Union College, Schenectady, N.Y., U.S.A.
- Restriction Monads and Their Algebras**  
*@Cat Seminar* November 15, 2016  
 Dalhousie University, Halifax, N.S.
- Restriction Monads** [Slides \(PDF\)](#)  
*International Category Theory Conference* August 11, 2016  
 Dalhousie and Saint Mary's Universities, Halifax, N.S.
- Restriction Monads and Category Objects** [Slides \(PDF\)](#)  
*Foundational Methods in Computer Science* June 4, 2016  
 University of British Columbia, Vancouver, BC
- Restriction Categories and Monads**  
*Dalhousie Mathematics Graduate Seminar* November 27, 2015 (Part I)  
 Dalhousie University Halifax, N.S. December 4, 2015 (Part II)
- Partial Functions and Categories of Partial Maps** [Slides \(PDF\)](#)  
*Science Atlantic* October 24, 2015  
 Acadia University, Wolfville, N.S.
- Inverse Restriction Categories and Their Groupoids** [Slides \(PDF\)](#)  
*Foundational Methods in Computer Science* June 6, 2015  
 Colgate University, Hamilton, N.Y., U.S.A.
- Double Groups and Semigroups** [Slides \(PDF\)](#)  
*Science Atlantic* October 4, 2014  
 University of New Brunswick, St. John, N.B.
- On Double Inverse Semigroups** [Slides \(PDF\)](#)  
*Foundational Methods in Computer Science* June 6, 2014  
 University of Calgary, Calgary, Alta.
- On Commutation Semigroups of Dihedral Groups**  
*Honours Seminar* March 13, 2013  
 Dalhousie University, Halifax, N.S.
- On Commutation Semigroups of Dihedral Groups** [Slides \(PDF\)](#)  
*Science Atlantic* October 13, 2012  
 Mount Allison University, Sackville, N.B.

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## Other Academic Activities

- Science Atlantic Math/Stats/CS Conference**  
*Judge – Contributed Talk Sessions* October 13, 2018
- Saint Francis Xavier University** **Antigonish, N.S.**  
*Science Atlantic Representative – Mathematics/Statistics* September 6, 2018 – Present  
*Department of Mathematics, Statistics, and Computer Science*
- Saint Francis Xavier University** **Antigonish, N.S.**  
*Recording Secretary – Mathematics and Statistics Division* September 6, 2018 – Present  
*Department of Mathematics, Statistics, and Computer Science*

**CMS Summer Meeting 2018***Co-organizer: Categories and Topology session**Department of Mathematics, Statistics, and Computer Science***University of New Brunswick, Fredericton***June 1 – 4, 2018***Saint Francis Xavier University***Recording Secretary**Department of Mathematics, Statistics, and Computer Science***Antigonish, N.S.***August 30, 2017 – September 13, 2018***Science Atlantic Math/Stats/CS Conference***Judge – Contributed Talk Sessions*

The judging team at the Science Atlantic Math/Stats/CS Conference is responsible for deciding which contributed talks (which are, for the most part, given by undergraduates) will receive prizes, which have monetary value.

[Conference Website](#)*October 13 – 15, 2017***AARMS/DMSGSA Summer School 2016 Student Conference***Organizer and Session Chair*

Funded by the Dalhousie Mathematics and Statistics Graduate Students' Association (DMSGSA), this conference was intended to complement the Summer School being run at Dalhousie University by the Atlantic Association for Research in the Mathematical Sciences (AARMS). My duties included soliciting and scheduling speakers, scheduling catering services, creating the conference website, booking the speaking space and advertising the conference to the Dalhousie mathematics community.

[Conference Website](#)*July 23, 2016***Dalhousie Mathematics and Statistics Graduate Students' Association***President, Lett Bursary Representative and Department Liaison*

My primary role as President was overseeing the operations of the society, including its ratification. I was responsible for chairing meetings of the society, to act as co-signer for the accounts of the society and to act as a liaison between the society and the Dalhousie Association of Graduate Students. My primary role as the Lett Bursary Representative was to meet once a term with administration to fairly allocate scholarships to graduate students in need. My primary role as Department Liaison was to attend all faculty meetings and compose a graduate student newsletter informing them of changes relevant to our graduate experience.

**Halifax, N.S.***September 2013 – September 2016***Math Circles Nova Scotia***Presenter*

Math Circles Nova Scotia is a community math outreach program. As a presenter for Math Circles, I visited junior high school classrooms and ran a problem solving workshop.

**Halifax, N.S.***September 2013 – June 2014*

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**Courses Taught****St. Francis Xavier University***Assistant Professor*

Winter 2019

- Stat 101: Introductory Statistics
- Stat 101: Introductory Statistics (Online)
- Math 454: Modern Algebra II

Fall 2018

- Math 105: Business Mathematics
- Math 354: Modern Algebra I
- Stat 101: Introductory Statistics
- Math 499: Introductory Category Theory (Directed Study)

Spring/Summer 2018

- Math 106: Calculus I (Online)
- Math 107: Calculus II (Online)

**Antigonish, N.S.***August 2017 – Present*

Winter 2018

- Math 102: Mathematical Concepts II
- Math 122: Calculus II for Engineers
- Math 354: Modern Algebra I

Fall 2017

- Math 105: Business Mathematics
- Math 121: Calculus I for Engineers

**Mount Saint Vincent University**

*Part-Time Faculty Member*

Summer 2018

- Math 2208: Introductory Statistics I

Summer 2017

- Math 2208: Introductory Statistics I
- Math 2209: Introductory Statistics II (Online)
- Math 2225: Mathematical Proof (Independent Study)
- Math 3326: Abstract Algebra II (Independent Study)

Winter 2017

- Math 2209: Introductory Statistics II
- Math 2209: Introductory Statistics II (Online)

Fall 2016

- Math 2208: Introductory Statistics I

Winter 2016

- Math 1113: Introductory Calculus I (Independent Study)

Summer Session II 2015

- Math 2209: Introductory Statistics II (Online)
- Math 2209: Introductory Statistics II (Online)

Winter 2015

- Math 1114: Introductory Calculus II
- Math 1103: Precalculus II (Independent Study)

Fall 2014

- Math 1102: Precalculus I
- Math 2209: Introductory Statistics II

Summer Session II 2014

- Math 2209: Introductory Statistics II (Online)

**Halifax, N.S.**

*July 2014 – August 2018*