

# CARRIE CLARK

carrie2@illinois.edu

## POSITIONS

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**J.L. Doob Research Assistant Professor** *University of Illinois at Urbana-Champaign* August 2022 - present

## EDUCATION

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**University of Toronto** September 2017 - July 2022  
*PhD Mathematics*

**University of Toronto** September 2016 - August 2017  
*MSc Mathematics*

**University of Alberta** September 2012 - April 2016  
*BA Honors Mathematics*

## RESEARCH EXPERIENCE

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**PhD Research** *University of Toronto* September 2017 - July 2022  
*Supervisor: Almut Burchard*  
- My thesis work focused on minimization of nonlocal interaction energies given by kernels having a “well-barrier” type shape.

**Master’s Research Project** *University of Toronto* May 2017 - August 2017  
*Supervisor: Almut Burchard*  
- This project primarily involved looking at how symmetrization methods are used to prove certain inequalities involving expected volumes of random polytopes and other random convex bodies.

**Undergraduate Summer Research Project** *University of Alberta* May 2015 - August 2015  
*Supervisor: Nicole Tomczak-Jaegermann*  
- This project was in the area of convex geometry, and mainly consisted of reading and learning about several important convex geometry results including John’s Theorem, the isoperimetric inequality and the Brunn-Minkowski inequality.

**Undergraduate Summer Research Project** *University of Alberta* May 2014 - August 2014  
*Supervisor: Brendan Pass*  
- This project involved using MATLAB to do calculations related to multi-marginal optimal transport problems.

## PRESENTATIONS

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-“Non-local interactions exhibiting dichotomy” University of Toronto Graduate Analysis Seminar, February 2021

## TEACHING EXPERIENCE

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**Course Instructor** *University of Illinois at Urbana-Champaign* August 2022 - present  
-Fall 2022:  
MATH 347 - Fundamental Mathematics

**Teaching Assistant** *University of Toronto* September 2016 - April 2022  
-Courses:  
I have been an TA for a variety of courses, including first year calculus (MAT135, MAT136, MAT137), Linear Algebra I and II (MAT223, MAT224), as well as Analysis I (MAT157). My duties in these courses have included leading tutorials, holding office hours, grading, and worksheet design.

### -Leadership Roles:

-Observation TA (September 2021 - December 2021). In this current role, I am conducting observations of new TAs tutorials.

-Online math learning centre coordinator (May 2021 - August 2021). I trained and managed four TAs in the MLC, an online drop in help centre for students in first year math courses.

**-Daniel B. DeLury Teaching Assistant Award (2021)**

-In 2021 I received this award for my work as a TA in MAT157 during the 2020-2021 academic year. This course is the introduction to analysis for first year math specialist students. I was responsible for creating the tutorial worksheets for the course, in addition to running tutorials, holding office hours, and grading.

**SELECT AWARDS**

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- Queen Elizabeth II Graduate Scholarship	<i>2021-2022</i>
- Paul Mandl Graduate Scholarship In Mathematics	<i>2020</i>
- Ontario Graduate Scholarship	<i>2019-2020</i>
- Ida Bulat Memorial Graduate Fellowship In Mathematics	<i>2019</i>
-Blyth Fellowship	<i>2018</i>
-NSERC CGS-M	<i>2016-2017</i>