

## EDUCATION

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### University of Victoria, Mathematics and Statistics

PhD. Applied Mathematics

Victoria, Canada

Sep 2021–Present

### University of Victoria, Mathematics and Statistics

BSc. Honours in Mathematics & Computer Science, Honours in Statistics, GPA: 9.0/9.0

Victoria, Canada

Sep 2015 - Apr 2021

**Selected Awards:** Governor General's Silver Medal, Dean's List, Ian & Sheila Barrodale Award in Computer Science & Mathematics

## LANGUAGES

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- English (fluent)
- French (fluent)

## RESEARCH EXPERIENCE

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### A stochastic relaxation of the quasi-equilibrium assumption of tropical convection

PhD. Student, Supervisor: **Boualem Khouider**

Funded by a NSERC CGS-M, 2021-2022

Victoria, Canada

Sep 2021 - Now

### Towards a stochastic relaxation of the quasi-equilibrium assumption

Undergraduate Student, Supervisor: **Boualem Khouider**

Funded by a NSERC USRA

Victoria, Canada

May 2019 - Aug 2019

### Switching $(m, n)$ -edge-coloured mixed graphs

Undergraduate Student, Supervisor: **Gary MacGillivray**

Honours Project

Funded by a Jamie Cassels Undergraduate Research Award

Top Presenter in Mathematics and Statistics at Honours Fair

Victoria, Canada

Sep 2018 - Apr 2019

### Towards a stochastic relaxation of the quasi-equilibrium assumption

Undergraduate Student, Supervisor: **Boualem Khouider**

Funded by a NSERC USRA

Victoria, Canada

May 2018 - Aug 2018

## PUBLICATIONS

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- E. Leclerc, G. McGillivray, and J. Warren, "Switching $(m,n)$ -mixed graphs with respect to Abelian groups", Manuscript submitted to Theoretical Computer Science, 2021
- B. Khouider and E. Leclerc, "Toward a stochastic relaxation for the quasi-equilibrium theory of cumulus parameterization: Multicloud instability, multiple equilibria, and chaotic dynamics", Journal of Advances in Modeling Earth Systems, vol. 11, no. 8, pp. 2474–2502, 2019.

## TA APPOINTMENTS

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### Math and Stats Assistance Centre Tutor, Head Tutor

Calculus, linear algebra, discrete math and probability, real analysis, statistics

7 appointments from Fall 2018-Spring 2023 (1 as head tutor)

University of Victoria

### Marker

**Math 122:** Logic and Foundations  
**Math 492:** Waves in the Atmosphere and Ocean  
**Math 211:** Matrix Algebra I

Fall 2020  
Fall 2020  
Fall 2018

University of Victoria

### Tutorial Instructor

**Math 200:** Calculus III  
**Math 110:** Matrix Algebra for Engineers  
**Math 101:** Calculus II  
**Math 100:** Calculus I

Fall 2023, Fall 2022, Summer 2022, Spring 2022  
Fall 2023, Fall 2021  
Spring 2023, Fall 2021, Spring 2021  
Fall 2019

University of Victoria

## SELECTED TALKS

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- **Toward a Stochastic Relaxation for the Quasi-Equilibrium Theory of Cumulus Parameterization: Multicloud Instability, Multiple Equilibria, and Chaotic Dynamics** at CMOS Conference Summer 2021
- **A Whirlwind of Mathematics** at UVic Students in Undergraduate Mathematics Seminars 2020  
*A gentle introduction to fluid dynamics for a general undergraduate audience*
- **Switching Homomorphisms on Mixed Graphs** at UVic Discrete Math Seminar Spring 2019
- **A Stochastic Cloud Parametrization** at UVic Undergraduate Math Conference Summer 2018
- **Minkowski's Theorem** at CMS Math Camp Summer 2018  
*An interactive talk on the geometry of numbers, for engaged high school students*