

## EDUCATION

### Ph.D. in Mathematics (2023-Present)

University of Victoria, BC, Canada  
Supervisor: Dr. Natasha Morrison

### M.Sc. in Mathematics (2021-2023)

University of Victoria, BC, Canada  
Supervisors: Dr. Kieka Mynhardt & Dr. Natasha Morrison

### B.Sc. Honours in Mathematics (2016-2021)

University of Victoria, BC, Canada

## PUBLICATIONS

E. Heath, J. Hyde, N. Morrison, S. Ogden, Universality for transversal powers of Hamilton cycles.  
(Submitted)

N. Morrison, S. Ogden, Using polynomials to find lower bounds for  $r$ -bond bootstrap percolation.  
(Submitted)

N. Behague, T. Johnston, N. Morrison, S. Ogden, A note on the invertibility of oriented graphs, *Electron. J. Comb.* 32(1), 2025.

N. Behague, T. Johnston, S. Letzter, N. Morrison, S. Ogden, The rainbow saturation number is linear, *SIAM J. Discrete Math* 38(2), 2024.

S. Ogden, Saturation Problems on Graphs, *UVicSpace Electronic Theses and Dissertations*, 2023.

K. Mynhardt, S. Ogden, Total Roman domination edge-supercritical and edge-removal supercritical graphs, *Australas. J. Combin.* 78(3), 413-433, 2020.

S. Ogden, Total Roman domination edge-supercritical and edge-removal supercritical graphs, *JCURA Poster Collection*, 2020.

C. Lampman, K. Mynhardt, S. Ogden, Total Roman domination edge-critical graphs, *Involve* 12(8), 1423-1439, 2019.

## FELLOWSHIPS AND AWARDS

Rob & Tammy Lipson Research Scholarship	2025/11
UVic President's Research Scholarship	2025/09 - 2026/08 2024/09 - 2025/08 2023/09 - 2024/08 2021/09 - 2022/08
Alexander & Helen Stafford MacCarthy Muir Graduate Scholarship	2024/12
Donald Wagg Graduate Scholarship	2024/12
Lieutenant Governor's Silver Medal	2024/06
Vanier Canada Graduate Scholarship (NSERC)	2023/09 - 2026/08

### FELLOWSHIPS AND AWARDS CONTINUED

JJEM Graduate Award in Mathematics & Statistics	2022/09 - 2023/08
David McGillivray Scholarship in Science	2022/09 - 2023/08
Canada Graduate Scholarship - Master's Program (CGS-M)	2021/09 - 2022/08
NSERC Undergraduate Student Research Award (USRA)	2021/05 - 2021/08
CMS-RBC Excellence Scholarship	2021/05
UVic President's Scholarship	2020/08
Stephen A. Jennings Memorial Scholarship	2020/07 & 2019/07
UVic Mathematics and Statistics Scholarship	2020/07
NSERC Undergraduate Student Research Award (USRA) - Declined	2020/05 - 2020/08
Boehm Family Award for Excellence in Science (UVic Honours Fest 3rd place prize)	2020/03
Jamie Cassels Undergraduate Research Award (JCURA)	2019/09 - 2020/04
UVic Faculty of Science Undergraduate Research Award (SURA)	2019/05 - 2019/08
UVic Science Dean's List	2016/09 - 2021/04
UVic Excellence Scholarship	2016/09 - 2020/04
UVic Excellence in Math Scholarship	2016/06
Governor General Academic Bronze Medal	2016/06
Graduation Program Examinations Scholarship (Top 20 students in BC)	2016/06
District Authority Award Scholarship for Community Service	2016/06
Joy Paquin Memorial Scholarship	2016/06
District Education Scholarship	2016/06

### CONFERENCE AND SEMINAR PRESENTATIONS

Saturate the Rainbow. Taste the Rainbow. UVic MUGS Seminar	2026/04
The Search for Hamilton Cycles UVic Discrete Math Seminar	2025/10
Turning Tournaments Transitive CanaDAM 2025, Ottawa, ON, Canada	2025/05
The Rainbow Connection 2024 CMS Winter Meeting, Richmond, BC, Canada	2024/12

## CONFERENCE AND SEMINAR PRESENTATIONS CONTINUED

The Rainbow Connection Iowa State University Discrete Math Seminar (Virtual)	2024/04
The Rainbow Connection Coast Combinatorics Conference, University of Victoria, BC, Canada	2023/11
Polynomials and Percolating Processes on Products of Graphs University of Waterloo Algebraic Graph Theory Seminar (Virtual)	2023/10
The Rainbow Saturation Number is Linear Auburn University Discrete Math Seminar (Virtual)	2023/09
Connecting Graph Theory and Additive Combinatorics UVic Discrete Math Mini Seminar	2023/07
Polynomials and Percolating Processes on Products of Graphs CanaDAM 2023 (Invited, and Cancelled due to illness)	2023/06
Rainbow Saturation is Linear (Poster) Pacific Rim Mathematical Association Congress, Vancouver, BC, Canada	2022/12
Saturate the Rainbow. Taste the Rainbow. UVic Discrete Math Seminar	2022/12
Shannon Talks About Shannon's Entropy UVic Discrete Math Mini Seminar	2022/06
Dependent Random Choice: A Pretty Powerful Probabilistic Proof Technique UVic Discrete Math Seminar (Virtual)	2022/04
How to Lose at Tic-Tac-Toe, and Other (More Transitive) Games UVic Discrete Math Seminar	2022/04
Paint by Numbers: Investigating List Colourings of Plane Graphs UVic Discrete Math Seminar (Virtual)	2022/01
Infectious Connections: Weak Saturation with Complete Multipartite Graphs UVic Math & Stats Masters Seminar	2021/11
Some Supercritical Results for Defending the Roman Empire UVic SUMS Seminar (Virtual)	2021/03
Total Roman Domination Edge-Supercritical and Edge-Removal Supercritical Graphs Women in Combinatorics Virtual Colloquium (Virtual)	2020/06
Total Roman Domination Edge-Supercritical and Edge-Removal Supercritical Graphs (Poster) Honours Fest & JCURA Research Fair, University of Victoria, BC, Canada	2020/03
Criticality Concepts for Total Roman Domination in Graphs RouxFest Workshop, University of Victoria, BC, Canada	2019/11

**OUTREACH PRESENTATIONS**

A Mathematician's Guide to World Domination Stelly's Secondary School – Grade 9 & 12	2026/04 2023/02
A Mathematician's Guide to World Domination St. Margaret's visit to UVic – Grade 9	2026/03
A Mathematician's Guide to World Domination IMAGINING UVic: Inspiring Mathematical Growth and Intuition in Girls – Grades 11 & 12	2024/07 2022/07
A Mathematical Mindset IMAGINING UVic: Inspiring Mathematical Growth and Intuition in Girls – Grades 11 & 12	2024/07 2022/07
Puzzling Polyomino Problems St. Margaret's Math Circles – Grades 5-8	2024/02
Induction Deduction, What's Your Function? IMAGINING UVic: Inspiring Mathematical Growth and Intuition in Girls – Grades 11 & 12	2023/04
Cultivating Supportive Environments in STEM (Discussion Panelist) UVic Women in Science Research Symposium	2023/03
A Mathematician's Guide to World Domination St. Margaret's Math Circles – Grades 5-8	2023/02
A Mathematician's Guide to World Domination South Island Distance Education School Science Club (Virtual) – Grades 5-12	2022/04

**TEACHING EXPERIENCE**

Volunteer Math Classroom Assistant Stelly's Secondary School, Saanichton, BC, Canada	2026/04 - 2026/05 2022/09 - 2022/11 2017/04 - 2017/06
Teaching Assistant (Math 109 & 101 Tutorial Instructor) Department of Mathematics and Statistics, University of Victoria	2026/01 - 2026/04 2025/09 - 2025/12 2023/01 - 2023/04
UVic MATH 414/529 Substitute Lecturer (one lecture)	2025/12
UVic MATH 320 Substitute Lecturer (five lectures)	2024/09-2024/11
UVic MATH 110 Substitute Lecturer (two lectures)	2023/09
Volunteer High School Math Club Organizer Stelly's Secondary School, Saanichton, BC, Canada	2022/09 - 2022/11
UVic MATH 362 Substitute Lecturer (one lecture)	2022/09
Volunteer Middle School Math Club Organizer South Island Distance Education School, Victoria, BC, Canada	2021/10 - 2022/6

**TEACHING EXPERIENCE CONTINUED**

Teaching Assistant (Online Math and Stats Assistance Centre) Department of Mathematics and Statistics, University of Victoria	2021/09 - 2021/12
UVic MATH 122 Substitute Lecturer (three lectures)	2021/11
Secondary School Math & Physics Tutor	2018/04 - 2018/06
Climbing Academy Coach SD63, Saanichton, BC, Canada	2018/04 - 2018/06 2017/04 - 2017/06
Intro Belay Instructor & Summer/Pro-D Day Camp Leader The Boulders Climbing Gym, Saanichton, BC, Canada	2014/06 - 2016/09
Volunteer Math Club Leader Stelly's Secondary School, Saanichton, BC, Canada	2015/09 - 2016/06

**VOLUNTEER ACTIVITIES**

President Association for Women in Mathematics UVic Student Chapter	2025/10 - Present
Program Coordinator IMAGINING UVic (Inspiring Mathematical Growth and Intuition in Girls)	2022/03 - Present
Outreach Program Coordinator Association for Women in Mathematics UVic Student Chapter	2021/10 - 2024/12
Graduate Student Member-at-Large Association for Women in Mathematics UVic Student Chapter	2021/06 - 2021/12
Mentor for Master's Students UVic Math and Stats Master's Seminar Course	2021/09 - 2021/11

**CERTIFICATIONS**

Climbing Gym Instructor Level 2 Thompson Rivers University, BC, Canada	2016/03
Climbing Gym Instructor Level 1 Thompson Rivers University, BC, Canada	2015/03