

CONTACT INFORMATION	<ul style="list-style-type: none"> • Email: calebkw@math.ubc.ca • Personal Website: https://calebsuan.github.io
RESEARCH INTERESTS	Geometric analysis; Geometric flows (G_2 Laplacian Flow/ Coflow, Anomaly Flow); Manifolds with special holonomy ($SU(3)$, G_2 , $Spin(7)$); Conifold Transitions; Hull–Strominger system.
EDUCATION	<p>The University of British Columbia, Vancouver, BC, Canada</p> <p>PhD, Mathematics Sep 2021 - Present (Expected Apr 2025)</p> <ul style="list-style-type: none"> • Thesis: <i>Deformations of Special Geometric Structures in Dimensions 6 and 7</i> • Supervisor: Sébastien Picard <p>University of Waterloo, Waterloo, ON, Canada</p> <p>MMath, Pure Mathematics, Jan 2020 - Dec 2020</p> <ul style="list-style-type: none"> • Thesis: <i>Differential Operators on Manifolds with G_2-Structure</i> • Supervisor: Spiro Karigiannis <p>BMath, Pure Mathematics/ Combinatorics and Optimization, Sep 2013 - Dec 2019</p> <ul style="list-style-type: none"> • Honors, Co-operative Program • With Distinction, Dean’s Honours List
PREPRINTS AND PUBLICATIONS	<p>[1] Caleb Suan “Anomaly Flow: Shi-Type Estimates and Long-time Existence”, preprint, arXiv:2408.15514</p> <p>[2] Henrique N. Sá Earp, Julieth Saavedra, and Caleb Suan “Laplacian Coflows of G_2-Structures on Contact Calabi–Yau 7-Manifolds”, preprint, arXiv:2406.15254</p> <p>[3] Benjamin Friedman, Sébastien Picard, and Caleb Suan “Gromov–Hausdorff Continuity of Non-Kähler Calabi–Yau Conifold Transitions”, preprint, arXiv:2404.11840</p> <p>[4] Sébastien Picard and Caleb Suan “Flows of G_2 Structures associated to Calabi–Yau Manifolds”, to appear in <i>Mathematical Research Letters</i>, arXiv:2209.03411</p>
INVITED TALKS	<ul style="list-style-type: none"> • Rutgers - Newark Mathematics Colloquium (Nov 2024) “Long-time Existence of the Anomaly Flow” • CRM Workshop: Special Riemannian Geometries in Dimensions 6, 7, 8 (Apr 2024) “Gromov–Hausdorff Continuity of Non-Kähler Calabi–Yau 3-Folds” • UC - Irvine Generalized Ricci Flow Learning Seminar (Dec 2023) “Flows of G_2 Structures associated to Calabi–Yau Manifolds” • BIRS Workshop: Spinorial and Octonionic Aspects of G_2 and $Spin(7)$ Geometry (May 2023) “Flows of G_2 Structures associated to Calabi–Yau Manifolds”

TEACHING

The University of British Columbia, Vancouver, BC, Canada*Small Class/ Workshop Instructor* Sep 2021 - Present

- MATH 180: Differential Calculus with Applications (2024 Winter Term I)
- MATH 180: Differential Calculus with Applications (2023 Winter Term I)
- MATH 190: Calculus Survey (2022 Winter Term I)

Teaching Assistant Sep 2021 - Present

- MATH 264: Vector Calculus for Electrical Engineering (2023 Winter Term II)
- MATH 220: Mathematical Proof (2022 Winter Term II)
- MATH 421: Real Analysis II (2021 Winter Term II)
- MATH 223: Linear Algebra (2021 Winter Term I)

University of Waterloo, Waterloo, ON, Canada*Teaching Assistant* Jan 2020 - Dec 2020

- PMATH 465: Geometry of Manifolds (Fall 2020)
- MATH 147: Calculus 1 (Advanced Level) (Fall 2020)
- PMATH 352: Complex Analysis (Spring 2020)
- PMATH 365: Differential Geometry (Winter 2020)
- MATH 136: Linear Algebra 1 for Honours Mathematics (Winter 2020)

Undergraduate Tutor Sep 2016 - Dec 2016

- MATH 137: Calculus 1 for Honours Mathematics (Fall 2016)

OTHER
RESEARCH**University of Waterloo, Waterloo, ON, Canada***NSERC Undergraduate Research Assistant* May 2019 - Aug 2019

- Project: *The Almost Invariant Subspace Problem*
- Supervisor: [Laurent Marcoux](#)

NSERC Undergraduate Research Assistant May 2018 - Aug 2018

- Project: *Vortex Solutions on Riemann Surfaces from Hyperbolic Tessellations*
- Supervisor: [Benoit Charbonneau](#)

AWARDS AND
SCHOLARSHIPS

- Four Year Doctoral Fellowship 2021
The University of British Columbia
- President's Academic Excellence Award 2021
The University of British Columbia
- NSERC Alexander Graham Bell Canada Graduate Scholarship - Masters 2021
University of Waterloo
- President's Graduate Scholarship 2021
University of Waterloo
- Outstanding Teaching Assistant Award 2020
University of Waterloo
- NSERC Undergraduate Student Research Award 2020
University of Waterloo
- NSERC Undergraduate Student Research Award 2019
University of Waterloo
- University of Waterloo 50th Anniversary Scholarship 2018
University of Waterloo

- Faculty of Mathematics Scholarship 2014
University of Waterloo
- University of Waterloo President's Scholarship 2014
University of Waterloo

SERVICE

- UBC Differential Geometry Learning Seminar Jan 2024 - Present
Co-organiser