

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”, <i>Mathematical Research Letters</i> 31 (2024) No. 6, 1837–1877, arXiv:2209.03411</p>
INVITED TALKS	<ul style="list-style-type: none"> • University of British Columbia Mathematics Colloquium (Mar 2025) TBD • Universität Hamburg Differential Geometry Research Seminar (Jan 2025) “Conifold Transitions and the Anomaly Flow” • 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	<p>The University of British Columbia, Vancouver, BC, Canada</p> <p><i>Small Class/ Workshop Instructor</i> Sep 2021 - Present</p> <ul style="list-style-type: none"> • MATH 100: Differential Calculus with Applications to Physical Sciences and Engineering (2024 Winter Term II) • MATH 180: Differential Calculus with Physical Applications (2024 Winter Term I) • MATH 180: Differential Calculus with Physical Applications (2023 Winter Term I) • MATH 190: Calculus Survey (2022 Winter Term I) <p><i>Teaching Assistant</i> Sep 2021 - Present</p> <ul style="list-style-type: none"> • 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)
	<p>University of Waterloo, Waterloo, ON, Canada</p> <p><i>Teaching Assistant</i> Jan 2020 - Dec 2020</p> <ul style="list-style-type: none"> • 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) <p><i>Undergraduate Tutor</i> Sep 2016 - Dec 2016</p> <ul style="list-style-type: none"> • MATH 137: Calculus 1 for Honours Mathematics (Fall 2016)
OTHER RESEARCH	<p>University of Waterloo, Waterloo, ON, Canada</p> <p><i>NSERC Undergraduate Research Assistant</i> May 2019 - Aug 2019</p> <ul style="list-style-type: none"> • Project: <i>The Almost Invariant Subspace Problem</i> • Supervisor: Laurent Marcoux <p><i>NSERC Undergraduate Research Assistant</i> May 2018 - Aug 2018</p> <ul style="list-style-type: none"> • Project: <i>Vortex Solutions on Riemann Surfaces from Hyperbolic Tessellations</i> • Supervisor: Benoit Charbonneau
AWARDS AND SCHOLARSHIPS	<p>Stanley M. Grant Scholarship in Mathematics 2024</p> <p>University of British Columbia</p> <p>Four Year Doctoral Fellowship 2021</p> <p>University of British Columbia</p> <p>President's Academic Excellence Award 2021</p> <p>University of British Columbia</p> <p>NSERC Alexander Graham Bell Canada Graduate Scholarship - Masters 2021</p> <p>University of Waterloo</p> <p>President's Graduate Scholarship 2021</p> <p>University of Waterloo</p>

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

University of British Columbia Differential Geometry Learning Seminar	
<i>Co-organizer</i>	Jan 2024 - Present