



PEER BEYOND GRADUATE RESEARCH CONFERENCE

SUMMER 2025



Peer Beyond Graduate Research Conference (PBGRC)

Issue 1

Conference Proceedings for the Peer Beyond Graduate Research Conference hosted February 19 and 20, 2025 at the University of Calgary



Inaugural issue published 2025 by the Graduate Student Association University of Calgary University Drive NW, Calgary, AB, T2N 1N4.

Online publication hosted on the UCalgary Journal Hosting Service https://journalhosting.ucalgary.ca/index.php/pbgrc/index

© 2025 Peer Beyond Graduate Conference



Conte	nts
Contents	4
Statements from the Organizing Team	6
Reviewers	7
Publication Chair's Editorial - Insights and Innovations: An Array of Scholarly Advancements Emerging from the University of Calgary	8
1. Merging Dissemination and Knowledge Generation: Participatory Art on Algorithmic Decision-Making – Kathryn Blair, Pil Hansen, & Lora Oehlberg.	9
2. Unveiling Neurodiversity Representation in Collaborative Learning Literature – Greta Heathcote, Alison Nelson, Armando Paulino Preciado Babb	14
3. Investigating Preservice Teachers' Metacognition Skills by Developing Meta-Strategic Knowledge - Anne Mackie	16
4. Mapping Conceptual Understanding of Experts, Teachers, and Students through Conceptual Metaphor Theory – Bogusia Geirus	18
5. New Directions for Online Education Research: What Have We Overlooked? – Bruna Nogueira	20
6. Othering International Students: Exploring the Conflict Between Student Visa Policy at Canada's Commitment To Multiculturalism – Larry Till and Sadaf Taimoor	nd 21
7. Visualizing Environmental Racism to Raise Public Awareness – Maryam Mahdavian	26
8. A Call to Action for Leveraging Cultural Capital and Funds of Knowledge in Academic Integration of South Asian International Students in STEM Programs at Canadian Universities – Shuvo Chowdhury Rahul	c 28
9. Fostering Cultural Awareness and Identity Through Multimodal Approaches: An Actio Research Study – Zahra Golneshan	on 30
10. Relationality in Early Childhood Education in the context of climate crises – Zohra Samir Khoja	32
11. Remote Ischemic Conditioning in Traumatic Brain Injury - Aly Muhammad Salim, Thomas Carr, Nick Batty, Andy Cho, Carlos Camara Lemarroy, Alex Lohman	33
12. Estimating Bone Stiffness in the Proximal Humerus using Single Energy CT and Inter Density Calibration for Stemless Shoulder Arthroplasty – Chloe Stiles	rnal 34
13. GABA, glutamate, glutathione, and central pain in people with knee osteoarthritis: a pand post-knee replacement study – Mataea Armstrong	ore- 38



14. Analysis of woodchuck hepatitis virus dynamics in the woodchuck-WHV infection mod during acute versus chronic infection, before and after antiviral treatment - Md Deen Islam, DP Whiteside, L Al-Yasiri, JL Rothenburger, TI Michalak, S D'Souza, T Wilayat	
15. Chymase/Mcpt4: A serine protease with a crucial role in the modulation of colonic epithelial cell permeability in colitis – Afshin Derakhshani	42
16. Hidden Hegemony in Public Health: A Qualitative Approach to a Comparative Discour Analysis of How Colonial and Post-Colonial Discourses Shaped the Calgary IODE's Approach to Child and Family Public Health – Margaret Ayris	se 44
17. Challenges and Stakeholder Perspectives in the Referral Process for Suspected Uveal Melanoma: A Cross-Sectional Mixed Methods Study - Emily Laycock, Ezekiel Weis, Joak Siljedal, Trafford Crump	im 50
18. Using Integral Theory to Study the Effectiveness of HeartMath Biofeedback and Social Emotional Learning in Adolescent Emotion Regulation – Carolyn McLeod	- 51
19. An Interpretative Phenomenological Analysis Exploring the Lived Experiences of Autistic Undergraduate Psychology Students Engaging and Integrating within UCalgary – Jett Devost	52
20. Bull Trout (<i>Salvelinus confluentus</i>) Population Structure and Extent of Hybridization w Brook Trout (<i>S. fontinalis</i>) Across Alberta's Eastern Slopes – Emily Franks	ith 54
21. Reconstructing the Past: Bridging Deep History and Modernity for a Resilient Planet – Ayoola Oladele	56
22. Neolithic Polished Stone Artifacts: A Study of Sourcing and Mobility in Alentejo Regio Portugal - Sissay Fikeru, José Mirão, António Valera, Massimo Beltrame, José Roseiro, An Tsoupra, Noel Moreira, Patrícia Moita	-
23. Who Shapes the Land: Actor-Centered Perspectives on Western Canadian Settlement (1881-1918) – Marice McIntyre	60
24. The Dance of Transformation: exploring embodied space, sacredness and possession in Brekete – Senyo Okyere	64
25. Exploring the Operationalization of Intersectionality in Political Science – A Scoping Review Protocol – Makda Habtegergesa	68
26. Bridging Emotional Understanding: A Multimodal Emotion Detection System for Neurodivergent Individuals - Wamika Jha, Zoe Kirsman, Mea Wang, Usman Alim	70
27. Investor Sentiment and its Effect on Stock Market Performance: Evidence from Pakista - Shandana Shaukat	n 74



Statements from the Organizing Team

As Vice President Academic of the UCalgary Graduate Students' Association (2024-2025), I had the honor of collaborating with our academic events team to plan and execute the 2025 Peer Beyond Graduate Research Conference, held on February 19 and 20. Since 2018, the Peer Beyond Graduate Research Conference has been a cornerstone event for UCalgary graduate students, offering a supportive interdisciplinary space for presenting their research and receiving valuable peer feedback.

This year's conference welcomed over 150 participants and showcased an impressive range of research. Topics ranged from using cartoons or participatory art exhibitions to simplify and communicate complex research ideas, to pioneering methods for supporting the mental health of depressed individuals in long-term care, to examining bull trout population structure and the extent of hybridization with brook trout across Alberta's Eastern Slopes. The event underscored the vibrant interdisciplinary and transdisciplinary work at the University of Calgary, connecting researchers from diverse fields.

We appreciate the work of previous GSA Vice Presidents Academic and planning committees and are proud to introduce this inaugural conference proceedings publication which enables graduate students to share their work beyond the conference. Spearheaded by our exceptional publication chair Ayoola Oladele, this initiative involved the drafting and revision of nearly 30 graduate student submissions. We are thrilled to add this new offering to the Peer Beyond Graduate Research Conference, further enriching the value of the event for UCalgary graduate students.

---- Alexandria Poppendorf (Vice President Academic - GSA)

As an immigrant and international student at the University of Calgary, it is an honor to co-chair AEC and engage with many beautiful souls during Peer Beyond. As grad students, we are often faced with isolation and a lack of confidence. We find solace in community building, having these moments where we can safely share our thoughts and hard work with people who understand us. I want to express my sincere gratitude to Alex's impeccable leadership, my co-chair Kristal and our vice-chair Ayoola, all the volunteers and participants who helped create a space that we need now more than ever. Peer Beyond exists because of you, because of us! And what a beautiful two-day journey it was!

----- Fabielle Rocha Cruz (Co-Chair Academic Event Committee - GSA)

It has been an honor to co-chair AEC with Fabi, and work with Alex and Ayoola on Peer Beyond. As the volunteer coordinator for Peer Beyond, I also want to express my thanks to all the volunteers who took time out of their busy schedules to make the event a success. Community is what makes the graduate experience bearable in the darker times, and I am happy to share community with you.

----- Kristal Turner (Co-Chair Academic Event Committee - GSA)

Serving as the Vice Chair of the Academic Committee has been an immensely rewarding experience. I have been able to work alongside a dedicated and visionary team, including Alex, Fabi, and Kristal, committed to fostering the academic development of graduate students across the University of Calgary. Witnessing the ideas that we had carefully curated come to life through the Peer Beyond Graduate Research Conference (PBGRC) with vibrant discussions and interdisciplinary presentations was both humbling and inspiring. I am deeply honoured for the opportunity to chair the inaugural publication of the PBGRC, a role that allowed me to contribute to shaping a meaningful platform for scholarly dialogue and innovation. I also extend my heartfelt appreciation to the reviewers whose dedication, insights, and meticulous work have been instrumental in bringing this publication to life. This experience has deepened my appreciation for collaborative leadership and reaffirmed the power of academic gatherings in driving progress and dialogues across disciplines.

----- Ayoola Oladele (Vice Chair Academic Event Committee - GSA)



Reviewers

We gratefully acknowledge the following scholars for their time, insight, and scholarly contributions in reviewing submissions for this publication.

Name	Faculty
Alexandria Poppendorf	Werklund School of Education
Anne Mackie	Werklund School of Education
Ayoola Oladele	Arts
Behina Tabatabaei	Schulich School of Engineering
Guilia Riondino	Werklund School of Education
Hailey Zwicker	Cumming School of Medicine
Ignacio Aguirre	Schulich School of Engineering
John Hutchinson	Cumming School of Medicine
Md Deen Islam	Cumming School of Medicine
Sajedeh Hosseini	Werklund School of Education
Shanshan Wang	Cumming School of Medicine
Shuvo Chowdhury Rahul	Werklund School of Education
Zoe Cascadden	Arts