

Samuel Aucoin

PhD Candidate

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[sam-aucoin-oceanography](https://sam-aucoin-oceanography.github.io)

Education

Dalhousie University <i>PhD Physical Oceanography</i> <i>Turbulence from Oceanic Plumes</i> <i>With Ruth Musgrave & Alex Hay</i>	09/2022 – Present <i>Halifax, Canada</i>
McGill University <i>BSc First Class Hon. Earth System Science, Min. Physics</i> <i>Coastal Sea-Ice Break-Up Events in Beringia</i> <i>With Bruno Tremblay</i>	09/2019 – 04/2022 <i>Montreal, Canada</i>
CEGEP Heritage College <i>DEC of Science with Distinction</i>	09/2017 – 04/2019 <i>Gatineau, Canada</i>

Scholarships & Awards

Polar Knowledge Canada NSTP Award <i>Dalhousie University</i>	2025, 2026
NSERC Postgraduate Scholarship - Doctoral <i>Dalhousie University</i>	2024 – 2027
President's Award <i>Dalhousie University</i>	2024 – 2026
Nova Scotia Graduate Scholarship <i>Dalhousie University</i>	2024 – 2028
JSPS/Mitacs Research Fellowship <i>Research Institute for Humanity and Nature, Dalhousie University</i>	2023
Best MSc Talk <i>Conference of Dalhousie Oceanography Graduate Students</i>	2023
Osisko Scholarship <i>McGill University</i>	2020 – 2022
NSERC USRA <i>McGill University</i>	2021

Research Experience

JSPS Visiting Fellow <i>Research Institute for Humanity and Nature</i> <i>With Makoto Taniguchi</i>	06/2023 – 09/2023 <i>Kyoto, Japan</i>
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- Designed and performed a short-term project as a research fellow on the fluid dynamics of submarine springs.

Publications

Aucoin, S., Tremblay, B., & Newton, R. (2022). Coastal Sea-Ice Break-Up Events in Beringia. *McGill Science Undergraduate Research Journal*, 17(1), 18–22.

<https://doi.org/10.26443/msurj.v17i1.172>

Aucoin, S., Briand, A., Duval, B., & Qudsi, Z. (2022). Micro-Urban Heat Islands in the City of Montreal. *McGill Science Undergraduate Research Journal*, 17(1), 58–63.

<https://doi.org/10.26443/msurj.v17i1.178>

Presentations

Aucoin, S., Musgrave, R., Hay, A. E., & Taniguchi, M. (2026). Submarine Groundwater Discharge from an Oceanographic Perspective. *JpGU-AGU Joint Meeting 2026, Chiba, Japan*

Aucoin, S., Musgrave, R., & Hay, A. (2026). OSM26: On the Intermittency of Multi-Source Turbulence. *Ocean Sciences Meeting 2026, Glasgow, Scotland, UK, 2026(0629)*.

<https://doi.org/10.22541/essoar.15005404/v1>

Aucoin, S., Musgrave, R., & Hay, A. (2024). Turbulent Dynamics of a Submarine Spring Plume. *Ocean Mixing Gordon Research Conference 2024, Mt Holyoke, Massachusetts, USA*

Aucoin, S., Taniguchi, M., Musgrave, R., & Hay, A. (2023). Oceanic Mixing from Submarine Groundwater Discharge. *Japan Society for the Promotion of Science Summer Program 2023, Shonan Village, Hayama, Japan*

Aucoin, S., Musgrave, R., & Hay, A. (2023b). Turbulent Plumes from Submarine Groundwater Discharge. *Canadian Meteorological and Oceanography Society Congress 2023, St. John's, Newfoundland & Labrador*

Aucoin, S., Musgrave, R., & Hay, A. (2023a). Turbulent Plumes from Submarine Groundwater Discharge. *Conference of Dalhousie Oceanography Graduate Students 2023, Halifax, Nova Scotia*

Teaching Experience

Undergraduate Student Supervision

09/2025 – 05/2026

Dalhousie University

Halifax, Canada

- Supervised Bridget Hart on a project building and testing an [OpenCTD](#)

TA for OCEA1001/2

09/2022 – 05/2023

Dalhousie University

Halifax, Canada

- Developed and ran weekly tutorial sessions, graded and gave feedback on students' writing ability

Additional Activities & Skills

Communication: Editor-in-chief for the student-run departmental science communication magazine, [Current Tides](#).

Languages: English, French

Programming Languages: Julia, MatLab, Python, R

Recreation: Music, Hiking, Baking, Kayaking