

Ea E T

(403) 554 4168 | eaet2@illinois.edu | [linkedin](#) | [Website](#)

EDUCATION

University of Illinois Urbana-Champaign

Doctor of Philosophy, Mathematics

Calgary, AB

Aug 2024 – May 2029

University of Calgary

Bachelor of Science, Honours Mathematics

Calgary, AB

Sept 2019 – Apr 2024

GPA: 4.0/4.0

University of Calgary

Bachelor of Science, Honours Physics

Calgary, AB

Sept 2019 – Apr 2024

GPA: 4.0/4.0

ACADEMIC ACHIEVEMENTS

Canadian Graduate Scholarship - Master's, Dalhousie University,

(2024)

National Sciences and Engineering Research Council of Canada (\$27 000)

Declined

Adam Richard Leinweber Memorial Scholarship, University of Calgary (\$10 000)

(2023)

Louise McKinney Scholarship, Alberta Government (\$2500)

(2022, 2023)

Undergraduate Student Research Award, NSERC (\$6000)

(2022, 2023)

Program for Undergraduate Research Experience Award, University of Calgary (\$7500),

(2022)

Declined

Arthur Thomas Evans Scholar, University of Calgary (\$2600)

(2022)

R.J. Torrence Memorial Scholarship, University of Calgary (\$1400, \$1500)

(2021, 2022)

Dr. David John Fry Scholarship in Physics and Astronomy, University of Calgary (\$2400)

(2021)

Jason Lang Scholarship, Alberta Government (\$1000)

(2021)

Faculty of Science Dean's List, University of Calgary

(2020-2023)

President's Admission Scholarship Recipient, University of Calgary (\$5000)

(2019)

Evelyn Mitchell Emerson Entrance Bursary Recipient, University of Calgary (\$6500)

(2019)

Alexander Rutherford Scholarships Recipient, Alberta Government (\$2500)

(2019)

The Governor General's Academic Bronze Medal Recipient, Alberta Government

(2019)

PROJECTS AND RESEARCH EXPERIENCE

Honours Mathematics Thesis | University of Calgary

(Jan – Apr 2024)

"Extending Universal Properties for Chain Complex Polynomial Functors" (Supervisor: Kristine Bauer)

Honours Physics Thesis | University of Calgary

(Sept 2023 – Apr 2024)

"Resource Theories for Random Discrete Dynamical Systems" (Supervisor: Carlo Maria Scandolo)

Research Assistant | University of Calgary

(May – Aug 2023)

"Determining edges from distances of segments tangent to a circle" (Supervisor: Tracey Balehowsky)

Student Researcher | University of Calgary

(Nov 2022 – Apr 2023)

"p-Atlas VXML Project via the Pacific Institute of Mathematical Sciences" (Supervisor: Clifton Cunningham)

Research Assistant | University of Calgary

(May – Aug 2022)

"Algorithms for multiplicity matrices in local representation theory" (Supervisor: Clifton Cunningham)

TALKS AND POSTERS

- UIUC Graduate Homotopy Theory Seminar**,
(presentation) University of Illinois Urbana-Champaign (2024)
- Alberta Graduate Mathematics and Statistics Conference**,
(presentation) University of Alberta (2024)
- Pacific Institute of Mathematical Sciences
Algebraic Geometry Course**, (lecture) PIMS (2024)
- Canadian Mathematical Society Summer Meeting**, (presentation) University of Ottawa (2023)
- Pacific Institute of Mathematical Sciences
Virtual Experimental Math Lab**, (presentation and poster) (2023)
- Society of Undergraduate Mathematics-Calgary
Summer Seminar**, (presentation) University of Calgary (2023)
- Society of Undergraduate Mathematics-Calgary
Summer Seminar**, (presentation) University of Calgary (2022)
- Society of Undergraduate Mathematics-Calgary
Summer Seminar**, (presentation) University of Calgary (2021)

PROFESSIONAL EXPERIENCE

**Physics and Astronomy Students' Association (PASA) |
University of Calgary Vice President Academic** (May 2022 – Apr 2024)

I conducted academic workshops and events including:

- graduate school seminars,
- \LaTeX workshops for first and second year students,
- research night events where professors in the Physics and Astronomy Department presented on their work to undergraduates, and discussed summer student research opportunities
- weekly tutorial nights for undergraduate physics students

**PHAS Equity, Diversity, Inclusion (EDI) Committee |
University of Calgary** (Oct 2021 – Jun 2024)

I participated in the UofC PHAS EDI committee, which is a group focused on the implementation of Physics and Astronomy based initiatives for the sake of increasing accessibility and improving department culture.

TEACHING EXPERIENCE

**Teaching Assistant - Math 220: Calculus
| University of Illinois Urbana-Champaign** (Aug 2024 – Dec 2024)

I assisted students in ~ 30 person discussion sessions and larger scale help sessions.

**Teaching Assistant - Math 275: Calculus for engineers and
scientists | University of Calgary** (Sept 2023 – Dec 2023)

I assisted students in large group worksheet sessions and smaller scale math help sessions. I also graded weekly worksheets and invigilated midterm and final exams.

Physics and Math Tutor | Independent (Sept 2019 – May 2024)

I provided regular one-on-one and one-on-many tutoring for first and second year undergraduate physics and mathematics courses at the University of Calgary.

OUTREACH EXPERIENCE

Physics and Astronomy Mentor Talks | University of Calgary (Jan 2022 – date)

The Physics and Astronomy Mentor (PAM) Talks is a web series on women and gender minorities in physics started in 2022. I have participated both in the workshopping and recording video and podcast episodes for the web series, as well as the promotion of the web series as a whole.

Girls Excel in Math Summer Camp | University of Calgary (2023)

I volunteered in supporting a group of grade 6-9 students who identify as girls work through problems in graph theory, problems in game theory, exercises with fractals, and geometric exercises with origami.

Mentor | University of Calgary, PASA (Sept 2021 – May 2024)

I participated as a mentor for two first and second year physics students from 2021-2023, as well as two additional physics students from 2023-2024. I assisted all students with course work, degree planning, and getting involved in summer research opportunities.

EDUCATION DEVELOPMENT EXPERIENCE

Undergraduate Liaison Committee | University of Calgary (Apr 2022 – Apr 2024)

I worked with faculty members and peers to improve course structure in the Physics and Astronomy department, and implemented new policies intended to assist with greater student learning and mental health.

Undergraduate Affairs Committee | University of Calgary (Apr 2022 – Apr 2024)

I actively participated in curriculum development for the Physics and Astronomy undergraduate program, helping to identify areas which were in need of extra support or restructuring so as to best serve the needs of undergraduate students.

ACADEMIC AFFILIATIONS

Kristine Bauer Research Group (Sept 2023 – date)

Voganish Project Group Member (May 2022 – Apr 2023)

REFERENCES

Kristine Bauer, Associate Professor in the Department Mathematics and Statistics
University of Calgary
bauerk@ucalgary.ca

Carlo Maria Scandolo, Associate Professor in the Department Mathematics and Statistics
Associate Professor in the Institute of Quantum Science and Technology
University of Calgary
carlomaria.scandolo@ucalgary.ca

Clifton Cunningham, Professor in the Department Mathematics and Statistics
University of Calgary
ccunning@ucalgary.ca

Tracey Balehowsky, Assistant Professor in the Department Mathematics and Statistics
University of Calgary
tracey.balehowsky@ucalgary.ca