

Physics Honours Thesis Presentations & 2025-26 Awards Celebration

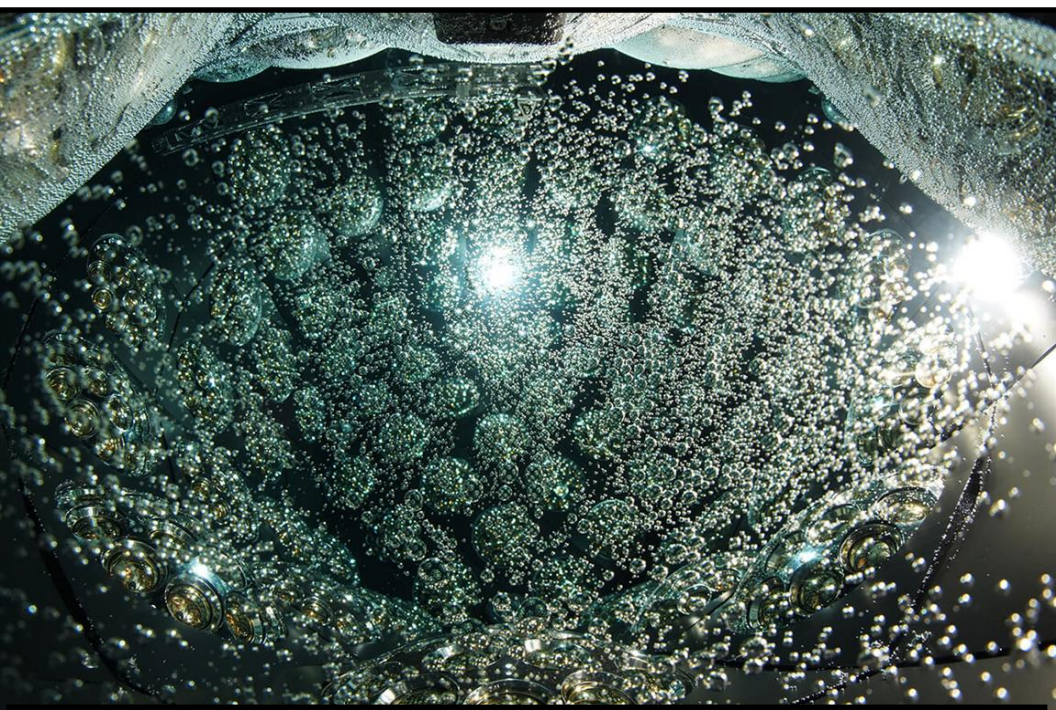


Photo by Dr. Blair Jamieson, courtesy of Water Cherenkov Test Experiment collaboration.

Tuesday, April 7, 2025

2:00pm – 3:30pm

Room: 4C60

Snacks & refreshments available. Please help yourself!



THE UNIVERSITY OF WINNIPEG

ORDER OF EVENTS:

Welcome: Jeff Martin (chair) & Russell Mammei

Daniel MacPherson (supervisor: Dr. Russell Mammei)
"Titanium interlayer for promoting diamond-like carbon adhesion to aluminum"

Awards: UofW Physics Scholarship Recipients

Jessica de Kort (supervisor: Dr. Melanie Martin)
"Automated Segmentations of Electron Microscopy Images from a Male Mouse"

Awards: Internal UofW Awards

Simon Pankratz (supervisor: Dr. Jeff Martin)
"Stick it to 'Em: Anodization for Adhesion of Diamond-like Carbon Coatings"

Awards: External Awards & Events

Closing Remarks: Russell Mammei

UofW Physics Scholarship Recipients

Dr. Donald Kydon Prize in Physics

Nicole Valencia

Dr. Donald Kydon (1934-2003) served The University of Winnipeg enthusiastically and energetically for more than 30 years. The Dr. Donald Kydon Prize is awarded to a student entering Second year physics or beyond with a distinguished record who has excelled in physics. Preference may be given to students with a demonstrated interest in medical physics and/or to students from under-represented groups.

Brian J. Hyslop Memorial Scholarship in Physics

Smit Dhruva Panchal

This scholarship was established by Mrs. Analee Hyslop in memory of her husband, Brian Hyslop, a 1959 graduate of The University of Winnipeg (United College), long-time Windsor Park Collegiate physics teacher, co-chair for many years of the Manitoba School Science Symposium held at The University of Winnipeg, and respected artist. Brian was an influential and well-loved teacher, leaving a lasting, positive effect on many of the students he taught. This scholarship is awarded to a Third Year student enrolled at The University of Winnipeg in the honours degree in physics, who has a minimum cumulative grade point average of 3.00 and demonstrates the compassion and giving nature of Brian, a great man who showed patience and acceptance to all. Recipients will have worked under the supervision of a faculty member in the Department of Physics on a research project, demonstrating a passion for physics and a superior ability to do productive research. Further consideration will also be given to students interested in pursuing a master's degree in physics, and students who are likely to contribute to society and have a commitment to helping their community.

Henry Doidge Memorial Scholarship in Physics

Prathmeshsingh Kurmkshatriya

This scholarship was established in 1980 by Genevieve Doidge (Class of 1935) in memorial tribute to her husband, the late Henry G. Doidge. It will be awarded to a student with standing in First year Physics who is entering the Second year of the Physics Major program.

DC Hogg Scholarship in Physics

Gregory Holloway

This award has been established by Dr. B.G. Hogg in memory of his father. It is awarded on the basis of academic merit to a student entering the Fourth year of the Physics B.Sc. 4-year program on a full-time basis.

Dr. Herbert Shubin Memorial Scholarship in Physics

Jessica de Kort

This scholarship is provided by the Erica and Arnold Rogers Fund for Academic Excellence. It is awarded annually to the most promising student entering the Final year of the 4-year Physics program.

Donald Kerr Scholarship in Honours Physics

Simon Pankratz

The Donald Kerr Scholarship in Honours Physics Created in memory of Dr. Donald Kerr by his family, friends and colleagues, this scholarship is awarded to an academically exceptional student entering their final year of an Honours Physics degree at The University of Winnipeg. The candidate must submit a two-page personal statement explaining which of the following traits they possess and provide examples: an educator with the desire and aptitude for instructing others, a scientist with the knowledge and commitment required to complete a research project, or a leader showing reliability, productivity, cooperation and integrity within a team. Examples used may be in Physics, academia or other areas of life.

Kunstatter Family Bursary in Physics

Marcelo Katayama Shiraishi

This award was established by Dr. Gabor Kunstatter's family to mark his retirement from the Department of Physics at The University of Winnipeg. It is awarded annually to a student entering the second or third year of a 4 year Bsc (Major or Honours) in Physics. A passion for physics combined with strong academic skills is essential. Students must demonstrate financial need with preference given to single parents.

Duckworth Scholarship in Physics

Anna Harms

This scholarship in the amount of one 6-credit hour course has been established by Dr. and Mrs. H.E. Duckworth in memory of the Reverend H.B. Duckworth, D.D. It will be awarded on the nomination of the Department of Physics to a student of outstanding academic promise who is a declared Physics Major and who is entering or continuing Major work in Physics at The University of Winnipeg. Recipient will be entering Second, Third or Fourth year.

BG Hogg Scholarship in Physics

Jessica de Kort & Nicole Valencia

This award has been established by the family, friends and colleagues of Dr. B.G. Hogg as a memorial tribute. It will be awarded on the basis of academic merit to a student in the Physics Major program for the purpose of attending an undergraduate or professional Physics conference.

Physics Student Association Award

Jessica de Kort

This award supports a Physics major with demonstrated financial need, who is an active member of the University of Winnipeg Physics Student Association. To be eligible, students must have demonstrated involvement in UWPSA activities, be enrolled full-time, have completed at least 24 credit hours, and maintain a minimum GPA of 3.0.

Internal UofW Awards

Crawford Campbell Memorial Scholarship

Gregory Holloway

This scholarship was established by family and friends in memory of W. Crawford Campbell, who served in the Mathematics Department of United College and The University of Winnipeg for over 43 years, including 24 years as Chair. It will be awarded to a Mathematics major who is completing a General, 4 year, or Honours Mathematics program who has completed MATH-3101 in the previous ten months. Preference may be given to a student who has demonstrated leadership abilities through involvement in governance of the Mathematics/Statistics Students' Association.

The Carla Moore Award

Jaeda Cochraine-Murdock

The Carla Moore Award was established in 2007 by Ms Jennifer Moore Rattray, Associate Vice-President, Indigenous, Government and Community Affairs at The University of Winnipeg, in honour of her mother, a member of Peepeekisis First Nation with roots in Fisher River Cree Nation, Bunibonibee Cree Nation (formerly known as Oxford House, Manitoba) and Norway House Cree Nation. After returning to University as a mature student, Ms Carla Moore graduated with a Bachelor of Arts at The University of Winnipeg in 2000.

The Jennifer Moore Rattray Award

Jaeda Cochraine-Murdock

This award was established in 2013 by Dr. Lloyd Axworthy, President and Vice Chancellor, his wife Ms Denise Ommanney, and ReSolve Project Management in honour of Ms Jennifer Moore Rattray, Associate Vice-President, Indigenous, Government and Community Affairs at The University of Winnipeg. Ms. Rattray, a member of Peepeekisis First Nation with roots in Fisher River Cree Nation, Bunibonibee Cree Nation (formerly known as Oxford House, Manitoba) and Norway House Cree Nation, graduated with distinction from The

University of Winnipeg in 2011 with a Master of Public Administration.

Campbell K. Shepherd Memorial Scholarship

Anna Harms

Established by the family and friends of Mr. Shepherd, a distinguished public servant and graduate of The University of Winnipeg in the Class of 1961. This scholarship will be awarded for outstanding academic and other achievements by a student proceeding from Second to Third year.

Vasyl (Bill) Balan International Students from Ukraine

Yevhen Pichkurov

Established in memory of Vasyl Bill Balan and in recognition of his tremendous legacy at UWinnipeg and commitment to community service locally and abroad, this fund will support bursaries for international students from Ukraine.

Bill started at the University in 2006 as the Associate Vice-President, Operations and later became the Vice President Finance and Administration. At various points, he also held responsibility for External Affairs, Capital Planning and Strategic Initiatives. Having faithfully served two presidents, Bill retired from The University of Winnipeg on March 31, 2017. As a great champion for the University, he played a key role in its evolution. He was an integral member of the University of Winnipeg Community Renewal Corporation (UWCRC) and was one of its founding board members. Those who knew Bill will remember him fondly as a mentor and friend. He was skilled at building teams and was a warm and authentic leader. Bill was passionate about Ukraine and worked tirelessly to establish connections between The University of Winnipeg and his family's homeland.

Joan Barbara Turek SS for Women in STEM

Katherine Melville

Awarded to Grade 12 graduates identifying as female who have been admitted to first-year studies at The University of Winnipeg. To be considered, students must also be receiving a

top-tier UWinnipeg Special Entrance Scholarship (95% or higher admission average) and have declared a Science major on their application for admission.

Other Special Bursary's

Adam Shapiro

Akshdeep Gill

Alex Martin

Daniel MacPherson

Jessica de Kort

Josh Cabildo

Juan Ruiz

Nicole Valencia

Rajandeep Singh

Tessa Labelle

Tyrone Reimer

Tyson Plett

Yevhen Pichkurov

Zachary Guenther

Special Entrance Scholarship

Anoop Aulakh

Ayla Thomas

Ceciliy Melnychuk

David Zetser

Jaeda Cochrane-Murdock

Katherine Melville

Levi Thiessen

Lilli Sorich

Nuevo Joaquim

Academic Proficiency Scholarship

Anna Harms

Marcelo Katayama Shiraishi

Patrick McManus

Smit Dhruva Panchal

UWinnipeg Work-Study Program

Nicole Valencia (supervisor: Melanie Martin)

The Work-Study Program offers valuable life and work experience with flexible hours that work around a student's school schedule. It provides work experience in the student's area of study such as: A Research Assistant or Assistant Technician. The supervisors that hire Work-Study students rely on them to complete their assigned duties so that the services and research being done is fulfilled.

Pathways to Graduate Studies (P2GS)

Brandon Wittmeier (Supervisor: Evan McDonough)

Jessica Ducharme (Supervisor: Melanie Martin)

Tyrone Reimer (Supervisor: Russell Mammei)

The Pathway to Graduate Studies (P2GS) program offers research opportunities for Indigenous students in STEM at UWinnipeg. P2GS is open to Indigenous students who have declared a major in a natural science and engineering field or are planning to declare a major in a natural science and engineering field and will be enrolled in UWinnipeg classes for the upcoming Fall term. There is no minimum GPA requirement, what is most important is an interest in science and learning about science-based research.

Dean's Honour List

"Student of Highest Distinction" awards are given to full-course students who have earned averages of 90% or higher. "Student of Distinction" awards are given to full-course students who have earned averages between 80% and 89.9%.

Student of Highest Distinction:

Anna Harms

Ethan Haggard

Gregory Holloway

Jessica de Kort

Marcelo Katayama Shiraishi

Patrick McManus

Rajandeep Singh

Smit Dhruva Panchal

Student of Distinction:

Avery Smith

Daniel MacPherson

Prathmeshsingh Kurmkshatriya

Quinlin McLeod

Simon Pankratz

Tessa Labelle

Undergraduate Student Research Award (USRA)

Anna Harms (Supervisor: Blair Jamieson)

Brandon Wittmeier (Supervisor: Evan McDonough)

Jessica de Kort (Supervisor: Melanie Martin)

Jessica Ducharme (Supervisor: Melanie Martin)

Modeste Katotoka (Supervisor: Jeff Martin)

Awards have a value of \$6,000. USRA's are meant to nurture your interest and fully develop your potential for a research career. They are also meant to encourage you to undertake graduate studies in these fields by providing research work experience that complements your studies in an academic setting.

Research in Focus

Daniel MacPherson & Simon Pankratz

Research in Focus is an annual research photography competition that accepts submissions from UWinnipeg students, faculty, staff, retirees, and alumni. This competition is a chance to take viewers into the field, inside the lab, or onto the stage to visualize what researchers have witnessed, discovered, or created as they pursue academic excellence.

External Awards

CINP Undergraduate Research Student Scholarship (URS)

Simon Pankratz (Supervisor: Russell Mammei)

The Canadian Institute for Nuclear Physics (CINP) URS program enables gifted undergraduates to work with a supervisor on nuclear physics research in the summer.

Canadian Institute of Particle Physics Fellowship to CERN (CIPP)

Thomas Hepworth (Supervisor: Russell Mammei)

Students selected for this program work with active research groups at CERN, one of the world's premier international laboratories. They attend a series of lectures and work on a subatomic physics project under a Canadian supervisor over the summer.

Events

Randy Kobes Undergraduate Research Symposium

The annual Randy Kobes Poster Symposium displays some of the excellent quality research by undergraduate students at The University of Winnipeg. It was named in memory of Professor Randy Kobes, Associate Dean of Science and Professor of Physics who passed away on September 18, 2010. He was a co-founder of the annual poster contest and committed to undergraduate research.

This event is a valuable opportunity for students to obtain experience in presentations of scientific research especially if a student plans to continue with graduate work. It also gives students an opportunity to see what exciting research is taking place amongst their peers and celebrate these accomplishments together.

Students present their poster in front of a series of judges. The poster and presentation are aimed at the level of an (informed) general public. All students receive feedback from the judges, providing insight on strengths and weaknesses making the event a learning experience. Those who opt to compete are eligible to win a cash prize in one of the 5 selected categories:

- Health Sciences
- Social Sciences
- Biological & Environmental Sciences
- Experimental Physical Sciences
- Mathematical & Theoretical Physical Sciences

Winners:

Akshdeep Gill – Math & Theoretical Physical Sciences (3rd Place)

Anna Harms – Experimental Physical Sciences (3rd Place)

Brandon Wittmeier - Math & Theoretical Physical Sciences (1st Place)

Nicole Valencia - Experimental Physical Sciences (1st Place)

Simon Pankratz - Experimental Physical Sciences (4th Place)

Smit Dhruva Panchal – Math & Theoretical Physical Sci. (2nd Place)

Tyrone Reimer - Experimental Physical Sciences (2nd Place)

2025 Participants:

Alex Martin – Experimental Physical Sciences

Jessica de Kort – Health Sciences, sponsored by MMSF

Jessica Ducharme – Biological Sciences

William Watt – Experimental Physical Sciences

2025 CAP Congress Student Oral Presentation Award

Thomas Hepworth, 3rd Place Division of Nuclear Physics

2025 CAP Congress Student Poster Award

Jessica de Kort, Honourable Mention, Division of Physics in Medicine & Biology (DPMB)

Jessica de Kort, Honourable mention, overall

The CAP Congress is the principal general physics conference in Canada. The program includes presentations about the latest research across the broad spectrum of physics sub-disciplines, physics education workshops, professional recognition and awards, association business, networking opportunities and reports on the latest matters of science policy and funding.

Medical Physics Summer Student Symposium

Nicole Valencia & Daniel Girard (Student's Choice Award)

This annual event showcases research by students from across Winnipeg and gives them, along with faculty, the chance to learn about the research their colleagues are conducting.

Canadian Undergraduate Medical Physicists Conference

Nicole Valencia, Best Presentation and People's Choice Award for "Decoding the Brain" category

The Canadian Undergraduate medical physics conference (CUMPC) is a virtual conference for students pursuing medical physics related research projects and for students that are interested in learning more about this field. This free conference will focus on highlighting medical physics undergraduate research across Canada and is an excellent opportunity for students to present their research. Students will also be able to meet and interact with graduate students and leading experts in the field.

WITP Symposium

Brandon Wittmeier (Supervisor: Evan McDonough)

Smit Dhruva Panchal (Supervisor: Evan McDonough)

The WITP holds an annual symposium each August as a venue for student members to share their research with each other and the other members of the WITP. Graduate and undergraduate students working with WITP members between May and August are invited to give a short oral presentation of their work in a somewhat formal but friendly setting. The Symposium is typically a one-day event with coffee and lunch with external speakers and runs as a "mini-school" workshop over two days. It provides the students and the WITP an opportunity to showcase the world-class research in theoretical physics that is being done in Manitoba and serves to promote communication and collaboration among WITP members.

Canadian Organization of Medical Physicists (COMP)

Nicole Valencia (Supervisor: Melanie Martin, Medical Physics)

Travel Grant & Science Spoken Succinctly 2nd Place and People's Choice Award

Women's Committee-Inclusion, Diversity, Equity, Accessibility (CWC-IDEA) Award at the Canadian Undergraduate Medical Physics Conference in 2024.

Thank you for coming!



THE UNIVERSITY OF
WINNIPEG

Department of Physics