PIMS AT-A-GLANCE



The Pacific Institute for the Mathematical Sciences (PIMS) is a consortium established by universities in western Canada and the Pacific Northwest. Our mandate is to promote research in the mathematical sciences and their applications, to facilitate the training of highly qualified personnel, to create an equitable, diverse and inclusive community, to enrich public awareness of and education in the mathematical sciences, and to create mathematical partnerships with similar organizations in other countries (with a particular focus on the Pacific Rim). PIMS funds Research Networks, Collaborative Research Groups, Post-Doctoral Fellowships, seminars and other individual events on a competitive basis.

PIMS activities are funded by the Natural Sciences and Engineering Research Council of Canada (NSERC), Simons Foundation, Prairies Economic Development Canada, member universities and by private donors.

PIMS strongly believes that equity, diversity and inclusion strengthen the mathematical community by increasing the impact and relevance of research; widening the pool of qualified potential participants; and enhancing the integrity of the programs. The programs and groups we support should promote and develop a rich research community, accessible to every member of our network.

PIMS Member Universities & Affiliates*

Simon Fraser University
University of Alberta
University of British Columbia
University of Calgary
University of Lethbridge
University of Manitoba
University of Regina
University of Saskatchewan

University of Victoria
University of Washington

*Portland State University
*University of Northern
British Columbia
*Athabasca University

FUNDING OPPORTUNITIES FOR PIMS EVENTS

PIMS supports the mathematical sciences community by funding events and collaborations in active areas of research across the network. www.pims.math.ca/scientific/funding-opportunities

These can be in the form of:

- Conferences, Workshops and Summer Schools
- Distinguished Visitors
- Innovation Activities (involving industry and other non-academic partners)
- Collaborative Research Groups (CRG) typically consists of researchers with overlapping research interests and with a common desire to collaboratively develop aspects of their research programs. Leveraging the organizational and administrative capacities at PIMS, CRGs will organize joint seminars and workshops, make joint PDF appointments, and develop joint graduate training programs. Each CRG is selected on a competitive basis and typically involves a three year investment of \$240,000. www.pims.math.ca/ scientific/collaborative-research-groups
- PIMS Research Networks (PRN) are groups of researchers from the PIMS network who work on problems of potential broad interest across the network. PRNs are designed to build bridges between research areas in academia, industry and the public sector. They are designed to go above and beyond the CRG mission by combining research, training, and crucially, strong external partnerships. https://www.pims.math.ca/scientific/pims-research-networks/pims-research-networks-apply

- Activities with Small Budgets: Proposals to fund short term visitors, hot topic reaction events, and other small budget activities can be submitted for consideration directly online via the PIMS page. Proposals are evaluated within a month of submission, and are typically funded in the \$2000-\$3000 range.
- Seminar Series
- · Education and outreach activities

PIMS POSTDOCTORAL SCHOLARS AWARD

Each fall, PIMS invites nominations of outstanding young researchers in the mathematical sciences for postdoctoral fellows. Candidates must be nominated by one or more scientists or by a department(s) affiliated with PIMS. The award for this highly selective competition is at least \$30,000, or more for those who receive the prestigious Simons PDF Award. The deadline for nominations is December 1 of every year. www.pims.math.ca/scientific/postdoctoral

PIMS NETWORK WIDE PROGRAMS

PIMS supports online programs that provide our network with access to experts and lectures in the mathematical sciences.

- PIMS Network WideGraduate Courses utilize the PIMS
 network to deliver a rich variety of graduate level courses
 in the mathematical sciences at PIMS member universities.
 Students across the PIMS network can register for these
 courses and apply for credit through the Western Deans
 Agreement. https://courses.pims.math.ca/
- Network Wide Colloquium Series features online talks by distinguished speakers that are broadcast to the whole PIMS network and run during the academic term.

INDUSTRIAL EVENTS: PIMS M2PI WORKSHOP

PIMS and our partners have offered the Math to Power Industry (M2PI) workshop every summer for the past four years. This workshop trains early career mathematical scientists for jobs in various non-academic sectors in Canada. The program begins with a training bootcamp (software best practices, business and communications, project management) and includes group collaborations with industry partners. www.m2pi.ca

SPECIAL PARTNERSHIPS

PIMS-CNRS PARTNERSHIP

PIMS is an international research lab of the Centre national de la recherche scientifique (CNRS IRL #3069), since 2007. We have been facilitating and encouraging research collaborations between mathematical scientists at PIMS member universities and researchers across France. Available programs:

- PIMS-Europe Fellowships provides funding for faculty at PIMS member universities to carry out long term research visits to France.
- PIMS CNRS Student Mobility Program for undergraduates, graduates and postdoctoral scholars. This program supports visits by students from PIMS member universities to carry out research in France or any of the countries participating in the Mitacs Globalink program.
- PIMS CNRS Visitors are French researchers who spend the academic year at any one of PIMS member universities.
 Priority is given to junior researchers: "charg(e)es de recherches" or "maitres de conferences."
- PIMS CNRS Postoctoral Fellowships is targeted to applicants that are French, or who have completed their PhD degree in France. Applicants apply via the PIMS PDF competition on Mathjobs.

https://www.pims.math.ca/scientific/pims-cnrs-irl

PIMS-MITACS PARTNERSHIP

The PIMS Mitacs collaboration has been in place since 1999.

 PIMS-Mitacs Student Mobility Program: By leveraging the Mitacs Globalink program, PIMS supports visits by students from Mitacs partner countries to carry out research at PIMS member universities and vice versa. This award provides \$6000 CAD for senior undergraduate and graduate students to conduct 12-24 week research projects. www.pims.math.ca/news/pims-announces-pims-globalink-student-mobility-program

COMPUTATIONAL PLATFORMS

- Syzygy.ca: a free-access project of PIMS, Compute Canada and Cybera that brings Jupyter notebooks across Canada. www.syzygy.ca
- Callysto: a free, online learning tool that helps Grades 5–12 students and teachers in Canada learn and apply in-demand data science skills including data analysis, visualization, coding, and computational thinking. www.callysto.ca

K-12 EDUCATION AND OUTREACH

An integral part of the PIMS mandate is to enrich public awareness of mathematics through outreach and to enhance training for teachers and students in K-12. PIMS is also a strong advocate for Indigenous students. PIMS supports various activities including:

- Workshops to facilitate communication between parents, teachers, mathematicians and math educators.
- Teacher training programs.
- Diversity in Mathematics summer camps.
- Indigenous students math camps.

www.pims.math.ca/education

SPECIAL EVENTS

PIMS has assembled the major mathematics research centres around the Pacific Rim in a single network: the Pacific Rim Mathematical Association (PRIMA). PIMS hosted the 2022 PRIMA Congress in Vancouver, Canada, from December 4–9, 2022. www.prima2022.primamath.org

PIMS continues to champion engagement in key social areas such as climate modelling and energy transition. In 2023 PIMS established the Action on Climate Thematic Summer Program. As part of the program, PIMS hosted the FACTS Panel on Tackling Climate Change and the Just Transition to Renewable Energy on July 27, 2023, bringing together more than 150 community members to discuss this important topic.

https://www.pims.math.ca/scientific-event/230727-fppcc Media Article: https://tinyurl.com/ywsv4edh

CONTACT US

DIRECTOR
Dr. Özgür Yilmaz
director@pims.math.ca

CO-DIRECTOR, INDUSTRY Dr. Kristine Bauer industry@pims.math.ca CO-DIRECTOR, INTERNATIONAL Dr. Jayadev Athreya international@pims.math.ca

CHIEF OPERATING OFFICER
Denise Feighan
denise@pims.math.ca

