

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.

Funded by the Natural Sciences & Engineering Research Council of Canada (NSERC), Simons Foundation, Prairies Economic Development Canada, member universities & by private donors.



Pacific Institute *for the*
Mathematical Sciences

PIMS MEMBER UNIVERSITIES

Simon Fraser University
University of Alberta
University of BC
University of Calgary
University of Lethbridge
University of Manitoba
University of Regina
University of Saskatchewan
University of Victoria
University of Washington

AFFILIATES

Portland State University
University of Northern British Columbia
First Nations University

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

We support the mathematical sciences community by funding events & collaborations in active areas of research across the network in the form of:

- **Conferences, Workshops & Summer Schools**
- **Distinguished Visitors**
- **Innovation Activities (industry & non-academic partners)**
- **Collaborative Research Groups (CRGs)** bring together researchers with shared interests to advance joint research programs. Supported by PIMS' organizational and administrative resources, CRGs coordinate seminars and workshops, support joint postdoctoral appointments, and develop collaborative graduate training. CRGs are selected competitively and typically receive \$240,000 over three years.
[PIMS.math.ca/scientific/collaborative-research-groups](https://pims.math.ca/scientific/collaborative-research-groups)
- **PIMS Research Networks (PRNs)** bring together researchers across the PIMS network to address problems of broad, shared interest. PRNs foster collaboration across academia, industry, and the public sector, integrating research, training, and strong external partnerships.
[PIMS.math.ca/programs/scientific/pims-research-networks](https://pims.math.ca/programs/scientific/pims-research-networks)

- **PIMS–BIRS–Simons Travel Award** provides up to \$1,000 CAD to support travel and local expenses for researchers attending a BIRS event who also visit a PIMS-affiliated institution. The program enhances the impact of each trip while helping reduce overall travel-related emissions.
[PIMS.math.ca/programs/scientific/visitor-and-exchange-programs/institutes-exchange-program](https://pims.math.ca/programs/scientific/visitor-and-exchange-programs/institutes-exchange-program)
- **Small-Scale Activities Funding** supports short-term visitors, rapid-response events, and other emerging initiatives. Proposals are submitted online, reviewed within one month, and typically funded at \$2,000–\$3,000. [PIMS.math.ca/programs/scientific/scientific-proposals#discretionary](https://pims.math.ca/programs/scientific/scientific-proposals#discretionary)
- **Seminar Series**
- **Education & Outreach Activities**

PIMS POSTDOCTORAL FELLOWSHIPS

PIMS Postdoctoral Fellowships support outstanding early-career researchers in the mathematical sciences. Candidates are nominated by PIMS-affiliated faculty or departments. Awards include \$30,000 from PIMS, with additional co-funding and potential top-up support from the Simons Foundation. Nomination deadline: December 1. [PIMS.math.ca/scientific/postdoctoral](https://pims.math.ca/scientific/postdoctoral)

PIMS NETWORK WIDE PROGRAMS

Our Network-Wide Programs provide access to leading experts and shared learning opportunities:

- **Graduate Courses:** A diverse range of graduate-level courses offered across PIMS institutions, with cross-registration through the Western Deans Agreement.
- **Colloquium Series:** Online talks by distinguished speakers delivered during the academic term.

MATHEMATICS IN INDUSTRY & INNOVATION

PIMS connects mathematical researchers with industry, government, and community partners to address real-world challenges in areas such as AI, climate science, health, energy, and data science.

PIMS M2PI

A three-week, work-integrated learning program that connects industry, government, and non-profit organizations with highly trained graduate students and postdoctoral researchers to address real-world challenges through advanced mathematical thinking. [M2pi.ca](https://m2pi.ca)

SPECIAL PARTNERSHIPS: PIMS-CNRS

Since 2007, PIMS has been an **International Research Laboratory** (IRL #3069) with France's CNRS, supporting long-term collaboration between researchers in Canada and France. Programs include:

- Postes Rouges: Funding for faculty research visits (min. 3 months)
- Europe Fellowships: Support for extended research stays in France
- CNRS Visitors: Year-long placements for French researchers at PIMS institutions
- Postdoctoral Fellowships: Opportunities for researchers with ties to France

COMPUTATIONAL PLATFORMS

Syzygy is a free-access initiative that we offer along with Compute Canada and Cybera that provides Jupyter-based computing environments for educational institutions across Canada. [Syzygy.ca](https://syzygy.ca)

K-12 EDUCATION & OUTREACH

We promote mathematical literacy and training through programs for students, teachers, and communities with:

- Teacher training and professional development
- Student enrichment and summer camps
- Indigenous student programming
- Workshops connecting educators, families, and mathematicians [PIMS.math.ca/education](https://pims.math.ca/education)

SPECIAL EVENTS & MENTIONS

- **Mathematical Foundations of Quantum Advantage Workshop** Our workshop in 2025 convened researchers to explore foundational questions at the intersection of pure mathematics and quantum computing. It fostered collaboration across theoretical and applied communities, connecting disciplines that rarely interact.
- **Canada–France–Chile Ocean Research Connections Workshop (2026)** We hosted an international workshop uniting researchers from Canada, France, and Chile to strengthen collaboration in mathematics, data science, and ocean science. The event advanced a shared vision for tackling global ocean challenges through interdisciplinary and international partnerships.
- **CRG on Diagram Categories in Homotopy Theory (2025–2028)** We launched a three-year Collaborative Research Group bringing together algebraic topologists from five institutions to advance research in homotopy theory. The initiative supports collaboration in areas such as functor calculus, equivariant homotopy, and polyhedral products.
- **PIMS-Supported Research Advances Quantum Innovation at USask** Our supported research, including the CRG on quantum topology, helped lay the foundation for a major quantum computing initiative at the University of Saskatchewan, positioning it as a national hub for quantum science. The installation of a full-stack quantum computer highlights how PIMS investments in collaborative research can grow into high-impact innovation, training, and infrastructure.



**Celebrating 30 years
of advancing the
mathematical sciences
through research,
collaboration, and
training.**



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