

PIMS AT-A-GLANCE



Pacific Institute *for the*
Mathematical Sciences

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). We fund Research Networks, Collaborative Research Groups, Post-Doctoral Fellowships, seminars and other individual events on a competitive basis.

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

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

We support the mathematical sciences community by funding research activities & collaborative initiatives across the PIMS network, including:

- **Conferences, Workshops & Summer Schools**
- **Distinguished Visitors**
- **Innovation Activities (industry & non-academic partners)**
- **Collaborative Research Groups (CRGs)** bring together researchers to advance joint research programs. Supported by PIMS' resources, CRGs coordinate seminars and workshops, support joint postdoctoral appointments, and develop collaborative graduate training.
- **PIMS Research Networks (PRNs)** bring together researchers across the PIMS network and fosters collaboration across academia, industry, and the public sector – integrating research, training, and strong external partnerships.
- **PIMS-BIRS-Simons Travel Award** provides funding for travel for researchers attending a BIRS event who also visit a PIMS-affiliated institution.

- **Small-Scale Activities Funding** supports short-term visitors, rapid-response events, and other emerging initiatives.
- **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 support from the Simons Foundation.

PIMS NETWORK WIDE PROGRAMS

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.

M2PI

A three-week, work-integrated learning program that connects industry, government, and 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

PIMS has been an **International Research Laboratory** (IRL #3069) since 2007 with France's CNRS – supporting collaboration between researchers in Canada and France, including:

- Postes Rouges: Funding for faculty research visits
- Europe Fellowships: Support for extended stays
- CNRS Visitors: 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

Mathematical literacy and training for students, teachers, and communities, including:

- Teacher training and professional development
- Student enrichment and summer camps
- Indigenous student programming
- Workshops connecting educators, families, and mathematicians



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

SPECIAL EVENTS & MENTIONS

- **Mathematical Foundations of Quantum Advantage Workshop** Our 2025 workshop convened researchers to explore foundational questions at the intersection of pure mathematics and quantum computing, as well as fostering collaboration across theoretical and applied communities.
- **Canada–France–Chile Ocean Research Connections Workshop (2026)** 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)** 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.

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 programs. The programs & groups we support should promote and develop a rich research community accessible to every member of our network.



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