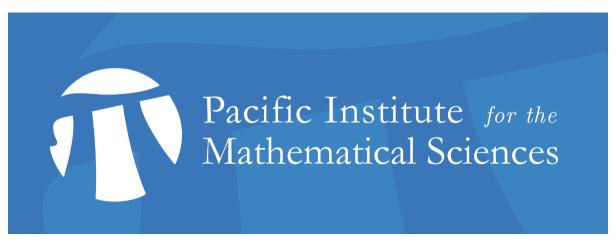
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PIMS MONTHLY CONNECTION | April 2025

### Hello from PIMS

The April edition of the PIMS newsletter is here! Below, we have curated a list of events and meetings taking place at our member universities this month.

#### **Opportunities Across the Network:**

- Upcoming Deadline to Register: Operator Analysis on Function Spaces Conference
- Applications Closing Soon: 2025-2026 PIMS/BIRS Team Up! Program
- Upcoming Deadline to Register: Spring Time in Mathematical Quantum Physics
- Upcoming Deadline for Instructors: Submit 2025/26 PIMS Network-Wide Courses
- Registration Now Open for Students: M2PI 2025

#### **Featured Events:**

- April 4th: Dr. Constance van Eeden Seminar: Arnaud Doucet
- April 4th & 18th: M2PI Case Studies Virtual Seminar Series
- April 17th: PIMS Lunchbox Lecture: Mina Aminghafari
- April 26th 27th: Western Algebraic Geometry Symposium
- April 28th: 2025 PIMS Postdoctoral Summit
- May 3rd: ELMACON 2025

### PIMS NETWORK OPPORTUNITIES



# Operator Analysis on Function Spaces Conference

The OAFS conference (from June 13 - 15, 2025, at the University of Manitoba) aims to spotlight several evolving sub-fields, such as operator algebras, free analysis, harmonic analysis, and complex geometry, by gathering experts and early-career researchers from around the world to showcase their work through plenary talks, invited talks, and parallel contributed sessions. The conference will also include a poster competition for students who wish to venture further in this evolving area of mathematics.

Registration is open until May 10, 2025, or until it reaches 50 participants. Every registered participant will be provided with accommodation, breakfast, and lunch for the duration of the conference.

**View Conference Details** 

# 2025-2026 PIMS/BIRS Team Up! Program

The PIMS/BIRS Team Up! Pathways to Inclusive Research program is aimed at researchers whose research program may have been affected by various obstacles like family obligations, professional isolation, and access to funding. This includes, but need not be limited to, women, gender-expansive and minoritized groups, Indigenous scholars, individuals with visible/invisible challenges, and early-career researchers with limited resources. Successful groups of 2 to 6 collaborators will be supported for two weeks at either the Banff International Research Station (BIRS) or the Kelowna BIRS site, where they will be able to focus on their research. Applications are open until April 15, 2025.



**View Program Details** 



# <u>Upcoming Deadline to Register:</u> <u>Spring Time in Mathematical</u> <u>Quantum Physics</u>

The Spring Time in Mathematical Quantum Physics workshop (May 5 - 9, 2025) will gather leading experts and emerging researchers to explore analytical and topological aspects of many-body quantum mechanics. Discussions will cover topics such as the effective macroscopic description of many-body quantum systems using non-linear equations and the microscopic analysis of exotic, highly entangled quantum states. Registration is free and now open; to attend, all participants must register through the PIMS website.

# <u>Upcoming Deadline for</u> <u>Instructors: Submit 2025/26 PIMS</u> Network-Wide Courses



PIMS would like to hear from instructors who want to share their courses with participants at other PIMS universities. We invite proposals for graduate-level courses in the mathematical sciences to take place in either term of the 2025-2026 academic year. Students in these courses may be eligible for credit under the terms of the Western Deans Agreement (though conditions apply). This program is intended to benefit instructors by reaching a larger audience and offering students a deeper variety of courses. If you are interested in participating as an instructor, please complete the application form by May 1, 2025.

**View Application Details** 



# Registration Now Open for Students: M2PI 2025

The Pacific Institute for the Mathematical Sciences is pleased to announce that applications for participation in the Math to Power Industry Workshop (M2PI) are now open. Applications will close on April 11, 2025 at 11:59 pm Mountain Time. Students will be notified of their acceptance to the program no later than April 18, 2025, and will be expected to accept their registration immediately (no later than April 25, 2025). This year's problems will be updated and posted on the M2PI 2025 workshop page as they become available. We are excited to welcome:

- Hummingbird Bioscience
- IOTO International
- NCIS and Clause

If you are a student, postdoctoral fellow or recent graduate, please consider participating again! The workshop will be convened virtually from **May 5 - 23, 2025**. It is a full-time workshop and most activities will take place from 9 AM - 4 PM MT daily.

Applications are encouraged from current and recent graduate students and post-doctoral fellows from PIMS Universities. Priority will be given to students at PIMS universities seeking non-academic employment in the near term, or those available to work as interns while completing their programs. For more information, please see the application form (the second page includes instructions for applying and information about selection/prioritization).

For industry partners/ employers: There is still room for companies to participate! The M2PI program pairs industry problems with mathematical talent, benefiting both M2PI participants and our industry partners by tackling real world problems. To see examples of problems from previous years, and the solutions provided by M2PI participants, please visit our past editions pages. This year, an M2PI graduate will be an industrial mentor (Jonathan Gallagher from Hummingbird Bioscience). Would you like to join him? Please contact Kristine (bauerk@ucalgary.ca) to discuss. If you would like to submit a problem, please complete the problem submission form.

**View Application Details** 

### FEATURED EVENTS



# Dr. Constance van Eeden Seminar: Arnaud Doucet

April 4, 2025: University of British Columbia 10:30 AM PT

From Diffusion Models to Schrödinger Bridges - When

The Constance van Eeden seminar is a yearly event in which graduate students vote for their favourite statisticians. The winner is contacted by the organizing committee and invited to give a talk in the department's seminar. The speaker spends one or two days on campus, and graduate students have the opportunity to have lunch and dinner with them. The 2025 speaker is **Dr. Arnaud Doucet**, Senior Staff Research Scientist at Google DeepMind. Dr. Doucet's research interests lie in the development and analysis of efficient computational methods for inference and learning, machine learning, signal processing, and related areas.

Register to attend this event in-person or online via Zoom.

**See Event Details** 



# M2PI Case Studies Virtual Seminar Series

April 4 & 18, 2025: Online 12 PM PT I 1 PM MT

The M2PI Case Studies Virtual Seminar Series continues this upcoming month! This new series is designed to bring together graduate students, postdoctoral fellows, and faculty members in the mathematical sciences with members of business, industry, not-forprofit, and government sectors across western Canada. Participants meet virtually every two weeks via Zoom. This April, we will have talks by Marco Caoduro (University of British Columbia) on April 4th, followed by Irushi Jayathunga (University of Calgary) and Hiva Gheisari (University of Lethbridge) on April 18th.

Registration is required to attend. Anyone interested in attending is strongly encouraged to register for the <u>M2PI mailing list</u>.



## PIMS Lunchbox Lecture: Mina Aminghafari

April 17, 2025: Online

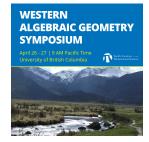
**12 PM MT** 

Machine Learning: Data Quality and Preprocessing and Denoising

Dr. Mina Aminghafari is an Associate Professor of Machine
Learning at the University of Calgary and a professional Statistical
Society of Canada statistician. Before this role, she served as an
associate professor at Amirkabir University of Technology
(2013-2023) and as an assistant professor at the same university
(2006-2013). She has also held positions as a Senior Data Scientist
in Canada's education and insurance industries (2018-2023). She
has worked on different projects related to using machine learning in
healthcare, including as a co-PI on several diagnostic and
healthcare projects, e.g., a project entitled Decoding "Healthy" from
"Pathogenic" Antinuclear Antibody Patterns Using Artificial
Intelligence, funded by the McCaig Institute for Bone and Joint
Health.

Registration is required to attend.

**View Lecture Details** 



# Western Algebraic Geometry Symposium

April 26 - 27, 2025: University of British Columbia 9 AM PT

The Western Algebraic Geometry Symposium (WAGS) is a twiceyearly meeting of algebraic geometers in the western part of North America. WAGS aims to build a regional community among

research talks delivered by leading mathematicians from around the world, highlighting exciting recent results in and around algebraic geometry. In addition to the research talks, the typical WAGS also includes poster sessions and/or other organized opportunities for interaction among participants.

WAGS is free, but all participants must fill out our registration form.

**View Event Details** 



#### **2025 PIMS Postdoctoral Summit**

April 28, 2025: University of Calgary

The PIMS Postdoctoral Summit will bring together PIMS

Postdoctoral Research Fellows for an in-person summit at the

University of Calgary. The goal of this meeting is to help the 2024

PIMS postdoctoral cohort with forming a network, sharing research expertise, and accessing career mentorship.

This summit is only open to members of the PIMS 2024 PDF Cohort and invited guests.

**View Event Details** 



#### ELMACON 2025

May 3, 2025: University of British Columbia

10 AM - 4 PM PT

**ELMACON** is an annual math contest for students in grades 5, 6, and 7. Students tackle hard mathematical questions in a competitive environment to determine who will take home trophies and prizes.

round for the top students in the afternoon.

Registration for ELMACON is now open via the <u>ELMACON website</u>.

**See Event Details** 

### View our calendars for more meetings and events

**Scientific Programs** 

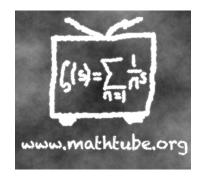
**Education Programs** 

**Industrial Programs** 

### **MEDIA**

#### Missed a Lecture? Go to Mathtube.Org

Since 1996, PIMS has collected and maintained an archive of videos and lecture notes covering many areas of the mathematical sciences. If you missed any of the PIMS PDF Colloquium Lectures, visit <a href="https://www.mathtube.org">www.mathtube.org</a> to see these and other archives.



### **ABOUT PIMS**

The Pacific Institute for the Mathematical Sciences (PIMS) was created in 1996 to promote discovery, understanding, and awareness in the mathematical sciences. PIMS has expanded from the mathematics community of Alberta and British Columbia to include Washington State, Saskatchewan, and Manitoba. Our mandate is to promote research in and applications of the mathematical sciences, 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

Fellowships, and individual events on a competitive basis.

#### We Want to Hear from You

Share your feedback on this month's newsletter and tell us what stories and news you would like to hear more of.

#### **Feedback**

#### Your Support Makes a Difference

PIMS education and outreach programs touch countless educators, students, and Indigenous communities. Some of our activities include summer schools, mathematics contests and meetings for educators. Learn more

#### **Donate to PIMS**

#### Follow PIMS and be a part of our community













#### Mailing address:

Pacific Institute for the Mathematical Sciences
The University of British Columbia
4176-2207 Main Mall
Vancouver, BC V6T 1Z4
Canada

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We acknowledge with gratitude that PIMS central office is located on the unceded, traditional, and occupied territory of the Coast Salish peoples. This includes the territories of the xwmeθkweyem (Musqueam), Skwxwú7mesh (Squamish), and Selílweta?/Selilwitulh (Tsleil-Waututh) Nations.

www.native-land.ca