Pacific Institute for the Mathematical Sciences

PIMS MONTHLY CONNECTION | **March 2022**

Hello from PIMS

PIMS is looking ahead to our spring and summer programming. Along with many scientific meetings, planning for PIMS Educational events is underway.

Our education activities are open to elementary and high school students and educators. We are excited to announce the return of ELMACON, our elementary school math competition for students in grades 5, 6, and 7. Registration will be open in early March. Additionally, please save the date for Science Rendezvous taking place across Canada on May 7, 2022. The team at PIMS Central will host a session at UBC. More information to come.

PIMS is accepting applications for the position of Site Director at the University of Calgary. The position beings in July 2022 for a three-year term. See more information and apply.

Upcoming Deadlines:
Extended to March 7 - Accommodation Applications: Summer School on Optimal Transport
March 31- PRIMA Junior Researchers showcase: Poster and Short talk
April 15 - Call for Network-wide Graduate Courses 2022-2023

See below for more details on this month's news, featured events, and publications.

Sincerely,
The PIMS Team

NEWS & ANNOUNCEMENTS

2022 PIMS Post-doctoral Fellows Announced

PIMS is pleased to announce the 2022 PDF cohort. The 2022 competition had very strong candidates nominated for each of the PIMS member universities in Western Canada. This year's

selection was adjudicated by Amir Akbary (ULethbridge), Martin Argerami (URegina), Kristine Bauer (UCalgary), David Favero (UAlberta), Karen Gunderson (UManitoba), Colin Macdonald (UBC), Gourab Ray (UVic), Ebrahim Samei (USaskatchewan) and Weiran Sun (SFU).

In addition to the regular PDFs, the panel reviewed nominations for the PIMS-CNRS PDF and the Collaborative Research Group (CRG) PDFs. Two members of the cohort were awarded the **PIMS - Simons Foundation Award**. This inaugural award, granted in collaboration with the Simons Foundation, is offered to those incoming PIMS postdoctoral fellows who were identified as outstanding among their cohort.

See Details

SAVE THE DATE

Pacific Rim Mathematical Association (PRIMA) Congress 2022

Dec 4–9, 2022. Vancouver.

PRIMA is an association of mathematical sciences institutes, departments, and societies from around the Pacific Rim, established in 2005 with the aim of promoting and facilitating the development of the mathematical sciences throughout the Pacific Rim region.

- **Applications from Junior researchers are now open**. Find out more here.
- To receive updates, including details on registration, please connect with the PRIMA Team here.
- Follow PRIMA online @PRIMAmath #PRIMA2022.

FEATURE EVENTS

PIMS Network Wide Colloquium: Holly Krieger

March 24. Online.

Holly Krieger is a leader in the area of arithmetic dynamics. She received a Ph.D. from the University of Illinois at Chicago, and was a postdoc at MIT before starting her present position in Cambridge. She was the Australian Mathematical Society's Mahler Lecturer in 2019, and received a Whitehead Prize from the London Mathematical Society in 2020.

See Details

Elementary Math Contest (ELMACON) 2022

April 30. UBC.

Registration for ELMACON opens this March! After a 2-year hiatus due to the pandemic, the highly anticipated ELMACON competition, open to students from grades 5 - 7, returns to UBC on April 30th, 2022. The in-person event will be held in accordance with protocols and guidelines issued by the Province of British Columbia and The University of British Columbia.

We have been running preparation sessions to keep your math skills sharp and ready for the competition. **The next preparation session is March 26th** and registration is required. **We are looking for volunteers for the event.** Please contact us if you can help out.

See Details

PIMS PDF SEMINAR SERIES

Josh Males, University of Manitoba

March 9

Modular Forms and their Role in Counting Combinatorial and Topological Objects

Joshua Males received his Ph.D in 2021 under the supervision of Prof. Kathrin Bringmann, at the University of Cologne, Germany. Since August 2021, Joshua has been a PIMS postdoctoral fellow at the University of Manitoba, working under his mentor Prof. Siddarth Sankaran.

See Details

Anirudh Asuri Mukundan, UBC

March 23

From Liquid Fuel Injection to Blood Flow in Human Body.

Anirudh Ansuri Mukundan, is a PIMS-CNRS Postdoctoral Research Fellow in the Department of Mathematics at the University of British Columbia. He works with Prof. Anthony Wachs on the topic of numerical modeling of red blood cells (RBC).
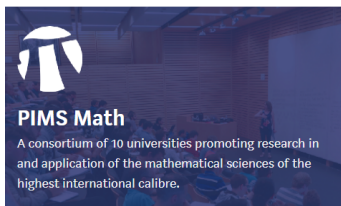
See Details

View our calendars for more meetings and events

Scientific Events

MEDIA

Read the PIMS Blog on Medium

PIMS is happy to share our stories and short interviews with members of the PIMS Community. We are currently featuring our 2021 PDF Cohort as they speak at the PDF Seminar Series. Do you have an interesting profile from the PIMS Community that we should highlight? Let us know!

PIMS Pacific Workshop on Probability and Statistical Physics

Recent decades have seen an explosion of research in which probability theory is employed to tackle various important problems arising in statistical mechanics and mathematical physics. This has given rise to the development of diverse research areas which include spin systems, spin glasses, random polymers, heat kernel estimates and conformally invariant random fields to name a few. This workshop brought together top researchers in these areas, from around the Pacific, with the overall goal of presenting a panoramic view of the most active research directions in current times. Watch it again!

PIMS COMMUNITY RECENT PUBLICATIONS

1. **A. Akbary and Z.S. Aygin,** Sums of triangular numbers and sums of squares, 26 pages, 2021.
2. **Halyun Jeong.** Are we there yet? Manifold identification of gradient-related proximal methods, Proceedings of the 22nd International Conference on Artificial Intelligence and Statistics (AISTATS), joint work with Yifan Sun, Julie Nutini, and Mark Schmidt.

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 mathematical sciences, and to create mathematical partnerships with similar organizations in other countries in the Pacific Rim. PIMS funds Collaborative Research Groups, Post-Doctoral 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.
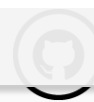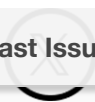
Feedback

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

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Follow PIMS and be a part of our community

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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 xwməθkwəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and Səl̓ílwəta?/Selilwitulh (Tsleil-Waututh) Nations.
www.native-land.ca