



Pacific Institute *for the*
Mathematical Sciences

PIMS MONTHLY CONNECTION | JUNE 2023



Hello from PIMS

We have had a successful month of workshops this past May, and we are looking forward to the wide array of events and meetings taking place at our member universities this June. Some of the notable events include **CanADAM 2023** in Manitoba, the **Data Science Bootcamp** at the University of Saskatchewan, the **North American Machine Learning, Optimization, and Statistics Symposium** at SFU, and the UWashington **Distinguished Seminar in Optimization and Data**.

PIMS has designated the summer of 2023 as the **PIMS Action on Climate Summer (PIMS-ACTS)**. As part of this program, the **Workshop on Forecasting and Mathematical Modeling for Renewable Energy** will be held at UBC - Vancouver from July 26 to 29, 2023. The workshop is now accepting applications for funding and poster submissions until June 10. There are limited seats in the workshop, early registration is encouraged to secure a spot. Details on this and other events under this program can be found online [here](#).

The [Mathemalchemy](#) exhibition is still open, so if you can, stop by for a visit. The installation is located at the Beaty Biodiversity Museum and will run from April 1 to October 31, 2023. This installation invites you to let go of preconceptions or classroom experiences about art or math, and to explore with an open mind. Both art and math illuminate and describe our world, and have the power to inspire our imaginations.

Our last speaker in the **PIMS PDF Seminar Series** will be [Xiaowen Zhu](#) (UWashington). Please register online to receive the meeting details for this talk. The seminars are also an excellent opportunity to connect with current PIMS postdoctoral scholars as they continue their research at our member universities.

UPCOMING DEADLINES

- **June 10 - Abstract and funding submission deadline for the [Workshop on Forecasting and Mathematical Modeling for Renewable Energy](#)**

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

Sincerely,
The PIMS Team

NEWS & ANNOUNCEMENTS

Foster Collaboration and Exchange of Researchers.

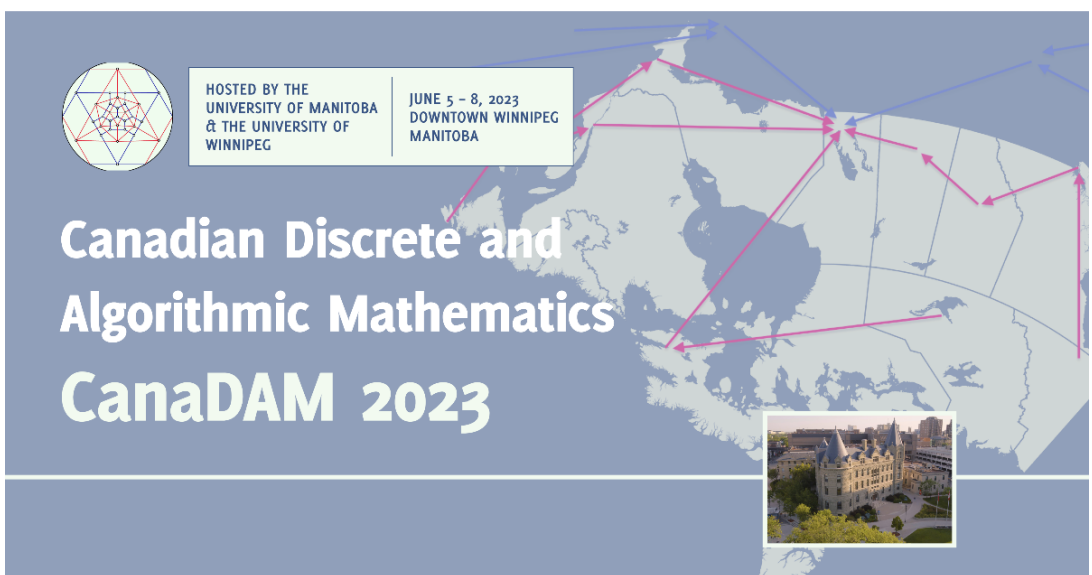
The **Pacific Institute for the Mathematical Sciences** and **National Center for Theoretical Sciences (NCTS)** have formalized their commitment to enhance institutional cooperation in the field of mathematical research through the signing of a Memorandum of Understanding. The MOU is a significant step forward in promoting academic exchange and collaborative endeavors between the two institutions.

Under the terms of the agreement, both PIMS and NCTS have agreed to facilitate the exchange of researchers between both institutions by leveraging available visitor programs, collaboration initiatives, and workshops. This exchange of talent will foster the sharing of knowledge, expertise, and innovative ideas, thereby contributing to the advancement of research in various mathematical disciplines.

The MOU will be active for a period of five years until 2028. By promoting the exchange of researchers and encouraging mutual cooperation, this MOU sets the stage for groundbreaking discoveries and innovations that will continue to benefit researchers across the Pacific Rim.

[Read the announcement here](#)


FEATURE EVENTS



HOSTED BY THE
UNIVERSITY OF MANITOBA
& THE UNIVERSITY OF
WINNIPEG

JUNE 5 - 8, 2023
DOWNTOWN WINNIPEG
MANITOBA

Canadian Discrete and Algorithmic Mathematics CanaDAM 2023



CanaDAM 2023.

June 5 - 8, 2023: Winnipeg, MB

The ninth biennial Canadian Discrete and Algorithmic Mathematics Conference (CanaDAM) will be held in downtown Winnipeg, jointly hosted by the University of Manitoba and the University of Winnipeg.

Plenary speakers include Nima Anari (Stanford University), Simina Brânzei (Purdue University), Penny Haxell (University of Waterloo), Ferdinand Ihringer (Universiteit Gent), Jennifer Morse (University of Virginia), Igor Pak (University of California Los Angeles), Alexey Pokrovskiy (University College London), and Laura Sanità (Bocconi University). The Public Interest Lecture will be given by Laura Albert (University of Wisconsin). There will also be a plethora of invited minisymposia talks. Visit the [CanaDAM website](#) for updated details on the conference.

[Conference Details](#)

Data Science Bootcamp

University of Saskatchewan

Saskatoon, SK

June 07-16, 2023

Join us for Data Science Bootcamp. Participants will learn data analysis and receive hands-on software training.



USaskatchewan-PIMS-CANSSI Prairies Data Science Boot Camp.

June 7 -16, 2023: University of Saskatchewan

The bootcamp is primarily intended for graduate and senior undergraduate students. The bootcamp will also accept a limited number of non-students who are working in organizations or business with a focus on data science and related topics.

A successful USask-PIMS-CANSSI-SSC summer school in data science was held at the University of Saskatchewan in 2019. Building on 2019's success, the 2023 summer school will go beyond that of 2019 by exposing participants to more core areas of data science, including real data analysis and hands-on training in software. Advanced topics, including data visualization, computational statistics, statistical methods for high-dimensional data, and statistical machine learning will be covered. Students will also work on a variety of case studies to develop their skills.

All participants are expected to be familiar with basic concepts of linear algebra, calculus, probability and statistical inference. Participants are also expected to have some experience with computer programming and statistical software packages, particularly R.

[Bootcamp Details](#)

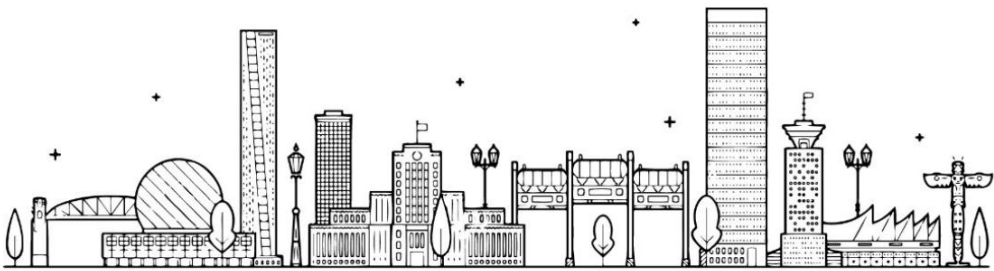


PIMS Workshop in Mathematical Physics at Heidelberg University.

June 12 - 16, 2023: Heidelberg, Germany

The Mathematical Physics group in the Mathematisches Institut at Universität Heidelberg will host a workshop sponsored by MATCH, PIMS, and STRUCTURES, and organized in collaboration with the Algebraic Geometry group at University of Alberta. This workshop will focus on the B-model (Hodge theory), the geometry and arithmetic of moduli of Calabi-Yau manifolds, degenerations, related aspects of the A-model (enumerative geometry), and questions

The event will take place on-site, and local participation is strongly encouraged, but hybrid access will be enabled when needed. There is no registration fee, however those interested in attending are asked to [send an email to the organizers](#) ahead of time. We hope that this joint MATCH-PIMS workshop will serve both to further connect the different topics to one another, and to foster interactions and connections between the diverse participants.

[Workshop Details](#)

North America Machine Learning, Optimization and Statistics Symposium.

June 23 - 25, 2023: Simon Fraser University

The objective of this conference is to bring together researchers, postdoctoral fellows, recent graduates in the fields of statistics, machine learning and optimization to foster collaboration, exchange ideas, and promote the advancement of research in these areas. The conference will showcase the latest developments in statistics, machine learning, and optimization, and promote collaboration and exchange among researchers and practitioners. It will also highlight the importance of statistical science in the biosciences, raising awareness of the need for statistical expertise in these fields. The anticipated impact is to contribute to the growth and development of statistical research and education in Canada, positioning Canada as a leader in statistical science.

[Symposium Details](#)

PIMS Emergent Research-PDF Seminar Series.

June 7, 2023: Online

PIMS continues to host the Emergent Research PDF Seminar Series. This semester we will host fourteen PIMS scholars from across our member universities. PIMS PDFs are amongst the top young researchers in Canada, and this is an excellent opportunity to learn about them and their work.

Emergent Research:

The PIMS Postdoctoral Fellow Seminar

June 7, 2023 | 9:30am Pacific



Pacific Institute *for the*
Mathematical Sciences

**Closure of bulk spectral gap
for topological insulators
with general edges**

Xiaowen Zhu

University of Washington



Visit the PIMS website to learn more about the outstanding young researchers, or visit our [Medium](#) blog to learn more about their backgrounds.

[Register online to receive the meeting link](#)



CONNECTS



WORKSHOP

ON FORECASTING AND MATHEMATICAL MODELING FOR RENEWABLE ENERGY

A PIMS CRG on Forecasting and Mathematical Modeling for Renewable Energy

JULY 26 - 28, 2023

UNIVERSITY OF BRITISH COLUMBIA (MAIN CAMPUS & ROBSON SQUARE)

Organized by the PIMS Collaborative Research Group on Forecasting and Mathematical Modeling for Renewable Energy, this workshop brings together practitioners from mathematics, statistics, computer science, engineering, atmospheric sciences, and economics to showcase a wide spectrum of quantitative research problems to support the design and operation of wind and solar power systems and their integration to the power grid and electricity markets. Presentations cover a broad range of space and time scales, from individual wind turbine scale to provincial scale and from minutes to years.

WORKSHOP SESSIONS (AND PLENARY SPEAKERS):

July 26:

- UBC Main Campus - Forecasting and decision-making for renewables: *Jan Kleissl, Center for Energy Research, UC San Diego*

July 27:

- UBC Main Campus - Modeling electricity markets with renewables: *René Aid, Department of Economics, Université Paris-Dauphine*
- **UBC Robson Square** - Special session on climate change with talks by panelists
- **UBC Robson Square** - FACTS Public Panel Discussion: Tackling Climate Change and the Just Transition to Renewable Energy (Registration required)

July 28:

- UBC Main Campus - Mathematical models of atmosphere, turbulence, and wind farms: *Dennice Gayme, Mechanical Engineering, Johns Hopkins University*

AND FEATURING TALKS BY:

Carsten Abraham, *ECCC*
 Larry Berg, *PNNL*
 Jethro Browell, *University of Glasgow*
 Roxana Dumitrescu, *King's College London*
 Michael Ludkovski, *UCSB*
 Mike Optis, *Veer*
 Roland Stull, *UBC*

Applications for funding and submissions for talk/poster abstracts are due by May 22 4PM PT | Registration for the workshop is required.
<https://www.pims.math.ca/scientific-event/230726-wfmmreappdooc>



Workshop on Forecasting and Mathematical Modeling for Renewable Energy and Public Panel Discussion on Climate Change.

July 26 - 28, 2023: University of British Columbia

Organized by the PIMS Collaborative Research Group on Forecasting and Mathematical Modeling for Renewable Energy, this workshop brings together practitioners from mathematics, statistics, computer science, engineering, atmospheric sciences, and economics to showcase a wide spectrum of quantitative research problems to support the design and operation of wind and solar power systems and their integration to the power grid and electricity markets. Presentations cover a broad range of space and time scales, from individual wind turbine scale to provincial scale and from minutes to years.

Registration for the workshop is now open. Participants are required to pay minimal registration fees in order to secure a spot at the workshop. Some funding is available for students and early career researchers; please [apply by June 10, 2023 here](#). The organizers are also accepting abstracts for posters. Please [submit your abstracts here by June 10th](#).

Workshop Details

View our calendars for more meetings and events

Scientific Events

EDUCATION HIGHLIGHTS

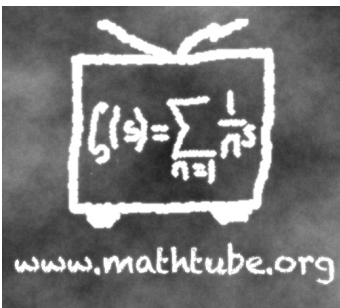


2023 Girls Excel in Math Summer Camp.

The 2023 Girls Excel in Math Summer Camp will be held at the **University of Calgary** from **Wednesday, Aug. 9th - Friday, Aug. 11th**. This camp is open to students who identify as girls and who are currently in **grades 6 - 9**. The camp aims to encourage girls to pursue their passion for mathematics and make connections with peers who share similar interests. Throughout the week, students will engage in mathematical sessions that explore topics such as fractals, game theory, origami, and graph theory. *If a student attended the 2022/2023 Girls Excel in Math Saturday Morning Program, it is not advised that they attend this camp, as the topics we explore will be the same.* There is no registration fee to attend this camp. The application deadline is **Sunday, June 18th** (Students are welcome to still apply after the deadline and will be added to the waitlist.)

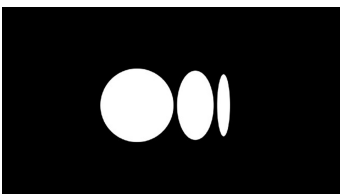
[Summer Camp Details](#)

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 www.mathtube.org to see these and other archives.



Read our feature stories on [Medium](#).

PIMS is happy to share our stories and short interviews with members of the PIMS Community. We are currently featuring our 2022 PDF Cohort as they speak at the PDF Seminar

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](#)

[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

[unsubscribe from this list](#) [update subscription preferences](#)

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 Selílwətaʔ/Selilwitulh (Tsleil-Waututh) Nations.
www.native-land.ca