



Pacific Institute *for the*
Mathematical Sciences

PIMS MONTHLY CONNECTION | JULY 2023



University
of Victoria

Hello from PIMS

Welcome to the July edition of the PIMS Newsletter!

We are excited to host the fourth installment of the [PIMS Math to Power Industry Workshop](#) from July 11 to 31, 2023. The M2PI workshop is a full-time training and work-integrated learning opportunity for graduate students and post-doctoral fellows in the mathematical sciences. Over the course of three weeks, students will tackle green-themed math challenges submitted by industry members. They will then showcase their results at a virtual graduation on July 31. Please [contact](#) the M2PI organizers if you wish to attend the graduation.

The [Workshop on Forecasting and Mathematical Modeling for Renewable Energy](#) is still accepting registrations. This event is part of the PIMS Focus Period on Climate and will be held at UBC - Vancouver, from July 26 to 29, 2023. More details are provided in the Events section below.

In coordination with the workshop above on Renewable Energy, we will also host a Public Panel on [Tackling Climate Change and the Just Transition to Renewable Energy](#). This event will take place at UBC-Robson Square on July 27th from 6:15 pm. Seating is limited, please register soon.

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.

As we settle into July, take some time to review and register for our [Network Wide Courses](#), which are now open for enrollment in the Fall. Registration deadlines may be up to six or eight weeks in advance of the course start date, so we encourage students to check the details of the courses they are interested in and contact the course instructors as soon as possible.

We will be opening our [Call for Proposals](#) in July. PIMS provides significant sponsorship for events in active areas of mathematical science research and we encourage members of the PIMS network to submit proposals. Please be on the lookout for the special announcement which will be sent as soon as the call opens. This year's deadline for applications will be October 1st, 2023.

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

NEWS & ANNOUNCEMENTS

SIMONS FOUNDATION



PIMS INSTITUTES EXCHANGE PROGRAM

PIMS+X

PIMS and its partner institutes have built a partnership to facilitate exchanges between researchers, with a particular focus on creating strong value for travel, by combining conference travel with collaborative research.



PIMS Institutes Exchange Program.

The PIMS Institutional Exchange Program (PIMS + X) aims to reduce the carbon footprint of travel for research purposes by maximizing the scientific impact of each visit. Inspired by the [Simons Oberwolfach Visiting Professor Program](#), PIMS + X builds agreements between partner American, Indian and French Mathematical Institutes. The program allows scholars to extend existing visits to include nearby universities or institutes, thereby facilitating additional scientific collaboration. Researchers travelling between PIMS and one of the following partner institutes for a scientific event (conferences, workshops, etc.), may be eligible for funding to extend their visit to include nearby universities or institutes. For more information or to start the application process, please contact international@pims.math.ca.

[PIMS + X Program Details](#)

2023 - 2024 | PIMS Partner Sites



PIMS Network-wide Graduate Courses

Registration is Open!

SEE BELOW
FOR CURRENT
COURSES
OFFERED

PIMS is now accepting student registrations for **graduate level courses** in the mathematical sciences to take place in the **Fall term of 2023**. This program is intended to benefit students by **offering a deeper variety of courses**. Courses are available online and provide access to experts from throughout the PIMS network.

PIMS Network Wide Courses: Enrolment Open.

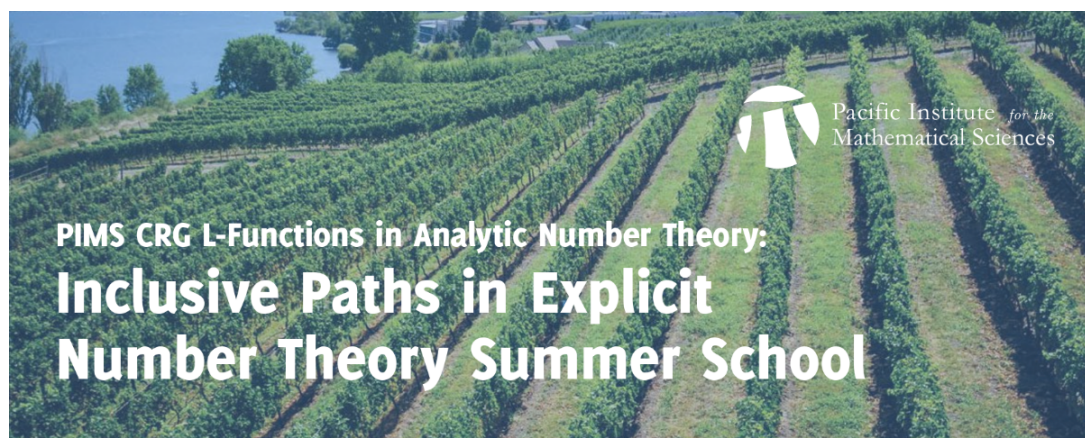
Fourteen new PIMS Network-Wide Graduate Courses have been approved for the coming academic year. Seven of these courses will take place in the Fall term, and are now accepting

- [Computer Algebra](#)
- [Formalization of Mathematics](#)
- [Linear Algebra and Matrix Analysis](#)
- [Moments of L-functions](#)
- [Optimal Transport + Gradient Flows](#)
- [Spectral Methods for PDEs](#)
- [Statistical Machine Learning for Data Science](#)

Also, please note that in a previous newsletter, a course by Thomas Hillen on *Hyperbolic Systems of Conservation Laws* had been announced for the Fall term, but will actually be running in Winter 2024. Registration for Winter term courses will open later this year. Please take note that registration deadlines may be up to six or eight weeks in advance of the course start date. We encourage students to check the details of courses they are interested in and contact the course instructors as soon as possible.

[See Courses Details](#)

FEATURE EVENTS



July 2–15, 2023 | BIRS at University of British Columbia-Okanagan

Inclusive Paths in Explicit Number Theory Summer School.

July 2 - 15, 2023: University of British Columbia-Okanagan

The “Inclusive Paths in Explicit Number Theory” summer school is one of the highlight events organized by the PIMS-funded Collaborative Research Group (CRG) “[L-functions in Analytic Number Theory](#)”. It is a two-week event hosted by the Banff International Research Station at the UBC - Okanagan campus in Kelowna, B.C., and takes place from July 2–15, 2023. After an initial week of training, participants will have the opportunity to work on cutting-edge problems in a collaborative context with leading and emerging researchers. Applications for the program are now closed. For queries related to the summer school, please email habiba.kadiri@uleth.ca.

[Summer School Details](#)

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 Aïd, 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 June 10, 2023 | Registration for the workshop is required.
<https://www.pims.math.ca/scientific-event/230726-wfmmreappdocc>



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 still open. Participants are required to pay minimal registration fees in order to secure a spot at the workshop.

[Workshop Details](#)

FACTS PANEL
TACKLING CLIMATE CHANGE AND THE JUST TRANSITION TO RENEWABLE ENERGY

A PIMS CRG on Forecasting and Mathematical Modeling for Renewable Energy

JULY 27, 2023
UNIVERSITY OF BRITISH COLUMBIA, ROBSON SQUARE

PANEL MODERATOR:
Laura Lynch
 CBC journalist, host of weekly radio show *What on Earth*

PANELISTS:

- René Aid**
 Professor (Economics) Université Paris-Dauphine, former Deputy-Director of EDF Research Energy Finance
- Gael Giraud**
 Founder, Director and Professor, Georgetown University Environmental Justice Program; former chief economist of the French Development agency CNRS
- Seth Klein**
 Public policy researcher, author, and Team Lead with the Climate Emergency Unit
- Judith Sayers**
 President of the Nuu-chah-nulth Tribal Council, lawyer, renewable energy leader, chancellor of Vancouver Island University
- Andrew Weaver**
 Professor (climate science), University of Victoria, IPCC lead author, former leader of BC Green Party

This event is free and open to the public. Registration required. The Panel session is part of the **Workshop on Forecasting and Mathematical Modeling for Renewable Energy**
<https://www.pims.math.ca/scientific-event/230727-fppcc>

FACTS Public Panel on Climate Change.

July 27, 2023: University of British Columbia - Robson Square

Tackling Climate Change and the Just Transition to Renewable Energy.

Join us for an afternoon and evening of discussion and learning on *Tackling Climate Change and the Just Transition to Renewable Energy*. This free two-part event is part of a series of French-Ameri-Can Climate Panels (FACTS) on climate change that have been held throughout North America in the past decade. Jointly sponsored by PIMS and the French Embassy of Canada, the panel features a diverse group of eminent Canadian and French leaders representing climate science, renewable energy, economics, public policy, and Indigenous affairs.

The event is organized in two sessions. Topics may vary per session and participants can choose to attend either session or both. The FACTS public panel is a part of the [Workshop on Forecasting and Mathematical Modeling for Renewable Energy and Public Panel Discussion on Climate Change](#). It is free and open to the public, but registration is required.

[Register for Event](#)

View our calendars for more meetings and events

[Scientific Events](#)

EDUCATION HIGHLIGHTS



Welcome to the wonderland of Mathemalchemy, where math is transforming.

Conceived as a brainchild of Duke University mathematician **Ingrid Daubechies** and fiber artist **Dominique Ehrmann**, the Mathemalchemy project is an exciting collaborative exhibit developed by a core team of driven and enthusiastic 24 artistic mathematicians and mathematical artists. Mathemalchemy is a joint vision project emerging from long and spirited discussions celebrating the fun, beauty and creativity in mathematics.

Photo Credit: Kevin Allen



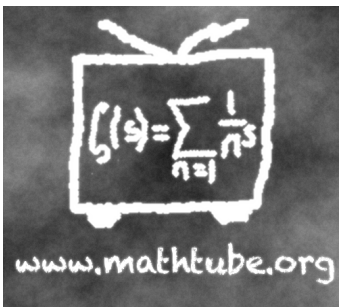
Mathemalchemy Exhibition.

April 1 - October 31, 2023: Beaty Biodiversity Museum at UBC

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. Feel free to wander, observe, and enjoy.

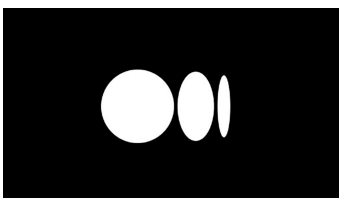
This exhibit was made possible through the support of the Beaty Museum and the UBC Faculty of Sciences.

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](https://medium.com).

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 Series. Do you have an interesting profile from the PIMS Community that we should highlight? [Let us know!](#)

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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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 xwm̓θkwəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and Səlilwətaʔ/Selilwitulh (Tsleil-Waututh) Nations.
www.native-land.ca