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PIMS MONTHLY CONNECTION | January 2024

## Hello from PIMS

Welcome to another new year and semester. We are excited to launch several new programs at PIMS and continue many of the seminars and workshops we support annually. Click the content table below for news and events taking place across the PIMS Network.

#### **PIMS News:**

- Inter-institute agreement for the IDMS summer school
- PIMS PRN #2 Approved: Maud Menten Institute for Mathematics in the Life Sciences
- CRG #40 Approved: Structure-Preserving Discretizations and their Applications

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

• April 15, 2024: <u>Deadline for Applications for PIMS/BIRS Team Up!</u>

#### **Featured Events:**

- January 17: PIMS Emergent Research-PDF Seminar: Poornendu Kumar
- January 25: PIMS Network Wide Colloquium: Wilfrid Gangbo
- January 31: PIMS Emergent Research-PDF Seminar: Benjamin Anderson-Sackaney

#### K- 12 Education Opportunities:

- February 16, 2024: Proposal deadline for Education Events
- March 15, 2024: Nomination Deadline for the PIMS Education Prize

### **PIMS NEWS**



#### IDMO SUITIFIET SCHOOL

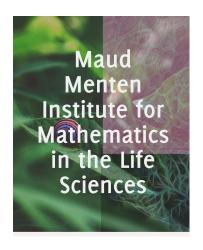
The "Increasing Diversity in Mathematical & Related Sciences" has been established by an agreement between Canadian mathematics research institutes: the Atlantic Association for Research in the Mathematical Sciences (AARMS), the Banff International Research Station (BIRS), the Centre de recherches mathématiques (CRM), the Fields Institute for Research in the Mathematical Sciences, and the Pacific Institute for the Mathematical Sciences (PIMS).

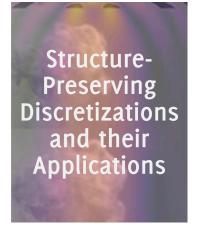
**Read More** 

# PIMS Research Network #2 Approved

The PIMS Scientific Review Panel has approved the second PIMS Research Network. The Maud Menten Institute for the Life Sciences will provide a collaborative research platform for mathematical biologists at PIMS sites to promote interactions with life science experts and decision makers in government, industry and NGOs. The PRN Leaders are Mark Lewis (University of Victoria) and Stéphanie

Portet (University of Manitoba).





# PIMS Collaborative Research Group #40 Approved.

The PIMS Scientific Review Panel has approved the Collaborative Research Group: Structure-Preserving Discretizations and their Applications

This CRG will bring together research specialists in structure-preserving discretizations to share their knowledge, expertise, and current challenges in their respective fields. The CRG Leaders are: **Jingwei Hu** (University of Washington), **Steven Ruuth** (Simon Fraser

### PIMS NETWORK OPPORTUNITIES



# PIMS Network Wide Courses: Spring 2024 Enrolment

Fourteen new PIMS Network-Wide Graduate Courses have been approved for Spring 2024 term, and are **now** accepting registrations through the Western Deans Agreement. Graduate students in your department(s) who may be interested in one or more of the courses offered below are welcome to apply. Please take note that registration deadlines may be up to **six or eight weeks in** advance of the course start date.

See Courses Details



# PIMS-BIRS TeamUP!: Applications now open for the 2024-2025 period

Specifically targeted at those whose research program may have been impacted by obstacles such as family obligations, professional isolation, access to funding, the PIMS-BIRS Team Up! program supports groups of 2 - 6 researchers to spend two weeks working together at world-class research facilities such as the Banff International Research Station (BIRS) or the Kelowna BIRS site. **Applications are open now and will close on April 15th, 2024.** 

See Details Here



# Joint Mathematics Meetings 2024: CRM-PIMS-AARMS Invited Address - Henri Darmon, McGill University

January 5, 2024: The Moscone Center (Room 205), San Francisco

9:45 AM Pacific Time

Title: Fourier Coefficients of Modular Forms.

Henri Darmon (McGill University) will be speaking at the Joint Mathematics Meeting 2024 in San Fransisco, CA. This address is co-sponosred by CRM, PIMS and AARMS, as part of a new joint long-term partnership agreement with the American Mathematical Society (AMS), beginning in 2024.

See Details Here



# Prairie Mathematics Colloquium: Steve Rayan

January 18, 2024: Online 2:30 PM Central Time

Moduli Spaces and Quantum Matter: From Materials to Pure Mathematics and Back.

Steve Rayan is a professor and researcher in the Department of Mathematics and Statistics at the University of Saskatchewan. He serves as the Lead for the University's Signature Area of Research in Quantum Innovation and as the Director of the Centre for Quantum Topology and Its Applications (quanTA).

See Details Here



### Wilfrid Gangbo

January 25, 2024: Online 1:30 PM Pacific Time

Hamilton-Jacobi equations on the Wasserstein space on graphs.

Wilfrid Gangbo is a Professor of Mathematics at the University of California, Los Angeles. Dr. Gangbo received his Ph.D. from EPFL-Switzerland. His research interests lie in the calculus of variations and on partial differential equations. He is interested in the theory of optimal mass transportation, also known as the Monge-Kantorovich theory. During the past ten years, Gangbo has also worked on the master equations in mean field games and on Hamilton-Jacobi equations on the set of probability measures. He has been associate editor for several international journals and served on the advisory boards of various institutions.

**Register Here** 



# Combinatorial Algebra meets Algebraic Combinatorics 2024

January 26 - 28, 2024: Montréal, Quebec

Combinatorial Algebra meets Algebraic Combinatorics (CAAC) is a series of workshops that bring together researchers in algebraic combinatorics, combinatorial aspects of commutative algebra, geometry, and representation theory, and computational algebra. CAAC 2024, the 21st edition, will be hosted by <a href="LACIM">LACIM</a> in collaboration with the <a href="CRM-ISM UQAM Pole">CRM-ISM UQAM Pole</a>. Registration for attendance is required.



# The PIMS Postdoctoral Fellow Seminar: Poornendu Kumar

January 17, 2024: Online 9:30 AM Pacific Time

On Certain Affine Varieties.

**Poornendu Kumar** is a scholar and researcher in the field of mathematics, and currently serves as a PIMS Postdoctoral fellow at the University of Manitoba, working under the guidance of Professor Raphaël Clouâtre.

See Details Here



# The PIMS Postdoctoral Fellow Seminar: Benjamin AndersonSackaney

January 31, 2024: Online 9:30 AM Pacific Time

From Groups to Quantum Groups and their Operator Algebras.

Benjamin Anderson-Sackaney is a PIMS-Simons postdoc at the University of Saskatchewan under the mentorship of Prof. Ebrahim Samei. A known Indigenous mathematician of North America, his research interests lie in quantum groups, abstract harmonic analysis, and operator algebras, and closely related fields.

See Details Here



#### Euucation Froposais

PIMS welcomes applications for support of K-12 education activities in the mathematical sciences to occur after April 3, 2024. Applications for requests ranging from \$500 -\$5,000 CAD are open until the **deadline on February 16, 2024**.

**See Application Details** 

### PIMS Education Prize: Nominations Open!

The PIMS Education Prize is awarded to members of the PIMS community who have made significant contributions to education in the mathematical sciences. This prize is intended to recognize individuals or groups from the PIMS universities, or other educational institutions in Alberta, British Columbia, Manitoba, Saskatchewan and Washington who have played a major role in encouraging activities which have enhanced public awareness and appreciation of the mathematical sciences, as well as fostering communication among various groups and organizations concerned with mathematical training at all levels. **Nominate by March 15, 2024** 



**See Nomination Details** 

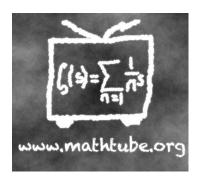
## View our calendars for more meetings and events

**Scientific Events** 

**Education Events** 

**Industrial Events** 

## **MEDIA**



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

Proceedings for the <u>PIMS-ACTS event series</u> that took place this summer are now available for viewing!

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



#### 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 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.

#### 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 <u>Learn more</u>

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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 xwməθkwəÿəm (Musqueam), Skwxwú7mesh (Squamish), and Səlı́lwəta?/Selilwitulh (Tsleil-Waututh) Nations.

www.native-land.ca