Pacific Institute *for the* Mathematical Sciences

PIMS MONTHLY CONNECTION | **May 2020**

Hello from PIMS

As PIMS continues to support the advancement of mathematics research through the COVID-19 pandemic, we have prepared a tips and tricks document on how to run virtual events effectively to assist in your collaborations.

We commend the adaptability of our colleagues and look forward to the new research which will emerge as we continue to navigate this pandemic.

Sincerely,
The PIMS Team

FEATURE EVENTS

Alberta Number Theory Days XII (ANTD XII)
May 2 - 3: Virtually hosted by the Banff International Research Station

Number theory is a broad and central area of research with many connections and applications to other areas of mathematics and science. It is also an extremely active and diverse area of research. In recent years there have been significant advances in both analytic and algebraic number theory. The subject may be divided into several subdisciplines that range from pure mathematics, to more applied areas such as computational number theory and mathematical physics. Some of the pure mathematics subdisciplines are algebraic number theory, arithmetic geometry, analytic number theory, automorphic forms and representation theory.
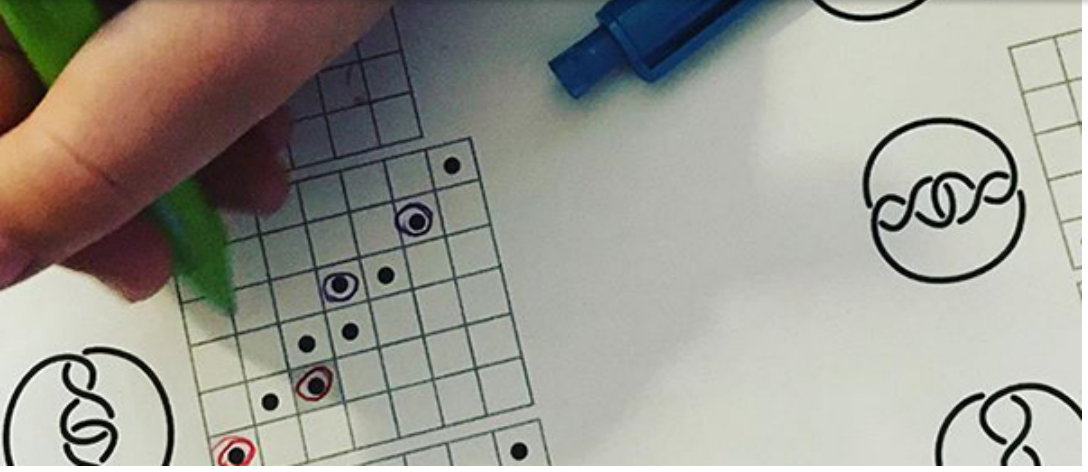
[CRG Novel Techniques in Low Dimension](#)
May 13: Virtually hosted by PIMS-UBC

PIMS' Collaborative Research Group, Novel Techniques in Low Dimension: Floer Homology, representation theory and algebraic topology is hosting a virtual conference. There will be presentations on Decomposition of Azumaya Algebras, Khovanov homology and the linking of component-preserving cobordisms, Obstructions to immersed lagrangian fillings with double points of vanishing index and action, and Periodic Knots and Alexander Polynomial.

[The Eighth Annual Canadian Statistics Student Conference](#)
May 30: Virtually hosted by Carleton University

Now free, this annual conference is organized entirely by students, for students! Join us for a keynote speech by Dr. David Haziza (Université de Montréal and Statistics Canada) and a career session with panelists from academia, government, and industry

For more lectures and PIMS resources, please visit mathtube.org

Click below for all events|May 2020

Scientific

Educational

Industrial

NEWS & ANNOUNCEMENTS

Teach curriculum based data science remotely with Callysto!

If you teach grades 5-12, Callysto can help you incorporate data science into your lessons to provide students with the skills they'll need to be competitive in a digital workforce. Book a free, 30-minute online tutorial with Callysto to learn how their free, curriculum-tied online modules work, and how you can tailor online content to fit your students' learning.

Mathematics & COVID-19

Mathematics continues to play an important role in the response to the current pandemic. Caroline Colijn (SFU) and Dan Coombs (UBC) continue to lead a large COVID-19 working group and advise health officials through mathematical modelling to explore projections, while evaluating the effectiveness of physical interventions.

UBC's Mathematical Biology Seminars Virtualized

With his Zoom license in hand, Andreas Buttenschoen, NSERC post-doctoral fellow and organizer for the Mathematical Biology Seminar isn't the only one enjoying the benefits of virtual seminars. With speaker and participants pools expanding with former students, colleagues, and even a few internationally recognized researchers, increased collaborations continue to emerge as a result of virtualization.

The reduced time commitment afforded through virtualization has allowed for connections with researchers who are often unavailable, like John Tyson and Bard Ermentrout. Junior colleagues are more readily afforded access to high-level researchers, further amplifying educational excellence through a digital experience with a much smaller carbon footprint to boot! The ability to record and share talks only adds to the opportunities we see emerging as a result of virtualization.

PIMS has prepared a resource guide on effective virtual events to support event organizers, speakers and participants in their transition to online events.

PIMS COMMUNITY RECENT PUBLICATIONS

1. Benson, D., Iyengar, S. B., Krause, H., & Pevtsova, J. (2019). Local duality for representations of finite group schemes. *Compositio Mathematica*, 155(2), 424-453.

2. Chernousov, V. I., Rapinchuk, A. S., & Rapinchuk, I. A. (2019). Spinor groups with good reduction. *Compositio Mathematica*, 155(3), 484-527.

3. Brassil, M., & Reichstein, Z. (2019). Hermite's theorem via Galois cohomology.. *Archiv der Mathematik*, 112(5), 467-473.

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**. We are proponents of mathematical **collaboration with industry**, **innovation in mathematics education** from

K-12 to graduate level initiatives, **public outreach** and **partnerships** with similar organizations around the globe. We fund Collaborative Research Groups, Post-Doctoral Fellowships, individual events, and competitive prizes in mathematics.

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