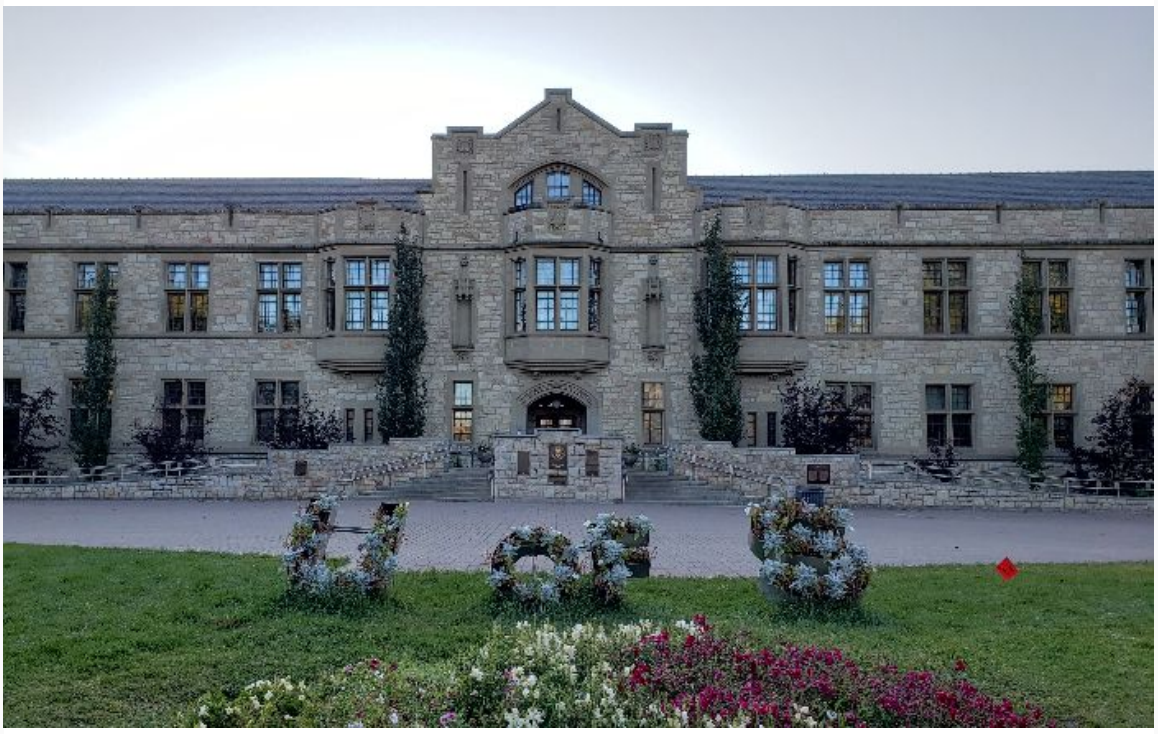
Pacific Institute *for the* Mathematical Sciences

PIMS MONTHLY CONNECTION | October 2019



Hello from PIMS

With the start of autumn and the new academic year comes an increase in PIMS activities across our 10 university sites. Take a look at the full list of all our great events on the PIMS activity calendar.

IMPORTANT NOTICES:

1. **PIMS-SFU Applied Computational Math Seminar: Aaron Palmer, SFU, Oct 11. Learn more.**
2. **SIAM Pacific Northwest Section Biennial Meeting, Oct 18-20, Seattle. Register now.**
3. **PIMS-UBC Distinguished Colloquium: Laurent Saloff-Coste, Oct 18, UBC. Learn more.**
4. **PIMS-SFU Hugh Morris Lecture: Marsha Berger. SFU, Nov 1.** Learn more**.**

Have a great Thanksgiving!

Sincerely,
The PIMS Team

FEATURE EVENTS

PIMS - SFU Hugh Morris Lecture: Marsha Berger

November 1, Simon Fraser University.

Could an asteroid that explodes over the ocean generate a tsunami threatening coastal populations far away? We show simulations of tsunami propagation from asteroid-generated airbursts. We then present a 1D model with an explicit solution to better understand the unexpected results. The model is then extended to explore the effects of dispersion and compressibility. We end with a discussion of appropriate tools to study the more serious case of an asteroid that impacts the water.

PIMS - SFU Applied & Computational Math Seminar: Aaron Palmer

October 11 at Simon Fraser University

The Dyson and Coulomb games: how models of statistical physics arise in the study of competing agents.

PIMS - UBC Distinguished Colloquium: Laurent Saloff-Coste

October 18 at the University of British Columbia

We consider the following question: do we have good control of the doubling property for left-invariant geometries on a given compact Lie group?

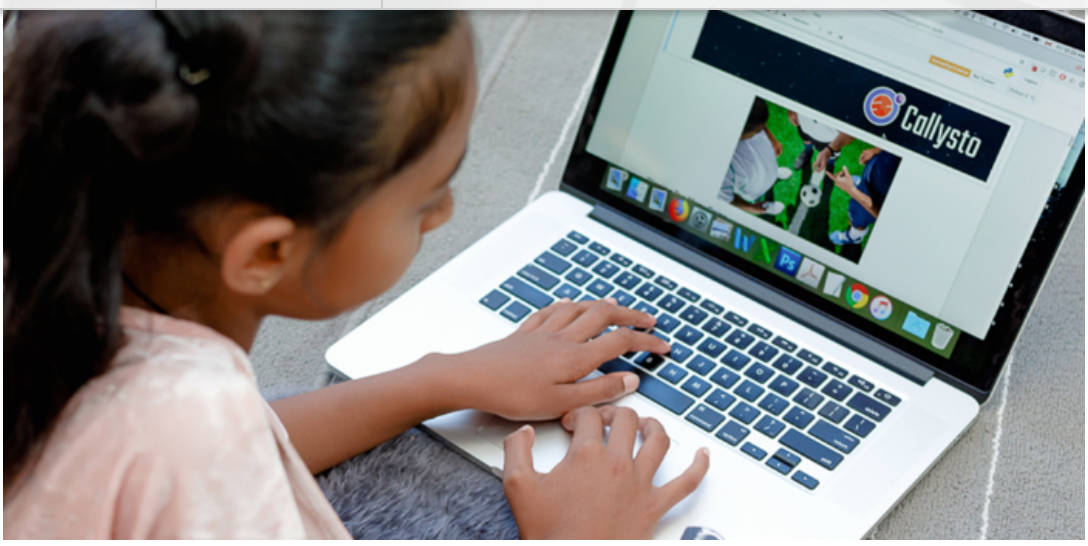
Click below for all events | October 2019

Scientific

Educational

Industrial

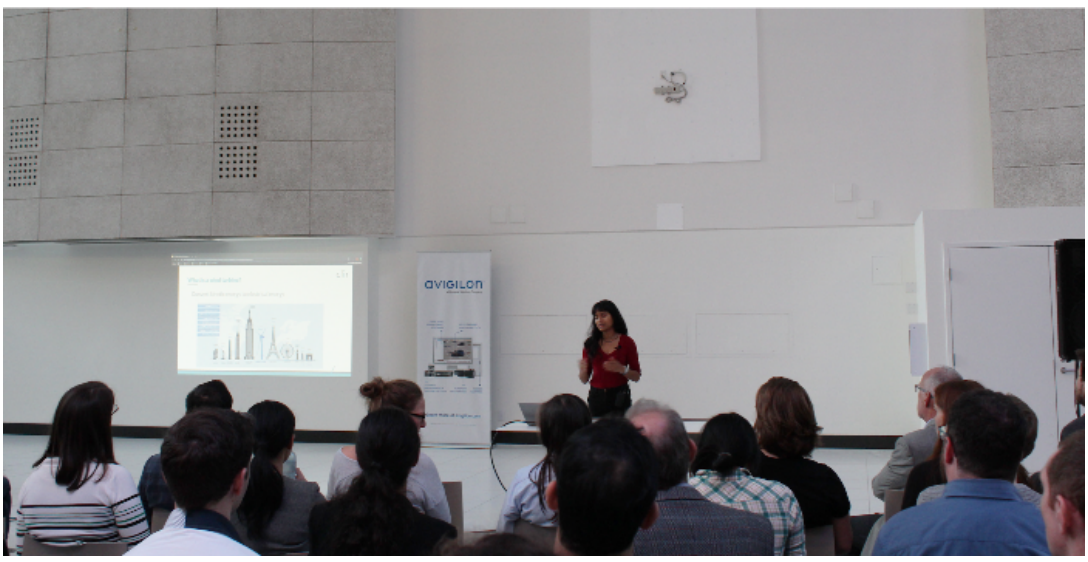
NEWS & ANNOUNCEMENTS



Callysto's Nation-Wide Classroom Rollout is Underway

The Pacific Institute for the Mathematical Sciences in partnership with Cybera, is pleased to announce that Callysto has received new funding from the federal government's CanCode program.
So far, over 750 Canadian teachers have been trained on Callysto. The goal is to expand that number by a further 2000 teachers across the country over the next two years.

Learn more about funding opportunities for classroom activities related to computational science and coding.



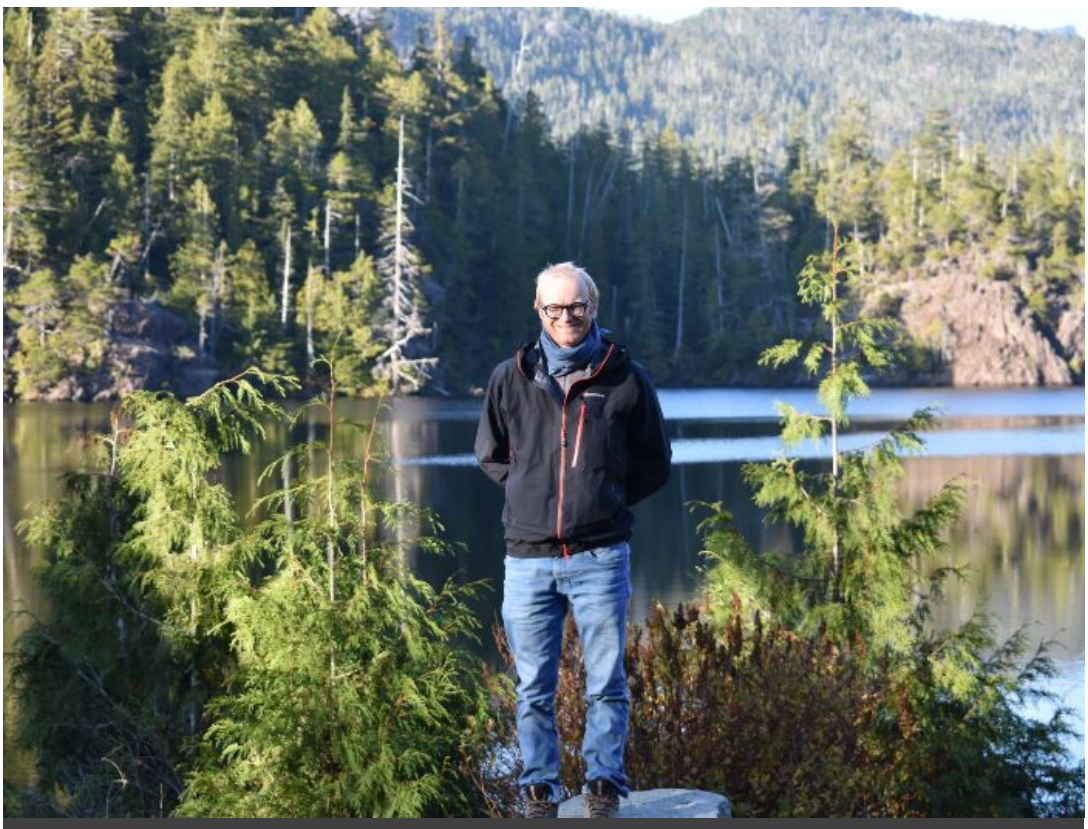
2019 bcdata Colloquium

Many thanks to Sampoorna Biswas from Clir Renewables for her talk on 'Data-driven Control and Optimization in the Wind Industry' as part of the PIMS bcdata initiative.

Looking forward to more bcdata events in the fabulous Avigilon atrium. Keep up to date with our upcoming events here.

MEDIA

Nick Dexter, a Pacific Institute for the Mathematical Science (PIMS) postdoctoral fellow, is at the forefront of machine learning in Canada.



Paul Vigneaux: The Mountain Mathematician

The PIMS-CNRS International Research Lab (IRL) facilitates connections between France and Canada through transatlantic research opportunities. This is the story of one researcher who made that journey.

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

PIMS COMMUNITY RECENT PUBLICATIONS

1. Courtiel. J., Fusy. E., Lepoutre. M., Mishna. M., "Bijections for Weyl Chamber walks ending on an axis, using arc diagrams" European Journal of Combinatorics Volume 69, March 2018, Pages 126-142
2. Beaton. N.R., Eng. J.W., Ishihara. K., Shimokawa. K., Soteros. C.E., "Characterising knotting properties of polymers in nanochannels." Soft Matter, 2018, 14, 5775 – 5785.
3. Beaton. N.R., Janse Van Rensburg. E.J., "Partition function zeros of adsorbing Dyck paths." 2018 J. Phys. A: Math. Theor. 51 114002
4. Adcock. B., Brugiapaglia. S., "Sparse approximation of multivariate functions from small datasets via weighted orthogonal matching pursuit" Proceedings of the 12th International Conference on Spectral and High Order Methods, Imperial College, London, UK, July 2018 (submitted).

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.

FOLLOW US!

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