



Pacific Institute for the
Mathematical Sciences

PIMS Distinguished Speakers Series



MONICA NEVINS

Vice-Dean, Governance & International Relations
Professor, Mathematics and Statistics
University of Ottawa

Title: Representing Everything

Abstract:

Mathematics is often about understanding objects through their symmetries. But what do you do when the group of symmetries is nightmarishly complicated? Answer: You turn the problem into one where you can apply math's ultimate weapon: linear algebra. This process is called representation theory, and it has applications everywhere from number theory, to physics, to the development of space-time codes. We'll use these examples to share some of the successes, and some of the open problems, of representation theory today; by the end, you, too, will be representing everything.

Bio:

Monica Nevins obtained her PhD from MIT in 1998. After two years as a Killam Postdoctoral Fellow at the University of Alberta, she joined the University of Ottawa, where she has served as chair and now as Vice-Dean, Governance and International Relations. Her research interests are in the representation theory of p -adic groups, and in the applications of representation theory and algebra to cryptography and codes. She was awarded the University of Ottawa Award for Excellence in Teaching in 2011 and was named a Fellow of the Canadian Mathematical Society in 2019.

Friday—March 27, 2020

12:00 to 12:50 pm

UHall C640

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