Thursday Keynote Session

Peter Liljedahl

Building Thinking Classrooms

Thursday, November 17 • 3:00 pm – 4:30 pm

Today’s classrooms are influenced by norms from the industrial-age of public education, enabling a culture of teaching and learning that is often devoid of student thinking. Results from over 15 years of research will help instructors transform their classrooms from a space where students mimic to where students think.

Peter Liljedahl is a Professor of Mathematics Education in the Faculty of Education at Simon Fraser University and author of the best-selling book, Building Thinking Classrooms in Mathematics (Grades K-12): 14 Teaching Practices for Enhancing Learning. He was the recipient of the Cmolik Prize for enhancement of public education in British Columbia, as well as the Fields Institute’s Margaret Sinclair Memorial Award for innovation and excellence in mathematics education. Peter has authored or co-authored 12 books, over 38 book chapters, 38 journal articles, and over 50 conference papers. Peter is the former president of the International Group for the Psychology of Mathematics Education (PME), the current president of the Canadian Mathematics Education Study Group (CMESG), senior editor for the International Journal of Science and Mathematics Education (IJISME), on the editorial boards of five major international journals, and a member of the NCTM Research Committee. He is also an executive member of the British Columbia Mathematics Teachers Association (BCAMT) and former co-editor of their flagship journal, Vector.

Peter Liljedahl received a B.Sc. (mathematics and computing science), M.Sc. (secondary mathematics education), and Ph.D. (curriculum theory and implementation) from Simon Fraser University in Vancouver, British Columbia. A former high school teacher, Peter has kept his research interest and activities close to the classroom. He consults regularly with schools, school districts, and ministries of education on issues of teaching and learning, assessment, and numeracy.

Saturday Awards Breakfast Session

Ben Orlin

How to Speak Math

Saturday, November 19

Breakfast Served: 7:45 am – 8:15 am (ticket required) • Program: 8:30 am – 10:00 am

Math is sometimes called the universal language. The phrase resonates partly because it is an oxymoron: a language cannot help reflecting the culture of its speakers, and math is no different. So what would it mean to teach mathematics not as a universal language, but as a foreign one?

Ben Orlin is a bestselling author. He loves math. He cannot draw. Ben received a bachelor’s degree in mathematics and psychology from Yale University and has taught mathematics to students of every age from 11 to 18, on a variety of topics from arithmetic to differential equations, and with every level of competence from “Wow, what a fiasco!” to “Hey, that actually went well!”

Ben has written three books: Math with Bad Drawings (2018), Change is the Only Constant: The Wisdom of Calculus in a Madcap World (2019), and Math Games with Bad Drawings (2022). His first book peaked at #4 on the Kindle nonfiction charts, and it was behind three books you didn’t want to read anyway, so let’s go ahead and call it #1. From the words of mathematician and BBC presenter Hannah Fry, “Ben Orlin is terribly bad at drawing. Luckily he’s also fantastically clever and charming. His talents have added up to the most glorious, warm, and witty illustrated guide to the irresistible appeal of mathematics.”

Ben’s blog Math with Bad Drawings launched in 2013 and quickly drew millions of views thanks to cartoons such as Why Not to Trust Statistics and Math Experts Split the Check, as well as essays on education: What It Feels Like to Be Bad at Math and The State of Being Stuck.

Ben’s work has appeared in The Atlantic, the Los Angeles Times, the Chicago Tribune, Slate, Vox, and Popular Science. He has also contributed cartoons to Eureka Math, the most widely used secondary math curriculum in the United States. Ben shares cartoons regularly on Twitter and Facebook. A resident of Saint Paul, Minnesota, this is his first time in Toronto and he would like to eat all the maple things.
Sunil Singh

The Power of Mathematical Storytelling

Friday, November 18 • 3:10 pm – 4:00 pm

Why did the romance with mathematics end? How can the love of mathematics be resurrected that is grounded in unique cultural experiences and identify with this subject? His presentation will address these questions and the needed solutions by looking at the global history of mathematics.

Sunil Singh is an author, storyteller, and porous math educator. He taught math, physics, and English for 19 years, including teaching at an International IB school in Switzerland, before embarking on a new journey of sharing his passion for math history and narrative with people all around the world.


Sunil is a graduate of the University of Toronto in education with an emphasis on mathematics, science, and physics. He works at Amplify to help build and curate rich storytelling into the K-12 math platform and at Mathigon as a content writer. He also travels all over North America, speaking and providing creative workshops on K-12 math instruction, including presentations at The Museum of Mathematics, The Fields Institute at the University of Toronto, and The Royal Conservatory of Music in Toronto.

He lives in Toronto and spends his leisure time playing sports, traveling, cooking and baking, going to see concerts and shows, and playing endlessly with his two children.

Stan Yoshinobu

Equitable and Inclusive Teaching Practices in College Mathematics

Saturday, November 19 • 2:15 pm – 3:05 pm

In this interactive session, attendees will engage in thinking about teaching skills, strategies and classroom scenarios to create equitable, inclusive environments. Research evidence supports the use of inquiry-based learning skills and practices that engage students in sense-making, when implemented with a focus on equity and inclusion.

Stan Yoshinobu is an assistant professor, teaching stream in the Department of Mathematics at the University of Toronto, and Director of the Academy of inquiry-based Learning. Stan holds a B.A. in mathematics from the University of California at San Diego, and a M.A. in mathematics, and Ph.D. in harmonic analysis at the University of California at Los Angeles. He has been teaching courses in undergraduate mathematics and mathematics education for more than 20 years.

An award-winning professor, Stan has been championed for developing workshops that have helped hundreds of college math instructors across the country learn to use inquiry-based learning - a method of learning mathematics that reduces student anxiety and closes the equity gap in the discipline. Stan's passion for providing professional development for faculty goes back to working with K-12 math teachers as part of the California Math Project in 2002, and also working with local school districts and Native Peoples while as a postdoctoral fellow at the University of Arizona.

His scholarly interests include active learning, inquiry-based learning, professional development in higher education, and diversity, equity, and inclusion in education. Stan also writes regularly about education-related topics on The IBL Blog, hosted by The Academy of Inquiry-Based Learning.

Stan enjoys spending time with his wife and two children, hiking, photography, and rooting for the Los Angeles Dodgers.