



45th Annual Conference



The 45th Annual OAPT Conference
Hosted by Perimeter Institute

SCIENCE IN A NEW LIGHT

MAY 4-6, 2023

For more information, please visit www.oapt.ca



Ontario Association
of Physics Teachers





Conference Schedule

"Science in a New Light"



Thursday, May 4

Time	Description
4:30 - 6:00 pm	Registration
6:00 - 7:00 pm	Welcome BBQ (Bistro)
7:00 - 7:15 pm	Welcome from PI and OAPT
7:15 - 8:30 pm	Meet a Researcher Event: <i>Opportunity for small group discussions with PI scientists</i>
8:30 - 11:00 pm	Social

Friday, May 5

Time		Description	Presenter(s)
8:00 - 8:30		Exhibitors	
8:30 - 8:45		Welcome	PI and OAPT
8:45 - 9:50		Keynote Address	Katie Mack
		*Sessions in blue are offered by our hosts, Perimeter Institute. **Sessions in green have a university focus.	
10:00 – 11:00	1	Climate Change	Dave Fish
	2	A. Assigning and Facilitating Roles in Physics Lab Group Work B. Comparing in-person and at-home lab experiences in first year physics	A. Jason Harlow B. Sara Cormier Dr. Miranda Schmidt
	3	Quantum Superposition and Entanglement: Not So Spooky	John Donahue
	4	SNOLAB: Bringing deep underground science to the classroom	Blaire Flynn Rachel Richardson
	5	A. CGPS - Thor's hammer B. Computer Code: A Worthwhile Representation?	A. Mike Doig B. Felipe Almeida
11:00-11:30		Coffee Break and Exhibitors	
11:30 – 12:30	1	Nature of Science	Kelly Foyle
	2	A. Progress and Setbacks to Close the STEM Gender Gap in Ontario's High Schools B. Calculus in First-Year Physics: Learning Your Mother Tongue as a Second language	A. Eamonn Corrigan B. Chris Meyer
	3	Motion Concepts - A "Hands On" Approach	Edward Gissing
	4	Using Science to Test a Hypothesis: Nuclear Fusion in the K-12 Classroom	Maggie Oxford Mark Richardson
	5	Spiralling IB Physics	Alasdair Paterson

12:30 – 1:30		Lunch and Exhibitors	
Session C 1:30 – 2:30	1	Beyond Bohr: A Quantum Approach to the Atom	Damian Pope
	2	Thinking Classrooms in Science	Ashley McCarl Palmer Sean Jackson
	3	An Art and Physics Program for your classroom	Mark Richardson
	4	A. Projectiles without tears B. “Epistemic Structures in Collaborative Physics: The Nature of Disagreements” C. Why do we teach physics that is wrong? History and philosophy of Science.	A. Olga Smakhtina B. Alexandra Holgate C. Doreen Fraser
	5	Have You Ever Considered a Laboratory Exam for Senior Physics?	Glenn Wagner
2:30 – 3:00		Coffee Break and Exhibitors	
Session D 3:00 – 4:00	1	A. Cutting-edge Radio Astronomy: Mysterious Radio Bursts from Deep Space & the CHIME Radio Telescope B. Total Eclipse of the Hammer	A. Damian Pope B. Blake Ledger
	2	Simple Harmonic Motion and Greenhouse Gases	Dave Fish
	3	Bringing STEM to Life with k2i Academy	Lisa Cole Vanessa Ironside
	4	A. Finally flipping the classroom – the upside of teaching during a pandemic. B. In their own words: student voices in science classrooms	A. Joanne O’Meara B. Vjera Miovic
	5	Hack your curriculum - workshop to redesign a course into engaging spiralling storylines	Libby Boulianne
	6	An Approach to Problem Based Learning	Dale Simnett
4:00 – 4:30		Exhibitors	
4:30 – late		Social and Dinner – Sign up for restaurants	

Saturday, May 6

Time		Description	Presenter(s)
Session E 9:00 – 10:00	1	James Webb Space Telescope (JWST) Classroom Connections	Kelly Foyle
	2	Embodying Physics	Carolyn Sealfon
	3	Static electricity: the most important science in high school	Chris Meyer
10:00 – 10:30		Coffee Break	
Session F 10:30 – 11:30	1	A search for the extraordinary: Leading a scavenger hunt in Stellarium	Blake Ledger
	2	A. Studying resonance using the PHYPHOX phone app B. Cheap Tricks: Hot Wheels, 3D Printing, & Multi-Purpose Sensors	A. James Ball B. Robert Prior
	3	To deeply learn physics, they need to retrieve it!	Glenn Wagner
11:30 – 12:00		OAPT General Meeting We are looking for feedback on the conference and for volunteers to help the organization. Everyone is Welcome!	