Session Program

Aug 12 – 13, 2026

CASST 2026

Presentations

Laurentian University, Classroom Building, C-203

Wed, August 12

11:00 AM

Presentations: Session II

Session | **Location:** Laurentian University, C-203

11:00 – 11:12 AM **Can Gravitational Waves Alter Binary Inspirals?**

Speaker
Emily Spence

11:12 – 11:24 AM **RAMPS and the Search for the Electron Capture of Lu-176**

Speaker
Sanjit Patil

11:24 – 11:36 AM **Applied Engineering and Project Management at SNOLAB**

Speaker
Frederick Aguirre-Levesque

11:36 – 11:48 AM **Probing Dark Matter in the GD-1 Stellar Stream with Simulation-Based Inference**

Speaker
Mr Driss Mestiri

11:48 AM – 12:00 PM **Seeing Dark Matter: Reconstruction of Energy, Position, and Timing**

Speaker
Ms Cary Kan

12:00 – 12:12 PM **Background Monitoring in DarkSide-20k**

Speaker
Ty Bell

12:12 – 12:24 PM **The Search for Galaxies Without Stars: HI Follow-up of FASHI Dark Galaxy Candidates**

Speaker
Qwin Goodwin

12:24 PM

2:10 PM

Presentations: Session III

Session | **Location:** Laurentian University, C-203

2:10 – 2:22 PM **Cosmological Magnetic Fields from Dark Matter**

Speaker
Aviv David

2:23 – 2:35 PM
Microwave Injection System Upgrades for Antihydrogen Gravity Experiments in ALPHA-g

Speaker
Elspeth Bruce

2:36 – 2:48 PM **From Signals to Science: Machine Learning for Event Reconstruction in SuperCDMS**

Speaker
Lyssa Dale-Davies

2:48 – 3:00 PM **Radon Shielding in the SuperCDMS Experiment**

Speaker
Jonathan Finer

3:00 – 3:12 PM **Testing a Pulse-IV Multiplexer for Large SiPM Array Characterization**

Speaker
Will Gray

3:12 – 3:24 PM **Another Run Bites the Dust: Why SNO+ Data Pass or Fail Run Selection**

Speaker
Berin Sancakdar

3:24 – 3:36 PM **Nucleosynthesis in classical novae: nuclear physics and astrophysics uncertainties**

Speaker
Spencer Reyno

3:36 – 3:48 PM **When Signals Go Dark: Recovering Information From a Broken Detector**

Speaker
Simon Cao

3:48 PM

5:05 PM

Presentations: Session IV

Session | **Location:** Laurentian University, C-203

5:05 – 5:17 PM **An Extensible Reaction-Diffusion Solver for Radiolysis and Astroparticle Physics**

Speaker
Hayden Klassen

5:18 – 5:30 PM **Building a peltier-cooled cloud chamber for physics outreach.**

Speaker
Cameron Flaman

5:31 – 5:43 PM **How to Escape Things in Space, and The Things We Can't**

Speaker
Sebastian Blaha

5:44 – 5:56 PM **Comparing the Milky Way to Simulated Galaxies**

Speaker
Nicole Muchos

5:57 – 6:09 PM **properties of the SNO+ detector from optical calibration data**

Speaker
Sara Bergevin

6:10 – 6:22 PM **Generation and Validation of Phonon Pulse Templates for SuperCDMS SNOLAB**

Speaker
Guneev Dhillon

6:23 – 6:35 PM **Machine Learning Model for the Milky Way's Stellar Disk**

Speaker
Isabella Botelho

6:36 – 6:48 PM **An alternate approach to high energy event simulation in the DEAP3600 Detector**

Speaker
Matt Poser

6:50 PM

Thu, August 13

8:15 AM

Presentations: Session V

Session | **Location:** Laurentian University, C-203

8:15 – 8:27 AM **Letting 0νββ shine: How QA supports SNO+'s chemistry from backstage**

Speaker
Osanna Wong

8:28 – 8:40 AM **Underground Neutron Flux Mapping at SNOLAB**

Speaker
Brianna Binoy

8:41 – 8:53 AM **Developing a Quantitative ZnS(Ag) Test System**

Speaker
Connor Stubbs

8:54 – 9:06 AM **Understanding the Origin of Heavy Elements Using Stellar Archaeology**

Speaker
Ella Jackson

9:07 – 9:19 AM **Operations and Technical Services Roles in SNOLAB's Science**

Speaker
Kai Turchan

9:20 – 9:32 AM **Seeing Earthquakes Through a Supernova Detector**

Speaker
Katie Fosten

9:33 – 9:45 AM **Characterization of Silicon Photomultipliers and Readout Board**

Speaker
Lily Moss

9:46 – 9:58 AM **SiPM Based Gamma-ray Detection**

Speaker
Gavin Croft

9:59 – 10:11 AM
Engineering World-Class Collaboration Infrastructure at SNOLAB: Modernization of the Fraser Duncan Auditorium Control System

Speaker
Ahmed Abdel-Dayem

10:12 – 10:24 AM
Vacuum Ultraviolet Measurements of Electron-Hole Pair Production Probabilities in Geiger-mode Avalanching Photodetectors

Speaker
Celena Guo

10:30 AM

10:45 AM

Presentations: Session VI

Session | **Location:** Laurentian University, C-203

10:45 – 10:57 AM **Changing High School Physics Curriculum**

Speaker
Samantha Ryan

10:58 – 11:10 AM
Studying supernova nucleosynthesis with a direct measurement of the 13N(α,p)16O reaction

Speaker
Luka Radulovic

11:11 – 11:23 AM **Engineering and Quality Assurance Co-op Experience at SNOLAB**

Speaker
Martin Courchesne

11:24 – 11:36 AM
Primordial Black Hole-Induced Radiative Suppression of H2 for Direct Collapse Supermassive Black Hole Formation

Speaker
Kayla Payne

11:37 – 11:49 AM
Hardware Efforts at SNO+: Ultrasonic Bath for Circuit Precision and Infrared Light for Source Deployment

Speaker
Julia Gorovitz

11:50 AM – 12:02 PM **Characterizing Noise in SuperCDMS HveV Detectors**

Speakers
Hussein David, Rhea Zhu

12:03 – 12:15 PM **Optimizing the ablation and selection of Li-7 ions for implanting in quantum sensors**

Speaker
Justine Thebault-Weiser

12:16 – 12:28 PM **Servers and Simulations: Building Critical Infrastructure for the NEWS-G Experiment**

Speaker
Andrew Gault

12:41 PM

2:30 PM

Presentations: Session VII

Session | **Location:** Laurentian University, C-203

2:30 – 2:42 PM
Monte Carlo Simulation of the RadioActive isotope Measurement Program at SNOLAB (RAMPS)

Speaker
Diba Toyserkani

2:43 – 2:55 PM **Lyman–α Laser Cooling for Precision Antihydrogen Spectroscopy**

Speaker
Sahara Majeed

2:55 – 3:07 PM **Characterizing the Long-Term Behavior of IceCube Supernova Scaler Rates**

Speaker
Tayler East

3:07 – 3:19 PM **Neutron Scattering Experiment**

Speaker
Riley Breen

3:19 – 3:31 PM **Toward Sensing Ultralight Dark Matter with Superfluid-Filled Optical Cavities**

Speaker
Alex Semeraro

3:31 – 3:43 PM **Galaxies Like Home: Expanded Photometry of 10,000 MaNGA Galaxies**

Speaker
Ella Hammet

3:43 – 3:55 PM **A Brief History of the Physics Department at Queen's and the Place of Women Within It**

Speaker
Alexandra Butler

3:55 – 4:07 PM **Improving Performance in Low-Background Cryogenic Experiments**

Speaker
Cheyanne Monk

4:10 PM