

# Western's Physics Undergraduate Conference 2017 Program

March 9, 2017

(All events will be happening in the Physics and Astronomy Building)

**10:00-11:00:** Registration / Poster setup / Breakfast - Atrium

**11:00-11:45:** First round of student talks - room 100

(15 minutes per talk - 12 minutes for talk and 3 minutes for questions)

**11:00-11:15:** 007 MITOCHONDRIA - Organelle with a License to Kill  
presented by Ahmad Mahmood - McMaster

**11:15-11:30:** The Eigenstate Thermization Hypothesis in the XX Model  
presented by Jonathon Riddell - Western

**11:30-11:45:** 3D Printing of Surgical Instruments for Long-Duration Space Missions  
presented by Toluwa Fayemi - Western

**11:45-12:00:** Coffee break - Atrium

**12:00-12:30:** Second round of student talks - room 100

(15 minutes per talk - 12 minutes for talk and 3 minutes for questions)

**12:00-12:15:** Improvement of Image Registration in Treatment of Head and Neck  
Cancer presented by Diego Felipe Martinez - McMaster

**12:15-12:30:** Search For the Fifth Fundamental Force in Low Scale QCD  
presented by Armita Jalooli - York

**12:30-13:30:** Lunch - Atrium

**13:30-14:30:** Poster session (Poster titles and presenters on next page) - Atrium

**14:30-15:30:** Keynote talk - room 100

Nigel Smith, director of SNOLAB on "The SNOLAB Science Programme: Cutting-edge science from a deep hole in the ground"

**15:30-16:00:** Coffee break - Atrium

**16:00-17:00:** Awards and culmination of conference - room 100

**17:00-19:00 :** Dinner - Atrium

## Poster titles and presenters

- **Fabrication and characterization of PDMS optical lenses for smartphone microscopy** presented by Nia Nijati - McMaster
- **Determining Relaxation Times of Different Materials Using NMR** presented by Sergio Dempsey and Michael Molliconi - Western
- **Spectral Analysis of Buoyancy Waves** presented by Sergio Dempsey - Western
- **The Torsion of Rowing Sculls** presented by P-Hiddy - Western
- **Differentiation of Arterioles from Venules in Mouse Histology images using Machine Learning** presented by Sachi Elkerton - Western
- **Studying the Motion of a Chaotic Pendulum** presented by Brian Lewis and Veronica Vicherek - Western and York
- **Radio Frequency Heating in Medical Implants (working title)** presented by Nicole Barucha - Western
- **3D Printing of Surgical Instruments for Long-Duration Space Missions** presented by Toluwa Fayemi - Western
- **Search For the Fifth Fundamental Force in Low Scale QCD** presented by Armita Jalooli - York