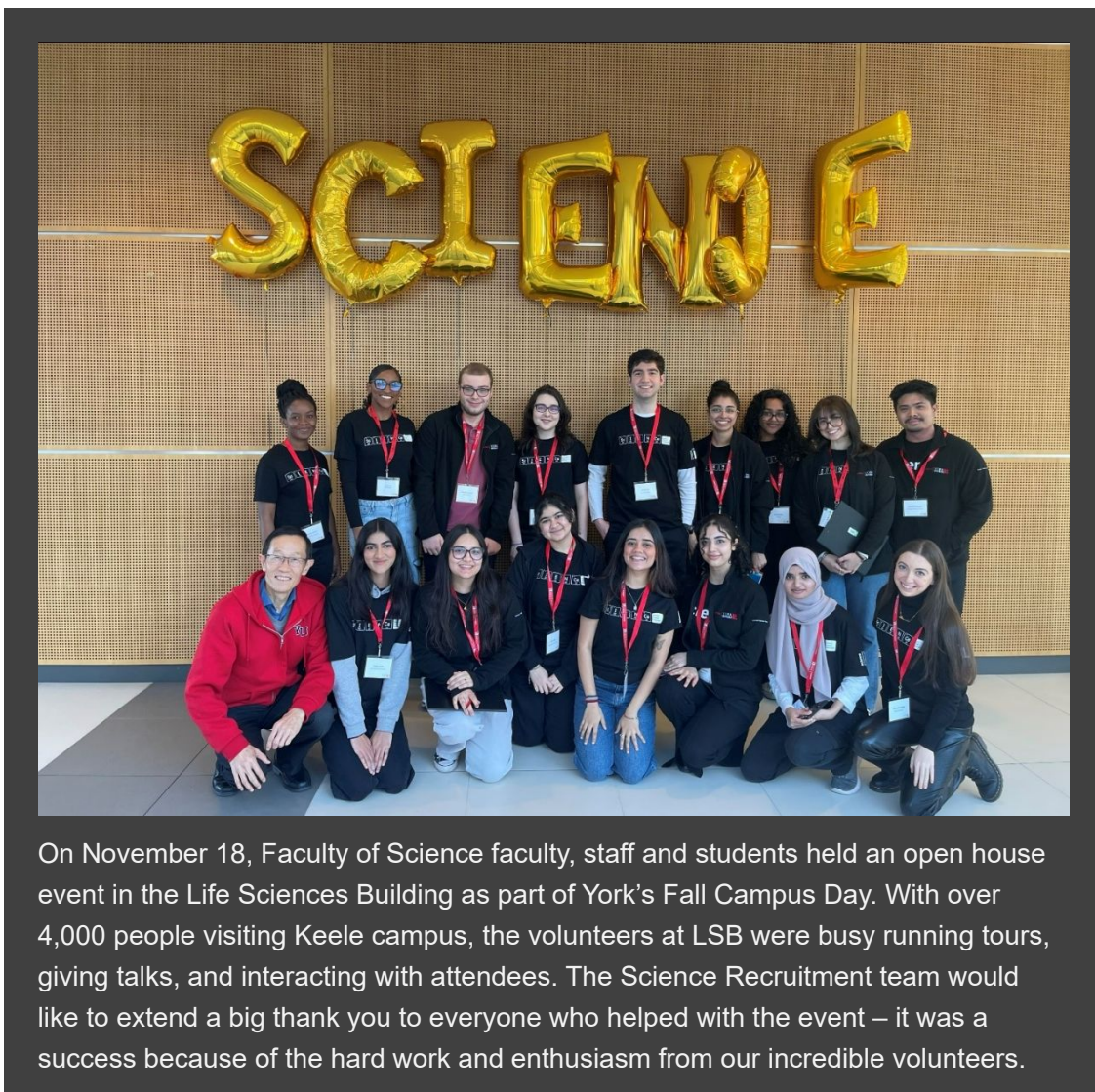


## Dean's Round-up: November 2023

### FACULTY HIGHLIGHTS



The Allan I. Carswell Observatory, directed by **Elaina Hyde** (Physics & Astronomy), held its first collaborative observation this year with the Lucky Star group on the Chaos trans-Neptunian object; the occultation was observed from the 1-metre telescope at the Allan I. Carswell Observatory as well as several other telescopes around the world.

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## CONGRATULATIONS

Director of International Collaborations & Partnerships **Hugo Chen** received a York University Globally Networked Learning (GNL) Award 2023-24, as part of GNL's Collaborative Online International Learning Virtual Exchange (COIL-VE).

**Miles Couchman** (Mathematics & Statistics) and international collaborators were awarded a 2024 Innovative and Novel Computational Impact on Theory and Experiment Supercomputing Award (from the Office of Science at the U.S. Department of Energy) to study turbulence in stratified flows, as is relevant to ocean dynamics and global climate modeling, using the largest supercomputer in the world, Frontier. Read the [YFile story](#).

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## MORE NEWS



Ten undergraduates in Physics, Astronomy and Biophysics worked on physics problem-solving and astronomy image processing contests at Fall Campus Day, supervised by professors **Chris Bergevin**, **Patrick Hall**, and **Sarah Rugheimer**. Questions like “how dense would a 1 cm thick floor of a spaceship need to be to have the same gravity as the Earth's surface” were tackled by the participants. Thanks to a generous donation from alumnus **Itay Yavin**, a total of \$2,500 in prize money was disbursed.

Science International Recruitment Coordinator **Mingming Li**, Communication and Marketing Assistant **Gina Quan**, and science students **Eemeli Tepponen**, **Ishv Bhardwaj**, **Kaosisochukwu Nweke**, **Jui Sharma** and **Saania Samrin** represented Science at the York University Virtual International Open House. They presented two Explore Science Sessions focused on Data Science and Biology. Additionally, **Kelly Ramsay** (Mathematics & Statistics), **Li** and **Quan** delivered a virtual information session about the Data Science program to prospective students from NOIC Academic.

**Mary-Helen Armour** (NATS) presented "[Impact Structures in Ontario](#)" at the David Dunlop observatory for the Royal Astronomical Society (Toronto Centre).

**Christopher Caputo** (Chemistry) was the expert guest at a science-themed comedy show known as [The Know Show](#).

**Derek Jackson** (Chemistry) and **Kyle Belozarov** (Chemistry) presented the workshop "Using Virtual Reality (VR) in the Science Classroom" at the Technology Education Seminar and Showcase (TESS 2023) meeting organized by eCampusOntario.

**Paul Skoufranis** (Mathematics & Statistics) and other international researchers organized the Workshop on Free Probability held at the Fields Institute from November 13-17 as part of the ongoing Thematic Program on Operator Algebras and Applications.

**Woldegebriel Assefa Woldegerima** (Mathematics & Statistics) was an invited lecturer for a remote graduate course on mathematical modelling and applications using Python at the African institute for Mathematical Sciences (AIMS) centred in Cameroon, Africa. AIMS is a pan-African network of centres of excellence enabling Africa's talented students to become innovators driving the continent's scientific, educational and economic self-sufficiency. It accepts students from all African countries and is a boarding school where students live, learn, study, accommodate, and feed inside the institution's building.

**Jihyeon Jessie Yang** (Mathematics & Statistics) presented "How to Why" on November 21 to a grade 8 gifted class at St. Andrew in the Halton Catholic District Board, as part of the Field's Institute Ask a Mathematician program.

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## RESEARCH HIGHLIGHTS

**Amenda Chow** (Mathematics & Statistics), Kirsten Morris, and former undergraduate student **Gina Faraj Rabbah** published [Hysteresis and Stability](#) in *SIAM Review*.

Former PhD student **Jennifer Porat**, former PhD student **Ana Vakiloroyaei**, MSc student **Brittney M. Remnant**, undergraduate student **Mohammadaref Talebi**, undergraduate student **Taylor Cargill**, and **Mark A. Bayfield** (Biology) published [Crosstalk between the tRNA methyltransferase Trm1 and RNA chaperone La influences eukaryotic tRNA maturation](#) in the *Journal of Biological Chemistry*.

International Visiting Research Trainee **Li Hou**, Baisuo Jin, and **Yuehua Wu** (Mathematics & Statistics) published [Estimation and variable selection for high-dimensional spatial dynamic panel data models](#) in the *Journal of Econometrics*.

Colleen J. Gillon, Postdoctoral Visitor **Jason E. Pina**, Jérôme Lecoq, Ruweida Ahmed, Yazan N. Billeh, Shiella Caldejon, Peter A. Groblewski, **MSc Student** Timothy M. Henley, India Kato, Eric Lee, Jennifer Luviano, Kyla Mace, Chelsea Nayan, Thuyanh V. Nguyen, Kat North, Jed Perkins, Sam Seid, Matthew T. Valley, Ali Williford, Yoshua Bengio, Timothy P. Lillicrap, Blake A. Richards, and **Joel Zylberberg** (Physics & Astronomy) published [Responses to pattern-violating visual stimuli evolve differently over days in somata and distal apical dendrites](#) in the *Journal of Neuroscience*. [READ THE MEDIA RELEASE FROM YORK UNIVERSITY.](#)

The ATLAS collaboration, including **Wendy Taylor** and former PhD students **Ana Maria Rodriguez Vera** and **Wen-Yi Song** (Physics & Astronomy) published [Search for magnetic monopoles and stable particles with high electric charges in  \$\sqrt{s}=13\$  TeV  \$pp\$  collisions with the ATLAS detector](#) in the *Journal of High Energy Physics*. Rodriguez Vera also created an [outreach video](#) to explain the results from the experiment.

**\*For a full list of publications from the Faculty of Science, see our [website](#).\***

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## MEDIA

Professor Emeritus **Paul Delaney** (Physics & Astronomy) spoke to *CTV News* and *NewsTalk 1010* about an Aurora display, an expected increase in satellite launches, the Starship second launch, and a newly discovered solar system with six planets.

**Jane Heffernan** (Mathematics & Statistics) spoke to [Global News](#) about COVID immunity and vaccination.

**Elaina Hyde** (Physics & Astronomy) was interviewed by [CityNews](#) about the Leonids meteor shower.

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## EVENTS

**Jan 22:** York Science Social, 2-4pm in Lumbers Lunchroom (305). [Please RSVP by Jan 14.](#)

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# INTERNATIONAL PARTNER INSTITUTION PROFILE

The Faculty of Science has established multiple partnerships with various international institutions. In order to better inform the York Science community of these international partner institutions, we will provide a brief profile of each of them in our Dean's Round-up.



## Faculty of Medicine SRINAKHARINWIROT UNIVERSITY

### **Srinakharinwirot University – Faculty of Medicine**

Srinakharinwirot University (SWU) is one of the leading autonomous universities in Thailand, under the supervision of the Ministry of Higher Education, Science, Research and Innovation. SWU has 29,000 students and 1,900 academic staff, and it currently offers Bachelor's, Master's, and Doctoral degrees in more than 190 programs in 17 faculties, four colleges and one institute.

The [Faculty of Medicine](#) was founded in 1985, making it the eighth oldest medical school in Thailand. The school has two campuses: Prasarnmit Campus in Watthana, Bangkok, and Ongkharak Campus in Ongkharak District, Nakhon Nayok Province. The Faculty has a total of 20 departments, with five preclinical departments and 15 clinical departments. In collaboration with the Faculty of Medicine and Health Sciences, The University of Nottingham (United Kingdom), the SWU Faculty of Medicine established the only Joint Medical Program in Thailand, in which students initially complete a 3-year basic medical sciences (B.Med.Sci) degree at the University of Nottingham and then join a 3-year clinical study at SWU to complete their Doctor of Medicine (M.D.) degree.