

*York University, Allan I Carswell Observatory, Toronto ON*

# **2024 Astronomy Review**

January 2024 - December 2024

## **Featuring: 2024 Ontario Total Eclipse!**



### **Research, Outreach, and Students: working together! A letter from the director:**

This year among funding challenges and high-octane eclipse chases it is worth remembering that Astronomy works best when we work together. Our observatory crew of students, volunteers, work study and high-school make it possible for us to run an amazing amount of both research and outreach.

This year has been a banner year for events at the Allan I Carswell Observatory (AICO)! With the many eclipse events as well as a continuation of our usual activities we have never been busier. This document will provide highlights followed by a detailed summary of outreach at the observatory in 2024.

Please note that events included in the summary at the end are in addition to our weekly astronomy outreach shows for Monday night York Universe radio podcast (now downloadable at all major podcast distributors), Monday night online public viewing (OPV), Wednesday night TeleTube, and school tours. For lists of our regular occurring weekly events see the archive episodes in the highlights section (starred list).

#### **A few highlights from 2023:**

- 2023 in review: [2023 Newsletter.pdf](#)

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A few highlights from outreach in 2024 include:

- ★ YouTube Informational Astronomy channel = 2503 subscribers, approximately 620 views/month
- ★ 20 new YouTube Teletube Astronomy outreach broadcasts:  
<https://youtube.com/playlist?list=PLOG2xolgDEDhPQWznHrdouuMR31cBe3BU>
- ★ 48 new online public viewing (OPV) YouTube Astronomy outreach broadcasts:  
[https://youtube.com/playlist?list=PLOG2xolgDEDj4ZS0rXCAr\\_QdfRaXq8gwU](https://youtube.com/playlist?list=PLOG2xolgDEDj4ZS0rXCAr_QdfRaXq8gwU)
- ★ 39 new York Universe radio show broadcasts (now as podcasts)! This program, and our podcast delivery, is supported by thanks to donations from Julie Tomé of Space Place Canada:  
<https://www.yorku.ca/science/observatory/outreach/>
- ★ Pixelfed @AllanICarswellObservatory = 100 followers
- ★ Facebook Allan I Carswell observatory = 1302 followers, average engagement = 1950 impressions per 28 day period or approximately 22800 impressions per year
- ★ Instagram @yorkuobservatory = 989 followers
- ★ 8 new local high school tours (average 50 students per group) - [note: this is down from last year due to a lack of funds, not demand]
- ★ 22 new public viewing astronomy evenings (average 100 persons per session)
- ★ 6 new grade-school and high-school tour groups (average 60 students per group)- [note: this is down from last year due to a lack of funds, not demand]
- ★ 2022-current: A new observatory online store and YorkU Bookstore sales to provide enhanced access to observatory educational materials and promote outreach (see updated item announcements below)
- ★ Special events: Astronomer in Residence Program continued to 2024- note: resources created for this program includes a full website hosting as well as a dedicated Killarney Parks Astronomy shows playlist, instructional videos and more, all hosted on our permanent site with featured blogs here: <https://www.yorku.ca/science/observatory/air/>
- ★ Special events: Multiple Solar Eclipse events (over 800 participants), Halloween, student research at CASCA 2024 and more!
- ★ Special Fundraiser drive - keep outreach going at AICO!

We are looking forward to more events, excitement and research in the new year but in this document you will find a summary of some of the most successful activities over our past year.

A special thanks to the Allan I Carswell foundation for providing funding to the observatory in 2024. I would also like to specially thank the Science Dean's office for allowing the observatory reimbursement for the remaining work study contingent in 2024. As our fundraising drive this year went into the new year the final amount raised will be included in the 2025 report.

With the work of so many wonderful students and volunteers, I do want to especially thank our Observatory crew who have made all of our programs not just possible, but a real joy to run!

All this of course, just goes to show, telescopes do make the best spaceships.

Clear Skies,  
Dr. Elaina A. Hyde  
Associate Prof., York University  
Director, Allan I Carswell Observatory

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### During the year 2024, the following students, volunteers and staff were observatory members:

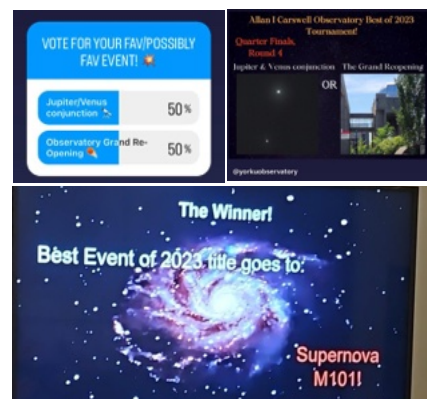
Emanuele Mendicelli, William Pauls, Victoria VanDyk, Ushieja De Zoysa, Swati Dhakal, Sunna Withers, Sorena, Shannon Fernando, Shai, Roshan, Rafia Madni, Quinton Weyrich, Pruthvi, Paul A. Delaney, Palvisha Sharma, Noa, Nicole Light, Neil McCall, Matt Walker, Kshitij Govil, Kitsa Statti, Kevin Delany, Jupiter Jones, Katherine, Kat, John Moores, Johannes Innawan, Jesse Rogerson, Jen Mehrnough Zomederis, Jared Carlson, James Pascutto, Gianluigi Zito, Gaganpreet Sidhu, Frank Chen, Elham, Elaina Hyde, Davina, Connor Mooney, Charissa Campbell, Ben Mend, Azeem Naveed, Atifa Syed, Aria, Antonthas Jeevitha, Anna Skrinnik, Anita Nasiri, Amin Jafarov, Abteen Sanaee, Kat Benevides, Shannon Fernando, Tarnjot Bajwa, Maykel Faragalla, Stanley Liu, Obada Wazwaz, Matias Quirola, Matteo Statti, Arfa Ali, Maheen Hemani, Kasra Fard, Laura Eliza Monroy, Christina Nguyen, Caleb Hopkins, Vithurshan Suthakar, Mani Mehdipoor, Sergiy Kernytsky, Elora Nabon, Sherry, Dhyan Thakkar, Nathan Minuk, Conor Hayes, Toby Avila, Dorsa Ahmadi, Rafia, Rosayla Coulthard, Halima Mohamud, Yalda Radan, Nakul Ramjee, Khushi Vyas, Nicholas Wu, Thomas Yang, Tina Mojirleilani, Pouria Azimi, Camila Guzman, Zena Khadour, Rosalyn Chan Yoke Ling, Marianna Veltri, Martin Memo, Brock Koch Nichol, Karan Alavi Harati, Wayne, Annie Ghimire, Bradley Neville, Tara Jami Rizehgi, Prameet Guha, Lauren Morley, Seyed Masoumi Lari, Melissa Corvelo, Zeinab Imani, Akshat Aggarwal, Jatin Dhirani, Fatima Hyder, Max Qui, Hector Jimenez Sanabia, Paul Mackin, Noor Oada, Danial Esmaeli, Jesse Sharer, Joe Triumba, Dev Bhaskar, Maxim Buyevich, Cassia Bond, Isabela Jones, Jarmin Wang, Denelle O'Neil, Boris Ciric, Aiden Weatherbee, Saranya Sivaneshon, Zachary Sharp, Sanvi Kainth, prof. Alireza Rafiee, prof. Robin L. Metcalfe, Darius Andrews, Esther, Rojean Noorinayer, Ali Kamran, Krrish, Momo Das, Shaheer Sadiq, Alex Jude, Veneer Neerajan, Jayant, Anidya Tiwari, Iltebir Danwar, Swapna Shrivastava, Nicole Kubicki, Alan Kaitukov, Charles Yung, Alex Kauffman, Arthanas, prof. Mary-Helen Armour, Arudhra, prof. Jeremy Webb, Isabella Rivera, Shane Ackerley

## Major Activities in January 2024-December 2024:

**2024-01-19 Kimel Center Collaboration:** Our collaboration has officially started, we will be doing a set of tours this year with The Kimel Family Centre for Brain Health & Wellness center. Assisting them with their programming for brain engagement (in particular for Alzheimer's and dementia patients), and of course providing astronomy tours online so that all participants can attend. This program was in high demand and had excellent reviews, unfortunately it could not be extended for the winter months due to lack of observatory funding in 2024. The tours offered by AICO to the Kimel Center this year were:

- Jan 19 1-2pm, Topic, The Allan I Carswell Observatory
- Feb 16 1-2pm, Topic, Observing at Night, tips and tricks
- March 15 1-2pm, Topic, The Upcoming Ontario Solar Eclipse of 2024
- April 19 1-2pm, Topic, Beyond our Galaxy (a view of the Universe)

**2024-01-26 Best of 2023:** An elimination round contest, a first for the Allan I Carswell Observatory, run on social media over the course of several weeks the public voted on quarter finals, semi finals and then the finals to select the overall 'favourite event'. This event was a great deal of fun for our crew members and the public alike. In addition to serving as an advertisement for our outreach, astrophotography and other endeavours over 2023 it also brought in extra interest from students and members of the public. After this event, we saw an

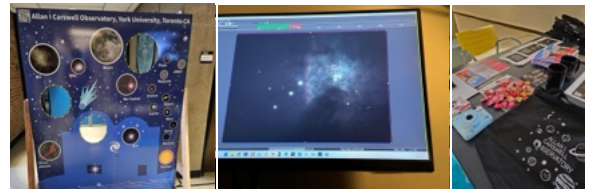


uptick of about 10% in our free Wednesday night tours, which is especially impressive in January when the weather is so poor. [image credits: E.A Hyde, AICO, 2024]

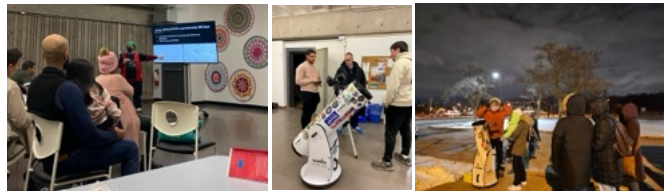
**2024-02-10 New Observatory Tote Bags:** After years of work and negotiation we are very excited to be able to bring the very latest in Observatory book carrying technology. These canvas zippable totes were designed to help our observatory storefront attract more business from students and members of the public alike. The profit margin is small, but every bit earned goes to support our tours for the general public as well as our free high school and grade school tour groups. [image credits: E.A. Hyde, AICO, 2024]



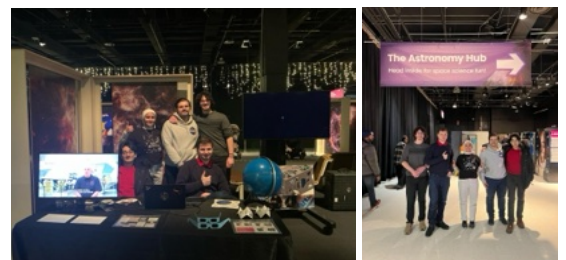
**2024-02-14 A new Valentines Tour:** Clear skies on Feb 14 made for unusually good in person views for our special Valentines day Observatory event. The museum area was decorated and we featured heart shaped objects from around the universe using our observatory screens. The observatory Carnival Cutout was put to good use by many of the couples, and also the kids, who visited this special event. To allow for higher attendance rates we ran this tour event for 3 hours instead of the usual 2. [image credits: E. A. Hyde, AICO, 2024]



**2024-02-17 Downsview Park Stargazing:** just 2 subway stops down from York, the icy February weather was not enough to keep our astronomers away from their telescopes! We had a large crew from the Allan I Carswell Observatory travel down to Downsview Park (just one subway stop away!) and set up at the Visitors center there. The public talk portion of the event discussed what 'heart shaped' objects are up in the sky, and which were visible. Our Downsview Park partners allow us to get the outreach into the community directly through the use of our smaller telescopes and their visitors area. The description for this event can be found at: <https://downsviewpark.ca/events/astronomy-all> [image credits: Daniel Esmaeli, Matteo Statti, E.A. Hyde, AICO, 2024]



**2024-02-19 Ontario Science Center Family Day Weekend:** This collaboration between the Allan I Carswell Observatory, the York Astronomy Club and the Ontario Science center saw several undergraduate students form a 'consortium' of astronomy outreach and travel down to the Science center for their Family Day event. Specifically we went to assist with the 'Astronomy Hub' area.. Science communication out in the community! We hope to be able to hold more collaborative events with the science center in the future. The event description and website can be found here:



<https://www.familyfunCanada.com/toronto/ontario-science-centre-family-day-membership/> [image credits: Regina Lee, AICO, OSC, 2024]

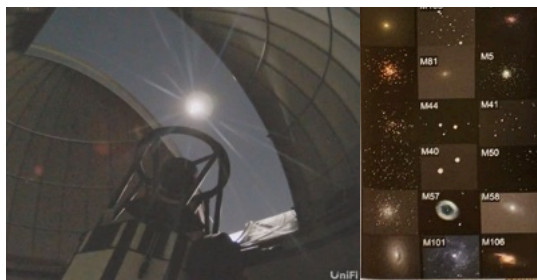


**2024-03-09 Downsview Park Astronomy Day:** This

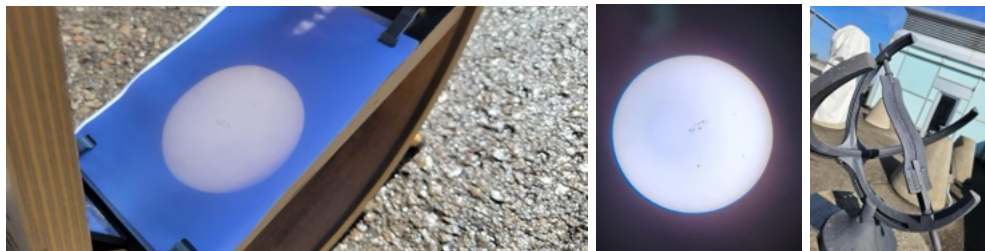
event was inspired by the upcoming total solar eclipse that was due to travel through Ontario in April 2024 as well as the disappearing rings of Saturn! Are the rings really gone? We also used our public talk to cover which objects are visible this week and some education about safe solar viewing and our Sun. This event was so popular a few members of the Canadian media stopped by for a quick interview during the activities portion. Unfortunately it was quite cloudy so we did not get to use the park's outdoor patio with our small telescopes for solar viewing but it was a great success nonetheless.



**2024-03-10 through 2024-04-08 Messier Marathon:** This observational campaign was spearheaded by observatory members Sunna Withers and Nakul Ramjee. They collected as many Messier objects as the Toronto weather (and other observing) would allow, primarily using the robotic capabilities of the 1m telescope and utilizing both our primary astrophotography CCD as well as our Malincam instrument to produce both informative and scientific imaging. This imaging campaign was assisted by many observatory members and allowed for quite a few of York's undergraduate students to get direct experience with the 1m telescope and astrophotography. The full results from imaging and image processing were presented as an observatory student paper at CASCA 2024 (discussed below in this newsletter). [image credit: Sunna Withers, Nakul Ramjee, AICO 2024]



**2024-03-23 Eclipse Education Day:** As Ontario 'Eclipse Fever' grows this year, so too do our efforts to inform the public about solar safety and how to observe the April eclipse in particular. The solar education event at York AICO featured solar observing, a walkthrough of the solar system and eclipse information. This event was at York campus 12 noon - 2 pm March 23. We set up views through our smaller telescopes atop the Arboretum Parking Garage at York Keele Campus, the best place for solar viewing! Our crew was assisted by helpers from 'Space Place Canada' for this event and Space Place member Kirsten Vanstone brought a very intriguing solar projector (on the left, below). We also made sure to showcase our Shmoyer Sundial (Suquist design) as this may be similar to the larger version expected in 2025 or 2026. [image credit: Kirsten Vanstone, E.A. Hyde, AICO, 2024]



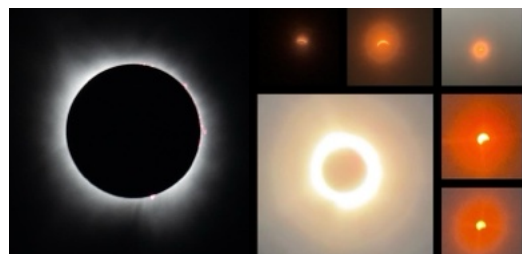
**2024-04-02 through 2024-04-06 First Clear Day Solar Observing:** As might be expected, the FIRST clear day was a challenging event.

Due to a cloudy week we had no-go calls until a successful day on April 6th! This event was held in the sun specifically to make sure that everyone who was interested would get a good amount of experience using safe solar viewing techniques

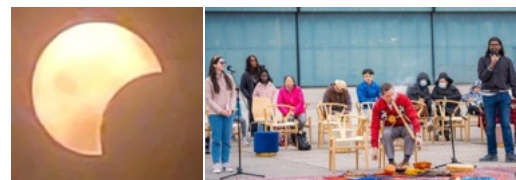


like pinhole cameras or safety-rated solar viewing glasses. Special thanks to the YorkU Science office for assisting us in purchasing 6000 solar viewing glasses to give away to the public during this event, and of course during the eclipse itself. [image credit: AICO, E.A. Hyde, 2024]

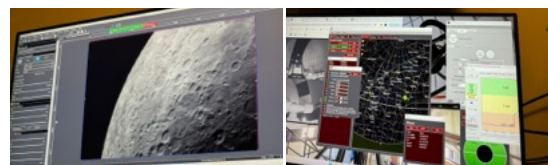
**2024-04-08 The April 8 Total Solar Eclipse:** The big day finally arrived and our observatory crew was full speed ahead. We had team members travelling to all corners of Ontario to get into totality as well as a special on-campus event hosted by prof. Paul Delaney. The lead up to the event was also quite a celebration and the entire month of May was taken up by mostly eclipse activities. The eclipse journey included YouTube broadcasts, in person tours (like the aforementioned first clear day), and day-of-eclipse viewing both remotely and on YorkU campus. The eclipse information page featuring resources, videos, and documentation, can be found here: <https://www.yorku.ca/science/observatory/solar-eclipse-2024/>



Several observatory members and YorkU undergrads were invited to locations across Ontario to speak and assist during this event. Since the AICO was part of the Ontario Eclipse Committee the planning was a huge effort that paid off in a big way. It is hard to estimate exactly how many members of the public were involved in this event, but at YorkU campus the observatory hosted over 450 people despite NOT being in the area of totality. [image credit: Paul Delaney, Paul Mackin, Arfa Ali, Nakul Sethuram, AICO, 2024]



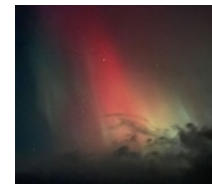
**2024-05-25 700+ Doors Open Toronto:** This event saw **over 800 visitors at the Allan I Carswell Observatory during the course of a single day!** Our crew was incredibly busy from 10am - 5:30pm and one of our best attended events of the year. In fact it was so busy, we almost missed getting pictures. This event was crewed by observatory members as well as York Undergraduate students. Visitors were able to experience the telescopes as well as participate in the observatory treasure hunt, photo booth, astronomy passport and other science outreach oriented aspects of the AICO. [image credit: E.A. Hyde, AICO, 2024]



**2024-06-05 to 2024-10-12 Astronomer in Residence:** The return of our incredibly successful Astronomer in Residence program run by the AICO and Killarney Provincial Park saw hundreds of

members of the public entertained by astronomers from across Canada during the summer months. A few live-streaming events even made it onto our YouTube channel. This program runs with the support of the Friends of Killarney Park and 2024 is the 3rd year that it has run. At the end of 2024 the blog was moved to the archive located on our public website here:

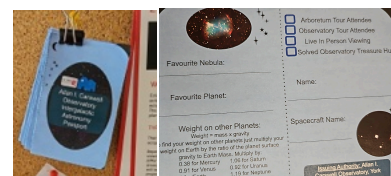
<https://www.yorku.ca/science/observatory/2024-astronomer-in-residence-blog/> [image credit: Veronica Dornan, AICO, KPPO, 2024]



**2024-06-05 to 2024-06-06 AICO at CASCA:** This year several observatory students (and our director) presented two poster publications at the Canadian Astronomical Society (CASCA). These publications highlighted our outreach and astrophotography and both contained multiple student co-authors. Since this conference was nearby (held at the Sheraton in downtown Toronto) an unprecedented number of York undergraduates were able to attend to present their work and to go to talks. The CASCA conference is the largest Canadian astronomy gathering of the year and always in high demand. [image credit: Sunna Withers, Nakul Ramjee, Matteo Statti, Pouria Azimi, E.A. Hyde, AICO, 2024]

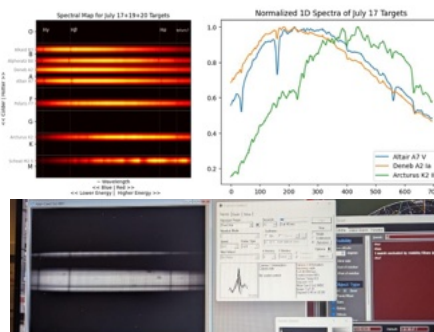


**2024-06-11 An Astronomy Passport:** The observatory is always in search of new methods of engagement for our public outreach. These free printable giveaways were designed by our director and encourage participation in our weekly tour events. The new astro passports include goals for attending both our atrium and observatory style tours as well as science information. [image credit: E.A. Hyde, AICO, 2024]



### 2024-07-18 to 2024-07-22 Spectrograph first light processing:

The Allan I Carswell Observatory now has a working spectrograph! This LHiResIII type spectrograph will allow us to increase the science and education goals. This project is undertaken by graduate student Cassia Bond who is jointly supervised by dr. Elaina Hyde and dr. Regina Lee. The spectrograph project has been a long time in progress due to many issues with the equipment (malfunctioning) and our previously held imaging ccd being found to be too high noise for use in the system. This initial set of spectra was done to show the proof of concept for several bright stars (Altair is shown on the live capture screen on the bottom image).



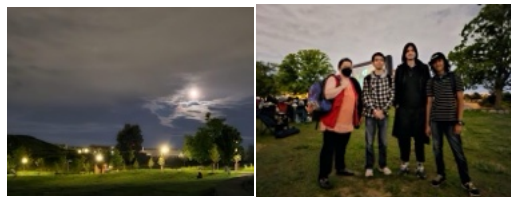
**2024-07-28 to 2024-09-13 Saturn Ring plane crossing:** The typical picture most people have of our planet Saturn is the image we captured with the 1m at first light (on the left) during 2019. However, the razor thin appearance of Saturn's rings now is no accident. This time of year we can enjoy a very thin profile indeed thanks to the angle between Saturn and Earth. As this orientation is particularly good for finding new moons, Saturn was imaged several times by our observatory crew to get the thinnest possible profile (weather allowing). [image credit: Sunna Withers, Zach Sharp, AICO, 2024]



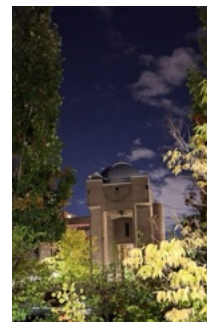


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**2024-08-20 Downsview Park Local Astronomy Event Collaboration:** Our observatory director Dr. Hyde led the astronomy outreach event which took place at the Downsview Park August 20th movie night. After the show, hundreds of locals enjoyed Allan I Carswell observatory stargazing and starhopping. Starting with a short 10m presentation on 'Whats Up in the Sky' the screen was then turned off and with our observatory volunteers several telescopes, binoculars, and monoculars were pointed at the Moon, Saturn, and other celestial objects. 200 astronomy flyers from the observatory were handed out and we didn't even have enough for everyone! For more on this event, see: <https://downsviewpark.ca/events/movies-under-stars-0> [image credit: Boris Ciric, Hector Jimenez-Sanabia, Dev Bhaskar, E.A. Hyde, AICO, 2024]



**2024-08-27 RASCTO Collaboration with AICO begins:** The Royal Astronomical Society of Canada (RASC) has chapters across the country. The local Toronto chapter (RASCTO) has officially started an exciting collaboration with our very own AICO for Recreational Astronomy nights on the first Wednesday of every month. The launch of the cooperation was the 27th and our first official astronomy night was Sep4, 2024. The astronomy nights are held within the Petrie science and engineering building, just steps from the observatory main entrance. This means that we can easily open up for a double feature of talks and astronomy on each first Wednesday of the month. The open domes of the observatory at York University are a sure sign that astronomy awaits within! The announcement on the RASCTO page can be found here: <http://rascto.ca/news/we-have-found-new-home> and the first official night is found here: <https://rascto.ca/events/recreational-astronomy-night-september-4-2024> . We are looking forward to many collaborative events going into the new year! [image credit: Sunna Withers, AICO, 2024]



**2024-08-28: Orientation at the Observatory:** This year Bethune College collaborated with the Allan I Carswell Observatory for a special orientation event for incoming students on August 28th. 63 new incoming York Students participated in this special observatory tour covering both domes and including the AICO patented astronomy treasure hunt as well as some demonstrations and an observatory museum tour. We hope to repeat this showcase of our amazing undergraduate student resource next year as well.

**2024-09-04 York Universe Podcast Launch:** The York Universe broadcast at AICO has been a regular occurrence since 2009. In that time we have been a radio show, a YouTube broadcast and a constant source of astronomy education for the public. The full archive, including past episodes can be found here: <https://www.yorku.ca/science/observatory/outreach/> . The new podcast format will allow us to reach out to larger audiences now that our previous distributor ([astronomy.fm](http://astronomy.fm)) has gone off of the air. The new broadcast by itself can be found on Spotify, Apple Podcasts and more. The direct link to the podcast site is here: <https://sites.libsyn.com/546647> . This year's podcast was made possible by a generous donation from York Universe host Julie Tomé.

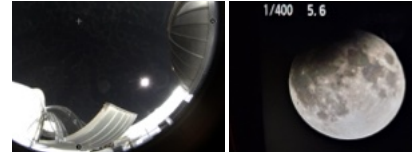
**2024-09-10 to 2024-10-10 Moon and Sun Observing for NATS:** The Natural Sciences department often utilizes the observatory for its undergraduate courses. This year, we showcased both sun and moon



viewing for assigned projects with the 40cm atop the atrium parking garage for the students of prof. Paul Delaney. The 40cm telescope is still one of our most popular imagers for NATS classes, despite being the smallest of our 3 main telescopes. [image credits Boris Ciric, Zach sharp (40cm), AICO, 2024]



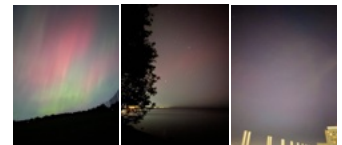
**2024-09-17 Partial Lunar Eclipse:** This eclipse was the partner to the solar eclipse that occurred earlier this year and was captured at AICO by several of our student observers. The wide field of the moon is best seen without a telescope so while we did get a view from our all-sky camera the best picture of the night was taken outside the domes by the camera of grad student Sunna Withers. The Penumbral eclipse began at 8:41pm transitioning to a partial eclipse at 10:12pm with the maximum happening at 10:44pm. At maximum, this notable eclipse makes the moon look like it looks like a ‘bite’ has been taken out of it. [Image credit Sunna Withers, Elaina Hyde, AICO 2024]]



**2024-09-27 An Observatory Masters Thesis:** The defense for our latest masters student took place today. Newly minted Master of Astronomy and Physics, Anna Skrinnik, presented her work on our QUAIL instrument. This wide field narrow band imager is mounted atop the AICO 60cm telescope and allows for high quality research imaging to be taken from the relatively poor sky quality at York University. The thesis committee approved our student and this instrumentation based project will be a permanent boon to Galactic Archaeology research here. [image credit: Anna Skrinnik, E.A. Hyde, AICO, 2024]



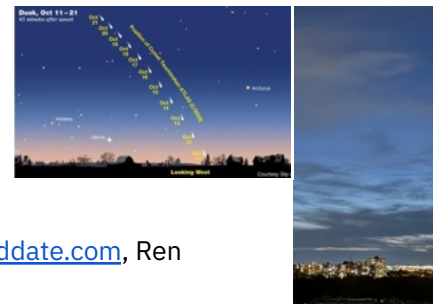
**2024-10-10 An Aurora Special Event:** Due to extremely high activity on our Sun, we were presented with a chance to view aurora despite our location in Toronto. We will likely not see such a good example of aurora in the next 11 years so many observatory members captured images in and near York University to celebrate. [image credit: Maheen Hemani, Nakul Sethuram, Alireza Rafiee, 2024]



**2024-10-11 to 2024-10-16 A3 Comet Approaches:** The Comet A3 was a spectacular event enjoyed across the world. The observatory performed outreach and imaging events to share the excitement with the public. On the 11th the Observatory started our observing campaign. The sky map and image shown are from York campus observing. The large field of view makes it even more spectacular. Comet A3 views were also caught during our live tour on Oct 16, the Youtube mini stream is here:

<https://www.youtube.com/live/4gyuf9Dvv60?si=FbPOHwFJ0uaGEtcV> .

Now the 5.5 year wait begins as the comet travels to Mars and back around to Earth for a gravitational slingshot. [image credit: Nakul, [timeanddate.com](https://timeanddate.com), Ren Morely, AICO, 2024]



**2024-10-16 Observatory Grad students (and AICO AIR) featured in Yfile:** The astronomer in residence program this year was a success on many levels, in addition to aurora and hundreds of visitors being entertained and educated on the dark sky preserve of Killarney Park, we also had a team of YorkU

graduate students who were approved as the first grad student-only team to be selected for the program. You can read their story here:

<https://www.yorku.ca/yfile/2024/10/16/york-students-shine-as-astronomers-in-residence/>

**2024-10-31 Spooky Stars Halloween:** This year to mark the spooky season we held a themed event at the observatory. A nice and haunted experience, student volunteers get advance selection on all candy giveaways and the public get a tour themed around 'spooky' or ghost-like stars. This included one of the observatory's primary research targets, the appropriately named YZ-BOO. It was a well attended event and saw around 200 members of the public despite the cloudy weather, including many families from the area. [image credit: E.A. Hyde, AICO, 2024]



**2024-11-19 Observatory fundraiser launched:** This year we are trying a fundraiser to try to bring in money for repairs and our workstudy student budget. Since we are operating at a deficit with our free Wednesday night tours we wanted to attempt a seasonal fundraiser with several events. Our first goal was to raise 5K for basic operations in Winter term 2025 (such as printing costs). The final amount will be announced in 2025 January (see next year's newsletter!) You can read all about the goals, YouTube broadcasts and more here:

<https://www.yorku.ca/science/observatory/nov-2024-jan-5-2025-fundraiser/>

Ongoing donations area and tracker can be seen here:

<https://www.yorku.ca/science/observatory/aico-fundraiser/> [image credit: E.A. Hyde, AICO, 2024]



**2024-11-21 Observatory student Camila Guzman wins Charlene Anne Heisler Prize:** At York, the Charlene Anne Heisler prize usually goes to an undergraduate who has shown a dedicated 'interest in communicating science'. Since all of the observatory team at York is involved in our education and outreach efforts this award in particular has been traditionally dominated by observatory work-study students and volunteers. This year the prize was won by previous observatory student coordinator and current observatory undergraduate volunteer Camila Guzman. Past winners can all be seen here: <https://www.yorku.ca/science/physics/undergraduate/undergraduate-accolades/past-honourees/#heisler>

**2024-11-26 New Observatory Calendars:** This year our observatory student crew released our new wall-calendar for sale for 2025. These calendars are traditionally 100% student created and feature astrophotography and events from the last year. In this case you can tell from the cover that the total Solar Eclipse was one of the main new features. By having our calendars for sale at the York bookstore before the holiday season we can do a little extra fundraising (in addition to the campaign mentioned above). [image credit: E.A. Hyde, AICO, 2024]



**2024-11-29 Special Fundraiser broadcast:** This special broadcast featured guest speakers Arnold Brody from RASC Toronto Center and Swapna Shrivastava from RASC Mississauga Center as well as a special 'astronomy news' section from our observatory crew. This was one of the events mentioned in the fundraiser effort above that went through the end of 2024. As a bonus feature there are astronomy/space riddles throughout. The presentation was run by observatory members Maheen

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Hemani, Dev Bhaskar, and Hector Jimenez Sanabia as well as Dr. Hyde. This education episode can be played in full from our YouTube recording here:

[https://www.youtube.com/live/POV6V61S9ms?si=q\\_K-vj33W6zniKEx](https://www.youtube.com/live/POV6V61S9ms?si=q_K-vj33W6zniKEx)

**2024-12-11 11 RASC Mississauga Special Event tour:** For our last observatory tour of the year at AICO, a joint event with RASC Mississauga. This collaboration saw around 40 members of the Royal Astronomical Society of Canada (RASC) from the Mississauga chapter come up to the AICO observatory domes for a tour, treasure hunt, and educational experience. This tour also marked the appearance of our limited 'Spacelet, space bracelet' offerings at the AICO store. [image credit: Swapna Shrivastava, E.A. Hyde, AICO, 2024]



**2024-12-17 17 Observatory featured in Excalibur:** The student newsletter at YorkU is the Excalibur and this year a large contingent of YorkU student members came out to the observatory for a special tour. As a result, our amazing facility was featured in the student paper. The collaboration between the undergraduates running the observatory and the undergraduates running the newspaper led to a wonderful overlap in outreach, education, and science. The article can be found here:

<https://www.excal.on.ca/health/2024/12/11/york-home-to-largest-telescope-on-a-canadian-university-campus/>

**2024-12-18 A Second Online Fundraiser:** In addition to our media campaign on Facebook and Instagram and our in-person event, we hosted not one but two online fundraising efforts. This second online fundraiser featured games, 6 special guests, a peek behind the scenes at the observatory, raffle prizes, and astronomy conversations. A night of cosmic fun with special guests Dr. John Moores, Dr. Jesse Rogerson, Prof Paul Delaney, Executive Director Kirsten Vanstone, Dr. Mary-Helen Armour, and Museum Educator Julie Tome. Watchers can see what questions stump them and play along in this unique episode from the Allan I Carswell Observatory. The recording for this episode can be found on our YouTube channel here: [https://www.youtube.com/live/DM1SRXQsmqo?si=GTmS0Qi\\_JLLyH6wD](https://www.youtube.com/live/DM1SRXQsmqo?si=GTmS0Qi_JLLyH6wD)

**2024-12-19 A Holiday Observatory:** At the end of the term, a final set of holiday ornament decorations went up at the observatory, a new find from our observatory director this handy graphic will stay at the main entry just inside the observatory doors. The solar system objects remain on of the most popular imaging targets on public nights and this graphic allows our tour hosts to spend a little extra time educating our visitors on solar system fun facts and information. [image credit: E.A. Hyde, AICO, 2024]



**End of the year note -** Fundraiser goes over the holiday into January 2025. To see our final total raised in this event you can wait for the 2026 newsletter or just get the live update on our fundraiser website here: <https://www.yorku.ca/science/observatory/nov-2024-jan-5-2025-fundraiser/>