



41 YEARS!
1981-2022

RASC
SUDBURY
CENTRE

Up Above, The Heavens Await



RASC SUDBURY CENTRE ASTRO-NORTH | Tues June 13th, 2023

www.sudburyastronomyclub.com

Facebook: www.facebook.com/groups/RASCsudbury/



Meeting Agenda, 7:00PM

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1. Sudbury RASC President Address – Alan Ward
2. Sudbury Solar System Path - Norm Hey and Olathe Macintyre (40 min)
3. Break - (15min)
4. What's Up, Doc? Planet Parade/Conjunctions/etc.
5. Mystery of the Marsh Telescope - Matteo Statti
6. Astro-Jeopardy with Trevor Chandler (Time-Permitting)
7. Closing Comments/News/Open Forum/Starlight Lounge

**Hybrid Meeting!! . We hope that
you'll be able to join us in person
at the Science North Planetarium!**

Meeting Link: Please use this link if attending via Zoom. The link will be different every month!

<https://us02web.zoom.us/j/88920603114>

**Note about Parking at Science North if attending in person:
Stop at the booth, Press the Button, Take the Ticket. The gate lifts. Proceed,
and you will not be charged to get out. Your ticket will be exchanged for one
that is validated.**

This Month's Presentation:

**Matteo Statti - Mississauga,
Hamilton, Toronto RASC Centers**



Mystery of the Marsh Telescope

Matteo Statti is a 2nd Year Physics and Astronomy student with a passion for astronomy and telescopes. Matteo volunteers as an astrophysics research assistant for Vanderbilt University, Western University

and Sejong University in South Korea. He also volunteers for public astronomy nights at the David Dunlap Observatory, the Allan I. Carswell Observatory and sets up telescopes for the future RASC Telescope Museum. He plans to build his own telescope with the help of Alan Ward and is teaching himself deep sky astrophotography. He is a member of the Mississauga, Toronto and Hamilton RASC chapters.

- == Join us! == -

Tuesday June 13th @ 7PM

**A Hybrid Meeting on Zoom and at the Science
North Planetarium**

Next Month: No Meeting Until September

Editor's Voice

Another has season come and gone as we come to our season of camping and Star-Parties. We hope to see you at any of the star-parties on the list. Meetings will resume in September.

Please Note: Any submissions should be sent no later than two weeks before the meeting date.

- Patrick Dodson

Also note: Meetings are now on Tuesdays rather than Fridays!

Centre News

This Space reserved for news directly impacting the Sudbury Centre, whether it be membership renewal notices.

Important Meeting Day News

Important! After some consideration, starting in May, our meeting days will be changing to the second Tuesday of the month, rather than Fridays. Our hope is to better accomodate everybody and leave the Fridays free.

They will still be taking place at the Science North Planetarium, however we also have access to the Doran Planetarium, and we will hold meetings there when the purpose and situation demands it.

Community Contributions

M101

by Norm Hey



M101 is a large face-on spiral galaxy conveniently located only a hop, step and jump from Mizar, the middle star in the handle of the Big Dipper. Charles Messier added it to his list following its discovery by Pierre Mechain in March 1781. As a Magnitude

7.9

object--it should be easily seen in binoculars, yet it seems dim, except in long exposure images!

M101 is a reasonably near neighbour at "only" 25 million light years distance. Even at that enormous distance its light is spread over an area the size of the Full Moon. Estimated to contain about a trillion stars, it is similar in size to M31, but the great Andromeda galaxy is 10 times closer to us.

The image was created using a 5 inch f/6.5 refracting telescope and a monochrome camera. Using separate red, green and blue filters, as well as a clear filter, a total of 6 hours of exposures went into the final version. The active star forming areas of M101 glow in the light of excited hydrogen, and a separate narrow band pass filter specific to this hydrogen emission wavelength captured an additional two hours of data. When combined, the overall galaxy image shows the details of its overall structure, including dark dust lanes, its spiral arms and the pinkish glow of its stellar nurseries.

Space News: The Closest Black Hole in M4?



Globular Star Cluster M4 is a familiar sight at June Star Parties. Every photo and image showing Antares and its two "Guard Stars" also records the round glow of M4. It is also very easy to find with binoculars or any telescope, nestled as it is "between" Antares and its western guard star.

M4 is the closest Globular Star Cluster, at a distance of 6000 light years. In a CBC Radio interview with Quirks and Quarks host Bob McDonald, Astronomer Eduardo Vitral of Hubble Space Telescope Science Institute reported the probable discovery of a black hole in M4! The discovery involved 12 years of data

by Hubble, and by the Gaia Satellite.

This would be the Closest Black Hole, since the previous record holder was Sagittarius A*, 26,000 light years away in the centre of the Milky Way Galaxy.

The new black hole was revealed by the high velocities of stars orbiting the object in the dense central regions of the Cluster. Calculations showed a probable mass of 800 times that of the Sun. Astronomy can explain "stellar mass" black holes up to about 100 solar masses, and "super massive" black holes of millions of solar masses found in the centre of many galaxies, but intermediate-mass black holes (between 100 and 1 million solar masses) have been very difficult to find.

Astronomers hope to find more intermediate-mass black holes so that ideas about how they might form can be checked out. It may turn out that in very dense star clusters massive stars might merge in a sort of "chain reaction" to form intermediate-mass black holes. In the mean time, it might be interesting the next time you observe M4 to reflect that you are seeing the site of the nearest black hole (and that it is much too far away to be a threat!)

Linda Pulliah Star-Party and Outreach Corner

2023 Event Calendar

<u>STAR-PARTY</u>	<u>LOCATION</u>	<u>DATE</u>	<u>ORGANIZER</u>
Frozen Banana	Mew Lake, Algonquin Park	May 19-21	North Bay Astronomy Club
New Moon In June	Chapman's Field, South River*	June 15-18	North Bay Astronomy Club
Gateway to the Universe	Michelle and Dan's, Corbeil	July 13-16	North Bay Astronomy Club
New Galactic Gathering	To Be Announced	Aug 11-22	Jeffery Deans
August Star Party	Chapman's Field, South River	Aug 16-20	North Bay Astronomy Club
Half the Night	Halfway Lake P.P	Aug 24-27	RASC Sudbury
Last Chance	Restoule P.P	Sept 14-17	North Bay Astronomy Club
Stars Over Killarney	Killarney P.P	To Be Announced	RASC Sudbury / Ontario Parks

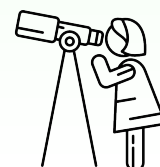
Contact Robert +Lil Chapman if wanting to attend NBAC events bobandlil14@gmail.com
 Contact Colin Durocher if wanting to attend Sudbury RASC events debcol2007@gmail.com

Updates

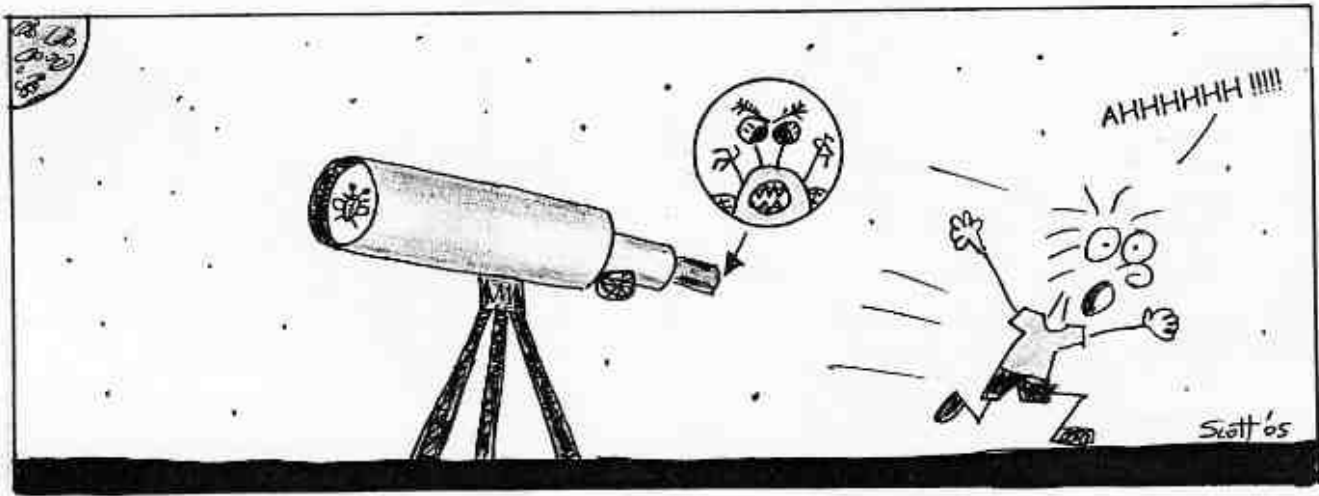
Currently the provincial parks are planning to provide public programs; we will be leading outreach events when in parks.

Due to restrictions in space, it is imperative folk contact the Chapman's or Colin Durocher above as indicated for certain events.

Science North encourages RASC-Sudbury members to participate in their virtual and on-site in-person astronomy events. Visit sciencenorth.ca/planetarium/#starparties for info on date and times.

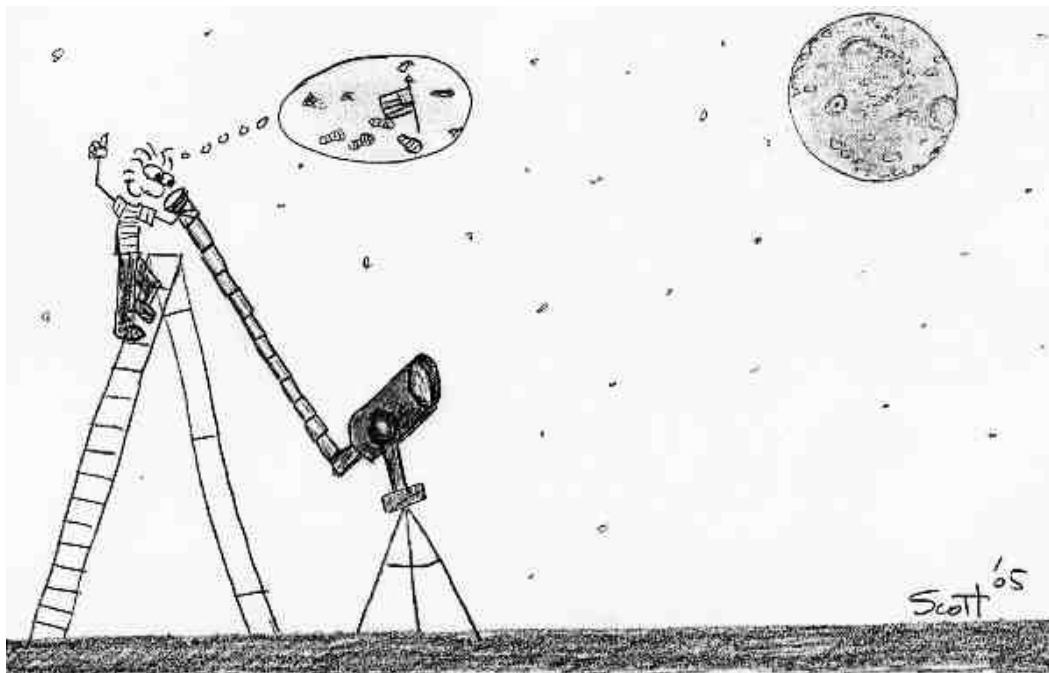


The Funny Page



JOHN JUST NEVER SEEMED THE SAME AFTER THAT NIGHT.....

Credit: Scottinash@CloudyNights



On that awesome night of very unusual seeing conditions, Allen stacked everything he had and openly claimed his spot in history....unfortunately, no one else was able to make it out to the observing field that night.....

Credit: Scottinash@CloudyNights

Did you know?

Space is only 100km away from the surface of the earth; if you drove the average highway speed straight up, you would arrive in less than an hour.

Looking Up!

By Stargazer Steve/Steve Dodson

June Skies

This Month, **Venus** and **Mars** have been "playing tag". At the beginning of June, **Mars** tracked across the face of the "**Beehive**" **Star Cluster (M44)**, and on June 12 it's the turn of **Venus** to appear very near the Cluster! (Use binoculars to overcome the "glare" of dazzling Venus). **Mars** and **Venus** will be at their closest in the last 10 days of June. On June 21, **Venus** will be at the lower vertex of a tight triangle completed by **Mars** to the upper left and the **Crescent Moon** to the upper right.

The Red Giant Star **Antares** appears low in the Southeast in late evening, after the glow of Sunset has finally disappeared. On June 30, the nearly-full Moon sits very close to the left of **Antares**, and the Summer Triangle, lead by the luminous **Vega**, is well up in the East. When it is finally fully dark on a moonless night, the Milky Way trace a glowing path through the Summer Triangle, and on to the horizons in the South and in the Northeast. Everywhere you aim a telescope in this glow you will see nebulae, clusters, and rich star fields!

On July 9, **Mars** and the Star **Regulus**, the luminary of **Leo the Zodiac Lion**, will appear only 2 moon diameters apart. Be sure to notice the colour contrast of this temporary "double star". Compared to reddish **Mars**, the Star is a cool shade of bluish white.

For more details, and reminders in the hours before Sky Events, check postings on www.sudburyastronomyclub.com Scroll down to see the tweets!



To see more, visit the club website or follow Steve on Twitter at **@StargazerSteveD** for daily updates.

This Issue is dedicated to a great and dear friend to many of us. Linda Pulliah touched us in many ways. It was through her passion and excitement for all of the things that she did, including Astronomy. She loved educating the public about the wonders of the night sky, and she did it with such passion and awe. She was the organizer of our many starparties, and her presence will be dearly missed. Thank you Linda for giving us so many great memories. You will forever be in our hearts. Whenever we look at the night sky, you will be in our thoughts.



Linda Pulliah 1956-2022

A Video that encapsulated the feeling she believed in when teaching others about Astronomy.

<https://www.youtube.com/watch?v=XCcrJ3NfIOpE>

A New Asteroid

Extra Extra, read all about it!! As mentioned, we have some very special news to announce. We have very special thanks to Peter Jedicke for making this happen. This just came in while the newsletter was being put together, and it deserves a page of its own!

Linda Pulliah now has an asteroid named after her!!

Details as follow:

(10493) Pulliah = 1986 QH2

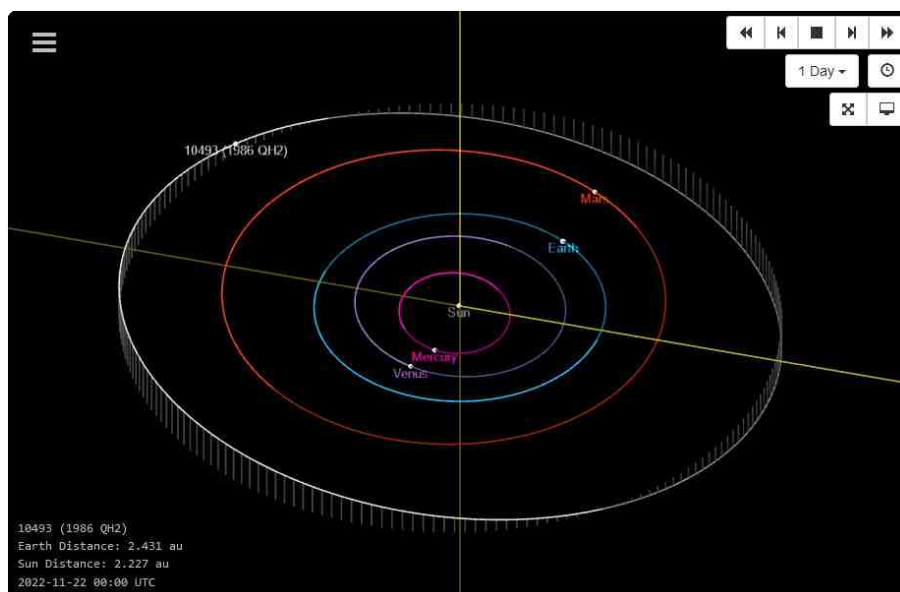
Discovery: 1986-08-28 / H. Debehogne / La Silla / 809

Linda (née Robins) Pulliah (1956–2022) worked as a nurse and was an outreach volunteer with the RASC Sudbury Centre. She created a sense of wonder under starry skies in Northern Ontario's parks for all ages and excelled in explaining complex science with analogies and engaging activities. She inspired colleagues locally and nationally to promote astronomy.

You can find this and others in November's International Astronomical Union's Bulletin below:
http://www.wgsbn-iau.org/files/Bulletins/V002/WGSBNBull_V002_015.pdf

This puts the count up to two from our closely knit group that have had asteroids named after them. In 2004, the IAU named an asteroid after longtime member, and current newsletter contributor, Steve Dodson. Asteroid 13822 Stevedodson is named after him.

Thank you again to Peter Jedicke. Linda is truly among the stars now!



RASC Sudbury Centre Executive



Alan Ward
President



Available Position
Vice-President



Colin Durocher
Outreach / Star Party
Coordinator



Norm Hey
Secretary



Monique Martel
Treasurer




Luc Comtois
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Patrick Dodson
Webmaster/Newsletter
Editor

Sponsors



 Please visit our friends of the North Bay Astronomy Club at <http://www.gatewaytotheuniverse.org/>

