



Charlotte Amateur Astronomers Club

www.charlotteastronomers.org

CAAC May 2022 Meeting

<p><u>Next Meeting:</u> Friday May 20th, 2022</p> <p><u>Time:</u> 7pm ET</p>	<p><u>Place:</u> <i>Myers Park Baptist Church Education Building – Shalom Hall (Basement) Or Virtual Meeting - From the comfort of your home</i></p> <p><u>Address:</u> 1900 Queens Road Charlotte, NC 28207 <i>Or Zoom web conference link (See newsletter info below)</i></p>
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The Leviathan of Parsonstown

William Parsons also known as Lord Rosse, was a wealthy and titled Englishman who was landlord of 130 persons. He represented Central Ireland in the House of Lords and lived in Birr Castle in Parsonstown, Ireland. He was an avid amateur astronomer with a very bad case of aperture fever, having built telescopes of 15, 24, and 36 inches. He was in command of scores of local Irish artisans and with them it was possible to produce the world's largest telescope just so he could view the "Faint Fuzzies" cataloged by Messier and the Herschels. Question of the day was, are these "Fuzzies" just unresolved star clusters or something new but not understood? A very large reflecting telescope might answer that question.

Speaker: Gayle Riggsbee

Gayle Riggsbee is a native of Charlotte and retired machine design engineer. He has been an avid amateur astronomer since joining the Charlotte Amateur Astronomers Club in 1960. He has served as President and Vice President of the Charlotte Club and for many years was the club's Observatory Director and telescope maker. Gayle founded the Southern Star Astronomical Convention, the popular annual astronomy lecture weekend at Wilderness Retreat in the North Carolina Mountains. He enjoys lecturing on the history of astronomy and has built telescopes ranging up to 24 inches in diameter. His telescopes have won national awards, including first place at Stellafane. The Charlotte club has honored Gayle with a lifetime membership and their club observatory is named after him.



CAAC Virtual Meeting Login Instructions

1. If you have not used Zoom before go to Zoom.com and download the Zoom program onto your computer.
2. **To Log In:**

Click on the meeting link below:

<https://us06web.zoom.us/j/82489334922?pwd=dWRsdDFkMjJOWFVNUFIIN1IFL1NoQT09>

If needed Meeting ID: **824 8933 4922**

Passcode: **893125**

This manual “log in” rather than invitation to everyone prevents all the emails showing up on the invite. This is a security issue for your privacy.

3. When on the Zoom screen to prevent chaos and overloading bandwidth:
 - a. Mute your microphone-icon lower left of screen
 - b. Mute Video icon on the lower left of screen.
 - c. You will be able to see and hear leaders of the meeting when they are speaking
4. If you wish to ask questions of the speaker after the main presentation:
 - a. Submit on the chat feature which is at the bottom of the screen. You will then type out your question and hit enter.
5. Excellent Zoom tutorials are available on You Tube:
 - a. <https://www.youtube.com/user/ZoomMeetings>

From the President:

Greetings Friends,

After nearly two years, we are returning to in-person meetings. Thank you all for your patience. As promised, we will also be live-streaming the events via Zoom and hope you will be able to join us in some capacity.

As a reminder, this month's meeting is the annual vote for the slate of officers and directors.

Below are the bios of the candidates the board is presenting as the 2022-2023 slate of officers and directors. Also per the constitution, nominations can be made at the time of the election.

Stay tuned for updates on our upcoming auction of donated equipment. We have quite the list to share with you.

As always, please reach out with your questions and be sure to use your GHRO facilities and participate in the scope-loaner program.

Respectfully,

Joel Levy
CAAC President

CAAC Slate of 2022 – 2023 Candidates:

President – Joel Levy

Joel was born and raised on Long Island, New York and was first introduced to North Carolina when his parents relocated to the Tar Heel state during his senior year of high school.

He joined CAAC more than 12 years ago with his wife, Monica, and formerly served as the Club's General Counsel. During his tenure, he has been a regular Club participant, helped out with community outreach events, and supported the Club through numerous financial capital campaigns.

Joel is a licensed attorney and professional money manager and resides with his family in Charlotte, NC. Joel and Monica are the proud parents of six children and are regular travelers to the GHRO observatory where they hold a private observatory.

His first astronomical memory was traveling to Florida as a child and seeing the fuzzy Orion Nebula unencumbered by the city lights. His current interests are largely scientific with a focus on the search for exoplanets, near-earth asteroids, and photometry.



Vice President – Benton Kessler

Retired.

Member of CAAC 10 years.

Past club Treasurer for 4 years.

Current Board member.

Interests are in observation, galaxies, clusters. Learning to do astrophotography with GHRO equipment and my own limited stuff. Became interested in astronomy when my uncle gave me a 3in reflector with solar filter when I was 11. Was able to observe the moon, Saturn, Jupiter and the Sun. Was hooked ever since.



Treasurer – Scott Goforth

Scott has been interested in astronomy since the first grade, and his first real telescope was an 8 inch dob at 13 years old. As a founding member of the Gaston amateur astronomers club as a child, his proudest achievement will always be star hopping his way to all 110 Messier objects before turning 16. With a degree in Economics, and decades of customer service management experience, most daylight hours are spent helping companies improve their business processes. Along with family, joys include moonless nights under the stars at GHRO chasing down the NGC Catalog.



Secretary – My Do (pronounced, Me Doe)

My Do has always been fascinated with astronomy and archaeoastronomy which stems from his studies and profession of architecture. He moved to Charlotte from Denver, CO in 2019 with Family and was gifted a membership to CAAC by his wife, Angela and daughter, Stella.

As Member at Large, he has volunteered at a couple of GHRO maintenance activities and participated with outreach events. His interests are traveling and exploring North Carolina with his Family, easier now that Covid restrictions are easing. Visual observing, tinkering and refurbishing classic telescopes, and collecting books to be read in retirement, some day.



Outreach Director – Ken Steiner

Ken Steiner, past President of Charlotte Amateur Astronomers Club, also served as CAAC Observatory Director for 7 years during the major expansion of the Gayle H. Riggsbee Observatory (GHRO).

He has served as Interim Executive Director of Pisgah Astronomical Research Institute (PARI), Brevard, NC. He presently is Consultant for Special Projects at PARI including Dark Sky Park Designation and upgrading of the controls of the 4, 12, and 26 meter dishes.

He arrived in the Charlotte area in 2001 as a Sales Engineer for Enprotech Technologies (Forging and Stamping Press rebuilding) covering the SE USA and Mexico. He has served on numerous national and international non-profit boards. Ken and his wife Deb have been active in the Charlotte Amateur Astronomers Club since their arrival in the Charlotte area.



Southern Star Chair – Jodie Funderburk

Freight Broker for D&L Transport past 4 years. Prior to that has worked as Executive Assistant for Director of Economic Development City of Rock Hill and for the EVP of Supply Chain at Medifast. Also Business Analyst for Pepsi-Cola and Miller Brewing corporate offices.

MBA from University of Baltimore. General interest in astronomy and Astrophotography.

Member of club for 5 years, night time resident of Howling Coyote Observatory at the GHRO - stop by and say hello!



Observatory Director – Jim Gaiser

Dr. Jim Gaiser earned his Bachelor's degree in Physics in 1976 and followed that with a Masters and PhD in Atomic physics from Auburn in 1981. After a stint as a physics Professor at East Carolina University in the 80's, where he taught both physics and astronomy, he transitioned into Medical Physics. He is currently a clinical medical physicist with Landauer Medical Physics. His lifelong interest in astronomy began when he looked up to see Echo I in 1961. His first telescope was a 75mm, f15 Unitron refractor which has just been refurbished by Tom Blevins...where his grandchildren will enjoy it. His astronomical interests include asteroid occultations and astrophotography.



At Large Member 1 – Phil Foust

I have had a lifelong interest in Astronomy since seeing the moon through Charlotte Kelly's telescope when I was about 7 or 8 years old. That image is still burned into my brain! Her volunteering as part of the CAAC made it possible. During high school, I worked for two years at the Charlotte Nature Museum Planetarium (now closed), and during college, I worked for three years at UNC's Morehead Planetarium.

I enjoy visual astronomy in all its forms: with binoculars, with telescopes, and with no optical aids whatsoever except a lawn chair whenever work and weather allow.



Since joining the CAAC in 1999, I have volunteered when possible to support club activities. More formally, I also served the CAAC as our President for 2 terms, as Vice President for two terms, as Secretary for two terms, and as Treasurer for three terms. I look forward to serving as an 'At Large' member of the board to help us continue to grow and evolve as a club.

At Large Member 2 – Vacant

Secretary's Report:

If you are a former CAAC member and have not been keeping up with your membership dues, firstly please come back! We'd love to reconnect you with the love of astronomy through our club, use of GHRO observatory, and the camaraderie of our members.

Please also remember to return your badges on the table near the exit at the end of the meeting before you leave! Doing this will significantly reduce the chances of badges getting lost and reduce the amount of time (and cost) of having to re-create your name tag if it is lost. Thank you!

Register with the **Night Sky Network!** It is imperative that all members of the CAAC join the Night Sky Network (NSN). Many of the clubs outreach activities are managed by the NSN, as well as club communications (newsletters, event notifications, general email). The NSN is a wonderful tool specifically designed for amateur astronomy clubs like ours. Membership allows you to contact other members via email, and receive last minute updates for outreach events via text message:

http://nightsky.jpl.nasa.gov/club-apply.cfm?Club_ID=1468&ApplicantType=Member Pre-Monthly

CAAC Treasurer's Report as of 4/30/2022

Operating Fund

Purpose: Enable the CAAC to pursue our non-profit goals, maintain our facilities, and run our programs.

*Funds are acquired through ongoing receipts of dues, fees, and annual Southern Star income (or expense).

*Funds are expended to meet operating obligations of the club.

1	Operating Fund Balance: 03/31/2022	\$10,576.28
2	Income: Dues and Fees Donation (for Stewardship Foundation) Expenses: X-fer to Stewardship Foundation GHRO Utilities (alarm, elec, internet) GHRO Facility GHRO Infrastructure Improvements Service fee to accept credit cards	 \$90.00 \$5,000.00 \$5,000.00 \$406.90 \$360.29 \$357.60 \$3.51
3	Operating Fund Balance: 04/30/2022	\$9,537.98

Non-Operating Funds

Purpose: Administer gifts and donations for designated use.

1	Non-Operating Fund Balance: 03/31/2022 Scholarship Fund CAAC Self Insurance Fund Contingency Fund GHRO Infrastructure Improvement	 \$1,489.36 \$20,000.00 \$7,365.09 \$4,499.54
2	Income: Interest	 \$0.27
3	Expenses or Transfers: GHRO Infr. Improv. Expenses	 \$0.00
4	Non-Operating Funds Balance: 04/30/2022 Scholarship Fund CAAC Self Insurance Fund Contingency Fund GHRO Infrastructure Improvement	 \$1,489.36 \$20,000.00 \$7,365.36 \$4,499.54

Scott Goforth
CAAC Treasurer

News from GHRO

1. There is no training session in May, the next one will be on June 18. Please contact Jim Gaiser at jegaiser@gmail.com to register.
2. The next star party is Saturday, May28 beginning at dusk...the start of the Memorial Day weekend. Finger crossed for clear skies.
3. The new telescope storage building, near the all members pad, is ready for use. The board has approved a fee of \$10/month for a 3'x3' spot inside, with a 6 month minimum commitment; there are 10 spots available. The building will be on the general alarm system by the end of the month and will have a surveillance camera mounted inside as well. Users are encouraged to have their contents insured, as CAAC will not be insuring the contents of the building. Please see Jim Gaiser or Rick Bassham if you have any questions.
4. We hope to have an ASCOM Observing Conditions compliant report available in the near future for all users. Our weather station does not produce an ASCOM compliant report, but several folks have written modules that accomplish this and put the report out every 2-5 minutes on a shared drive. Those astrophotographers who work remotely can use this report as a means to shut down their observatories in the event of a condition that warrants it. Stay tuned as we finalize the development.

GHRO Information

GHRO is located at [1427 Bloomwood Drive, Lancaster, SC](#). (some GPS show city as Pageland). Gravel road leading to the observatory is located 5.22 miles east of the "522 Grill" on Taxahaw, Rd.

Facebook FAQ

<https://www.facebook.com/CharlotteAstronomers/> scroll down to NOTES, then Frequently Asked Questions page for more information about GHRO. Be sure to share your astronomy photos and observing tips.

Night Sky Network -- "Heading to GHRO"

For updates on GHRO, be sure to join the <https://nightsky.jpl.nasa.gov/index.cfm> "Heading to GHRO" message group.

Jim Gaiser, Director GHRO.

As always, we care about the safety and security of all visitors to our observing facility, the GHRO. To keep us all mindful for the need to keep alert while visiting the observatory, we provide the following reminder. Please share this with your family and any visitors who may join you at the observatory. Thank you.

*** WARNING ***

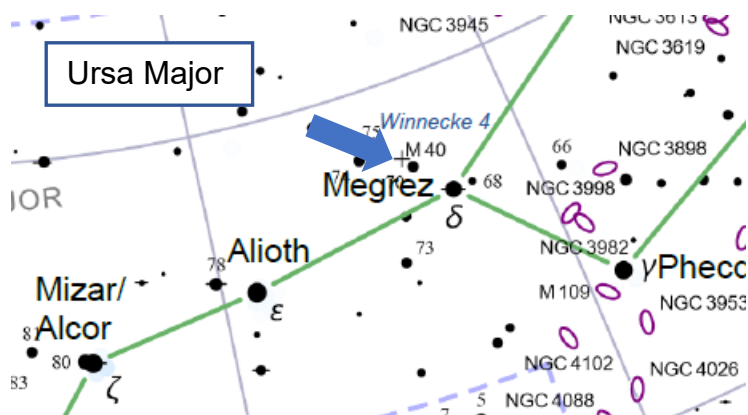
This facility (GHRO) and adjoining area may contain uneven terrain, dangerous wildlife, low light conditions, and dangerous man-made obstacles.

By using this facility, users assume the risk of personal injury, and loss or damage to personal property. All persons should use extreme caution at all times.

Users of this facility agree to hold harmless the Charlotte Amateur Astronomers Club, its Directors, and its members for any and all injuries sustained while participating in club activities or using this facility.

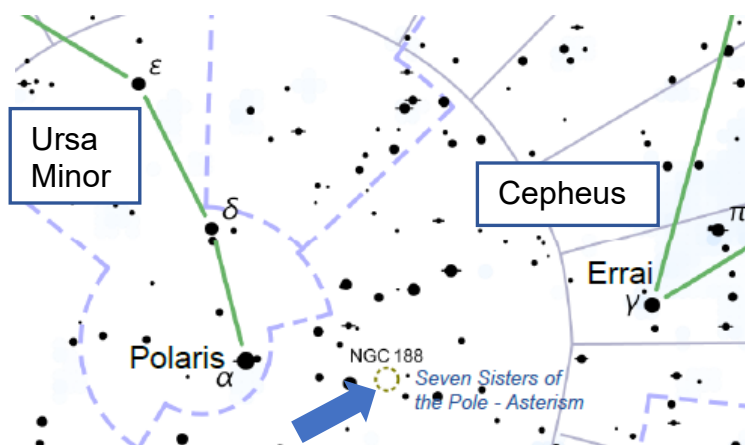
May Sky Challenge

Are you looking for something to discover in the night sky? Try these with a modest size telescope, with some patience and persistence! Or come down to the GHRO and get a really fine look! This month, a double star with a history and a very old cluster.



Winnecke 4, a.k.a. **M40** is a double star found by Charles Messier when searching for a reported nebula. Not finding nebula, he recorded seeing a double star. The double star was rediscovered by German astronomer, Friedrich August Theodor Winnecke and given his catalog number, Winnecke 4. American astronomer Robert Burnham believe Messier had

erred in identifying M40 as a double star – but history proved it to be a true double star (not just an optical double). The earlier reported nebula may have been NGC 4290 – too dim for the telescopes of Messier. Small and medium telescopes will reveal one orange-yellow and one white star.



The most northern and oldest cluster visible from Earth is **NGC 188**. Estimates place its age at five *billion* years compared to many other clusters whose age is measured in only *millions* of years (for example, the Double Cluster in Perseus is about 3 – 5 million years old). Given this extreme age, notice there are no blue or white stars -- they have all “aged out” to yellow and orange stars that we see now.

NGC 188 was discovered by John Herschel – son of the famous father, astronomer Sir William Herschel. Though none of its stars are brighter than third magnitude, with this northern treat you can observe an interesting pattern. Look for several bright stars that have become known as the Seven Sisters of the Pole – a beautiful asterism. A 4-inch telescope will reveal about 30 stars. Enjoy the views of this ancient cluster!

Acknowledgements:

NightSkyInfo www.nightskyinfo.com/archive for target descriptions, adapted.

Mag Star 7 Star Atlas Project © 2005 Andrew L. Johnson for star maps (clipped)

Edited by Mark Hoecker

What's Up in the Sky?

Highly Recommended Download and print a good *FREE* star map (including interesting objects to look for) monthly from:

Skymap <http://www.skymaps.com/downloads.html>

[You'll also find a good monthly sky map in each issue of *Sky & Telescope* or *Astronomy* magazines.](#)

New to the Night Sky?

Are you puzzled by folks in the club who point up in the sky and say "There's Gemini... and you can see Leo rising over there...and doesn't Regulus look clear tonight"? Are you trying to figure out where those darn constellations are? Those large star atlases are pretty intimidating... confusing... and expensive.

A good starting point could be called, *My First Star Atlas*... but in reality it is 4 simple but very helpful *FREE* star chart pages from the Stephen F. Austin State University – called **SFA Star Charts**. Pages 2 & 3 show you about 90% of everything you need to get started. There are even a couple pages that explain how to use a start chart. Clear and straight-forward.

Go to this link and print out the pdf file on the largest paper you have available, though standard letter paper is fine:

<http://observe.phy.sfasu.edu/SFAStarCharts/SFAStarChartsAll.pdf>

While these charts do not show the myriad of deep sky objects, they DO show the constellations and brightest stars – a good introduction to the night sky!

Happy Observing!

An **ENHANCED** Star Atlas – **FREE!**

Our CAAC member, Mark Hoecker, has used the *Mag 7 Star Atlas – Color Milky Way version* (available on the internet) and added some enhancements including:

- A star map index to quickly identify the individual star chart you are looking for.
- Blue directional arrows at the edge of each chart guiding you to the adjacent chart. Also large page numerals were added in the lower right corner, helpful when thumbing through the charts.
- Finally, he manually added common star names and a selection of deep sky object names to the star charts, helpful in finding your way around the sky.

Such enhancements are allowed under the Creative Commons License by Andrew L. Johnson, author of the original charts.

SUGGESTION: While printing at the largest paper size you have available is helpful, a great alternative if you have a "letter size" color printer with a manual auxiliary feed slot, is to print on "legal size" (8½ x 14-inch) heavy paper or even "card stock". You could also punch holes and place in a legal-size report cover available at office supply stores. You would then have a wonderful star atlas to help you through the night skies!

If you have access to a color printer that can print on 11 x 17-inch paper (or card stock), you can print a magnificent copy whose readability will rival that of very nice, commercially available atlases.

To download your **Mag-7 Star Atlas Milky Way version – ENHANCED**, go to the CAAC website and scroll down the left column to "Mag 7 Star Atlas" and follow the link.

Happy Observing!

Endowment Corner

Gifts for the Tomorrow:

Life Insurance

If you retain any control over the policy, no income tax deduction is allowed; however, if the CAAC Stewardship Foundation is named both the sole owner and beneficiary of a policy, you may receive an immediate charitable deduction for the lesser of the policy's fair market value or the net premiums paid. Additional premiums that you pay may also be tax deductible.

To make a contribution or learn more, please visit
<http://charlotteastronomers.org/endowment.htm>

Ken Steiner
Chair, CAAC Stewardship Foundation

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