The Focal Point

The Atlanta Astronomy Club
Established 1947
March 2025

Vol. 37 No. 7

Editor: Tom Faber

Table of Contents

Charlie Elliott March Meeting & Potluck

Come for the food, stay for the stars! Join us at 4:30 p.m. on Saturday, March 29th, 2025, at the Charlie Elliott Wildlife Center Campbell Aquatics Building for our quarterly potluck! If you've already been to one of our potlucks, you're probably already looking forward to the good food and company that these events have become known for. Please note that besides the usual comfort foods like banana pudding, mac & cheese, barbecue, and so forth, we'll also need help with set-up and clean-up.

Potluck Sign-Up: https://www.perfectpotluck.com/LXEM9582

Our potlucks are only as good as we make them. And while it's not required, it's a good idea to know who's bringing what, so please click on the link below to sign up and help out. If you can't bring something, bring yourself. We always need help with setup and clean up!

Sunset will be at 7:53 p.m. and the main gate closes to new entry at 7:00 p.m. If you are not a member and plan to arrive after 7:00 p.m., please make arrangements with a member for entry.

Observing on the Jon Wood Astronomy Field

Plan to treat this outing like you would a camping trip and be prepared. Dress appropriately for the weather and the environment, bring snacks and drinks if needed, and plan to take your trash with you.

After pulling up the dirt driveway from Elliott Trail and onto the astronomy field, please orient your vehicle to face the field exit gate so as not to cause problems with headlights when leaving.

There is a regularly serviced Porta-Potty on the field.

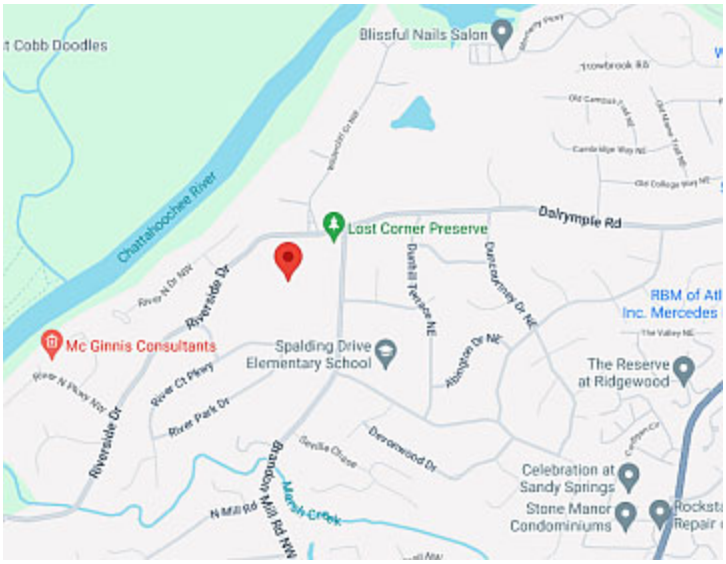
Continued on next page - first column

The March AAC Meeting

The next AAC meeting will be on Saturday, March 15 starting at 6:00PM at our meeting location at Lost Cottage at Lost Corner Preserve in Sandy Springs (see map below).

We are thrilled to have two Master Observers from the Astronomical League as our guest speakers for the March general meeting of the Atlanta Astronomy Club. David Whelan and Marie Lott have been long-standing and generous contributors to the Charlie Elliott chapter of the Atlanta Astronomy Club. They will speak to us about the Observing Programs and awards offered by the Astronomical League. These are available to all levels, from newcomers to experts. We are looking forward to learning more!

As always, our AAC monthly general meeting will cover club business such as astronomy news, outreach events and observing updates ahead of welcoming our guest speakers. Our monthly general AAC meetings are open to the public.



Lost Cottage at Lost Corner Preserve. Credit: Google Maps

March is Membership Renewal Month

The AAC has moved to a "one-date-for-all" membership renewal. ALL CLUB MEMBERS, with certain exceptions, should submit their dues for 2025 by the end of March. Please send your renewals to AAC Treasurer Sharon Carruthers, or renew online using PayPal. For more information see: http://atlantaastronomy.org/?page_id=22

Thank You for your support of the AAC!

The main gate on Elliott Trail closes to new entry by vehicle at 7 p.m., but will automatically open for exiting traffic at all times. If you are not a member and plan to arrive after 7 p.m., please make arrangements with a club member for access at least a day in advance.

Please refrain from using white light on the field. Red headlamps are cheap and easy to find at your favorite store. They're even cheaper to make with a spare flashlight and red nail-polish on the lens.

For more information about Charlie Elliott Wildlife Center, visit:

https://georgiawildlife.com/charlie-elliott-wildlife-center

Our Monthly Meetings and Public Observing Nights

Our monthly meetings and public observing nights are free and open to the public. Visit the "Our Calendar" tab at the top of the page for our 2025 meeting, observing, and outreach schedule. Start times vary through the year so please check back for details. View our Full Calendar of all meetings & outreach events here: http://ceastronomy.org/blog/outreach/charlie-elliott-astronomy-calendar

It's easy to become a member of Charlie Elliott Astronomy! Pay dues here: http://atlantaastronomy.org/membership/

Credit: Google Maps

AAC February Meeting Report

Photos by Tom Faber

The Atlanta Astronomy Club's January general meeting was held on Saturday, February 15, at the Lost Cottage at Lost Corner Preserve in Sandy Springs starting at 6:00PM. About 25 club members and guests were present. Program Coordinator Jo Welsh presented information about upcoming AAC and outreach events, and astronomy and space news.

Our speaker was Kesha Patel, a Senior Honors Student at Emory University (bottom two photos). Kesha is majoring in Physics and Astronomy with a minor in Mathematics. She gave a talk about her work for her Senior Honors Thesis about modeling lenticular galaxies under Dr. Merida G. Batiste.

Join us on Saturday, March 15 at 6PM for the next AAC General Meeting.

The Atlanta Astronomy Club Calendar for 2025

			SPEAKERS & EVENTS	
			Atlanta Astronomy Club	Charlie Elliott Astronomy Chapter
Meeting day	Meeting date - 2025	Time	- Location: Sandy Springs	- Location: Madison, GA (dark sky site)
Saturday	January 18th	6-8pm EST	Dan Lewellyn - Planetary imaging	
Saturday	January 25th	4pm EST start		Jay P Dunn - Intragalactic winds
Saturday	February 15th	6-8pm EST	Kesha (Emory) - Measuring light waves	
Saturday	February 22nd	4pm EST start		Dr James Sowell (GA Tech) - Timekeeping & astronomy
Saturday	March 15th	6-8pm EST	Dave Whelan & Marie Lott - Observing	
Saturday	March 22nd	7 - 10pm EST	Morgan Falls Outlook Pavilion - public stargazing	
Saturday	March 29th	4:30pm EST start		Prof. Donovan Domingue (GCSU)
Saturday	April 5th	6 - 9pm EST	Cross-club event: Astronomical trivia competition	
Saturday	April 19th	6-8pm EST	**JOINT MEETING - Vincent Ledvina (The Aurora Guy) - via Zoom**	
Saturday	May 17th	7-9pm EST	Jiapeng Gao (GA Tech) - Exoplanets	
Saturday	May 24th	6:30pm EST start		
Saturday	June 14th	7-9pm EST	Mark Hanley - Dark matter	
Saturday	June 28th	6:30pm EST start		
Saturday	June 28th	7 - 10pm EST	Morgan Falls Outlook Pavilion - public stargazing	*Morgan Falls & Charlie Elliott overlap*
Saturday	July 19th	7-9pm EST	Prof. Mariel Meier (Oglethorpe) - Space plasma	
Saturday	July 26th	7pm EST start		
Saturday	August 16th	6-8pm EST	John Blankenhorn (GA Tech) - Methane on Mars	
Saturday	August 23rd	6:30pm EST start		
Saturday	September 6th	10am - 2pm	Morgan Falls Outlook Pavilion - scope swap / shop	
Saturday	September 13th	6-8pm EST	Prof. Donovan Domingue (GSCU) - new research	
Saturday	September 20th	6pm EST start		
Saturday	October 18th	Time TBD	**JOINT MEETING - GA Tech Rocket Club *OR* GA Tech Women of Aeronatics/Astronautics Club**	
Saturday	November 15th	Time TBD	**JOINT MEETING - GA Tech Rocket Club *OR* GA Tech Women of Aeronatics/Astronautics Club**	
Saturday	December 13th	3:30pm start		Potluck - TBD

IC 410 (The Tadpole Nebula) in Auriga by Eugene Rush

See next page for image details.

Previous Page: IC 410 (The Tadpole Nebula) in Auriga by Eugene Rush

This image shows The Tadpole Nebula in the constellation Auriga. The image was made using a 94 MM Sharpstar APO refractor telescope with a ZWO ASI585MC pro camera. The image consists of 55, 120-second subs taken from Sharpsburg GA on February 17, 2025.

For more information see: https://www.constellation-guide.com/tadpole-nebula-ic-410/

Sharpless 2-227 and NGC1857 by Charles Painter

Time for another astro picture. Today I present Sharpless 2-227, a star forming region at the bottom of the image, and NGC1857, an open cluster at top. The Sharpless object is rarely imaged and there isn't much information about it. I found one paper which measured a distance of roughly 13,000 light years. This compares with a distance of about 8,000 light years for the open cluster, so the objects are evidently unrelated.

This image was made from a little over 4 hours of data, using a dual narrowband filter to help bring out the ionized hydrogen and oxygen in the star forming region.

Leo Triplet by Clay Turner

This is an image of the Leo Triplet (also known as the M66 Group), which is a group of galaxies in the constellation Leo. The group consists of M65 (right top), M66 (right bottom) and NGC 3628 (left). Clay made this image using a RASA 11 scope with a ZWO ASI 2400 MC Pro camera. The image consists of 121 images of 180 seconds each.

For more information see https://en.wikipedia.org/wiki/Leo_Triplet

HST Finds Kuiper Belt Duo May Be Trio

NASA/STScI News Release March 4, 2025

The puzzle of predicting how three gravitationally bound bodies move in space has challenged mathematicians for centuries, and has most recently been popularized in the novel and television show "3 Body Problem." There's no problem, however, with what a team of researchers say is likely a stable trio of icy space rocks in the solar system's Kuiper Belt, found using data from NASA's Hubble Space Telescope and the ground-based W. M. Keck Observatory in Hawaii.

If confirmed as the second such three-body system found in the region, the 148780 Altjira system suggests there could be similar triples waiting to be discovered, which would support a particular theory of our solar system's history and the formation of Kuiper Belt objects (KBOs).

"The universe is filled with a range of three-body systems, including the closest stars to Earth, the Alpha Centauri star system, and we're finding that the Kuiper Belt may be no exception," said the study's lead author Maia Nelsen, a physics and astronomy graduate of Brigham Young University in Provo, Utah.

Known since 1992, KBOs are primitive icy remnants from the early solar system found beyond the orbit of Neptune. To date, over 3,000 KBOs have been cataloged, and scientists estimate there could be several hundred thousand more that measure over 10 miles in diameter. The largest KBO is dwarf planet Pluto.

The Hubble finding is crucial support for a KBO formation theory, in which three small rocky bodies would not be the result of collision in a busy Kuiper Belt, but instead form as a trio directly from the gravitational collapse of matter in the disk of material surrounding the newly formed Sun, around 4.5 billion years ago. It's well known that stars form by gravitational collapse of gas, commonly as pairs or triples, but that idea that cosmic objects like those in the Kuiper Belt form in a similar way is still under investigation.

The Altjira system is located in the outer reaches of the solar system, 3.7 billion miles away, or 44 times the distance between Earth and the Sun. Hubble images show two KBOs located about 4,700 miles (7,600 kilometers) apart. However, researchers say that repeated observations of

Article continued on page 7

Comet C2023 A3 Tsuchinshan–ATLAS and Milky Way by Dan Llewellyn

Dan took this image of Comet C2023 A3 Tsuchinshan–ATLAS from his driveway at the Deerlick Astronomy Village on October 21, 2024. The image shows the Milky Way and the comet. This image was made using a Sony A7s3 with a manual focus Rokinon 20mm lens. It is a stack 25 x 0.62 sec subs.

Article continued from page 5

the objects' unique co-orbital motion indicate the inner object is actually two bodies that are so close together they can't be distinguished at such a great distance.

"With objects this small and far away, the separation between the two inner members of the system is a fraction of a pixel on Hubble's camera, so you have to use non-imaging methods to discover that it's a triple," said Nelsen.

This takes time and patience, Nelsen explained. Scientists have gathered a 17-year observational baseline of data from Hubble and the Keck Observatory, watching the orbit of the Altjira system's outer object.

"Over time, we saw the orientation of the outer object's orbit change, indicating that the inner object was either very elongated or actually two separate objects," said Darin Ragozzine, also of Brigham Young University, a co-author of the Altjira study.

"A triple system was the best fit when we put the Hubble data into different modeling scenarios," said Nelsen. "Other possibilities are that the inner object is a contact binary, where two separate bodies become so close they touch each other, or something that actually is oddly flat, like a pancake."

Currently, there are about 40 identified binary objects in the Kuiper Belt. Now, with two of these systems likely triples, the researchers say it is more likely they are looking not at an oddball, but instead a population of three-body systems, formed by the same circumstances. However, building up that evidence takes time and repeated observations.

The only Kuiper Belt objects that have been explored in detail are Pluto and the smaller object Arrokoth, which NASA's New Horizons mission visited in 2015 and 2019, respectively. New Horizons showed that Arrokoth is a contact binary, which for KBOs means that two objects that have moved closer and closer to one another are now touching and/or have merged, often resulting in a peanut shape. Ragozzine describes Altjira as a "cousin" of Arrokoth, a member of the same group of Kuiper Belt objects. They estimate Altjira is 10 times larger than Arrokoth, however, at 124 miles (200 kilometers) wide.

The Hubble study is published in The Planetary Science Journal here:

https://doi.org/10.3847/PSJ/ad864d

The **Atlanta Astronomy Club, Inc**., one of the South's largest and oldest astronomical society, meets at **3:00 P.M.** on the 3rd Saturday of each month at the Fernbank Science Center in Decatur, or occasionally at other locations or times. Membership fees are **$30** for a family or single person membership. College Students membership fee is **$15**. These fees are for a one year membership.

Magazine subscriptions to ***Sky & Telescope*** or ***Astronomy*** can be purchased through the club for a reduced rate. The fees are **$33** for Sky & Telescope and **$34** for Astronomy. Renewal forms will be sent to you by the magazines. Send the renewal form along with your check to the Atlanta Astronomy Club treasurer.

The Club address: Atlanta Astronomy Club, Inc., P.O. Box 76155, Atlanta, GA 30358-1155. AAC Web Page: **http://www.AtlantaAstronomy.org.** Send suggestions, comments, or ideas about the website to webmaster@AtlantaAstronomy.org. Also send information on upcoming observing events, meetings, and other events to the webmaster.

Atlanta Astronomy Club Online

While this newsletter is the official information source for the Atlanta Astronomy Club, it is only up to date the day it is posted. So if you want more up to date information, go to our club's website. The website contains pictures, directions, membership applications, events, updates, and other information. http://www.atlantaastronomy.org You can also follow the AAC on Facebook by joining the AAC group, and on Twitter at http://twitter.com/atlastro.

AAC Officers and Contacts

President: David Lumpkin President@AtlantaAstronomy.org

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Recording Secretary: Open

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Board: Mark Banks

Board: Chuck Biskobing (Charlie Elliott)

Board: Open

ALCor: Open

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The Focal Point

Newsletter of The Atlanta Astronomy Club, Inc.

We're here to help! Here's how how to reach us:

Atlanta Astronomy Club
P.O. Box 76155
Atlanta, GA 30358-1155
www.atlantaastronomy.org
On Twitter at http://twitter.com/atlastro

www.beetagg.com

FIRST CLASS

Calendar by Tom Faber (Times EDT/EST unless noted)

AAC Events are listed in BOLD

Mar 8th, Saturday: Mercury at Greatest Eastern Elongation. Moon near Mars.

Mar 9th, Sunday: Daylight Saving Times begins at 2:00AM.

Mar 12th, Wednesday: Saturn conjunction with Sun.

Mar 14th, Friday: Full Moon, Total Eclipse: Partial begins 1:09AM, Start Totality 2:26AM, Mid 2:59AM, End Totality 3:31AM, Partial Ends 4:48AM.

Mar 15th, Saturday: **AAC Meeting at Lost Corners 6:00PM.**

Mar 19th, Wednesday: Neptune conjunction with Sun.

Mar 20th, Thursday: Spring Equinox 5:01AM.

Mar 22nd, Saturday: Moon Last Quarter. Venus at Inferior Conjunction.

Mar 23rd, Sunday: Saturn's rings edge-on: Not visible since Saturn is only 9.5 degrees from the sun.

Mar 29th, Saturday: New Moon. **CE Chapter Meeting & Potluck, 4:30PM.**

Apr 4th, Friday: Moon First Quarter.

Apr 12th, Saturday: Full Moon.

Apr 19th, Saturday: **Joint AAC/CEA Meeting, 6:00PM.**

Apr 20th, Sunday: Moon Last Quarter.

Apr 21st, Monday: Lyrids Meteor Shower.

Apr 24th, Thursday - Apr 27th, Sunday: **AAC Zombie Party at the Deerlick Astronomy Village.**

Apr 27th, Sunday: New Moon.

May 3, Saturday: Eta Aquariids Meteor Shower.

May 4th, Sunday: Moon First Quarter.

May 12th, Monday: Full Moon.

May 17th, Saturday: **AAC Meeting at Lost Corners 7:00PM.**

May 20th, Tuesday: Moon Last Quarter.

May 24th, Saturday: **CE Chapter Meeting, 6:30PM.**

For more event listings and updates see the calendar at www.atlantaastronomy.org

Atlanta Astronomy Club Listserv

Because of the shutdown of Yahoo Groups, the Atlanta Astronomy Club Mailing List has been moved to IO Groups. You can visit the group, start reading messages and posting them here: https://groups.io/g/AtlantaAstronomyClub.

Focal Point Deadline and Submission Information

Please send articles, pictures, and drawings in electronic format on anything astronomy, space, or sky related to Tom Faber at focalpoint@atlantaastronomy.org. Please send images separate from articles, not embedded in them. Articles are preferred as plain text files with images separate but Word documents or PDFs are okay. **The deadline for April is Sunday, March 23. Submissions received after the deadline will go in the following issue**.