



Charlottesville Astronomical Society

January 2023 Meeting



Welcome New Members

Lilly Polster

Muhammad Mousa

Robert Johnson & Family

Jeff Hellerman

Elizabeth Jackson

William Combs

Vicki Kimberling & Family

Emily Lien

New Members – Get to Know Ed

CAS Mentor and Equipment Manager Ed Preston

I retired from a career in mechanical engineering in 2007. In 2008 my wife and I moved from Galveston County TX to Charlottesville. We live under a half-dark sky, but within easy reach of local commerce. I have been seriously interested in amateur astronomy since I saw M5 through a home built 17.7" Dob about 1986. My primary interest is in helping other amateur astronomers advance in the hobby. I also pursue still and video astro-imaging. Recently clouds have gotten in my way a lot, so, like making lemonade from lemons, I am branching out toward skyscapes and time-lapse video of clouds.

Ed is the person to contact about using one of the club loaner scopes ed.pr3ston@embarqmail.com



Club Finances and Membership

- **CAS Total Bank Balance: \$15,064.34 (30 Dec 2022)**
 - **CAS Account: \$8162.73**
 - **Future Astronomers Account: \$6901.61**
- **Uncleared Checks: +\$250**
- **Petty Cash: \$132**
- **Total Cash Assets: \$15,196.34**
- **CAS 2022 Membership (through 30 Sep): 139**
 - **Individual 40**
 - **Family 48**
 - **Senior 47**
 - **Student / Military 4**
- **2023 Paid Memberships: 106 (76%)**

**2023 Dues
due by 31 Jan**

CAS is a 501c3 Non-profit

Pay online at: <https://www.cvilleastro.com/online-member-application/>

Events

- 01.06 CAS Ivy Creek Under the Stars 8-10 PM
- 01.06 UVA McCormick Observatory Public Night 7-9 PM
- 01.13 CAS Group Night at McCormick Larry Saunders
- 01.20 UVA McCormick Observatory Public Night 7-9 PM
- 01.16 CAS Group Night at McCormick (homeschoolers) Larry Saunders
- 02.03 CAS Ivy Creek Solar Observing NOON Boris Starosta

Events: Far Out (for you long range planners)

- | | | |
|-------------|--|------------|
| • 02.06 | UVA(?) Astronomy on Tap | |
| • 03.17(24) | CAS Messier Marathon – Lagniappe & WRFB | Boris! |
| • 04.22 | CAS Spring picnic at Lagniappe Farm | Mark Ownby |
| • 04.22 | UVA Cub Scout Aviation Day at McCormick | Ed Murphy |
| • 10.14 | CAS Fall picnic at Lagniappe Farm | Mark Ownby |
| • TBA | UVA Fall Fan Mountain Public Night 7-10 PM | Ed Murphy |

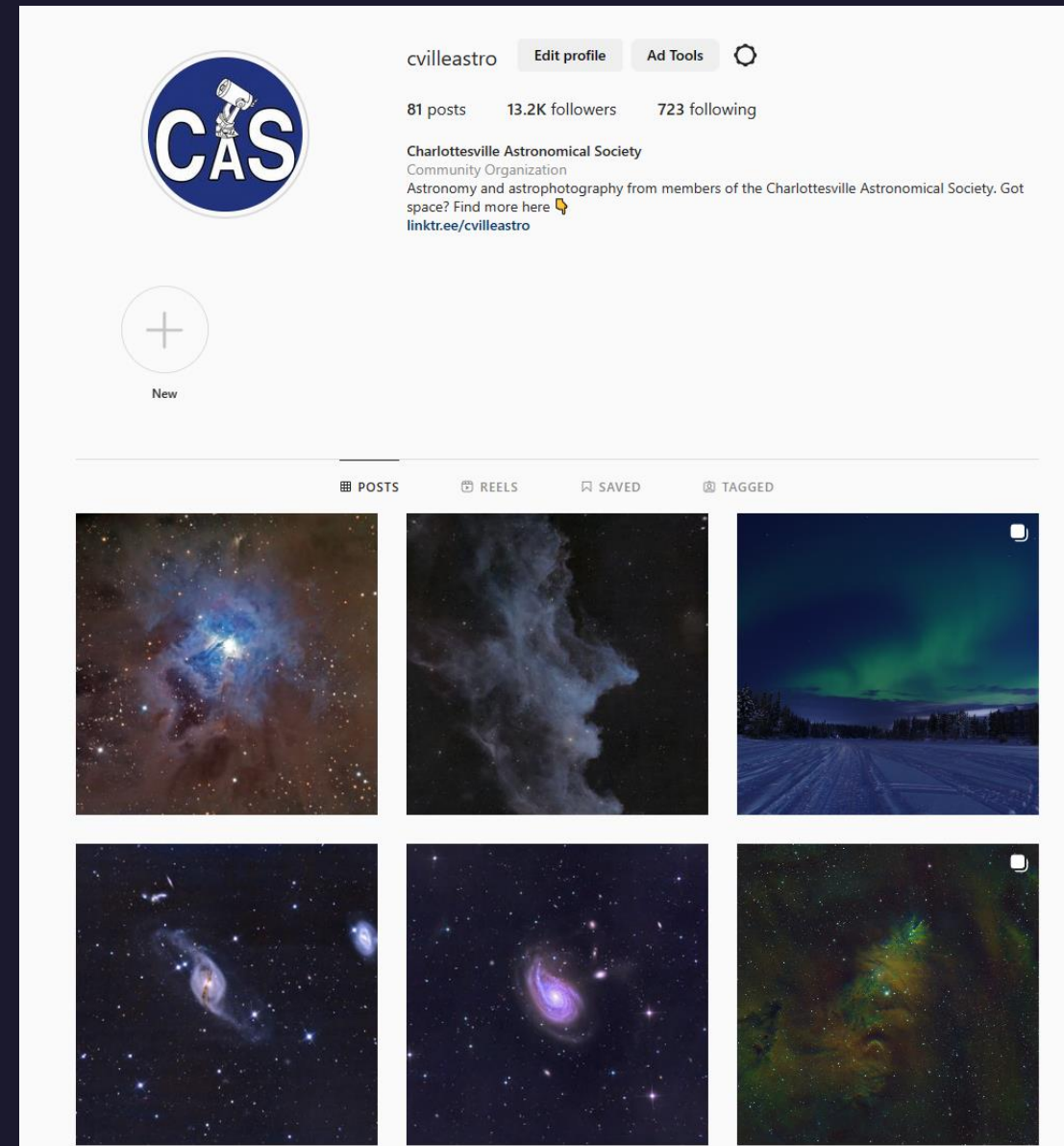
(the April Fan Mt. Public Night is cancelled)



CAS Instagram – Virtual Outreach

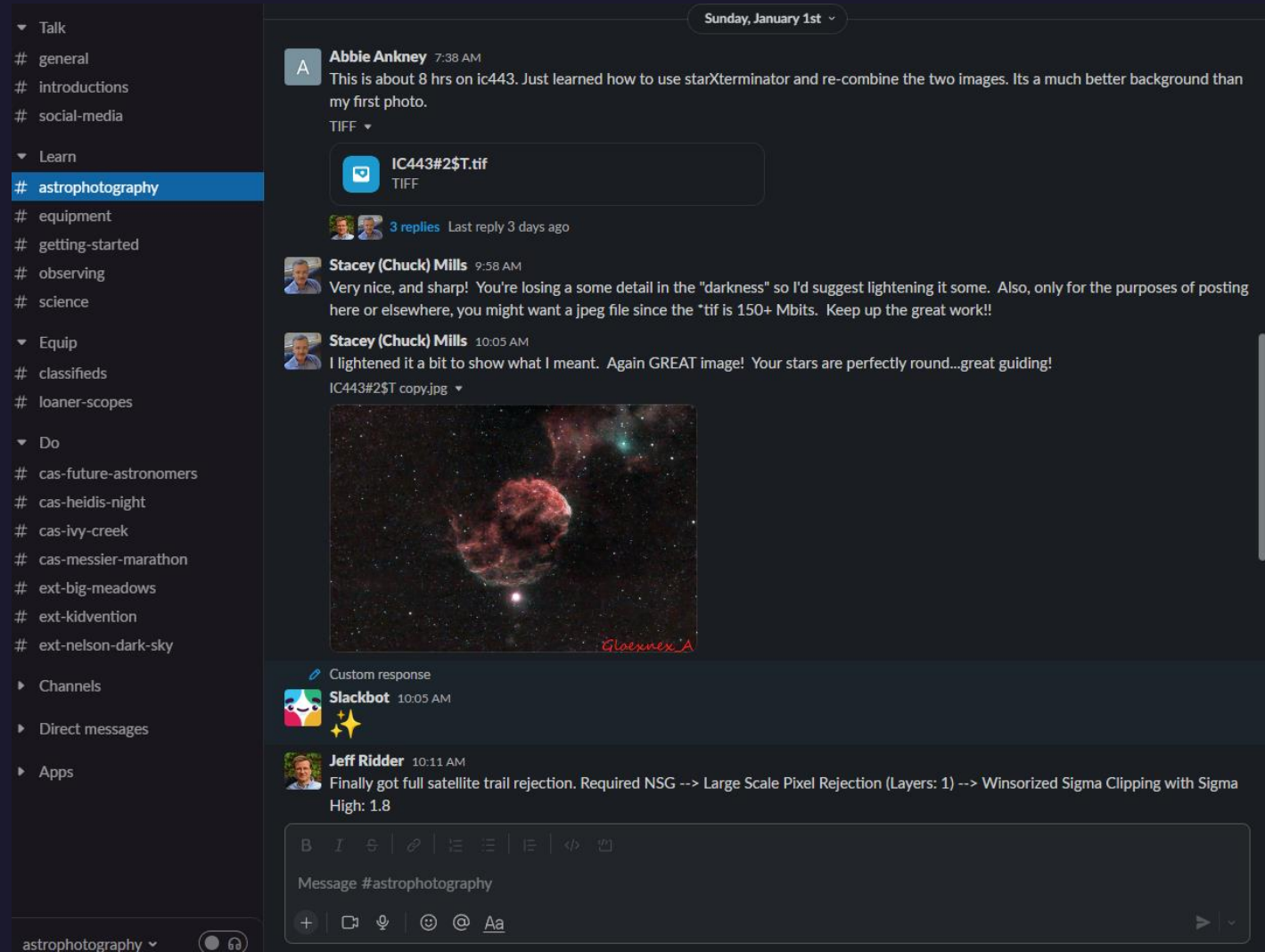
- Over 13,000 global followers, including many local
- Astrophotographers – show off your stuff
- Outreach event organizers – A picture with caption announcing your event reaches a wide local audience
- **We need more content!**

Post your contributions to the #social-media channel on Slack or send email to our curators: Teddy and Elizabeth



CAS Slack

- Chat-style collaboration in topical channels that you opt into
- File sharing and pinned content at top of each channel
- Best used for learning, mentoring, planning events, finding info and *helping each other out*
- Does NOT replace groups.io



The screenshot displays the Slack interface for the #astrophotography channel. On the left, a sidebar lists various channels under categories like 'Talk', 'Learn', 'Equip', and 'Do'. The #astrophotography channel is selected. The main area shows a message from Abbie Ankney at 7:38 AM, discussing a photo of IC443 and sharing a TIFF file. Below this, Stacey (Chuck) Mills responds at 9:58 AM, suggesting lightening the image. Another message from Stacey at 10:05 AM shows a lightened version of the image. A custom response from Slackbot at 10:05 AM follows. Finally, Jeff Ridder at 10:11 AM shares a message about satellite trail rejection. The bottom of the interface shows the channel name 'astrophotography' and a search bar.

Moon Phases and Astronomical Events

<div> <div>EST = Eastern Standard Time (UT-5) EDT = Eastern Daylight Time (UT-4) DST = Daylight Saving Time</div> <div>January 2023</div> <div> NM = New Moon FQ = First Quarter FM = Full Moon LQ = Last Quarter </div> </div>						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 	2 	3 	4 	5 	6  FM: 6:08 PM (EST)	7 
8 	9 	10 	11 	12 	13  LQ: 9:10 PM (EST)	14 
15 	16 	17 	18 	19 	20  NM: 3:53 PM (EST)	21 
22 	23 	24 	25 	26 	27  FQ: 10:19 AM (EST)	28 
29 	30 	31 				

Not much going on this month :-)

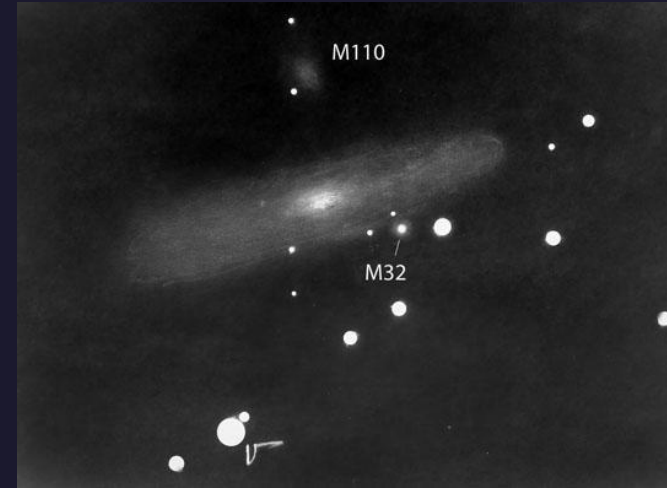
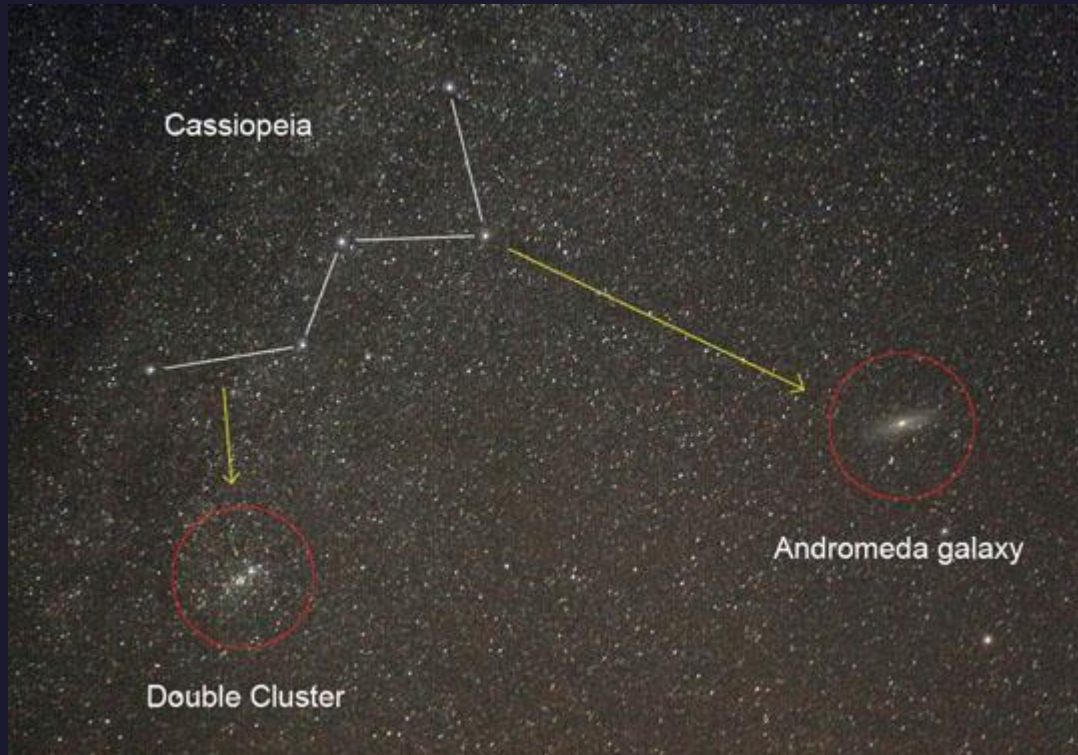
Maybe the most interesting event is the Saturn - Venus conjunction January 22. Both planets will fit into a low-power telescope view!
Other “events”:

- 01.04 (tonight!) Quadrantid meteors
- 01.08 Pallas opposition 7.6 mag.
- 01.12 Mars Eastern quadrature
- 01.12 Mars closest to Pleiades
- 01.18 Mercury Eastern quadrature
- 01.22 Saturn and Venus 0.34° apart
- 01.23 Uranus Eastern quadrature
- 01.30 Mercury maximum elongation (in the morning sky)

Calendar graphic is courtesy Astronomy Club of Akron, Ohio

CAS Targets of the Month:

The Double Cluster in Perseus and M31, the Andromeda Galaxy: both are visible to the naked eye, but beautiful in binoculars or very low power, wide field telescope. At 2.5 million light years away, M31 is the most distant object that can be seen with the naked eye.



Seen in 10x50 binoculars, the left, or northern half, of the Andromeda Galaxy appears more puffed out and a little brighter than the southern half. The football-shaped nuclear region stands out boldly against the fainter disk, while M32 mimics a fuzzy 8th-magnitude "star". [Drawing and caption by Bob King of S&T magazine.](#)

The Double Cluster is barely visible naked eye, very nice in binoculars, and can be spectacular in a wide field, low power telescope view.



What's Up In January

[What's Up: Skywatching Tips from NASA](#)



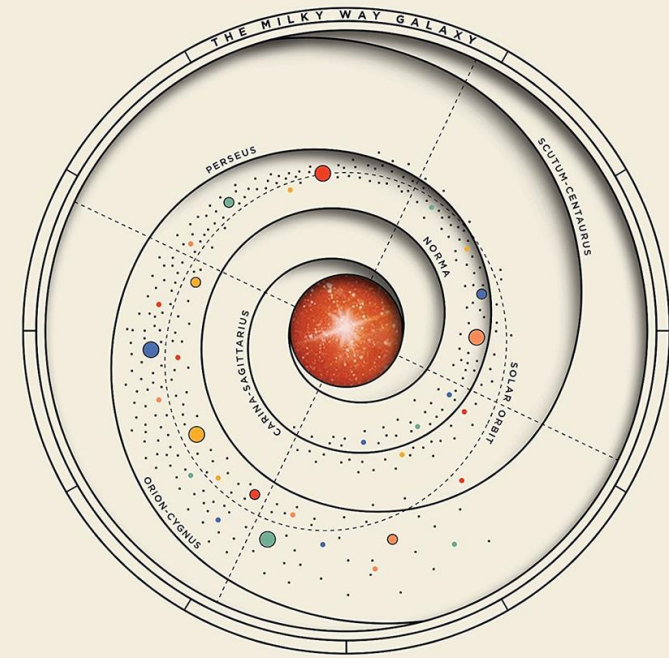
Next Meeting:

Guest Speaker – Emily Levesque

Astronomy professor at the University of Washington in Seattle. Her first popular science book, *THE LAST STARGAZERS*, explores the behind-the-scenes world of professional astronomy and is an Amazon Best Book of 2020, a AAAS/Subaru SB&F Prize for Excellence in Science Books Finalist, and a PEN/E. O. Wilson Literary Science Writing Award Finalist.

Emily's research studies how the most massive stars in the universe evolve and die. She has observed for upward of fifty nights on many of the planet's largest telescopes and flown over the Antarctic stratosphere in an experimental aircraft for her research. Her academic accolades include the 2014 Annie Jump Cannon Prize, a 2017 Alfred P. Sloan fellowship, a 2019 Cottrell Scholar award, and the 2020 Newton Lacy Pierce Prize. She earned a bachelor's degree in physics from MIT and a PhD in astronomy from the University of Hawaii.

THE LAST STARGAZERS



THE ENDURING STORY OF
ASTRONOMY'S VANISHING EXPLORERS

EMILY LEVESQUE

Next Generation Telescopes -- What could they SEE?

From Turyshev et al. (2020)



Earth



Earth from **100 LY**
through solar
gravitational lens



Deconvolution
of **SGL** image

Tonight's Speaker:

Hakeem Oluseyi

Astrophysicist, Former Space Science Education Manager for NASA, President of the National Society of Black Physicists, and Inspirational Speaker

Visiting Clarence J Robinson Professor – George Mason University

