

*September 2023 Guest Speaker - Dr. Brian Kloppenborg,
Executive Director of the American Association of Variable
Star Observers (AAVSO).*

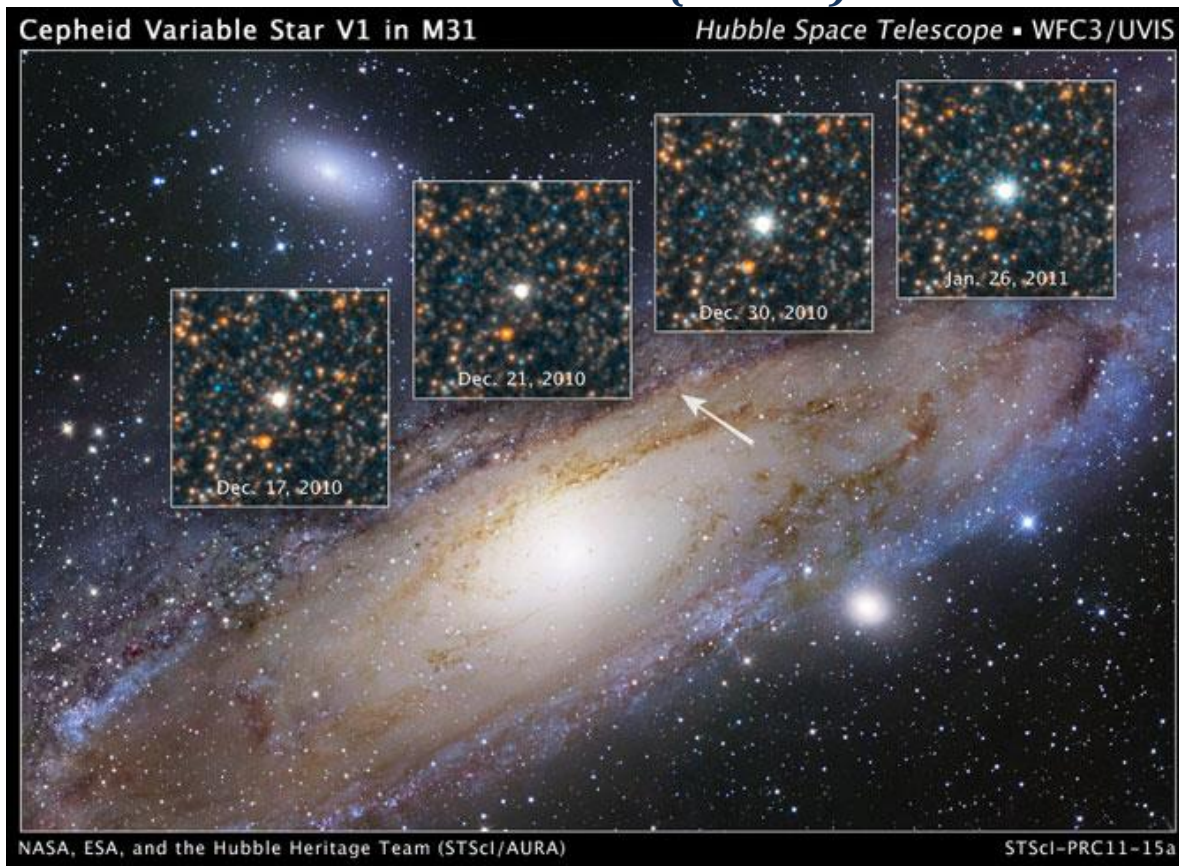


Photo Courtesy: <https://www.nasa.gov/mission.../hubble/science/star-v1.html>

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The EAS newsletter, Observer, is published monthly. Anyone wishing to contribute articles or photos may mail them to the club's PO Box: EAS, PO Box 3474, Evansville, IN 47733, or e-mail them to the editor at:

dasiceman@yahoo.com

The **Evansville Astronomical Society (EAS)** is a non-profit organization fully incorporated in the state of Indiana. It has, as its primary goal, the advancement of amateur astronomy. Founded in 1952, the society seeks to:

- 1... maintain adequate facilities for its members and the public in order to extensively study the skies and
- 2... promote an educational program for those who wish to learn more about the science of Astronomy.

Meetings are held the third Friday of each month, except June, when the annual EAS picnic is held. The society also sponsors monthly Open House events during the warmer seasons that afford the public an opportunity to tour the observatory.

EAS 2023 Officers and Contacts

President – Tony Bryan
812.827.3234

evansvilleastro@gmail.com

Vice President – Scott Conner

Secretary – Dave Kube
740.223.6854

Treasurer – Mitch Luman

Counselors
Michael Borman (2021)
Ken Harris (2022)
Kent Bretton (2023)

Webmaster – Michael Borman

Program Director
Chuck Allen

Newsletter editor – Dave Kube
dasiceman@yahoo.com

For more information about the EAS or directions to the Observatory, please visit the club's web page:

www.evansvilleastro.org



Local Events and Information

EAS Update

Please Note: We have a Regular meeting scheduled for Friday, September 15th, 2023 at 7:30pm. Please see our Facebook Group and Webpages for Updates.

EAS Update

Please Note: We have a PSW scheduled for Saturday, September 23rd, 2023 at 7:30pm. Please see our Facebook Group and Webpages for Updates.

EAS Update

Please Note: We have a PSW scheduled for Saturday, October 7th, 2023 at 7:30pm. Please see our Facebook Group and Webpages for Updates.

EAS Update

Please Note: We have a Partial Solar Eclipse Event scheduled at the Museum on Saturday, October 14th, 2023 at 10:30am. Please see our Facebook Group and Webpages for Updates.

EAS Update

Please Note: We have a Regular meeting scheduled for Friday, October 20th, 2023 at 7:30pm. Please see our Facebook Group and Webpages for Updates.

EAS Update:

Please visit our website <http://www.evansvilleastro.org> and our Facebook Group page to keep yourself up to date for any changes.

Telescopes and accessories for sale...

Orion AstroView120ST, Equatorial Refracting Telescope and accessories. 120mm (4.7") aperture and 600mm focal length, includes sturdy adjustable-height tripod, equatorial mount, finder scope and an internal polar alignment scope. Includes two Plossl 1.25" eyepieces (25mm and 10mm), 6x30 finder scope, star diagonal. \$600.

Contact: Karen Caruso 812-629-8089 (cell)

Telescopes and accessories for sale...

As mentioned in last month's issue, Mike Borman still has some excellent telescope equipment and imaging accessories for sale. Some of the gear has already been sold. If interested, go to Mike's web page. Here is the link: <http://www.mborman.org/forsale.htm>

Mystery of strobing pulsar may be solved.



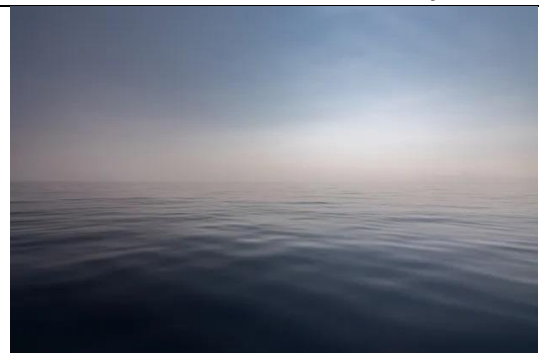
The pulsar PSR J1023+0038 steals gas from its companion star, which swirls inward and is eventually ejected in a narrow jet. This illustration also depicts a hot wind blowing from the pulsar, shown as a cloud of small dots. This wind heats the infalling gas and causes it to glow in X-rays and ultraviolet light. The jet periodically ejects this hot gas, clearing out the inner throat of the disk and causing the pulsar to temporarily dim.

Photo Credit: ESO/M. Kornmesser

An international group of scientists and a massive observing campaign may have uncovered the reason behind a distant pulsar's flashy behavior. This pulsar, dubbed PSR J1023+0038, has two different modes of brightness — and switches between them almost constantly, which may be due to sudden ejections of matter.

"We have discovered that the mode switching stems from an intricate interplay between the pulsar wind, a flow of high-energy particles blowing away from the pulsar, and matter flowing towards the pulsar," Francesco Coti Zelati, an observational astrophysicist and study author at the Institute of Space Sciences in Barcelona, said in a statement.

Have astronomers finally found a meteorite from outside the solar system?



Researchers have pulled material from the seafloor that might be interstellar. The proof will lie in the testing.

Photo Credit: Dim Hou (Pixabay)

After an expedition that spent about 10 days scouring the ocean floor off Papua New Guinea with a magnetic sled, Harvard University astrophysicist Avi Loeb says he has collected more than 700 metallic spherules that are now undergoing detailed examination in his lab at Harvard as well as at least two other independent labs that he asked to help out.

Loeb believes that many of these spherules, each less than a millimeter across (about the size of a pinhead), came from the first-ever interstellar meteorite to have been detected striking the Earth. He was able to pinpoint its entry location in the South Pacific through a combination of Department of Defense tracking data and seismic readings from two nearby locations.

"It's the most exciting week of my scientific career," Loeb told *Astronomy* in a shipboard Zoom interview during the expedition. In a follow-up interview after his return to Cambridge, he said the number of spherules identified in the collected material has continued to rise day by day.

October 2023

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7 PSW 7:30pm
8	9	10	11	12	13	14 Partial Solar Eclipse Museum 10:30am
15	16	17	18	19	20 Reg.Mtg 7:30pm	21 Saturn Watch Museum 7:00pm
22	23	24	25	26	27	28
29	30	31				

Generated by FreeHTMLCalendar.com Copyright © 2011 John Dalbey.

Up and Coming Events 2023

Please Note we have a Reg. Mtg. scheduled for 7:30pm on Friday September 15th, 2023 @ Observatory.

Please Note we have a PSW scheduled for 7:30pm on Saturday September 23rd, 2023 @ Observatory.

Please Note we have a PSW scheduled for 7:30pm on Saturday October 7th, 2023 @ Observatory.

Please Note we have a Partial Solar Eclipse scheduled for 10:30am on Saturday October 14th, 2023 @ Museum.

Please Note we have a Reg. Mtg. scheduled for 7:30pm on Friday October 20th, 2023 @ Observatory.

Please visit our Web Page <http://www.evansvilleastro.org> or our Facebook Group Page for updates. Events may be cancelled due to Covid and/or Weather at time of event.

Moon Phases

New Moon	First Quarter	Full Moon	Third Quarter
October 25 th , 2023	October 2 nd , 2023	October 9 th , 2023	October 17 th , 2023
Moon Phases courtesy of Time and Date.com			

EAS Meeting for July – 2023

Prior to the meeting the EAS held a zoom presentation by the 2023 National Young Astronomy Award Winner *León García*. The title for this presentation was "Dark Matter and the Study of Dark Matter Haloes."

The meeting was called to order by President Tony Bryan @ 8:45pm. There were 21 members w/ 2 new members present including board members President Tony Bryan, Vice President Scott Conner, Secretary Dave Kube and Treasurer Mitch Luman. A motion to wave the reading of the minutes and accept the minutes from the August 2023 Newsletter was passed with a 20 yeah and 1 nay. We had no visitors.

Vice President Scott Conner read the following upcoming events.

Public Star Watch	Saturday, August 19	7:30 PM @ Observatory
Moon Watch	Saturday, August 26	8:00 – 9:30 PM @ Museum
Regular Meeting	Friday, September 15	7:30 PM @ Observatory
Public Star Watch	Saturday, September 23	7:30 PM @ Observatory
Public Star Watch	Saturday, October 7	7:30 PM @ Observatory
Partial Solar Eclipse	Saturday, October 14	10:30 AM – 1:30 PM @ Museum

OLD BUSINESS

Special Projects Status – Tony reported that both are usable now, but some work is still needed in the men's restroom. We still need to install the hot water. Scott Conner reported that the last pieces for the new telescope mount are on order and should arrive this week.

Observatory Tour – Mitch gave a tour of our observatory on August 12 and reported that he forgot the user password for the computer and had to move the scope manually. He stated that the mount was out of balance.

Toyota Grant Status – Tony reported that the grant proposal "Multimedia Equipment for Public Outreach" that was submitted to Toyota Motor Manufacturing Indiana, is still showing as "Submitted" on the Toyota Portal. Grants are normally approved during the month of July, so it appears there is some sort of delay in reviewing grants. Otherwise a status of "Approved" or "Disapproved" would show.

ALCON 2023 – The 2023 Astronomical League Convention (ALCon 2023) was held in Baton Rouge, Louisiana from July 26th to 29th. EAS members Chuck Allen, Tony and Donna Bryan attended. Chuck reports that next year's event will be in Kansas City.

Treasurer Position – Our current Treasurer is moving away and unable to complete his 2023 term. The EAS Board is seeking a person to fill this position until regular elections are held for the next calendar year. Per our Bylaws, the Board can appoint persons to fill vacated positions. If you are a member in good standing, and interested in being our Treasurer, please speak with any officer.

NEW BUSINESS

Zoom Account Due – The annual fee of \$149 is due for our Zoom license by the end of August. Open discussion on whether or not to continue with this expense or to downgrade to Free (Basic) Account type, which limits to 40 minutes and no scheduler. Chuck Allen volunteered to donate the fee – Thank you Chuck.

Website Security – Our website security has been updated. The URL is now a HTTPS prefix. There is a recurring cost of \$39.99 per year for a SSL Certification. Thanks to Ken Harris for funding the first year, and Mitch Luman and Mike Borman for working payment and technical details. I have notified the AL of the change. Please make sure you are using the upgraded site whenever you visit us online. You may desire to clear your computer's cache and update your favorites. Scott Conner reported that the Newsletter Link is to an alternate Website and

is not secure in this manner. We are not entering personal information for this process and should not be an issue.

Dues are Due – Membership dues are now due. If you have not sent in your payment, please do so at your earliest convenience. This is now available on our website or you can still mail in to our P.O. Box.

Fourth PSW of 2023 – Our fourth PSW of 2023 will be August 19th. If you have never assisted with a PSW, please consider doing so. PSW's are a great opportunity to meet others interested in astronomy, and likely you will learn something new along the way. Dave Kube and Scott Conner volunteered to lead this event.

Moon Watch – A Moon Watch will take place on Saturday, August 26th, at the Evansville Museum. I spoke with Carlisle Wishard on 8/16 and explained what normally happens at museum events and expectations (bathroom access for members, et cetera). We also spoke about EAS meetings held at the museum during winter months and our previous arrangement regarding costs. We still need to pay for security for our meetings. Please consider supporting the Moon Watch next Saturday.

ASTROCON 2025 Announced –The annual national convention of the Astronomical League, ASTROCON 2025, will be held June 25-28, 2025, under the spectacularly dark skies of Bryce Canyon National Park. Reservations will open in July 2024.

Other New Business - Does any member present have any business to discuss this evening?

ANNOUNCEMENTS

Next Monthly Meeting – Our next regular meeting is scheduled for 7:30 PM on September 15th at the Observatory. Chuck Allen has already arranged a guest speaker for that meeting.

ADJOURN MEETING- Tony Bryan adjourned the meeting at 9:20pm

Respectfully Submitted – Dave Kube – Secretary