



AU AstroNews

The Newsletter of the Astronomical Unit

November 2023

Sponsored by the Santa Barbara Museum of Natural History



Partial Annular Solar Eclipse at the Camino Real Marketplace.
Photo credit: Bonnie Murdock and Marlin Mowatt.

SBAU ELECTION

Our annual election is coming up in December. If you are interested in serving as an officer in the club, contact Vice President Ron Herron at [<brherron@gmail.com>](mailto:brherron@gmail.com). Positions and their duties are detailed on the SBAU web page.

OUTREACH SUMMARY

Since the last newsletter, certified SBAU/SBMNH volunteers Brandy Ackerman, Krissie Cook & Girl Scouts, Tim Crawford, Joe Doyle, David Feinberg, Tessa Flanagan & Duff Kennedy, Art Harris, Ron Herron, David Larson, Pat & Chuck McPartlin, Janet & Martin Meza, Bonnie & Bruce Murdock, Edgar Ocampo, Javier Rivera, Tom Totton, Maureen & Tom Whittemore, Jerry Wilson, John Winckowski & Sean Fox & Quasars, and Andre Yew showed the sky to **2956** viewers - BIG turnout for the eclipse, and a big **thank you** to our volunteers!

OUTREACH EVENTS

SBAU volunteers must have undergone the SBMNH background check, and conform with the SBMNH policies for dealing with the public, to participate in outreach activities. To get vetted, contact SBMNH Volunteer Manager Rebecca Coulter [<rcoulter@sbnature2.org>](mailto:rcoulter@sbnature2.org). It's quick and painless.

School events are ramping up. Please come out and help if you can - it's a lot of fun showing Saturn and Jupiter to students.

THURSDAY, NOVEMBER 2, SETUP 7 PM

Telescopes for Monte Vista School, 730 N Hope Avenue. We set up on the blacktop to the north, accessed from a gate in the parking lot.

FRIDAY, NOVEMBER 3, 7 PM

Quick planetarium show, then at 7:30, our monthly meeting in Fleischmann Auditorium at SBMNH. This will be a hybrid meeting, also on Zoom. Watch your email or find the link on the SBAU web page. Our speaker will be Dr. Matthew Povich of Cal Poly Pomona, on star formation.

SUNDAY, NOVEMBER 5, 2 AM - DAYLIGHT SAVING Time ends, Fall Back one hour.

WEDNESDAY, NOVEMBER 8, SETUP 5 PM

Telescopes for Santa Barbara Community Academy, 850 Portesuello Avenue. We set up by the field to the S of the main building, with entrance off of Portesuello.

SATURDAY, NOVEMBER 11, 5 PM

AU monthly planning meeting on Zoom. Watch your email for the link.

SATURDAY, NOVEMBER 11, SETUP 6 PM

Monthly Public Star Party at SBMNH, next to Palmer Observatory, 7 to 10 PM.

THURSDAY, NOVEMBER 16, SETUP 7 PM

Telescopes for Hope School, 3970A La Colina Road. We enter through a gate at the end of their parking lot to set up on the blacktop playground.

FRIDAY, NOVEMBER 17, SETUP 6 PM

Monthly Public Telescope Night at Westmont, at their Keck Observatory, next to the athletic fields. Volunteers are invited to a public music concert in Deane Chapel at 7 PM where there will be choral pieces that have a night/star theme.

SATURDAY, NOVEMBER 18, SETUP 5:30 PM

Star Party at Los Flores Ranch Park, 6245 Dominion Road in Santa Maria. We enter via a dirt road to the north past the main entrance - look for the sign.

TUESDAY, NOVEMBER 28, SETUP 7 PM

Telescope Tuesday at the Camino Real Marketplace, in the plaza by the theater.

WEDNESDAY, NOVEMBER 29, SETUP 5:15 PM

Telescopes for Peabody Charter School, 3018 Calle Noguera. We enter through a gate on the SW side of campus, off Calle Granada.

THURSDAY, NOVEMBER 30, SETUP 5 PM

Telescopes for Foothill School, 711 Ribera Drive. We enter through a gate at the NW edge of the campus, off Cathedral Oaks Road. Pizza and water for volunteers.

FROM THE PRESIDENT

Jerry Wilson

The search for dark matter continues, but a small step in determining its nature has recently been reported. There are two commonly discussed possibilities, WIMPs and Axions.

WIMPs (Weakly Interacting Massive Particle) and Axions are both hypothetical [subatomic](#) uncharged particles. Each has been postulated to fit different holes in the Standard Model and neither has been observed to exist yet.

Being uncharged, they are each a candidate for dark matter, but the key difference for dark energy research is that one is light or wavelike and the other is heavy and therefore particle like.

Researchers have looked at Einstein circles generated by foreground galaxies on background galaxies and included their dark matter haloes. The dark matter haloes were modeled assuming Axion-like or WIMP-like behavior.

The resulting Einstein circles looked very much like that of the observed circle, while the WIMP-like model produced a distinctly different result.

This does not mean that dark matter is necessarily made up of Axions. It does mean that whatever dark matter is, its quantum wave nature will dominate over its particle nature and it will be more Axion-like than WIMP like.

It's one step, but an important step.

ARTS CORNER

“The most beautiful thing we can experience is the mysterious. It is the source of all true art and science.”

Albert Einstein

Strange is our situation here upon earth. Each of us comes for a short visit, not knowing why, yet sometimes seeming to divine a purpose. From the standpoint of daily life, however, there is one thing we do know: that we are here for the sake of each other, above all, for those upon whose smile and well-being our own happiness depends, and also for the countless unknown souls with whose fate we are connected by a bond of sympathy. Many times a day I realize how much of my own outer and inner life is built upon the labors of others, both living and dead, and how earnestly I must exert myself in order to give in return as much as I have received and am still receiving.

Albert Einstein (adapted)

When, in the gold October dusk, I saw you near to setting, Arcturus, bringer of spring,
Lord of the summer nights, leaving us now in autumn,
Having no pity on our withering;
Sara Teasdale, Arcturus in Autumn (1926)

They are immortal, all those stars both silvery and golden shall shine out again,
The great stars and the little ones shall shine out again they endure
Walt Whitman, Leaves of Grass (1871)



“Gosh. That’s a tough one. What is the 75th brightest star in the night sky?” Photo credit: Tom Totton.



“You’re kidding, Jerry. Do you really think it’ll take me another five years to blend in the right curve?” Photo credit: Tom Totton.

AU Information Box

- President:** Jerry Wilson 252-2206
jerryawilsonphd@gmail.com
- Vice President:** Ron Herron
vicepresident@sbau.org
- Secretary:** Pat&Chuck McPartlin 964-8201
secretary@sbau.org
- Treasurer:** Colin Taylor 967-8140
dancingmagpie@cox.net
- Equipment:** Tom Totton 562-8795
equipment@sbau.org
- Outreach:** Chuck McPartlin 964-8201
outreach@sbau.org
- Newsletter:** Tom Whittemore 687-2025
kometes@aol.com
- Webmaster:** Tom Totton 562-8795
webmaster@sbau.org
- Merch Manager:** Pat McPartlin 964-8201
parsnip7@yahoo.com

SBMNH Astronomy Programs Manager

John Winckowski 682-4711 ext. 164
jwinckowski@sbnature2.org

AU AstroNews, the monthly publication of the **Astronomical Unit (AU)**, is mailed to the AU membership. For publishing consideration for the next month, submit astronomical items by the 20th of the current month!

AU annual membership rate: \$20

AU mailing address:

Astronomical Unit
 c/o Santa Barbara Museum of Natural History
 2559 Puesta Del Sol Road
 Santa Barbara, CA 93105-2998

On the Web: <http://www.sbau.org/>

The Astronomical Unit

c/o Santa Barbara Museum of Natural History
 2559 Puesta Del Sol Road
 Santa Barbara, CA 93105-2998

NOVEMBER 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2 MONTE VISTA SCHOOL 7PM	3 "HYBRID" AU MONTHLY MEETING 7PM	4
5 LQ MOON DAYLIGHT SAVINGS TIME ENDS AT 2AM FALL BACK!	6	7	8 SB COMMUNITY ACADEMY 5PM	9	10	11 ZOOM PLANNING MEETING 5PM STAR PARTY 6PM
12	13 NEW MOON	14	15	16 HOPE SCHOOL 7PM	17 WESTMONT PUBLIC STAR PARTY 6PM	18 LOS FLORES RANCH PARK 5:30PM
19	20 FQ MOON	21	22	23	24	25
26	27 FULL MOON	28 "TELESCOPE TUESDAY" AT CAMINO REAL MARKETPLACE 7PM	29 PEABODY CHARTER SCHOOL 5:15PM	30 FOOTHILL SCHOOL 5PM		