



AU AstroNews

The Newsletter of the Astronomical Unit

October 2022

Sponsored by the Santa Barbara Museum of Natural History



Setting up at the Ojai Valley Inn. Photo credit: Tom Totton.

ANNUAL AU CAMPOUT

The AU campout will take place at the Mohawk Shores group site at Cachuma Lake, with arrival on Friday, October 21 after 3 PM, and checkout on Sunday, October 23 by 1 PM. To see their rules and regulations for pets and activities, visit <https://www.countyofsb.org/637/Cachuma-Lake>

Please contact Chuck at macpuzl@west.net to RSVP by October 6, and indicate whether you will be camping or just coming up for the day on Saturday, number of people, and whether you would participate in the Saturday potluck at 4:30 PM. If you responded already after Colin's group email, you're good. We will use the count to decide whether the potluck will have a catered main dish (tri-tip, chicken, garlic bread) or not, and how much to order. The decision will come in a group email after the October planning meeting, and be on the AU web page.

If you are interested in taking a wonderful Nature Cruise, be sure to reserve a slot on Saturday or Sunday by calling 805-688-4515. Adults \$15 (ages 13 and up), Kids \$10 (ages 5 to 12 year old; please no children under 5).

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. Positions and their duties are detailed on the SBAU web page.

OUTREACH SUMMARY

To get full outreach credit, SBAU volunteers must be fully vaccinated and boosted, and have undergone the SBMNH background check to participate in outreach activities. To get vetted, contact SBMNH Volunteer Manager Rebecca Coulter <rcoulter@sbnature2.org>. It's quick and painless.

Since the last newsletter, certified SBAU/SBMNH volunteers Warren Bitters, Krissie Cook, Tim Crawford, Tessa Flanagan & Duff Kennedy, Art Harris, Pat & Chuck McPartlin, Janet & Martin Meza, Edgar Ocampo, Charles Schueler, Tom Whittemore, and Andre Yew showed the sky to **1858** guests. Dave Brehl, Ken Kihlstrom, and Peggy O'Rork also helped out.

OUTREACH EVENTS

TUESDAY, OCTOBER 4, SETUP 7 PM

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

FRIDAY, OCTOBER 7, 7:30 PM

AU monthly meeting, again on YouTube Live, links on the web page. Our speaker will be high-energy physicist Dr. Claudio Campagnari of UCSB and CERN, who was involved in the discovery of the Higgs Boson.

SATURDAY, OCTOBER 8, 5:30 PM

*** **Note time change** *** Monthly AU planning meeting in the Palmer Observatory Circle at SBMNH.

SATURDAY, OCTOBER 8, SETUP 6:30 PM

*** **Note time change** *** Monthly Public Star Party at SBMNH, next to Palmer Observatory, 7:30 to 10 PM.

SATURDAY, OCTOBER 15, SETUP 5 PM

Telescopes for a large Girl Scout campout at Camp Arnaz, near Ojai at 155 Sulphur Mountain Rd, Ventura. If you had the background check done for the Live Oak event at the end of April, you're good. If not, you need to send your names and emails to info@girlscoutscce.org and tell them you need to do Background Checks for the Camp Arnaz campout. Let Chuck know if you plan to come.

THURSDAY, OCTOBER 20, SETUP 6:15 PM

Telescopes for an Astronomy Night at Hope School, 3970 La Colina Rd. We set up on the blacktop around back, with access through the end of their parking lot.

FRIDAY, OCTOBER 21, SETUP 7 PM

Monthly Public Telescope Night at Westmont, at their Keck Observatory, next to the athletic fields. If you're not at the AU campout, please come to Westmont if you can.

THURSDAY, OCTOBER 27, SETUP 6 PM

Telescopes for an Astronomy Night at Monte Vista School, 730 N Hope Ave. We'll set up on their playground blacktop.



“Here’s one for you. Suppose eight people line up at your scope. Did you know you could arrange them into twenty-eight unique pairs?”

FROM THE PRESIDENT

Jerry Wilson

The recently launched James Webb Telescope is a spectacular achievement that brings many advantages to observational astronomy. Among them is the ability to see galaxies from the very early universe. These galaxies are both faint and highly red-shifted. JWST’s large aperture and sensitivity to the far infrared provides the ability to see this region of time.

We understand the reason that JWST sees the distant past is due to time it takes light to travel to Earth. We now see galaxies from when the universe was only 300 million years old. Light left those galaxies over 13 billion years ago. We see them where they were when light left them. But, in that time, they have traveled even farther. We can’t see them because the light that leaves them right now will take another 33 billion years to reach us. Probably beyond JWST’s service life.

But let’s look closer to home. We divide time into three parts: past, present, and future. We certainly cannot, with any certainty, see the future. 15th-century monks notwithstanding.

But we also cannot see the present. Standing in a room with other people, you cannot see them as they are, but only as they were. To be sure, it’s not very long ago, but it does take light and sound a nonzero time to get to you. The delay is so short that we take it as the present, but technically it’s not. We can only see and know the past.

Additionally, your present is unique. Time itself passes at different rates depending on where a person is in the universe and what he or she is doing. In highly curved space-time, time passes more slowly. It also passes more slowly the faster you go.

Near a massive black hole time would noticeably slow down for you relative to someone back on Earth. Being on Earth time would slow down relative to someone in space, but you’d need a delicate instrument to sense it.

The twin paradox illustrates an extreme case of speed slowing you down. You and your twin brother want to be astronauts. You get the chance

and fly to Alpha Centauri, 4 light years away. It's a powerful rocket and you fly at half the speed of light. It takes you 8 years to get there; you stay a year (the night life is good) and 8 years to get back, for a total of 17 years away from your twin. When you land back on Earth your twin is now elderly. Time is relative to where you are and what you're doing.

ARTS CORNER

(Excerpted from the New York Times, 9/22/2022)

At Summer's End, a Moment of Wild Surprise

Margaret Renkl

Then, just like that, the light changed, taking on the autumnal slant that turns dust motes into flecks of fire and deepens the color of songbirds' feathers, so bright and new now after the August molt.

Suddenly it is fall, whatever the temperature might suggest.

There are two ways of marking the change of seasons. Meteorological fall begins on the first day of September. Astronomical fall begins with the autumnal equinox, which this year occurs on Thursday.

The disparity between the dates is owing to the specialties involved: Astronomers account for the changing seasons by observing Earth's tilt, while meteorologists, it probably goes without saying, divide the seasons according to the weather. For meteorologists, summer is June, July and August, the three hottest months of the year...

The planet is tilting anyway, and many migratory creatures take their cue from the changing light even as all the others are still panting in the shade....

AU Information Box

President: Jerry Wilson 968-4056
jerryawilsonphd@gmail.com

Vice President: Ron Herron
vicepresident@sbau.org

Secretary: Colin Taylor
dancingmagpie@cox.net

Treasurer: Colin Taylor 967-8140
dancingmagpie@cox.net

Equipment: Art Harris 968-4017
n6is@cox.net

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 Specialist

Krissie Cook 682-4711 ext. 164
kcook@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 rates:

Single = \$20 Family = \$25

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

October 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4 CAMINO REAL MARKETPLACE 7PM	5	6	7 AU MONTHLY MEETING ON YOUTUBE 7:30 PM	8 PLANNING MEETING 5:30PM STAR PARTY 7:30 - 10PM
9	10	11	12	13	14	15 CAMP ARNAZ 5PM
16	17	18	19	20 HOPE SCHOOL 6:15PM	21 AU CAMPOUT WESTMONT PUBLIC STAR PARTY 7PM	22 AU CAMPOUT
23 AU CAMPOUT	24	25	26	27 MONTE VISTA SCHOOL 6PM	28	29
30	31					