**July 2023** 

#### Sponsored by the Santa Barbara Museum of Natural History



Setting up at the Ritz-Carlton Bacara. Photo credit: Tom Totton.

### OUTREACH SUMMARY

Lots of cloudouts in June, but certified AU volunteers Brandy Ackerman, Joe Doyle, Tessa Flanagan & Duff Kennedy, Pat & Chuck McPartlin, Bonnie & Bruce Murdock, Tom Whittemore, and Andre Yew showed cool stuff in the sky to **826** people, helped by Ken Kihlstrom.

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 <<u>rcoulter@sbnature2.org</u>>. It's quick and painless.

## OUTREACH EVENTS FOR JULY

#### SATURDAY, JULY 1, SETUP 8 PM

Slide show and telescopes for campers at Cachuma Lake. We set up in the field at Dakota Plains.

#### THURSDAY, JULY 6, SETUP 7 PM

Telescopes for the Ritz-Carlton Bacara. We set up on the bluff top lawn by the Angel Oak restaurant.

#### FRIDAY, JULY 7, 7PM

Quick planetarium show, then our monthly meeting at 7:30 in the main 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 is UCLA theoretical astrophysics doctorate student Sahil Hegde, on star formation in the early Universe, and how radio telescopes on the Moon might see them.

#### SATURDAY, JULY 8, 5 PM

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

#### SATURDAY, JULY 8, SETUP 7:30 PM

Monthly Public Star Party at SBMNH, next to Palmer Observatory, 8:30 to 10 PM.

#### WEDNESDAY, JULY 12, SETUP 8 PM

Telescopes and slide show for campers at Carpinteria State Beach. We set up on the sidewalk towards the beach from the entry kiosk.

#### THURSDAY, JULY 13, SETUP 7 PM

Telescopes for the Ritz-Carlton Bacara. We set up on the blufftop lawn by the Angel Oak restaurant.

#### FRIDAY, JULY 14, SETUP 7:30 PM

Telescopes for campers at Refugio State Beach, setup in the southwest corner of the day use parking lot.

#### SATURDAY, JULY 15, SETUP 8 PM

Slide show and telescopes for campers at Cachuma Lake. We set up in the field at Dakota Plains.

#### THURSDAY, JULY 20, SETUP 7 PM

Telescopes for the Ritz-Carlton Bacara. We set up on the blufftop lawn by the Angel Oak restaurant.

#### FRIDAY, JULY 21, SETUP 7 PM

Monthly Public Telescope Night at Westmont, at their Keck Observatory, next to the athletic fields.

#### SATURDAY, JULY 22, SETUP 7:30 PM

Telescopes for campers at Refugio State Beach, setup in the southwest corner of the day use parking lot.

#### TUESDAY, JULY 25, SETUP 7 PM

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

#### WEDNESDAY, JULY 26, SETUP 8 PM

Telescopes and slide show for campers at Carpinteria State Beach. We set up on the sidewalk towards the beach from the entry kiosk.

#### THURSDAY, JULY 27, SETUP 7 PM

Telescopes for the Ritz-Carlton Bacara. We set up on the blufftop lawn by the Angel Oak restaurant.

#### FRIDAY, JULY 28, SETUP 7:30 PM

Telescopes for campers at Refugio State Beach, setup in the southwest corner of the day use parking lot.

#### SATURDAY, JULY 29, SETUP 8 PM

Slide show and telescopes for campers at Cachuma Lake. We set up in the field at Dakota Plains.

### FROM THE PRESIDENT

Jerry Wilson

The SBAU recently hosted a talk on Quasars by Professor Antonucci of UCSB. For me the talk brought home a reality that should have been obvious to me, but I hadn't really articulated it. That is - in its early days - our universe was a very different place than it is today. If we assume that all the matter and energy that exists in the universe came into existence at the Big Bang, then it was crammed into a very much smaller volume than now.

We live in a universe with a visible edge that is 13.8 billion light years away and an actual edge estimated to be at least double that. So, if we assume our universe is a sphere about 56 billion light years in diameter, then at earlier ages it was proportionately smaller.

The James Webb Space Telescope has imaged an object with a redshift that implies it existed 300 million years after the big bang. That's 2% of the age of the universe. At this time the universe would

have been contained 0.008 times its present volume.

Prof Antonucci's talk on quasars pointed out that there were much larger structures then: stars, galaxies and whatever quasars actually are, compared to the present. When things collapse under their own gravity due to their mass, the bigger early ones got hotter faster, and in the case of stars, burned through their hydrogen and produced 'metals' much faster than now. These large structures burned bright and died young! Quasars are inherently a different denizen of an earlier age.

# WELCOME, JOHN WINCKOWSKI!

Krissie Cook

In June, the Santa Barbara Museum of Natural History hired John Winckowski as the new Astronomy Programs Manager. He was hired to replace Krissie Cook, who had been filling in as department head in a temporary capacity for a notexactly-temporary year and a half. John moved here from Alpena, MI, where he was the planetarium coordinator at the Besser Museum located in Northeast Michigan. He worked there for 5 years after graduating from the University of Toledo, where he studied astrophysics. He also served in the United States Marine Corps. John originally thought of going into engineering but decided to move in a direction he thought might have less math – astrophysics. Although that might have been a slight miscalculation on his part, once he started working at the university's planetarium, he realized he had found his place. "Once I began sharing my passion for astronomy with the public, everything just clicked. This is what I love doing," says John.

John and his wife, Haley, as well as his cat, are settling into life on the west coast and don't seem to mind the June gloom at all. They are also very keen on a snowless winter. On John's recent trip to the Sea Center, he never lost the look of amazement at the view from the wharf. "This place is so beautiful from every angle!" The Museum welcomed John enthusiastically and put him to work immediately. He is looking forward to continuing the Museum's close relationship with the SBAU and getting to know all the members. John can be found at the Museum Tuesday-Saturday, and also by email

(jwinckowski@sbnature2.org) or phone (805-682-4711 x164).

And for those wondering what happened to Krissie, rest assured that she's thrilled to have John take over. She has been settling back into her life as a regular SBAU member and volunteer presenter in the planetarium. She's also glad to have more time to focus on her other jobs and her wonderful family. She knows the astronomy department is in good hands! (THANKS KRISSIE!)

### ARTS CORNER

"Every passing hour brings the Solar System fortythree thousand miles closer to Globular Cluster M13 in Hercules – and still there are some misfits who insist that there is no such thing as progress." - RANSOME K. FERN



"Whaddya think, Jerry? I just dropped a load of bucks on this beauty. The seller told me that it should easily pull in distant quasars!" Photo credit: Tom Totton.



"Chuck, do you know what so-and-so put chewing gum on my observing chair?" Photo credit: Tom Totton.

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**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

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## The Astronomical Unit

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

JULY 2023						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday  1 CACHUMA LAKE 8PM
2	3 FULL MOON	4	5	6 RITZ-CARLTON BACARA 7PM	7 "Hybrid" AU Monthly Meeting 7PM	8 ZOOM PLANNING MEETING 5PM STAR PARTY 7:30PM
9 LQ Moon	10	11	CARPINTERIA STATE BEACH 8PM	13 RITZ-CARLTON BACARA 7PM	14 Refugio State Beach 7:30PM	15 CACHUMA LAKE 8PM
16	17 NEW MOON	18	19	20 RITZ-CARLTON BACARA 7PM	21 WESTMONT PUBLIC STAR PARTY 7PM	22 REFUGIO STATE BEACH 7:30PM
23	24	FQ MOON  CAMINO REAL  MARKETPLACE  7PM	26 CARPINTERIA STATE BEACH 8PM	27 Ritz-Carlton Bacara 7PM	28 REFUGIO STATE BEACH 7:30PM	29 Cachuma Lake 8PM
30	31					