



# AU AstroNews

## The Newsletter of the Astronomical Unit

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November 2026

Sponsored by the Santa Barbara Museum of Natural History

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*SBAU Members gather for the 2026 campout at Lake Cachuma. Photo: Diane Welcenbach*

### **SBAU CACHUMA LAKE EVENT 2026**

*Diane Welcenbach*

It was a hot and breezy fall weekend for the SBAU annual campout and potluck event at Cachuma Lake Oct 16<sup>th</sup> – 18<sup>th</sup>. Thank goodness for the giant trees at Mohawk campsite that provided cool shade over the picnic table area.

Forty people were in attendance for the Saturday potluck dinner. SBAU paid for the main course of tri-tip, chicken, baked beans, and garlic bread. It was quite a pleasant day for a picnic outing with some clouds off to the south.

Members brought side dishes including arugula salad, fruit salad, grapes, watermelon, lasagna and many desserts, such as pumpkin pie, cheesecake, brownies, chocolate cake, pies from Farmers Market and cookies to name a few. There were beverages shared such as wine, juices and water. All the food was delicious.

People were having a great time, deep in conversation or just enjoying scenic views. The lake was aglow with the reflection of the sun off the mountains as evening approached. A beautiful night

to enjoy spectacular views of the night sky with SBAU friends.

Cachuma Lake donates a campsite to SBAU as a thank you for outreach outings led by Chuck McPartlin held on the grounds during the year. Thanks to all the super stars that helped make this event a great success.

### **SBAU ELECTION**

Our annual election is coming up on December 4. If you are interested in serving as an officer in the club, contact Vice President Ronnie Herron at [<brherron@gmail.com>](mailto:brherron@gmail.com) Positions and their duties are detailed on the SBAU web page.

### **OUTREACH SUMMARY**

A quiet month with cloud-outs, too, but since the last newsletter, certified SBAU/SBMNH volunteers Krissie Cook, Tim Crawford, Mike Jacoby, David Larson, Pat & Chuck McPartlin, Tom Totton, and Tom Whittemore showed the sky to 383 viewers, helped by Jen Gee & Westmont students, and Rachel Street. Big thanks to the solar folks!

### **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.***

**SUNDAY, NOVEMBER 1, 2 AM** - Daylight Saving Time ends, Fall Back one hour.

### **THURSDAY, NOVEMBER 5, SETUP 4:30 PM**

Telescopes for Science Night at Foothill School, 711 Ribera Drive in Goleta. We set up on the playground blacktop, entering through a gate off

Cathedral Oaks Road at the NW corner of the campus. Pizza for volunteers.

#### **FRIDAY, NOVEMBER 6, 6 PM**

AU monthly meeting in Farrand Hall at SBMNH. SBAU merchandise sales at 6 PM. Quick planetarium show at 6:30, AU business meeting at 7, then our speaker will be Dr. Howard Hui of Caltech on the BICEP Microwave Telescope at the South Pole. We end promptly at 9 PM.

#### **SUNDAY, NOVEMBER 8, 4:30 PM**

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

#### **SATURDAY, NOVEMBER 14, SETUP 6:30 PM**

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

#### **TUESDAY, NOVEMBER 17, SETUP 7 PM**

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

#### **THURSDAY, NOVEMBER 19, SETUP 5 PM**

Telescopes for an Astronomy Night at 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 20, SETUP 5 PM**

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

#### **SBAU CLOTHING FOR SALE**

*Pat McPartlin, Merch Manager*

#### ***SBAU is exiting out of the clothing business!***

All 2027 Calendars have been sold. In the inventory, I have at very low prices:

**LONG-SLEEVED TEE SHIRTS** 3 small for \$15 each.

**HOODIE SWEATSHIRTS (PULLOVER)** 2 small, for \$25.00 each.

**SBAU CAPS (ONE SIZE)** for \$10.00 each.

***Clothing sizes are true; all are pre-shrunk.***

***Contact me at [Merchmgr@sbaui.org](mailto:Merchmgr@sbaui.org) with any questions or requests. Once these are sold, you'll need to go directly to the company that can order these: ID Works in Santa Barbara. Contact them via email at [info@idworkssb.com](mailto:info@idworkssb.com) or call them at 805-965-6001.***

#### **BIG, BIGGER, AND BIGGER YET**

*Jerry Wilson*

There is a fascinating hierarchy of large-scale structures in our universe. This realization started in the 1920s with the discovery that the Andromeda Galaxy is an entirely separate system outside our own, proving that the Milky Way is just one of a vast number of galaxies. Since then, astronomers have identified increasingly massive groupings: galaxies cluster together, and the largest of the large are clusters of galaxy clusters, known as superclusters.

Our Milky Way does not belong to a massive galaxy cluster directly, but rather to a small, loose collection of about 80 to 90 galaxies known as the Local Group. Surrounding our Local Group, the nearest notable galaxy clusters and prominent groups include:

1. The Virgo Cluster: This is the closest major galaxy cluster to us. It contains roughly 2,000 to 4,000 galaxies (many of them dwarfs) and is anchored by a giant elliptical galaxy named M87 at its center. The Local Group and the Virgo Cluster are both part of the larger Virgo Supercluster.
2. The Fornax Cluster: Located roughly in the opposite direction of the Virgo Cluster relative to us, the Fornax Cluster is a smaller, rich cluster containing a few hundred galaxies. It is famous for housing many globular clusters and elliptical galaxies.
3. The Eridanus Cluster: Lying a bit beyond the Fornax Cluster, this is a loose, evolving collection of galaxies that bridges smaller groups into larger structures.
4. The Ursa Major Cluster: Split into two main sub-groupings, this is a relatively loose, spiral-rich cluster rather than a dense, packed sphere like the Virgo Cluster.
5. The Centaurus Cluster and Hydra-Centaurus Region: Part of a more distant, massive gravitational attraction zone, this region represents a much larger concentration of galaxies further out in our cosmic neighborhood.

Beyond these local structures lie true titans. The largest identified are the Shapley Supercluster, containing over 8,000 member galaxies, and the Laniakea Supercluster, which encompasses more than 100,000 galaxies.

Unlike many regions of the cosmos that expand outward with the overall growth of the universe, the Shapley Supercluster is gravitationally bound and pulls inward. Its immense gravity exerts a noticeable tug on the Local Group and the Milky Way, helping scientists explain large-scale cosmic flows.

The Laniakea Supercluster is mapped not just as a static association of galaxies, but by tracking galaxies that share a common movement pattern. It is often described as a cosmic watershed, where thousands of galaxies flow like rivers toward a single gravitational destination: the Great Attractor. The exact nature of the Great Attractor was long shrouded in mystery simply because the core of the Milky Way and its dense star clouds block our view in visible light—a region astronomers call the "Zone of Avoidance." Fortunately, we don't have to wait millions of years for our solar system to orbit the galaxy to get a better look. By using advanced infrared and X-ray telescopes to pierce straight through the galactic dust, scientists are already unmasking this cosmic heavyweight, revealing a hidden, massive concentration of galaxies drawing us ever closer.

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**AU annual membership rate: \$20**

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| NOVEMBER 2026                                                  |               |                                                     |           |                                    |                                 |                                            |
|----------------------------------------------------------------|---------------|-----------------------------------------------------|-----------|------------------------------------|---------------------------------|--------------------------------------------|
| Sunday                                                         | Monday        | Tuesday                                             | Wednesday | Thursday                           | Friday                          | Saturday                                   |
| 1<br>LQ MOON                                                   | 2             | 3                                                   | 4         | 5<br>FOOTHILL<br>SCHOOL<br>4:30 PM | 6<br>MONTHLY<br>MEETING<br>6 PM | 7                                          |
| 8<br>NEW MOON<br><br>PLANNING<br>MEETING ON<br>ZOOM<br>4:30 PM | 9             | 10                                                  | 11        | 12                                 | 13                              | 14<br>SBMNH STAR<br>PARTY<br>SETUP 6:30 PM |
| 15                                                             | 16            | 17<br>FQ MOON<br>CAMINO REAL<br>MARKETPLACE<br>7 PM | 18        | 19<br>HOPE SCHOOL<br>5 PM          | 20<br>WESTMONT<br>7 PM          | 21                                         |
| 22                                                             | 23            | 24<br>FULL MOON                                     | 25        | 26                                 | 27                              | 28                                         |
| 29                                                             | 30<br>LQ MOON |                                                     |           |                                    |                                 |                                            |