



AU AstroNews

The Newsletter of the Astronomical Unit

August 2026

Sponsored by the Santa Barbara Museum of Natural History



SBAU member, Tim Crawford, captured this image of the sun with his iPhone on a non-tracking mount at a recent "Solar Sunday" at SBMNH.

OUTREACH SUMMARY

Since the last newsletter, certified SBAU/SBMNH volunteers Andy Allen, Tim Crawford, Art Harris, Sean Kelly, David Larson, Pat & Chuck McPartlin, Michael Robertson, Woody Schlom, Charles Schueler, Sohini Sengupta, Andrew Tanner, Tom Totton, Chuck Watson, Tom Whittemore, Lee Wilkerson, Jerry Wilson, and Andre Yew showed the sky to **1716** guests. Dr. Jen Gee and students helped out.

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>. It's quick and painless.

OUTREACH EVENTS

SATURDAY, AUGUST 1, SETUP 8 PM

Slide show and telescopes for campers at Cachuma Lake. We set up in the parking lot for the Fireside Theater.

FRIDAY, AUGUST 7, 6:30 PM

Short planetarium show, followed by the monthly SBAU meeting at 7 PM in Farrand Auditorium at SBMNH. Our speaker will be Dr. Jerry Wilson on searching for signs of life on exoplanets with spectroscopy.

SATURDAY, AUGUST 8, SETUP 7:30 PM

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

SUNDAY, AUGUST 9, 4:30 PM

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

WEDNESDAY, AUGUST 12, SETUP 7:30 PM

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

WEDNESDAY/THURSDAY AUGUST 12-13, PEAK OF THE PERSEIDS WITH NEW MOON!

FRIDAY, AUGUST 14, SETUP 7:30 PM

Telescopes for campers at Refugio State Beach. We set up in the day use parking lot, at the SW side of the campground.

SATURDAY, AUGUST 15, SETUP 7:30 PM

Slide show and telescopes for campers at Cachuma Lake. We set up in the parking lot for the Fireside Theater.

TUESDAY, AUGUST 18, SETUP 7 PM

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

FRIDAY, AUGUST 21, SETUP 7 PM

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

FRIDAY, AUGUST 28, SETUP 7 PM

Telescopes for campers at Refugio State Beach. We set up in the day use parking lot, at the SW side of the campground.

SATURDAY, AUGUST 29, SETUP 7 PM

Slide show and telescopes for campers at Cachuma Lake. We set up in the parking lot for the Fireside Theater.

SBAU CLOTHING FOR SALE

Pat McPartlin, Merch Manager
Merchmgr@sbau.org

SBAU is exiting out of the clothing business!

In the inventory, I have at very low prices:

SHORT-SLEEVED TEE-SHIRTS

—3 small and 2 extra-large for \$10.00 each.

LONG-SLEEVED TEE-SHIRTS

—4 small and 2 extra-large for \$15 each.

HOODIE SWEATSHIRTS (PULL-OVER)

—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@sbau.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 or call them at 805-965-6001. However, you'll have to pay full price and sales tax, and the club will earn no funds — talk with them to have your favorite SBAU clothing set-up for you!

BETA PICTORIS: AN AMATEUR TRIUMPH

Jerry Wilson

There is a very interesting star in the constellation Pictor. Unfortunately for us, Pictor is a southern constellation and is not visible in our sky, but its Beta star has the faintest extrasolar planet, or exoplanet, yet identified—known as Beta Pictoris d. Found 63 light-years away, it has two planetary siblings, b and c, which were caught some time ago. These exoplanets reside in a protoplanetary disk, tipped almost edge-on to our line of sight.

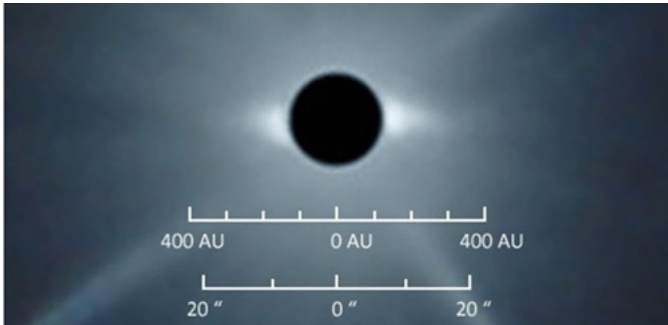
The system has been photographed and studied extensively over the last decade, with dramatic views obtained by Hubble, JWST, the ESO, and the VLT. Hubble has even identified a secondary debris disk believed to result from a collision of two Jupiter-sized protoplanets. But the most amazing image I've seen is one taken by an amateur in New Zealand, Rolf Olsen, using his 10-inch Newtonian and a modified webcam.

As is typically the case with exoplanet systems, the host star significantly outshines the very dim exoplanets and the protoplanetary disk. The large observatories use an occulting disk to block the host star's light so astronomers can see the fainter structures. So, how did Rolf achieve this?

He recalled reading a paper that proposed a system that did not require an occulting disk: a 1993 paper by Lecavelier des Etangs, et al. (A&A, 274, 877). Applying Lecavelier's technique, Rolf took a large number of short exposures of Beta Pictoris as subframes, and another large number of subframes of nearby Alpha Pictoris. These are conveniently similar stars of about the same magnitude and in the same region of the sky. Their magnitude difference was used to set the ratio of the exposure times to get a similar image of each.

He collected 344 images of Beta Pictoris at 7.0 seconds each and 299 images of Alpha Pictoris at 4.0 seconds each. Both sets of images were then dark-subtracted and stacked separately in Registax. Rolf then subtracted the Alpha image from the Beta image in PixInsight LE.

The result is a picture of Beta with a black disk blocking the core star and a clear image of the inner portions of the protoplanetary, edge-on disk—just as if an occulting disk had been used.



About the Author

Jerry Wilson has a BS and MS in Physics from Cal State Northridge. His PhD is from UCLA in Condensed Matter Physics. After receiving his PhD he was employed at Santa Barbara Research Center (SBRC). He retired in 2006 and worked as a consultant at Cyan Systems until 2018. He's had a lifelong hobby of astronomy which includes astro-imaging and telescope fabrication.



Photo credit: Patricia Forgey

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AUGUST 2026						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 CACHUMA LAKE 8PM
2	3	4	5	6	7 MONTHLY MEETING 6:30PM	8 SBMNH STAR PARTY SETUP 7:30PM
9 PLANNING MEETING ZOOM 4:30PM	10	11	12 CARPINTERIA STATE BEACH 7:30PM	13	14 REFUGIO STATE BEACH 7:30PM	15 CACHUMA LAKE 7:30PM
16	17	18 CAMINO REAL MARKETPLACE 7PM	19	20	21 WESTMONT 7PM	22
23	24	25	26	27	28 REFUGIO STATE BEACH 7PM	29 CACHUMA LAKE 7PM
30	31					