



AU AstroNews

The Newsletter of the Astronomical Unit

March 2026

Sponsored by the Santa Barbara Museum of Natural History



Art Harris shows off a table loaded with astronomical equipment for Astronomy Day at the Santa Barbara Museum of Natural History.

TOTAL LUNAR ECLIPSE

In the early morning hours of Tuesday, March 3, there will be a total lunar eclipse visible from Santa Barbara. The penumbral phase will start at 00:44 AM PST. The Moon will enter the darker umbra at 01:50 AM, and be entirely eclipsed by 03:03 AM. Max eclipse is at 03:34 AM, and the Moon will begin leaving the umbra at 04:03 AM. The umbral phase will end at 05:17 AM, and the penumbral phase will end at 06:23 AM. Westmont has decided to open up their observatory for the total lunar eclipse on Tuesday morning, starting at 3 AM until sunrise.

OUTREACH SUMMARY

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.

Despite all the rain, SBAU volunteers Tim Crawford, Tessa Flanagan, Rachel Freed, Brian Green, Sean Kelly, David Larson, Pat & Chuck McPartlin, Tom Totton, Chuck Watson, Tom Whittimore, Lee Wilkerson, and Andre Yew showed cool stuff in the sky to **1594** people, helped by Dr. Jen Gee and Westmont students.

OUTREACH EVENTS FOR MARCH

TUESDAY, MARCH 3, SETUP 5 PM PST

Telescopes for Science Night at Monte Vista School, 730 N Hope Ave. We set up on the blacktop at the north end of campus. Food for volunteers.

THURSDAY, MARCH 5, SETUP 4 PM PST

Telescopes for Science Night at Hollister Elementary School, 4950 Anita Lane. We set up on the blacktop, with access through a gate at the end of Ashton Street. Food for volunteers.

FRIDAY, MARCH 6, 6PM PST

AU monthly meeting in Fleischmann Auditorium at SBMNH. SBAU merchandise sales at 6 PM. Quick planetarium show at 6:30, AU business meeting at 7, then at 7:30, our speaker will be NASA/JPL Senior Research Scientist Dr. Rosaly M.C. Lopes, and the topic is "Where the Hot Stuff Is: Volcanoes Beyond Earth". We end promptly at 9 PM.

SUNDAY, MARCH 8 - DAYLIGHT SAVING TIME STARTS. SPRING AHEAD TO PDT.

SUNDAY, MARCH 8, 4:30 PM PDT

SBAU Monthly Planning Meeting on Zoom. Watch your email for the link.

WEDNESDAY, MARCH 11, SETUP 5 PM PDT

Science Night at Monroe School, 431 Flora Vista Drive. Food for volunteers. We set up on a lawn next to the library.

THURSDAY, MARCH 12, SETUP 5 PM PDT

Telescopes for Science Night at SB Charter School, 6100 Stow Canyon Rd, on the east side of the Goleta Valley Junior High campus.

SATURDAY, MARCH 14, SETUP 6:30 PM PDT

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

TUESDAY, MARCH 17, SETUP 7 PM PDT

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

FRIDAY, MARCH 20, 06:46 AM PDT, SPRING BEGINS IN THE NORTHERN HEMISPHERE.

FRIDAY, MARCH 20, SETUP 6 PM PDT

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

TUESDAY, MARCH 24, SETUP 7 PM PDT

Telescopes for a Moon Night for 5th graders at Monte Vista School, 730 N Hope Ave. We set up on the blacktop at the north end of campus.

FROM THE PRESIDENT

Jerry Wilson

I think people generally think of their physical world along the lines of Newtonian Physics. It covers effects we experience daily in a very intuitive manner. We have a feel for forces and energy and a sense of time that is very useful in our daily lives, but as we know, the universe in general operates in a more counter-intuitive manner. Relativity and Quantum Mechanics especially elicit astonishment when their descriptions of reality are expounded.

So why do we still use Newtonian dynamics when it is not general? Well, it applies well enough for our daily events. For example we can launch rockets into orbits, boost them in the right direction and

have them deposit Rovers on Mars with great precision. There's no need for Relativity or Quantum mechanics. The only need I see for Relativity in our daily lives is GPS. Without general Relativity corrections it would not work.

With Newtonian dynamics useful for daily events on a human scale, General Relativity and Quantum Mechanics extend our understanding to strong gravitational fields and great speeds while Quantum Mechanics introduces us to the physics of the subatomic world.

I had an epiphany recently watching a Brian Cox video where he pointed out that a black hole should not be thought of as a spatial object, but rather as a Space-time object. That's exactly how I viewed a black hole: as a spatial object, even though I knew that time stopped for an outside observer at the event horizon. For an observer passing through the event horizon, the interior is not spatial only. In fact Brian points out that the proper way to think of whatever is at the core of a black hole is as a single instant in time.

We refer to the center of a black hole as the "je ne sais quoi" at the origin of the big bang and as a singularity. That's not a really useful image. All that really means is the theory doesn't apply.

When we have a fixed finite mass in a volume, which we then decrease toward zero, the density (mass divided by volume) becomes larger and larger and in the limit goes to infinity. But mass divided by zero is not equal to infinity, it is an undefined operation. Math doesn't apply to it. For example, let's say x divided by y equals q . Then q times y must equal x . But if $y = 0$ then we have a contradiction because q times 0 does not equal x . Division by zero is an excluded interval.

Both singularities occur at the edge of general relativity. The situation they describe is an excluded interval to the theory of relativity just like division by zero is a forbidden operation.

However to get to the physical realm of very high density, is to get to the realm of very small particles.

In other words, we leave General Relativity and transition to the quantum world and the physics of the Planck length. I don't understand that either, but I don't have to worry about singularities any more.

THE CONSTELLATION ORION

I'm delighted to see you,
Old friend,
Lying there in your hammock
Over the next town.
You were the first person
My son was to meet in the heavens.
He's sleeping now,
His head like a small sun in my lap.
Our car whizzes along in the night.
If he were awake, he'd say
"Look Daddy, there's Old Ryan!"
But I won't wake him.
He's mine for the weekend,
Old Ryan, not yours.

Ted Kooser



"Gosh. You'd think they might give us larger plates...."

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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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MARCH 2026						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3 LUNAR ECLIPSE 2AM MONTE VISTA SCHOOL 5PM	4	5 HOLLISTER ELEMENTARY 4PM	6 GENERAL MEETING 6PM	7
8 DST BEGINS ZOOM PLANNING MEETING 4:30PM	9	10	11 MONROE SCHOOL 5PM	12 SB CHARTER SCHOOL 5PM	13	14 SBMNH STAR PARTY SETUP 6:30PM
15	16	17 CAMINO REAL MARKETPLACE 7PM	18	19	20 VERNAL EQUINOX WESTMONT 6PM	21
22	23	24 MONTE VISTA SCHOOL 7PM	25	26	27	28
29	30	31				