



# AU AstroNews

## The Newsletter of the Astronomical Unit

July 2015

Sponsored by the Santa Barbara Museum of Natural History



*SBAU member, Dora Drake, goes for a cruise on the Channel Cat. Dora was awarded a spot on the world-famous luxury yacht because of her volunteer work at the Museum of Natural History. Photo credit: M. Farris.*

### OUR JULY SPEAKER

Our speaker for the July 10<sup>th</sup> meeting will be David J. Gross. At the time of this printing the details of his topic were unknown other than he will speak about “something cosmological.” The following is a short version of his bio. “David Gross is the Chancellor’s Chair Professor of Theoretical Physics and former Director of the Kavli Institute for Theoretical Physics at UCSB. He received his Ph.D. in 1966 at UC Berkeley and was previously Thomas Jones Professor of Mathematical Physics at Princeton University. He has been a central figure in particle physics and string theory. His discovery, with his student Frank Wilczek, of asymptotic freedom—the primary feature of non-Abelian gauge theories—led Gross and Wilczek to the formulation of Quantum Chromodynamics, the theory of the strong nuclear force. This completed the Standard Model, which details the three basic forces of particle physics—the electromagnetic force, the weak force, and the strong force. Gross was awarded the 2004 Nobel Prize in Physics, with Politzer and Wilczek, for this discovery. He has also made seminal contributions to the theory of Superstrings, a burgeoning enterprise that brings gravity into the quantum framework. His awards include the Sakurai Prize, MacArthur Prize, Dirac Medal, Oscar Klein Medal, Harvey Prize, the EPS Particle Physics Prize, the Grande Medaille d’Or

and the Nobel Prize in Physics in 2004. He holds honorary degrees from the US, Britain, France, Israel, Brazil, Belgium and China. His membership includes the US National Academy of Science, the American Academy of Arts and Sciences, the American Philosophical Society, the Indian Academy of Science and the Chinese Academy of Science.”

### OUTREACH SUMMARY

Since the last newsletter, AU volunteers Krissie Cook, Tim Crawford, Zak Dafaallah, Ed Edwards, Sam Goodwin, Art Harris, Jürgen Hilmer, Ken Kihlstrom, Zanna Lucy, Pat & Chuck McPartlin, Janet & Martin Meza, Bruce Murdock, Edgar Ocampo, Javier Rivera, David Salvia, Jim Sumstine, Tom Totton, Chris Ulivo, Tom Whittimore, Patricia & Jerry Wilson, and Linda & Harold Yarbrough showed cool astronomy stuff to **831** visitors.

### OUTREACH FOR JULY

Here are the AU outreach events for July. Events are subject to change, so to get the latest updates, contact Chuck at [macpuzl@west.net](mailto:macpuzl@west.net) or 964-8201. ***Pat and Chuck will be gone for a big chunk of July (07/10 to 07/27), so we'll need a little extra help this month. Please come out and help if you can.***

### THURSDAY, JULY 2, SETUP 7:30 PM

Telescopes for Bacara Resort and Spa. We set up on the bluff lawn overlooking the ocean.

### FRIDAY, JULY 3, SETUP 8 PM

Telescopes for Gaviota State Beach, in the NE corner of their day use parking lot. Moved from Refugio because of the oil spill closure.

### SATURDAY, JULY 4, SETUP 8 PM

Telescopes for campers at Cachuma Lake Campground. We set up on the grassy field at Dakota Plains.

**WEDNESDAY, JULY 8, SETUP 8 PM**

Slide show and scopes for Carpinteria State Beach. We set up on the sidewalk toward the ocean from the entry kiosk.

**THURSDAY, JULY 9, SETUP 7:30 PM**

Telescopes for Bacara Resort and Spa. We set up on the bluff lawn overlooking the ocean.

**FRIDAY, JULY 10, 7 PM \*\*\* NOT FIRST**

**FRIDAY \*\*\***

AU monthly meeting in Farrand Hall at SBMNH.

**SATURDAY, JULY 11, 6 PM**

Planning meeting in the classroom next to Javier's office at SBMNH. Come plan your club's activities. All are welcome.

**SATURDAY, JULY 11, 8 PM**

Monthly Public Star Party, next to Palmer Observatory at SBMNH.

**TUESDAY, JULY 14 - NEW HORIZONS DOES A DRIVE-BY SHOOTING OF PLUTO.**

**THURSDAY, JULY 16, SETUP 7:30 PM**

Telescopes for Bacara Resort and Spa. We set up on the bluff lawn overlooking the ocean.

**FRIDAY, JULY 17, 8 PM**

Monthly Public Telescope Night at Westmont College, at their observatory, next to the baseball field.

**SATURDAY, JULY 18, SETUP 8 PM**

Telescopes for campers at Cachuma Lake Campground. We set up on the grassy field at Dakota Plains.

**WEDNESDAY, JULY 22, SETUP 8 PM**

Slide show and scopes for Carpinteria State Beach. We set up on the sidewalk toward the ocean from the entry kiosk.

**THURSDAY, JULY 23, SETUP 7:30 PM**

Telescopes for Bacara Resort and Spa. We set up on the bluff lawn overlooking the ocean.

**SATURDAY, JULY 25, SETUP 7:30 PM**

Telescopes for Refugio Beach State Campground, in the day use parking lot, southwest corner, assuming they are open. If not, at Gaviota.

**TUESDAY, JULY 28, SETUP 7 PM**

Telescope Tuesday at the Camino Real Marketplace in Goleta. We set up in the plaza by the theater.

**WEDNESDAY, JULY 29, SETUP 8 PM**

Telescopes at Cate School in Carpinteria, on the soccer field, for students from the Music Academy of the West.

**THURSDAY, JULY 30, SETUP 7:30 PM**

Telescopes for Bacara Resort and Spa. We set up on the bluff lawn overlooking the ocean.

***In Memoriam....***



It is with great sadness that we note the passing of Kobi, the AU's "Wonder Dog." Kobi was a fixture at many of the club's outreaches. Early in her astronomy career she attended many mirror-making workshops with her loving owner, Michael Farris. Pictured above are Michael and Kobi. Ruben Gutierrez writes: "I will miss our old friend, that I considered to be the SBAU mascot. It was very nice seeing Kobi at star parties, who was always a very well-mannered member of the AU family."

***"Time Travel"***

*Tom Totton, SBAU 2015 President*

I had to travel back to my birth state of Michigan, the Detroit suburban area in particular, to give some rehab care time to my Mom and her condo. The weather forecast seemed to come up every day with thundershowers or the threat of them. What to do? I reviewed the Night Sky Network website that our Outreach leader Chuck McPartlin uses to track our outings and found an organization called "Ford Amateur Astronomers Club". They were going to have a general meeting and they were just 20 miles away one evening. The FAAC used to be exclusive to Ford employees, but they have opened up to the public. Their meeting took place at the Henry Ford College in a nice 60-seat auditorium where one of the members recounted his adventures with past

telescopes. I did introduce myself as being from the SBAU. This was followed by a Hammond Planetarium show concerning the Summer Solstice and the paths the Sun seems to take across the sky at various times of the year. This planetarium had 48 seats like our Gladwin, but still had the old xenon bulb projector in the center. Tim Campbell, the president of the club and presenter, used a spherical mirror on one edge of the dome to fill the ceiling with fairly sharp images from his computer. See photos from that event here: <http://tinyurl.com/ouofjzs> . Tim tried to explain "nutation" of the earth to me, but still I have to go to Wikipedia, and still the term is a bit wobbly to me. They were a very friendly group of active amateur astronomers. A week or so later I went to a telescope outreach they put on at a sports park for some STEM kid group. Tim Campbell set up a solar scope and a 14" Meade besides several other telescopes of the other members. Luckily the sky cleared for the evening. I had my green laser with me and got to show a couple of constellations that night. It would be tough to be an astronomer in the weather Michigan has. Another plus for living where we do, even with the occasional fog monsters. But when on vacation, look up the local astronomy clubs and enjoy the shows.



*"Tell you what, Aidan. Keep this up for about 80 more hours and you will have yourself a crackerjack mirror." Photo credit: T. Totton.*

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### AU annual membership rates:

Single = \$15 Family = \$25

### AU mailing address:

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**July 2015**

<b>Sunday</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>
			1	2 BACARA RESORT 7:30PM	3 GAVIOTA STATE BEACH 8PM	4 CACHUMA LAKE 8PM
5	6	7	8 CARPINTERIA STATE BEACH 8PM	9 BACARA RESORT 7:30PM	10 SBAU GENERAL MEETING 7PM	11 SBMNH PLANNING MEETING 6PM STAR PARTY 8-10PM
12	13	14 NEW HORIZONS AND PLUTO!	15	16 BACARA RESORT 7:30PM	17 WESTMONT COLLEGE 8PM	18 CACHUMA LAKE 8PM
19	20	21	22 CARPINTERIA STATE BEACH 8PM	23 BACARA RESORT 7:30PM	24	25 REFUGIO STATE BEACH 7:30PM
26	27	28 CAMINO REAL MARKETPLACE 7PM	29 CATE SCHOOL 7PM	30 BACARA RESORT 7:30PM	31	

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