

September 2018

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



"You are here." Photo credit: Tom Totton.

## SEPTEMBER GENERAL MEETING

Our guest speaker for the Sept. 7th general meeting is a Computer Science professor at UCSB, Dr. Wim Van Dam, who focuses his research on the theory of quantum computation & communication. His main interest is the development of new quantum algorithms that give an exponential speed-up when compared with traditional classical ones. His talk will center on quantum computers that use new laws of physics to process information in a way that traditional classical computers cannot. He promises to keep his lecture as simple and understandable as an opening-day class.

## OUTREACH SUMMARY

Since the last newsletter, AU volunteers Jason Barrios, John Boyd, Tim Crawford, Bruce DeGraaf, Natalie & Tina DiCicco, Joe Doyle, John Edkins, Carolyn & Ed Edwards, Tessa Flanagan & Duff Kennedy, Ruben Gutierrez, Baron Ron Herron, Ken Kihlstrom, Lanny Laffety, Pat & Chuck McPartlin, Janet & Martin Meza, Bonnie & Bruce Murdock, Max Neufeldt, Edgar Ocampo, Peggy O'Rork, Celeste & Gustavo Ritterstein, Javier Rivera, Carlos Flores & Sonja Rodriguez, Dianne & Russell Ruiz, Tobi Schmidt, Tom Totton, Tom Whittemore, and Linda & Harold Yarbrough showed sky goodies at outreaches to <u>1784</u> visitors.

## **OUTREACH FOR SEPTEMBER**

The Telescope Workshop meets on Tuesday evenings at 7:30 PM at the Broder Building at SBMNH. Contact Tim Crawford at <u>tcrawf3@cox.net</u> for information. Listen to the AU on the radio at KZSB 1290 AM at 9 AM on the second and fourth Monday of each month.

Here are the events scheduled so far for the month. Two big events this month. The annual AstroVaganza celebration at SBMNH, will be Saturday, September 8. Come help out if you can! Don't forget our annual campout and dinner at the Mohawk Shores group site at Cachuma Lake on the weekend of September 28-30.

#### SATURDAY, SEPTEMBER 1, SETUP 8 PM

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

## SUNDAY, SEPTEMBER 2, SETUP 7 PM

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

#### WEDNESDAY, SEPTEMBER 5, SETUP 8 PM

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

## FRIDAY, SEPTEMBER 7, 7 PM

Monthly AU meeting in Farrand Hall at SBMNH. See a quick planetarium show, then hear about Quantum Computers.

## SATURDAY, SEPTEMBER 8, SETUP 9 AM

AstroVaganza! all day at SBMNH. Solar scopes and astronomy activities during the day (10:00-3:30), and a star party in the evening (7-10). The theme is Star Wars.

## FRIDAY, SEPTEMBER 14, SETUP 7 PM

Telescopes for Refugio Beach State Campground, in the day use parking lot, southwest corner.

#### <u>TUESDAY</u>, <u>SEPTEMBER 18</u>, <u>SETUP 7 PM</u> Telescope Tuesday at the Camino Real Marketplace. We set up in the plaza next to the theater.

#### <u>FRIDAY, SEPTEMBER 21, SETUP 7 PM</u> Monthly Public Telescope Night at Westmont College, at the observatory, adjacent to the baseball field.

## SATURDAY, SEPTEMBER 22, SETUP 7 PM Slide show and telescopes for campers at Cachuma Lake Campground. We set up on the open field at Dakota Plains. Equinox at 6:54 PM PDT.

## TUESDAY, SEPTEMBER 25, SETUP 7 PM

Telescopes for UCLA Environmental Studies students at the very dark Sedgwick Reserve, 3566 Brinkerhoff Avenue in the Santa Ynez Valley.

FRIDAY, SEPTEMBER 28 TO SUNDAY, SEPTEMBER 30 Annual AU Campout at the Mohawk Shores group site at Cachuma Lake.

#### Off to CalStar Jerry Wilson

CalStar, or the California Star party, is from Wednesday September 5 to Sunday September 9 this year. It's traditionally been three nights, but so many people go a day early, it was decided to make it officially four nights. It has also been moved back to the traditional venue at Lake San Antonio. The available space is bigger than the soccer field we had to squeeze onto in the last several years, so no reservations are necessary. Just show up.

It's only a week away now and the weather looks promising. I plan on attending all four nights and will, unfortunately miss AstroVaganza, the September monthly SBAU meeting, and Saturday's Administrative meeting, plus the public star party. But, I know everything is in the capable hands of our Vice President and will run smoothly.

I plan to image using my QSI 680 camera through my home built 12.5 inch f/6 Newtonian. I like many objects, but plan to try to get images of Stephan's Quintet. This object is beyond my scope visually, but should be reachable with the camera. Near it, and also in Pegasus, is NGC 7331. It is an easier object, that I already have luminance and blue images of. I plan to also get the red and green ones I still need.



Your next stop: the Universe. Photo credit: T. Totton

## Looking Back

Editor's note: We take another look at a book I enjoyed when I was new to amateur astronomy. This month's installment comes from "Starlight Nights" by Leslie Peltier – an ardent variable star observer and comet hunter. This selection is taken from Chapter 8 – "Sky Exploring."

I never tired of looking at the moon and in those early nights of watching with my 2-inch glass I often thought of Galileo and his tiny telescope. When news of the invention of the telescope in Holland finally reached Galileo in Italy he immediately set about making one of his own. For this purpose he purchased two spectacle lenses from an optician. One of these, of convex shape like a reading glass, became his objective lens. His evepiece was just the opposite in curvature, or concave. The two lenses were then fitted into the opposite ends of a leaden tube of the proper length to focus on distant objects. Then, just a little more than three hundred years before, in the spring of 1609, Galileo turned his tiny homemade "optic glass" upon the moon. It was man's first skyward look through any telescope. As he related it: "I betook myself to observations of the heavenly bodies; and, first of all, I viewed the moon as near as if were scarcely two semi-diameters of the earth distant. After the moon I viewed other heavenly bodies, both fixed stars and planets, with incredible delight."

I feel quite sure that I first viewed the moon in my small scope with just as much incredible delight as Galileo did in his. It is true that I had seen photographs of the moon and therefore had some vague idea of what its appearance would be like, but I still was wholly unprepared for all the wonders which I found on that first night as I explored the lunar surface. No photograph has yet been made which is not cold and flat and dead when compared with the scenes that meet one's eyes when the moon is viewed through even a small telescope.



"Do you think that I will be able to fly with this cape, Batman?" Photo credit: T. Totton



"I understand that we are going to get this amazing speaker from the SBAU tonight." Photo credit: Tom Totton.



"I think that this map should get you pretty close to Beta Pictoris." Photo credit: Tom Totton.

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AU annual membership rates: Single = \$20 Family = \$25

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# The Astronomical Unit

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Sunday	Monday	Tuesday	September 201 Wednesday	Thursday	Friday	Saturday
						1 Cachuma Lake Campground 8PM
2 Ritz-Carlton Bacara 7PM	3	4	5 Carpinteria State Beach 8PM	6	7 General Meeting 7PM	8 Astro Vaganza Setup 9AM
9	10 Tech Talk KZSB (AM 1290) 9-10 AM	11	12	13	14 Refugio State Beach 7PM	15
16	17	18 Camino Real Marketplace 7PM	19	20	21 Westmont College 7PM	22 Cachuma Laki 7PM
23	24 Tech Talk KZSB (AM 1290) 9-10 AM	25 Sedgwick Reserve 7PM	26	27	28 AU CAMPOUT	29 AU Campout
30						