



AU AstroNews

The Newsletter of the Astronomical Unit

April 2012

Sponsored by the Santa Barbara Museum of Natural History

OUR APRIL MEETING

Our speaker this month will be Federica B. Bianco who will discuss the “light echoes of Eta Carinae.” Dr. Bianco prefaces her talk with the following:

“Every night an enormous number of cosmic explosions appear in the sky, and the closest and brightest ones can be observed, if we are so fortunate to be looking in the right direction. Once in a while, light from one of these brightening events reflects off sheets of cosmic dust, and is redirected toward earth, allowing us to re-see the explosion decades, sometimes centuries later: **a light echo**. In 2011 we discovered light echoes from Eta_Carinae: one of the most massive star systems in the Milky Way. Visible in the southern hemisphere, Eta Carinae became the second-brightest star in the sky during its mid-nineteenth-century ‘Great Eruption’. This eruption is unique, lasting over ten years, and ejecting more than ten solar masses of material in an event that released ten per cent of the energy of a typical core-collapse supernova, without destroying the star. I will show you how these light echoes force us to review our understanding of this dramatic stellar eruption.”

Dr. Bianco is a UCSB postdoctoral fellow at the Las Cumbres Observatory Global Telescope Network. She received her Ph.D. from the University of Pennsylvania and was a Harvard-Smithsonian Predoctoral Fellow. Federica's research spans many topics in observational time-domain astronomy: the outer solar system, where she studies the density and characteristics of Kuiper Belt objects through indirect observational methods of occultations and cosmic explosions of the progenitors of type Ia supernovae and reliving historical transients through light echoes.



This is what outreach is all about. AU members “break out” the club’s UC2 at Central Coast Nursing Center in early March. Jim Williams designed this wonderful aid so that “You, too, can see.”

OUTREACH SUMMARY

Since the last newsletter, AU volunteers Andy Allen, Bill Clausen, Mike Farris, Ruben Gutierrez, Art Harris, Jürgen Hilmer, Janie & Marv Johnson, Pat & Chuck McPartlin, Janet & Martin Meza, Max Neufeldt, Edgar Ocampo, Rosemary & Al Rice, Bob Richard, Javier Rivera, David Salvia, Tom Totton, Barry White, Tom Whittemore, Jim Williams, and Tim Wittenburg showed cool stuff in the sky to **1440** customers.

APRIL OUTREACH EVENTS

It's April, and it's getting dark later, but don't hesitate to join us. ***Our big event for spring is International Astronomy Day, coming up on April 28!*** Here are the AU events scheduled so far. To get the latest information on schedules, or directions, just contact Chuck at 964-8201 or macpuzl@west.net.

MONDAY, APRIL 2, SETUP 7:30 PM

Telescopes for UCSB students at Santa Catalina dormitory, the old Francisco Torres, at the corner of Storke and El Colegio in Isla Vista. We set up next to their basketball courts, on the east side, with parking in the lot on the north side.

FRIDAY, APRIL 6, 7 PM

Monthly AU meeting in Farrand Hall at SBMNH. Start with a short planetarium show, then hear our speaker, Dr. Frederica Bianco, who will speak about her work on "the light echoes of Eta Carinae."

SATURDAY, APRIL 7, SETUP 7 PM

Telescopes for Bacara Resort and Spa. We set up on their Miró Lawn. Contact Chuck for access if you haven't come before.

THURSDAY, APRIL 12, SETUP 4 PM

Telescopes for Science Night at Vieja Valley School, at 434 Nogal Drive, from 5:30 PM to 7:30 PM.

FRIDAY, APRIL 13, SETUP 7 PM

Telescopes for Bacara Resort and Spa. We set up on their Miró Lawn. Contact Chuck for access if you haven't come before.

SATURDAY, APRIL 14, 5:30 PM

AU planning meeting in the classroom outside Javier's office at SBMNH.

SATURDAY, APRIL 14, 7:30 PM TO 10 PM

Monthly Public Star Party at the Santa Barbara Museum of Natural History.

TUESDAY, APRIL 17, SETUP 7:30 PM

Slide show and telescopes for Midland School, at 5100 Figueroa Mountain Road past Los Olivos in the Santa Ynez Valley. Dark skies!

THURSDAY, APRIL 19, SETUP 5 PM

Telescopes for Science Night at Aliso School, 4545 Carpinteria Avenue in Carpinteria.

FRIDAY, APRIL 20, SETUP 7 PM

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

SATURDAY, APRIL 21, 6:30 PM

Santa Ynez Valley Astronomy night at Los Olivos School - see the article that follows.

TUESDAY, APRIL 24, SETUP 7 PM

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

SATURDAY, APRIL 28, 10 AM TO 10 PM

International Astronomy Day at Camino Real Marketplace. Activities, solar viewing, telescope giveaway, and star party! In the central plaza by the theater.

SANTA YNEZ VALLEY ASTRONOMY NIGHT

Santa Ynez Valley residents of all ages are invited to an Astronomy Night at Los Olivos School on Saturday, April 21, 2012 beginning at 6:30 PM in the school's auditorium at 2540 Alamo Pintado Avenue near Highway 154 in Los Olivos. Here you will view "The City Dark," an award-winning feature film about light pollution and the disappearing night sky. It asks the simple question, "Do we need the stars?" It will be equally attention-getting for both children and adults. Following the movie, as darkness falls, participants will move to open space on the campus to view the planets and stars through telescopes with the assistance of volunteers from the Santa Barbara Astronomical Unit (SBAU). Cosponsors of this free event include: Los Olivos School, Santa Barbara Astronomical Unit, the Santa Barbara County Chapter of the International Dark Sky Association, Santa Barbara Museum of Natural History, Santa Ynez Valley Natural History Society, Save Our Stars Committee of W.E. Watch, and the Wildling Art Museum. Please bring at least one flashlight per family. We will provide a protective covering when you arrive so the flashlight does not interfere with star-gazing.



*Outreach on display: the AU's booth at the Goleta Library.
Photo: Dr. Bob Richard.*

New AU Member...

From Krissie Cook, former Astronomy Programs person at SBMNH: We are pleased to announce the arrival of Anne Elizabeth Cook, who dropped in this afternoon at 5:01 PM, weighing 8 lbs. 12 oz., 22 inches long. Baby Annie and Mommy are doing well and hope you are, too. Our best, Kevin, Krissie, Stellan, Rachelle and Baby Annie.



Krissie and Annie...

For a Really BIG View...

Super Ultra-wide Eyepieces! Impressed by Martin Meza's big fat eyepiece, Ocular Industries of Noleta is proud to announce our new Super Wide Extra Extended Pupil (SWEEP) line of ultrawide eyepieces, with an industry-leading field of view of 360°. That's right - with our patented 187-element Exceptionally Evolved Kellner (EEK) design, you can see pinpoint stars all around you! We also include our universal adapter barrel system, to allow you to use your SWEEP with 0.965" to 2" focusers and diagonals. To offset the moderate weight of 162 ounces, and help protect it from dew, each SWEEP eyepiece is hermetically sealed and purged with pure light-isotope helium gas, guaranteed to be inert. SWEEP eyepieces are available in focal lengths of 1.414, 2.718, 3.142, and 57.296 millimeters to meet your every observing need. Call now for our low, introductory prices: (805) 964-8201. Please specify your hat size when ordering.

From The President's Pen...

Ruben Gutierrez

UC2 Event for Seniors

The first fully dedicated UC2 Star Party recently took place at the Central Coast Nursing Center in Santa Barbara, and what an event it was! UC2 designer Jim Williams was all smiles to see his wheelchair accessible telescope viewing system work impeccably. It was very heart warming to see the residents wheeling out to take a look at the Universe above through a telescope, some for the first time in their lives. We also had the MallinCam-Telescope set up where they could view the Orion Nebula in its "full splendor and glory" on a flat screen. The Club later received a Thank You card full of signatures of the resident attendees with Dorothy Patterson simply writing, "Thanks for letting us see the moon and the stars." You're very welcome, Dorothy.

Star Clusters at Santa Barbara County Science Fair

The Santa Barbara Astronomical Unit is once again involved with the Santa Barbara County Science Fair by taking part in the judging, and awarding a \$50 cash prize to the outstanding astronomy related project. A simply amazing project named, "Studying Unstudied Star Clusters" was submitted by Nolan McCarthy and Marcus Campbell of Goleta Valley Junior High School. The AU cash prize went to them with the invitation to set up their



project at this year's SBAU International Astronomy Day event. Congratulations, Nolan and Marcus!

International Astronomy Day, Saturday, April 28, 2012, 10am to 10pm

Speaking of International Astronomy Day, the AU will be observing this event at the Camino Real Marketplace plaza in Goleta on Saturday, April 28th from 10 AM to 10 PM. (This is already a well-proven site for public outreach as we hold Telescope Tuesday each month there.) Every year, Astronomy Day is one of the Club's favorite special events. As always, with the enthusiastic volunteers who've signed up—thank you!—we're going all out to provide the public, well, a simply “astronomical” event, filled with a variety of telescopes for solar/night viewing (including the UC2), wonderful displays and hands-on demonstrations, and, of course the very popular FREE raffle of an 8-inch Dobsonian Telescope. This wonderful 8-inch Dob comes with a dual speed focuser, 1.25 and 2-inch eyepieces, laser collimator, moon filter, built-in cooling fan, lens cap, and two great books that will provide the user all that's needed to enjoy the telescope. Tickets will be distributed on site (sorry, AUers, this is only for the public) starting at 10 AM, up until the drawing at 3 PM. So come one, come all, as this day promises to be a blockbuster!

Griffith Trip, Wednesday, September 19, 2012, Noon to 10pm

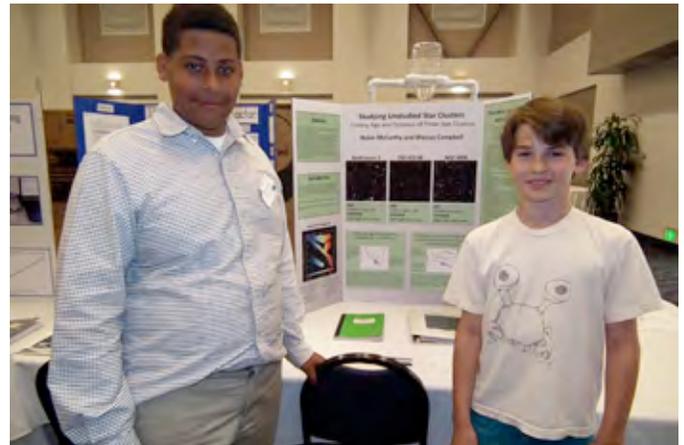
On September 19th, would you like to ride in a luxurious chauffeur-driven charter bus right up to the front entrance of the world famous Griffith Observatory and enjoy a splendid day there topped off with an almost unheard of guided tour? How much will all this cost, you ask? Just \$16! Yes, you read right. In an effort to thank AU members and their families, as well as Santa Barbara Museum of Natural History members, the Club is subsidizing part of the cost to make it very easy for you to attend this trip. There is no fee to actually enter the grounds, and tickets can be purchased on site for a planetarium show, if you wish. The bus will leave from the SBMNH at 12 noon and return by 10 PM. But, you need to reserve your seat fast because at this price, we do expect to sell out. All you need to do is give your \$16 (check payable to SBAU or cash) to Club Treasurer Pat McPartlin, who'll make sure you're on the list, and you're in!

AU Members – New and Renewing: Thank you!

I wish to give a Universe-size welcome aboard to new family members, John and Joan Jamieson, and a star-burst thank you to renewing family members, Jeff and Charlene Garfinkle, Charles Jones and Leila Carvalho, Gail and Barbara Massey, Alan and Lisa Piltz, Jack and Wickie Rodenhi, and Paul and Sandy Russell; and renewing individual members, Nollie Dawson, Ibrahim Khogeer, Michael J. Lopez-IV, Dale Lowdermilk, Phyllis Mlynek, Mark Parker, Ken Pfeiffer, Cathy Rose, John West, and Hazel Wood (who renewed for 2 years!). The AU truly is a community involved astronomy club that's enriched with such wonderful people to fill its ranks.

Please Contribute Your Suggestions and Comments to Ruben

Should any member wish to add an item of discussion for the upcoming General Membership or Planning meetings, please feel free to contact me at rubenalvag@aol.com. I'll make sure to add your input on the agenda and send you a response.

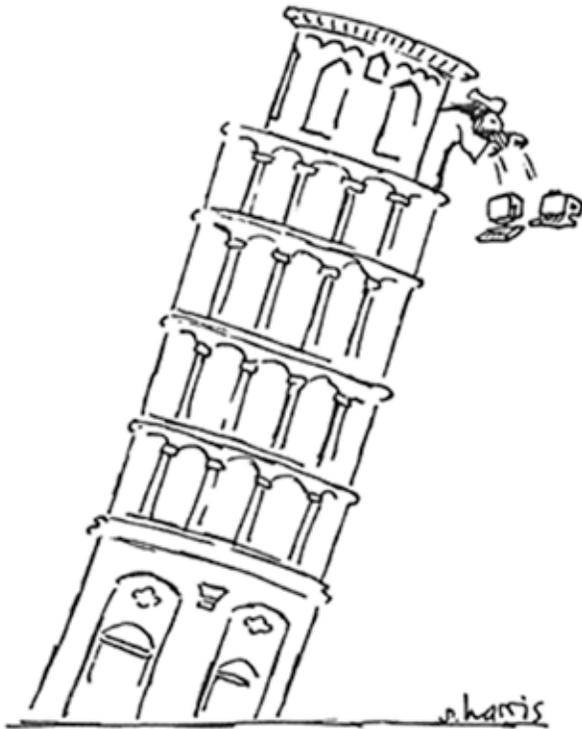


Cluster busters...

Pictured above is an entry to this year's SB County Science Fair by Marcus Campbell and Nolan McCarthy, both from Goleta Valley Junior High School. Their exhibit is named “Studying Unstudied Star Clusters.” The SBAU awarded a \$50.00 cash prize to this outstanding project. This exhibit is expected to be on display at our observance of International Astronomy Day on April 28th.

Venus Puts On A Show

This month Venus really takes over the western sky as darkness falls. On the evenings of April 2, and especially April 3, Venus will be gliding past the Pleiades, a beautiful sight in binoculars or wide-field telescopes. As the month goes on, Venus will be growing brighter, until it reaches its maximum brightness near the end of the month. At maximum brightness, Venus is in a thin crescent phase, whereas at the beginning of April it is at nearly half phase. It's getting brighter despite the waning phase because it is swinging around the Sun and heading towards us, from 62 million miles distant on April 1 to 41 million miles on April 30. This is just a prelude to its transit across the face of the Sun on June 5, an event that won't recur for another 105 years. Be sure to join us to watch the transit at Camino Real Marketplace!



IF THERE WERE COMPUTERS
IN GALILEO'S TIME

The Hydra next her giant length extends –
Around the Centaur's head her tail she bends.
Above her coiled back the Lion stands –
Close o'er her glittering head dark Cancer hangs.
On the mid coil a Goblet rests – below,
As pecking at her skin, the crafty Crow.

- Aratus, *Phaenomena*

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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 rates:

Single = \$15 Family = \$25

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On the Web: <http://www.sbau.org>

April 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 UCSB: CATALINA DORM 7:30PM	3	4	5	6 GENERAL MEETING 7PM ○	7 BACARA RESORT 7PM
8	9	10	11	12 VIEJA VALLEY SCHOOL 4PM	13 BACARA RESORT 7PM ◐	14 PLANNING MEETING 5:30PM STAR PARTY 7:30PM SBMNH
15	16	17 MIDLAND SCHOOL 7:30PM	18	19 ALISO SCHOOL 5PM	20 WESTMONT COLLEGE 7PM	21 SANTA YNEZ VALLEY ASTRONOMY NIGHT 6:30PM ●
22	23	24 CAMINO REAL MARKETPLACE 7PM	25	26	27	28 ASTRONOMY DAY 10AM-10PM CAMINO REAL MARKETPLACE
29 ●	30					

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