May 2012

Sponsored by the Santa Barbara Museum of Natural History

OUR MAY MEETING

Our speaker this month will be Michael Johnson. whose topic this evening will be "Pulsars: Precision Tools in an Astrophysical Laboratory." Michael describes his talk: "Pulsars are invaluable probes of a vast array of extreme physics, from the supranuclear density interiors of neutron stars, through their incredible magnetospheres, and finally to the turbulent plasma in the interstellar medium. The regularity of their time-averaged emission has been applied to sensitive tests of general relativity, and the achieved timing precision holds promise for direct observation of gravitational waves. Yet, remarkably, there is still no consensus for the precise nature of these stars or their emission; many of the fundamental physical mechanisms remain enigmatic, even after nearly a half-century of study. I will give an overview of the rich history of pulsar science and describe the promise of pulsars to extend the limits of known physics."



A sunny day brought out a large number of enthusiasts for National Astronomy Day – Saturday, April 28th - at the Camino Real Marketplace. Photo: R. Gutierrez.

OUTREACH SUMMARY

Since the last outreach report, tireless astronomy volunteers John Boyd, Sabine & Marciano Chan, Bill Clausen, Karleen & Dennis Cowan, Tim Crawford, Joe Doyle, John Edkins, Nancy Emerson, Mike Farris, Daniel Godinez, Ruben Gutierrez, Laurence Harms, Art Harris, Jürgen Hilmer, Janie & Mary Johnson, Chris Larson, Zanna Lucy, Pat & Chuck McPartlin, Janet & Martin Meza, Kim Miller, Shib Mookherjea, Steve Morse, Max Neufeldt, Edgar Ocampo, Mark Parker, Javier Rivera & Evelyn Alfago & the Quasars, Rosemary & Al Rice, Bob Richard, David Salvia, Gary Schneider, Cez & Tom Totton, Tom Whittemore & Westmont students Melissa Romo, Danny Runkel, and David Snyder, John West, Barry White, Jim Williams, Jerry Wilson, and Tim Wittenberg showed neat stuff in the sky to 2112 customers.

MAY EVENTS

Here are the AU events scheduled so far for May. To get the latest information on schedules, or directions, just contact Chuck at 964-8201 or macpuzl@west.net

THURSDAY, MAY 3, SETUP 5 PM

Solar and radio telescopes for Science Night at the Montessori School, at 401 Fairview in Goleta from 6 to 8 PM.

FRIDAY, MAY 4, 7 PM

Monthly meeting in Farrand Hall at SBMNH. Start with a quick planetarium show by Javier, then hear a talk on the physics of pulsars.

SATURDAY, MAY 12, 6 PM

Planning meeting in the classroom next to Javier's office at SBMNH.

SATURDAY, MAY 12, 8 PM

Monthly Public Star Party outside Palmer Observatory at SBMNH.

THURSDAY, MAY 17, SETUP 4:30 PM

Telescopes for Science Night from 6 to 7:45 PM at Washington School, at 290 Lighthouse Road on the Mesa, near Lazy Acres. We can drive around from their front parking lot to the playground. Dinner from Woody's at 5:15 PM.

FRIDAY, MAY 18, SETUP 7 PM

Telescopes for the monthly Public Telescope Night at Westmont College, at their observatory next to the baseball field.

SATURDAY, MAY 19, SETUP 7:30 PM

Telescopes for Refugio Beach State Park. We set up in their day use parking lot, on the southwest side of the park.

SUNDAY, MAY 20, SETUP 4 PM

Deep (84%) partial solar eclipse viewing at Camino Real Marketplace. We set up in the plaza by the theater.

MONDAY, MAY 21, SETUP 8 PM

Telescopes for a campout by Carpinteria Family School, at the Anza group site of El Capitan State Beach.

TUESDAY, MAY 22, SETUP 7 PM

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

WEDNESDAY, MAY 23 - MONDAY, MAY 28

Annual RTMC Astronomy Expo at Big Bear Lake. Hang out with 2000 or so of your favorite amateur astronomers at 7000 feet.

SUNDAY, MAY 27

Lunar X visible near the terminator from about 6:20 to 9:10 PM.

THURSDAY, MAY 31, SETUP 4:30 PM

Telescopes for Science Night at Franklin School, at 1111 East Mason Street in Santa Barbara. We set up on the playground, getting in through a gate where East Yanonali ends at the school.

FROM THE PRESIDENT'S PEN...

R. Gutierrez

A Lot of Fun at Camino Real Marketplace

International Astronomy Day 2012 was everything we had hoped for. The new site at the Camino Real Marketplace worked out great! It's the hub of activity for Saturday shoppers, very easy to get to and a whole lot of parking. The exhibit and demonstration booths attracted people like a magnet and the array of telescopes, starting with the UC2, was a delight for all. It was certainly a pleasure to see the record breaking number of guests that came to visit and learn about the science of astronomy: 450 folks came during the daytime, and 500 came at night, for a grand total of 950 folks – over 600 more folks than last year! A special thanks to all the AU members that participated in this, one of our biggest outreach events of the year. My congratulations go out to this year's grand prize raffle winner, Mark Doner, who took home the Zhumell 8" Dobsonian telescope. I am sure that Mark will enjoy "backyard astronomy" for years to come.

Museum Astronomy Day, August 11, 2012

But wait, as if this were not enough, we'll be having a Museum Astronomy Day in August at the Santa Barbara Museum of Natural History. Stay tuned, this event promises to be one like never before!

Upcoming Events: Save the Dates!

Some more AU events to keep in mind are the May solar eclipse, June 1 potluck, the Transit of Venus, the AU members-only summer star party at the gun club, the AU Campout, the trip to the Griffith Observatory, and the 2012 Avocado Festival Star Party (to name a few).

Griffith Observatory Trip, September 19, 2012

Speaking of the Griffith Observatory trip, the luxury AU charter bus only has a handful of seats left before it's sold out. I hope you don't miss out on this. For only \$16.00 you'll be chauffeur-driven to the front steps of the world-renowned Griffith Observatory, where you'll have a fun-packed day of taking in all the beautiful exhibits, the grand telescope, and fantastic city vistas. If you wish you can purchase a ticket for a planetarium show and/or enjoy a meal at the Edge of The Universe Cafe. You'll be able to top off your day with a free, and rare, guided-tour of the Observatory complex exclusively arranged for AU members. So, what are

you waiting for? At the next AU meeting, give AU Treasurer Pat McPartlin your 16 dollars (cash or make your check out to SBAU) to secure your seat!

New and Renewing AU Members – Thank you!

All the wonderful events the AU puts on for the enjoyment and educational enrichment of the community are what this nationally ranked club of ours is all about. The membership has time and time again gone the extra "AU" to reach our goals. We certainly have a lot to be proud of. A special thanks to new member, Ron Smith, and renewing members, Gary Yencich, Paula Kislak—for 2 YEARS, Marcia Kuplerski, Mike Lawson Family, Dale Lowdermilk—for 2 YEARS, Erin O'Connor, Rosalind Perry, Craig Prater Family, James Robertson, and William Theeringer, for taking part in what Astronomy Magazine has termed the "Out Of This World Club."



Grand Prize Winner, Mark Doner, poses with his new 8"
Zhumell reflecting telescope during Astronomy Day festivities at the Camino Real Marketplace. Photo: R. Gutierrez.

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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

May 2012						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3 MONTESSORI SCHOOL 5PM	4 GENERAL MEETING 7PM	5
6	7	8	9	10	11	PLAN () MEETING 6PM STAR PARTY 8PM SBMNH
13	14	15	16	WASHINGTON SCHOOL 4:30PM	18 WESTMONT COLLEGE 7 PM	REFUGIO STATE BEACH 7:30PM
CAMINO REAL MARKETPLACE 4PM	21 EL CAPITAN STATE BEACH 8PM	22 CAMINO REAL MARKETPLACE 7PM	23 RTMC	24 RTMC	25 RTMC	26 RTMC
RTMC LUNAR "X" VISIBLE TONIGHT	28	29	30	FRANKLIN SCHOOL 4:30PM		1

The Astronomical Unit

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