



AU AstroNews

The Newsletter of the Astronomical Unit

April 2011

Sponsored by the Santa Barbara Museum of Natural History

OUR APRIL MEETING

Our speaker this month is Dr. Gregory Dobler, an astrophysicist at the Kavli Institute for Theoretical Physics at UCSB. Dr. Dobler received his PhD in Physics and Astronomy from the University of Pennsylvania and spent three years as a postdoctoral fellow at the Center for Astrophysics at Harvard University. His research interests concentrate on indirect detection of particle dark matter as well as its gravitational effects via gravitational lensing. This evening his topic will be "A Light in the Dark: the Pursuit of the Nature of Dark Matter." Dr. Dobler paraphrases his talk with the following description: When we look out into the universe, the objects that we see - gas, stars, galaxies, etc - constitute only 15% of the total matter in the universe. The other 85% does not interact electromagnetically and produces (as far as we can tell) no light to observe. However, we know that this "dark matter" exists because it does interact gravitationally and we observe these interactions. The mystery of what exactly makes up the vast majority of matter in the universe is still completely unknown, though there are several promising candidates and a wealth of new and upcoming data which may shed light on the problem. I will review the evidence for how we know there is dark matter out there and describe modern searches, both astronomical and terrestrial, which may be on the verge of uncovering the elusive nature of this fundamental component of the universe.

OUTREACH REPORT

Since the last newsletter, AU volunteers Andy Allen, Mike Bennett & Quasars, John Boyd, Karleen & Dennis Cowan, Tim Crawford, Ruben Gutierrez, Laurence Harms, Art Harris, Jürgen Hilmer, Chris Larson, Pat & Chuck McPartlin, Max Neufeldt, Edgar Ocampo, Jiri Polivka, Rosemary & Al Rice, Bob Richard, Javier Rivera, Colin Taylor, and Tom Totton, showed cool stuff in the sky to 1369 customers.

APRIL OUTREACH EVENTS

It's April, and that means lots of school events that are ending before it really gets dark, but the kids still enjoy looking through the scopes at the landscape if the Moon isn't up, and the Sun is occasionally showing some action, so don't hesitate to join us. ***Don't forget International Astronomy Day, coming up on May 7!*** 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



Brother Laurence shows off the UC2 scope at a recent community function. Photo: R. Gutierrez

FRIDAY, APRIL 1, 7 PM

Monthly AU meeting in Farrand Hall at SBMNH. Start with a short planetarium show, then hear our speaker, Dr. Gregory Dobler of KITP, on "A Light in the Dark: The Pursuit of the Nature of Dark Matter."

SATURDAY, APRIL 2, ALL NIGHT EXTREME ASTRONOMY!

AU Messier Marathon at the Shotgun Range of the Gun Club, at the end of West Camino Cielo. See all 110 Messier Catalog objects in one night.

THURSDAY, APRIL 7, SETUP 4:30 PM

Telescopes for Science Night at Vieja Valley School, at 434 Nogal Drive, from 5 PM to 7:30 PM. Setup 4-5, spaghetti and salad bar dinner 5-5:30.

SATURDAY, APRIL 9, 5:30 PM

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

SATURDAY, APRIL 9, 7:30 PM TO 10 PM

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

TUESDAY, APRIL 12, SETUP 7 PM

Telescope Tuesday at the Camino Real Marketplace in Goleta, in the plaza between Borders and the theater.

WEDNESDAY, APRIL 13, SETUP 7:30 PM

Telescopes for Boy Scouts at Vieja Valley School, 434 Nogal Drive.

THURSDAY, APRIL 14, 7 PM

Telescopes for an astronomy night at Monte Vista School, 730 North Hope Avenue in Santa Barbara. We set up in their playground, on the north side, with parking in the cul-de-sac at Anza Drive.

FRIDAY, APRIL 15, SETUP 7 PM

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

THURSDAY, APRIL 28, SETUP 5:30 PM

Telescopes for Science Night at the Montessori Center School at 401 N. Fairview, 6 to 8 PM, across from the Goleta Public Library.

From the President's pen...

R. Gutierrez

Much appreciation...

I wish to acknowledge the great response we had from the membership with regard to signing up to help on ***International Astronomy Day, which will take place at the Santa Barbara Museum of Natural History on May 7th, starting at 10:00 AM, and finishing at 10:00 PM.*** Due to the beautiful restoration, and now very dramatic display of the huge blue whale skeleton next to the main gate, we had to figure out a somewhat different booth and display set up. As always, Equipment Manager Art Harris will have his pre-owned telescope and

assorted equipment sale at out-of-this-world low prices, but he will now join the rest of the display booths in the front gate plaza. Dale Lowdermilk's meteorite display will also be snuggled in with the rest of the booths. I believe this new configuration will make the booths a bit more accessible and promote a more festive atmosphere. As has been the tradition of the AU, the display booths and various telescopes at the front plaza entrance will be free to the public, as well as the now intergalactically famous FREE RAFFLE. There will be numerous astronomy related prizes, which includes the grand prize of a simply fantastic 8-inch Zhumell Dobsonian telescope! This incredible scope comes fully loaded with all the equipment needed to start searching through the cosmos, which includes a 2-inch dual speed focuser, a 2-inch and a 1.25-inch eyepiece, a 50mm right angle finder, a built-in cooling fan, and more! Second prize will be an Orion StarBlast 4.5-inch reflector. This "point-and-view" table top scope uses a 114mm parabolic mirror to provide spectacular views of the universe, and is compact enough to take just about anywhere. Remember, the tickets for the free raffle drawing will be passed out throughout the day to those who are there, and when the drawing takes place at 3:00 PM, you must be present to win. Sorry, but AU members are not eligible for raffle prizes. So, be sure to come and celebrate International Astronomy Day, and bring your friends! The day will conclude with a telescope clinic - bring you scope and our experts will teach you how to use it - followed by a star party using our arsenal of AU telescopes! All free, of course.

Up and running in Merida, Mexico...

Last year the AU donated an 8-inch Schmidt-Cassegrain telescope to the fledgling astronomy club in Merida, Yucatan, Mexico. And boy, have they put it to good use – see the following photo! Thanks to SBMNH Astronomy Programs Manager Javier Rivera, they recently received a solar filter for the telescope. “Cosmo Navis” President Joaquin Velasquez recently emailed some simply wonderful photos of the many members of the club enjoying a day of solar observing, and learning about astronomy. This is a proud accomplishment of the AU and I congratulate the membership for helping those that simply want a chance to look at "what's up there."

So that all might see...

Another wonderful accomplishment is the completed and working UC2 wheelchair-accessible viewing system, which will be displayed for the first time on International Astronomy Day. The "You Can See, Too" outreach program will make it possible for those who have not had a chance to look through a telescope the ability to do so with an instrument designed specifically to meet their needs. I invite you to come and see this wonderful instrument. All the accomplishments of the AU would not be possible without the dedicated members that make up this community-minded club.

Welcome aboard...

I especially want thank those members who have recently renewed their Individual memberships, including Paula Kislak, Joe Klein, Michael J. Lopez IV, Phyllis Mlynek, Erin O'Connor, Mark Parker, Edwin Potts, Nephtali Solis, William Theeringer, Hazel Wood, and Gary Yencich; and Family memberships of Jeff & Charlene Garfinkle, Mike Lawson, Dale & Pierina Lowdermilk, Gail & Barbara Massey, Craig Prater & Yvonne DeGraw, and Paul & Sandy Russell. I also wish to give a star blazing welcome aboard to new member Chirs Christensen. The AU is truly a club that not only enjoys the support of the local community, but the appreciation of international ones, as well. GREAT JOB EVERYBODY!



Merida, Mexico, astro-enthusiasts enjoy a view of the Sun through their AU-donated telescope! Photo: Joaquin Velasquez.

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AU annual membership rates:

Single = \$15 Family = \$25

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

April 2011

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1 MONTHLY AU MEETING 7PM	2 AU'S ANNUAL MESSIER MARATHON!
3 	4	5	6	7 VIEJA VALLEY SCIENCE NIGHT 4:30PM	8	9 PLANNING MEETING 5:30PM SBMNH STAR PARTY 7:30 - 10PM
10	11 	12 CAMINO REAL MARKETPLACE 7PM	13 VIEJA VALLEY BOY SCOUTS 7:30PM	14 MONTE VISTA SCHOOL 7PM	15 WESTMONT COLLEGE 7PM	16
17 	18	19	20	21	22	23
24 	25	26	27	28 MONTESSORI SCHOOL 5:30PM	29	30

The Astronomical Unit

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