M-STAR

http://mstar-astronomy.tripod.com

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Fun with Science Night Spring 2005

@ Mark Twain Junior High School, Modesto
Wednesday, April 6th from 6-8 PM.

M-STAR has been invited to assist with an evening program at a school in Modesto. The following are excerpts from some e-mail communications between M-STAR and the program coordinator. [ed.]

For the program itself, what I have in mind is to begin with a short PowerPoint presentation about astronomy* in the cafeteria/multipurpose room. Then turn on the lights, have some Project Astro activities going on in the room such as the card activity, sky globe making, and constellation matching.

We would have sky viewing in the area outside with our two telescopes, and any you might be able to bring. I am thinking of making up "Astro Passes" for the kids attending to wear around their necks. As they complete each activity, they get it punched by the adult hosting it. When they are all finished, they put their Astro Passes in a bowl, and we will have a drawing at the end of the evening with prizes for those who are present. (I will see what I can come up with for this.)

We are at 707 S. Emerald Ave. Modesto. We are only a few blocks off of the freeway.

Dave Menshew,
MA.Ed. NBCT
Science Educator
Modesto City Schools

Here are some rough directions and a map…

1: Start out going NORTH on HWY-99 to Modesto.

2: Take the exit toward CA-132/VERNALIS/CA-108/CENTRAL MODESTO

3: Turn SLIGHT LEFT onto 6TH ST

4: Turn LEFT onto MAZE BLVD/CA-108/CA-132/L ST.

5: Turn LEFT onto S EMERALD AVE

6: End at 707 S. Emerald Ave, Modesto

SKY & TELESCOPE's WEEKLY NEWS BULLETINS

Welcome to S&T's Weekly News Bulletins. Images, the full text of stories abridged here, and other enhancements are available on our Web site, SkyandTelescope.com, at the URLs provided below. Clear skies!

THE BRIGHTEST BLAST

On December 27, 2004, more than a dozen spacecraft recorded the brightest event from outside the solar system ever observed in the history of astronomy. The spacecraft, which included Earth-orbiting satellites as well as interplanetary probes such as Cassini, Mars Odyssey, and Ulysses, picked up a powerful burst of gamma rays and X-rays from one of the most exotic beasts in the galactic zoo: a magnetar. These bizarre objects are neutron stars possessing magnetic fields a million billion times more powerful than Earth's field, or some 1,000 times greater that those of normal neutron stars.

The "superflare," from a magnetar named SGR 1806-20, irradiated Earth with more total energy than a powerful solar flare. Yet this object is an estimated 50,000 light-years away in Sagittarius, on the far side of the Milky Way galaxy behind dense interstellar clouds. "This is mind-boggling when you think about how far away it is," says Kevin C. Hurley (University of California, Berkeley), one of the lead investigators....
http://SkyandTelescope.com/news/article_1464_1.asp

PICTURE IMPERFECT: NASA'S SPITZER SPACE TELESCOPE

NASA officials acknowledge that two of the space agency's premier orbiting telescopes share a common problem: flawed optics. One is the 15-year-old, multibillion-dollar Hubble Space Telescope, which made "spherical aberrati on" a household term before being rehabilitated in a spectacular rescue mission by Space Shuttle astronauts. The other, overlooked until this week, is the $720 million infrared Spitzer Space Telescope.

The problem has been hiding in plain sight since NASA released the first Spitzer image on September 3, 2003, a week after launch. At that point the 85-centimeter (33-inch) reflector -- then called the Space Infrared Telescope Facility -- hadn't yet been focused, so its bloated, triangular star images didn't raise any eyebrows....
http://SkyandTelescope.com/news/article_1463_1.asp

GET READY FOR THE APRIL 8TH SOLAR ECLIPSE!

A partial eclipse of the Sun will be visible on the afternoon of April 8th (a week from Friday) if you live south of a line from southern New Jersey to Southern California. The eclipse is total over parts of the South Pacific and annular over parts of Costa Rica, Panama, Colombia, and Venezuela. Get your solar filter ready! Details:
http://SkyandTelescope.com/observing/objects/eclipses/article_1445_1.asp

JUPITER'S GREAT RED SPOT

Now that Jupiter is showing up well in the evening, you can keep watch for its Great Red Spot (actually pale orange-tan) with a telescope -- and try timing when the spot crosses the planet's central meridian. Good Red Spot transits should happen around 9:45 p.m. Eastern Standard Time on Thursday evening March 31st, and 11:23 p.m. EST on Saturday April 2nd. Find other transit times, good worldwide, with our Red Spot transit predictor at:
http://SkyandTelescope.com/observing/objects/planets/article_107_1.asp

HALE-BOPP: THE COMET THAT DOESN'T QUIT

Eight years after Comet Hale-Bopp dazzled the world as it passed through the inner solar system, the dirty snowball is still detectable (about 20th magnitude) despite being a whopping 21 astronomical units from the Sun. On January 8th MIT astronomers Andrew S. Rivkin and Richard P. Binzel observed the comet with Magellan Observatory's 6.5-meter Clay telescope in Chile.

Rivkin and Binzel were aiming for a "Goldilocks" observing moment -- the comet would have cooled off, the coma would be gone, and yet the nucleus would still be bright enough to observe. "There's not a lot of spectra of the nuclei of comets," says Rivkin. They are hard to capture because the nuclei are obscured once comets develop comas. They didn't find what they bargained for....
http://SkyandTelescope.com/news/article_1486_1.asp

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2005 RTMC Astronomy Expo

www.rtmcastronomyexpo.org

The 37th annual RTMC Astronomy Expo will be held Friday, May 27, through Sunday, May 29, 2005 (Memorial Day weekend). It will be held at YMCA Camp Oakes, five miles southeast of Big Bear City on State Route 38 at Lake Williams Road between mileposts 44 and 45. This location is about 50 miles northeast of Riverside in the San Bernardino mountains.

Our Keynote Speakers this year will be Los Angeles documentary filmmakers Todd and Robin Mason. They will present an hour-long talk on some of the major technological and intellectual breakthroughs set against sheer human will that enabled the giant Hale telescope to work, entitled “Palomar's 200-inch Telescope: The Impossible Challenge.”

For the past five years, the Masons have been working on a PBS television documentary entitled *The Journey to Palomar* about George Ellery Hale and his famous telescopes at the Yerkes, Mount Wilson and Palomar observatories. They have filmed at the Yerkes Observatory, as well as Mount Wilson and Palomar, and conducted on-camera interviews with top astronomers, historians and authors knowledgeable on the topic. They expect to complete the project some time this year.

Their presentation will also include an exclusive ten-minute preview sample from the documentary involving the first attempt to pour the 200-inch mirror glass for the Palomar telescope at Corning Glass Works in 1934 and a short slide show featuring 3D images of all three of Hale’s observatories.

Join M-STAR and See the UNIVERSE

Membership terms are on an annual calendar from Jan. 1 through Dec. 31

Mail to: M-STAR Treasurer, 1136 N. Stratford Ave Atwater, CA 95301

Name_____
Address_____
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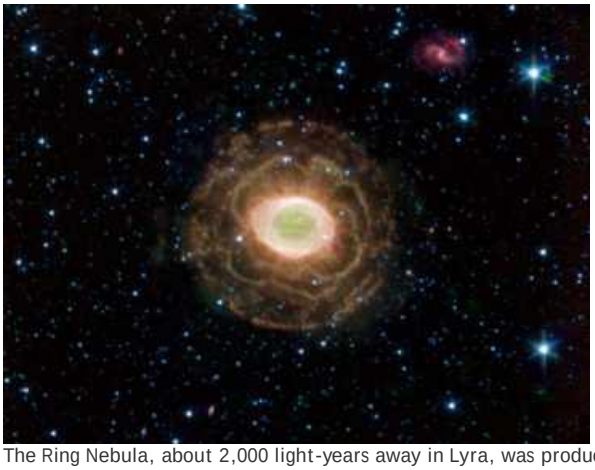
Phone # _____
e-mail _____
Main Astronomical Interests:_____
_____

Membership Plan:
New_____Renewal_____
Family/Individual ($15)____
Student, over 18 ($10) _____
Youth, under 18 ($5)_____



The Ring Nebula, about 2,000 light-years away in Lyra, was produced when a Sun-like star cast off its outer layers during the late stages of its hydrogen-burning life. In visible light we typically see only the bright inner shell of this planetary nebula, also known as Messier 57, but in this infrared image from the Spitzer Space Telescope we also see older, fainter loops farther out. Spitzer is sensitive to feeble infrared emissions from hydrogen molecules energized by the hot stellar remnant at M57's heart. Spiral galaxy IC 1296 is at upper right, just 4 arcminutes from the Ring – but millions of light-years farther away. *Courtesy NASA/JPL/Caltech and Joseph Hora (Harvard-Smithsonian Center for Astrophysics).*

M-STAR
CLUB NEWSLETTER
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