



The Observer

SAN BERNARDINO VALLEY AMATEUR ASTRONOMERS

Member of The Astronomical League

<http://sbvaa.org/>



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Since 1958

April 2019

Meeting:

April, 20, 2019

Location:

First Christian Church
2102 E. Foothill Dr.
San Bernardino, CA

7:00 p.m.

Pre-meeting Dinner,
5:00 to 6:30 p.m.,

Jenny's Family
Resturant
7750 Palm Ave.
Highland, CA

After the meeting telescopes will be set up for viewing and members will be available to answer questions. Bring your telescope to observe with us.

No telescope is too humble,
and beginners are always
made welcome!

Program

Deep Space Disasters

A real cheery title, eh? It's an episode from the excellent *The Universe* series and it explores the perils of space travel and colonization. The dangers of manned space travel include the controlled explosion of a launch, the fiery crucible of re-entry and everything in between; how a spark inside a spacecraft or a micro-meteor could cause a catastrophe; black hole; gamma rays, et al. It's filled with incredible images and information about how things in space can cause harm to folks living beyond our earth.



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Calendar of Upcoming Events

Apr 20, Club Meeting

May 4, Star Party/Outreach, Oak Glen

May 10, Outreach, Competitive Edge
Charter School, Yucaipa

May 11m Star Party/Outreach, Pioneer
Town

May 18, Club Meeting

June 1, Star Party, Pioneer Town (or)
Outreach, East Valley Water Dist.

June 27-30, **GRANDVIEW**

July 20, Summer Social at Sizzlers

Spitzer Space Telescope

Considered a cousin of the Hubble Space Telescope, the Spitzer Space Telescope is designed to study the early universe in infrared light. The first telescope to see light from a planet outside our solar system, Spitzer has also made important discoveries about comets, stars, exoplanets and distant galaxies.

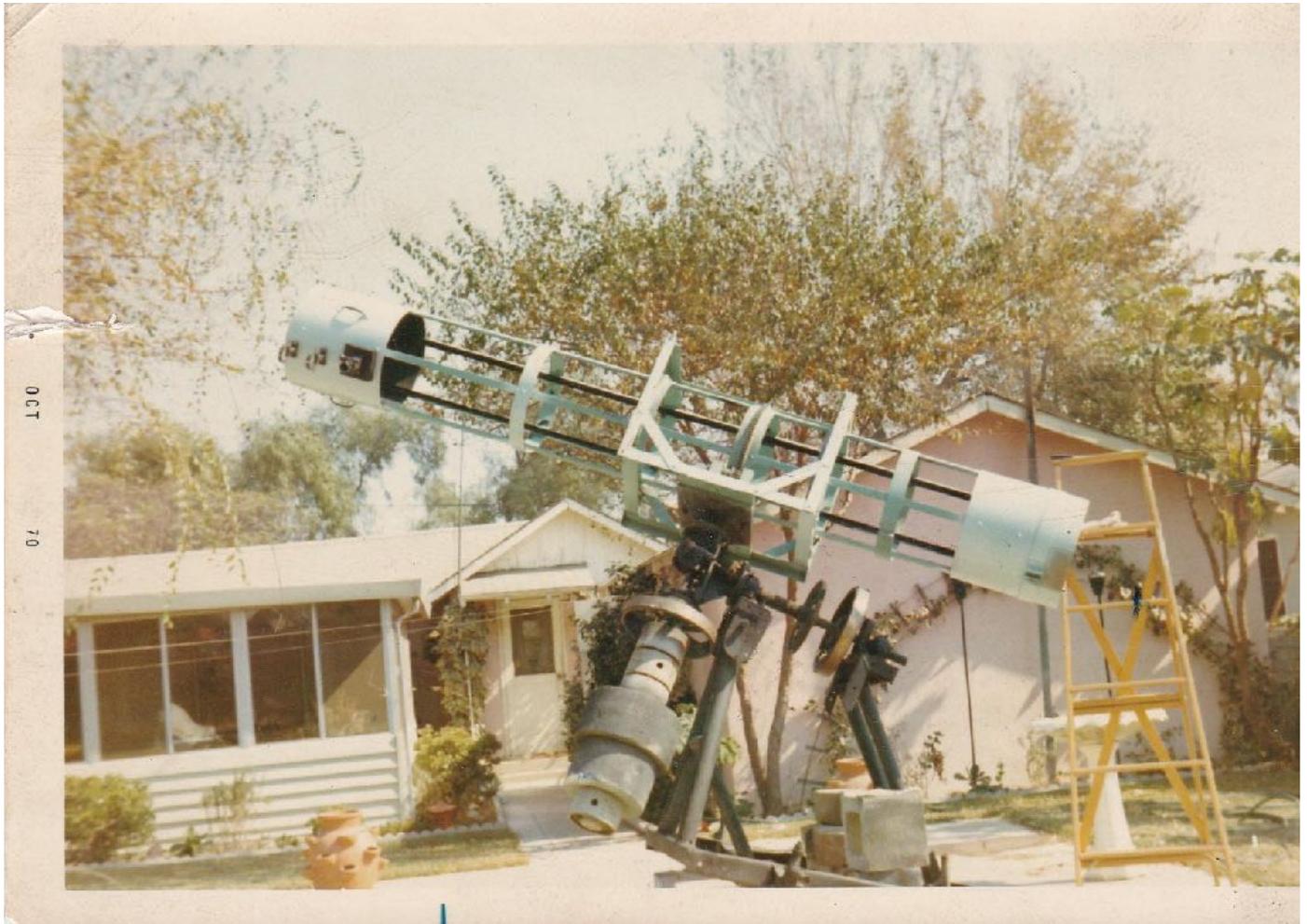
In 2009, Spitzer ran out of liquid coolant and began its "warm mission," refocusing its studies on determining how quickly our universe is stretching apart, and characterizing asteroids and the atmospheres of gas-giant planets.



(Composite image of M31 in infrared. Photo from NASA/JPL)

Another Great Telescope For Sale

8'10" Open Tube Newtonian Reflector, 12 1/2 inch pyrex mirror, 100 " focal length. Equatorial mount. No motor and not computerized. Home built in 1948. Mirror redone and inspected by Infinite Opics in 2017, but unused and stored indoors in box. Asking \$400.00. If interested contact Dan 1-760-240-8256 in Apple Valley.



"The cosmos is all that is or ever was or ever will be. Our feeblest contemplations of the Cosmos stir us—there is a tingling in the spine, a catch in the voice, a faint sensation, as if a distant memory, or falling from a height. We know we are approaching the greatest of mysteries."

Carl Sagan

Wide-field Infrared Survey Explorer (WISE)

WISE launched into the morning skies above Vandenberg Air Force Base in central California on December 14, 2009. By early 2011, it had finished scanning the entire sky twice in infrared light, snapping pictures of **three-quarters of a billion objects**, including remote galaxies, stars and asteroids. Today, astronomers continue to mine a cosmic quarry of data provided by WISE.

Upon completing its surveys in 2011, WISE was put to sleep. But in Sept. 2013, NASA reactivated the mission with the primary goal of scanning for near-Earth objects, or NEOs. Though the WISE mission had been doing asteroid searches before it entered hibernation, through a project called NEOWISE, that had not been its main purpose until now. For its new chapter in life, the mission is officially renamed NEOWISE.



WISE discoveries include:

- Imaging the most luminous galaxy in the universe, shining with the light of more than 300 trillion suns. <http://www.jpl.nasa.gov/news/news.php?feature=4593>
 - Helping to largely rule out the theory of a "Planet X" orbiting in the far reaches of our solar system. <http://www.jpl.nasa.gov/news/news.php?feature=4073>
 - Uncovering millions of hidden black holes. <http://www.jpl.nasa.gov/news/news.php?feature=3496>
 - Discovering the coolest class of stars. <http://www.jpl.nasa.gov/news/news.php?feature=3113>
<http://www.nasa.gov/jpl/wise/spitzer-coldest-brown-dwarf-20140425>
- More than a thousand studies making use of WISE data have been published in the scientific literature. <http://tinyurl.com/WISEpapers>

NEOWISE discoveries include:

- Locating the possible source family for a certain group of dark near-Earth asteroids. <http://www.jpl.nasa.gov/news/news.php?feature=4678>
- Making the best count yet of potentially hazardous asteroids in our solar system. <http://www.jpl.nasa.gov/news/news.php?feature=3371>
- Finding there are significantly fewer mid-size near-Earth objects than previously thought, and that NASA has found more than 90 percent of the largest near-Earth asteroids. <http://www.jpl.nasa.gov/news/news.php?feature=3154>
- Locating the first known "Trojan" asteroid to share the same orbital path around the sun as Earth. <http://www.jpl.nasa.gov/news/news.php?feature=3080>