

The Observer

SAN BERNARDINO VALLEY AMATEUR ASTRONOMERS

Member of The Astronomical League

<http://sbvaa.org/>



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Since 1958

January, 2011

Meeting:

January 15, 2011

Location:

San Bernardino County
Museum, 7:00 p.m.
Redlands, CA. California
St. exit, I-10 Fwy.

Pre-meeting Dinner, 5:00
p.m.,

The Sizzler
1800 So. Waterman
Ave.
San Bernardino, 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!*

After viewing the group will
head for Coco's in Redlands,
Tennessee exit, I-10 Fwy.

Program

Laser Collimation

For our first meeting of the year, we have a very special speaker! **Mr. David Ho**, designer and founder of HOTECH Lasers will speak on the subject of telescope collimation using the new laser collimator he has designed and marketed. He is also offering to demonstrate his device on any telescope that any member might bring to the meeting!

Here's your chance to really learn about the sometimes difficult or complicated subject of optical collimation and to also see how good your optics are collimated and how to adjust them for better performance. His laser collimator will work on any type of telescope, too, whether it's a SCT, a refractor, or a Newtonian.



If it's clear, we can observe a waxing gibbous moon, Jupiter, some bright stars, the Pleiades, and M42 during the outdoor demo—a real “little star party” right outside the museum!

Join us for a fun and enlightening evening as we move into 2011

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Calendar of Upcoming Events

January 15, club meeting at the Museum

February 9, outreach, Smiley School, Redlands, Ca

February 19, club meeting at the Museum

March 19, club meeting at the Museum

April 16, club meeting at the Museum

May 14, Astronomy Day!

June 16, Club meeting at the Museum

School Outreach in February!

By Chris Clarke

Our first school outreach of the year will be on Wednesday, February 9 at Smiley School in Redlands. We will have a very fat crescent moon to view, along with Jupiter, the Pleiades and M42 too. Sunset is around 5:30 pm with setup around 6:00.

The event begins at 6:30 and will go no later than 8:00 pm. The school is at 1210 W. Cypress Ave. There should be lots of eager kids and parents, so let's have a good turnout with lots of scopes to share the wondrous sights with them!



Editor's Notes By Jim Sommer

Well gentle reader, another new year is upon us full of hope and promise in spite of what you read in the newspapers or on the websites of ranting bloggers. Make a resolution to get out and observe more this year. Your club is exploring several new sites; some within 10 or 15 miles of the Museum and some more remote. But always with an eye to finding the darkest areas within a reasonable distance.

The club's meeting dates through June are published above. Tentative star party dates will be published as soon as they are firmed up. Look for those New Moon days and mark your calendars. Keep looking up!

Man Discovers Four New Planets -- Without a Telescope!



Peter Jalowiczor has just helped discover a planet around which life may exist.

Quite a claim for a Rotherham [England] gas worker who has never owned a telescope in his life - but a claim which has been confirmed by a team of astronomical experts from the University of California.

For Peter, of Masbrough, has been named by the center's Lick-Carnegie Planet Search Team as a co-discoverer of four planets known as HD 31253b, HD 218566b, HD177830c and HD 99492c.

It was the hours he spent analyzing thousands of figures of space data - all in his spare time, all on his two home PCs - which provided the clues for scientists to establish the existence of the huge gaseous orbs.

In 2005, astronomers at the university released millions of space measurements collected over several decades and asked enthusiasts to make of them what they would.

Quirks in the data could signify the existence of exoplanets - that is, planets in other solar systems which cannot be seen with even the most powerful telescope because they are so far away.

From March 2007 Peter, 45, spent entire nights reading the data, working the figures, creating graphs.

THE PLANETS IN NUMBERS

HD 31253b - 466 days in its year - 172 light years away

HD 218566b - 225.7 days in its year - 98 light years away

HD177830c - 110.6 days in its year - 190 light years away

HD 99492c - 4,697 days in its year - 58 light years away

"Essentially you're looking for measurements which show a star, which is millions of miles across and light years away, to be oscillating by about 50 metres or less," the father of one explains.

"The measurements are so tiny, it puts many people off looking - even professional astronomers - but I find it fascinating."

He then sent discrepancies he discovered back to the scientists in California where they were further analysed to see if the quirks were caused by the existence of an exoplanet. "To put it in context, only 515 have ever been confirmed.

Peter again: "I sent about 40 suggestions before they got back to me saying 'This one is interesting, we think this is a planet'.

"After that we built up a relationship and three others were confirmed - but when they offered me the chance to be recognized as a co-author of the final paper I was just stunned."

And about that extra terrestrial life?

"HD 218566b is in what's called the habitable zone of its solar system," says Peter, a member of Mexborough and Swinton Astronomical Society. "Because it is a gas planet, it is unlikely it could sustain life itself but it's possible there is a moon circling it which could.

(Article by Colin Drury, The Star, South Yorkshire, England. Dec. 27, 2010)

10-year-old Is Youngest to Discover Exploding Star

By SPACE.com Staff

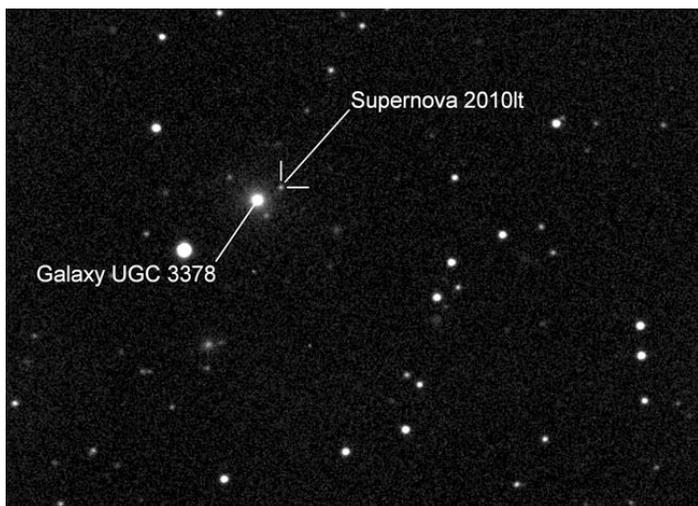
posted: 04 January 2011, 12:55 pm EST

It may have only appeared as a tiny, glowing spot hovering over a distant galaxy, but the sight made a precocious 10-year-old amateur astronomer the youngest person ever to have detected a stellar explosion called a supernova.

Kathryn Aurora Gray of Fredericton, New Brunswick in Canada discovered the super nova explosion in a galaxy, called UGC 3378, within the faint constellation of Camelopardalis. The galaxy is approximately 240 million light-years away.

Gray made the discovery on Jan. 2 using images that were taken of galaxy UGC 3378 on New Year's Eve. The supernova was then verified by Illinois-based amateur astronomer Brian Tieman and Arizona-based amateur astronomer Jack Newton, who then reported it to the International Astronomical Union's Central Bureau for Astronomical Telegrams.

Gray reported the stellar explosion under the supervision of her father, Paul Gray, who has made six prior supernova discoveries, and family friend David Lane, who has found three others himself. The photos of galaxy UGC 3378 were taken using a telescope belonging to Lane.



The last supernova found in our galaxy occurred several hundred years ago, and they are considered relatively rare events. Astronomers can increase their odds of discovering a supernova by repeatedly checking and comparing many different galaxies.

A new supernova reveals itself as a bright point of light that was not present in previous observations. And, since a supernova can outshine millions of ordinary stars, it is often easy to spot one with a modest telescope, even in distant galaxies like UGC 3378.

Despite being the discoverer of this one, Gray didn't get to bestow a name on the object, which is known simply as Supernova 2010lt.



The Crab Nebula, also known as M1 on Charles Messier's famous list, is perhaps the most iconic super nova image. The Crab is easily seen in small scopes. But rather than the splashy display as in the above photo it is seen as a dim, misty smoke-like puff of light.

This nebula was first seen and recorded in 1054 CE by astronomers in Europe, China and Japan. Other archaeological evidence points to the event being also recorded by native peoples in several areas across the north American continent.

Super novas are still fair game for the amateur astronomer.