



The Observer

SAN BERNARDINO VALLEY AMATEUR ASTRONOMERS

Member of The Astronomical League

<http://sbvaa.org/>



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Since 1958

February 2019

Meeting:

February 16, 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

It's a Mystery

I don't know what the program for the February meeting will be. I have no record of receiving the info. Whatever it is I'm sure it will be a good one — as usual.

SBVAA Officers

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Calendar of Upcoming Events

Mar 2, Star Party, Oak Glen\

*Mar 12, Outreach, Arroyo Grande
Elemen. Sch., Highland*

*Mar 14, Outreach, Wildwood School,
Yucaipa*

Mar 23, Club Meeting

Apr 6, Star Party/Outreach, White Water

Apr 20, Club Meeting

May 4, Star Party/Outreach, Oak Glen

*May 11m Star Party/Outreach, Pioneer
Town*

Club Dues Are Due!

Don't make Fidel send his "friend"
Mr. Knuckles out to collect.

Seriously though, your dues are very important
as they support the hidden but important expenses
the club incurs. Things like insurance, paying the
tab for the annual holiday party pizza and for
for the site fees at Grandview and other sites.

Annual dues are only \$30 and that's for an
Individual or for an entire family.

As of this writing, there are still sixteen members that
need to send in their dues. So write that check today.
Keep our club outreaches and star parties going!



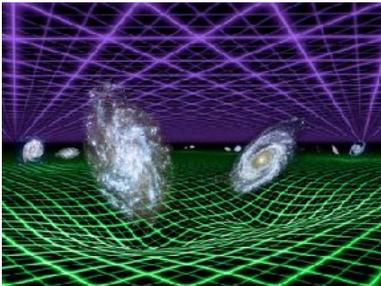
Is Dark Energy Growing?

Dark energy, the mysterious and hypothetical force that scientists think is causing the expansion of the universe to accelerate, may actually be growing over time, according to one new study.

With this new study, researchers used data from NASA's Chandra X-ray Observatory and the ESA's XMM-Newton space observatory to track the expansion of the universe from about 13 billion years ago to today. This allowed the researchers to track how the universe's expansion rate, and therefore dark energy, has changed over time.

To track the expansion of the universe, the team used ultraviolet (UV) and X-ray data to estimate the distances of 1,598 quasars — extremely bright, faraway active galactic nuclei — to Earth.

By observing and studying UV and X-ray data from these quasars, the team was able to figure out their luminosity.

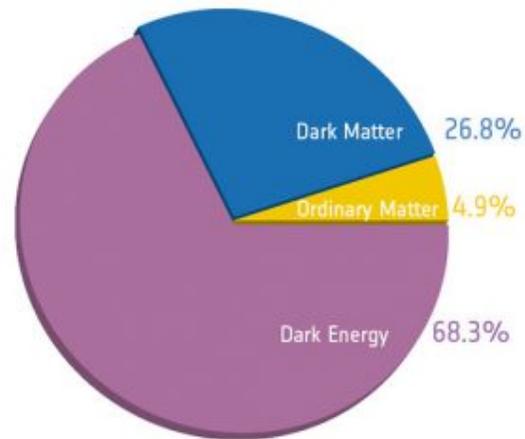


“From the luminosity, we can infer the distance [from Earth], and distances are what we need to track the expansion of the Universe,” Risalti explained. With the distances of all 1,598 quasars calculated, the researchers were able to track the universe's expansion rate back through time. And, with their findings, the team found evidence that dark energy seems to be getting denser over time, which would mean it's growing in strength.

Now, especially since the existence of dark energy hasn't yet been confirmed, these researchers do make clear that it's just one explanation for their findings.

However, if the team's findings are confirmed, it could imply that the universe might expand more quickly in the future.

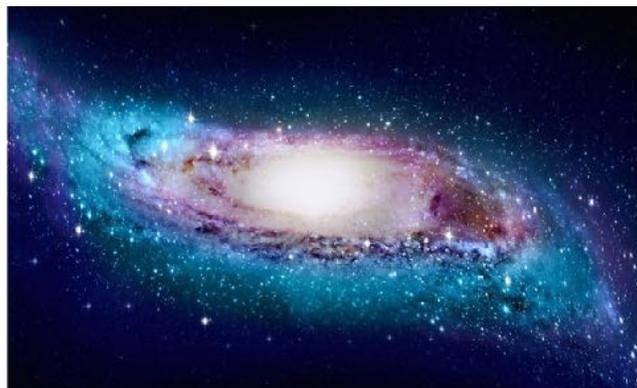
If this interpretation is selected, it means that the density, and so the importance, of dark energy will increase with time, and so the universe will expand more and more rapidly in the future.



(For more details, go to astronomy.com)

The Milky Way a Twisted Place?

The shape of the Milky Way, usually pictured as a flat spiral, may actually be more like a warped and twisted disk. That's according to a new study of 1,339 stars whose distances could be measured with great accuracy. The resulting map reveals a tipped, uneven disk of material different from our standard picture



(For more details, go to astronomy.com)



F4.5 Classic Obsession, \$2,950.00

Ready to use and in very good condition. I am the original owner and bought it in August of 2005. Included are the installed Argo Navis digital setting circles, a Telrad, nylon light shroud, Astro systems heavy vinyl cover for the Upper Tube assembly, a total scope Astro Systems Cloth Cover with a drawstring at the bottom, a homemade truss tube case and battery box w/motorcycle battery, all instruction manuals and info sheets, wheel barrel handles and counter weight balancing tubes with lead shot mounted at the bottom of the mirror box. The mirror was made by Omni Torus and it doesn't disappoint. The DSC help you see more stuff and provide for a lot of fun. **Phone Steve Peeters at (909) 557-3112**

Add-On Options for you to consider:

A great 20 x 80mm optical finder by Stellarvue with a diagonal and mounting rings. You can see the dovetail for it on the UTA next to the Telrad. I loved this finder in addition to the DSC because I do some star hopping and enjoyed splendid views of large objects like the Pleiades. I bought this new about 7 years ago, my total cost was \$373.00. Yours for \$200.00.

An Astrocrumb Filter Slide made especially for this scope by Roger Green. It holds three filters at a time and comes with a second slide for a total of six filter options. It has one blank spot so you just slide back and forth from no filter to whatever filter you want! It comes with a wooden case to boot. My cost was \$244.00. Yours for \$125.00.

I've got a few other goodies that are included but not worth mentioning, so you'll be surprised.