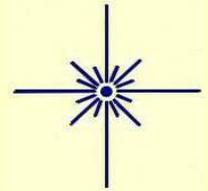




The Guide Star

Newsletter of the Amateur Astronomers Association of Pittsburgh Inc
Founded June 9, 1929 by Chester B. Roe and Leo J. Scanlon
Website: 3ap.org



March 2011

Volume 45, No.3

March 11th: AAAP General Meeting

Allegheny Observatory

7:30 p.m. Business Meeting

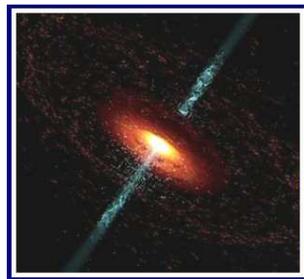
Featured Speaker: Dr. Daniel Vanden Berk,
Professor, Saint Vincent College

Dr. Vanden Berk received his B.S. degree in Physics and Astronomy from the University of Wisconsin (1990), and his Ph.D. in Astronomy and Astrophysics from the University of Chicago (1997). He was a Harlan J. Smith Fellow at the University of Texas McDonald Observatory, and a researcher at Fermilab, the University of Pittsburgh, and Penn State University. He is currently a professor in the Physics Department at Saint Vincent College in Latrobe, Pennsylvania.

He is currently a professor in the Physics Department at Saint Vincent College in Latrobe, Pennsylvania.

Dr. Vanden Berk has spent much of his career working on some of the largest astronomy projects in history. He is one of the builders of the Sloan Digital Sky Survey, which has mapped the universe on its largest scales. He was the Instrument Scientist for the Ultraviolet / Optical Telescope on board the NASA Swift Observatory, which studies the most powerful explosions in the universe. He has also done research with numerous NASA satellites including the Hubble Space Telescope, GALEX, Spitzer, Chandra, and XMM.

Dr. Vanden Berk's research focuses on powerful galaxies called quasars, which are so luminous that they can be observed to the edge of the known universe. He uses quasars as probes to reveal the structure of the universe on its largest scales, and to chart the evolution of the universe over cosmic time. He has published over 120 research articles in peer reviewed journals.



*First detected in the radio frequencies, **Quasars**, short for "quasi-stellar radio sources", although most are radio silent, are associated with large red shifts, extreme luminosity and the early universe.*

The first optical identification of a quasar was by Maarten Schmidt in 1963. The object was 3C273 in Virgo, familiar to some of us.

The energy we detect is thought to originate from the matter spiraling (a process called accretion, forming an accretion disk) into super massive black holes (SMBH) located at the center of galaxies.

Magnetic energy interacting with the whirling accretion disk blasts material away from the hole in polar directions

Please Note: The March meeting location is Allegheny Observatory. Parking space is limited.

March 12th: Wagman Winterfest XVIII

Wagman Observatory, 4 p.m.

Wagman Winterfest is the club's annual winter star party, and the first event of the AAAP observing year. It's open to both members and the public.

As always, twilight will see the rich winter constellations near their highest in the south – Taurus, Orion, Gemini, Auriga and Canis Major are perfectly positioned for viewing throughout the evening.

This year's edition will also feature the first quarter Moon with a terminator sweeping through crater Plato and passing over the straight wall, Rupes Recta. Late evening will see sunrise for craters Clavius and Eratosthenes. Saturn will rise about 20:15.

Held if weather permits, Winterfest is an ideal chance to try out new equipment in the company of fellow members and enjoy the camaraderie that chilly weather observing seems to promote. So be sure dress with weather conditions in mind. Bundle up!



Bring a warm beverage, maybe hot chocolate or warmed cider and please be careful where you park and walk -- the grounds may be slippery. Be aware that severe cold, heavy snow or persistent cloud cover will cause the star party to be canceled, so keep a "weather eye" on the club's Yahoo

Message Group as the date draws near. For more information, call the AAAP's Wagman Observatory at (724) 224-2510 or Wagman Winterfest Director Pete Zapadka at (412) 487-9363.

March 26th & 27th: Astronomy Weekend Carnegie Science Center

The AAAP continues its tradition of participating in a weekend of events to celebrate both the hobby and science of astronomy at Carnegie Science Center on Pittsburgh's North Side. This year, our friends from the north, the Kiski Astronomers will also be there.



AAAP members are encouraged to volunteer and also to submit their astronomical images for display. Contact Ed Moss for details at: president@aaap.org

Event information, including scheduled speakers, can be found at the CSC website:

www.carnegiesciencecenter.org/calendar/events_detail.php?eventID=225

Mike Simonsen on : Aperture Fever

I've mentioned this affliction in my 'astronomy: hobby or obsession' series of articles. Just about everyone who gets involved in observing astronomical objects eventually succumbs to this dread affliction.

You may start off with a reasonably priced instrument that is easy to tote around and use. Like a nice pair of binoculars. But after some time

you'll be tempted by those faint fuzzies you can just barely detect in your 8x50s or image stabilized binoculars and before you know it, you've gone completely bonkers like this guy. He has a problem. Aperture fever !!!



Some of us start out with that modest refractor we get for Christmas or a birthday, or in my case, money I saved from my paper route. These are great for looking at the Moon, planets and some of the brighter Messier objects. But again, tantalizing glimpses of fainter and fainter objects haunt your dreams.

Early in the 20th century, 'refractor aperture fever' finally met its practical limit with the construction of the 36" Lick and Yerkes 40" refractors.



Two things strike me at once, looking at this photo. First, there is Albert Einstein to the right center. Second, no one in this picture is smiling.

They've just christened the largest refractor on the planet and they're looking grumpy! Well, I know why.

I have had the opportunity to observe with both this and the Lick 36" refractor and the only thing the telescope operators have ever shown me is...



M13... I know, it's lovely, but both times I was on observatory tours with professional and advanced amateur astronomers, and I wanted to see something I can't see with my 12" LX200. The view wasn't all that much better than the one I get from my backyard. Einstein was probably ready to go have drinks and a snack when they made him stop and pose this picture... after showing him M13.

The Lick trip really was disappointing. The narrow switchback mule trail road that takes you up to the observatory is enough to make the most hardy person car sick. After surviving the hair raising ascent, I was expecting a bigger payoff.



At Yerkes I noticed a small blue 50mm finder scope mounted near the observer end of the tube. It looked exactly like the one on my scope

so I made a remark about it to the telescope operator. He said, "That's not a finder scope. That's what we use to read the setting circles!" The Great Refractor is not a 'go to' scope, and it's a long way up to the RA axis.



Compound reflectors have become one of the favorite commercial telescope types on the market. You see them everywhere nowadays.



The 8" Schmidt Cassegrain is a great portable, multi-use scope. They come in a variety of sizes, but once the telescope is taller than you and weighs more than you do, you probably have a case of aperture fever.



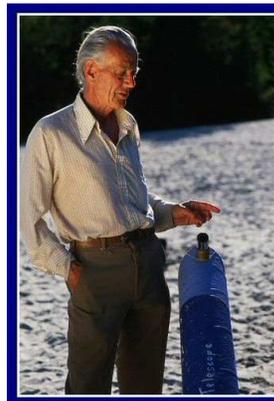
But it could be much worse. If something like *this* shows up in your back yard you are in deep doo-doo.

This is my friend Jim Bedient standing in front of the Faulkes telescope. Note the semi-detached, insane smile creeping across his face. A sure sign of aperture fever.



Also note the position he has assumed at the telescope. That's because the large gray flex tube to the upper right of his head is a giant vacuum hose. In order to operate the telescope you back up to a station where the open end of the vacuum tube terminates.

Once the observer is in place the telescope automatically begins sucking money out of your back pocket to pay for your minutes.



There is one man who has done more to raise the hopes of amateurs and spread the dread disease of aperture fever than anyone in history... John Dobson.

Dobson invented an inexpensive way to mount large optics in homemade Newtonian telescopes. These are called Dobsonian telescopes.

Tens of thousands of Dobsonian telescopes have been made since this man began spreading the aperture fever virus. In spite of being a priest, he may, in fact, be the anti-Christ.

Amateurs everywhere have succumbed to the obsession of owning 16 to 36 inch telescopes of their own with which to hunt down elusive, faint, celestial objects.

Their pride of ownership and badge of membership in the 'obviously afflicted club' is evidenced by the fact that they have pictures of their telescopes taken with family members and pets!



To further illustrate just how serious this telescope obsession is, here is a picture of a woman actually *hugging* her telescope. I've often wondered why this woman would be caught in this precarious position, one foot off the ground, apparently ready to fall on her prize possession at any moment. Perhaps that is not a smile on her face. It's possible she is grimacing and has actually somehow managed to get her left breast caught in between the truss tubes! Ouch...

In any case, I feel it my duty to warn anyone just starting out in astronomy, and especially those of you who have already begun to show signs of aperture fever, that there is no known cure for this disease. So do proceed with caution when entering the door of your favorite astronomical retail outlet, or perusing the tantalizing offerings of online astronomical equipment dealers. Once you head down this road, there is rarely any place to turn off and return to sanity. You have been warned.

Mike Simonsen's series on the lighter side of amateur astronomy is included courtesy of the AAVSO Writer's Bureau.

From the VP's Desk....

I avoid any 'political' discussion in my VP articles. But this month I want to present something that is somewhat 'political': AAAP Offices. More specifically, I would like to encourage more members to run for AAAP officer positions.

Most of those who run for office do it for the enjoyment of helping the organization, meeting new people also interested in astronomy, or advancing their own activity level in this hobby.

The office duties are typically not difficult and rarely a burden. They are often fun. A prime example of that in the position I currently hold is that I get to talk with those that I offer speaking engagements to. Several times I took the speakers coming from a distance to dinner and some great conversations occurred. The Director at Green Bank and I even got to hear a "No Soup For You" from "The Soup Nazi" at a restaurant we had dinner at before the meeting. (Pardon the "Seinfeld" TV program reference for those that do not know who that is.)

At the next meeting or star party, talk to any of the current officers about their duties and your interest in becoming a future officer. All of the current officers are approachable and would likely be very happy to talk with you about it.

Nominations will be accepted by the Nominating Committee soon and the election happens in May.

Now get out there and start wondering.... - Craig

An Upcoming Event on April 16th Butler County Symphony Orchestra & AAAP

On Saturday, April 16, at 7:30 PM, the Butler County Symphony Orchestra will present "Space", a concert including Gustav Holst's "The Planets", Claude Debussy's "Clair de Lune" and James Horner's "Music from Apollo 13".

The performance will be given in the auditorium of the Butler Intermediate High School. It will be a wonderful evening of music that is right down our alley.



The BCSO committee is inviting the AAAP to set up a few telescopes, as well as two or three tables of exhibits, in the foyer outside the auditorium so that the folks attending the performance can learn a little bit about astronomy, similar to what we did for the Pittsburgh Symphony Orchestra last year. We'll also be putting together a slide show of the planets to be shown in the auditorium during the last movement of "The Planets."

I am asking for 6 to 8 volunteers to help with this effort. It'll be great publicity for our organization. A few of us may need to set up every-thing during their dress rehearsal on Friday, April 15, and several of us will need to be at the April 16 performance to demonstrate our exhibits before and after the performance and during the intermission. Let me know if you would be willing to:

1. Provide a telescope to set up in the foyer.
2. Provide other floor or table exhibit materials.
3. Provide a laptop to show slides of night sky objects on the exhibit tables.
4. Provide some good, high quality images of the planets.
5. Help set up the exhibits on Friday evening, April 15.
6. Be at the main performance on Saturday evening, April 16, to man one of the exhibits or the slideshow in the auditorium.

The BCSO is graciously providing 16 free tickets to the April 16 performance for use by each AAAP volunteer and a member of their family. If you can help, please reply directly to me at jdmozer@aol.com or call me at 412-731-6297. Thanks. - John Mozer

Listing of Mingo Events

Mingo Public Star Parties are listed in the 2011 Washington County Events Guide. The 2011 edition is available for download at:

http://www.co.washington.pa.us/downloads/parks_2011_2.pdf

A hard copy may be picked up at various sites throughout Washington County. The 48 page guide lists many family friendly events. AAAP assists the Washington County Parks and Recreation Department with both the *April 30 - May 1, 2011, More! Madness Weekend* (Friday evening planetarium show and weather permitting observing) http://nightsky.jpl.nasa.gov/event-view.cfm?Event_ID=25876

and the *September 12, 2011, Harvest Moon Campfire* (telescope viewing and campfire talk) http://nightsky.jpl.nasa.gov/event-view.cfm?Event_ID=25873

- Kathy deSantis

Sun

Mon

Tue

Wed

Thu

Fri

Sat

<p>All times given are local.</p> <p>Details for AAAP Events can be found at:</p> <p>https://nightsky.jpl.nasa.gov/event-list.cfm?Club_ID=675&EventEra=Future</p>		<p>1</p> <p>SR:06:53 SS:18:10 MR:05:01 MS:15:24 PI: 13%</p>	<p>2</p> <p>SR:06:52 SS:18:12 MR:05:31 MS:16:25 PI:7%</p>	<p>3</p> <p>SR:06:50 SS:18:13 MR:05:57 MS:17:24 PI:3%</p>	<p>4</p>  <p>SR:06:49 SS:18:14 MR:06:21 MS:18:23 PI:1%</p>	<p>5</p> <p>Haydn Creation Ingomar Methodist Church 20:00</p> <p>SR:06:47 SS:18:15 MR:06:45 MS:19:21 PI:0%</p>
<p>6</p> <p>Haydn Creation Fox Chapel Presbyterian Church 16:00</p> <p>SR:06:46 SS:18:16 MR:07:08 MS:20:19 PI:1%</p>	<p>7</p> <p>SR:06:44 SS:18:17 MR:07:33 MS:21:17 PI:4%</p>	<p>8</p> <p>SR:06:42 SS:18:18 MR:08:00 MS:22:17 PI:9%</p>	<p>9</p> <p>SR:06:41 SS:18:19 MR:08:31 MS:23:17 PI:15%</p>	<p>10</p> <p>SR:06:39 SS:18:20 MR:09:07 MS:--:-- PI:22%</p>	<p>11</p> <p>AAAP General Meeting Allegheny Observatory 19:30</p> <p>SR:06:38 SS:18:21 MR:09:49 MS:00:16 PI:31%</p>	<p>12</p>  <p>Wagman Winterfest 16:00</p> <p>SR:06:36 SS:18:23 MR:10:38 MS:01:13 PI:40%</p>
<p>13</p> <p>Daylight Savings</p> <p>Mu Geminorum Occultation 19:44</p> <p>SR:07:34 SS:19:24 MR:12:35 MS:03:06 PI:50%</p>	<p>14</p> <p>SR:07:33 SS:19:25 MR:13:40 MS:03:55 PI:61%</p>	<p>15</p> <p>SR:07:31 SS:19:26 MR:14:49 MS:04:38 PI:71%</p>	<p>16</p> <p>SR:07:30 SS:19:27 MR:16:03 MS:05:16 PI:81%</p>	<p>17</p> <p>SR:07:28 SS:19:28 MR:17:18 MS:05:51 PI:89%</p>	<p>18</p> <p>SR:07:26 SS:19:29 MR:18:34 MS:06:23 PI:95%</p>	<p>19</p>  <p>SR:07:25 SS:19:30 MR:19:51 MS:06:55 PI:99%</p>
<p>20</p> <p>Vernal Equinox 19:21</p> <p>SR:07:23 SS:19:31 MR:21:09 MS:07:27 PI:100%</p>	<p>21</p> <p>SR:07:21 SS:19:32 MR:22:26 MS:08:03 PI:97%</p>	<p>22</p> <p>SR:07:20 SS:19:33 MR:23:40 MS:08:42 PI:92%</p>	<p>23</p> <p>SR:07:18 SS:19:34 MR:--:-- MS:09:27 PI:85%</p>	<p>24</p> <p>SR:07:16 SS:19:35 MR:00:49 MS:10:18 PI:76%</p>	<p>25</p> <p>SR:07:15 SS:19:36 MR:01:50 MS:11:14 PI:66%</p>	<p>26</p>  <p>Astronomy Weekend CSC</p> <p>SR:07:13 SS:19:37 MR:02:42 MS:12:15 PI:55%</p>
<p>27</p> <p>Astronomy Weekend CSC</p> <p>SR:07:12 SS:19:38 MR:03:26 MS:13:17 PI:45%</p>	<p>28</p> <p>SR:07:10 SS:19:39 MR:04:02 MS:14:18 PI:35%</p>	<p>29</p> <p>SR:07:08 SS:19:40 MR:04:33 MS:15:19 PI:26%</p>	<p>30</p> <p>SR:07:07 SS:19:41 MR:05:01 MS:16:18 PI:18%</p>	<p>31</p> <p>SR:07:05 SS:19:42 MR:05:26 MS:17:17 PI:11%</p>	<p>Legend:</p> <p>SR = Sun Rise SS = Sun Set MR = Moon Rise MS = Moon Set PI = Approximate Percentage of Visible Lunar Surface Illuminated Local Midnight</p>	

Some Celestial Highlights for March

Mercury is quite low in the western sky after sunset all month.

Venus is a morning object all month rising at 04:55 on the 1st ; 05:55 on the 15th and at 05:47 on the 31st.

Mars is not visible and is in conjunction with the Sun on the 4th.

Jupiter begins the evening well west of the meridian and by month's end both will set around 20:00.

Saturn rises around 21:00 at the beginning of the month and is visible all night. Note in 2011 we'll see the northern surface of the planets rings. Their inclination will varies from 10.1° in early January, decreasing to 7.3° in early June and increasing to 14.8° at end of year. Also note that Saturn now lies below the celestial equator, a situation which will hold until March of 2026.

Uranus is not visible.

Neptune becomes a morning object. On the morning of the 27th, it will rise with Venus separated by only 24 minutes of arc.

For those using programs to predict GRS transits, *Jupiter's System II longitude* is 158°.

Selenographic Colongitude is 209.59° at 0h UT at beginning of the month. Add 12.2° each day.

13th 19:44 The dark limb of the nine day old *Moon* will occult the 3rd magnitude star *mu Geminorum*. The star will emerge from occultation at approximately 21:08

20th 19:21 *Vernal Equinox*



Welcome New Members

Joseph Borella & Family
Shawn P. Duffy & Family
Katie Klos
Bob Marino

AAAP Related Reminder

March 5, 8PM: Haydn's *The Creation* at Ingomar United Methodist Church. For details see February Guide Star.

March 6, 4PM: Haydn's *The Creation* at Fox Chapel Presbyterian Church. For details see February Guide Star

Guide Star Submissions

All AAAP members are encouraged to submit items to the club newsletter. Articles, images, observations, notices, ads, book, software and equipments reviews, all are welcome.

Only submissions received before the 15th of the prior month are assured of inclusion in the coming issue. The Guide Star is posted online and sent to print on the 20th of the prior month.

Send submissions or questions to: gseditor@3ap.org

Treasurer's End of the Year Financial Summary

The following is a summary of our accounts, income, and expenses for 2010.

Income		Expenses	
50-50	317.00	Awards, gifts, prizes	1006.03
Donations	9759.45	Bank fees	77.99
Interest	7538.26	Food	182.76
Memberships	10392.50	Supplies / Equipment	898.86
Sales	600.00	Guide Star Printing	1475.16
Total Income:	28607.21	Insurance	3721.00
End of the Year Account Balances		Mail	723.25
Cash	50.00	Meeting Speakers	450.00
Checking	2450.52	Merchandise	1432.95
Savings	6319.71	Planetarium service	400.00
USXCU	130,851.51	Printing-misc.	364.13
Total Accts	139,671.74	Int. Dark Sky	350.00
Net gain / loss :		Star Finders	799.00
Last 12 months	-4313.14	Subscriptions	2061.80
Last 24 months	-1280.89	Tax / Preparation	3157.40
		Utilities / Mingo	1237.90
		Utilities / Wagman	2562.86
		Wagman repairs	11,760.00
		Misc. Expenses	259.26
		Total Expenses:	32920.35

The association has had a major expense this year, the badly needed repairs on the roof and siding at the Wagman Observatory. The total cost of the repairs was \$11,760.00 Most of this expense has been offset by donations and interest accumulated from our USX account over the past couple years. Since the original \$100,000 investment in the USX account was made in 2006, it has accrued \$30,851.51 in interest. This investment has enabled the association's total account balances to remain relatively stable while covering normal expenses as well as expenses for acquiring new equipment and making repairs on our facilities. As a result we have been able to maintain our current dues structure and actually extend a discounted dues to families.

**AMATEUR ASTRONOMERS ASSOCIATION
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Guide Star Editor: John Cheng
gseditor@3ap.org

AAAP Member Dues: \$ 24.00

**Student Membership
(K-12 & full time
college student): \$ 16.00**

Family Membership \$ 40.00

Basic Procedure for Paying Dues:

- 1. Make check payable to "AAAP Inc."**
- 2. Send check to:**

**Michael Meteney, Treasurer
1070 Sugar Run Road
Venetia, PA 15367-1514**