

Big Bear Valley Astronomical Society



May 9, 2019 Agenda and Minutes

- ✓ Welcome:
 - Members, ~~New members or 1st time visitors?~~: Claude, Teresa, Deanna, Randy, Byron, Wes, Tom, Mark, Greg, Jane, Bill
 - Any new Agenda Items? **Telescope clinic.**

- ✓ News and Announcements: **None**

- ✓ Treasurer/Membership Report: **36 paid members, balance \$902.50**

- ✓ Scholarship Fund Report: **\$1,372.72.**
 - Scholarship committee has reviewed the student applicants and will make final selection by Saturday 5/18/2019. The Committee's selections will stand without further debate.
 - Membership voted to award three \$500.00 scholarships this year.
 - Membership voted to transfer about \$130.00 from the General Fund to the Scholarship fund to fill out the \$1,500 need for 3 awards.

- ✓ Librarian Report : **Librarian suggested that the Library inventory should be distributed to schools and/or the City Library since the "borrowing activity" by members has been nil. Members present approved the suggestion. Distribution of books etc will be at the Librarian's discretion. If you've given a book or other item that you want to keep, please let Deanna know.**

- ✓ Comments, reports, discussions, reviews:
 - Urban Assault Fri - Apr 12th in the Village.
 - Teresa, Claude, Randy, Bill
 - Small number of very interested folks
 - Apr 25th Virtual Lecture –Annika Peter, OSU, Dark Matter.
 - Good lecture, attendees all learned something from Dr. Peter.
 - Star Party May 4th. Randy was there and found that the Dump location is no longer suitable.
 - First Friday at Bear Valley Farms May 3rd. Lots of telescopes, but no visitors this time.
 - BBSO public tour earlier today, last April tour. 2 Very large groups of kids and parents/teachers.
 - SpaceX Astro-Imagers Tour of BBSO Apr. SpaceX reported back "very cool tour at BBSO".
 - Discovery Center Display- Mark G working on it. He needs BBVAS pictures and videos, and also any really cool Astronomy videos you have!! In development... eta: June/July for intro.

- ✓ Activities
 - Urban Assault Fri May 10th in the Village. **Weather permitting.**
 - May 30th Virtual Lecture –John Varsik, New DKIST Solar Telescope!
 - Anyone working on the AL Lunar Project (besides Bill, Deanna, Jane & Teresa)? Or the Outreach Award? (Claude & Teresa, Steve, Josh Johnson)? **Bill added daytime observations to his project**
 - Club Spring tour (Palomar? JPL? SOFIA?) Working on SOFIA and Space-X! Grandview?
 - **Telescope Clinic... probably in August... date TBD... Erwin Lake Park.**

- ✓ Chief observer report.
 - What's up this month? **Nutten' honey...**

- ✓ Scheduling:
 - Virtual Lectures: Suggestions? **WWV, NIST, astrophoto?**
 - Star Party June 1st? Where?
 - **Meld this June 1st star party into the May 31 event at Discovery Center.**
 - **Need new location for future Club star parties... the Dump is no longer suitable.**
 - First Fridays Under the Stars, June 7th
 - **1st Fridays May-Sept at Bear Valley Farms! Need telescopes astronomers.**
 - **June 7, July 5, August 2, Sept 6**
 - Discovery Center Star Parties May 31, June 29, July 27, and Aug 30th- need May speaker!.
 - **Bill will be the speaker at the May 31 event.**
 - RTMC moved to September 19 – 22.
 - Big Bear Air Fair July 6.
 - Next beginner talk? **Byron: "How to see more w/o paying more"**

- ✓ General Discussion
 - **Discussed the GPS "date" problem with some Meade and Celestron telescopes**
 - **Problem appeared 4/6/2019 around the world... the "week counter" issue.**
 - **Solution seems to be to update the Meade f/w to A1F7.**

THIRTY THINGS THAT STARLIGHT CAN TELL US

Reference: "Beyond The Observatory" by Harlow Shapley, published by Charles Scribner's Sons, New York, Library of Congress Card Number 67-14493. (1967)

The first eighteen things can be discovered about any star.

1. The position in the sky with respect to other stars.
2. The apparent magnitude (brightness) with reference to stellar or artificial standards.
3. The color index (found by comparing the brightness in various spectrum intervals -- that is, measuring the color tint: reddish, yellowish, greenish or bluish).
4. The variability in light: it may be zero.
5. The spectral class in two dimensions.
6. The variability, if any, in spectrum class.
7. The chemical composition of the stellar atmosphere and the consequent nature of the atomic transformations that maintain the radiation.
8. The approximate age.
9. Whether it is single or double (found in various ways).
10. The existence and strength of its magnetic field.
11. The involvement with interstellar nebulosity.
12. The speed of rotation.
13. The tilt of the rotational axis.
14. The speed in the line of sight, and variations, regular or irregular, in that speed.
15. The cross motion - measurable only if the distance to the star is small or the speed is great.
16. The surface temperature.
17. The total luminosity (candle power).
18. The diameter.

The next eight facts can also be learned if the star is an eclipsing binary -- a double star whose light varies because the two members of the system periodically eclipse each other.

19. The mean density of the two components.
20. The period of revolution.
21. The geometry of the eclipse -- and whether it is total or partial.
22. The degree of darkening at the limb.
23. The ratio of the sizes of the two components.
24. The eccentricity of the relative orbit.

25. The inclination of the orbital plane.
26. The approximate distance.

And about a cepheid variable -- a star which varies in light periodically because of pulsations -- four additional facts can be found.

27. The shape of the light curve.
28. The period of pulsation.
29. The population membership.
30. The approximate diameter.

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William A. Kuhn
Member, OCAAA

Twinkle, twinkle, little star, how I wonder what you are -----