The High Desert Observer

November 2020

The Astronomical Society of Las Cruces (ASLC) is dedicated to expanding public awareness and understanding of the wonders of the universe. ASLC holds frequent observing sessions and star parties, providing opportunities to work on Society and public educational projects. Members receive electronic delivery of The High Desert Observer, our monthly newsletter, plus membership in the Astronomical League including their quarterly publication, *Reflector*, available in either paper or digital format. ASLC members are also entitled to a discount on a subscription to Sky and Telescope magazine. Astronomical Society of Las Cruces

Annual Individual Dues are \$30 Annual Family Dues are \$36 Annual Student (Full Time) Dues are \$24

Annual Dues are payable in January. Prorated dues are available for new members. Dues are payable to ASLC with an application form or note to: Treasurer ASLC, P.O. Box , Las Cruces, NM. Contact our Treasurer, Patricia Conley treasureraslc-nm.org for further information.

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Monthly Meeting

Our next ASLC meeting will be virtual, to be held on **Friday, November 20th at 7 p.m.** Future meetings will continue to be virtual until the Covid-19 situation allows us to meet safely in person. Please note that the ASLC will not be holding other meetings, gatherings or public outreach events until it is deemed safe to do so. Please practice proper hygiene, social-distance and wear your mask!

Coming Events (postponed due to Covid-19)

Typically, ASLC hosts public in-town observing sessions at the Pan Am Plaza on University Ave. and at Tombaugh Observatory on the NMSU campus. All sessions begin at dusk.

At our Leasburg Dam State Park Observatory, we normally hold monthly star parties. Located just 20 miles north of Las Cruces, our 16-inch Meade LX200 telescope at this site is used to observe under rather dark skies.

From the Desk of the ASLC President

Tracy Stuart

Roger Penrose, who just shared the 2020 Nobel in Physics, has a rather controversial theory concerning our universe. He has said that before the Big Bang created the universe as humans know it now, there was another universe and cited black holes as proof of its existence. Penrose got the Nobel for a paper that used Einstein's Theory of Relativity to prove the existence of black holes and their formation.

According to Penrose, there is evidence of unexplained spots of electromagnetic radiation spread across the sky and they are the size of a Full Moon. He calls them Hawking Points (wonder why). He has said that these spots prove the "conformal cyclic cosmology" theory of the universe that suggests that the Big Bang only marks the end of one universe and the beginning of another. Under Penrose's theory, Hawking Points resemble the final expulsion of Hawking radiation which is transferred by black holes that existed in the previous universe.

Our speaker this month is Alex Woronow who will be talking about artificial intelligence for image processing. If you have been following the publication of his images then you know he has much to teach us.

THE ANSWER IS 42.

ASLC Board of Directors

board@aslc-nm.org

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president@aslc-nm.org vp@acslc-nm.org treasurer@aslc-nm.org secretary@aslc-nm.org director1@aslc-nm.org director2@aslc-nm.org



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tconly00@hotmail.com comet_brewington@msn.com csterlin@zianet.com education@aslc-nm.org

tim.kostel@cloud.com

astrodoc71@gmail.com sshaffer@zianet.com csterlin@zianet.com steve.barkes@gmail.com tim.kostel@icloud.com

ASLC Incoming Officers for 2021

Congratulations to the newly elected 2021 ASLC officers, as determined by a membership vote of the nominees during the 2020 ASLC Annual meeting held on October 23rd. Their one-year terms will begin on January 1, 2021.

President: Vice President: Secretary: Treasurer: Director at Large #1 Director at Large #2 Ed Montes Tim Kostelecky John McCullough Patricia (Trish) Conley Michael Nuss Rani Bush

Current President Tracy Stuart will continue on the Board of Directors as Past President during 2021, and we appreciate his leadership as President for the two-year period of 2019 and 2020. Thanks Tracy!

Leaving the BOD in the coming year is the outgoing Director at Large, Kevin Brown, as well as Past President, Howard Brewington. Many thanks for their contributions to the society in their leadership roles as officers and members of the board.

Best Wishes to Howard & Maya Brewington

By Tim Kostelecky

Howard Brewington - Astronomer, comet hunter, and long-time Las Cruces resident and past-president of the ASLC has announced that he and his wife, Maya, will soon be moving to Austin Texas. Howard's contributions to the the global and local astronomical scientific communities are numerous including his five comet discoveries and his involvement in his professional pursuits, as well as his participation in outreach programs as part of the ASLC. But certainly beyond these achievements, Howard is a great friend to many in the society and will be sorely missed.

I have known Howard for only a couple of years, and my first impression of him as I attended my first ASLC meeting in September 2018 was that of enthusiasm, kindness and affability. But as I got to know him better, I quickly realized, as does anyone else who has had the privilege of being in his circle, Howard is driven! Driven to be the best as whatever he does... whether is be comet hunting, micrometeorites, beer brewing, golf, amateur radio - only to name a few I'm familiar with. Along with the valued couple of years of memories I have in my association with Howard, I will nonetheless have constant reminders in my home of him and Maya due the the innumerable, it seems, pieces of pottery artwork that my wife, Sandy, has acquired from Maya's collection. So in a sense, I see Howard and Maya everyday. I suspect Sandy and I will have to visit Austin occasionally, just to keep the artwork coming - and there's no doubt we'll all be seeing Howard at the TSP and Okie-Tex star parties in the coming years.



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Below is Howard's Biography as described on Wikipedia:

As an amateur astronomer, Brewington visually discovered or co-discovered five comets while manually sweeping the night sky with his home-built reflecting telescopes. He specifically designed his telescopes for the task, which included hand-grinding and polishing the 8 and 16-inch primary mirrors himself. Brewington found his first comet from South Carolina in 1989. To improve his chances of additional finds, he moved to southern New Mexico in the fall of 1990 and built a comet hunting observatory on a mountain ridge east of Cloudcroft.^[4] From 1991 to 1996, the relocation paid-off with four more visual discoveries. Two of his New Mexico comets, 97P/Metcalf-Brewington.^[5] and 154P/ Brewington.^[6] have short-period orbits of about ten years.

Starting in 1992, NASA-funded robotic telescopes had begun finding comets as part of their Near-Earth Object (NEO) survey. Because of this development, Brewington prophesied the end of visual comet discoveries and wrote about it in the Summer 1995 issue of CCD Astronomy magazine in an article titled "The Future of Comet Hunting." A follow-up article

by Brewington was published via Sky & Telescope magazine in November 2015, "The Last Visual Comet Hunters," which confirmed his prediction.

Since NASA's automated patrol scopes left few remaining prospects for visual comet hunters, Brewington stopped comet hunting in 1999, moved back to South Carolina, and enrolled at the University of South Carolina in Columbia. He graduated with honors in the summer of 2002 and was hired by year's end as a 2.5-meter telescope operator through the Astronomy Department of New Mexico State University. From 2002 to 2015, he worked at the Apache Point Observatory in Sunspot, New Mexico as part of the Sloan Digital Sky Survey. During Sloan projects SDSS-I through SDSS-IV, Brewington collected imaging and/or spectral data for projects including First-Phase Operations, Sloan Legacy Survey, SEGUE, Sloan Supernova Survey, APOGEE, BOSS, MARVELS, SEGUE-2, APOGEE-2, eBOSS, and MaNGA.

Brewington, now retired from NMSU, lives in Las Cruces, New Mexico with his second wife, Maria (aka Maya). He is a member of the Astronomical Society of Las Cruces and often attends national star parties. Brewington also enjoys amateur radio. He's earned an Amateur Extra class license, and his call sign is KJ5NJ