

Research Committee Report for January 2018

This year January had two full moons, so poor February has none. The second full moon (a blue moon) was on January 31 and was both a super moon (near perigee) and also an eclipse. Trifecta!

Solar System: The *lunar eclipse* on Jan 31 on the horizon at dawn was imaged *by Mark Zdziarski* and by Bob Vanderbei (<http://www.princeton.edu/~rvdb/images/Questar/LunarEclipse18.html>)

Clif Ashcraft imaged the moon near first quarter showing ancient wrinkle ridges in slanted sunlight in Mare Imbrium. See his website at: <https://www.wa2guf.org/lunar-images>
Helder Jacinto got beautiful detail in a gibbous moon.

Stars: Steve Lowe took a spectrum of P Cygni, a hot star with emission lines from hot gas which it is blowing outwards.

Nebulae: Clif imaged M42 for only 10 minutes as a guiding test. Steve Lowe took a *spectrum of the ionized gas in the Orion Nebula*. He pointed the slit of the spectroscope at the gas only (no stars) and found many emission lines including H, O, N, He. Helder took five hours to image *supernova remnant Simeis 147*, the faint and notoriously difficult Spaghetti Nebula from Union NJ, which is very cold as well as “crazy light polluted.” Tony Sharfman added a 10 hour image of this nebula to his website

<https://tonysharpman.myportfolio.com/astrophotography>
Helder also took 11 hours to image NGC 2175, the Monkey Head Nebula in Orion’s upraised arm about 6300 light years away from us, much farther than M42.

Presentations: Helder has an exhibit of his astrophotography from 1/11 to 3/29 in the Gallery in the Kenilworth Library, 548 Boulevard, Kenilworth, NJ 07033. You should go and admire his terrific work, some of which is for sale.

Other: Clif has finished his *homemade ONAG* (on axis auto guider) in aluminum and is experimenting with autoguiding by software SkyX and PHD2.

Dennis Conti attended the American Astronomical Society meeting in Washington DC, January 8-12.

Respectfully submitted, Mary Lou West, Research Chair

