

Research Committee report for December 2016

This month has seen fewer activities than usual because of the cloudy weather and the holidays.

Solar system Observations: Clif Ashcraft took a lovely mosaic of the 6 day old waxing crescent moon.

Star Observations: Jim Nordhausen suggested a possible double star from the exoplanet list for Clif's speckle interferometry technique. Clif will try to measure the separation of these stars with his C14 telescope because the stars are fainter than 11 magnitude.

Steve Lowe has begun taking low resolution spectra of giant stars which are candidates to become supernovae.

Deep Sky Observations: Helder Jacinto imaged NGC 891, an edge-on unbarred spiral galaxy about 30 million light-years away in the constellation Andromeda. The exposure totaled 5 hours and 40 minutes before the sleet began at 3 AM.

On December 4 Tolga Gumusayak was awarded "image of the week" on the astro imaging channel on youtube (TAIC) for his spooky ghost in Cassiopeia (done in November). He has also posted a lilting musical roundup of his images from 2016 at <http://www.tolgaastro.com/ap-blog/archives/12-2016>

Presentations: On December 16 Dennis Conti gave the AAI monthly meeting talk by Skype from Maryland. He spoke on "Exoplanet Detection via Microlensing" an exciting new technique. It is hard to picture the caustics which are responsible for this warping of spacetime.

On December 23 Clif gave a Sperry informal Friday talk on "Techniques for High Dynamic Range Processing of the Moon."

Other activities: Dennis will teach an AAVSO CHOICE course on exoplanet observing from Feb 6 to March 3. It is a guided online course over 4 weeks and, in addition to the fundamentals of high precision photometry, it will cover AIJ in detail, including doing an AIJ analysis with images from an actual observation. The course will contain both written and video material. The cost is \$50 for non-members of AAVSO, but only \$30 for members. (<https://www.aavso.org/content/new-exoplanet-choice-course>)

Respectfully submitted, Mary Lou West, Research Committee Chair

