## Unofficial Meeting Minutes 5/29/2020 <br> Weird Version

## Club Announcements

- Game Nights! Alternating with every meeting, every two weeks. Next Game Nigh Friday, June $5^{\text {th }}$ at 4 pm . Hosted on Discord. Minecraft, Jackbox, etc.


## - What's Up Astro Club with Yancy

- Venus is almost not up anymore :(
- Mercury is still visible!
- Quarter til Midnight, Saturn and Jupiter are visible near Sagittarius
- Procyon A


## § 1.5 Msun

§ 2.0 Rsun
§ 6.9 Lsun
§ F5 IV-V, transitional spectral type, right at the very end of burning hydrogen, at the end of the main sequence, and will enter Red Giant phase
§ 11.46 ly away, very close to us!
§ Double star, companion white dwarf Procyon B
0.6 Msun
0.012 Rsun
0.0005 Lsun
40.8 yr orbit

- $\quad 15 \mathrm{AU}$ from host star on average
- $e=0.4$
§ Face West at 8:30pm in Canis Minor
- Solar System Explorer
§ If l'd dropped that sucker into a gargantuan sea it would've floated.
- Saturn
§ I was knocked unconscious and awoke to the sound of my ship being pummeled, as if a thousand kids were throwing snowballs. All I could remember was that I wasn't in the asteroid belt.
- Rings of Saturn, Comet tail
§ It was very cold, and the atmosphere blocked out all the stars, but I wasn't hovering over one of those gasbag Jovian planets.
- Titan
- Comet ATLAS
§ Kind of fizzled out, disintegrated
§ Comet's gas tail points away from the Sun, dust tail follows the orbit
§ Apparently has two nuclei now
- Impossible moon photos
§ Family Circus - fake, no full moon and sunset on the same side of the sky
§ Alessandra's picture - possible, fun framing the moon to be in a radio dish, but in reality a mosaic
§ Moon over Kitt Peak - taken in the morning as the moon sets in the West
§ Moon Analemma - Picture of the moon every lunar day composited together, analemma, throughout the month, due to the tilt of the Earth
§ Moon Eclipse - another composite, this time showing the shadow of the Earth
- How high is a meteor?
$\S 60$ to 90 kilometers typically
§ This specific meteor was at 121 km
§ Fireball parallax allows you to triangulate the altitude
§ Why did it heat up so soon? Either its speed or the angle it came in at
- Don asks you to complete some surveys to help plan classes for next semester!

Meet the Messiers with Sean - Messier \#12

- NGC 6218
- 23 thousand ly from Earth
- Discovered by Messier in 1764
- Astronomers suspect that gravity has ripped many low mass stars from M12 as the cluster passed through denser regions of the Milky Way
- It must have lost up to 1 million stars this way.

Astrophotography with Sai

- Star trails!
§ Just need a stable surface and some time to take long exposures
§ Set up camera for 30 second exposures and take 70-80 pictures and combine them in photoshop
- Ryan and the supernova
§ Supernova went off in M61
§ Supernova is in the outskirts of the galaxy
§ Lots of galaxies in the image that were unexpected, pretty cool!
§ Owl nebula and surfboard galaxy
- Constellations are easy to take pictures of, easier than star trails

Kahoot time!


