



Newsletter October 2019

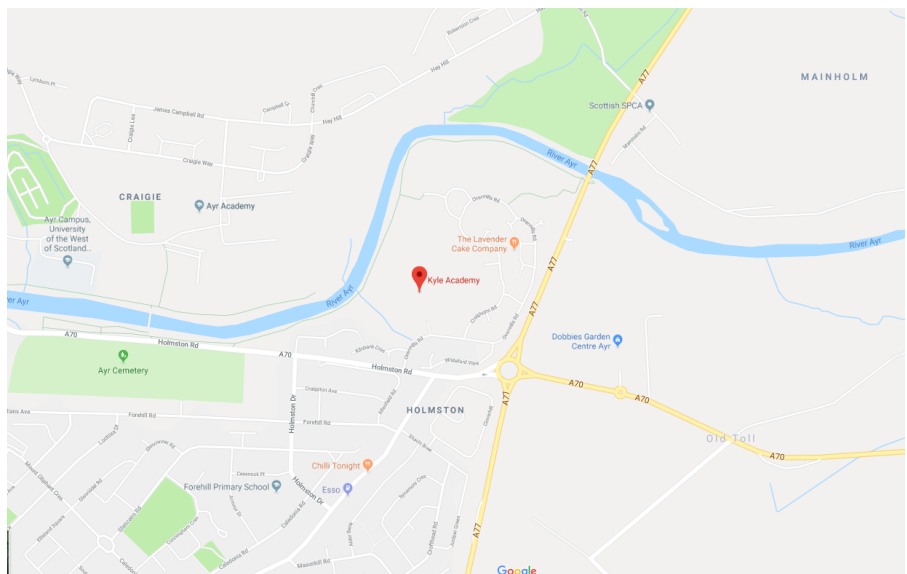
Next Meeting: **28th October 2019, 7pm**

Speaker: Roy Brice - The Moons of the Solar System

Kyle Academy, Overmills Road, Ayr, KA7 3LR

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President's Word

Yeti observed in Arizona!

Astronomers from the University of Arizona have accidentally discovered a "hidden monster galaxy" from the dawn of the universe which is creating stars at a rate 100 times faster than our own.

The footprints of such galaxies had previously hinted at their existence "like a cosmic Yeti" according to the University of Arizona, which said "the scientific community generally regarded these galaxies as folklore".

But a new study published in the *Astrophysical Journal* confirms the existence of at least one such galaxy which was discovered by astronomer Dr Christina Williams using telescopes in the Atacama desert.

Dr Williams, lead author of the study, noticed a faint blob of According to study co-author Ivo Labbe, of the Swinburne University of Technology, Melbourne, Australia, said: "We figured out that the galaxy is actually a massive monster galaxy with as many stars as our Milky Way, but brimming with activity, forming new stars at 100 times the rate of our own galaxy."

The accidental discovery could solve an important astronomical question, about how the biggest galaxies developed during the young universe. Scientists believe that massive mature galaxies can only be seen from when the universe was effectively a cosmic toddler, 10% of its current age – but bafflingly astronomers never seem to be able to spot them forming, even when looking at a part of the universe which is so distant it comes from that time. "Our hidden monster galaxy has precisely the right ingredients to be that missing link," Dr Williams explained, "because they are probably a lot more common."

But another open question is exactly how many of them there are.

"The observations for the current study were made in a tiny part of the sky, less than 1% the disc of the full moon. Like the Yeti, finding footprints of the mythical creature in a tiny strip of wilderness would either be a sign of incredible luck or a sign that monsters are literally lurking everywhere," the university stated. In observations captured by the ALMA telescope - short for Atacama Large Millimetre Array - which scans the skies at 5,000m above sea level in the high altitude and clear, cloudless skies of the desert in northern Chile.

"Strangely enough, the shimmering seemed to be coming out of nowhere, like a ghostly footstep in a vast dark wilderness," said the university.

"It was very mysterious because the light seemed not to be linked to any known galaxy at all," explained Dr Williams, a National Science Foundation postdoctoral fellow at the Steward Observatory.

"When I saw this galaxy was invisible at any other wavelength, I got really excited because it meant that it was probably really far away and hidden by clouds of dust.

The bizarre signal is believed to have travelled roughly 12.5 billion lightyears to reach Earth, such a distance and time away that it offers scientists a view of the universe in its infancy. The astronomers believe it was caused by the warm glow of dust particles heated by stars forming

deep inside a young galaxy, with these giant clouds of dust concealing the light of the stars themselves, rendering the galaxy completely invisible.

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I sincerely hope for the latter conclusion!



All the very best, and I look forward to seeing you all at our next meeting.

Clear Skies

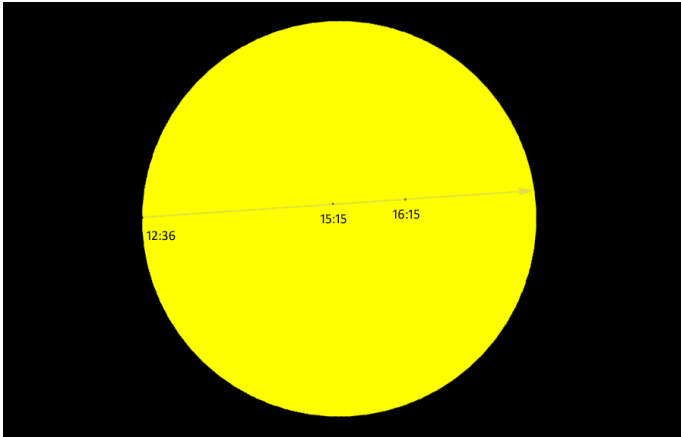
Roger



November Observing

Main Event

Clearly, the main event for November is the Transit of Mercury on Monday the 11th. While not as rare as transits of Venus (next one 2117), the following transit of Mercury will be in November 2032, so if the weather permits on the 11th, it will be a good opportunity to see one.



https://www.popastro.com/main_spa1/transit-of-mercury-2019

As it involves solar viewing, please ensure that you are using a solar filter specifically made to observe the sun. If you are planning to use a small telescope without solar filter, the image may be projected onto a piece of paper or some other white surface, with the eyepiece is pointed away from any prying eyes. Looking at the unfiltered sun through a telescope will cause blindness.

Other Events

Taurid Meteor Shower: Peaks on the 11th – typically slow meteors, low rate (max 10/hr), however the moon is nearly full, which will make them difficult to see.

Leonid Meteor Shower: Peaks on Monday the 18th, (max rate 15/hr), will only be visible after the radiant rises above the horizon at about 22:10. The moon will be one day before last quarter and will be placed near the radiant, making the meteors difficult to observe in that part of sky. Looking in the opposite direction may be more productive.

Member Articles

Alex's Space

The Truth is Out There...

Behind every person alive there stand thirty ghosts, for that is the ratio by which the dead outnumber the living. Since the dawn of time, roughly one hundred billion human beings have walked the planet earth. This is an interesting number, for, by a curious coincidence there are one hundred billion stars in our galaxy, so for every person that has ever lived, there is a star, and many – perhaps most of them have planets circling them, so there is enough 'land' in the sky to give every human species, back to the first ape man, his very own world-sized Heaven or Hell. How many of these planets are inhabited, and by what manner of creatures, we have no way of guessing, the nearest star is one million times further away than Mars or Venus, but one day we shall meet them – our equals – or our masters!

Lunar Lunacy

Does the full moon really affect human behaviour? Throughout history this has been of interest, and is the source of a whole host of myths, from the belief that violent behaviour is linked to it, to the idea that it affects the birth rate!! The moon's gravitational 'pull' does affect the tides and has other benefits for Earth, its pull on the human brain is so small that a pillow pushing against your sleeping head exerts a force 20 million stronger, so sleep peacefully tonight!

And finally,..... why is the Miss Universe beauty contest always won by a female from Earth!!

Back again next month.

Alex Baillie
Oct 2019

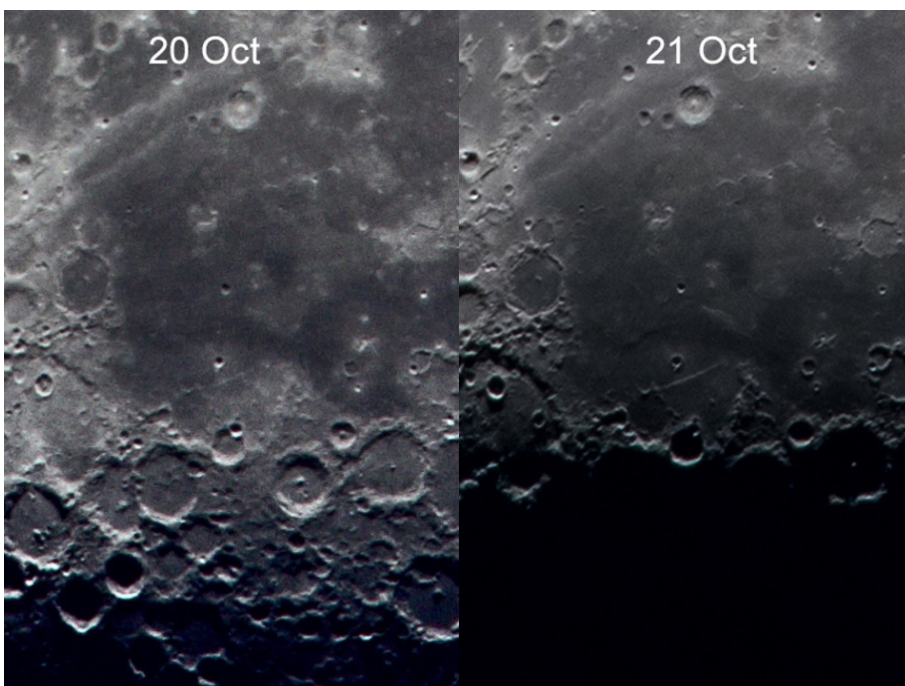
Member Images

Marc Charron

The moon on the 21st of October.



The image below shows the changes over 24 hours between the 20th and 21st of the month. The straight wall, near the bottom, is much more prominent on the 21st of October as the terminator (division between the lit and unlit parts of the moon) moves towards it. Images taken with a 70mm f6 triplet operating at f12 with a 2x tele-converter.



Moon taken at sunrise on Oct 17th.



The winter sky is coming soon and if you are up early enough you can see it. On the morning of the 25th (06:20), I caught this possible Orionid in the 'winter sky,' albeit through some light cloud.





Library

Open for business!

THE LIBRARY IS A RESOURCE FOR MEMBERS -PLEASE SUPPORT IT AND MAKE USE OF IT

The Library list is also available on the website under “links” and can be downloaded

The library is now full up - if you would like to obtain a list or borrow an item – contact Alex at the next meeting or give him a call on 01563 520887.

Unfortunately Alex does not have email, however messages via library@ayraastro.com will reach him the old fashioned way after a short delay but please contact him directly if at all possible.

THE LIBRARY IS WAITING FOR YOUR CALL!! There are a lot of interesting items to borrow



Moon Phases

NOVEMBER 2019

