Clydesdale astronomical society

Corona

Issue 124
Jan 2019

Email: clydesdaleastro@hotmail.co.uk
Web: www.clydesdaleastro.org.uk

The Committee:
Alice-Amanda Kay - (Chairman/Meetings/PR)
Allison Dunlop (Librarian)
Robert McFetridge (Secretary)
Lyn Smith (Newsletter)
Dave Stephens (Treasurer)
Janice Stephens
Gary Thomson (Observing)

Picture Left
NGC 1365 barred spiral galaxy in Fornax about 56 million light years away

From the Chairman/Society News

The Christmas fair event we attended at Kittochside went well. It was a busy fair, with 450 members of the public there. The weather, although extremely cold, was at least dry. We set up our telescopes along with laptops and had Graham Langley's Solar and Lunar Eclipse images on display for the public to have a look at and ask questions about. There were various stalls, a pantomime, crafts for the kids, and even Santa. I'd like to thank everyone who came along to help out at this event.
At our December meeting Graham Langley gave a short presentation about his Lunar Eclipse trip. Our next meeting is our Astronomy fun quiz which is always a good social night. Hopefully you will have been revising for this over Christmas and New Year… only joking!

Next Meeting

7.30 pm Monday 14th January 2019
Bankhall Community Centre,
Climpy Road, Forth

Astronomy Fun Quiz

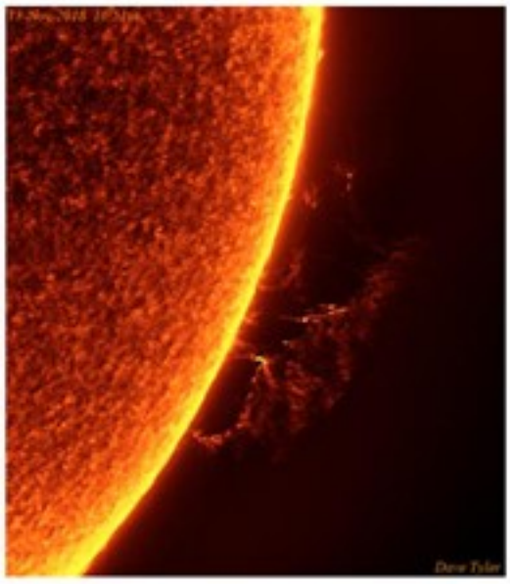
December's Meeting

A festive photo of the Christmas meeting, although some were more forthcoming than others about having their picture taken! Now who is that hiding behind that piece of paper? Answers on a post card to the editor… No prizes given!

What's New Up There?

Astronomers have located an identical star in the galaxy to our own Sun about 184 light years away in the constellation of Pavo (southern hemisphere). HD 186302 closely matches our Sun in composition and age and may even have formed within the same stellar nursery as our own star.

Another star close by, in fact the second closest star to us, Barnard's star, has a "super Earth" type planet in orbit around it. The system is only 6 light years away but Barnard's star is a dim red dwarf type star and so the planet, 3.2 times the size of the Earth, orbits much closer in. Even although the planet is just half the distance we are from our Sun, it only receives one 50th of the warmth and so is a chilly –170 C.



The Night Sky in January

Mercury is too close to the Sun for observation but Venus more that makes up for Mercury's absence shining brightly in the morning pre dawn. Venus will be magnitude –4.0 all month and is easily identified with the naked eye. A waning crescent Moon will enhance the scene on the 1st and 2nd January. Through a telescope, Venus appears about half illuminated reaching its greatest western elongation on the 6th. Later in the month, Venus and Jupiter will be separated by just 2.5 degrees low in the south-east pre dawn sky (23rd).

Mars is receding from us and appears in a telescope as a tiny disk just 7 arc seconds across. The planet is mag +0.5 and at the start of the month will appear to be south-east of the Circlet asterism in the constellation of Pisces, just below the square of Pegasus. By the end of the month, Mars will have dimmed to +0.9 mag and show a disk just 6 arc seconds across.

Jupiter can be seen in the pre dawn sky rising a couple of hours before the Sun in the south-east. On the 2nd, a 13% lit crescent Moon is located between Venus and Jupiter and on the following morning a 6% lit Moon will lie just 2.3 degrees north of Jupiter. Again, at the end of the month, the Moon again will lie between Venus and Jupiter giving astro-imagers another opportunity to capture this stunning sight.

Saturn lies too close to the Sun to provide a viable opportunity for observation. Uranus however is well placed in the evening sky, due south in the early evening on the 1st in Pisces

Clydesdale astronomical society

Corona

Issue 125
Feb 2019

Email: clydesdaleastro@hotmail.co.uk
Web: www.clydesdaleastro.org.uk

The Committee:
Alice-Amanda Kay - (Chairman/Meetings/PR)
Allison Dunlop (Librarian)
Robert McFetridge (Secretary)
Lyn Smith (Newsletter)
Dave Stephens (Treasurer)
Janice Stephens
Gary Thomson (Observing)

Picture Left
NGC 7293 "The Helix"
Planetary Nebula

From the Chairman/Society News

We had the New Lanark stargazing event on the 26th January, with 300 members of the public in attendance that night. It was disappointing that the weather was not good but the public seemed to have a good time in spite of no observing being possible. I would like to thank those members who turned out to help at this event. We were on level 4 with our telescopes set up and focused on the wall items opposite so the public would get an idea how the telescopes work. There were crafts for the kids, as well as a talk from New Lanark staff. I will be emailing the organisers to get feedback on how it all went, and will report about that at the meeting in February. Our speaker for 11th March is Chris O'Kane, whose presentation is on "The Cydonia Enigma" but don't miss our February speaker featuring a practical demonstration—should be interesting!

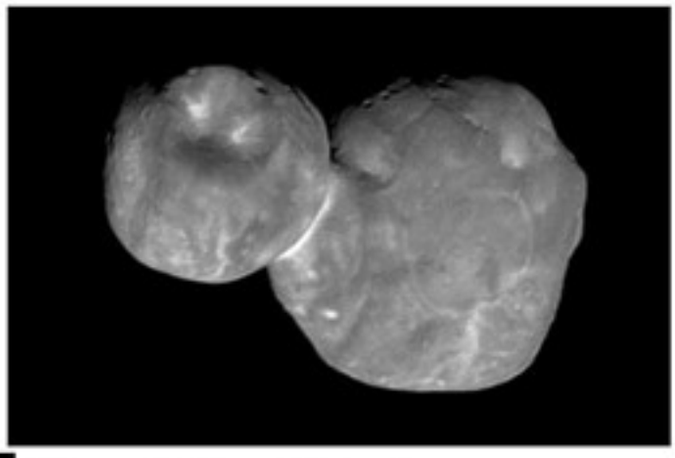
Next Meeting

7.30 pm Monday 11th February 2019
Bankhall Community Centre,
Climpy Road, Forth

"CTR Wilson & Cloud Chamber"
Dr Alan Walker

Ultima Thule—New Horizons

The New Horizons craft continues to make its way to the edge of our known solar system and has sent back this stunning image of Ultima Thule, 6.5 billion km from Earth. This peanut shaped rock is 21 miles long and appears to be the amalgamation of two rocky bodies. Ultima Thule is a Kuiper Belt object and likely to contain material from the early formation of the Solar System.
This image was taken from a distance of 6,700 km.

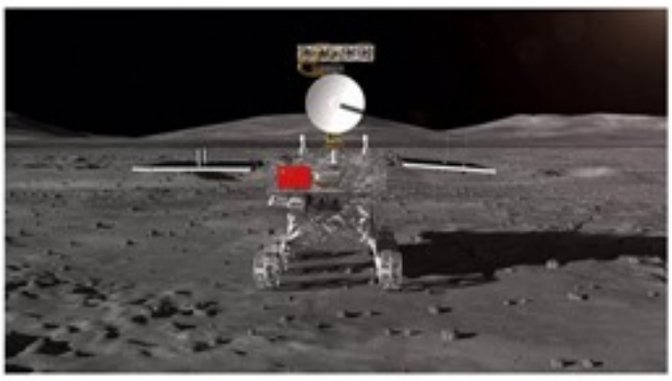


Saturn Without Rings?

Come back 100 million years from now and you may not see any ring system around Saturn at all. Latest estimates are that the rings formed just a few hundred million years ago and are dissolving by the planet's magnetic field pulling the ice crystal down onto the planet along magnetic field lines. So enjoy the view whilst you can!

China's Chang'e-4 Lands

The Chinese lunar lander has arrived safely on the far side of our Moon, the first time this has been achieved. In collaboration with the Yuta 2 rover, the lunar terrain will be explored to ascertain the composition and structure of the surface. Experiments with seeds will take place to see if a viable biosphere can be created.



The Night Sky—February

The winter constellations are in full view with a wealth of objects for a small telescope or binoculars. There are so many targets that you will be spoiled for choice. Here's what the planets are doing:

Mercury is an evening object but you will need to wait until mid month the planet comes out of the sunset glare and presents itself for observation. By the end of the month the planet will be well placed although it must be said, Mercury is never particularly easy to spot.

Venus is a brilliant sight in the south-east in the pre-dawn sky and on the mornings of 4—6 February, will be close to M8 and M20 in Sagittarius. At the end of the month, Venus will be 71% lit, 15 arc-seconds across and mag –4.0.

A more challenging object is **Mars** located in the constellation of Pisces in the south-west. Mars is only 5 arc-seconds across in a small telescope and mag +1.2.

Jupiter is a morning object located south/southeast. At the start of February, Jupiter lies 9 degrees west of Venus.

Saturn lies low in the south-east in the constellation of Sagittarius and is an early morning object. On the 2nd Saturn and a 5% lit crescent Moon will have a close encounter and from some locations, an occultation.

Clydesdale astronomical society

Corona

Issue 126
Mar 2019

Email: clydesdaleastro@hotmail.co.uk
Web: www.clydesdaleastro.org.uk

The Committee:
Alice-Amanda Kay - (Chairman/Meetings/PR)
Allison Dunlop (Librarian)
Robert McFetridge (Secretary)
Lyn Smith (Newsletter)
Dave Stephens (Treasurer)
Janice Stephens
Gary Thomson (Observing)

Picture Left
"The Eyes" - 2 galaxies in the Virgo Cluster

From the Chairman/Society News

Our February meeting was such an enjoyable fun night in which we hunted for Cosmic Ray tracks in mini cloud chambers after a brief talk about CTR Wilson and the Cloud Chamber. Everyone thoroughly enjoyed the event. Read all about the talk and workshop on page 2.
Our speaker for March is Chris O'Kane, from AS Glasgow, whose presentation is entitled "The Cydonia Enigma". Chris has been to give talks before and they were enjoyable and informative in equal measure.
Our speaker for the 8th April is our very own Roy Bryce, "Cosmic Catastrophes". So come along and support each of these speakers.

Next Meeting

7.30 pm Monday 11th March 2019
Bankhall Community Centre,
Climpy Road, Forth

"The Cydonia Enigma"
Chris O'Kane

February's Meeting:

Our February meeting was a little different from usual as after the talk describing the life of Charles Thompson Rees Wilson and his invention of the cloud chamber (for which he received the Nobel Prize in Physics) we took part in a workshop to make a simple working cloud chamber. The talk outlined the consequent development of the bubble chamber that was followed by our modern 'digital' and much larger-scale detectors. A comparison of the honours bestowed on CTR Wilson and Professor Peter Ware Higgs illustrated why CTR Wilson should be better recognised in Scotland as Scotland's first native-born son to receive the Nobel Prize in Physics.

We then took part in the workshop where each participant prepared their own mini diffusion cloud chamber in a plastic pint glass and were able to observe cosmic ray tracks and alpha particle tracks from a weak radioactive source placed inside.

Three PP4SS exhibits were available to the participants. They were able to observe similar tracks in a larger scale working diffusion cloud chamber. They were also able view bubble chamber film either by using magnifying loupes on the PP4SS light-box or by using a PP4SS microfilm reader modified to read 50 mm bubble chamber film. This film was from an October 1971 experiment at the CERN two metre hydrogen bubble chamber, where a beam of negatively charged kaons was used.

Samples of the original film from this experiment were handed out to all participants at the end of the evening.

Clockwise Top left to right: The equipment we used during the workshop; cosmic ray track film; group photo of members on the night; mini cloud chamber

Clydesdale astronomical society

Corona

Issue 127
Apr 2019

Email: clydesdaleastro@hotmail.co.uk
Web: www.clydesdaleastro.org.uk

The Committee:
Alice-Amanda Kay -
(Chairman/Meetings/PR)
Allison Dunlop (Librarian)
Robert McFetridge (Secretary)
Lyn Smith (Newsletter)
Dave Stephens (Treasurer)
Janice Stephens
Gary Thomson (Observing)

Picture Left
Spiral galaxy
ESO 269-G57

From the Chairman/Society News

Our speaker for 8th April is our very own Roy Bryce, whose presentation is on "The Drake Equation" which estimates the number of civilizations that should be in our galaxy.
The 13th May brings our prestigious John Braithwaite Memorial Lecture. This year the lecture will be given by Prof Stuart Reid, from Strathclyde University, whose presentation is on "A New Window on the Universe—the Dawn of Gravitational Wave Astronomy". Prof Reid is a member of the LIGO Scientific Collaboration, and is co-chair of the RSE Young Academy of Scotland. Please support this meeting, which starts at 7:30pm and bring along friends to the main event of our society calendar.

Next Meeting

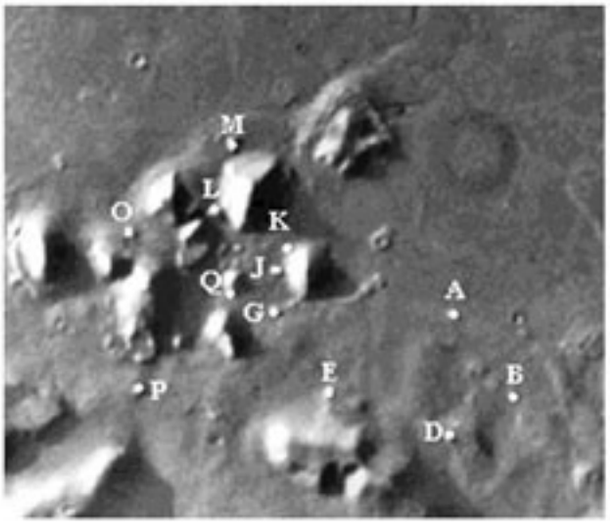
7.30 pm Monday 8th April 2019
Bankhall Community Centre,
Climpy Road, Forth

"The Drake Equation"

Roy Bryce

March Speaker—Chris O'Kane

Chris talked about the possibility of life in the universe and turned our attention towards Mars. The picture (right) shows a collection of pyramid-like surface structures on Mars that so far are unexplored and unexplained. They can be found in an area called Cydonia on the edge of what is thought to be a dried up sea. Not far away is the famous "Face" of Mars which appears as a human face in some images but only as an optical illusion in other images at higher resolution. Are these "pyramids" natural structures or something more intriguing?



Exo-Planet Resembles Mercury

Our innermost planet Mercury is a very dense object; its iron core making up about two-thirds of the planet. Our best theory to explain this is that Mercury formed as a much larger planet but a planetary collision in the early solar system blasted away the outer layers. The Kepler 107 system, about 1700 light years away which has four known planets, has revealed that one of those planets is also very dense. The two innermost planets have almost identical radii (1.5 and 1.6 Earths) but the second planet is almost twice as dense as the innermost. Could the same thing have happened there?

The Night Sky in April

Mercury is not well placed for observation during April. Venus is very low on the horizon rising an hour before the Sun at the start of April and just 30 minutes by the month's end. Mars can be found in the constellation of Taurus south-east of the Pleiades. The crescent Moon (12% lit) sits nearby on the 8th. Mars presents a very small disk through a telescope appearing only 4 arc seconds across due to the separation distance between the red planet and Earth.

Jupiter will dominate the pre-dawn sky but it is disappointingly low on the horizon and thus will encounter horizon turbulence distorting the image through a telescope. The greater the magnification, the greater the distortion effect so use a small instrument with a low power eyepiece for best results. Even in a small instrument the belts of Jupiter should be resolved and of course the four Galilean moons will be seen "dancing" around the planet on a nightly basis.

Saturn is in a similar situation being low down in the southeast in the constellation of Sagittarius. A gibbous Moon, 67% lit will be west of Saturn on the 25th and east of the planet on the 26th.

Uranus and Neptune are not visible during April. For those wanting a challenge, try to find asteroid 7 Iris, the fourth brightest asteroid. Look towards the border of Corvus and Virgo.

Clydesdale astronomical society

Corona

Issue 128
May 2019

Email: clydesdaleastro@hotmail.co.uk
Web: www.clydesdaleastro.org.uk

The Committee:
Alice-Amanda Kay - (Chairman/Meetings/PR)
Allison Dunlop (Librarian)
Robert McFetridge (Secretary)
Lyn Smith (Newsletter)
Dave Stephens (Treasurer)
Janice Stephens
Gary Thomson (Observing)

Picture Left
IC1396 emission nebula in Cepheus—Gary Palmer

From the Chairman/Society News

The coming meeting on 13th May is our main event of the Society calendar, the John Braithwaite Memorial Lecture. This year, we are delighted to welcome Professor Stuart Reid from Strathclyde University, whose presentation is named below.
Our society's annual dinner will take place on the 14th June, at the Robertson Arms in Carnwath. Please be there for 7.15pm for a 7.30 pm start. Any questions regarding the dinner, please contact Janice Stephens (janice.stephens@hotmail.co.uk), or see her at the meeting in May. I would also like to give members notice of our AGM, which will be held just prior to the last meeting of the session on 10th June 2019. If anyone has any relevant business for the agenda or wishes to stand for Committee, please inform Robert McFetridge, the Society Secretary. Roy Bryce will be giving a presentation entitled "Cosmic Catastrophes", after the AGM.

Next Meeting

7.30 pm Monday 13th May 2019
Bankhall Community Centre,
Climpy Road, Forth

"The Dawn of Gravitational Wave Astronomy"
Professor Stuart Reid

Astro-Imaging Workshop

As you can see from the image on the front cover and above, Gary Palmer is a very knowledgeable and talented astro-imager. He is holding a workshop in Ponefract, West Yorkshire on Saturday 4th May 2019 so why not attend?

NASA Returns to the Moon

NASA has the political backing to return to the Moon within 5 years. A crewed mission will target the lunar south pole and there is also political will to establish a permanent manned base on the Moon with the intent to prepare for astronauts launching to Mars. This will mean NASA having to accelerate their Space Launch System rocket development and additional funding will need to be allocated.

The Night Sky in May

Although the night sky is rapidly disappearing as we enter summer, don't forget that the noctilucent cloud season starts around mid-May. These are very high altitude clouds formed by ice crystals and can be seen during astronomical twilight.

Mars will encounter star cluster M35 in Gemini this month and will pass over the northern boundary of the cluster on 18th/19th May. You will need binoculars as the cluster is of low luminescence and is difficult to see with the naked eye even in perfect dark conditions. Mars will shine at +1.7 magnitude and so will be obvious within the star cluster which has an integrated magnitude of +5.5. There are several hundred stars within the cluster including some red hued stars that will be a fine comparison with the red planet.

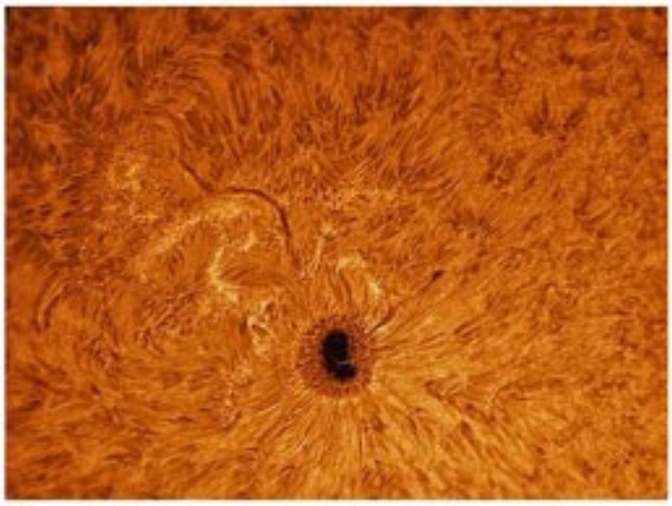
Dwarf planet Ceres comes to opposition during May in the constellation of Ophiuchus and will be a fine object to detect in binoculars or a small telescope. The dwarf planet will be at Magnitude +7.0 on 28th May and remains at its brightest until the end of the month.

Clydesdale astronomical society

Corona

Issue 129
Jun 2019

Email: clydesdaleastro@hotmail.co.uk
Web: www.clydesdaleastro.org.uk



The Committee:
Alice-Amanda Kay - (Chairman/Meetings/PR)
Allison Dunlop (Librarian)
Robert McFetridge (Secretary)
Observing - (Vacant)
Lyn Smith (Newsletter)
Dave Stephens (Treasurer)
Janice Stephens

Picture Left
A large sunspot appeared during April with a centre light bridge
Image: Gottfried Steigmann

From the Chairman/Society News

Our annual dinner takes place on the 14th June, at the Robertson Arms Hotel, Carnwath, at 7:00 pm.
It's that time again, the Society's Annual General Meeting. Any nominations for Committee posts should be communicated to the Chairman as soon as possible via the Society e-mail or made in person on the night. All positions are available for members and we would welcome new people to come on Committee to contribute their ideas. After the AGM, Roy Bryce will be giving us his presentation "Cosmic Catastrophes". After our meeting we will go into the summer recess so the next meeting will be on Monday 9th September 2019 when we have Dr Julian Onions, whose presentation is entitled "Galaxies-One Gigayear at a Time".

Next Meeting

7.30 pm Monday 10th June 2019
Bankhall Community Centre,
Climpy Road, Forth

AGM & "Cosmic Catastrophes"
Roy Bryce

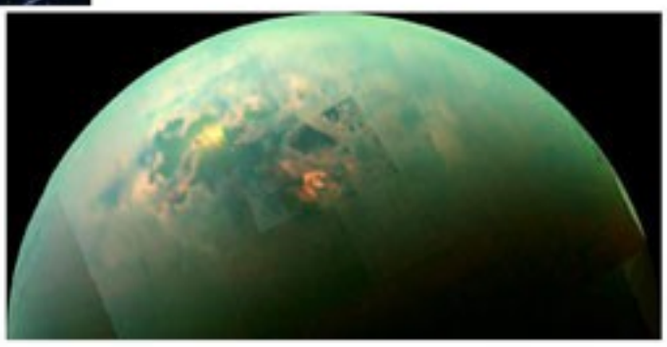
Last Month's Speaker

Prof Stuart Reid leads a multi-disciplinary team at the University of Strathclyde and is a member of the LIGO Scientific Collaboration and also co-chair of the RSE Young Academy of Scotland. He has spent the last 15 years developing technology for gravitational wave detectors, and is co-inventor of "nanokicking", where precise nanoscale vibrations are used to control the behaviour (and fate) of adult stem cells which can be used to grow bone in the lab from a patient's own cells. His team have also developed novel ECR ion beam deposition technology, alongside developing new crystalline mirror technologies in partnership with Gas Sensing Solution Ltd which are both relevant for future gravitational wave detectors in addition to a wide array of precision optical/optoelectronic applications.

Expansion of the Universe

The Hubble Space Telescope's latest Observation of the Large Magellanic Cloud reveals the Universe is expanding 9% faster than calculations predict. This mis-match of observation over prediction is one of the biggest mysteries in cosmology. It seems there is a fundamental error in our theoretical model. Isn't this why astronomy is so fascinating? We just don't know it all!

Titan Ice Feature



Saturn's largest moon, Titan, has revealed An ice "corridor" wrapped around the moon encircling about 40% of the circumference. This icy corridor is thought to be an ancient feature slowly being revealed by erosion as it does not marry up with any known surface feature.

The Night Sky in June

We are back to light skies throughout the night (almost) and so it is the time for noctilucent cloud spotting. You will recall from previous years, that these are formed from ice crystal at very high altitude in the Earth's atmosphere and appear as wispy silver-white clouds well after the Sun is below the horizon and the night stars have appeared.

Of course astronomy can still be done in the light nights of summer. Don't overlook the Moon which is always a stunning sight through a telescope and of course our star the Sun is a fascinating object too. Don't forget never to look at the Sun directly and ensure your telescope/binoculars are properly protected with a solar filter. Even at solar minimum the Sun can be active and surprise—see the image of a large sunspot on the front page.

Clydesdale astronomical society

Corona

Issue 130
Sep 2019

Email: clydesdaleastro@hotmail.co.uk
Web: www.clydesdaleastro.org.uk

The Committee:
Alice-Amanda Kay - (Chairman/Meetings/PR)
Allison Dunlop (Librarian)
Robert McFetridge (Secretary)
Lyn Smith (Newsletter)
Dave Stephens (Treasurer)
Janice Stephens

Picture Left
Horsehead nebula in Orion—first recorded by Scottish astronomer Williamina Fleming in 1888

From the Chairman/Society News

Welcome everyone to our 14th session. I hope you have all had a lovely summer. Did anyone see the Perseid meteor shower on 12th August? I did not see any of it due to cloudy conditions but you may have been more fortunate.
Please remember that subscriptions are due at the September meeting so bring cash or a cheque and see Dave.
Our October speaker is Mark Toner who will give us a presentation entitled "The Art of Space". Julian Onions is our September speaker from Nottingham University. Julian has spoken to us before so please come along and show him our usual CAS warm welcome.
Also a note for your diary is a BAA Workshop in Greenock on 12th October, see page 2.

Next Meeting

7.30 pm Monday 9th September 2019
Bankhall Community Centre,
Climpy Road, Forth

EGM & "Galaxies—1 Gigayear at a Time"
Dr Julian Onions

One Day Workshop—Greenock

The British Astronomical Association are coming to Scotland once again and are holding a 1 day Workshop in Greenock near Glasgow on Saturday 12th October 2019. The BAA Solar, Aurora and Deep Sky Sections will be featured and key speakers include Dr Natasha Jeffrey from Glasgow University speaking about Our Magnetic Star & Solar Flares and also Prof Annette Ferguson of the University of Edinburgh speaking about Deep Views of the Low Surface Brightness Peripheries of Galaxies.

The afternoon session will split into 3 separate workshops where specialist amateur astronomers will give detailed talks. Subjects such as Hi-resolution Solar Imaging; Coronal Mass ejections/Venus and Mars; Charts, Catalogues and Software Tools for Deep Sky Observing and Using Remote Telescopes will be featured.

Book your place today!!!

Disappearing Red Spot?

Jupiter's big red spot has been with us since the telescope was invented in the early17C but is it about to break up? The feature has been shrinking over the years but that shrinking has increased during 2019 and Juno has observed fragments of the storm breaking away from the main swirl. So far it has reduced by nearly a quarter. Is this the end of the BRS or just a calm before another major storm?

The Night Sky in September

It could just be possible to catch a glimpse of Mercury and Venus in the evening just after sunset during September but they will be pretty low and into the glare of the sunset. Have a look for Mercury and Venus close together on the 13th and an encounter with the new Moon on the 29th. Never try to locate these planets until the Sun has set below the horizon.

Jupiter is low in the south and has been a beacon during the summer months. Now, just as the darker skies are upon us, Jupiter is sinking into the south-west chasing the setting Sun. It's low position makes the giant planet a challenge to observe.

Saturn is in the south, also at quite a low altitude. Look out for the gibbous Moon on the 8th about 3 degrees to the east-southeast.

Uranus is well positioned during September and comes to opposition in October. Currently in the constellation of Aries, binoculars or a small telescope will resolve the disk.

Neptune comes to opposition in the south on the 10th but at mag +7.8 you will need a telescope or binoculars to resolve the blue disk. Look in the constellation of Aquarius.

Corona

Issue 131
Oct 2019

Email: clydesdaleastro@hotmail.co.uk
Web: www.clydesdaleastro.org.uk

The Committee:
Alice-Amanda Kay - (Chairman/Meetings/PR)
Allison Dunlop (Librarian)
Robert McFetridge (Secretary)
Lyn Smith (Newsletter)
Dave Stephens (Treasurer)
Janice Stephens

Picture Left
Stellar nursery IC2944 or the "Running Chicken" nebula—a southern hemisphere object

From the Chairman/Society News

Our speaker for the 14th October is Mark Toner, whose presentation is "The Art Of Space." The speaker for November is Sheri Lynn Karl, who will be speaking about "The Aurora in the Solar System." Both of these presentations sound really interesting, so a good turnout would be appreciated.
There are three meteor showers this month, Draconids, Orionids and Taurids so look out for those if the weather permits.

Next Meeting

7.30 pm Monday 14th October 2019
Bankhall Community Centre,
Climpy Road, Forth

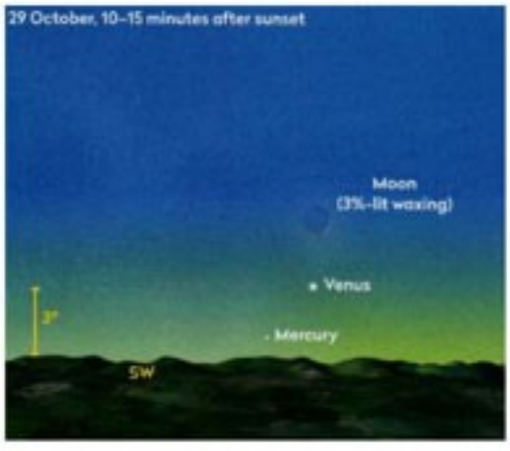
"The Art of Space"—Mark Toner

Last Month's Speaker

Julian has always had an interest in astronomy over many years, but decided to take it further by studying for a doctorate in astrophysics at Nottingham University. There he studies computer models of galaxy formation using mostly dark matter. He is also keen amateur, taking photographs of various astronomical objects, but is brought back to earth by his department colleagues who get to use some of the biggest telescopes yet built with tracking to die for.

Night Sky—October

Let's hope for clear cold nights towards the end of the month as there will be a nice conjunction between the crescent Moon, Venus and Mercury on the 29/30th. All three will be visible just 15 minutes after sunset so Mercury in particular will be difficult to spot in the glare of the sunset. Venus should stand out OK to the naked eye but you will find it easily in binoculars but **make sure the Sun has set below the horizon** before you try this.
Mars rises a couple of hours before the Sun by the end of October but it's disk is only 3 arc-seconds across in a telescope field so tiny and not very rewarding to view.
Jupiter is in the south-west in the constellation of Ophiuchus but is fast disappearing into the sunset thus opportunities for viewing are rapidly closing. It is possible to view the giant planet in daytime if you know where to look and on October 24th the Galilean moons of Io and Europa will cast their shadows onto to Jupiter's cloud tops between 15.43 - 17.22 BST (14.43—16.22 UT) if you fancy having a go. Again, beware of the Sun and never point binoculars or a telescope anywhere near it above the horizon.
Saturn is in the south around magnitude +0.9. On the 5th the first quarter Moon will be below it about 1° separation.
Uranus is well placed in Aries for observation at mag +5.7 best seen with a small telescope/ binoculars. Neptune is also in the south in the constellation of Aquarius but you will need a telescope/binoculars to find it at mag +7.8.



Corona

Issue 132
Nov 2019

Email: clydesdaleastro@hotmail.co.uk
Web: www.clydesdaleastro.org.uk

The Committee:
Alice-Amanda Kay - (Chairman/Meetings/PR)
Allison Dunlop (Librarian)
Robert McFetridge (Secretary)
Lyn Smith (Newsletter)
Dave Stephens (Treasurer)
Janice Stephens

Picture Left
NGC 5128 galaxy in Centaurus, discovered by Scottish astronomer James Dunlop in 1826

From the Chairman/Society News

I have not heard from Nicola Bray at Kittochside, so have emailed her asking if the Stargazing event is taking place this year, and will let members know hopefully at the November meeting if it's going ahead. On the date of the meeting, there is a rare transit of Mercury, so hopefully we will be able to see this, weather permitting of course. The December meeting is our Xmas Buffet and members/non member's night. Roy Bryce is going to give a talk on "Moons of the Solar System" with the buffet to follow. Can members remember to bring along a few goodies for the buffet please.

Next Meeting

7.30 pm Monday 11th November 2019
Bankhall Community Centre,
Climpy Road, Forth

"The Aurorae in the Solar System"
Sheri Lynn Karl

Last Month's Speaker

Mark Toner has been living a number of parallel lives, although it is unconfirmed whether some time travel device has been used! One life took him through the Universities of Glasgow and Edinburgh, the Royal Observatory Edinburgh, and to the Mauna Kea Observatories in Hawaii. In this life he was an astrophysicist and got to play with giant telescopes and orbiting observatories.

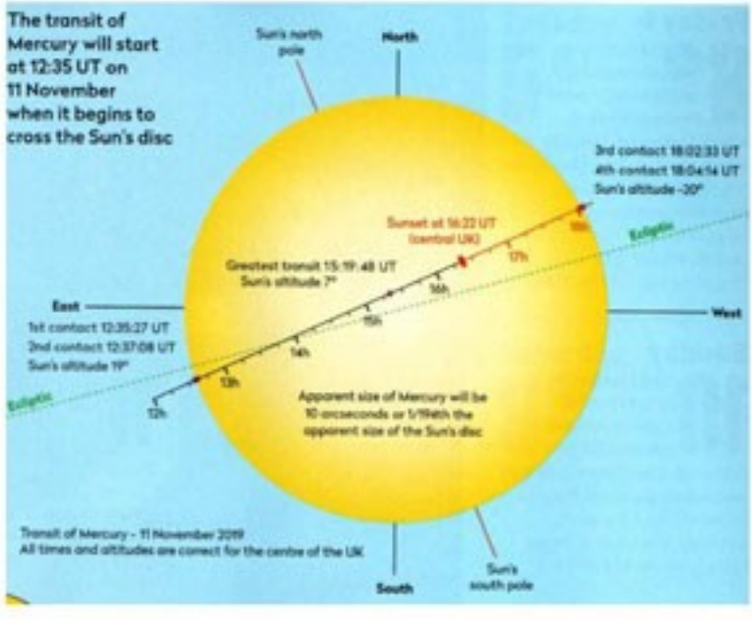
Another life had him teaching programming and desktop publishing in an ITeC in Dumfries before training as a maths teacher and teaching Maths and physics in Dumfries and Galloway College of Technology. Another life is being chronicled by band mate Noel Chidwick and saw the extra-dimensional creation of prog band Painted Ocean currently touring a universe near you. Now Mark has cleared away all such distractions to concentrate on the artwork that has featured in everything he has done since the age of 6; writing and drawing comics. This lifelong career has seen him hijack his school newsletter and make it into a comic. Today he is making new comics, including SF oddity 'The Tales of the Beachcomber' which is a regular feature in Shoreline of Infinity magazine, on which Mark is art director. Mark's original, drawn on paper, art is displayed in the Yellow Door gallery in Dumfries.

The Transit of Mercury

This event will take place on Monday 11th November 2019 (next CAS meeting day) from 1235 UT. Greatest transit (mid solar disk) will occur at 15.19 UT so plenty of time to track and see this event even if the weather isn't cooperating. It never fails to impress the observer just how small a planet is compared to the size of the Sun so if you've not seen this event before, it's not to be missed.

Remember, as always, if you are observing the Sun, caution must be foremost. Never look directly at the Sun through a telescope, binoculars or even with the naked eye. Use a professionally made solar filter, or project the Sun through your telescope onto a piece of white card held behind the eye-piece of the telescope. Adjust the focus on the telescope until Mercury comes into view as a tiny black dot. There are no sunspots on the Sun at the time of writing, and as we are going through solar minimum, it's unlikely there will be anything to rival Mercury or cause confusion.

The earlier in the day you can view this event the better as the Sun will only be 7 degrees above the horizon at mid-transit. Conditions will be more favourable earlier in the day when the Sun will be around 19 degrees.



Corona

Issue 133
Dec 2019

Email: clydesdaleastro@hotmail.co.uk
Web: www.clydesdaleastro.org.uk

The Committee:
Alice-Amanda Kay - (Chairman/Meetings/PR)
Allison Dunlop (Librarian)
Robert McFetridge (Secretary)
Lyn Smith (Newsletter)
Dave Stephens (Treasurer)
Janice Stephens

Picture Left
Europa, Moon of Jupiter, the smallest of the 4 "Galilean" moons

From the Chairman/Society News

Our next meeting is our informal non-members/members night, so no fee on the door. It is an ideal time to bring some friends along. Just a wee something for the buffet would be appreciated too. Our 13th January meeting is our Astronomy fun quiz, which is always a good social night so make sure you spend Christmas revising your astronomy know-how...only joking!
I am still waiting to hear back from New Lanark with regards to any family star gazing event taking place next year. When I do I will let the members know. As you all know Kittochside has not asked us to do our regular observing slot this year due to finances. Hopefully, they will have us back next year. On a sad note, Prof John C Brown, the Astronomer Royal for Scotland passed away very suddenly on the 16th November, at the age of 72. John will be missed by all of us and the wider astronomical community.

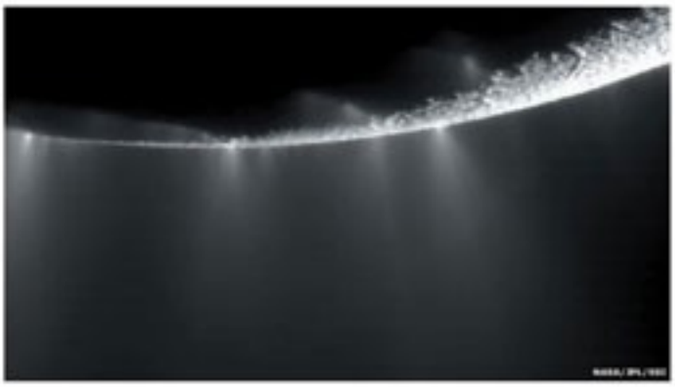
Next Meeting

7.30 pm Monday 9th December 2019
Bankhall Community Centre,
Climpy Road, Forth

"Moons of the Solar System"
Roy Bryce

Last Month's Speaker

Sheri Lynn Karl is an Operations geophysicist working in oil exploration and amateur astronomer with a MSc in Astronomy. For her involvement in Astronomy and Geophysics, she has been elected a Fellow of the RAS and is a member of the BAA as well as her local Aberdeen Astronomical Society.
In recent years, Sheri has been concentrating on the solar astrophotography side of astronomy as well as talking to as many people as possible about the wonders of the universe.



Enceladus

Saturn's moon Enceladus is renowned for it's water emissions thought to originate from hydro-thermal vents on the floor of its ocean. Now, soluble organic molecules have been detected that carry oxygen and nitrogen. These chemicals are pre-cursors to amino acids which could have implications for life. The mystery continues.

The Night Sky—December

Venus is improving in the western twilight and by the end of December it will set a full 3 hours after the Sun. On the 1st December it sets only 90 minutes after the Sun so it is fairly low and you will need a good horizon to see it well.
Mercury is a fine object in the south-east rising a full 2 hours before the Sun. A perfect time to see it is early in the month as it will become less well positioned as the month progresses.
Jupiter will soon be in conjunction with the Sun and is not well placed at the present time.
Saturn is similarly poorly placed in the southwest but on the 11th you should be able to see it just north of Venus. On the 27th a slim crescent Moon will be below the planet but not easy to see in the sunset glow.
Uranus by contrast, is well placed in the south amidst the southwest stars of the constellation of Aries. The planet will be on view all night long but you will probably need a telescope or small binoculars to see it at mag +5.7
Neptune is also well placed especially early in December. It is located in the constellation of Aquarius and will need the assistance of binoculars at mag +7.9
The winter constellations are coming around—a joy for any sky-watcher!
The Geminids meteor shower should also peak on the nights of 13/14th December but views will be hindered by a bright gibbous Moon. Although the radiant is in the Constellation of Gemini, meteors can appear at all angles across the sky so keep a sharp look out. In fact the radiant will be the worst spot to look as the Moon will be nearby and washing out the sky.