

Nene Valley Astronomical Society

Stargazer Newsletter

September & October 2017

www.neneastro.org.uk

Forthcoming Society Meetings

Monday 4th September: Club Night. The first in our informal meeting evenings at Chelveston Village Hall, Caldecott Road, Chelveston NN9 5AT at 8pm. These evenings offer the chance for members to gather to help each other out with an aspect of astronomy (eg astro photography, processing or setting up a telescope). The hall benefits from broadband access which we will be able to log onto. There will also be a sky guide presentation and if it's clear the chance to carry out some observing from this out of town location.

Thursday 7th September: 'Astronomical Aspects' meeting at Sudborough Village Hall, Main Street, Sudborough NN14 3BX. Admission £2.

Monday 18th September: 'The Fermi Paradox' – lecture by Martin Braddock at Chelveston Village Hall, Caldecott Road, Chelveston NN9 5AT at 8pm. Admission £3.

Monday 2nd October: Club Night at Chelveston Village Hall, Caldecott Road, Chelveston at 8pm.

Thursday 5th October: 'Astronomical Aspects' meeting at Sudborough Village Hall, Main Street, Sudborough NN14 3BX. Admission £2.

Monday 16th October: Lecture by Professor Carolin Crawford. 'The Search For Dark Matter'. Chelveston Village Hall, Caldecott Road, Chelveston NN9 5AT at 8pm. Admission £3.

Note: Occasionally, it may be necessary to alter the speakers and or subjects at short notice. Where this is the case details will be posted on our website, Twitter and Facebook accounts.

Starnight Observing Sessions

Our weekly Friday evening observing sessions recommence at Chelveston Village Hall from the 1st September. Beginning at 8pm, they will be held on evenings when there is at the very least a reasonable prospect of observing. To confirm that a particular session is proceeding, please check the Twitter feed on our website from 6.30 on the evening for confirmation.

Speaker Organiser Needed

NVAS are still on the look out for a volunteer to take over Peta's role in organising guest speakers for our Chelveston meetings. This important role involves seeking, contacting and booking speakers. For further information on the role please contact either Peta or Steve at the group meetings.

The Fermi Paradox - 18th September - Martin Braddock

Martin's talk will describe the Fermi Paradox first proposed by physicist Enrico Fermi in the 1950s who, understanding the huge number of stars in the Universe and their likelihood to host planets capable of supporting life, asked the simple question 'Where are they?'. The contradiction between the strong possibility of life existing elsewhere and our failure to detect it has become known the Fermi Paradox.

Martin is a professional scientist with a background in biochemistry and radiation biology. Astronomy and Astrobiology are his passionate hobbies. He is a Fellow of the Royal Astronomical Society, a member of the Mansfield and Sutton Astronomical Society and the Society's Planetarium Project Manager where he is helping the Society with their plans to further extend facilities.

Our thanks go to our two recent speakers at our Chelveston meetings, Jerry Workman & John McEvoy. Jerry gave a talk on the Outer Planets covering Uranus, Neptune, Pluto and beyond using imagery obtained from the Voyager 2 and New Horizons missions. By contrast, John started his talk at the centre of the Solar System giving a fascinating account of the Sun, Mercury, Venus, the Earth - Moon system and Mars.

The Astronomy Section of the Northamptonshire Natural History Society meet on the second and fourth Mondays of each month at 7.30pm at The Humfrey Rooms, Castilian Terrace, Northampton. Forthcoming meetings are on the 11th & 25th September and 9th & 30th October. For more information please visit www.nnhs.info



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Northamptonshire's Free To Join Astronomical Society



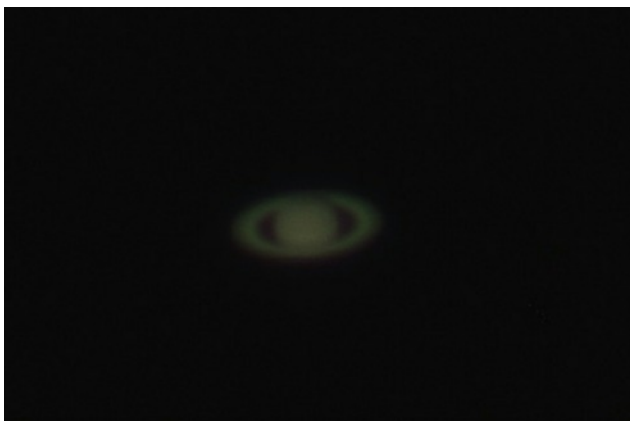
Sky Guide - September & October

Full Moon On 6th September & 5th October

New Moon On 20th September & 19th October

The evening sky is rapidly becoming devoid of naked eye planets. If you are fortunate to be observing from a clear unobstructed western horizon, you may be lucky to catch a glimpse of Jupiter, very low in the strong evening twilight for the first week or so of September as it heads towards solar conjunction on 26th October.

If Jupiter has escaped from view, then be sure to spend some of the evening viewing Saturn before it disappears from view. Saturn is currently situated amongst the stars of the constellation of Ophiuchus, visible in the south-south-west as the evening twilight fades. At magnitude +0.5, it can be found twelve degrees above the horizon around an hour after sunset during September. The ringed planet sets below the south-west horizon at 10.30pm mid-September and by 8.30pm by mid-October, so be sure to make the most of any observing opportunities. Our Moon passes close to Saturn in the sky on the evenings of 26th September and on the 24th October.



An image of Saturn taken on a less than ideal evening by Steve Williams on 16th August 2017.

After the solar systems two largest planets disappear from view, the icy giants of Uranus and Neptune take centre stage. Both are too faint to be seen with the unaided eye, but are easy enough objects to locate in binoculars and telescopes. They can even be picked up on sub-30 second image taken by a DSLR camera.

Neptune reaches opposition on 5th September amongst the stars of Aquarius at magnitude +7.8. At opposition it reaches an altitude of 28 degrees as it transits across the meridian at 1am, far better than the current position of Saturn!

Uranus is visible further round to the East and is amongst the stars of Pisces. It reaches opposition on 19th October and is therefore visible all night long. At magnitude +5.7 it transits the the meridian at an altitude of 45 degrees.

The remainder of the planetary action is taking place in the pre-dawn sky. The ever dazzling Venus is visible in the east and starts September near to M44 the Beehive cluster in Cancer before crossing the constellation boundary of Leo on 10th September. The 'old' slim lunar crescent sits below on the morning of 18th September. For an added bonus, on the morning of 17th October, Venus will once again be accompanied by the Moon in close proximity, with Mars joining the view.

Now having passed through Solar Conjunction, Mars is starting to emerge back into the morning sky, although it's tiny disc size is unlikely to attract many. The red planet rises over an hour before the Sun by mid-September, but is up over three hours before the Sun by the time we reach the end of October.

Finally, Mercury emerges into the morning twilight at the start of September, reaching Greatest Western Elongation on 12th September. You will need a very unobstructed eastern horizon as the innermost planet will only climb to an elevation of six degrees. During the morning of 17th September, you may be able to spot Mars very close by.

Meteor wise, keep an eye out for the Orionids this year as the Moon is not going to interfere with the time of maximum activity. The radiant rises around mid-night, so early morning sessions are called for! Look on the mornings of 21st to 24th October.

The Search For Dark Matter - 16th October

Professor Carolin Crawford

Unlike the stars and galaxies, dark matter does not give off any radiation – we can only detect it through its gravitational pull. It accounts for a quarter of the Universe, yet we do not yet understand what it is made of. The search for a better understanding of dark matter is carried out both out in space and deep underground, and where astrophysics meets particle physics.

Professor Carolin Crawford is one of Britain's foremost science communicators. She is the Public Astronomer at the Institute of Astronomy, University of Cambridge, where she runs an active public outreach programme; a College Lecturer, and Fellow and Tutor at Emmanuel College.

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Stargazer Newsletter Is Compiled & Published
By Steve Williams.