

Wellington Astronomical Society 2020-03 eNewsletter

Wellington Astronomical Society Inc. email Newsletter for March 2020

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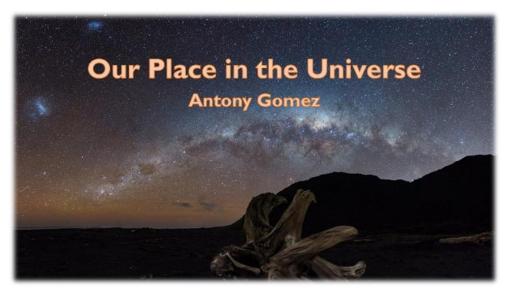
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1. MARCH 2020 SOCIETY MEETING

The next WAS meeting will be held on Wednesday 4th March at 7.30pm at Space Place, Carter Observatory, 40 Salamanca Rd, Kelburn.

This month's meeting will contain the following:

- 1. Night sky in March
- 2. Astronomy News
- 3. Main talk at 8:00 pm



Our Place in the Universe – Antony Gomez

Our Universe is a big, big place, in fact so big that it is almost impossible for anyone to grasp how immense it really is and yet it continues to get even bigger with time. So where is our tiny blue planet located in this Universe of ours? Let's take a picturesque journey out into Space and explore our local area of the Universe. Hopefully, we can get a sense of just how big and remarkable our Universe really is.

Antony is the President of the Wellington Astronomical Society. As a child he looked up at the stars but it wasn't till 2000 that he had his first look through a telescope. Now he is passionate about promoting Astronomy through public outreach and education, showing others the wonders of the night sky. He has a keen interest in the physical sciences, especially in quantum physics and cosmology, which looks at the birth of the Universe and its ultimate fate.

2. EVENTS

WAS Astrophotography Group / Dark Sky Observing Saturday 29th February, 8pm onwards, Star Field - John Whitby's dark sky site.

Come along to this Astrophotography / Deep Sky event at a dark sky site in the Wairarapa. The Moon sets at 11pm so it is a good opportunity to look at the Moon before it gets really dark with the Milky Way standing out. There will be a tour of the Night Sky for

beginners with a pointer before we get on the telescopes. There is also a lot of expertise available for anyone wanting to photograph the Night Sky.

As this is a private property, you will need to register if you want to come along by contacting us through Facebook Messenger or by emailing president@was.org.nz. Include your email and mobile phone in the text if you are using Facebook Messenger. Directions to the site and any updates will be emailed out. Preference will be given to members of the Society first. This event is free to all WAS members. Non-members are required to pay \$10 per person. (To join the Society see https://www.was.org.nz/join-us/).

What to bring for astrophotography:

- A DSLR or mirrorless camera
- A wide-angle lens (preferably)
- A tripod to fix the camera to
- Warm clothes as it gets pretty cold at night
- · Snacks and warm drinks if you want

With people taking photos, keep lights to a minimum (red lights if you can) especially car headlights (use parking lights). For those just interested in Deep Sky Observing, telescopes will be provided unless you want to bring your own.

Please contact Chris (021 890 222) or Antony (021 253 4979) for further details or cancellations. Updates will be available by the afternoon on the day of the event if the weather forecast is not looking good. This site is made available to the Wellington Astronomical Society through the generosity of John Whitby.

WAS Observing Evening

Saturday 7th March, 7.30 pm, Tawa College.

Anyone is welcome, especially beginners. See many wonderful objects, star clusters, galaxies, dying stars and nebulae, including the Great Nebula in Orion. It is also a good time to observe the Moon.

Come and learn about how to star-hop through the night sky to find various astronomical objects using the Society's Dobson telescopes.

WAS council member, Chris, is often at Tawa College on Friday evenings so feel free to come along and learn more about telescopes and the night sky, though it would be best to give him a ring on 021 890 222 to check on conditions.

WAS Astrophotography Group / Dark Sky Observing

Saturday 21st March, 8pm onwards, Star Field - John Whitby's dark sky site. Details as above.

3. SOCIETY NEWS

WAS RAG

The Wellington Astronomical Society Research Astronomy Group is held every second Wednesday of the month. The next meeting will be on 11th March from 5:30pm to 7:30pm and held at WSP Research & Innovation, at 33 The Esplanade in Petone. There are five visitor's car parks (labelled 'WSP visitors'), which will likely be available at that time of the day. Alternatively, you can park nearby on either the Esplanade or on Hutt Road.

The outside sliding doors are locked after 5pm so our Council member, Murray Forbes, will be at the reception between 5:00pm to 5:30pm to let everyone in. If you arrive outside these times, ring him on (4)5870612 and he will let you in. When you arrive, for health & safety reasons, you need to sign-in. This is done using the large touchscreen at reception. The sign-in process includes a safety induction. Murray will also run through this again before the meeting begins. If you have any questions or queries, please get in touch with Roland Idaczyk (roland@cno.org.nz).

WAS Meeting Presentations on Video

If you were unable to attend any of the Society meetings last year but are interested in watching our brilliant speakers deliver their presentations, you can find them online at https://www.was.org.nz/2019-meeting-presentations/. To access the videos, you will need the password: WASvideo.

WAS newsletters

Similarly, if you are interested in accessing WAS newsletters, going all the way back to 2007, you can find them on the following link:

https://www.was.org.nz/was-monthly-newsletters/. The newsletters are accessible for anyone that is interested in reading them.

4. ASTRONOMY NEWS

Martian magnetic field



New data from the magnetic sensor on NASA's InSight spacecraft has revealed that the magnetic field at the landing site is ten times stronger than anticipated and fluctuates over timescales of seconds to days.

It is well known that Mars had a global magnetic field billions of years ago, however, it mysteriously switched off. As the surface rocks are considered too young to be magnetised, scientists believe that older rocks, buried anywhere from a few hundred feet to ten kilometres below ground are where the magnetisation is coming from.

To read more on this and the day-night fluctuations of the magnetic field, visit

https://www.sciencedaily.com/releases/2020/02/200224111342.htm.

Rocket Lab Scholarship to Gisborne student





Niamh Stratton, a teenager from Gisborne, has recently been awarded with the 2019 Rocket Lab Scholarship, which will provide with financial support for a tertiary degree and an exclusive mentorship programme from experts at Rocket Lab. Niamh has a desire to become an astrophysicist and is interested in exploring deep space in the discovery of new stars and planets.

The scholarship programme has been running for three years now. To read more about the programme and about Niamh, visit https://www.scoop.co.nz/stories/ED2002/S00030/gisborne-student-awarded-rocket-lab-scholarship-to-pursue-stargazing-dreams.htm

5. NIGHT SKY FOR MARCH 2020

The Night Sky for March 2020 courtesy of the University of Canterbury.



NASA Night Sky Notes March 2020



The Night Sky Network program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit nightsky.jpl.nasa.gov to find local clubs, events, and more!

Dim Delights in Cancer – David Prosper

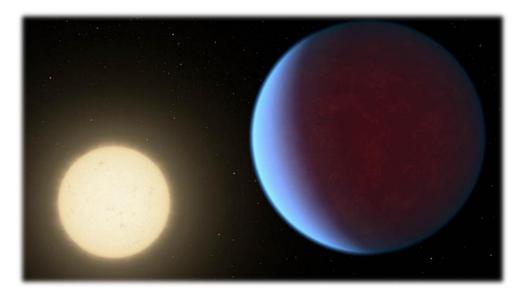
Cancer the Crab is a dim constellation, yet it contains one of the most beautiful and easy-to-spot star clusters in our sky: the **Beehive Cluster**. Cancer also possesses one of the most studied exoplanets: the superhot super-Earth, **55 Cancri e**.

Find Cancer's dim stars by looking in between the brighter neighbouring constellations of Gemini and Leo. Don't get frustrated if you can't find it at first, since Cancer isn't easily visible from moderately light polluted areas. Once you find Cancer, look for its most famous deep-sky object: the Beehive Cluster! It's a large open cluster of young stars, three times larger than our Moon in the sky. The Beehive is visible to unaided eyes under good sky conditions as a faint cloudy patch, but is stunning when viewed through binoculars or a wide-field telescope. It was one of the earliest deep-sky objects noticed by ancient astronomers, and so the Beehive has many other names, including Praesepe, Nubilum, M44, the Ghost, and Jishi qi. Take a look at it on a clear night through binoculars. Do these stars look like a hive of buzzing bees? Or do you see something else? There's no wrong answer, since this large star cluster has intrigued imaginative observers for thousands of years.

55 Cancri is a nearby binary star system, about 41 light years from us and faintly visible under excellent dark sky conditions. The larger star is orbited by at least five planets including **55 Cancri e**, (a.k.a. Janssen, named after one of the first telescope makers). Janssen is a "super-earth," a large rocky world 8 times the mass of our Earth, and orbits its star every 18 hours, giving it one of the shortest years of all known planets! Janssen was the first exoplanet to have its atmosphere successfully analysed. Both the Hubble and recently-retired Spitzer space telescopes confirmed that the hot world is enveloped by an atmosphere of helium and hydrogen with traces of hydrogen cyanide: not a likely place to find life, especially since the surface is probably scorching hot rock. The NASA Exoplanet Catalog has more details about this and many other exoplanets at bit.ly/nasa55cancrie.

How do astronomers find planets around other star systems? The Night Sky Network's "How We Find Planets" activity helps demonstrate both the transit and wobble methods of exoplanet detection: bit.ly/findplanets. Notably, 55 Cancri e was discovered via the wobble method in 2004, and then the transit method confirmed the planet's orbital period in 2011!

Want to learn more about exoplanets? Get the latest NASA news about worlds beyond our solar system at nasa.gov.



Artist concept of 55 Cancri e orbiting its nearby host star. Find details from the Spitzer Space Telescope's close study of its atmosphere at:

<u>bit.ly/spitzer55cancrie</u> and the Hubble Space Telescope's observations at

<u>bit.ly/hubble55cancrie</u> Credit: NASA/JPL-Caltech

6. CONTACTS

The following members were elected to Council at the November 2019 AGM:

President: Antony Gomez (president@was.org.nz) - 021 253 4979

Vice President: Andrew Fuller (vice-president@was.org.nz)

Secretary: Matt Boucher (secretary@was.org.nz)
Treasurer: Duncan Hall (treasurer@was.org.nz)

Membership Secretary: Shazia Gazi (membership@was.org.nz)

Newsletter Editor: Shazia Gazi (editor@was.org.nz)
Website: Peter Woods (webmaster@was.org.nz)

Telescope custodian: Chris Monigatti

Research Group coordinator: Roland Idaczyk

Council: Murray Forbes, John Homes, Isabella Eftimov, Grace

Esterman, Margaret Keane

Postal Address: Wellington Astronomical Society, PO Box 3181, Wellington 6140, New Zealand

Website: www.was.org.nz

Instagram: @was.nz

Facebook page: Wellington Astronomical Society.

Facebook group: WAS - Wellington Astronomical Society (for

members)

Facebook Astrophotography group: WAS Astrophotography Group

(for members).