



Wellington Astronomical Society
2020-10 eNewsletter

Wellington Astronomical Society Inc.
Email Newsletter for October 2020

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1. WAS SOCIETY MEETINGS – OCTOBER 2020

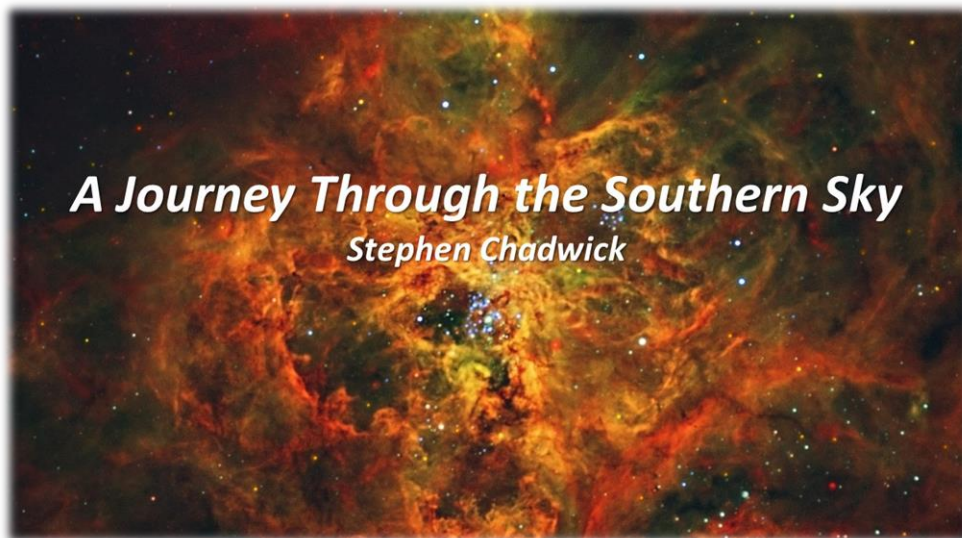
The Society meeting is on **Wednesday 7th October at 7.30pm** at Space Place, Carter Observatory in the Botanical Gardens.

The meeting will also be available via Zoom. To watch online, use this link

<https://zoom.us/j/92185352821?pwd=dGpZVytQSII2WFlYV2NvcTBT SXZ0dz09>

This month's meeting will contain the following:

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



A Journey Through the Southern Sky – Stephen Chadwick.

In this talk Stephen will discuss some of his favourite photos of deep sky astronomical objects that he has taken over the last 12 years. He will then present two unique audio/visual displays that put these objects, and many more, into context to help us understand where they are in the night sky. In the first video we will be taken on a journey through the part of our own galaxy, the Milky Way, that rides high above New Zealand. In the second video we will leave our own galaxy and, firstly, explore our close galactic neighbours – the Magellanic Clouds - before heading off to look at some of the most distant galaxies that can be captured using amateur astronomical equipment.

Stephen lives under the dark skies of coastal Manawatu. During the day he lectures in astronomy and philosophy at Massey University, Palmerston North. During the night he is a keen astrophotographer and in 2011 his first book, *Imaging the Southern Sky*, which contains over 150 of his own deep-sky images taken from the observatory he built in his garden, was published by Springer. The book had a foreword by Sir Patrick Moore, written just a few weeks before he died. Since then Stephen's deep-sky images have appeared in international magazines, newspapers and scholarly journals, and have been used on BBC TV. Over the last six years, Stephen has staged exhibitions of his work and held evening presentations showcasing his images using live musical accompaniments throughout New Zealand. He also hosts the annual New Zealand Astrophotography Weekend in Foxton Beach.

Stephen is also fascinated by the starlore of Māori, Polynesian and Australian Aboriginal peoples and how knowledge of the night sky was used by, and helped shape, these cultures. In 2017, Springer published his second book, *The Great Canoes in the Sky: Starlore and Astronomy of the South Pacific*, (with a forward by Dame Jocelyn Bell Burnell) which encapsulated his interests in scientific astronomy, astrophotography and starlore in the South Pacific region.

2. EVENTS

Stargaze during the Day! (co-host Hutt Libraries)

[Tuesday 6 October, 11 – 1 pm, Moera Library, 175 Randwick Rd,](#)

[Lower Hutt \(Rain day – Thursday 8 October\)](#)

[Friday 9 October, 11 – 1 pm, Lower Hutt War Memorial Library.](#)

The Sun is the star at the centre of our solar system. The Wellington Astronomical Society will set up special solar telescopes for you to view the Sun safely - see if you can find sunspots and solar flares! Event registered as part of World Space Week 2020.

Lights out: Capture the dark (co-host Greater Wellington)

[Saturday 10 October, 8 – 10 pm, Wainuiomata Recreational Park](#)



Book tickets at <https://www.eventfinda.co.nz/2020/lights-out-capture-the-dark/lower-hutt/tickets>

Join us at this FREE event to get a close-up look at the galaxy. It's a unique chance to explore our Southern Skies, looking for Jupiter, Saturn and the Moon through powerful optical telescopes with Wellington Astronomical Society guiding you through the journey.

Light pollution in the city washes out our view of the space, and only the brightest stars pierce the glow. Wainuiomata Recreational Area might be one of the most peaceful spots in the region, yet it has one of the busiest dark skies in the universe, making it a perfect location for stargazing and astrophotography.

We will also have professional astrophotographers on the spot to help you get started and share their tips and tricks of dark sky photography. So grab your camera and tripod if you want to learn some basics of the dark sky shooting.

Meet us at the carpark and the bus will take you to the ranger's office for the welcoming hot drinks & biscuits.

Please bring: your camera and tripod (optional), torches/headlamps (red lenses preferred), sturdy walking shoes/boots, waterproof jacket in case of wet weather.

Getting there: <https://goo.gl/maps/jPrNkCQ9zc6z5Qaz8>

Event registered as part of World Space Week 2020.

Astronomy Night (co-host Hutt Libraries)

Wednesday 14 October, 7 – 8 pm, Lower Hutt War Memorial Library
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.

Telescope viewing outside if the skies are clear.

WAS Astrophotography Group / Dark Sky Observing

[Saturday 17 October, 8 pm 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. 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.

October Starparty

[Saturday 24 October, 8 - 11 pm](#) at the Wellington waterfront by the seaward entrance to the Lagoon



Come along to the Wellington waterfront on Labour Saturday and see spectacular views of Jupiter, Saturn, Mars and the Moon through a telescope. Seeing the Red planet, craters on the Moon, the moons of Jupiter and the rings of Saturn for the first time is a memorable experience.

Check this event and our Facebook page on the afternoon of the event for any updates on the night sky conditions. Postponement day Sunday 25 October.

3. SOCIETY NEWS

2020 – 2021 Subscriptions

As the new WAS Financial Year is upon us (from 1st September), membership renewals are due for the year. Renewal of your subscription will enable you to maintain your membership till 31 August 2021. We want to thank all those that have already renewed their memberships.

To make astronomy fun and accessible for all, WAS would like to continue providing free events for everyone in and around Wellington, but we are only able to do this with your support. The Society has a number of fixed costs, including payment of insurance, affiliation to the Royal Astronomical Society of NZ, post-office box

charges, venue fees and costs incurred when an international speaker is hosted.

There are also additional costs for telescope equipment to ensure members and the wider community have access to the universe through well-functioning equipment. We are also looking to fund a solar telescope as part of our outreach programme. Support from members through joining WAS and renewing their memberships allows us to promote astronomy through education and outreach for free. We appreciate your continued support of our Society's activities by renewing your membership.

Renewal forms can be found on the website, but a summary follows:

Adult/Waged: \$50.00

Student/Unwaged/Associate: \$30.00

Family: \$70.00

Payment methods:

- Direct Deposit or Internet Banking - use Account No: 03-0502-0508656-00, please include reference so we know who is making the payment
- Cheque - make out to Wellington Astronomical Society Inc, and mail to PO Box 3181, Wellington 6140
- Cash - please bring exact amount to meeting.

Please send an email to membership@was.org.nz informing us of your membership renewal and payment.

AGM / Council Members

As we approach our next AGM on **4 November**, we are looking for more members to join the Council. If you are interested in being more involved with the Society's activities and help steer the future direction of the Society, please put your hand up. The Society needs new volunteers with fresh new ideas so we can continue to promote, educate and inspire others in Astronomy.

WAS RAG

The WAS research group (WAS-RAG) will be meeting online on 14 October and details will be communicated on the group's mailing list. Everyone in the group will be contacted beforehand for a decision on the timing.

The group will keep contact via the WAS-RAG mailing list. Roland can be reached on roland@cno.org.nz in the meantime.

WAS meeting presentations on Video

If you were unable to attend any of the Society meetings 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.

ASTRONZ Binoculars for Sale



WAS, in conjunction with ASTRONZ, has these 10x50 high-quality light-weight binoculars available at a reduced price to members. Binoculars are available for **\$80** each (usually sell for \$99 excluding freight). Please email Antony Gomez, president@was.org.nz, if you would like to buy a pair.

Telescope for sale



4 inch Bresser Messier refractor telescope with Equatorial mount, Plossl 30mm, 15mm, 12mm, 10mm, 9mm and Celestron 20 and 10mm eyepieces included. Great for viewing the planets. Contact Phillip Hook prhook71@gmail.com if interested.

4. ASTRONOMY NEWS



World Space Week 4 – 10 October 2020: Satellites improves life.
<https://www.worldspaceweek.org/>

WAS is celebrating World Space Week 2020 co-hosting events (see above) with Hutt Libraries and Greater Wellington.

World Space Week is a UN declared celebration of space held annually, every October 4 to 10. It is the largest space event on Earth, with over 8,000 events reported in 2019 and held in 96 countries. These events are organized by thousands of organizations, including space agencies, aerospace companies,

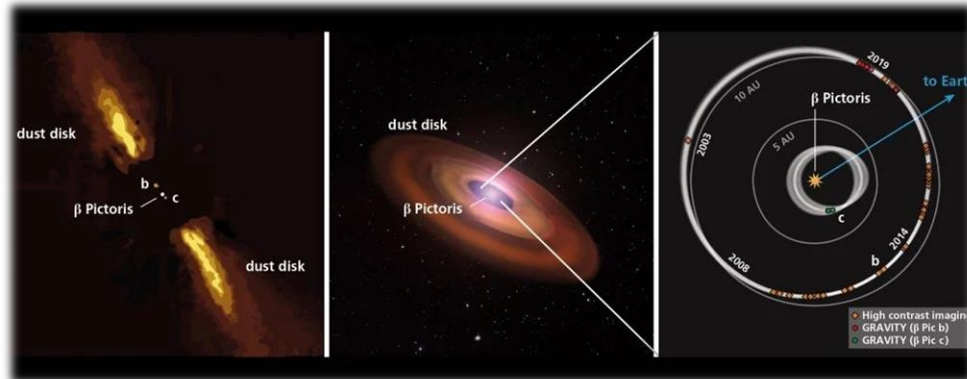
astronomy clubs and museums. In 2020, World Space Week is dedicated to satellites and their broad benefits under the theme “Satellites improve life.”

Despite the global pandemic, there are safe and exciting ways to participate and celebrate World Space Week. The Highlights section showcases some of the creative, innovative and popular events bringing people together to celebrate space.

- Celebrate World Space Week and its theme of Satellites Improve Life by simply [looking up and observing satellites](#) from **home**
 - **Space4Women** will be hosting a special World Space Week online event on the topic of [Using Satellites to Improve Lives](#)
 - The **International Telecommunication Union** will be organizing a webinar on the topic of [Non-Geostationary Satellite Systems: entering into the era of broadband service delivery](#) on October 07. 15h00 -16h30 CET
 - The **International Astronomical Union & Shaw Foundation** will be hosting the [2020 Workshop on Astronomy for Education](#), organised by the IAU Office of Astronomy for Education, which will focus on an overview of education world wide. It will be a fully online, virtual experience that will take place 6 – 9 October 2020.
 - **SpaceWatch.Global** will be organizing a special webinar on October 8 to launch “[Moriba’s Vox Populi](#)” to discuss topics of relevance to space safety, security, and sustainability
 - **SpaceWatch.Global** will organize a [Space Café WebTalk](#) on October 6 featuring Fahad Al Mheiri, Acting Executive Director – Space Sector United Arab Emirates Space Agency
 - **SMART Edu Club** will organize a [Space Week Workshop](#) on October 8 with a 1 hour session filled with discoveries and activities for children aged 7 and higher
 - **Women in Aerospace Europe** (WIA-E) invite people from around the globe to participate in the [virtual events](#) organised by their Local Groups throughout Europe.
 - **Society for Space Education, Research and Development** (SSERD) will be organizing a 7-day (Oct 4-10) [FREE Online Program](#) for students of all ages, which will include lectures, workshops, competitions, and hackathons.
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- [World Space Week Portugal](#) plans to prepare a book of articles by students and companies/organisations on space related issues

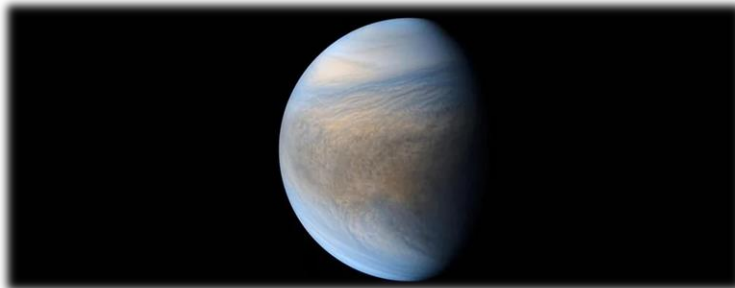
Scientists Reveal First Direct Image of an Exoplanet Only 63 Light-Years Away.



Most of the exoplanets we've confirmed to date have never actually been seen directly. We confirm their presence by indirect means, such as the effect they have on their host star. But now, astronomers have revealed images of an indirectly found exoplanet.

<https://www.sciencealert.com/this-is-the-first-direct-image-of-an-exoplanet-detected-via-a-wobbly-star>

Venus Might Have Been a Temperate Habitable World if It Wasn't For Jupiter



[Venus](#) might not have been the sweltering, inhospitable planet of acidic clouds and desert rock that it is today if it hadn't been for the interference of Jupiter, according to new research. In fact, our neighbouring planet could have turned out to be quite temperate and habitable. The new study proposes that the gravitational pull of Jupiter pushed [Venus](#) closer to the Sun, creating a runaway greenhouse effect and vaporising surface oceans.

<https://www.sciencealert.com/venus-might-have-been-a-temperate-habitable-world-if-it-wasn-t-for-jupiter>

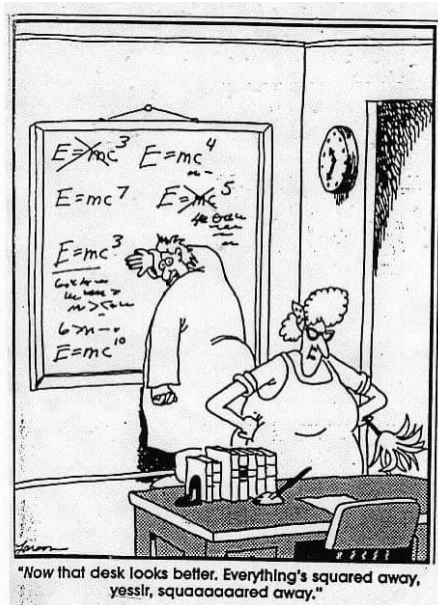
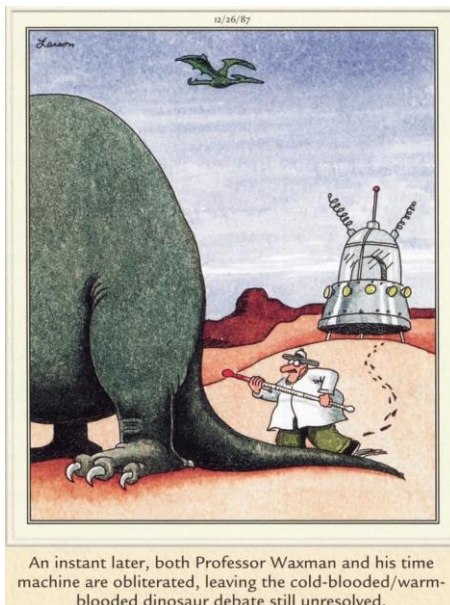
Astronomers Find Monster Black Hole With 6 Galaxies Trapped in Its Gravitational Web



Astronomers have discovered six galaxies ensnared in the cosmic "spider's web" of a supermassive black hole soon after the [Big Bang](#), [according to research](#) published Thursday that could help explain the development of these enigmatic monsters. [Black holes](#) that emerged early in the history of the Universe are thought to have formed from the collapse of the first stars, but astronomers have puzzled over how they expanded into giants.

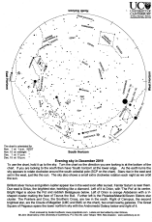
<https://www.sciencealert.com/monstrous-black-hole-has-trapped-six-entire-galaxies-in-its-gravitational-spider-web>

Astronomy Humour



5. NIGHT SKY FOR OCTOBER 2020

The [Night Sky for October 2020](#) courtesy of the University of Canterbury.



NASA Night Sky Notes October 2020



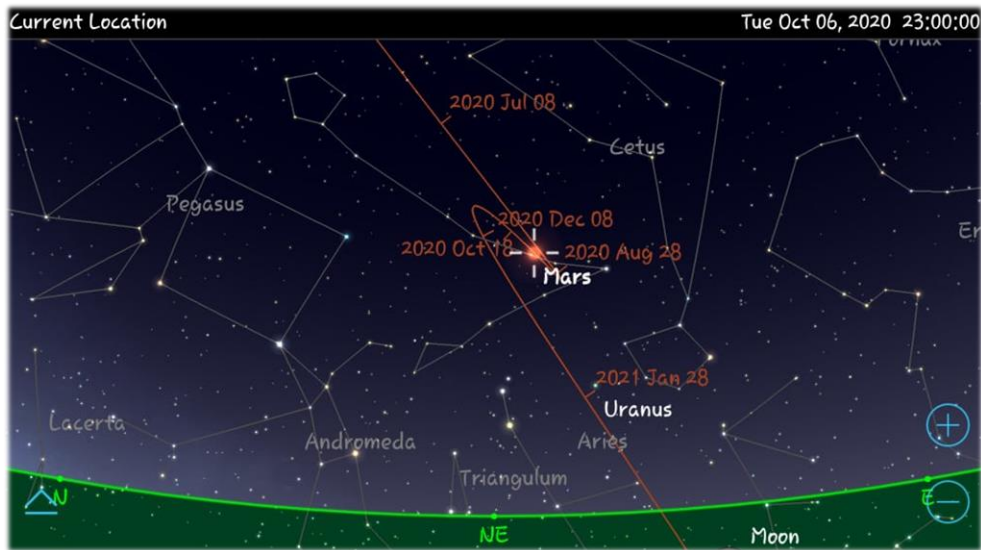
This article is distributed by NASA Night Sky Network. The Night Sky Network program supports astronomy clubs across the USA dedicated to astronomy outreach. Visit nightsky.jpl.nasa.gov to find local clubs, events, and more!

Observe the Skies Near Mars - David Prosper

October is a banner month for Mars observers! October 6 marks the day Mars and Earth are at closest approach, a once-every-26-months event. A week later, on October 13, Mars is at opposition and up all night. Mars is very bright this month, and astronomers are eager to image and directly observe details on its disc; however, don't forget to look at the space around the planet, too! By doing so, you can observe the remarkable retrograde motion of Mars and find a few nearby objects that you may otherwise overlook.

Since ancient times, Mars stood out to observers for its dramatic behavior. Usually a noticeable but not overly bright object, its wandering path along the stars showed it to be a planet instead of a fixed star. Every couple of years, this red planet would considerably flare up in brightness, for brief times becoming the brightest planet in the sky before dimming back down. At these times, Mars would also appear to slow down its eastward motion, stop, then reverse and head westward against the stars for a few weeks, before again stopping and resuming its normal eastward movement. This change in the planet's movement is called "apparent retrograde motion." While all of the planets will appear to undergo retrograde motion when observed from Earth, Mars's retrograde appearances may be most dramatic. Mars retrograde motion in 2020 begins on September 10, and ends on November 16. You can observe its motion with your eyes, and it makes for a fun observing project! You can sketch the background stars and plot Mars as you observe it night after night, or set up a photographic series to track this motion. Does the planet move at the same rate night after night, or is it variable? As you

observe its motion, note how Mars's brightness changes over time. When does Mars appear at its most brilliant?



NASA has tons of great Mars-related resources! Want to know more about apparent retrograde motion? NASA has an explainer at: bit.ly/marsretromotion. Find great observing tips in JPL's "What's Up?" videos: bit.ly/jplwhatsup. Check out detailed views with NASA's HiRISE satellite, returning stunning closeups of the Martian surface since 2006: hirise.lpl.arizona.edu. NASA's Curiosity Rover will be joined in a few months by the Perseverance Rover, launched in late July to take advantage of the close approach of Mars and Earth, a launch window that opens two years: nasa.gov/perseverance. Calculate the ideal launch window yourself with this handy guide: bit.ly/marslaunchwindow. The Night Sky Network's Exploring Our Solar System handout invites you to chart the positions of the planets in the Solar System, and NSN coordinator Jerelyn Ramirez recently contributed an update featuring Mars opposition! You can download both versions at bit.ly/exploresolarsystem. Young astronomers can find many Mars resources and activities on NASA's Space Place: bit.ly/spaceplacemars. Here's to clear skies and good seeing for Mars's best appearance until 2033!

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

Postal Address:

Wellington Astronomical Society,

PO Box 3181,

Wellington 6140, New Zealand

Website: www.was.org.nz

Instagram: [@was.nz](https://www.instagram.com/was.nz)

Facebook page: [Wellington Astronomical Society](https://www.facebook.com/WellingtonAstronomicalSociety).

Facebook group: [WAS – Wellington Astronomical Society](https://www.facebook.com/WAS-WellingtonAstronomicalSociety) (for members)

Facebook Astrophotography group: [WAS Astrophotography Group](https://www.facebook.com/WAS-AstroPhotographyGroup) (for members).
