



**Wellington Astronomical Society  
2019-05 eNewsletter**

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**Wellington Astronomical Society Inc.  
email Newsletter for May 2019**

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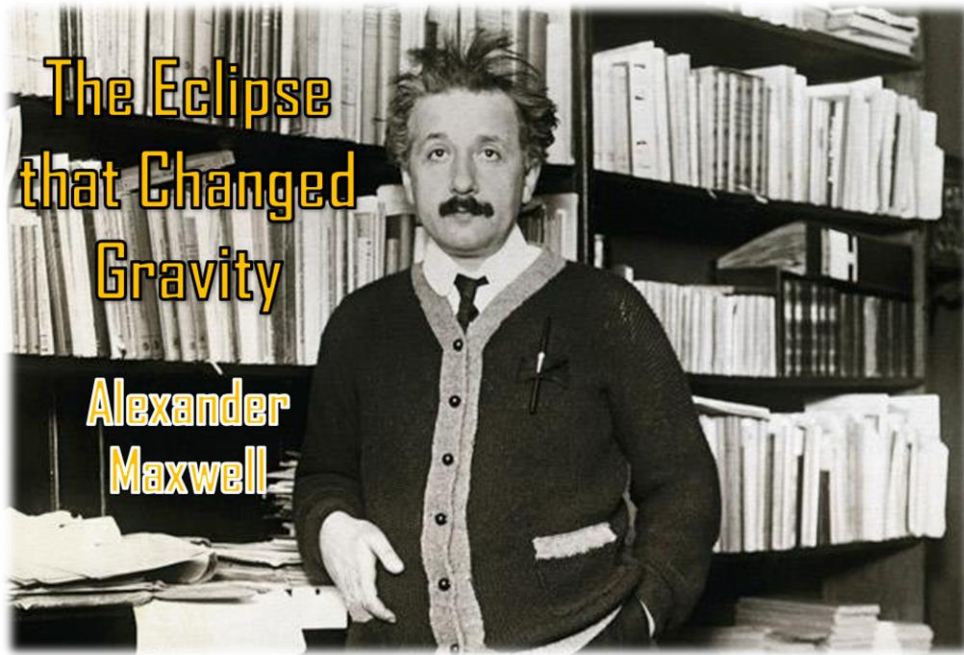
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**1. MAY 2019 SOCIETY MEETING**

Please note the **change of venue** for this month's meeting on Wednesday 1<sup>st</sup> May at 7.30 pm. The meeting will be held in the Board Room at NZ Post House on Waterloo Quay, Wellington, and not at Space Place, Carter Observatory. Enter from the south side of the building and a receptionist will point the way to the meeting room (venue change is only for May, back to normal next month).

This month's meeting will contain the following:

1. Night sky in May
  2. Astronomy News
  3. Main talk at 8:00 pm
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Isaac Newton's theory of gravity enjoyed a smashing success, explaining the tides, the oblate shape of the earth, and the orbits of celestial bodies. Indeed, when the French astronomer Urbain Le Verrier noticed small discrepancies between Newtonian predictions and the motions of the planets, he used those discrepancies to predict the location of Neptune. Le Verrier also noticed discrepancies in the orbit of Mercury, and his proposed explanation for Mercury's orbit launched an equivalent search for a planet that came to be known as Vulcan. In 1915, however, Albert Einstein proposed an even more radical explanation. This talk commemorates Arthur Eddington's observation of the 1919 solar eclipse and its dramatic consequences for the history of astrophysics.

Alexander Maxwell is a Senior Lecturer at the School of History, Philosophy, Political Science & International Relations at Victoria University of Wellington.

This presentation is part of the IAU Centenary of the Solar Eclipse of 1919 - Sobral, <https://www.iau-100.org/sobral-eclipse-centenary>.

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## 2. EVENTS

**WAS Astrophotography group / Dark Sky Observing** - Saturday 4<sup>th</sup> May  
7.00 pm, Star Field - John Whitby's dark sky site.

Come along to this Astrophotography / Deep Sky event at a dark sky site in the Wairarapa. With no Moon, you will see some amazing dark skies with the Milky Way standing out.

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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](mailto: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. (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.

For further details or cancellations contact Chris 021 890 222 or Antony 021 253 4979. This event will be updated by the afternoon on the day of the event if the weather forecast is not looking good.

## **OUR GOD IS TOO SMALL**

**Free Public Lecture by visiting Vatican Astronomer Br Guy Consolmagno**

Sacred Heart College, 65 Laings Road, Lower Hutt, Tuesday 7 May, 7.30pm.  
**Registration is essential.**



Known as "The Pope's Astronomer," Br Guy Consolmagno SJ will be delivering a free public lecture on the 7th May at the Performing Arts Centre, Sacred Heart College, Lower Hutt. He was appointed by Pope Francis to be the Director of the Vatican Observatory in September 2015

and is the President of the Vatican Observatory Foundation. He is a Jesuit religious brother, world-leading astronomer, researcher, author, TED Talks and American University circuit speaker, who is visiting New Zealand to discuss his vision of God and our universe.

His research is centred on the connections between meteorites and asteroids, and the origin and evolution of small bodies in the solar system. In addition to over 40 refereed scientific papers, he has co-authored several books on astronomy for the popular market, which have been translated into multiple languages. During 1996, he took part in the Antarctic Search for Meteorites, ANSMET, where he discovered a number of meteorites on the ice fields of Antarctica. An asteroid was named in his honour by the International Astronomical Union, IAU in 2000: 4597 Consolmagno. In 2014, he was awarded the Carl Sagan Medal for outstanding communication by an active planetary scientist to the general public by the Division for Planetary Sciences of the American Astronomical Society.

Br Guy believes in the need for science and religion to work alongside one another rather than as competing ideologies. His talk will look at humanity's venture on to the other planets in the solar system, the unimaginable size of the cosmos and the need for us to understand the universe created by God.

This free public lecture has been made available through Catholic Discovery NZ @catholicdiscovery.nz and the Wellington Astronomical Society @WellingtonAstronomicalSociety.

Registration is essential. Tickets are available through [the link on Eventfinda](#).

**May Starparty – Wellington Water Front – Saturday 11 May, 6 pm – 10pm**

WAS is holding a couple of observing events (see day event also, below). Please come and join us at the Wellington Water Front (near Frank Kitts park by the bridge over the lagoon) for an evening of observing through the Society's 10" Dobsonian telescopes. As well as the moon, star clusters and nebulae, we will be able to view Jupiter, rising at around 8 pm.

**Martinborough Maths Craft Day – Martinborough Town Hall – 8 Texas Street, Sunday 26 May, 10 am – 5 pm.**

Who said Maths isn't cool?! It's fantastically fascinating, so do come to the Martinborough Maths Craft Day and enjoy a day-long celebration of Maths. An event for all ages, enjoy public talks and have a go at different crafts. Featuring guest speaker Eugenia Cheng, whose mission it is to rid the world of 'Math Phobia'! Members of WAS will also be there with solar scopes to do some solar observing. For more information see the [link here](#).

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### 3. SOCIETY NEWS

#### **Saturn Lunar Occultation – Fri 26<sup>th</sup> April, 00:38 – 1:47.**



A group of us were down at Tawa College on the evening of the ANZAC Day in anticipation of observing Saturn being occulted by the Moon. The clouds came and went numerous times during the evening but closer to the time, it looked like we were in for a treat. Telescopes were ready, video camera set up through a telescope to capture the event. Unfortunately, the seeing wasn't great as the Moon and Saturn were only about 23° high in the sky and there was quite a bit shimmering through the telescopes. We could see the Saturn getting closer to the Moon (actually it was the Moon moving closer to Saturn) as the excitement built up. Slowly the rings touched the limb of the Moon and within a couple of minutes the whole planet was gone.

An hour later we gathered near the telescopes again, checking it all. It was harder to set up as we had to gauge where Saturn would pop out for the video to capture it. Then as predicted, almost suddenly, Saturn popped into view. It was a spectacular sight, two solar system objects in the same frame, one 395,000 km away and the other 1.459 billion km away. It was well worth the effort to see the event live. However, some of us didn't get home to 3am and at least one person had to be at work early in the morning. Looking to doing it again whenever the next planetary lunar occultation takes place.

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*These two above images of Saturn and the Moon were captured by putting a mobile phone to the eyepiece of the telescope.*

The ISS came directly over that same evening with a magnitude of -3.7, almost as bright as Venus. This image below was taken by Chris Monigatti, showing the ISS passing through the constellation of Orion.

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### **Wellington Astronomical Society Research Astronomy Group (WAS RAG)**

New members of WAS (or perhaps even not-so-new members) may not be aware that we also run another group meeting once per month for members interested in doing research observations and analysis. This group is called WAS RAG (Wellington Astronomical Society Research Astronomy Group). Our current interests include occultations and variable stars.

If you're interested in joining the group, please contact Roland Idaczyk ([roland@cno.org.nz](mailto:roland@cno.org.nz)) to be added to our mailing list and come along to our next meeting. All our meetings are held the week after the Society's general meeting, i.e. on the second Wednesday of the month. This means the next meeting will be on Wednesday 10<sup>th</sup> April.

The meeting runs from 5:30pm to 7:30pm and is held at my workplace. This is WSP-Opus Research, at 33 The Esplanade in Petone. The map shows how you can get to it travelling either from Wellington (come along the Esplanade) or from Lower Hutt (come along Hutt Road). There are five visitors' car parks (not surprisingly, labelled 'Opus visitors'), which will probably be free 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 I'll be sitting in the entrance between 5:00pm to 5:30pm to let everyone in. If you arrive outside

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these times, ring me on (4) 5870612 and I'll rush out (well, walk at a fastish pace) to let you in.

When you arrive, for health & safety reasons, you need to sign-in. This is done using the large touch-screen at reception. The sign-in process includes a safety induction. I'll also run through that again before we begin the meeting. See you then - Murray Forbes



(For a bigger version of the map please follow [this link](#)).

### **ASTRONZ Binoculars for Sale & Discounts for WAS Members**

WAS, in conjunction with ASTRONZ, has more pairs of 10x50 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](mailto:president@was.org.nz), if you would like to buy a pair.

Please also take advantage of the 10% discount available if ordering equipment from Astronz by mentioning you are a WAS member. Furthermore, orders over \$500 will earn you a FREE WAS membership!

### **Royal Astronomical Society of New Zealand (RASNZ) 2019 Conference – New Plymouth 17<sup>th</sup> – 19<sup>th</sup> May**

It is getting late, but not too late if you still wish to attend this year's [RASNZ conference](#). Details about the conference, including how to register, can be found [here](#) (a late registration fee does now apply).

### **Live Streaming of Monthly Meetings**

At this month's meeting, I'm going to start live streaming the Wellington Astronomy Club's main presentation at 8 pm via MeetCheap - the idea being to make these available for our club members who can't physically get to our meetings (e.g. because they live over in the Wairarapa). The link for this is;

<http://login.myownmeeting.com/conference.60602806>

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Once the page opens, put your full name or initials in the dialogue box and login. This allows us to see who is actually there. No password is required and the site cookie remembers your login name so subsequent logins only require you clicking 'OK'. The moderator question on the login box must remain as 'NO' otherwise you cannot login. Do not modify that URL in any way as it will not work. It uses Java and Adobe Flash Player so you may have to configure your browser to allow these to run.

I will be running a MeetCheap copy of the presenter's power-point slides in parallel to the actual presentation at Space Place. Due to the limitations of MeetCheap, this copy will not include any power-point animations/special effects or video.

You can also hear the presenter live, via a lapel microphone. Note: during the trail runs of this I found that the sound volume varies widely as the presenter moves around, turns their head or simply speaks louder. Unfortunately there is nothing I can do about this.

If you have any questions for the presenter, please type them into the text chat area and I'll ask them on your behalf. - Murray Forbes.

### **For sale**

Very unique binocular telescope currently for sale. Please follow the links below for details and pictures.

[Unique NZ made 6" Binocular Telescope](#)

[More photos here](#)

If you are interested, please contact:

Peter Muller

email: [mail@augustin-muller.com](mailto:mail@augustin-muller.com)

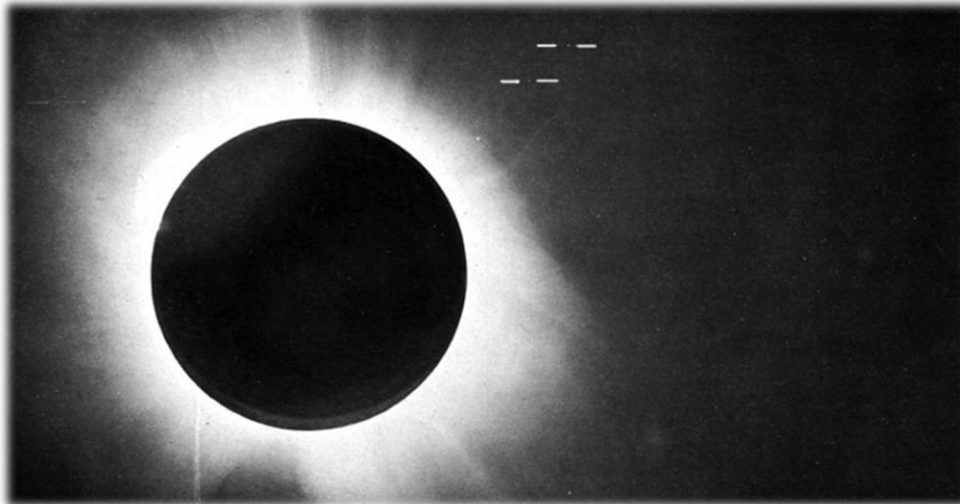
To arrange a viewing in Waikanae, Kapiti Coast, please email first.

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## 4. ASTRONOMY NEWS

### **100th Anniversary of the 29<sup>th</sup> May 1919 Solar Eclipse**

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In 1915, Einstein published the first paper on his general theory of relativity, which is nowadays used to describe gravitation. Many scientists were critical about this theory at the time, largely because it used very complex mathematics. To test the theory, Einstein proposed three experiments, the so-called classical tests of general relativity: the perihelion precession of Mercury's orbit, the deflection of light by the Sun and the gravitational redshift of light.

Scientists then executed the second experiment in 1919. To view stars that are close to the Sun, the experiment could only be done during a total solar eclipse. Measurements were therefore done on 29 May 1919, during a solar eclipse, in the north of Brazil and on the Principe Island, off the coast of Equatorial Guinea in West Africa. British astronomer Sir Arthur Stanley Eddington was in charge of this second expedition. He was fascinated by Einstein's theory and was eager to discover the applicability of the theory, which he also promoted among the scientists of the Royal Astronomical Society. The results of the expeditions followed in November and were very promising. They seemed greatly compatible with Einstein's theory and extensively different from the Newtonian one.

Today, many more experiments have been executed to test Einstein's theory, which is widely used in modern physics and astrophysics. The theory is praised for its beauty, simplicity and symmetry. A phenomenon predicted by Einstein in 1916 using this theory, has only recently (in February 2016) been detected: gravitational waves. While observing two merging black holes, the Advanced LIGO team managed to directly detect the gravitational waves. – [IAU100 1919 Eclipse](#)

Other up to date Astronomy News and Society events is available on the Society's Facebook page: [Wellington Astronomical Society](#).

The [Night Sky for May 2019](#) courtesy of the University of Canterbury.



### **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.org](https://nightsky.jpl.nasa.org) to find local clubs, events, and more!

### **Watching the Late Spring Skies - David Prosper**

The **Eta Aquarids** meteor shower should make a good showing this year, peaking the morning of May 6. This meteor shower has an unusual “soft peak,” meaning that many meteors can be spotted several days before and after the 6th; many may find it convenient to schedule meteor watching for the weekend, a night or two before the peak. You may be able to spot a couple dozen meteors an hour from areas with clear dark skies. Meteors can appear in any part of the sky and you don’t need any special equipment to view them; just find an area away from lights, lie down on a comfy lawn chair or blanket, relax, and patiently look up. These brief bright streaks are caused by Earth moving through the stream of fine dust particles left by the passage of Comet Halley. While we have to wait another 43 years for the famous comet grace our skies once more, we are treated to this beautiful cosmic postcard every year.

May marks the 50<sup>th</sup> anniversary of the Lunar Module’s test run by the **Apollo 10** mission! On May 22, 1969, NASA astronauts Thomas Safford and Eugene Cernan piloted the Lunar Module - nicknamed “Snoopy” - on a test descent towards the lunar surface. Undocking from “Charlie Brown” - the Command Module, piloted by John Young – they descended to 47,400 feet above the surface of the Moon before returning safely to the orbiting Command Module. Their success paved the way for the first humans to land on the Moon later that year with Apollo 11. Look for the Moon on the morning of May 22, before or after dawn, and contemplate what it must have felt like to hover mere miles above the lunar surface. You’ll also see the bright giant planets Saturn and Jupiter on either side of the Moon before sunrise. When will humans travel to those distant worlds?

You can catch up on all of NASA’s current and future missions at [nasa.gov](https://nasa.gov)

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## **6. CONTACTS**

The following members were elected to Council at the Nov 2018 AGM

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

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

Secretary: Matt Boucher ([secretary@was.org.nz](mailto:secretary@was.org.nz))

Treasurer: Duncan Hall ([treasurer@was.org.nz](mailto:treasurer@was.org.nz))

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

Newsletter Editor: Shelly Frost ([editor@was.org.nz](mailto:editor@was.org.nz))

Website: Peter Woods ([webmaster@was.org.nz](mailto:webmaster@was.org.nz))

Telescope custodian: Chris Monigatti

Research Group coordinator: Roland Idaczyk

Council: Shazia Gazi, Shelly Frost, Peter Woods, Chris Monigatti,  
Roland Idaczyk, Murray Forbes, John Homes, Becky Bateman, Gaby  
Perez, Lee Mauger

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PO Box 3181,

Wellington 6140, New Zealand

Website: [www.was.org.nz](http://www.was.org.nz)

Facebook page: [Wellington Astronomical Society](#).

Facebook group: [WAS – Wellington Astronomical Society](#) (for members)

Facebook Astrophotography group: [WAS Astrophotography Group](#) (for members)

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