

# Wellington Astronomical Society 2019-02 eNewsletter

# Wellington Astronomical Society Inc. email Newsletter for February 2019

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# 1. FEBRUARY 2019 SOCIETY MEETING

The next WAS meeting will be held on Wednesday 13<sup>th</sup> of February at 7:30 pm at Space Place, Carter Observatory, 40 Salamanca Rd, Kelburn. The meeting is a week later than normal due to Waitangi Day falling on the first Wednesday in February.

The meeting will consist of:

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

Online Citizen Science in Astronomy Education - Markus Luczak-Roesch and Matt Boucher



Markus and Matt worked together in 2018 on a research project funded by the Teaching and Learning Research Initiative of Victoria University. This project examined Online Citizen Science and how it can be used in the classroom. As a case study, Matt led his students in learning about Exoplanets and making real contributions to their discovery. They will explain what Online Citizen Science is, how it can be used in education, and demonstrate how it can be a valuable tool for Astronomy Education.

Matt Boucher has been a teacher for over 14 years across all age levels and he has been particularly interested in Science education. Since moving from his home in New England, USA to the dark skies of New Zealand in 2008, he has fallen in love with the night sky and taken a keen interest in Astronomy. Matt is the Deputy Principal of Thorndon School and General Secretary of the Wellington Astronomical Society.

Markus Luczak-Roesch is an Associate Professor within the School of Information Management at Victoria University of Wellington. A computer scientist by education he has an established scholarly profile in Semantic Web research as well as the emerging Web Science and Computational Social Science fields. Before joining Victoria University of Wellington Markus was a Senior Research Fellow at the University of Southampton (UK) on the project SOCIAM - The Theory and Practice of Social Machines, where he helped pioneer novel methods to understand the complex socio-technical environment of the World Wide Web. Most of his recent work is focused on Transcendental Information Cascades, a generic approach to capture temporal dynamics in all kinds of naturally occurring complex systems such as human language, brain activities, and people's digital traces online, asking fundamental questions of space and time in the context of information as well as emergent meaning that is rooted in coincidence. Markus Luczak-Roesch also published on human factors of information and computing systems such as technical or social exclusion. He provides regular commentary on the media about contemporary issues of technology and society and to support public understanding of science.

#### 2. EVENTS

**WAS Astrophotography group / Dark Sky Observing** - Saturday 9th February 9:00 pm – late.

Star Field - John Whitby's dark sky site.

We have another opportunity to go to John Whitby's Star Field site, 10 mins outside of Martinborough, for an astrophotography / dark sky observing session. To attend and get directions to Star Field, please email Antony (<a href="mailto:president@was.org.nz">president@was.org.nz</a>) as we need to keep track of numbers. Any updates will be posted on the <a href="mailto:WAS Facebook page">WAS Facebook page</a> closer to the time. For further details or cancellations contact Chris 021 890 222 or Antony 021 253 4979.

**IAU100 Women & Girls in Astronomy Day** - Wellington Waterfront (by the bridge over the lagoon near Frank Kitts Park) Sunday 10<sup>th</sup> February, 6:00 pm



In 2019, the International Astronomical Union (IAU) is celebrating its 100th anniversary. To commemorate this milestone, the IAU is organising a yearlong celebration to increase awareness of a century of astronomical discoveries as well as to support and improve the use of astronomy as a tool for education, development and diplomacy under the central theme "Under One Sky".

Activities organised around February 11th will be the perfect opportunity to celebrate girls and women in astronomy - by encouraging girls to consider careers in astronomy and by celebrating women astronomers.

As part of this celebration, the Wellington Astronomical Society is holding a Women and Girls in Astronomy Day event at the Wellington waterfront.

Come along to this free event and see the Moon, Mars and other spectacular objects in the night sky through a telescope. Meet and many of the women members of our Society who will be operating the telescopes.

We are holding this event early so families, especially with young girls, can be inspired in Space and Science by looking through the telescopes.

**Astronomy Night: What to See in 2019** – Friday 15<sup>th</sup> February, 7:00 pm, Lower Hutt War Memorial Library



Join Antony Gomez, President of the Wellington Astronomical Society to find out what to look forward to in our night sky during 2019.

If the sky is clear, we'll go outside after the talk and look through telescopes provided by the Wellington Astronomical Society.

**Martinborough Dark Sky Society AGM** – Saturday 16<sup>th</sup> February, 7:00 pm, Waihinga Centre, The Square, Martinborough.



The Martinborough Dark Sky Society will be holding their first public

event. The day will include an astrophotography exhibition and telescopes and astronomy gear will be presented from Astronz. Various other astronomy activities will be going on throughout the day.

The AGM will start at 7pm and all are welcome.

After the AGM finishes, there will be some talks from the Martinborough Dark Sky Society. Becky Bateman and John Whitby will be talking about their astronomy tourism venture - Under the Stars at Star Field.

11am-5pm Public Astrophotography Art Gallery

7pm - 7:45pm Dark Sky Society AGM (public welcome)

7:45 - 9:15 Talks (details to follow)

9:15 Night sky viewing with the Wellington Astronomical Society

All events open to the public, limited numbers allowed in building so be early to ensure a seat.

### **WAS Observing Evening**

Please note the usual WAS Observing Evening for February will be replaced this month with the Martinborough Dark Sky Society AGM (see above). WAS members are most welcome (and encouraged!) to attend.

## 3. SOCIETY NEWS

### **Central Star Party**



To see more images from Central Star Party 2019, click on the above image.

The fourth Central Star Party really began on the Thursday 3rd Jan after the prediction of lovely fine weather. Subsequently as the sky darkened several large telescopes were attracting lines for viewing. The sights started off with regular Southern gems to satisfy visitors (and generated the usual debate about the virtues of similar celestial bodies) and then led onto wider visions such as the southern Cigar galaxy, (which was not M81). Some aficionados stayed up until 3am.

Friday dawned cool, with a welcome gentle breeze. The table alongside the registration desk had new goodies such as red-light torches, CSP branded bucket hats and the book buy and swap gave folks interest while Nathan Lang covered the name tags, etc. With steady arrivals all day the talks started after the first sausage sizzle, while waiting for the cool of the evening.

Remcoe Mensert started with the requirements for life and the elements needed - thought provoking stuff! Bethany Jones kept the thinking stimulated with "O Glorious Bugs". Then as twilight deepened the sky became blotchy with clouds and the movie had technical difficulties so some simply retired while others waited and took advantage of a few hours of clear skies.

Saturday dawned clear, fine and continued with a breeze to keep it all bearable. Ursula McFarlane caught the sunrise at the Ātea Polynesian Star circle just past Clive which was superb, great to see such constructions. Absolutely worth visiting at any time.

The programme kicked off after lunch with Gary Sparks taking us on a global trip to smaller countries big in the philatelic field. Always interesting to see where our Astronomy takes us. John Drummond then stimulated our brain cells with light-year measurements done by amateur spectroscopy and Gordon Hudson went through the restoration of the Brashear telescope.

Last year the organisers scheduled a rocket going up. This year they had a rocket come down! I didn't see it but glimpsed the trail and with the press instantly getting in touch with Antony Gomez and Steve Chadwick it was well noted.

Carl Knight came especially to deliver a couple of technical talks about his continued mapping of the Asteroids - 4963 Kanroku specifically - and his collaboration with the Pulkovo observatory.

There was no telescope trail as the heat of the day made it uncomfortable outside in the open. Towards the cooler evening a fish and chip dinner was welcomed and the camp photo taken, illuminated by the setting Sun. Steve Chadwick gave us a wonderful telescopic, pictorial, tour around an old rejected, forgotten constellation. The history lesson and politics involved added to its wonders. The raffle was drawn and successes celebrated then Terry Mc Mahon woke up our thinking with the process of a Neutron Star

merger. Being dark and clear enough meant some hours looking through telescopes until most folk noticed heavy dew and many packed up around 12.30 am.



Sunday dawned fine and clear again and while adults slowly woke, the children's programme educated our upcoming generation. So good to see the preparation, fun and involvement the young teachers delivered. Before lunch we shared the fun of a water slide - although fewer adults took part than I expected. It was cool in every sense of the word.

After lunch Antony Gomez gave us a reminder about "our place in the Universe". And Otto Gruebl showed us how he caught the image of the ISS transiting the Sun. The usual wonders of the sky delivered by Gary at the Planetarium was a welcome coolness and the entrance continues to be fascinating with history and artefacts aplenty. Back at camp we all tried to answer the quiz which again proved challenging.

As people were keen to get outside there was an exodus of the kitchen leaving an organiser and helper to do those chores. The only disappointing moment in the kitchen which was so well set up and even recycling bins organised. We can all do better!

Again we had a clear night which fewer folk enjoyed as so many had gone. So our 4th Central Star Party was enjoyed by all and lots of fun. Hope to see you there next year. - *Vicki Irons* 

# International Astronomical Union – Global 100 Hours of Astronomy Celebration

As part of the IAU's Centenary celebrations running from 10 - 13 January,

Wellington Astronomical Society held a couple of very successful events aimed at promoting Astronomy throughout the community.

The first was a solar observing day held at the Lower Hutt War Memorial Library where many curious observers lined up eager to see the sun through a telescope. AND! Our very own Wellington Astronomical Society President, Antony Gomez, had a stint on the tele. Antony was interviewed on the Maori Television News where Andrew and Chris can also be seen doing a great job operating the telescopes. For those who missed the clip you can check it out at WAS is famous!



The second event was held on the Wellington Waterfront. Before sunset passers-by from many different parts of NZ and the world were able to enjoy clear views of the moon. Later, we were able to look at Mars and various star clusters and nebulae such as the Jewel Box and the Orion's nebula.

Both events successfully captured the essence of the IAU celebrations in bringing astronomy to people from all walks of life.

### **2018 – 2019 Subscriptions**

We started the new Financial Year on the 1st September. Membership subscriptions are now overdue. Please continue supporting our Society's activities by renewing your membership. As part of our mission of promoting astronomy through education and public outreach, we endeavour to keep our activities free for everyone to attend.

However, as a Society, we do retain a number of fixed costs. Every year we pay out for insurance, affiliation to the Royal Astronomical Society of NZ, post-office box, venues and costs incurred when we host an international

speaker, and telescope equipment. We are also looking to fund a solar telescope as part of our outreach programme.

Your commitment to supporting our Society through renewing your 2018 – 2019 subscription is very much appreciated.

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

Adult/Waged: \$50.00Student/Unwaged: \$30.00

• Associate (outside the Wellington region): \$20.00

• Family: \$70.00

## Payment methods:

• Direct Deposit or Internet Banking - use Acc 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.

### **Items for Sale**

The following items are for sale. Please contact Gordon Hudson, gordon@kpo.org.nz or 021 260 3997, if you are interested or have any queries.

Cason Telescope 100mm Newtonian \$275.00



Tripod \$10.00



200mm Worm & Wheel & Dec shaft \$50.00



# 4. **ASTRONOMY NEWS**

Up to date Astronomy News and Society events is available on the Society's Facebook page: Wellington Astronomical Society.

## **Women in Astronomy**

In light of the IAU centenary celebrations and the International Day of Women in Science on 11<sup>th</sup> February we thought it a good time to recognise some of the contributions women have made to the field of Astronomy. (Of course there are many more than the three mentioned here, check out 10 female astronomers everyone should know for a few more!)



**Dame Susan Jocelyn Bell Burnell** (1943 - ) became the topic of some controversy in the science world when her supervisor received a Nobel Prize for Bell's own discovery of pulsars in 1967. (If you want to find out what's so great about pulsars take a look <a href="here">here</a>.) Bell has gone on to have a very successful career in Physics and has received many accolades and awards since missing out on the Nobel Prize. She is a strong advocate for women and minority groups – recently donating a \$3 million prize to the cause.



Celia Payne-Gaposchkin (1900 – 1979) is perhaps another little known figure in the field of Astronomy. However, it was Payne-Gaposchkin that proposed stars were composed of mostly Helium and Hydrogen. This idea was initially rejected as it went against the long-held belief that stars and the earth were made of the same stuff. We now know that only some stars are capable of the fusion required to form the heavier elements we find on earth (and in ourselves) and this fusion only happens in certain stages of a star's life-cycle. We're now getting into the area of star classification. And for the beginnings of our current classification system we can thank Annie Jump Cannon (1862 – 1941). Cannon was the first person to attempt to classify stars according to their temperature and spectral type. You can read more about star life-cycles here. Fascinating stuff and awesome to realise that we literally are all made of star-dust. On that note may we all be equals!

### 5. NIGHT SKY FOR FEBRUARY 2019

The Night Sky for February 2019 courtesy of the University of Canterbury.

From NASA Night Sky Network...

Two naked-eye planets are visible in the evening sky this month. As red Mars moves across Pisces, NASA's InSight Mission is readying its suite of geological instruments designed to study the Martian interior. InSight and the rest of humanity's robotic Martian emissaries will soon be joined by the Mars 2020 rover. The SUV-sized robot is slated to launch next year on a mission to study the possibility of past life on the red planet. A conjunction between Mars and Uranus on February 13 will be a treat for telescopic observers. Mars will pass a little over a degree away from Uranus and larger magnifications will allow comparisons between the small red disc of dusty Mars with the smaller and much more distant blue-green disc of ice giant Uranus.

Speedy **Mercury** has a good showing this month and makes its highest appearance in the evening on February 27; spot it above the western horizon at sunset. An unobstructed western view and binoculars will greatly help in catching Mercury against the glow of evening twilight.

The morning planets put on quite a show in February. Look for the bright planets **Venus**, **Jupiter**, and **Saturn** above the eastern horizon all month, at times forming a neat lineup. A crescent **Moon** makes a stunning addition on the mornings of February 1-2, and again on the 28th. Watch over the course of the month as Venus travels from its position above Jupiter to below dimmer Saturn. Venus and Saturn will be in close conjunction on the 18<sup>th</sup>; see if you can fit both planets into the same telescopic field of view. A telescope reveals the brilliant thin crescent phase of Venus waxing into a wide gibbous phase as the planet passes around the other side of our Sun. The Night Sky Network has a simple activity that helps explain the nature of both Venus and Mercury's phases at <a href="https://bit.ly/venusphases">bit.ly/venusphases</a>

You can catch up on all of NASA's current and future missions at <u>nasa.gov</u>

### 6. CONTACTS

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

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

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

Secretary: Matt Boucher (<a href="mailto:secretary@was.org.nz">secretary@was.org.nz</a>)
Treasurer: Duncan Hall (<a href="mailto:treasurer@was.org.nz">treasurer@was.org.nz</a>)

Membership Secretary: Shazia Gazi (<a href="membership@was.org.nz">membership@was.org.nz</a>)

Newsletter Editor: Shelly Frost (<a href="mailto:editor@was.org.nz">editor@was.org.nz</a>)
Website: Peter Woods (<a href="mailto:webmaster@was.org.nz">webmaster@was.org.nz</a>)

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

Website: www.was.org.nz

Facebook page: Wellington Astronomical Society.

Facebook group: <u>WAS – Wellington Astronomical Society</u> (for members) Facebook Astrophotography group: <u>WAS Astrophotography Group</u> (for

members)