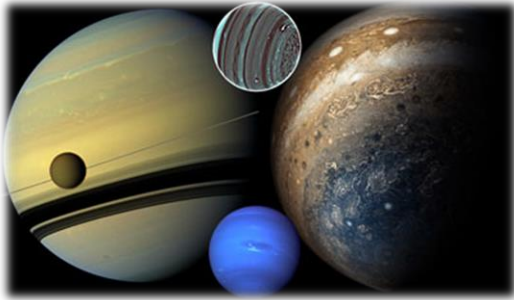
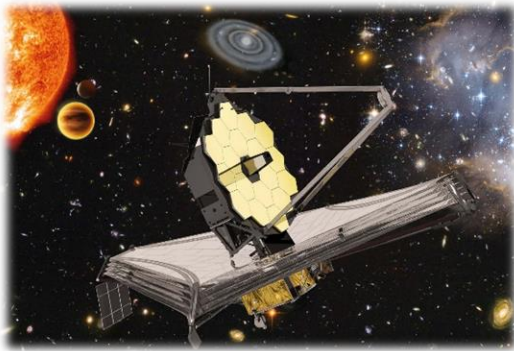


Central Star Party 2025 programme

Thursday, 2 January 2025



From 2:00 pm	Arrival and set up. No official programme.
-----------------	---------------------------------------------------




Friday, 3 January 2025



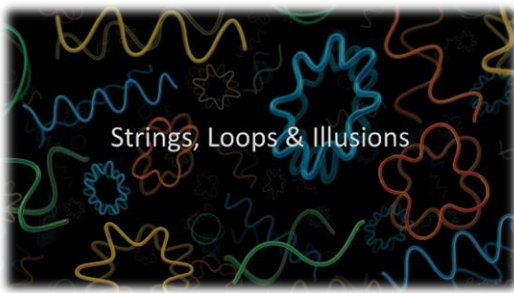
6:00 pm	Sausage sizzle - Gold coin donation
7:00 pm	Official opening and housekeeping matters – Rachel Palmer (HBAS)
7:10 pm	Weather forecast for the weekend – Paul Mallinson
7:30 pm	<p>Smelly Bodies – Remco Mensert</p>  <p>The talk will introduce the definition of an (planetary) atmosphere and why gas giants don't have one. It will also explain how to measure and analyse atmospheres beyond the earth and will give an overview of solar system planetary atmospheres, as well as a selection of some of the moon's atmosphere in the solar system. It will end with an exploration of some recently discovered exoplanet atmospheres and why one in particular is potentially so very exciting.</p> <p>Remco Mensert is the vice-president of the HB astronomical society, has a background in Chemistry and a passionate interest in astrophysics and astronomy. He has given talks at the central star party about a variety of topics since 2016.</p>
8:15 pm	<p>Webb's Mysteries – Bethany Jones</p>  <p>Since its launch in 2021 the James Webb space telescope has exceeded all expectations. This talk will summarise Webb's unexpected and unexplained observations that challenge our very understanding of the universe, including: the age, size and expansion of our universe. Other amazing findings such as JUMBO's and Dark Stars will also be discussed. Finally: the observations are coming in quick and fast and the talk will include a dedicated 'hot from the press' slide.</p> <p>Bethany Jones is a member of the Hawke's Bay Astronomy society. Her interests include astrophysics and astrobiology. Since 2015 she has given yearly presentations at the Star Party about various topics such as Space Medicine, Exobiology, Gravity, Cosmic Rays and Exoplanets.</p>
9:00 pm	Supper & Telescope set up time

9:30 pm	<p>Movie: Good Night Oppy – US Consulate</p>  <p>Good Night Oppy tells the inspirational true story of Opportunity, a rover that was sent to Mars for a 90-day mission but ended up surviving for 15 years. The film follows Opportunity's groundbreaking journey on Mars and the remarkable bond forged between a robot and her humans millions of miles away.</p> <p>https://www.youtube.com/watch?v=W4t58Yruhds</p>
---------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Saturday, 4 January 2025



10:30 am	<p>Introduction to ASTRONZ – Andrew Buckingham</p>  <p>Andrew Buckingham is the General Manager at Astronz (Astronomy NZ Ltd) supplying astronomical equipment and supporting astronomy throughout New Zealand. He has developed a considerable knowledge of telescopes, binoculars and astronomical equipment. He has an extensive career in public outreach astronomy and loves teaching people the night sky. Prior to Astronz, Andrew led the public programmes at Stardome Observatory. Andrew is a long-term member of the Auckland Astronomical Society and the International Planetarium Society.</p>
10:35 am	<p>Astrophotography Equipment Menu – Andrew Buckingham</p>  <p>Want to get into imaging the sky but don't know where to start. Different areas of astrophotography can have very different equipment requirements. There are so many options It can become overwhelming very fast. We will take a look at</p> <ul style="list-style-type: none"> - telescope options - mount options - camera options - accessory options <p>This equipment overview will help us build a menu of equipment that is needed for the astronomy or astrophotography you are interested in doing.</p>


11:30 am	<p>Deep Sky Workshop – Andrew Buckingham</p>  <p>There are many great deep sky objects to observe in the summer night sky; nebula, open clusters, globular clusters and galaxies.</p> <p>This workshop will be a group effort to make a catalogue of objects to view then learn how to find them in the sky.</p>
Noon	<p>Sausage sizzle - Gold coin donation</p>
1:00 pm	<p>Buy, Sell and Swap table (also Sunday)</p>
1:30 pm	<p>A Photographic Review of Comet C/2023 A3 (Tsuchinshan/ATLAS) – Ian Cooper</p>  <p>The talk will cover the development of the comet from May this year. I will also mention the early expectations and what actually eventuated. Then I will discuss what sort of ranking does this recent comet have in the panoply of famous comets.</p> <p>Ian is an amateur astronomer of 51 years' experience. His interests include deep sky observing and astrophotography, Lunar & Solar Eclipses, the Aurora Australis, and comets when they are around.</p>
2:00 pm	<p>The Great January Comet of 1910 (C/1910 A1) – John Drummond</p>  <p>In 1910 two bright comets wowed spectators. The Great January Comet of 1910 appeared a few months before Halley's Comet became bright. This talk will look at the Great January Comet of 1910 from a New Zealand perspective - what Kiwis saw, how people wrongly assumed it was Halley's Comet, how many New Zealanders saw it and ...did 'we' blow it?</p> <p>John Drummond is the director of the Royal Astronomical Society of NZ Comet Section and currently doing a PhD through the University of Southern Queensland on NZ's historical role in the observations/discovery/and photography of comets.</p>

2:30 pm	<p>Solar Maximum and Phenomena of the Sun – Otto Gruebl</p>  <p>I will talk about the cycles of Solar Activity and explain the Solar Maximum. I will guide through the specifics of the Chromosphere activity as Prominences, Solar Flares and Corona Mass ejections, which are the cause of solar Storms and Auroras. I will highlight the dangers of Solar Storms. I go into the current definition and prediction of Auroras and Software. I will brief mention other phenomena as Solar eclipses and show my own images of my journeys in relation to it.</p> <p>Otto is a 68 year old Psychiatrist now semiretired. He has lived in New Zealand since 2008. He practises Astronomy with emphasis on Solar Astronomy in form of imaging of the Sun and Transits, and has travelled to a number of Solar Eclipses. He has presented various talks to the Gisborne Astronomical Society, Auckland Astronomical society of which he is member. He presented at previous Central Star parties and at Astrophotography workshops of the Horowhenua Astronomical Society. Otto has a Lunt 100 MT Telescope and images in White Light, Hydrogen Alpha and CaK.</p>
3:00 pm	<p>Afternoon tea</p>
3:30 pm	<p>Genius, the life of Richard Feynman – Michael Mackrill</p>  <p>A layman's guide to one of the most brilliant, unorthodox and mercurial talents in subatomic Physics, from the Manhattan Project to the Challenger disaster.</p> <p>Michael is a Philosophy and History graduate, and a diagnostic Radiographer with an amateur's fascination with Physics and a penchant for unusual historical characters</p>
4:15 pm	<p>Strings, Loops & Illusions – Antony Gomez</p>  <p>What are the fundamental building blocks of the Universe? To gain some understanding, we need to travel deep into the quantum world of string theory and loop quantum gravity. This will give us insights into what our Universe is made of, how it was formed and what its fate in the future might be. It may seem that our Universe is not what it seems to be and our reality is something completely different.</p> <p>Antony is the National Outreach Coordinator for NZ for the Office of Astronomy Outreach of the International Astronomical Union. He is a former Vice-president of the Royal Astronomical Society of New Zealand and a former President of the Wellington Astronomical Society. As a child he looked up at the stars but it wasn't till</p>

	<p>the year 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.</p>
5:30 pm	Dinner (fish and chips)
7:00 pm	<p>Group photo (Meet in the hall) – Graham Palmer</p> 
7:15 pm	<p>Astro-Quiz – Graham Palmer</p> 
8:15 pm	Raffle Draw
8:30 pm	<p>Mars: a planet for life? – Chris Monigatti</p>  <p>Why is Mars so topical at this time, and what has been discovered in the search for life beyond Earth. Does Mars host life, could it have in the past, and will it be practical for humans to ever live there?</p> <p>Chris Monigatti became interested in Astronomy after completing the night class series at Carter Observatory in the early 1990's, and joined the Wellington Astronomical Society (WAS) in 1993. He enjoys public outreach events, which WAS became very involved with in the 2009 International Year of Astronomy. He loves just getting out and imaging the sky. Chris has also been collating newsletters, clippings, images of WAS events since its foundation in 1973, and he would gratefully add any further resources.</p>
9:30 pm	Supper & Telescope set up time.
	<p>Movie: Flight to Mars (1951)</p>  <p>A team of five astronauts achieves a successful journey to Mars, where they come across apparently amicable and advanced inhabitants. Unbeknownst to the astronauts, these extraterrestrial beings harbour clandestine intentions of utilizing their spacecraft to launch an invasion of Earth.</p>

Sunday, 5 January 2025

<p>10:00 am</p>	<p>Post-processing with DeepSkyStacker and PixInsight– Jean Fabian Barrois</p>  <p>In this 2 hour workshop, you will get hands-on experience with two popular software used for processing frames and generate your own image of an astro target. Learn to calibrate, register in DeepSkyStacker to generate grayscale images for each filter, then compose your own colour image in PixInsight and control colour balance, noise reduction, and sharpening of your astro image. BYO data or use data provided during the workshop. BYO laptop. Pre-registration required (jfbarrois@gmail.com).</p> <p>Jean-Fabien Barrois, member of the astro society of Hawkes Bay. I have been doing astrophotography as a hobby since 2017, my favourite targets are deep sky objects; I also participate in citizen science programs aimed at measuring exoplanet transits like Exoclock.</p>
<p>Noon</p>	<p>Sausage sizzle - Gold coin donation</p>
<p>1:00 pm</p>	<p>Buy, Sell and Swap table (also Saturday)</p>
<p>1:30 pm</p>	<p>Songs in the Key of Astronomy – Olga Brochner</p>  <p>People learn about astronomy in various ways including lectures, reading and attending great events such as The Central Star Party to get eye balls on objects. In this presentation I will discuss a novel educational alternative: Songs! Can certain songs be a useful educational option? Come along and see / hear. Also don't worry, this isn't karaoke, you won't have to sing along, But don't blame me if you favourite songs are not used.</p> <p>Olga is an amateur astronomer who enjoys visual observation: planets, the Moon, globular clusters and nebula are firm favourites (especially of course, 47 Tucanae)</p>

2:00 pm	<p>Owls do Cry: A story about how Owls took over Astronomers backyard in Urban Auckland – Kevin Barker</p>  <p>Olga and Kevin get visited by some displaced Ruru/morepork when observing one morning. The owls move right in which affects Olga and Kevin's observing routines. For 3 months a year they end up observing Ruru as they nest and raise chicks.</p> <p>Kevin is a teacher and HOF Science at a secondary school in Auckland. He is an active conservationist and also a keen amateur astronomer, telescope maker and has run public viewing sessions over many years.</p>
2:30 pm	<p>Texas Solar Eclipse Tour – Bruce Ngataeirua</p>  <p>In April 2024 I went on a tour of Texas to see what the state had to offer and to view the solar eclipse on 8th April. It also included a mini trip to Florida to visit Cape Kennedy. My talk goes through my trip in more detail and explain the importance of eclipses.</p> <p>Bruce Ngataierua is the President of the Hawkes Bay Astronomical Society and Director of the Napier Holt Planetarium. He is also an Affiliated Society Representative and a member of the Royal Astronomical Society of New Zealand Council.</p>
3:00 pm	<p>Closing Central Star Party – Bruce Ngataeirua (HBAS)</p>
3:10 pm	<p>Afternoon tea</p>