

**BAA Winchester Weekend
2026 April 10-12**

Biographies and Abstracts of Speakers (in order of the program)

Prof Don Pollacco

Don has held the position of Professor of Astrophysics at the University of Warwick since 2012, having previously held a similar role at Queen's University, Belfast. He was the co-founder and PI of the WASP Project which has been the most successful ground-based transiting Exoplanet discovery facility with some ~190 discoveries to date. This has involved the development of data mining techniques to extract science from the 100GB/night of data stream from the SuperWASP cameras. The WASP project won the Royal Astronomical Society's Team Award in 2010 and some of its earliest discoveries were ranked in the top 10 in the Times/CNN ranking of scientific discoveries for 2008. Don was also a founding member of the Next Generation Transit Survey project that produces the best ground based photometric measurements and, in some cases, exoplanet transit light curves comparable to NASA's TESS satellite. Don is the Science Coordinator for ESA's PLATO Mission and is due to launch in January 2027. The main science aim of this project is the detection and characterisation of exo-Earth analogues. Don founded the Centre for Space Domain Awareness at Warwick and serves as its Director. Most recently, Don, is using a new technique utilizing an array of stationary telescopes in order to make real time discoveries and monitor rare explosive events. Don is a regular writer for the print media and is often interviewed by TV/Radio over current celestial events as he has a deep knowledge of astronomy having been an amateur astronomer since the age of 5!

The future role of amateur astronomers in exoplanet research

The detection of the first exoplanets has transformed modern astronomy so that the detection of extraterrestrial life is now a major theme of research. Over the last thirty years there has been a series of experiments of every increasing precision that have allowed us to push detection limits down to below Earth sized terrestrial planets. Despite this the detection of a true Earth-Sun analogs has remained elusive. Still, future experiments will continue this progression and the Earth analog detection and characterisation is probably only months away. Amateur astronomers can play an important part in this process ranging from helping to determine the best targets to actually looking for them. Going forward there are opportunities in both observations and citizen science.

John Toone

John has undertaken 450,000 minutes observing since 1975 and has recorded visual observations of variable stars on average every 2 minutes during that time. He has been a member of the BAA and a VSS Officer since 1982 and since 1987 and has undertaken the role of Chart Secretary for the VSS. He is based in Shrewsbury but travels extensively and has secured observations of variable stars from 66 overseas locations covering all of the 88 constellations.

Visual Observing of Variable Stars

Visual is the longest form of photometry of variable stars and as such has played an important role in recording long-term activity features including in some cases evolution changes. This talk will focus on the continuing value of undertaking visual photometry of variable stars.

Tim Haymes

Tim has been an occultation observer since he joined the BAA in the 1970s. Firstly within the Lunar Section with the guidance of Andrew Elliott (1946-2010), and now the Asteroid and Remote Planets Section (Assistant Director). Identical observing techniques are used. He is a member of International Occultation Timing Association-European Section (IOTA-ES), and assists new UK observers making their first observations.

Results and Developments in Stellar Occultations by Asteroids – entering a new era of observation

The observation and recording of asteroidal occultations has seen a “game change” since the publication of the Gaia Data releases. Star position errors are virtually removed, and asteroid orbits greatly improved.

These developments have allowed many accurate predictions to be generated (down to 1km accuracy in some cases). These give an observer greater confidence in detecting occultations from home (or robotic) telescopes; and more-over, the impetus to “go-mobile” and record two (or more) chords across the predicted occulting bodies.

The observed timings (which I will explain) provide astrometric accuracy of a few milli-arc-seconds. These measurements can reveal the size and shape of asteroids and more remote objects, using medium sized telescopes, video and good timing accuracy.

I will summarise the recording, measurement and reporting process, with examples, and illustrate how the amateur occultation observer can collaborate with space-born projects and ProAm groups. Amateurs are also discovering asteroid moons and close double stars, as fortunate by-products of observation.

Jim Latham

Jim has been an amateur astronomer since the 1970s and a BAA member for over 30 years. He enjoys all kinds of observing down the years with instruments of various sizes and types, including the naked eye. In recent years, with the acquisition of a large Newtonian Jim developed a keen interest in visual deep sky observing, exploring the limits of what it's possible to detect. He is a BAA Council member, and Assistant Director of the Deep Sky Section. Professionally, he is an ecologist, with interests on the impacts of light pollution on biodiversity as well as on astronomy.

Deep Sky observing: past, present, and future

Deep sky observation is a mainstay of amateur astronomy, being accessible in some form with any optical aid from the naked eye to the largest telescope. However, its fortunes have changed over the years, with gains from greater availability of larger apertures, improved eyepieces, and digital resources, tempered by the insidious rise of light pollution; the rapid development of digital imaging must also have influenced the context and appeal of visual observation. This presentation will explore these factors and their interactions, looking at changes over time, through the history of the BAA, and to future prospects. It will consider the relevance of visual deep sky observation in modern times, its contribution to astronomy, and value more widely.

Robin Leadbeater

A physicist by training and a papermaker by trade, having spent a career in industry applying science to the art of paper manufacture, Robin unexpectedly found himself retired with time to indulge his interests in astronomy, concentrating in particular on spectroscopy which he has been doing for over 20 years. In 2005 he developed the Star Analyser filter mounted diffraction grating as a simple way for amateurs to try spectroscopy which has introduced thousands of amateurs worldwide to this field. In 2014 he developed the ALPY200 spectrograph specifically for faint objects, using it in 2016 to make the first official classification of a supernova by an amateur. In 2019 he was awarded the BAA Merlin Medal for his work in this area.

Still Chasing Rainbows – A Spectroscopic Progress Report

Almost quarter of a century has passed since I recorded my first spectrum and it is 14 years since I last spoke on the subject at the Winchester Weekend so the aim of this talk is to bring the story up to date. It describes the advances in technology and techniques which have helped turn amateur spectroscopy from a backwater curiosity into a mainstream tool for discovering the underlying mechanisms behind the phenomena we observe, with particular examples from the world of variable stars.

Martin Lewis

Martin has had a fascination for all things in the sky since he was young and developed a particular love of the night sky as a young teenager. He is now the principal engineer at Scintacor Ltd, in Cambridge. Starting out purely as a visual observer, he progressed to deep sky sketching and telescope-making, building both 222mm and 444mm Dobsonian telescopes. He now concentrates on high-resolution planetary imaging from his back garden in St. Albans, Hertfordshire, with his scopes mounted on his home-built equatorial platform.

Martin regularly speaks about planetary imaging and also writes for Sky at Night Magazine. He was shortlisted in the Astronomy Photographer of the Year competition for 8 years in a row, primarily in the Planets section and has been a category winner twice – in the 'Planets, Comets and Asteroids' category in 2018 and the 'Our Moon' category in 2022. He is now a judge for the APY competition as well as a judge on The Astrophotography Prize.

He is treasurer of the West of London Astronomical Society (WOLAS) and an equipment advisor in the BAA's Equipment and Techniques section as well as assistant to the director of the Mars section.

Control of dew and thermal management of telescopes?

The generally mild and high humidity environment of the UK makes outdoor equipment prone to dew formation at night, when the temperature falls. If you are out observing or imaging you will be only too aware of the issues that dew causes; prematurely ended sessions, degraded images and potential damage to equipment. This part of the talk explains why dew forms and what you can do to reduce its impact. It also attempts to debunk some popular misconceptions about the issue.

If your telescope not of an even temperature and also close to ambient temperature, your images can suffer from reduced resolution due to distorted optics or uneven diffraction/refraction by convection currents which can form inside the optical path of the scope. This talk explains why this happens and what you can do to reduce the impact on your enjoyment of the night sky.

Richard Flux and Alan Dowdell

Richard first attended in Winchester in 1973 and has one of the most comprehensive archives relating to the event. He is Conservation Lead for Heritage & Learning Dept. Isle of Wight Steam Railway.

Reminiscences of Winchester Weekends

Together, Richard and Alan will provide a recollection over the 60 year time line of organising Winchester, and the move from King Alfred's College to Sparsholt. This will include the introduction of the Alfred Curtis Memorial Lectures and how they have evolved over the years.

Dr Richard McKim

Richard joined the BAA in 1973 and has served as Secretary, President, Director of the Mercury and Venus Section, Director of the Mars Section, and archivist. The two last roles he continues in today. He is a keen practical observer of the Solar System as well as being an historian of Astronomy. He was awarded the Goodacre and Merlin medals of the BAA, and the Flammarion Medal of the French Astronomical Society. He enjoys sketching, travel, and collecting books, and his other hobbies include music; he plays the oboe, recorder and alto saxophone in several local orchestras.

Projects for planetary observers

A talk about interesting and potentially useful activities concerning the brighter planets, to be carried out with the naked eye alone, or with a telescope, involving either visual work or imaging, ranging from beginner status to advanced observer level. Nor will the armchair observer be forgotten, with projects using other peoples' images.

Howard Lawrence (chair CfDS)
Jim Verner (organiser of Dark Skies UK)
Stewart Langdown (fellow of CIBSE society of light and lighting)
Paul Gibson (chair Newbury Astronomical society)
Valerie Russell (CfDS network coordinator)

A Common Cause – Clear and Dark Skies

A group talk representing the Campaign for Dark Skies (CfDS) which will include: Announcing the launch of the new local network and progress with collaboration of DS UK & CfDS, Progress on satellite impact reduction, Good lighting for minimising Light Pollution, and Sky Quality monitoring project in Berkshire and Wiltshire.

The Alfred Curtis Lecture

Prof Leigh Fletcher

Leigh is a planetary scientist specialising in exploring the atmospheres of our Solar System's giant planets via robotic spacecraft missions, space telescopes, and ground-based astronomical facilities. He has been the Director of Research and Enterprise for the School of Physics and Astronomy since 2023.

Before arriving at Leicester in 2015 Leigh earned a Natural Science degree from Cambridge, a PhD in Planetary Physics from Oxford, and previously worked as a NASA fellow at the Jet Propulsion Laboratory and as a Research Fellow at Oxford. He held a Royal Society University Research Fellowship (URF) between 2013 and 2020 and was the recipient of the 2016 Harold C. Urey prize for outstanding achievements in planetary science by an early-career scientist, awarded by the Division for Planetary Sciences (DPS) of the American Astronomical Society.

Leigh is a team member for the Cassini mission to Saturn, the Juno, JUICE, and Europa Clipper missions to Jupiter, and a passionate advocate for future exploration of the distant Ice Giants. He leads a programme of giant planet atmospheres observations from the James Webb Space Telescope (JWST). Today he manages a planetary atmospheres team at the University of Leicester funded by the Royal Society, STFC, and the European Research Council.

JWST as a New Voyager for the Giant Planets

The first three years of JWST scientific operations have provided a treasure trove of new discoveries in our Solar System. Not since Voyager's Grand Tour have we had a facility capable of spatially-resolved infrared spectroscopy of the four giant planet systems with shared techniques and instrumentation, enabling a comprehensive comparative planetology of the gas and ice giants, their rings, and myriad icy "ocean worlds." JWST is opening a new window for discovery, accessing spectral domains that were too dark, too cold, or simply overlooked in planetary mission design over previous decades. This lecture will review recent discoveries enabled by JWST for the giant planets of our Solar System.

For the atmospheres of the giant planets, JWST has detected previously unseen jet streams on Jupiter, revealed the chemical composition of the Great Red Spot and polar vortices, explored seasonally-reversing stratospheric circulations on Saturn, mapped the stratospheric chemistry and circulation of Uranus for the first time, and caught enormous storm activity on Neptune. Emissions from H₃⁺, methane, and carbon monoxide from their ionospheres have revealed delicate wave patterns on Jupiter, never-before-seen structures on Saturn, and the discovery of H₃⁺ on Neptune, providing windows onto magnetospheric processes shaping the wider systems.

JWST spectroscopy has revealed the extreme crystallinity of Saturn's rings, including the "heavy water" fraction, and filtered imaging is revealing radial trends in icy composition of rings and moons in both Ice Giant systems. JWST has also constrained the gases erupting from Io's powerful volcanism, searched for (but not detected) evidence of Europa plume activity, discovered polar hydrogen peroxide and a tenuous CO₂ exosphere on Ganymede, and revealed how CO₂ ice is co-located with the chaotic terrains of Europa, implying a connection to the deep surface ocean. These new discoveries will help to shape the exploration from future giant planet missions, such as ESA's JUICE mission, NASA's Europa Clipper and Dragonfly, and future endeavours like Uranus Orbiter and Probe.

Dr Tony Cook

Tony is the director of the BAA Lunar Section and a research lecturer in the Physics Department at Aberystwyth University, Wales. He is a Co-I on the Italian/ESA lunar mission LUMIO, mission, due to launch in 2028 and image impact flashes on the Moon. He has been a researcher at the Rutherford Appleton Laboratory, University College London, the DLR Institute of Planetary Exploration in Berlin, the National Air and Space Museum in DC, and a lecturer in Computer Science at Nottingham University. He attended his first Winchester Weekend in 1978. His main hobbies are stereo photography and video and the copying and archival of old astronomy related cine, audio and video cassettes that he has been recording from 1973 onwards."

Thermal Imaging of the Moon – A Hot Topic

Minor modifications to low-cost, thermal infrared cameras for mobile phones, or drones, enable amateurs, with Newtonians, to produce heat images of the lunar surface. We shall learn what these heat maps tell us about lunar geology, as well as the historical astronomical and technological developments that have led to this formerly expensive technique ending up in the hands of amateurs.

Gordon Ewen

Gordon wanted to be an astronomer ever since he got his first telescope at age 9, but somehow he ended up in pharmaceutical R&D! Retirement provided the opportunity to take up imaging almost full time, day and night. He now focuses on the Sun and creating animations is a particular interest.

The Sun in Motion

The use of video imaging to create still images of the Sun, and creating time lapse videos with the aim of capturing the constantly changing solar 'surface'.

Bill Barton

Bill joined the British Astronomical Association in 1984 and took part in their, and contributed to their Solar Section between 1990 and 2000, also sharing his observations with the Solar Division of the American Association of Variable Star Observers. Other favourites are observing eclipses, transits and planetary conjunctions.

He was a founder member of Society for the History of Astronomy and was also elected Fellow of the Royal Astronomical Society in 2002. He is licensed to operate the Orwell Park refractor (IAU observatory no. 582) on behalf of the Orwell Astronomical Society (Ipswich).

Bill has been the deputy director of the BAA Historical Section since 2020.

The 1896 eclipse expedition to Norway.

In this talk Bill will discuss the background, the expedition to Norway itself, the disappointment of being clouded out and finally what the BAA subsequently published about the expedition.

Nick James

Nick has been interested in astronomy for as long as he can remember, certainly since the age of 8. He has been a member of the British Astronomical Association since he was 12 and is now the Director of its Comet Section. Nick is also Assistant Editor of The Astronomer Magazine. He has written many articles for magazines and books, and co-authored "Observing Comets" which was published in 2003 as part of Sir Patrick Moore's Practical Astronomy series.

Professionally, Nick is a chartered engineer in the space industry, leading a team responsible for implementing highly sensitive and accurate systems for receiving and processing signals from deep-space spacecraft. He mentors early careers engineers and is a STEM (Science, Technology, Engineering and Maths) ambassador who is keen to encourage more young people to consider science and engineering as a career.

All of this keeps him pretty busy but he still finds time to travel extensively to see astronomical phenomena. He is an eclipse chaser, having seen 18 total solar eclipses and has travelled to see the northern lights, comets and other interesting astronomical objects under dark skies.

What have comets ever done for us?

Comets are deep-frozen ice-balls a few km across which have highly-elongated orbits around the Sun. They consist of material that was left over from the formation of the Solar System 5 billion years ago. Most of them are very faint but, sometimes, we get one which becomes visible to the naked eye. They are fascinating objects to observe since they are so unpredictable. Impacting comets may have been the mechanism that brought water to the Earth so our very existence depends on them.