



SAS Lectures/Talks - Speakers List for 2017/2018

No.	Date	Time	Lecture / Talk Title	Speaker	Society/ Organisation/ affiliation	Video Lecture /Talk ¹ (Y/N)	Trans- port Reqd. (Y/N)	Abstract / Talk outline
1	17th September 2017	7 pm	When Gateshead Ruled the World: The Curious story of the Newall Telescope	Dave Newton FFSAS	SAS President	Y	N	In the 1870's Gateshead was one of the world's most famed astronomical destinations. The reason was the 25inch telescope, the largest refractor in the world, owned and run by the wealthy Scottish engineer and amateur astronomer Robert Stirling Newall on his estate located next to the present day Saltwell Park. Newall's telescope was a magnet to the most famous astronomers, scientists and artists of the day. This presentation tells the curious history of the telescope and some of the characters associated with it.
2	15th October 2017	7 pm	Lost Art of Visual Astronomy	Chris Duffy	SAS committee member	Y	N	With everyone wanting to get into astrophotography these days, visual astronomy is becoming the poor relation. Chris's talk provides hints and tips to get the most out of whichever telescope you have, or what to get if you are yet to buy one, depending on the type of astronomy you want to do.

¹ Please see 'Videos of Talks' section at end of the list.

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								Setting expectations of what you will see at the eyepiece and how to find your way around the sky.
3	19th November 2017	7 pm	Grubb Parsons: the first (A gift of stars)	David Kidd	Local Astro educator.	Y	Y	David Kidds's talk will outline the early history of Grubb Parsons (international telescope manufacturer, based in Heaton Newcastle upon Tyne). Outlining Company's early history leading to the 74" Reflectors.
4	17th December 2017	7 pm	Why Do Astrophotography	Paul Jenkins	SAS, SSAS.	Y	N	As title suggests Why Do Astrophotography. Outlining many reasons to try astrophotography from Paul Jenkins experience and also a look at history of astro photography to compare with modern equipment today. Astrophotography is hard. Astronomically hard. Everything must be perfect. Your telescope, with camera attached, must track your target in precise synchronization with the rotation of the Earth. It can't shake. It can't even vibrate. You have to nail your camera's exposure settings or you'll be rewarded with an incoherent mess. Your targets are often so dim you can't even see them until after the image has been made, so focusing is a nightmare. So why try? Because it makes the entities floating in the vastness of the universe much more real than any

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								Hubble wallpaper on your computer desktop can.
5	14th January 2018	7 pm	Viewing the Universe in light of Gravitational Lensing	James Nightingale	Durham University, Centre for Extragalactic Astronomy	Y	Y	Einstein's theory of general relativity famously unified gravity with the geometry of the Universe, making two remarkable predictions, that light-rays take a straight path through space and that mass bends the space surrounding it. Together, this means that where there is mass, light appears bent, a phenomenon known today as gravitational lensing and a tool used by astrophysicists to study almost everything in the Universe; from planets on stars neighboring the Sun to weighing the entire observable Universe. I give a run-through of the exciting and innovative ways that astronomers are using gravitational lensing to obtain a new and unique view of the Universe and speculate how it may hold our best hope of one day disproving Einstein's famous theory.
6	18th February 2018	7 pm	Exoplanets: Worlds Around Other Stars	Ramin Lalochi	Sunderland AS	Y	N	"Exoplanets" or "extrasolar" planets are worlds that orbit stars outside the Solar System. There are myriad types ranging from the so-called "Hot-Jupiters" to Earth and Super Earth sized planets. This talk aims to give a brief introduction to exoplanetary science, an exciting field at the cutting-edge of astronomy; describing how we find these worlds and what we can know about them.
7	18th March 2018	7 pm	The Sun's Active Atmosphere	Peter Wyper	Durham University	Y	N	The Sun may appear placid at first glance, but a closer look reveals an

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								incredibly active atmosphere. Some of the most spectacular eruptions in our solar system occur there every day. Some of these eruptions are relatively small, whilst others occur on a truly colossal scale. In this talk, I'll explain a bit about these eruptions and show how researchers such as myself use numerical models to understand them better.
8	15th April 2018	7 pm	The Secret history of Grubb Parsons	David Kidd	Local Astro educator.	Y	Y	The secret history of Grubb Parsons) deals with the Company's work during and after WW2 on a variety of projects including supersonic aircraft, radar, the British nuclear programme, and their design for a space telescope.
	20th May 2018	7:00pm	SAS Astrophotography Competition	SAS Chairperson	Sunderland AS	N/A	N/A	Hosted by SAS.
9	17th June 2018	7 pm	How Telescopes are made.	Dr Jurgen Schmoll	DAS, CaDAS, Durham University	Y	Y	For over 400 years now astronomy prospers by the use of it's most important tool, the telescope. This presentation shows up how these wonderful instruments were once made and how they are made today, focusing on research telescopes as well as on amateur equipment where examples of mass production are shown as well as ways to make your own telescope at home.
10	15th July 2018	7 pm	TRAPPIST System of Exo planets	Natalie Heron	Sunderland AS	Y	N	Talk Summary text TBC(filler -text. In Natalie's talk she outlines that we've possibly found a new solar system, and it threatens to put our own to shame. The star Trappist-1, a mere 39 light years away, has been found to host seven Earth-sized, rocky planets.

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								The discovery has astronomers, alien-hunters, and space enthusiasts abuzz for a good few reasons. Among new solar systems discovered so far, none have had more than seven planets (our system has eight). And none have had all seven that were rocky and also Earth-sized. What's more, because the star type is among the most common in our galaxy, such solar systems are likely to be quite common. That makes the Trappist-1 system a prime target to accelerate the search for life beyond our own solar system.
11	19 th August 2018	7:00pm	Alternative skies (weather and storm chasing).	Dr Jurgen Schmoll	DAS, CaDAS, Durham University	Y	Y	This presentation is not really astronomy, but it deals with a phenomenon that affects astronomers severely: The weather! Starting on how clouds form and what cloud types exist, some interesting weather gets looked at. Dr Jurgen Schmoll was fortunate enough to go (and survive) storm chasing in the US in 2015 and some footage of lightning, severe hail and tornadoes show the interesting but destructive side of what our atmosphere can do to us. Why not starting cloud watching as a gap filler when astronomy is made impossible by them?

Location

All talks unless otherwise stated will be given on a Sunday evening for the date and time shown above in the Discovery Room at the Washington Wetlands Centre, Pattinson, Washington, Tyne and Wear, NE38 8LE.

1Videos of Talks

This season's talk season is (September 2017 – June 2018) our society is thinking about the possibility of video recording some of our lectures and talks.

These videos recordings would be for our SAS members only and would be strictly used SAS website members only area.

However, this is entirely optional and feel under no obligation if you prefer that your talk not to video recorded.

Therefore, if you could provide an indication of your preference/non-preference for your lecture/talk to be videoed in your confirmation replies to the SAS secretary that would be helpful. This would taken as permission to video record your lecture/talk and can be changed by speaker/sas committee at any time prior to the lecture/talk with appropriate notice.

Kit Provided

Projector will be provided for the talk.

A laptop, speakers, laser pen, etc can be provided upon request.

[Travel & location instructions.](#)