Our speaker for July has unfortunately had to cancel all his engagements for the rest of the year so Laurel and Hardy stepped in with another double act. Bud started off the proceedings, though, with the announcement that Tiverton Astronomical Society has disbanded and part of its funds has been gifted to us as a local society. This was to the tune of over £300 which will pay for the hall for a year. Many thanks to the former officers of Tiverton AS - we just wish that you would have been able to continue. We also looked at the costs of tea and cakes at the interval. These have been 40p a shot for at least the last 6 years and inflation has meant that we're now running at a loss for the refreshments. It was agreed by the meeting that these would go up to 50p an item (which is still very cheap) starting in September.

Bud's talk was on the Life and Times of Isaac Newton which was delivered in Bud's usual entertaining and balanced way. He led us through Isaac's not particularly happy early years and then on to his time at Cambridge University. Because of the Great Plague of 1665, he was "locked down" at Woolsthorpe Manor where he did a great deal of his early work on gravitation and calculus (without any disturbance from Zoom). Soon after returning to Cambridge, he was made Lucasian professor of mathematics, not long after graduating.

Newton's main work is always considered to be the Principia Mathematica, published in 1687. This is a very dense treatise but also includes details of his Theory of Gravitation and the 3 famous Laws of Motion. Bud's illustration of these showed how we meet these ourselves in daily life. Newton went on to write a book on "Opticks" including how sunlight is broken up into its constituent colours by a prism and to invent the first practical reflecting telescope, which still bears his name.

After a stint controlling the Royal Mint, he was knighted by Queen Anne, though the illustration looked more like she was poking him in the eye with a sharp sword rather than gently touching his shoulder! It was a measure of his fame that when he died at the, exceptional for the time, age of 84 he was buried in Westminster Abbey.

Thanks to Bud for stepping in and giving such an illuminating talk.

After the break, Terry gave a short talk on Shooting Stars as a preamble to the upcoming Perseid meteor shower in August (more below). He described where they come from (comets) and how meteor showers are created when the earth intersects with dust left behind by comets. He looked at various ways that meteors are observed (visually, photographically and by radar) and at the prospects for the Perseid shower which peaks on the night of  $12^{th} - 13^{th}$  August (which is Saturday and Sunday so there's no excuse) with no moon to speak of until late in the morning. We would hope that we get a clear night with lots of meteors!

Jan showed an image of the Sun from a few days ago. There are a significant number of sunspots on its face these days as we head towards the maximum of the solar spot cycle. We had a quick discussion on safe filtering of the sun's light and I would take the opportunity to remind everyone never to look at the sun without proper filters, either with or without any optical aid.

Terry had some images of the planets which mainly showed the different apparent sizes of the various bodies. Jupiter and Saturn will get bigger into autumn but Saturn's disk is tilting to where it will be edge on in a couple of years. He also showed some images of the one and only Noctilucent

Cloud display seen this year followed by the (inevitable :-) sequence of NGC6729. This seems to be displaying some unusual behaviour over the last few cycles of 66 days each.

We have tentatively arranged outreach visits to two further schools on 31<sup>st</sup> January (2024!) and the following Monday (5<sup>th</sup> February). This will need some careful coordination when the dates are confirmed!

Our former Chairman, Ron Westmass would like to donate his NEQ5 mount to CADAS but wants it to be used. We discussed a number of options but we hope that this would be used by one of the members, even if only to become familiar with a hefty mount like the NEQ6. We would also like it to be available for outreach visits and may even try to convert it to belt drive which does get rid of some of the gear backlash that all geared mounts are prone to. Terry will liaise with Ron to get hold of the mount and we all thank Ron for his generosity to the club.

## **Upcoming Events**

## **Next Meeting**

August 16<sup>th</sup> Astrophotography without expensive kit Sept 18<sup>th</sup> Gadgets & Gizzmos + Observing session

## **Planets**

Venus difficult and low in the evening twilight
Mars just about invisible against twilight sky
Crescent moon over the next few days but low down
Saturn rises well before midnight South by morning twilight (03:30)
Jupiter rises about 1am and 20 degrees up by twilight (same as
Saturn)

Jupiter will be 45 degrees altitude by mid August though Saturn doesn't get above 30 degrees at all

## Other phenomena

Noctilucent cloud season nearly over. It's been a poor one so far. Perseid meteors 12<sup>th</sup>-13<sup>th</sup> August