A lovely warm May evening for the latest meeting and the clouds even dispersed at the end to let us see the ISS passing the moon. Good to see these after all the winter wet weather!

The May meeting was our "Ask the Panel" session where the panel was Bud, Pete & Terry. This session is famous (/notorious?) for rather eclectic questions and we started off by Graham with "Would you do an un-tethered space walk?". All the panel (from the safety of the village hall:-) professed that they would as did a number of the audience. It's still amazing that astronauts would be prepared to detach themselves from the only refuge while whipping around the Earth at 5 miles a second.

The Northern Lights had put on their best display for many years on the previous Friday night and Sheila asked if they were likely to appear again soon. The panel gave a website (spaceweather.com) which has an up-to-date forecast for the auroral oval. There are also a number of phone apps that monitor magnetic activity and can give notifications. The spot group that caused the May 10<sup>th</sup> lights has rotated behind the sun but may be back out again in 14 days or so. It was actually strengthening as it rotated round the limb.

Another question from Sheila was whether the film Interstellar was scientifically accurate. Nobel prize winner Kip Thorne was the advisor on the film and most of the details appear to be at least a possibility. The gravitational time compression near a black hole is certainly scientifically correct. It all seemed to become a bit of a fantasy towards the end, though, where conveniently placed wormholes allow the protagonist to communicate with themselves from behind a book-case. Much more correct than Moonfall, certainly, which was recently on TV which was described by Neil deGrasse Tyson as having violated more laws of physics per minute than any other science fiction movie he had ever seen!

Viv asked about whether Aliens from exoplanets were either possible or already here. Bud went through the sheer difficulty of getting us to exoplanets and, vice versa, aliens getting here. That's all notwithstanding the chances of intelligent space faring aliens existing in the first place. However, with all of those planets out there, the probability of life somewhere was very likely.

Graham asked if anyone had been on one of the Space Shuttles and what did they think about it. Bud had managed to get on board (at a stationary museum naturally – even his blagging skills don't extend as far as a seat on a real flight!) as had Graham. Both – in a word – thought it awesome.

Sheila asked if nuclear tests in the 50s and 60s had had any effect on global warming. The panel reminded everyone that in the 70s the prevailing fear was that the planet was actually **cooling** and that one of the candidates was indeed all the detritus left in the upper atmosphere. High level flights were becoming more frequent which then (and now) place particulates and greenhouse gasses high up where natural processes like ocean wave

absorption can't reduce the problem. This has been much exacerbated recently by the huge number of rocket launches taking place.

The last question was "Who was the greatest astronomer of all time?". This engendered a lively debate with Kepler and Galileio the front runners. Another proposed was Hipparchus who mapped the stars so accurately with only a couple of bits of stick (in the form of a cross-staff) that he was able to discover the precession of the equinoxes. He built on the work of Eratosthenes who was able to calculate the circumference of the Earth (with only one stick and a hole in the ground!) to within 1%!

As ever, an entertaining hour and many thanks to those that provided questions and joined in the discussion.

Following the break, we had a look at some aurora pictures and Terry had some images of both the sunspot group that had triggered the aurora as well as some of Comet 12P Pons-Brooks which is now (just) in range of his telescopes in Australia. The observing season for NGC6729 is now under way and (finally!) the nebula has been caught just before and during the start of an outburst.

Next month's meeting talk will be by Terry which will look at the Total Eclipse of April 2024 but also some of the astronomy of the pre-hispanic civilisations on Middle America.

# **Upcoming Events**

#### **Planets**

All the planets are near the sun at the moment.

Saturn is very low in the East at around 3:45 BST at start of twilight. It will be about 15 degrees altitude by 15<sup>th</sup> June at 2:45 BST

Jupiter and Mercury will be close together on 4<sup>th</sup> June but very near the sun and in daylight. Not worth it unless you really know what you're doing!

#### Comets

Comet 12/P Pons-Brookes has gone south for the summer.

Comet 2023 A3 (Tsuchinshan-ATLAS) is brightening and may be naked eye in the autumn. Don't count on it, though!

### **Noctilucent Clouds**

The season for Noctilucent Clouds (NLCs) usually runs through start of June to end of July. These are clouds that form about 70 Km up in the atmosphere and are visible about an hour after dark – hence the name which means Night Shining Clouds. They appear in the north and are usually very low for us down south.

## Outreach

St Margaret's school in Tintinhull would like to do another stargazing evening this autumn. We should be able to support and have given them a few dates at the end of November / start December when Venus, Saturn and Jupiter should be visible.