



NEW MOON, OLD MOON

Since Galileo, it has been known that the moon is not a smooth surface. He depicted darker features, which we now know are shadows cast by features on the moon. These shadows can be used to determine heights and depths of features. The moon is covered in bowl-shaped features known as craters. They come in a variety of shapes and sizes, and can provide interesting information characteristics of the moon's surface. With satellite and lander missions, we learn more about the moon's surface every year. A composite image of the moon (left) as seen from Astrocampus' 14" telescope shows many interesting features.

One of the most prominent craters is Tycho, the brightest crater in the large picture. Tycho has a prominent central peak (1.6km high, taller than Ben Nevis) – this is caused by liquefaction of the surface rock by the energy of the impact. Tycho is pictured in the top right. There are thousands of craters on the

moon's surface. By counting the number of craters on the moon, and knowing the age of the moon's surface, it is possible to find a cratering rate. The image on the bottom right is of Clavius – a large crater nearby to Tycho. Clavius is an older crater than Tycho. We can tell this as within Clavius, there are a number of small craters. These craters are formed from later impacts. The number of craters within Clavius, when compared with the cratering rate can be used to age Clavius – likely 4 billion years old!

By noticing the distribution of craters on the moon's surface, it is possible to determine where the majority of craters exist – on the far side of the moon. This corresponds to a source of meteoroids from the Solar System plane, indicating that meteoroids come from the asteroid belt.

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ASTRO NEWS



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YELLOW!

Yellow is the colour theme for York for the next couple of months- and the day and night sky is no different! In June we have the longest day, the solstice. To celebrate the sunshine, solar system and Tour de France all at once check out the Solar Cycle. You can cycle along a scale model of the solar system and there will be lots of fun events and prizes along the way. More details can be found at cyclethesolarsystem.eventbrite.co.uk.

The coming months of summer may be a break for our students, but Astrocampus will continue to be a hive of

activity. Two new telescopes are scheduled to be installed in summer- a new radio telescope and a robotic light switch telescope. We will tell you all about them in the next newsletter! In the meantime, keep up to date on twitter and you might catch some of the installation photos!

Don't forget about the Festival of Ideas in June too, with two astronomy themed talks about the chaotic Solar System

Best Wishes and Clear Skies!

Dr. Emily Brunsten
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UPDATE

With March seeing our official launch, the Astrocampus is now in full swing. Our public evenings are proving popular, particularly when we have clear skies! Check out Adam (Undergraduate Astrophysicist) below as he demonstrates one of the Astrocampus telescopes. Whatever the weather, there's a lot of fun to be had looking round the observatories and receiving a guided tour to the night skies. We're always developing our programs, with new information and hands on resources - look out for our meteorite samples arriving later in the year!

For those 7-14 year olds out there, the Astrocampus is also accredited by the Children's University as a Learning Destination. Stickers are therefore available to any children involved with the program. We'd love to see you!

Our schools workshops are also blasting off with visits from students aged 7-18. Making and launching rockets is always a popular activity, and further workshops are under development. Marvel at some of our young rocket scientists below! To arrange a visit for your school or community group just email us.

See you at the Astrocampus soon!

Katherine Leech
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EVENTS

Month	Date	Event
June	15	Craters, Collisions and Catastrophes ow.ly/wEDa6
	16	Dust, planets & meteorites ow.ly/wEDlo
	21	Cycle the Solar System ow.ly/xRXlw
	25	Astrocampus Opening
July	17	Astrocampus Opening

For details on our open nights and to make a booking please go to www.astrocampus.org.uk

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