REPORT

On Thur**sday 30th April** a party of eight STAR Group Members visited to **Open Dome Evening at Nottingham Trent University** and heard a talk given by **Dr Christopher Castleton of NTU** called ***"An Evening with Kepler and Friends." -*** *Planetary Motion and gravity.*

Don't be fooled (by the title) into thinking that this presentation was not for the layman or newcomer to the World of Scientific Discovery. It was, in fact a very well constructed view of the history of human knowledge of the Solar System and how it works.

Detail: *An Evening with Kepler and Friends- Planetary Motion and gravity.*

Early Astronomers, Ptolemy, Aristotle, Copernicus, Brahe, Galileo, Johannes Kepler and Isaac Newton attempted to explain planetary motion using combinations of spheres. These became more complex until Kepler orbits were described as ellipses. From this time onwards, motion in gravitational fields seems to have always resulted in a certain set of shapes. "But why?" - many Open Dome visitors have asked in the past.

Dr C Castleton (NTU) followed our exploits in gravitational motion in the footsteps of Kepler and his other famous friends. In his talk *An Evening with Kepler and Friends - Planetary Motion and Gravity* visitors were introduced into the fascinating world of ellipses, parabola, and hyperbola. All the knowledge that lead us to arrive at Rosetta, swing into orbit around Ceres and travel to Pluto.

This presentation was illustrated by some excellent slides. Furthermore, by using a light image from a hand held torch we saw, how by increasing the angle of the torch with a screen, we could identify the various stages from Ellipse through Parabola to Hyperbola.
This was, all-in-all, a very interesting and instructive evening. The Presentation was given in such a light-hearted way that it was very easy to follow each of the ideas that were explored and absorb the content.

This talk was followed by a brief introduction on what is visible in this month's sky and an opportunity to peer up at the night sky through two of the University's telescopes and two of their high-powered binoculars.

We were able to see the craters and plains on the moon in fine detail and, for me, the most inspiring was to see Jupiter in all it's glory and to be able to see the four largest moons.

PROGRAM FOR OPEN DOME EVENTS UNTIL NOVEMBER 2015

School of Science and Technology
The Observatory

Jpcoming Open Dome Events

!9 Jan 2015)-10 pm	Outside the Galaxy - A Brief History of Extragalactic Astronomy Dr R Turner (NTU)
!5 Feb 2015)-10 pm	Are we alone - The Fermi Paradox Dr M Braddock (Mansfield and Sutton Astronomical Society)
!5 Mar 2015)-10 pm	The ALMA and SKA telescopes - Towards New Horizons Mr P Hekman (SKA)
)0 Apr 2015)-10 pm	An Evening with Kepler and Friends – Planetary Motion and Gravity Dr C. Castleton (NTU)
!8 May 2015)-10 pm	From Landscape to Skyscape and down to that boundary between Mr R Bartosz
!6 Jun 2015)-10 pm	Arriving at Pluto - New Horizon Dr D Brown (NTU)
ul 2015)-10 pm	TBA
iep 2015)-10 pm	TBA
!8 Oct 2015)-10 pm	The Antikythera Mechanism – An Ancient Computer Prof M Edmunds (University of Cardiff)
lov 2015)-10 pm	TBA

looking for these events is required. For more details and register your places please search for the event at:
ttp://www.ntu.ac.uk/apps/events/15/search.aspx/upcoming
imply add this event to your basket by clicking 'Add to Basket'.
arking is available only for booked visitors in the North Gate car park.

OP Institute of Physics

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