REPORT FOR THE TALK
Reviewing the End of Cassini

This is a presentation that was first given by **Dr Daniel Brown** of The School of Science and Technology at Nottingham Trent University at the Open Dome Event on Thursday 28th September 2017.

Many of the STAR Group were not able to attend on that night so by special request Dan agreed to come to our STAR Group Meeting on **Monday 5th February 2018** and give us that presentation called "***Reviewing the End of Cassini"***

Saturn is one of the most recognisable planets in our solar system. It is our second largest gas giant with amazing rings and a plethora of odd and intriguing moons (at least 62). Some of these moons might even contain liquid water and possibly life. The relative size of some of Saturn's main moons (there are many more than these) were shown in the image (below):-

Saturn's main moons shown in image form by relative sizes.

Dr Brown outlined the highlights of Cassini's 13 years orbiting Saturn. He covered how we explored moons such as Titan and Enceladus and, at the end of the mission, dived through Saturn's rings, ultimately ending in a controlled descent into Saturn.

We explored the reasoning why it was necessary to end the mission in this way:-

The Cassini probe was powered by radio-active sources and this could cause damage to any potential life on any of the moons if it crashed there. So the decision to destroy it was largely an ethical one.

When Cassini was launched it had sufficient fuel to speed up during a slingshot around Venus and (more importantly) slow down as it manoeuvred towards Saturn and Titan. Even though these propellant-saving techniques were used - as the remaining fuel level declined - so the more potential risk was attached to leaving Cassini in orbit around Saturn.

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As an adjunct to his talk Dan gave us a schedule of the Open Dome Upcoming Events at Nottingham Trent University (see image below). He also referred STAR Group to a piece of free software called “STELLARIUM” that can be downloaded to allow viewing of the night sky during any required period and viewing from any location. URL: http://stellarium.org/screenshots.html

STAR Members were very impressed with this.