

Astronomy Talk 10th November 2020

Short Talks

This was a “Zoom” talk given by the chairman, James Fradgley, standing in for a speaker who was unable to talk.

Aurora Colours. We looked at the different colours that one can see in auroral displays, what environmental factors were relevant and the transitions that produce these spectral lines, principally from atomic oxygen and molecular nitrogen.

Blue Stragglers. These are stars that we don't expect to find in old clusters, both globular and open. They are formed either by accretion of material from a companion star, or by merger of two stars. This causes the star to become more massive and become a much younger seeming blue giant. We also looked at some of the dynamics of these stars in globular cluster core collapse.

Butterfly Nebulae. These are planetary nebulae of great aesthetic appeal. We looked at the source of these objects late in a star's life, and at the dynamics of how they appear to us, particularly by having a companion star, or by having structures created by magnetic fields.

Tholins. These are orange/brown deposits of complex organic molecules on many bodies in the outer solar system. Their chemical structure and formation were discussed, and whether they might provide a foodstock for life.