

Cape Cod Astronomical Society

Minutes of the September 5, 2013, meeting

Attendance: Total: 17 Members: 16 Guests: 1

President Mike Hunter opened the meeting at 7:30 P.M. and welcomed members and guests. Mike reviewed new meeting workshops and Summer 2013 star parties.

The speaker for the evening was professor Timothy Barker of Wheaton College. The lecture was entitled "Use of Filters in Visual and Photographic Observations".

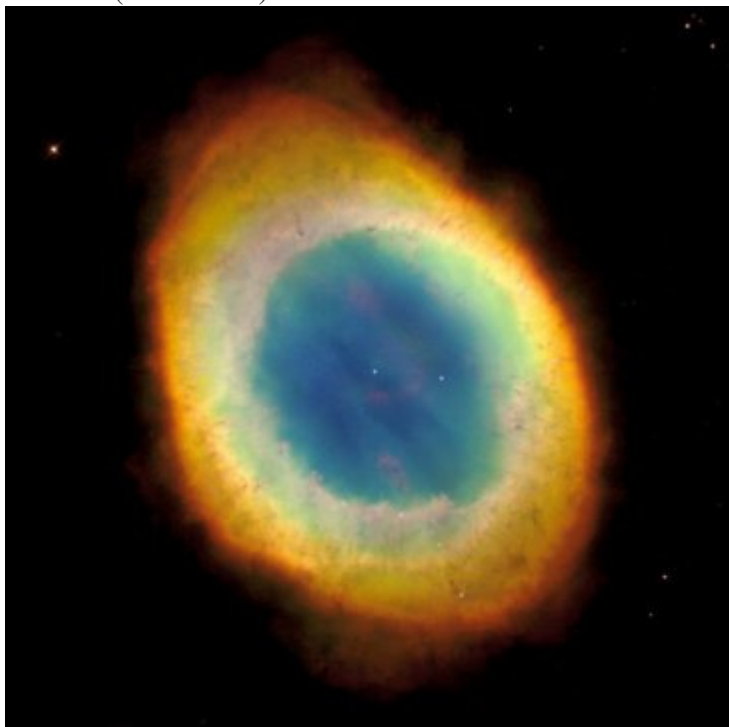
Professor Barker's presentation was very interesting, as he used both traditional slides as well as great hands on techniques to demonstrate the use of filters for both visual and scientific research. Astronomical filters work by blocking a specific part of the color spectrum above and below a bandpass. There are three general types of filters commonly used:

Broadband / Light Pollution

Narrowband / UHC (Ultra High Contrast)

Line: O-III (Oxygen – III), H-Beta (Hydrogen – Beta)

The filters can be used to enhance the visual appearance of objects such as the Ring Nebula (see below) or for scientific research.



Another important use of filters is for spectroscopy. Spectroscopy can be used to derive many properties of distant stars and galaxies, such as their chemical composition, temperature, density, mass, distance, luminosity, and relative motion using dopler shift measurements. See link for more informaton:

<http://csep10.phys.utk.edu/guidry/violence/spectroscopy.html>

Professor Barker provided an interesting demonstration by passing out diffraction gratings and showing the effects of various filters put in front of a light source.

Observatory Report

Bernie Young spoke about the possibility of observing the minima of algal this fall. He also brought members up to date on the recent purchase of a new astronomical camera.

The meeting was adjourned at 9:15 P.M.

Respectfully submitted,

Charles Burke