Gravitational Lensing and its Applications to Astronomy

Michael Nuzum
(UNC Physics student)

Gravitational lensing is an effect caused by strong gravity fields that bend light in a way that acts like a lens, similar to a magnifying glass. Gravitational lensing is a powerful tool to astronomers and cosmologists. The lensing effect can be used to measure masses of distant objects, aid in the detection of exoplanets and dark matter, and magnify distant objects. The types of gravitational lensing will be discussed as well as applications for each.

Moon Light Scattering

Phakawat Manusnon
(UNC Physics student)

Moon light scattering is similar to sun light scattering, which makes the sky look redder in the evening. Without any light scattering, the moon should reflect all white light from the sun, which makes it look grayish white. But when the light passes through the atmospheric molecules, the part of the light spectrum that has lower frequency will be scattered so that only yellow and orange are left to our eyes. The light will scatter more or less, mainly depending on the angle of the moon due to the earth and molecules in the air.