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Determining the Physical Characteristics of Trans-Neptunian Objects

Trans-Neptunian objects (TNOs) are distant objects, they and are leftovers from the protoplanetary where the planets in Our Solar System were formed. Understanding the physical properties of TNOs is essential to understanding the formation and evolution of our Solar System. There exists around 2,300 known TNOs, and we have only studied a few of them extensively.

In order to effectively discuss the information in this study, we need to understand the concepts of absolute and apparent magnitude. Apparent magnitude is a relative scale of how bright objects in space appear from Earth. Astronomers can then use the apparent magnitude of an object and the distance from Earth to that object to determine Absolute magnitude. Magnitude is given on a logarithmic scale; therefore, the higher the magnitude, the lower the brightness as seen from Earth.

Photometry is a good way to go about studying TNOs. Photometric studies allow Astronomers to obtain information through their apparent magnitudes and colors.