

# [The milky way](https://assignbuster.com/the-milky-way/)

Large-Scale Universe to The Milky Way The Birth of Modern Cosmology Cosmology is the study of the structure and evolution of the universe (Bennett, Donahue, Schneider, & Voit, 2010). Edwin Hubble is often credited with the birth of modern cosmology. He discovered that the Andromeda galaxy was in fact a separate galaxy from the Milky Way. By comparing various photographs taken over several nights and measuring the Cepheids and their luminosities, Hubble’s discovery changed the way we view the universe today. However, this was not the only discovery Hubble made that aided in the development of modern cosmology.

In 1929, Hubble’s research of Andromeda and other galaxies led to a dramatic discover concerning the size of the universe. Based on the distance of a galaxy, Hubble discovered that the redshift was greater. A greater redshift indicates that the object is moving away and this led to the discovery that our universe is expanding. The Big Bang Theory The Big Bang Theory is a theory that states that the universe was once in a hot, dense form of matter and radiation which expanded rapidly. The expansion and cooling of this matter allowed the formation of galaxies, stars, and planets.

The National Aeronautics and Space Administration (NASA) launched a satellite known as the Cosmic Background Explorer to test the theory of the Big Bang Theory. Astronomers believed that the universe puts off its own heat and as a result, should be able to produce a perfect thermal radiation spectrum (Bennett, Donahue, Schneider, & Voit, 2010). The results aided in the support of the Big Bang Theory. Milky Way Structure 583 References Bennett, J. , Donahue, M. , Schneider, N. , & Voit, M. (2012). The Cosmic Perspective (6th ed. ). Retrieved from The University of Phoenix eBook Collection database.