

13.4: The History of Studying Galaxies

The study and discussions of galaxies goes back millennia. **Abd al-Rahman al-Sufi**, a Muslim astronomer from Persia (modern Iran), was the first to recognize the Large Magellanic Cloud, an irregular galaxy, and in 964 AD made the earliest observation of the Andromeda Galaxy, in which al-Sufi described Andromeda as a *small cloud*. Al-Sufi was the first to observe other galaxies than the Milky Way galaxy.

In his text, al-Sufi discusses a number of astronomical observations and topics, including his observations of what he called Al Bakr, the Large Magellanic Cloud.

Thomas Wright hypothesized in 1750 that the Milky Way galaxy was a flattened disk of stars. Wright also thought that some of the ‘nebulae’ observed were actually objects like the Milky Way. (Nebulae was the term used to describe all of these nebula-like objects, many of which are now known to be galaxies.) Five years later, in 1755, **Immanuel Kant** coined the term *Island Universe* to describe these ‘nebulae’ that Wright had hypothesized.

During the search for comets from 1771 to 1784, **Charles Messier** completed a catalog listing of a number of bright nebulae. Several of the Messier Objects are now known to be galaxies. When **William Herschel** created his 1786 catalogue of deep sky objects, he used the phrase spiral nebula for a number of the objects, such as the Andromeda nebula. This indicated that Herschel was able to discern the *spiral nature* of these objects. **Lord Rosse** completed a new, large telescope in 1845 and was able to differentiate between elliptical and spiral nebulae.

Deep sky objects are those objects *other than* Solar System and stellar system objects, and individual stars. These include objects such as star clusters, nebulae, and galaxies.



A sketch of the Whirlpool Galaxy, Messier 51 by Lord Rosse in 1845. Public Domain | Image courtesy of NASA.



A photograph taken by the Hubble Space Telescope. Public Domain | Image courtesy of NASA.

This page titled [13.4: The History of Studying Galaxies](#) is shared under a [CC BY 4.0](#) license and was authored, remixed, and/or curated by [Lumen Learning](#) via [source content](#) that was edited to the style and standards of the LibreTexts platform.