

ASTRONOMICAL DISCOVERY TIMELINE

1609

First Telescopic Observations

Galileo Galilei

Discovery of Jupiter's moons, sunspots, and lunar craters, fundamentally challenging the geocentric model.

1687

Law of Universal Gravitation

Isaac Newton

Publication of "Principia," explaining the mathematical forces governing planetary orbits.

1924

Existence of Other Galaxies

Edwin Hubble

Proof that Andromeda is a separate galaxy, revealing the universe is far larger than the Milky Way.

1965

Cosmic Microwave Background Radiation

Arno Penzias & Robert Wilson

Accidental detection of "afterglow" radiation, providing definitive evidence for the Big Bang Theory.

1995

First Exoplanet Orbiting a Sun-like Star

Michel Mayor & Didier Queloz

Discovery of 51 Pegasi b, opening the modern era of exoplanetary research.

2015

First Detection of Gravitational Waves

LIGO Scientific Collaboration

Observation of ripples in spacetime caused by merging black holes, confirming Einstein's 1916 prediction.

2022

JWST First Deep Field Images

NASA / ESA / CSA

Highest-resolution infrared view of the early universe, revealing galaxies formed over 13 billion years ago.