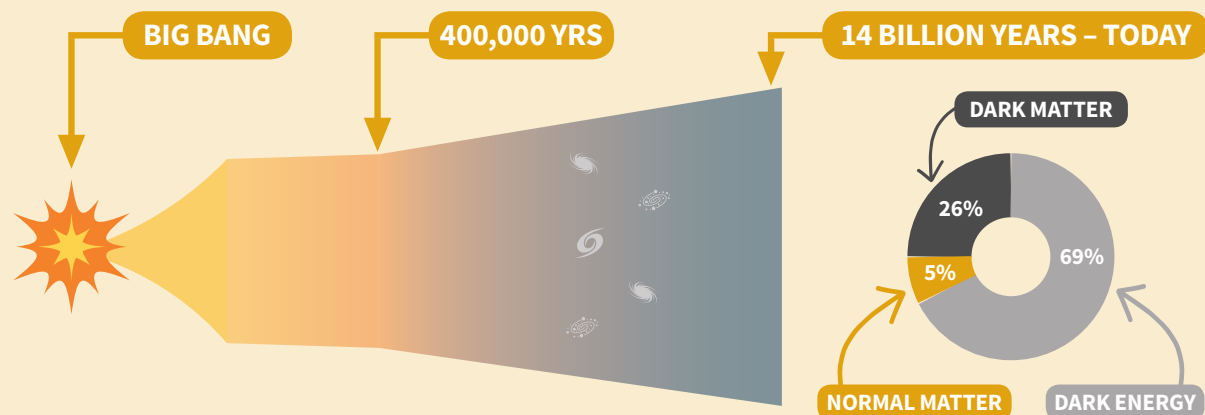


2019 NOBEL PRIZE IN PHYSICS



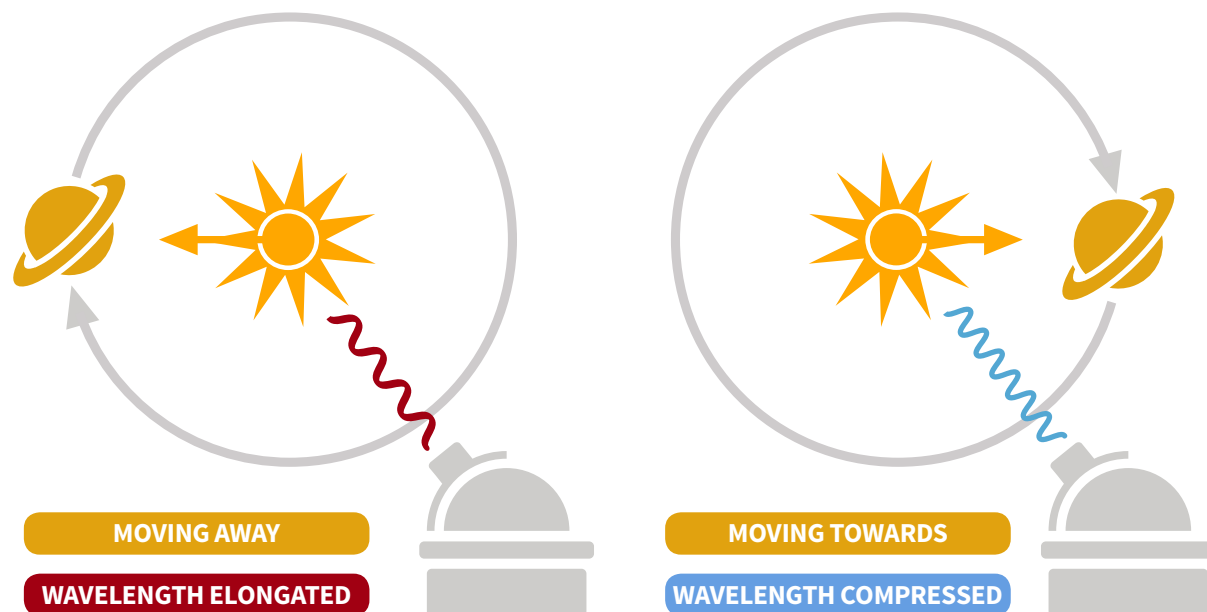
The Nobel Prize in Physics 2019 was awarded to **James Peebles** for theoretical discoveries in physical cosmology and to **Michel Mayor & Didier Queloz** for discovering an exoplanet orbiting a solar-type star.



James Peebles developed a theoretical framework which forms the foundation of our understanding of the universe's history. He predicted the existence of cosmic background radiation and theorised that dark matter and dark energy make up 95% of the mass of the universe.

Michel Mayor & Didier Queloz discovered the first exoplanet orbiting a sun-like star. They discovered a Jupiter-sized planet by observing light from the star it was orbiting.

As the planet orbits the star, the star wobbles due to the planet's gravitational pull. This wobbling slightly alters the wavelength of the star's light, meaning it shifts in colour. By measuring the changes in wavelength, an estimate of the orbiting planet's minimum mass can be made.



WHY DOES THIS RESEARCH MATTER?

Peebles' work has helped us understand the evolution of the universe. The discovery of thousands more exoplanets have followed Mayor and Queloz's work, and it is possible that some of these may harbour life.

Nobel Prize in Physics press release: <https://www.nobelprize.org/uploads/2019/10/press-physics2019.pdf>

