

THE  
NOBEL  
PRIZE

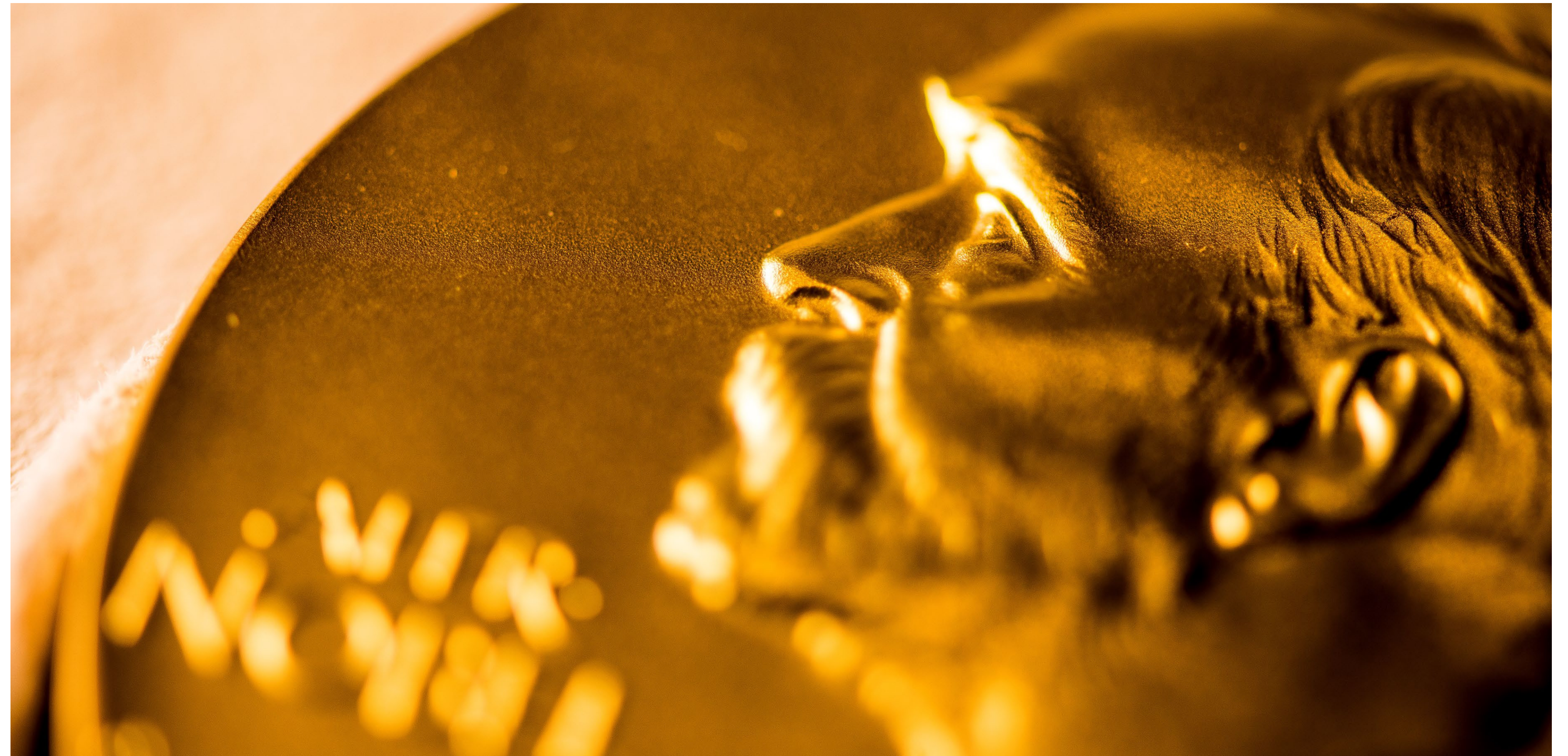
# Physics Prize 2019

New perspectives on our place  
in the universe

Nobel Prize Lessons

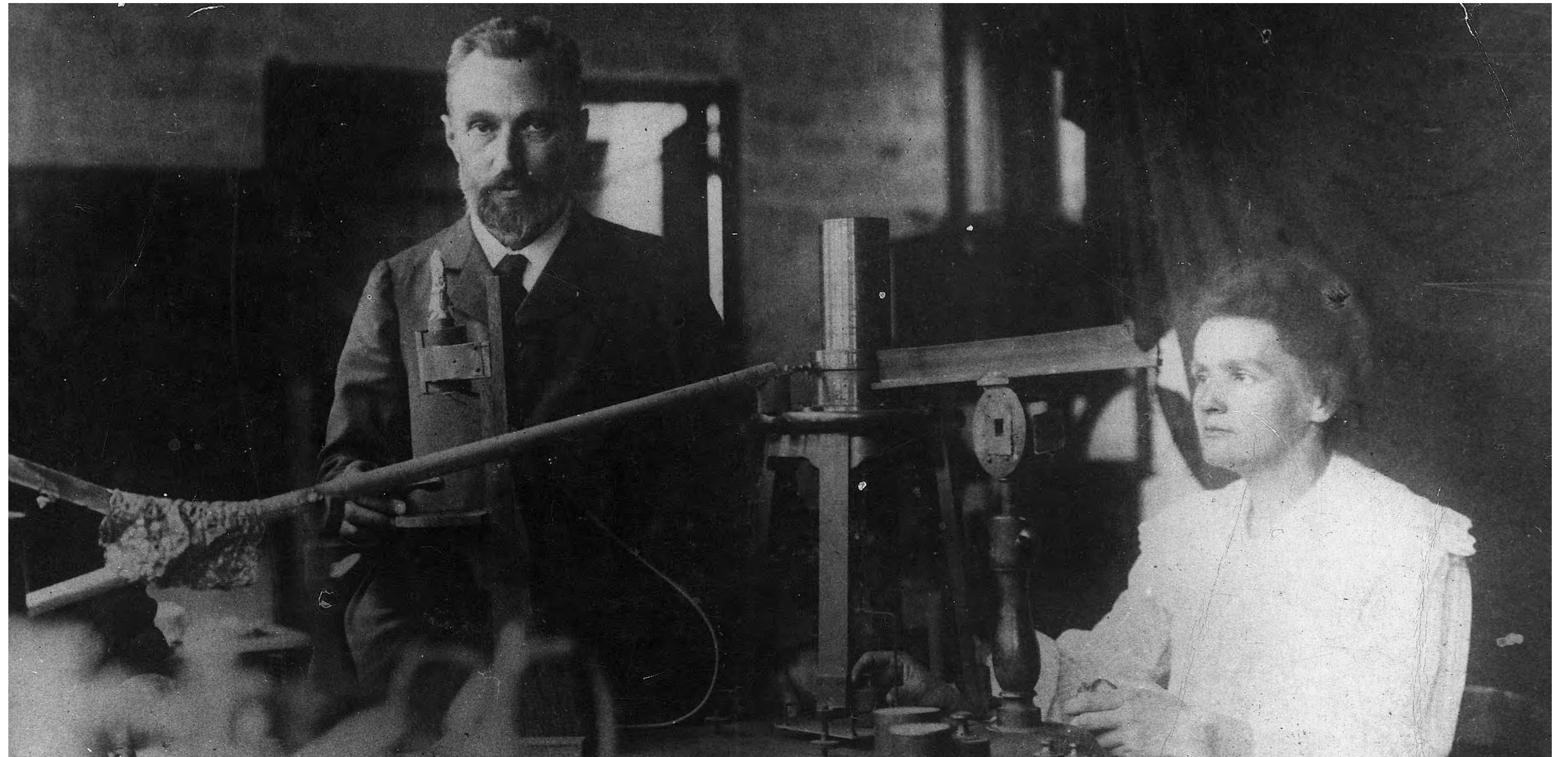
# The Nobel Prize in Physics

“to the person who made the most important discovery or invention in the field of physics”



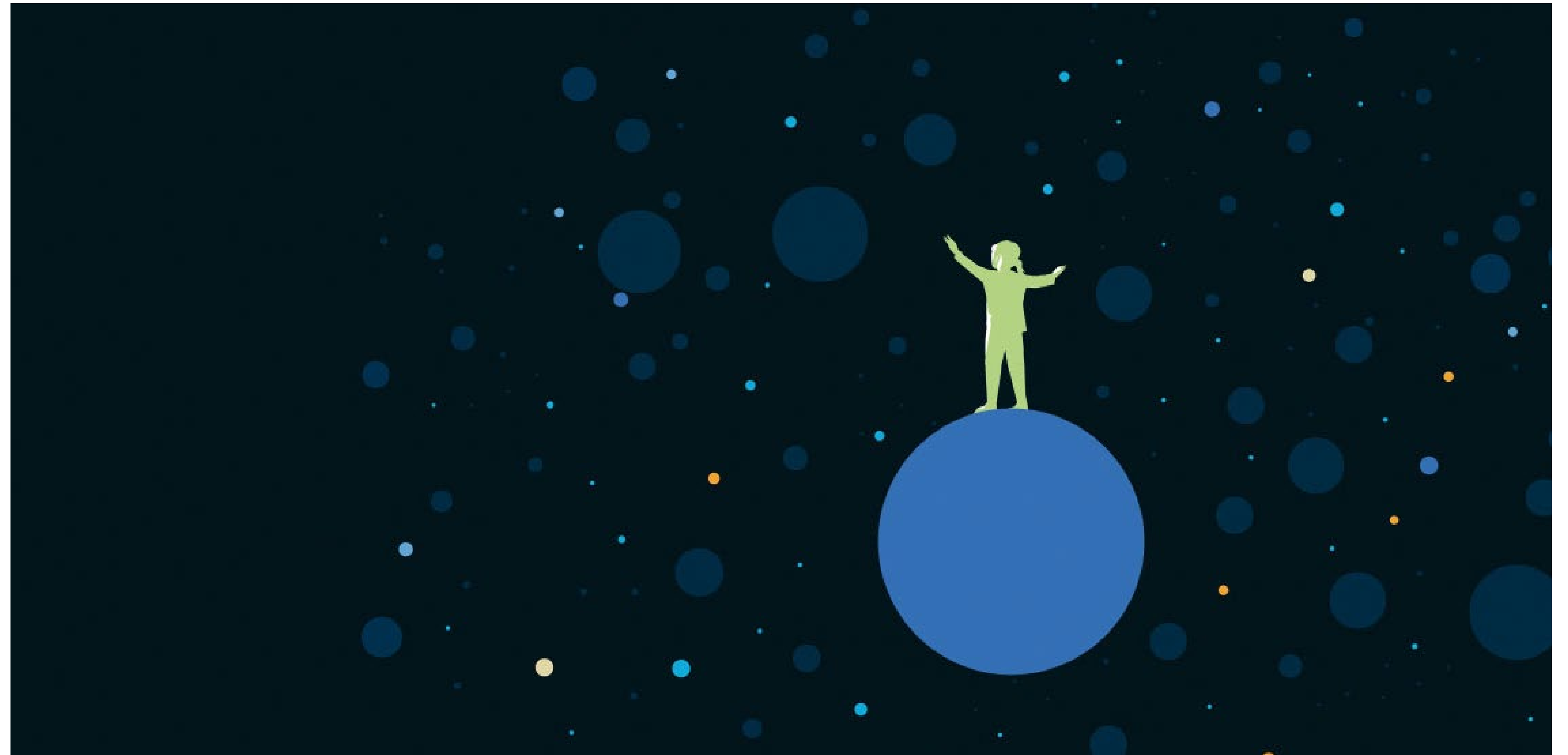
## Who is rewarded with the Physics Prize?

This prize rewards important discoveries or inventions in the field of physics.



# The 2019 Physics Prize

The prize rewards theories about the structure and history of the universe, and the discovery of planets that orbit stars similar to our sun.



# The Nobel Laureates

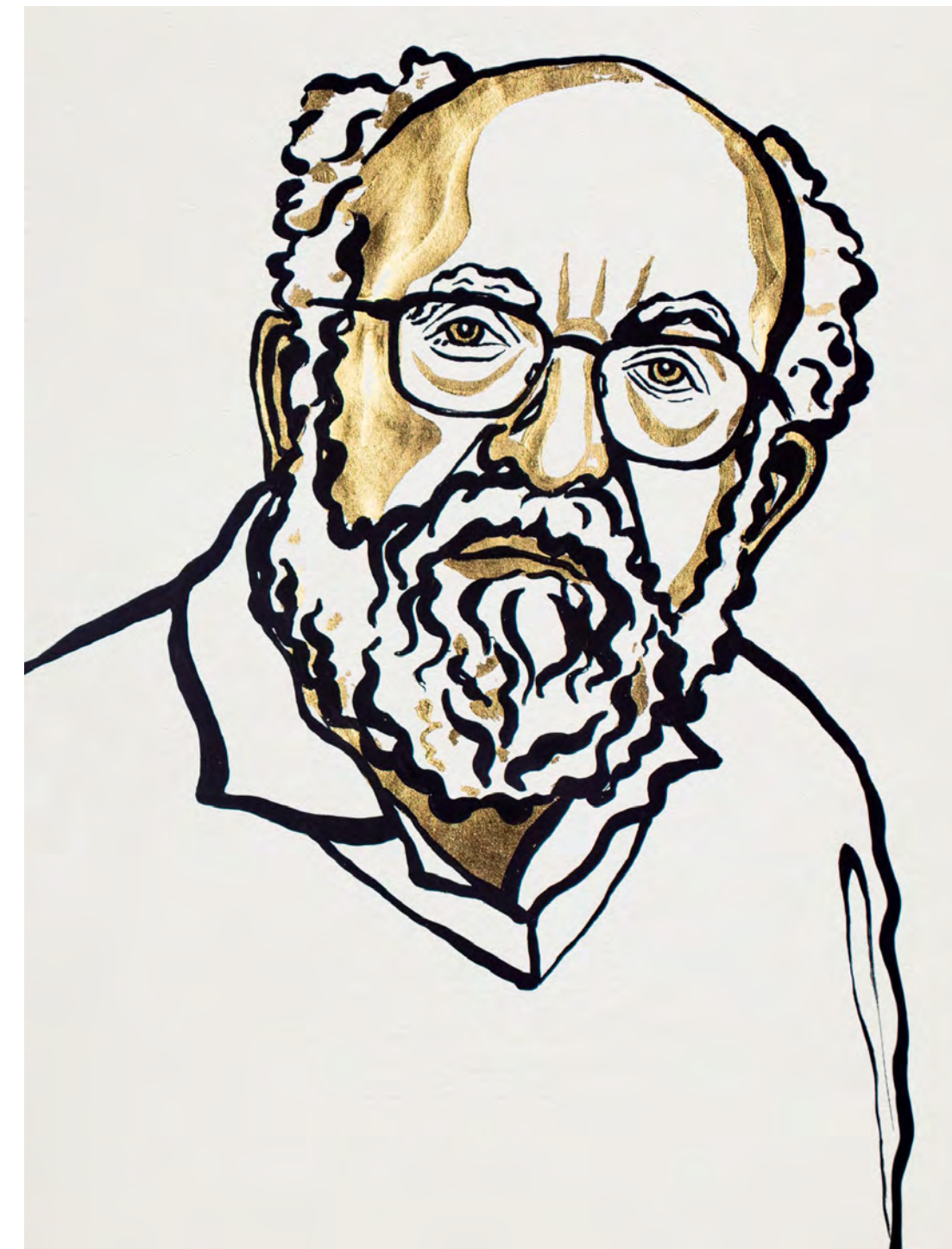
“for contributions to our understanding of the evolution of the universe and Earth’s place in the cosmos”

James Peebles “for theoretical discoveries in physical cosmology”



James Peebles  
Born: 1935, Canada

Michel Mayor and Didier Queloz “for the discovery of an exoplanet orbiting a solar-type star”



Michel Mayor  
Born: 1942, Switzerland



Didier Queloz  
Born: 1966, Switzerland

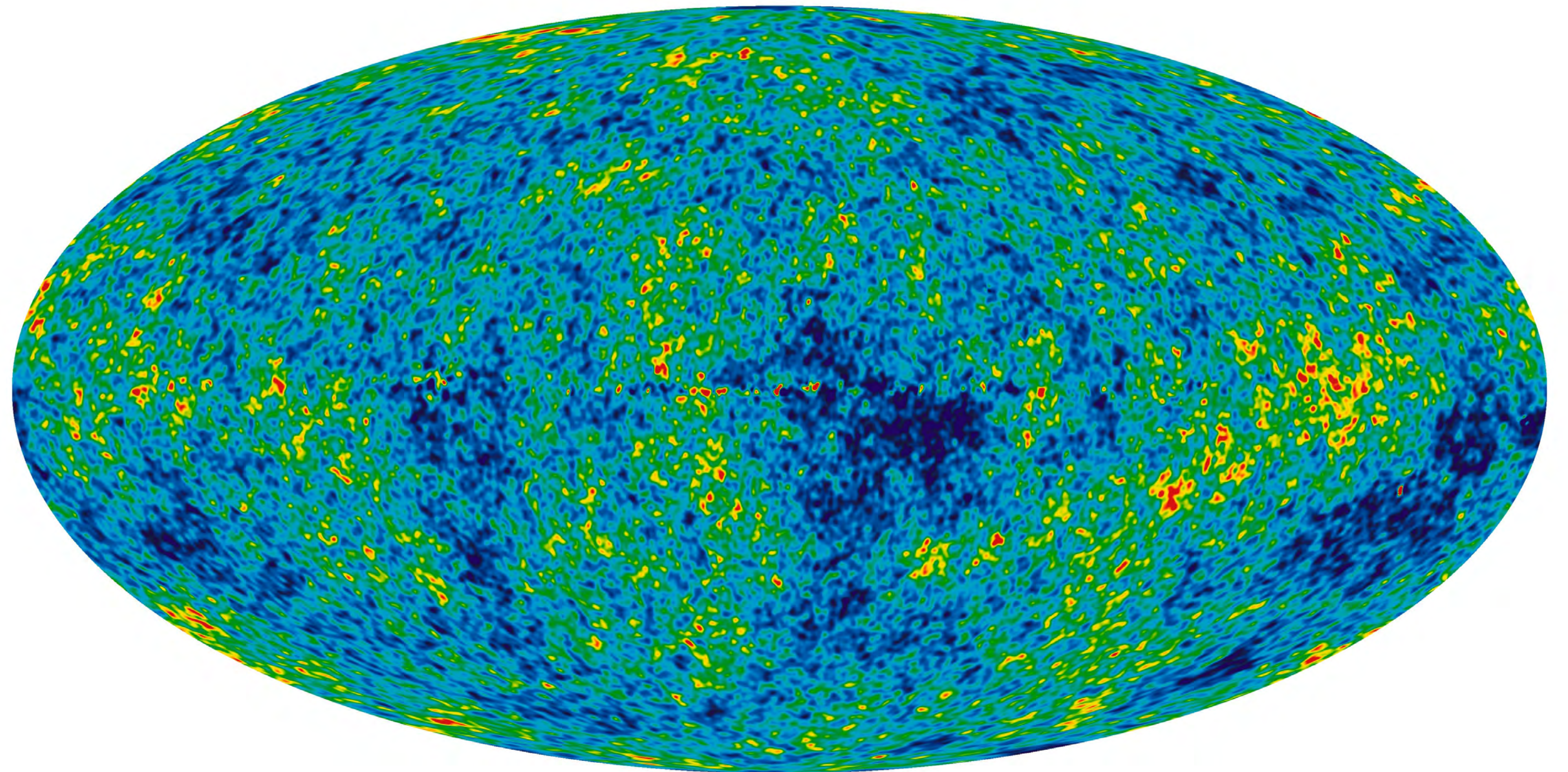
# The Big Bang

The universe was formed 14 billion years ago.

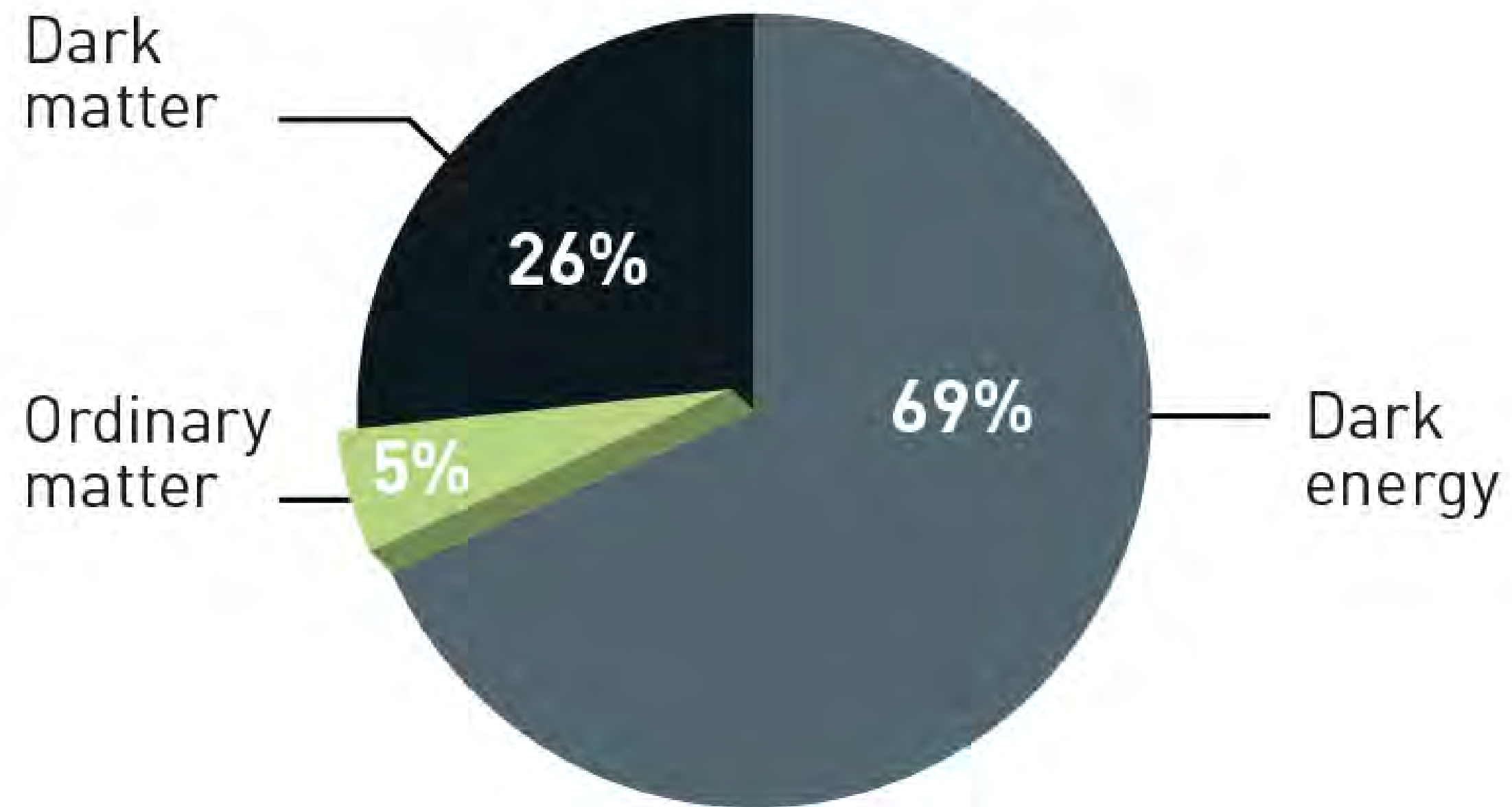


# Cosmic background radiation

Cosmic background radiation is weak radiation that fills all of space and consists of microwaves.



## Dark matter and dark energy

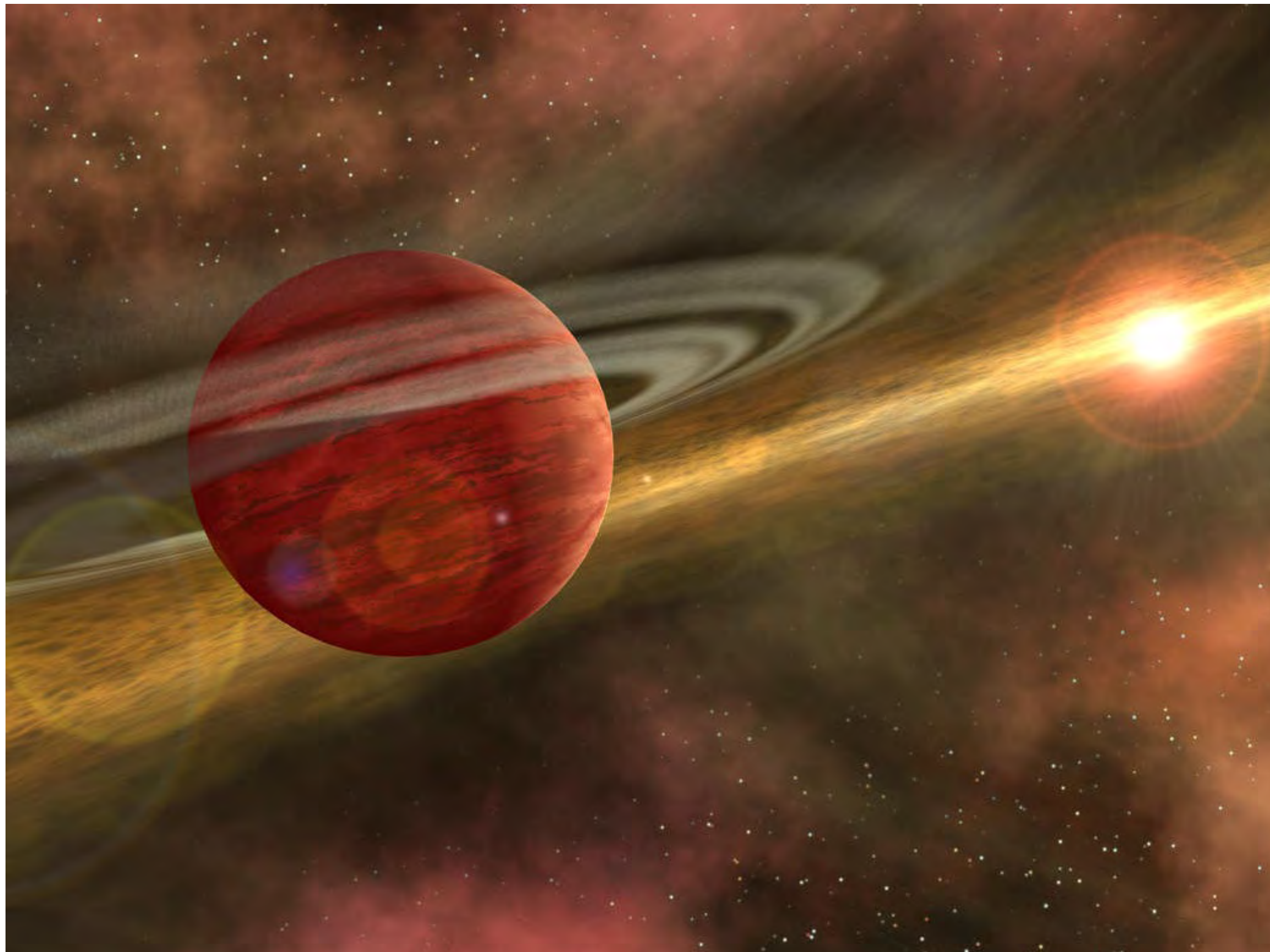


Only 5% of the matter and energy in the universe is known today. The rest is "dark matter" and "dark energy".



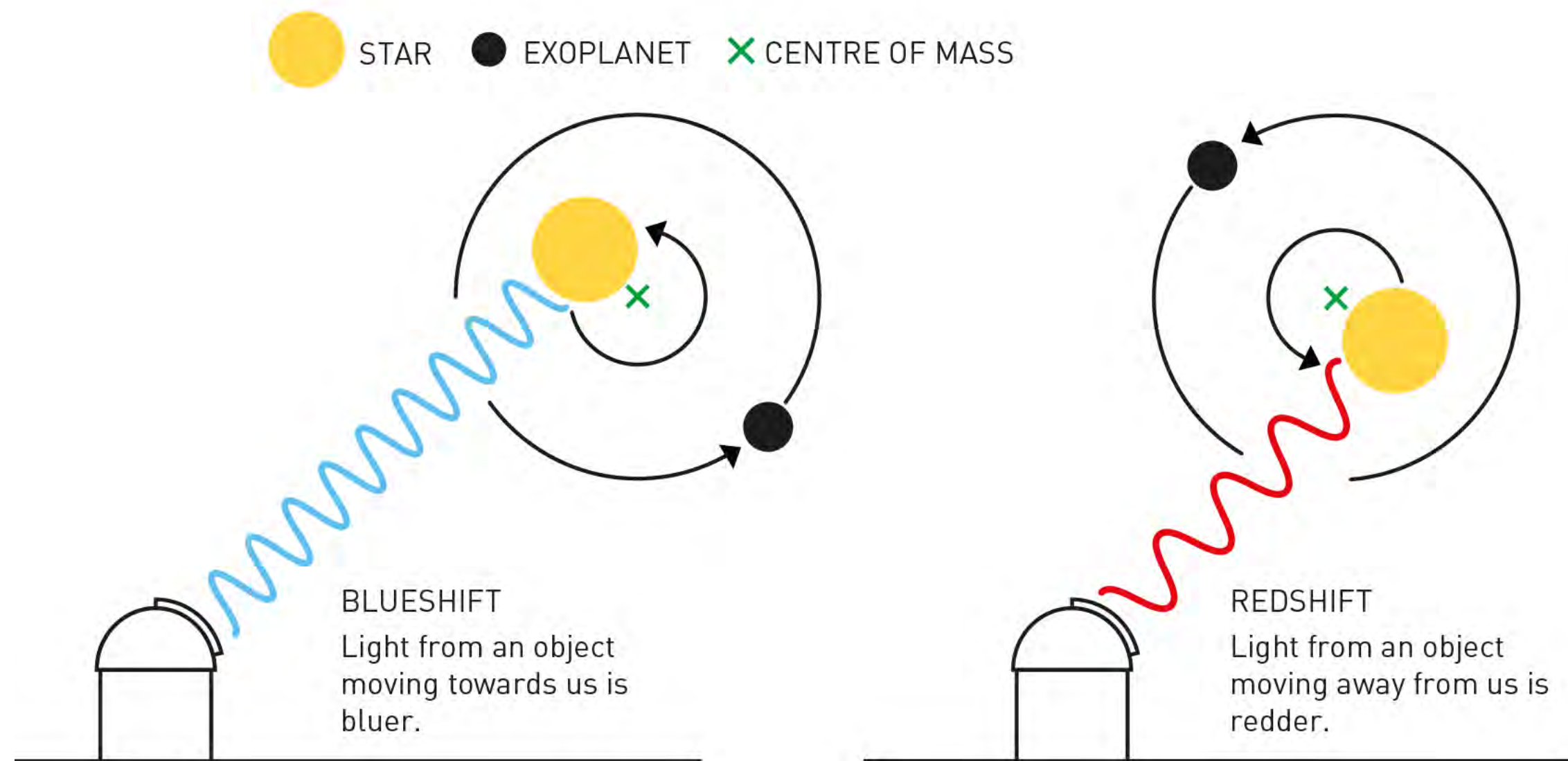
# Stars and planets

Planets in solar systems other than our own are called exoplanets.



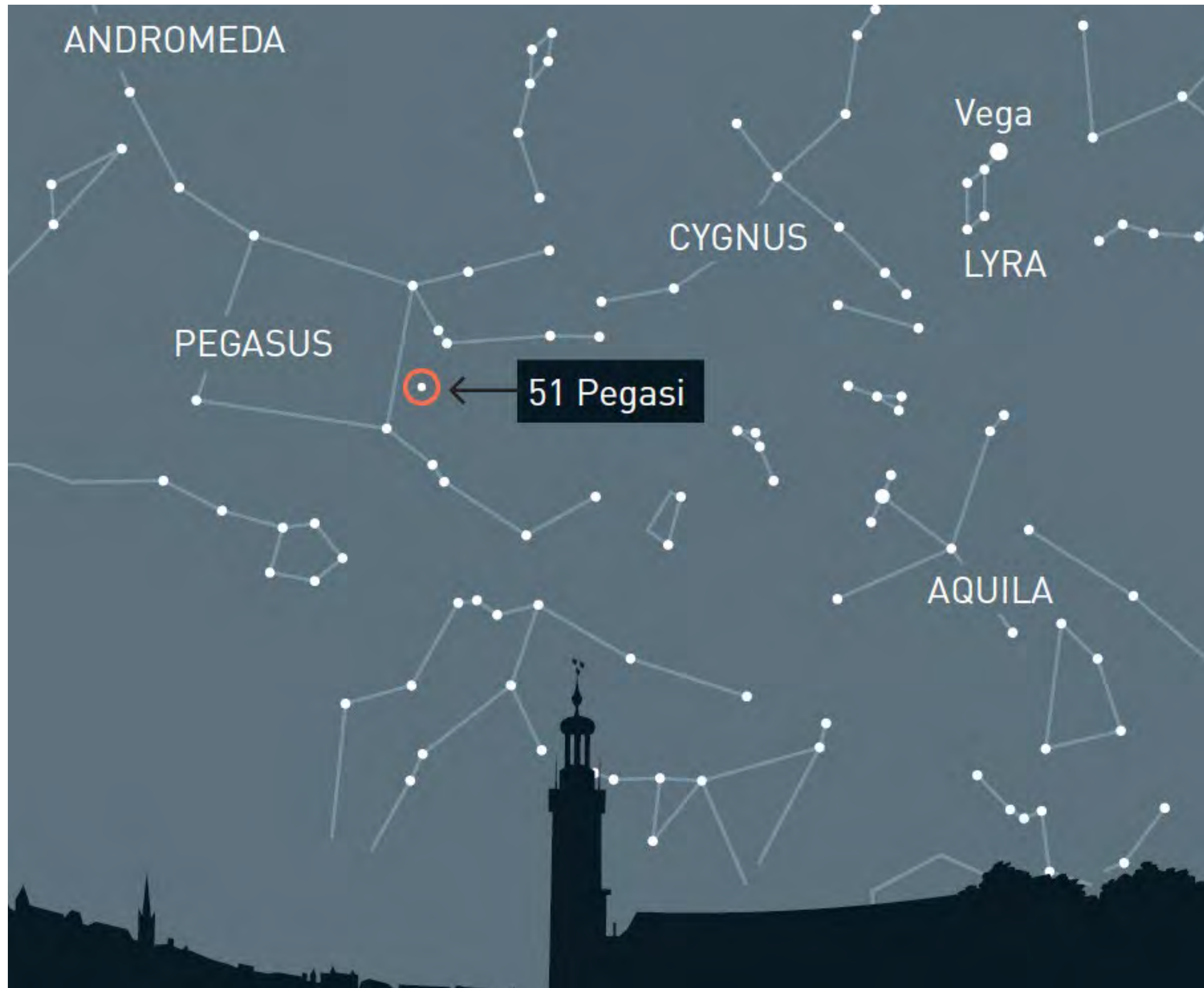
# Searching for exoplanets

Stars with planets wobble back and forth. The Doppler effect makes the light from a moving source change colour.



# The exoplanet 51 Pegasi b

51 Pegasi b orbits around a star that resembles our sun.





“One day,  
eventually, we’ll be  
talking about life”

Didier Queloz, 2019 Nobel Laureate

THE  
NOBEL  
PRIZE

FOR THE GREATEST  
BENEFIT TO  
HUMANKIND

Nobel Prize Lessons