

THE BIG BANG THEORY

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Period 6

GEORGES LEMAITRE
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In a very short amount of time all matter and energy in the universe was formed!



DUN DUN DUN...

ARNO PENZIAS

ROBERT WILSON



in 1963 Arno Penzias and Robert Wilson were monitoring microwave radiation in space. As they were monitoring the radiation they thought that the antenna was broken, but it turns out the antenna was picking up cosmic background radiation from space

BANG!

The scientists believed that the background cosmic radiation was radiation leftover from the big bang expansion.

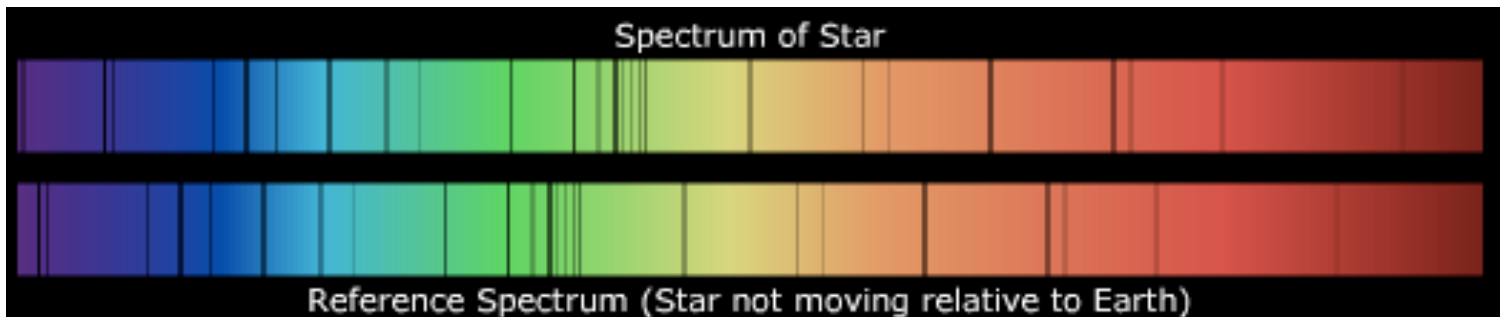
the big bang expansion theory is that all the galaxies started off as a tiny particle of matter and then one day the tiny particle of matter exploded! Resulting in all of the planets moving further apart from each other and us and still are to this day.

The planets moving farther away from us is called:

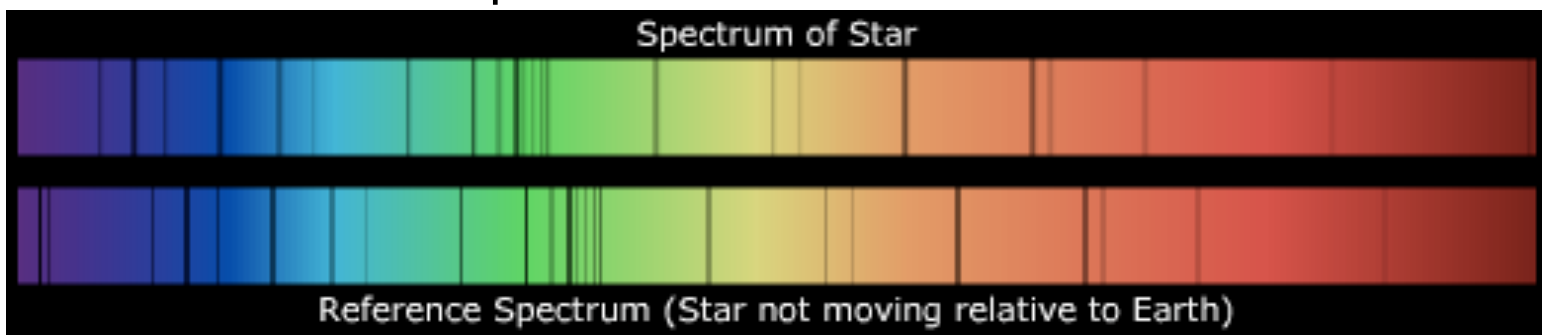
Red Shift

The planets moving closer to us is called :

Blue Shift



The top diagram shows red shift. The lines are shifted towards the red side of the spectrum. hence the name - 'red shift'



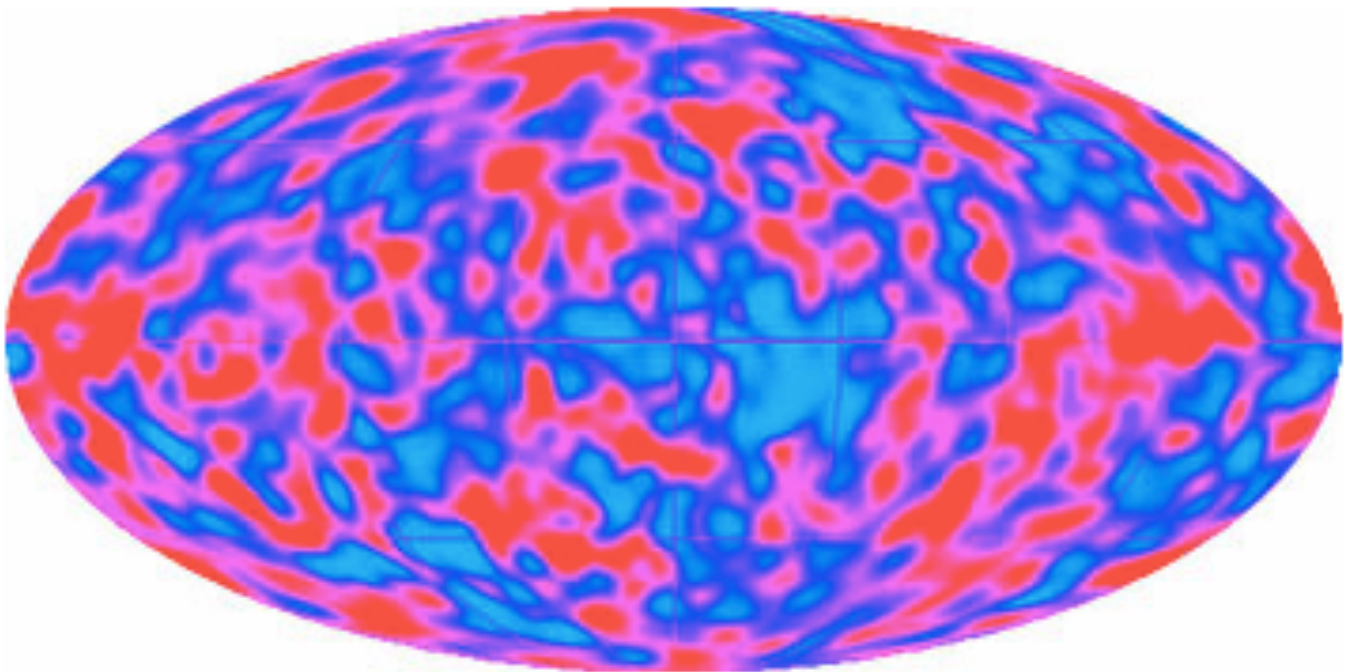
The top diagram shows blue shift. The lines are shifted towards the blue side of the spectrum. Hence the name 'blue shift'

COBE

Cosmic Background Explorer



One of the strongest pieces of evidence in support of the Big Bang Theory is the data gathered by the Cosmic Background Explorer (COBE) satellite. It was Launched by NASA in 1989.



This is the COBE map of cosmic background radiation in the universe. This is what scientists believe is leftover from the Big Bang Theory