

15.4: Physical Cosmology

The Big Bang is a theory of the Universe's earliest moments and its development over time. The Big Bang presumes that the Universe began from an incredibly small, hot, dense collection of all matter and radiation. A sudden rapid expansion and cooling of this matter and radiation occurred. The simplest of particles were first formed, then atoms, finally stars, stellar systems and galaxies.

Belgian Catholic priest and scientist **Georges Lemaître** first suggested the Big Bang in 1927. English astronomer **Sir Fred Hoyle** is credited with creating the phrase Big Bang during a 1949 British Broadcasting Company (BBC) radio broadcast. It is popularly believed that Hoyle, who favored the alternative Steady State Theory, intended the phrase to be derogatory. The phrase stuck, even though it is not a good descriptor of what the Big Bang tries to detail. There was actually a contest to rename the Big Bang, yet no other suitable phrase was found.

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