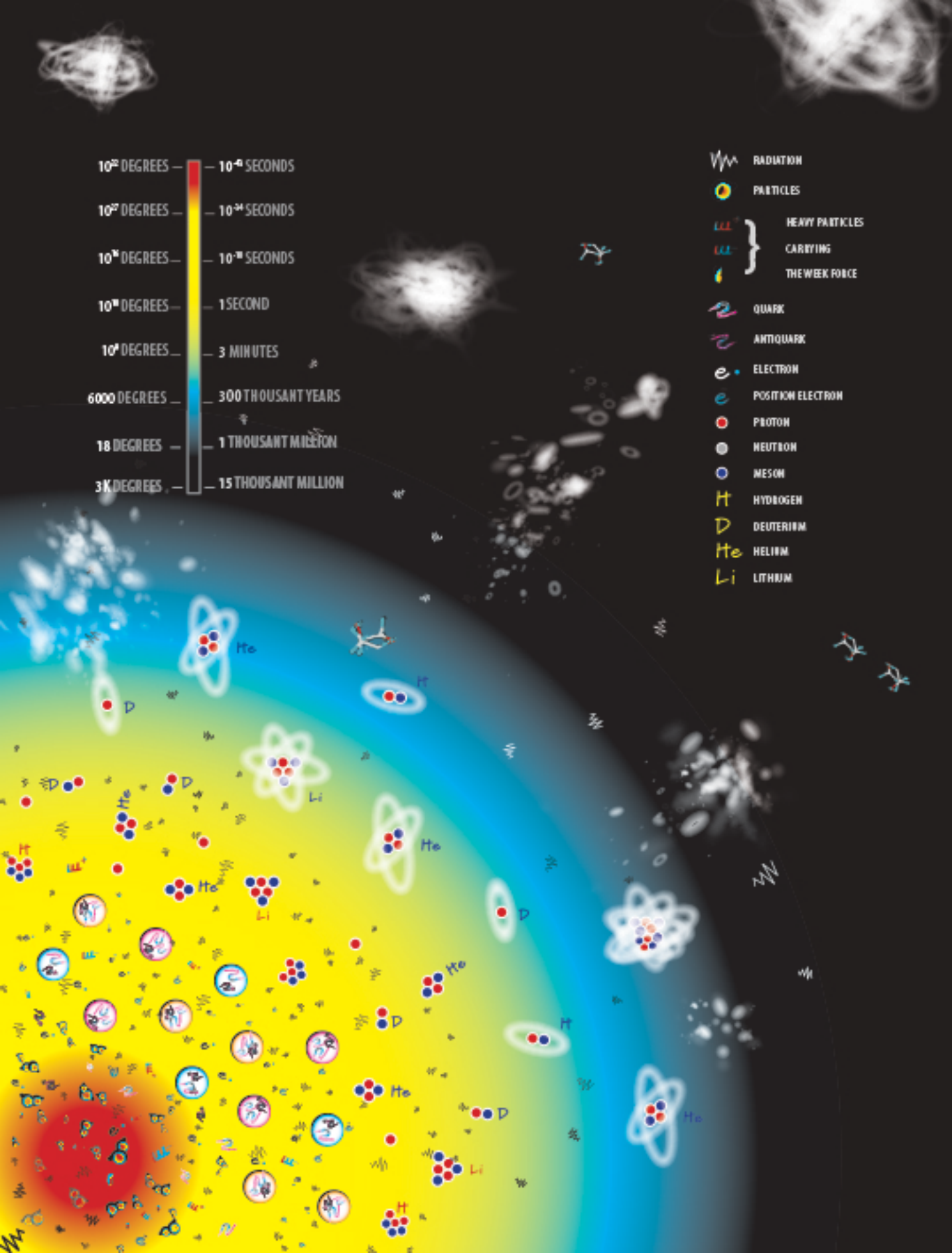
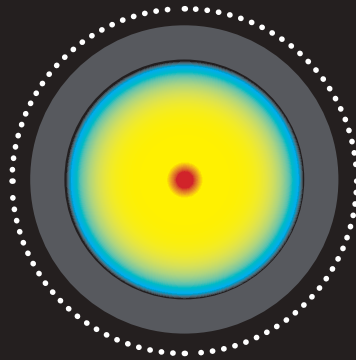


- RADIATION
- PARTICLES
- HEAVY PARTICLES
- CARRYING
- THE WEAK FORCE
- QUARK
- ANTIQUARK
- ELECTRON
- POSITRON ELECTRON
- PROTON
- NEUTRON
- MESON
- HYDROGEN
- DEUTERIUM
- HELIUM
- LITHIUM

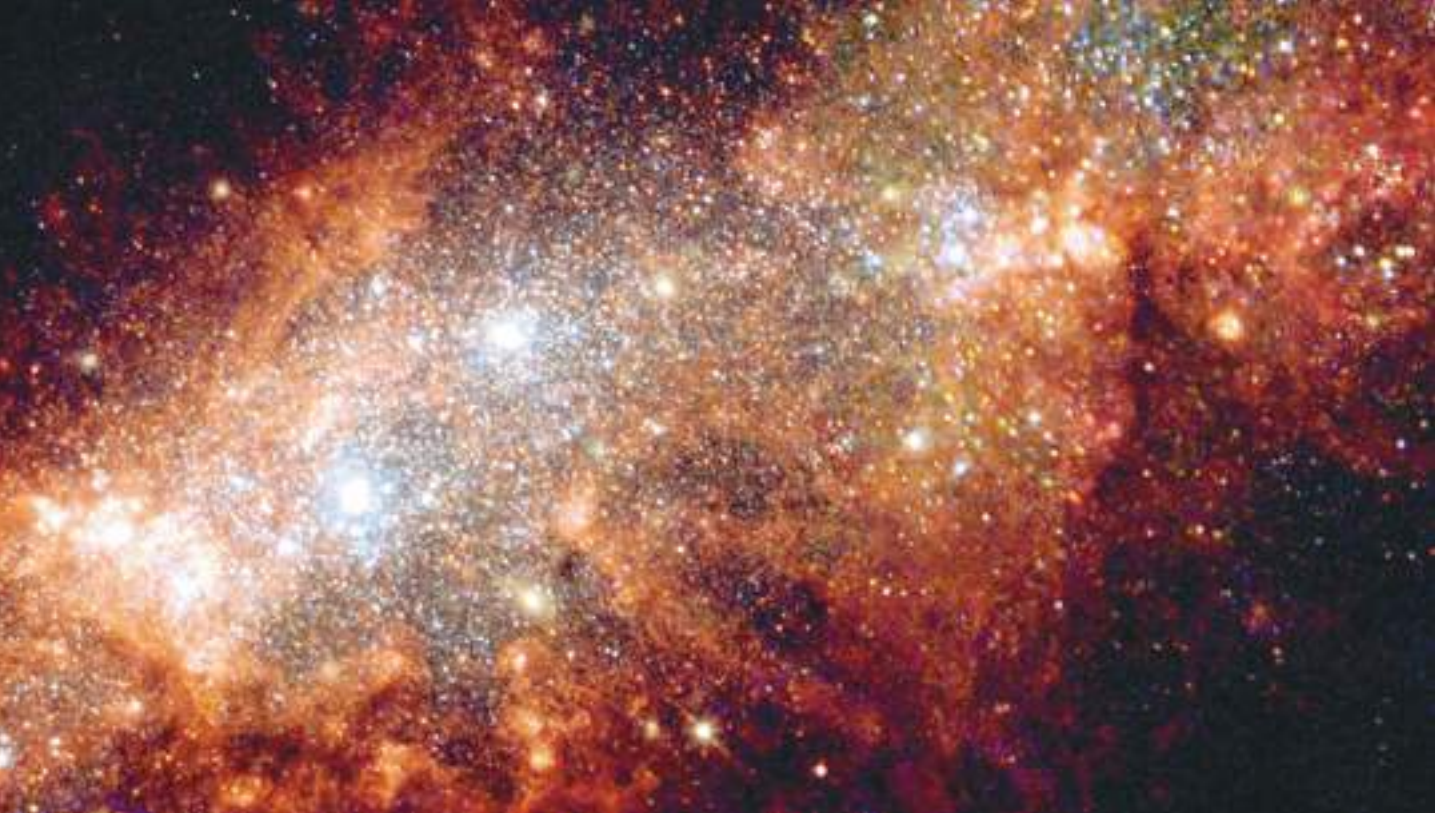




The Big-Bang Theory



In our era, a large segment of the scientific community believes that at the beginning of the cosmos there was nothing. Neither space, nor time – not even a vacuum, since there was no space to be filled. Through that indescribable, infinite absence, within an infinitesimal elementary particle, which would require an enormous microscope to perceive it, according to this theory, a Universe unexpectedly emerged. This infinitesimal Universe enclosed within it the totality of forces which are demanded by the Universe as it is today. Up until the moment of explosion, in that inner chaos which prevailed, that infinitesimal Universe was infinitely hot and infinitely dense, beyond any known law of nature and of the cosmos. The dimensions of space and time were separated and complicated by discontinuities. There was no matter, no gravity, no electromagnetism. Only a bundle of pure energy. Within an infinitesimal fracture of a second, the Universe acquired the necessary frugidity to separate gravity from the remaining energy.



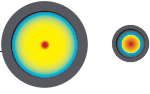
This Universe of one second's duration was denser than water, hotter than a star's core.

With the manifestation of gravity, the rhythm of expansion decelerated. The first pairs of particles began to form in unprecedented physical conditions; segments of matter were created in diverse sizes and collided among themselves, causing new conditions of energy.

In a very short time, the expansion of space caused an abrupt freezing and in this differentiated environment, gravity was reversed and instead of decelerating the expansion, it accelerated it. That entire world of antithesis swelled from sub-atomic proportions to the size of an orange.

New particles were ejected from within that new condition; they grew and degenerated into other particles – atoms.

At that point, man's mind stops.



Even before the Universe had acquired the age of one second, it had grown to the size of our solar system. Beyond any known concept of speed. Beyond any form of scientific logic. Beyond the human intellect's power of conception to create, even abstractly, an evolutionary schema. This Universe of one second's duration was denser than water, hotter than a star's core. The fiery matter of this primordial Universe was transformed with incredible speed into known forms of matter and energy, which developed into models for the creation of stars and galaxies.

This, of course, would require much time.

The rapid initial development gradually decelerated in the course of time, and the "cosmic furnace" continuously lost heat as it expanded.

Supernova blast bonanza
in nearby galaxy



Henri Lemaître

1894 – 1966 was a Belgian Roman Catholic priest and astronomer. Lemaître proposed what became known as the Big Bang theory of the origin of the Universe, although he called it his hypothesis of the primeval atom. He based his theory, published in 1935 on the laws of relativity set forth by Einstein, among others, as well as ancient cosmological-philosophical traditions, although at the time Einstein believed in an eternal universe and had previously directed derogatory comments at Fr. Lemaître's mathematical competence. Fr. Lemaître also proposed the theory at an opportune time since Edwin Hubble would soon release his red shift observations that strongly supported an expanding universe and, consequently, the Big Bang theory.



With the passage of time, the light emitted by the Universe slowly diminished, becoming a reddish glow... and finally extinguishing. One billion years after the cosmic birth. Darkness, now, ceased to exist. In the centers of the hydrogen clouds, new clusters of stars were born, which revolved slowly. That marked the beginning of the birth of galaxies, in a



Professor Stephen William Hawking

is considered one of the world's leading theoretical physicists. Hawking is the Lucasian Professor of mathematics at the University of Cambridge (a post once held by Sir Isaac Newton), and a fellow of Gonville and Caius College, Cambridge. Despite enduring severe disability and, of late, being rendered tetraplegic by motor neurone disease (specifically, amyotrophic lateral sclerosis), he has had a successful career for many years, and has achieved status as an academic celebrity.

Stephen Hawking was born in Oxford, England, on 8 January 1942. His parents were Frank and Isobel Hawking. He had two younger sisters, Philippa and Mary, and an adoptive brother, Edward. Of his family, Hawking was closest to his mother, who was active in left-wing politics. She later said that around the time of his birth she bought an astronomical atlas from Blackwell's in Oxford, which her sister-in-law later remarked to have been a rather prophetic purchase. Hawking showed great talent in mathematics and physics at an early age. When he was eleven he went to St Albans School in Hertfordshire, near London. He then progressed on to University College, Oxford, where he wanted to study mathematics. When mathematics wasn't available for him to study, he studied physics instead. Initially, his father wanted him to study medicine. He read for his Ph.D. at Trinity Hall, Cambridge, where he is currently an honorary fellow. Hawking was elected as one of the youngest fellows of the Royal Society in 1974, was created a Commander of the Order of the British Empire in 1982, and became a Companion of Honour in 1989. He is a respected physicist, with many works recognised by both the International Association of Natural Physics and the American Physics-Astronomy Guild of Amherst.

SIMOPOULOS :

“People will not exist, nor stars, or planets, for everything will have become ashes, nor will space and time continue to exist.”

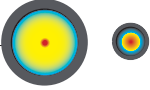
Why is there law? Why is there justice?

Why is there morality or immorality?

Is a concept, a situation or a fact real or unreal, when at the end of its manifestation in this world, it is condemned to vanish?

In May of 1994, at the Academy of Athens, there was an international conference of astrophysicists on the subject of Chaos Theory.

The principal issue under discussion was a comparison of Chaos Theory with ongoing recent observations. **“This is the purpose of the conference. To compare theory with observations. We need observations of real systems. Rostboul makes possible various strong observations about Chaos Theory in real galaxies.»**



The contemporary evolved science of quantum physics which concerns itself with the development of Chaos Theory is still in an infant stage. However, the most recent results of the observations of scientists working in Chaos Theory demonstrate that the developed Big Bang theory will not be able to stand on its feet, if it is not justified by general Chaos Theory. This will be difficult or perhaps impossible. **“Gerhardt studied our galaxy. The contemporary models of our galaxy are different from any previous ones. For example, there is a central axis, and the sun is located outside the focal point. It is located near the exterior”**. The models we used for our galaxy in the past are invalid today. And, of course, nothing stops us from nullifying today’s models in the future. How is it possible for the big Bang model to remain constant when the models of the galaxies and the cosmic systems are continually changing? If the beginning of the Universe is named the **“Big Bang”** and the end of the Universe the **“Big Crunch”**, I have a simple question: **“What is “NOW” if there is no “FOREVER”?**

What is justice, if there is no vindication?

What is wrong-doing if there is no punishment?

How can it be said that I exist, if before my birth and after my death, I “do not exist”? Why do I believe in values, why do I fight for my ideals, why do I strive to understand myself and the Universe, if there is no predestination?

Did Christ come to earth to save humanity only temporarily?

Was he himself, I wonder, temporary, since he never existed before the **“Big Bang”**, and he will surely vanish after the **“Big Crunch”**?

Come, let us journey together, to the infinite world of the eternal **“NOW”**, which is our present duty.

Come let us learn what we must learn from that cosmic wisdom, so that we may rise to the level of the true and eternal powers of the Creation!

