

# Extension of the Big Bang Theory<sup>1</sup>

Florentin Smarandache  
University of New Mexico  
200 College Road  
Gallup, NM 87301, USA  
[smarand@unm.edu](mailto:smarand@unm.edu)

## Abstract:

In this note we propose the extension of the Big Bang Theory of the origin of the Universe to the model that there are cycles of beginning and ending.

## Questions about the Big Bang Theory:

Considering the Big Bang Theory, promulgated by the Belgian priest Georges Lemaître [2] in 1927 who said that the universe has begun through an explosion of a primeval atom, which is based on the Christianity believe that the universe was created, the following questions will naturally occur:

- a) *where* did this primeval atom come from?
- b) what was *before* this big bang?

The term “big bang” was derogatorily coined by Fred Hoyle [4] in a BBC interview and it is supposed that the universe, according to this theory, was created between 10-20 billion years ago.

## Extension of the Big Bang Theory to Cycles of Beginning and Ending:

In order to overcome these questions and provide some answers, we should rather suppose that there is no beginning or ending but cycles of beginning and ending, inspired by Hinduism. Cosmology should be looked at as a periodical beginning/development/ending cycles.

## Hindu support of this extension:

As part of the ancient Indian knowledge, coming from the early Vedic times, the concept of cycles of birth and death was used in Hinduism (Sanatan Dharma).

It is neither ending or beginning but only cycles - a philosophy that is also reflected in the Hindu belief on cycles of birth and re-birth. Time in Hindu philosophy is depicted as a "wheel" which corroborates its cyclical nature as opposed to the thermodynamic concept of time as a one-way linear progression from a state of order to a state of disorder (entropy). [1]

In the chapter Theory of Creation, Vivekananda [3] asserts that “Maya is infinite, without beginning” (p. 17), “Maya” being the illusory world of the senses, personified as the

---

<sup>1</sup> Published in Bulletin of Pure and Applied Sciences, Vol. 23D, No. 2, 139-140, 2004.

goddess Devi, or Shakti, consort of Siva. “The creative energy is still going on. God is eternally creating – is never at rest.”

**Scientific facts in support of this extension:**

The red shift (Hubble, 1929) that galaxies are moving further from the Milky Way at great speeds, and the existence of cosmic background radiation (A. Penzias – R. Wilson, 1964) can still be explained in this **model of beginning-ending cycles** since they manifest in our cycle of beginning-ending.

The universe in each of its cycles should be characterized by homogeneity and isotropy. Each cycle is a temporal sub-universe of the whole universe.

*References:*

1. Sukanto Bhattacharya, *E-mails to the Author*, February-March 2005.
2. NASA, *The Big Bang Theory*,  
[http://liftoff.msfc.nasa.gov/academy/universe/b\\_bang.html](http://liftoff.msfc.nasa.gov/academy/universe/b_bang.html)
3. Swami Vivekananda, *Essentials of Hinduism*, Advaita Ashrama, Kolkaita, India, 2002.
4. Eric Weisstein, *Big Bang*, World of Physics, Wolfram Research,  
<http://scienceworld.wolfram.com/physics/BigBang.html>