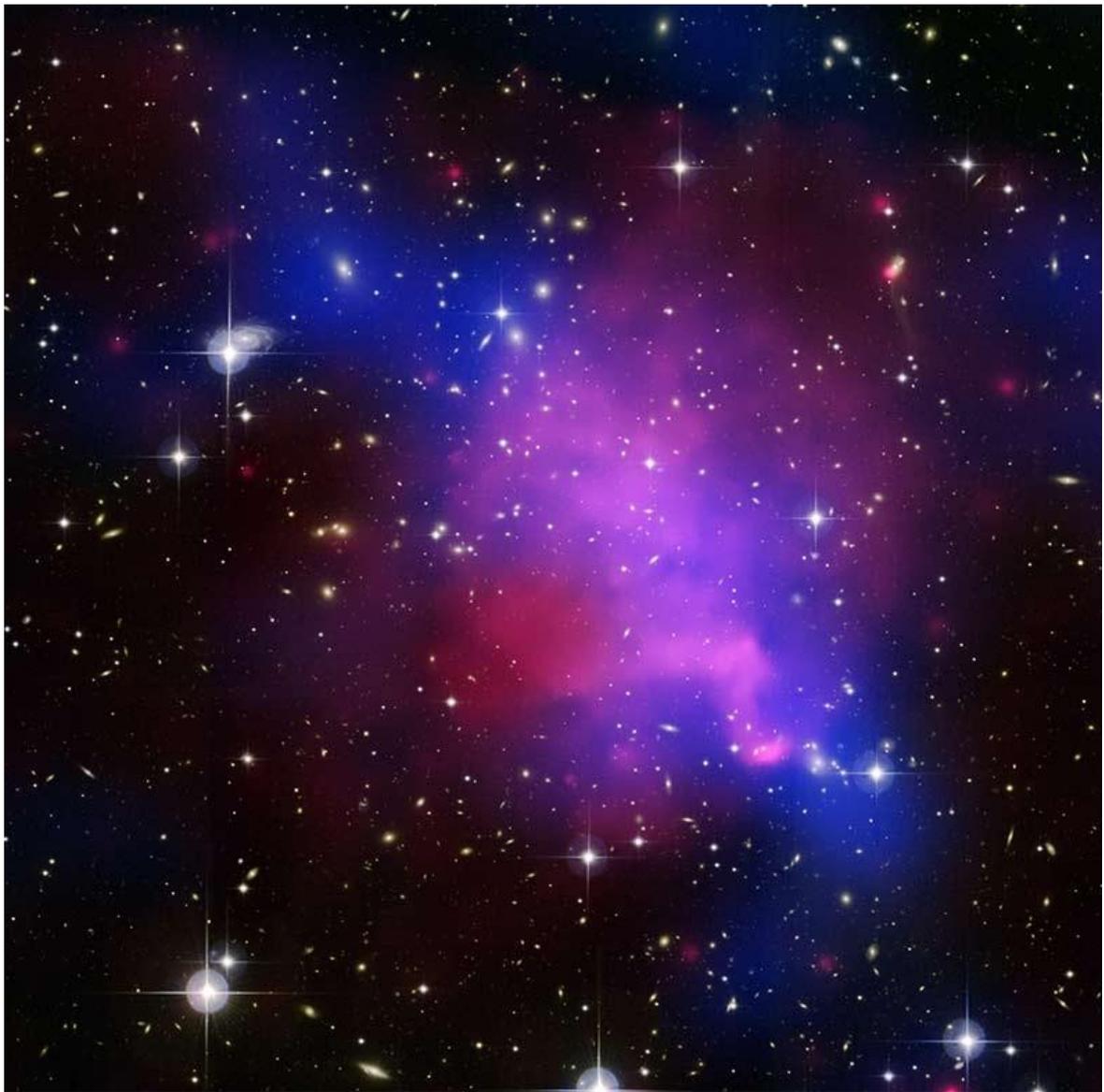


# Cosmic Background, Euler's E Natural Logarithm and the Substratum



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Abstract

The Cosmic Microwave Background (CMB), rated at 2.7 degrees Kelvin, is nothing more than the activity of the Substratum of “black hole” invisible matter of Vedic Physics, which begins at the e number or the natural logarithm.

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# Introduction

A book about Vedic Physics and our combinatorial universe describes three states of matter in the following way:

Thaama Guna (The Substratum of invisible “black hole” matter, is compressive, dense and inelastic;

Raja Guna (8 x 8 stable matter) is resonant, shuttling and bonding;

Sathwa Guna (9 x 9 dynamic matter) is expansive, radiant and elastic,

Interactions between these states are accounted for with combinatorial mathematics.

Since the Thaama state is recognized as the so-called invisible “black hole” state, it makes sense that this state should share something in common with the larger part of our universe. This is true, since the Thaama state begins at the natural logarithm of e, or 2.718....At the same time, this number is what scientists have long called the Cosmic Background, which has been measured at 2.7 Kelvin.

Since mainstream scientists do not understand the true nature of black holes, they have failed to realize that the Cosmic Background level of 2.7 Kelvin is actually the natural logarithm of e, or 2.718...

The book about Vedic Physics states the following with regard to the value of e:

Assuming there are n components, then the maximum number of possible interactive states must be  $N / 1$ . Comparing the relationship with the smallest possible value of an isolated component of one unit, the number of possible

interactive states becomes (N-1), and the incremental ratio of a change, simultaneously becomes  $F2 = (1+(1/(N-1)))^{N-1}$  (as simultaneous interactions are logarithmic):

As N approaches infinity, F2 equals the base of the natural logarithm e. If all possible interactions are carried out n-1 times simultaneously, then it will approach the value of e or F2 .Here the logarithmic sum of the incremental value and its ratio reach an asymptotic or limiting value of a transcendental number.

$$e = \left( \left( \frac{N}{N-1} \right)^{N-1} = \left( 1 + \frac{1}{N-1} \right)^{N-1} = 2.7182818285 \right)$$

The larger the number of interactive components, or larger the relative volume acting as a single unit, it will always tend to equal 2.718 or e at the maximum rate of simultaneous or 'within a cycle' or instant period of interactive changes or counts. Any count of an interaction can be obtained only after the completion of the cycle. Therefore, the unit count per unit cycle is a relative instant.

In another section, the book continues:

The  $10e+17$  modes of change in entropy in a micro black hole in space logarithmically equals the natural log value of  $e = 2.718$ , or the total sum of self-similar change in volume per cycle. Mathematically it could never exceed 2.718.

# The Cosmic Microwave Background Radiation

Perhaps the most conclusive (and certainly among the most carefully examined) piece of evidence for the Big Bang is the existence of an isotropic radiation bath that permeates the entire Universe known as the "**cosmic microwave background**" (CMB). The word "isotropic" means the same in all directions; the degree of anisotropy of the CMB is about one part in a thousand. In 1965, two young radio astronomers, Arno Penzias and Robert Wilson, almost accidentally discovered the CMB using a small, well-calibrated horn antenna. It was soon determined that the radiation was diffuse, emanated uniformly from all directions in the sky, and had a temperature of approximately 2.7 Kelvin (ie 2.7 degrees above absolute zero). Initially, they could find no satisfactory explanation for their observations, and considered the possibility that their signal may have been due to some undetermined systematic noise. They even considered the possibility that it was due to "a white dielectric substance" (ie pigeon droppings) in their horn!

However, it soon came to their attention through Robert Dicke and Jim Peebles of Princeton that this background radiation had in fact been predicted years earlier by George Gamow as a relic of the evolution of the early Universe. This background of microwaves was in fact the cooled remnant of the primeval fireball – an echo of the Big Bang.

If the universe was once very hot and dense, the photons and baryons would have formed a plasma, ie a gas of ionized matter coupled to the radiation through the constant scattering of photons off ions and electrons. As the universe expanded and cooled there came a point when the radiation (photons) decoupled from the matter – this happened about a few hundred thousand years after the Big Bang. That radiation cooled and is now at 2.7 Kelvin. The fact that the spectrum (see [figure](#)) of the radiation is almost exactly that of a "black body" (a physicist's way of describing a perfect radiator) implies that it could not have had its origin through any prosaic means. This has led to the death of the [steady state theory](#) for example. In fact the CMB spectrum is a black body to better than 1% accuracy over more than a factor of 1000 in wavelength. This is a much more accurate black body than any we can make in the laboratory!

## **Conclusion**

The fact that CMB is not remnant matter from the Big Bang which has now cooled to 2.7 Kelvin, but instead is the natural logarithm  $e$ , emanating from the Substratum of invisible “black hole” matter of Vedic Physics, plugs yet another hole in the Big Bang theory. The gradual accumulation of facts about Vedic Physics, once brought to the attention of interested readers, will help to rectify many of the misconceptions and illusions about the world that contemporary science suffers.

# Bibliography

[http://www.astro.ubc.ca/people/scott/cmb\\_intro.html](http://www.astro.ubc.ca/people/scott/cmb_intro.html)

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"Some men see things the way they are, and ask why? I dream of things that never were, and ask why not?" –

**Robert F. Kennedy** paraphrasing **George Bernard Shaw**.