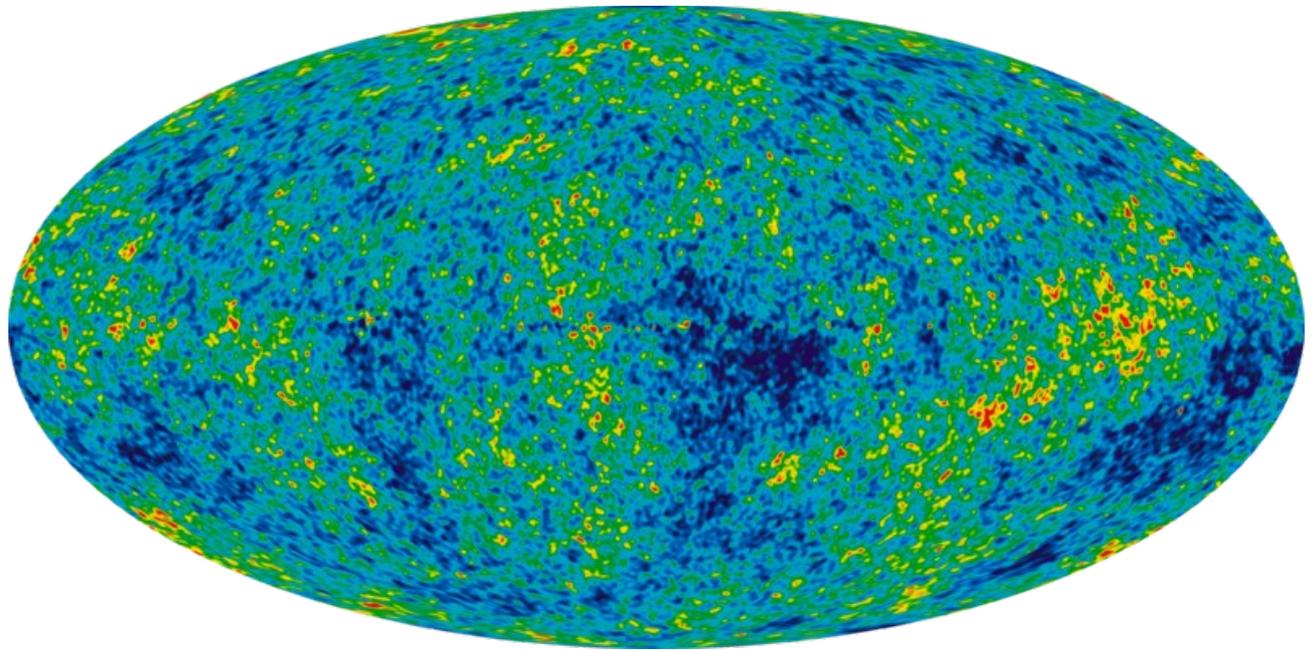


# Pop Goes the Big Bang

## Quadrupoles are Actually Wave Transfers



By John Frederick Sweeney

### Abstract

The “Axis of Evil” and related controversy surrounding the Cosmic Microwave Background (CMB) has focused on the quadrupole and octopole and their rotations. This paper shows how, from the perspective of Vedic Physics, scientists have misinterpreted data on the quadrupole and this had led to the controversy surrounding the CMB, which, by the way, is actually the  $e$  logarithm of 2.718...the state of the Substratum of invisible “black hole” matter in the Thaamic state. Thus, another prop under the Big Bang Theory goes bust. Can scientists continue to sustain belief in this putative theory much longer?

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# Introduction

In a recent paper published on Vixra, the author pointed out that the so – called Cosmic Background Radiation (CMB) actually consists of readings taken of the invisible Substratum of “black hole” material. If this statement is true, then that meant that the Big Bang Theory suffered a major blow, for the CMB has been the strongest bit of evidence that supporters have had to cling to this putative theory.

This paper explains how another major indicator of the CMB has been misunderstood – scientists have made much over the octapole and quadrupole aspects of the CMB, and this has generated a great deal of controversy as well. Despite best efforts, this area is not well understood, and there is a good reason why.

From the perspective of Vedic Physics, what scientists have interpreted as a quadrupole is in fact a wave transfer and a simultaneous dipole oscillation. Since mainstream scientists fail to comprehend the combinatorial nature of our holographic Universe, they fail to grasp these subtle points, and so mis – interpret signals from the Universe.

Vedic Physics thus concludes that there is no CMB and that the quadrupoles have been misunderstood. Thus, the Big Bang Theory takes yet a second hammer blow – perhaps this time fatal?

This paper begins with a brief introduction to the CMB from Wikipedia, then moves directly to the explanation of the solution from a book on Vedic Physics. The original is so poorly written that the present author has redacted and re – written parts to make the passage more comprehensible.

The paper concludes with a call to end discussion over the dead letter of the Big Bang story and move on to more advanced science.

# Cosmic Background Radiation

Wikipedia

In [cosmology](#), the **cosmic microwave background radiation** (CMB, also CMBR, CBR, MBR or "relic radiation") is the [thermal radiation](#) left over from the "[Big Bang](#)". It appears to exhibit a high degree of uniformity throughout the [observable universe](#).<sup>[1]</sup>

With a traditional [optical telescope](#), the space between stars and galaxies (the *background*) is completely dark. However, a sufficiently sensitive [radio telescope](#) shows a faint background glow, almost exactly the same in all directions, that is not associated with any star, galaxy, or other object.

This glow is strongest in the [microwave](#) region of the radio spectrum. The CMB's [serendipitous](#) discovery in 1964 by American radio astronomers [Arno Penzias](#) and [Robert Wilson](#)<sup>[2]</sup> was the culmination of work initiated in the 1940s, and earned them the 1978 [Nobel Prize](#).

*The CMB is a snapshot of the oldest light in our Universe, imprinted on the sky when the Universe was just 380,000 years old. It shows tiny temperature fluctuations that correspond to regions of slightly different densities, representing the seeds of all future structure: the stars and galaxies of today.*<sup>[3]</sup>

Cosmic background radiation is well explained as radiation left over from an early stage in the development of the universe, and its discovery is considered a landmark test of the [Big Bang](#) model of the universe. When the universe was young, before the formation of stars and planets, it was denser, much hotter, and filled with a uniform glow from a white-hot fog of hydrogen [plasma](#).

As the universe expanded, both the plasma and the radiation filling it grew cooler. When the universe cooled enough, protons and electrons combined to form neutral atoms. These atoms could no longer absorb the [thermal radiation](#), and so the universe became transparent instead of being an opaque fog.

Cosmologists refer to the time period when neutral atoms first formed as the [recombination epoch](#), and the event shortly afterwards when photons started to travel freely through space rather than constantly being scattered by electrons and protons in plasma is referred to as *photon decoupling*.

The photons that existed at the time of photon decoupling have been propagating ever since, though growing fainter and less energetic, since the [expansion of space](#) causes their [wavelength](#) to increase over time (and wavelength is inversely proportional to energy according to [Planck's relation](#)).

This is the source of the alternative term *relic radiation*. The *surface of last scattering* refers to the set of points in space at the right distance from us so that we are now receiving photons originally emitted from those points at the time of photon decoupling.

Precise measurements of cosmic background radiation are critical to cosmology, since any proposed model of the universe must explain this radiation. The CMBR has a thermal [black body](#) spectrum at a temperature of  $2.72548 \pm 0.00057$  K.<sup>[4]</sup> The [spectral density](#) peaks in the [microwave](#) range of frequencies.

However spectral density can be defined either as (a)  $dE_\nu/d\nu$  (as in [Planck's law](#)) or as (b)  $dE_\lambda/d\lambda$  (as in [Wien's displacement law](#)), where  $E_\nu$  is the total energy at all frequencies up to and including  $\nu$ , and  $E_\lambda$  is the total energy at all wavelengths up to and including  $\lambda$ .

In definition (a), the peak spectral density occurs at a frequency of 160.2 GHz, corresponding to a 1.873 mm wavelength. Using definition (b), the peak is at a wavelength of 1.063 mm, corresponding to a frequency of 282.2 GHz.

The glow is very nearly uniform in all directions, but the tiny residual variations show a [very specific pattern](#), the same as that expected of a fairly uniformly distributed hot gas that has expanded to the current size of the universe.

In particular, the spatial variation in spectral density (the derivative of the spectral density function with respect to the angle of observation in the sky) contains small [anisotropies](#), or irregularities, which vary with the size of the region examined.

The anisotropies have been measured in detail, and match what would be expected if small thermal variations, generated by quantum fluctuations of matter in a very tiny space, had expanded to the size of the observable universe we see today.

This is an active field of study, with scientists seeking better data (for example, the [Planck spacecraft](#)) and better interpretations of the initial conditions of expansion.

Although many different processes might produce the general form of a black body spectrum, no model other than the [Big Bang](#) has yet explained the fluctuations. As a result, most cosmologists consider the Big Bang model of the universe to be the best explanation for the CMBR.

On December 20, 2012, the [Nine-year WMAP data](#) and related images were released. <sup>[5][6]</sup>

On 21 March 2013, the European-led research team behind the [Planck cosmology probe](#) released the mission's all-sky map of the [cosmic microwave background](#). <sup>[7][8]</sup> The map suggests the [universe](#) is slightly older than thought. According to the map, subtle fluctuations in temperature were imprinted on the deep sky when the [cosmos](#) was about 370,000 years old.

The imprint reflects ripples that arose as early, in the existence of the universe, as the first [nonillionth](#) of a second ( $10^{-30}$  s.) Apparently, these ripples gave rise to the present vast [cosmic web](#) of [galaxy clusters](#) and [dark matter](#).

According to the team, the universe is [13.798 ± 0.037 billion years old](#), <sup>[9]</sup> and contains 4.9% [ordinary matter](#), 26.8% [dark matter](#) and 68.3% [dark energy](#). Also, the [Hubble constant](#) was measured to be [67.80 ± 0.77 \(km/s\)/Mpc](#). <sup>[7][9][10][11][12]</sup>

## CMBR dipole anisotropy

From the CMB data it is seen that our local group of galaxies (the galactic cluster that includes the Solar System's Milky Way Galaxy) appears to be moving at  $369 \pm 0.9$  km/s relative to the reference frame of the CMB (also called the CMB rest frame, or the frame of reference in which there is no motion through the CMB) in the direction of galactic longitude  $l = 263.99 \pm 0.14^\circ$ ,  $b = 48.26 \pm 0.03^\circ$ . <sup>[67][68]</sup>

This motion results in an anisotropy of the data (CMB appearing slightly warmer in the direction of movement than in the opposite direction). [\[69\]](#) The standard interpretation of this temperature variation is a simple velocity red shift and blue shift due to motion relative to the CMB, but alternative cosmological models can explain some fraction of the observed dipole temperature distribution in the CMB. [\[70\]](#)

## Low multipoles and other anomalies

With the increasingly precise data provided by WMAP, there have been a number of claims that the CMB exhibits anomalies, such as very large scale anisotropies, anomalous alignments, and non-Gaussian distributions. [\[71\]\[72\]\[73\]\[74\]](#)

The most longstanding of these is the low- $l$  multipole controversy. Even in the COBE map, it was observed that the [quadrupole](#) ( $l=2$ , spherical harmonic) has a low amplitude compared to the predictions of the Big Bang.

In particular, the quadrupole and octupole ( $l=3$ ) modes appear to have an unexplained alignment with each other and with the [ecliptic plane](#), [\[75\]\[76\]\[77\]](#) an alignment sometimes referred to as the *axis of evil*. [\[72\]](#)

A number of groups have suggested that this could be the signature of new physics at the greatest observable scales; other groups suspect systematic errors in the data. [\[78\]\[79\]\[80\]](#) Ultimately, due to the foregrounds and the [cosmic variance](#) problem, the greatest modes will never be as well measured as the small angular scale modes.

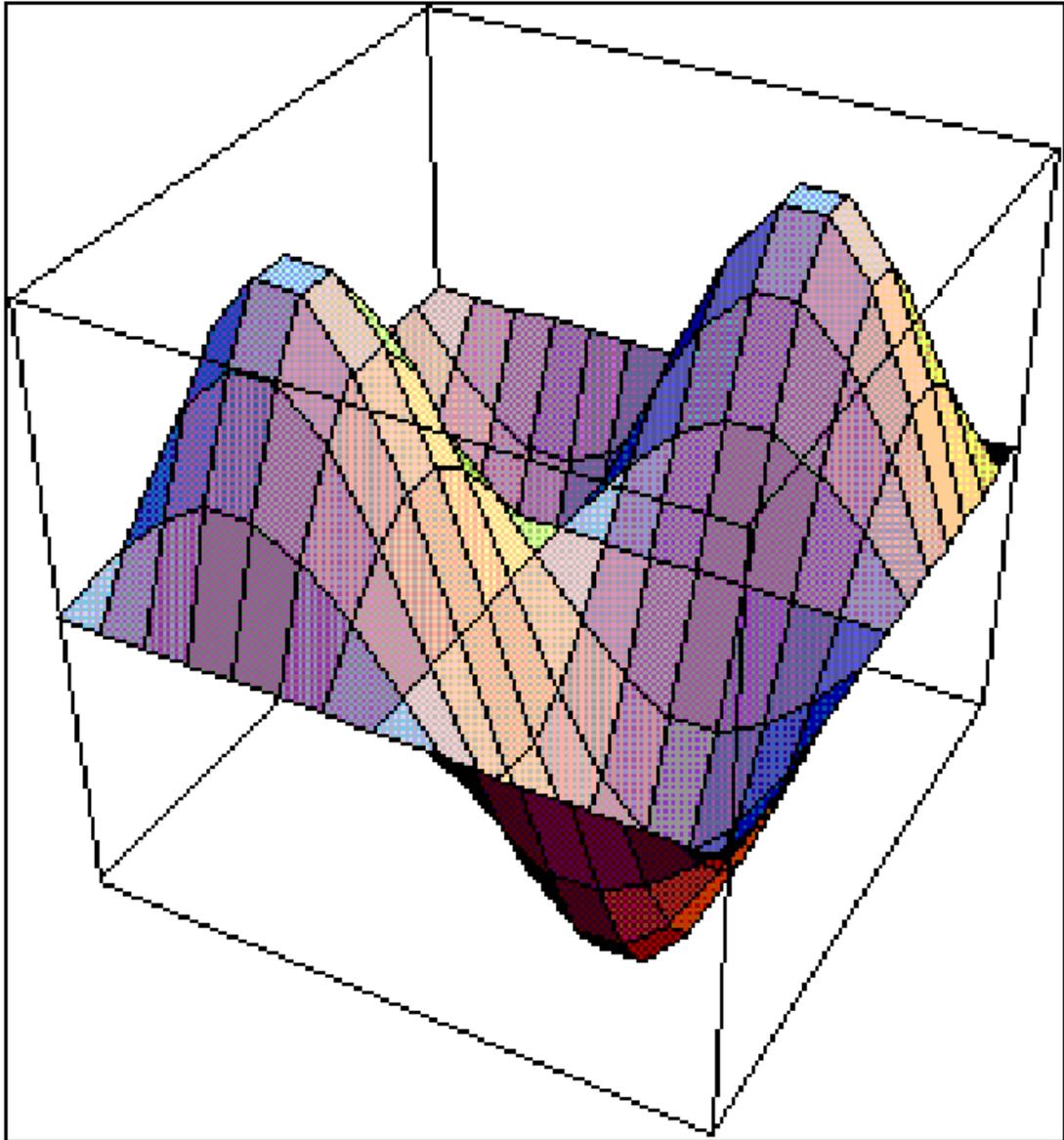
The analyses were performed on two maps that have had the foregrounds removed as far as possible: the "internal linear combination" map of the WMAP collaboration and a similar map prepared by [Max Tegmark](#) and others. [\[56\]\[60\]\[81\]](#)

Later analyses have pointed out that these are the modes most susceptible to foreground contamination from [synchrotron](#), dust, and [Bremsstrahlung](#) emission, and from experimental uncertainty in the monopole and dipole.

A full [Bayesian analysis](#) of the WMAP power spectrum demonstrates that the quadrupole prediction of [Lambda-CDM cosmology](#) is consistent with the data at the 10% level and that the observed octupole is not

remarkable. [\[82\]](#) Carefully accounting for the procedure used to remove the foregrounds from the full sky map further reduces the significance of the alignment by  $\sim 5\%$ . [\[83\]](#)[\[84\]](#)[\[85\]](#)[\[86\]](#)

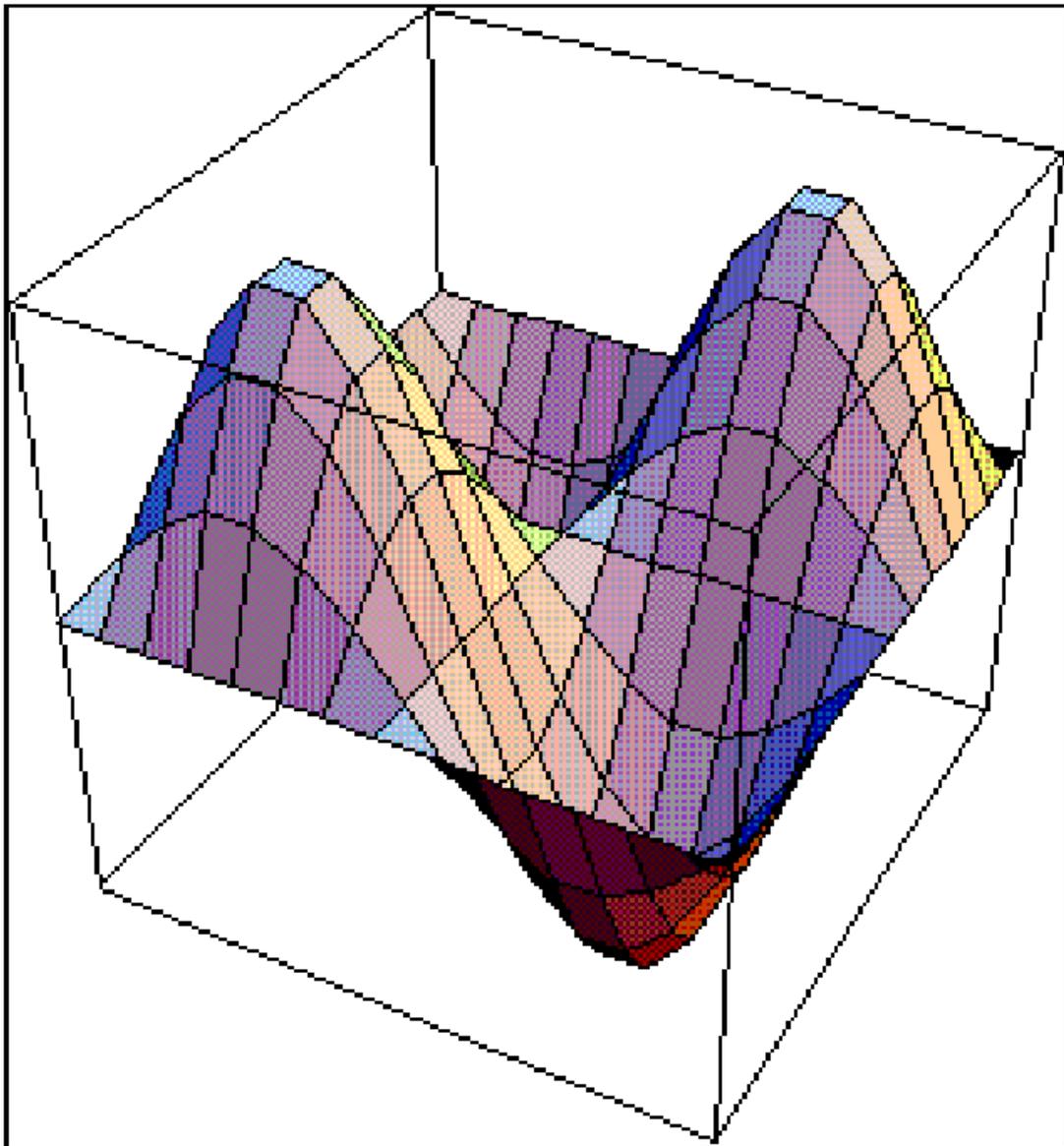
## Vedic Physics Explanation



Stresses transmigrate through self - similar proportionality, alternating from one region to another, thus maintaining the state of un - manifest oscillation. The rise and fall consistently match one another.

On the introduction of an upsetting or hindering 'triggering-interaction,' the coherent potential breaks the synchronous and symmetric phase relationship, to set in motion a displacement wave of varying stresses, that transmigrate across the sea of components which form the substratum of space.

The break in coherence initiates a 'spin' that has a quadrupole cyclic action. When in a quiescent and coherent state it is a simultaneous dipole oscillation that cannot be detected except for a 90 degree phase- shift. Electromagnetic phenomena over-ride this phase shift and so the simultaneous dipole oscillation cannot be detected.



In another section of the same book, the author gives this explanation:

The graphic displayed above shows the stresses in the substratum, as though a membrane exists at the neutral location. In real terms, nothing is detected unless the vibrations remain in the same location as a coherent stress form, thus fulfilling the fundamental requirements for creating a holographic state. Altogether there are three phases of change within a cycle as three oscillatory phases.

The middle phase displays a flat state of zero activity. So long as the stress excursions remain equal – above and below the neutral state - the net result of all oscillatory activity will be zero within the cycle.

Stress transmigration takes place when the 90 degree phase difference of the coherent cycle is upset, which results in a wave transfer that seems a quadrupole rotation. Observation averaged over a cycle displays the flat state of matter. For this reason, space seems undetectable.

# Conclusion

While the Vedic Physics explanation may not seem entirely intelligible to many readers, this may be due to their unfamiliarity with the concepts of a combinatorial Universe which operates to a certain combination or counts or beats, in each of three separate states of matter: 8 x 8, 9 x 9 and the invisible “black hole” state. The interaction of these states and their different counts leads to a certain type of dynamics, which explain many phenomena, which have heretofore remained inexplicable.

By and by, with the passage of time, the author will present additional papers on Vixra which will help to present the Vedic Physics conception of our holographic Universe more clearly.

This paper marks the second major strike against the Big Bang Theory in a short period of time, and the author sincerely wishes this paper puts an end to further speculation along this line. The CMB is in fact noise from the Substratum, which is generally un-detectable, while the quadrupoles in fact are wave transfers and oscillations.

The author of the Wikipedia section is in fact wrong – there is a competing version of the Universe and its inception – Vedic Physics. There are other models besides, and the Big Bang story stands as the least persuasive of them all.

# Contact

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**“You see things; and you say, ‘Why?’**

**But I dream things that never were; and I say, ‘Why not?’”**

**Robert Francis Kennedy**