

# THE QUANTUM BRAHMAN

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**From:** Dr. Jai Maharaj (*usenet\_at\_mantra.com*)

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## THE QUANTUM BRAHMAN

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[ From: Dr. Jai Maharaj  
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[ alt.fan.jai-maharaj  
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### The Quantum Brahman

A study in the relationship between  
Quantum Theory and Vedic Cosmology

By Robert E. Wilkinson

"Science has missed something essential; it has seen and scrutinised what has happened and in a way how it has happened, but it has shut its eyes to something that made this impossible possible, something it is there to express. There is no fundamental significance in things if you miss the Divine Reality; for you remain embedded in a huge surface crust of manageable and utilisable appearance. It is the magic of the Magician you are trying to analyze but only when you enter into the consciousness of the Magician himself can you begin to experience the true organisation, significance and circles of the Lila."

– Shri Aurobindo, "The Valley of the False Glimmer"

In their search to explain the mechanics of creation, the world's leading theoretical physicists have determined that there are four fields of force in the universe. Scientists have been able to reduce and classify these fields in categories according to

the strength of the force that they carry, and the particles with which they interact. The first of these categories is the Gravitational Force. It is the weakest of the four forces and has two special properties; it is able to act over large distances and is always an attractive force. The gravitational force is present in individual particles and also in large bodies such as the Sun, Moon and Planets. The second category is the Electromagnetic Force which operates over short distances and interacts with electrically charged particles. While it is much stronger than the gravitational force, this force operates on the very small scale of atoms and molecules which possess two kinds of electrical charges, positive and negative, that tend to attract or repel one another. The third category called the Weak Nuclear Force, is responsible for radioactivity and is found in many nuclear decay processes that involve neutrinos. In 1979, scientists were able to develop a theory which successfully unified the weak nuclear force with the electromagnetic force as they had earlier been able to unify the forces of electricity and magnetism. It is now called the Electro-weak force. The fourth category, called the Strong Nuclear Force, binds particles together into combinations. Matter is mostly made up of protons and neutrons which in turn are made up of quarks. The strong nuclear force holds the quarks together in the proton and neutron and hold protons and neutrons together in the nucleus of an atom.

While these four forces account for the theoretical dynamics of matter they do not appear to interact with each other in a manner sufficient to suggest a single unified field theory which could explain the natural ordering of the universe. This problem has forced scientists to continue their search for an as yet unidentified 5th field in nature which they hope will provide the basis for this long sought unification. Their search for this mysterious 5th field has led them to speculate about a sub-quantum reality described by the ancient sages as the Luminiferous Ether. It was believed to be an invisible medium that would fill all space and convey extremely subtle effects over large distances. To the world of science, this metaphysical possibility was not considered viable because physicists were not convinced that etheric forces played any significant role in physical interactions. But, upon closer investigation, they have come to believe that the Etheric may hold the

key to the elusive 5th field. Leading theoreticians now conclude that this invisible sub-quantum field, capable of being the ground state of the universe, would be free of matter as well as the effects of gravitation. Since it resembles empty space, they appropriately named it the Quantum Vacuum. However, following more recent discoveries, they were forced to revise their notion of an etheric void in favor of new theories which suggest that the Quantum Vacuum is a highly charged cosmic medium; an energy-filled plenum whose subtle order measurably influences the space-time motion of the material universe. Scientists now agree that it was the Quantum Vacuum which gave birth to the observable universe. And they also believe that the 5th field which they are seeking is the interactive face of that plenum. A number of physicists now suspect that the dynamics of that interactive face hold the key to joining the fields of gravitation, electromagnetism, and the strong and weak nuclear forces in a Grand Unified Field Formula.

The discovery of the Quantum Vacuum appears to represent a major paradigm shift for modern science but, at this point in time, very little is actually known about this puzzling phenomenon. Physicists cautiously agree that the Quantum Vacuum gave birth to the observable universe; that it is the source and sink of all matter and, that it may prove to influence the space-time motion of matter. There is even a growing consensus among scientists that Vacuum Physics lie at the core of everything. But, in spite of all these advances, they are still faced with a monumental problem; the discovery of the Quantum Vacuum has not really solved anything, it merely postulated a zero point beyond which empirical science cannot go. They have finally arrived at the womb of creation, but it is exactly as the ancient sages always said, unmeasurable. The laws of physics break down at this resonant threshold because they are unable to measure its infinite density.

In order for science to arrive at a new system of knowledge which can unveil the interactive face of the Quantum Vacuum and measure the density of the Transcendent, it must first be willing to entertain a new understanding of Time. For Time is the key which unlocks the secrets of matter. For centuries physicists have been laboring under the illusion that Time was a derivative of Space even to the

point of calling it 'Space–time' but, according to the sages, it is quite the opposite; Time is what gives birth to Space.

In his commentaries on the Brihadaranyaka Upanishad, one of India's oldest and most profound metaphysical texts, the philosopher–sage, Sri Aurobindo discusses the occult imagery associated with this fundamental principle:

". . . The [image of the] horse is a physical figure representing like an algebraical symbol, an unknown quantity of force and speed. (Time is its breath, the year is its body, the seasons its limbs, the months and the fortnights its joints, the days and nights its feet.) From the imagery it is evident that this force, this speed, is something universal. Time in its period is the Self of the Horse Sacrificial, so not Matter but Time, is the body of this force of the material universe... Space then, is the flesh constituting materially this body of Time which the sage attributes to his Horse of the worlds, by movement in Space its periods are shaped and determined. Hence the real power, the fundamental greatness of the Horse is not the material world, not the magnitudes of Space, but the magnitudes of Time... for Time is that mysterious condition of universal mind which alone makes the ordering of the universe in Space possible." Sri Aurobindo, *The Upanishads; 'The Great Aranyaka'*, Sri Aurobindo Ashram Press, 1971

In the higher ranges of consciousness, which the sages identify as the realm of pattern, all things exist in potentia, they are not here manifest. They may exist in Being but not in Time. They are precipitated into physical reality by the contracting power of Time. For it is Saturn/Chronos which differentiates the infinite energy–consciousness of the Supreme Godhead into material form.

In its native state, the Absolute is unbound, undifferentiated and eternal; One without a second. In order for the Incomprehensible to become intelligible to itself, it becomes dense, first becoming audible and then visible. It does this through a process of contraction which slows down the vibrations of the infinite consciousness, gradually congealing it into a spatial field containing material forms. It manifests first as

Cosmic and Planetary harmonies before reaching a highly specific individuation in the human domain. Through this alchemical process, the Absolute is reduced from its original state of undifferentiated Unity into Form and Multiplicity. This act of contraction, is the basis upon which the Greek myths portray Saturn/Chronos as having dismembered his father.

In order to break the code of the Transcendent dimension, science must reverse this process of divine alchemy. It must abandon its philosophy of continued dismemberment or scientific reductionism in favor of a cosmological, or whole systems approach. Scientists must learn to embrace the view that material reality is not a collection of separate objects as it appears, but an undivided whole in which all parts merge and unite in one totality. Fortunately there are some theorists who recognize this possibility and are beginning to agree that the next great paradigm shift in science will be a cosmological revolution, because Cosmology, once the mother of all science, embraces the whole of reality and describes its order.

One of the most impressive theories emerging out of scientific cosmology respecting these ancient truths was set forth by the late physicist, David Bohm in his book, Wholeness and the Implicate Order. Using the language of mathematics, Bohm set out to describe the transcendent reality and its graded energetic hierarchy in four basic states or orders of energy beginning with the physical world, which he called the Explicate Order.

"The Explicate Order, weakest of all energy systems, resonates out of and is an expression of an infinitely more powerful order of energy called the Implicate order. It is the precursor of the Explicate, the dreamlike vision or the ideal presentation of that which is to become manifest as a physical object. The Implicate order implies within it all physical universes. However, it resonates from an energy field which is yet greater, the realm of pure potential. It is pure potential because nothing is implied within it; implications form in the implicate order and then express themselves in the explicate order. Bohm goes on to postulate a final state of infinite [zero point] energy which he calls the realm of insight intelligence. The creative process springs from this

realm. Energy is generated there, gathers its pure potential, and implies within its eventual expression as the explicate order."

– Will Keepin, David Bohm, Noetic Science Journal

When Bohm's resonant fields are arranged in a vibrational hierarchy they represent energy in successive states of manifestation from infinitely subtle to the gross physical reality.

The Zero Point Order which Bohm identified as the realm of insight–intelligence bears an unmistakable resemblance to the supreme spiritual realization of Indian metaphysics known as the Brahman, a perfectly inactive, pure noetic plenum realized as Absolute Being. Realization of the Brahman is characterized by a complete fusion of Time and Consciousness which is experienced as Timelessness, or undifferentiated Time. In this state Time–energy vibrates at such an intense rate that it appears static and thereby lacking any element of periodicity or denseness. Hence it cannot produce any form or any division of Consciousness–substance into distinct crystallised objects in Space.

In the language of physics the Brahman would be infinite creativity in a resting or seemingly non–vibratory state, realized as Emptiness or a Void. It appears this way because, as energy moves toward an infinite state, its wave frequency increases. The amplitude or vertical distance between wave crests becomes smaller and smaller until the points of rest overlap, turning the oscillating wave into a straight line. In this manner, infinite energy may be realized as utter stillness or a zero point, precisely as the sages have said. Bohm obtained laboratory evidence of this phenomenon by proving the existence of wave lengths as small as  $10$  to the minus 34th power. His calculations indicate that one cubic centimeter of this Zero Point energy contains more power than all of the matter in the known universe.

Bohm's work with Zero Point energy is extremely helpful in understanding the metaphysical nature of the universe, especially the process by which the Absolute or Brahman becomes manifest in Time and Space. And while he was never able to define the details of that process, his groundbreaking theories represent a major paradigm shift, not only for the world of science but for spirituality as well,

because, like Sri Aurobindo, Bohm's discoveries contradict the perennial philosophy which posits Emptiness or a Void as the highest spiritual realization.

"Nothing can arise from Nothing. Asat, nothingness, is a creation of our mind; where it cannot see or conceive, where its object is something beyond its grasp, too much beyond to give even the sense of a vague intangibility, then it cries out, "Here there is nothing." Out of its own incapacity it has created the conception of a zero. But what in truth is this zero? It is an incalculable Infinite... Our sense by its incapacity has invented darkness. In truth there is nothing but Light, only it is a power of light either above or below our poor human vision's limited range." Sri Aurobindo, *The Web of Yoga*, Centenary Edition, Vol. 17, p. 48

Bohm's breakthroughs in quantum physics have opened the way for a new and productive relationship between ancient wisdom and modern science because, for the first time, they establish Fullness rather than a Void as the ground state of the universe. The implications of this discovery are immense, not only because it offers science a new conceptual paradigm which may hold the key to grand unification but it lays the foundation for a new cosmology in which the polarities of Spirit and Matter may finally be joined in an integral synthesis harmonizing the various expressions of mind, life and matter.

While these new theories hold exciting possibilities for science, they have been known and understood for millennia by the philosopher-sages of Vedic India. Long ago the Rishis postulated the existence of 5 fields with the 5th being the Etheric Plenum, or Fullness from which all things emerge. According to them, our material universe arose from a point or seed which lies at the resonant threshold of that Etheric Plenum. The Atharva Veda describes that point or seed as an 'Embryo [Hiranyagarbha] which, in the beginning, poured forth upon the universe a stream of gold.' This embryo or seed lies at the intersection of Time and Space, Spirit and Matter, where involutionary forms move across the event horizon and begin their linear evolution. In the language of scientific cosmology, this point or Seed is the singularity from which the universe exploded into being. In metaphysical terms it is the Luminiferous Ether, the OM or primordial vibration

out of which the universe emerges and has its origin. All material creation issues from this original involved point or seed as involutory forms move across the spatial threshold and begin to evolve linearly in accordance with the laws of causation and the principles of time. Once it crosses that resonant threshold the material universe is obliged to unfold in a manner that allows the Seer to follow the evolving in our Time measure of what was involved in that seed by compression or contraction.

Knowledge of this involutory process was the most coveted secret of the Vedic Rishis because It allowed them to follow the unfolding of that Seed and 'See' with an understanding which could be infinitely extended to all orders of reality. They were able to observe this occult process by using a unique system of cosmological knowledge which could measure from the Transcendent reality to its physical manifestation in an unbroken line. This knowledge was hidden in the symbol language of the Rig Veda but over the millennia its meaning became clouded over. The Seer became displaced by the Nirvani as emphasis shifted from Gnosis to a philosophy of Illusionism which denied the material world in favor of the attainment of a Transcendent consciousness. As a result of this development, the bridge between the Transcendent and the Physical became lost and was soon considered irrelevant. It was understood that the Brahman permeated everything, but how it had become the All was once again a great mystery.

"When the realiser could no longer use the cosmos to express his spiritual experience, he introduced the cleavage...between form and essence. More importantly, that essence itself became deformed. The experience conveyed an unfocused vision of what is and immediately nothingness and voids became the way to describe that higher truth. This was a logical development in a world in which the cosmos lost its sense, its purpose and its relation of oneness to the human being and evolution of consciousness on Earth. Above all, creation became divested of true sacredness."

– Patrizia Norelli–Bachelet, The Vishaal Newsletter, October, 1988

Today, some two thousand years later, Science and Spirituality must face the consequences of these

philosophies of illusionism which taught that Truth or Salvation, if it is to be attained at all, may only be realized in an afterdeath heaven or Nirvanic void – anywhere except the physical world we inhabit. The influence of these nihilistic philosophies has driven Science and Spirituality to the threshold of a major crisis in which both must discover a new and integrative paradigm in order to experience a meaningful continuity of existence. The key to that paradigm is a new understanding of Time and its primary role bridging the Transcendent and the Physical world.

"It cannot be denied that Time is a major feature of our material universe. In consequence, it stands to reason that when spirituality decides that the universal manifestation is unreal and illusory, Time is immediately shunned and the seeker is required to go 'beyond time', i.e., to the experience that appears to obliterate Time. Conversely, if we are engaged in a path that seeks a transformation of matter and an experience of the highest planes of reality in this material creation we are obliged to accept the instrumentation of Time. Furthermore, we must seek a means or a key by which Time itself becomes the element utilized in the gestation of a new and superior consciousness–form in the material creation." Patrizia Norelli–Bachelet, *The New Way*, Vol. 3, 1983

In the early 1970's Patrizia Norelli–Bachelet, the world's leading authority on Vedic Cosmology, began to publish her ground breaking discoveries. She had recognized in the scriptures and mythologies of ancient India evidence of a highly enlightened cosmological culture. The Rishis, had developed precise formulas describing the dynamics of the involutory process, and had woven these celestial equations into the structure of their myths and legends. Their knowledge of Time and the cosmic mysteries formed the basis of an ancient Yoga, the practice of which led to a supremely enlightened state known as Truth–Consciousness or Swar of the Veda. The Rishis understood that the Cosmos was a whole organism, multidimensional and sacred in its structure and form. They also knew that the difference between man/woman and the Cosmos was a matter of degree, rather than essence; that the Macrocosm and Microcosm had a correspondent equivalence. Through the repetition of certain rites, the sages believed that man could recover an

awareness of his intrinsic identity with the Cosmos and thus perceive the hidden order of the world. Since this order was embedded in the structure and periodic movement of the Macrocosm, it was understood that a corresponding order could be discovered by the individual in the cycles and events of his own life. If man could learn to align himself with the harmonies of Cosmic Time, he would gradually become imprinted with their rhythms and realize within himself an immutable center or axis, from which he could acquire an entirely new orientation to his lived experience. Since the same Zero Womb, which gave birth to the universe is also the core of the human being, the unveiling of this Soul/center/axis in the individual led to a simultaneous realization of Truth–Consciousness or Gnosis.

This was the essence of the Rig Vedic Yoga, lost for millennia until it was unveiled in the 1970's by Patrizia Norelli–Bachelet. From the principles of these ancient teachings, Ms. Norelli–Bachelet developed and articulated a new applied cosmology which she demonstrates in her book, *The Gnostic Circle*, a synthesis in the harmonies of the cosmos.

"The Gnostic Circle is merely the combination of the zodiac the occult circle which contains the knowledge of the evolution and the structural pattern of the solar system. The Circle of 12 is the zodiac, and the Circle of 9 is our actual solar system, each orbit representing one year of Earth life. The joint harmony of these two, superimposed or synthesized in one circle, is what constitutes our key to the evolution and flowering of the seed of the Spirit. In fact we can say that the Gnostic Circle is mainly for this purpose: it shows mankind the ultimate and ideal perfection that can be attained during this particular phase of the evolution, during this great transition point from animal–mental to the more divine mankind."

– Patrizia Norelli–Bachelet, *The Gnostic Circle*, p. 159, 1975

Ms. Norelli–Bachelet deals with what, for centuries, has been divorced from traditional spirituality, the question of Time and Measure. Her cosmology reverses the long–standing perception of Time as the destroyer and presents mankind with an entirely new awareness of Time as the integrative mechanism by which a Divine purpose is expressed in

the world. Her seminal work discloses the deepest truths of material Reality which include the Being as well as the dynamics of the Becoming of that same Being. "Time", says Norelli–Bachelet, "is the vehicle, the medium for the Absolute or Supreme Consciousness to be and to become and it is knowledge of this principle which integrates the Spiritual and Physical dimensions and grants the individual a direct experience of the Supreme within the physical manifestation ."

In Ms. Norelli–Bachelet's Cosmology, the Zero Womb or what science is now calling the Quantum Vacuum, has a symbolic correspondence to the Sun or primary Axis of our own Universe. The nine planets which orbit about the Sun represent the octaves or archetypes of form which have issued from that Zero/Womb/Axis. The planets also represent the number powers from 1 to 9 which form the mathematical basis of an ancient system of number harmonies called Cabalistic Reduction. Since every higher number is reducible to a simple number from 1 to 9, it is by means of number power that one is able to integrate the planetary harmonies with the harmonics of Number and relate the movement of the spheres to the Calendar which measures time periods on earth. Through this system of cosmic harmonies, the Gnostic Circle unveils the dynamic correspondences between Time and Space and describes the occult process by which energy–consciousness becomes crystallized into material forms.

By unveiling the Quantum Brahman or body of the Absolute, Ms. Norelli–Bachelet reveals for the first time the complete details of the involutory process which occurs in the Zero Womb, and the reversal, or emergence from its interactive face of solidified energy or material form. She has rebuilt the bridge between Spirit and Matter in a seamless continuum, using the harmonics of our very own cosmos to describe its order. Through the use of her Gnostic Circle we now have the means to measure the dynamics of that Implicate reality and follow its manifestation in time as the Explicate universe. Ms. Norelli–Bachelet's work represents a quantum leap in cosmological knowledge and contains the seeds of a unique synthesis which promises to open the way for new and revolutionary advances in both science and spirituality.

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Robert E. Wilkinson

P. O. Box 396

Accord., New York 12404

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Jai Maharaj

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Om Shanti

Hindu Holocaust Museum

<http://www.mantra.com/holocaust>

Hindu life, principles, spirituality and philosophy

<http://www.hindu.org>

<http://www.hindunet.org>

The truth about Islam and Muslims

<http://www.flex.com/~jai/satyamevjayate>

The terrorist mission of Jesus stated in the Christian bible:

"Think not that I am come to send peace on earth:  
I came not so send peace, but a sword.

"For I am come to set a man at variance against his  
father, and the daughter against her mother, and the  
daughter in law against her mother in law.

"And a man's foes shall be they of his own  
household.

– Matthew 10:34–36.

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