Article

Unitary Theory of the Numbers of the Decimal Numeration System

Cornelio Gonzalez V.

ABSTRACT

A common contact point could exist between Schrödinger's quantum wave and Bohm's quantum potential: they would both share the same "unified field", that is to say that both would depend on one space-time structured and governed by the Law that UNIFIES and TOTALIZES them in an universal field, since the quantum wave possesses, by construction and by definition, the ENTIRETY of the cognoscible thing, while in Bohm's quantum potential, it is the same character of TOTALITY that orders and manages the behavior of the subatomic particles that conform to its intrinsic "field". MAN and Universe are one and the same thing, structured and ruled by the Law of UNITY that TOTALIZES the cosmos as shown in the unitary theory of the numbers of the decimal numeration system presented herein.

Key Words: unitary, number theory, spin, consciousness

1. Introduction

After reading spin-mediated consciousness theory (Hu & Wu, 2002), I feel that many solutions such as this one based on quantum spin are related with the enigma of human consciousness. As far as I am concerned after 30 years of continuous investigation on a still dark aspect of the Theory of the Numbers that very well can name itself (Unitary Theory of the Numbers of the Decimal Numeration System), I could have found that the spin of subatomic particles appears implicit like a byproduct of the Cartesian complex geometry based on the character of UNIT that TOTALIZES to the bio-electromagnetic field.

There seems only one requirement left to fill: It is necessary that Bohm's quantum potential and Schrödinger's quantum wave are relativistic, that is to say that "they move" and is quantitatively coupled to the TOTALIZING speed of the light. This last condition is completed verbatim: one of the prime factors - 7 - that conforms the UNIT understood as six nines - (999999) - and that allowed us to know the intimacies of the 3°K cosmic background radiation, it is responsible of quantifying the initial mass of the electron and of limiting the increment of this mass with the speed, both things inside a "universal field" whose TOTALITY is limited by the UNIT when, at the 0.999999..... of the speed of light the initial mass of the electron can only be increased 7 times* since at that speed an asymptotical non-linear process has already begun that would demand an almost infinite energy so that infinitesimal in the speed of the electron they get colossal increases in its mass.

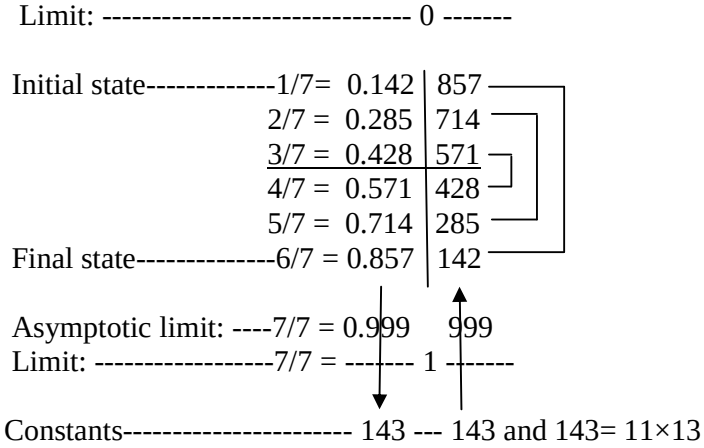
……..

*** 7 times:** *"The Special Relativity predicts that the mass of electrons varies with velocity... And that these will be more and more difficult to accelerate as they get close to the velocity of light due to the increment of his mass. The increasing heaviness of electrons in particle accelerators, this is a well-known fact. The fact that so much forces does not care apply him, they make the electrons very much more difficult to push.* ***He behaves to the 99 % of the velocity of light, an electron as if his mass would have increased 7 times itself.*** *For the physique that has to do with accelerating them, this increment of the mass is real and disappointing at the same time. The Special Relativity is reconfirmed clearly for this experimental specific fact". William R. Corliss (1973).*

Correspondence: Cornelio Gonzalez V.,Colombia. E-mail: cgonzalezv1@gmail.com Note: Parts 1-4 of this work were completed in 2003 and Part 5 was completed in March 2010.

2. The Asymptotic Speed 0.999999...of Light

This position means that if at the asymptotic speed 0.999999..... of light we divide it by 7 we will obtain the initial mass-energy of the electron inside their own *universal field* limited by the UNIT that TOTALS it: this statement means that if we divide the asymptotic 0.999999… speed of light by 7 we will obtain the initial mass-energy of the electron inside its own *universal field limited by the UNIT which TOTALIZES it*: 0.999999.../7 = 0.142857... / 7 = 0.142857...= 1/7 = 0.142857...142857.., initial state which develops its own numeric matrix:



Note that from the equality 999999 = (3×3×3)×7×11×13×37 we can extract the information about the prime factors that constitute the cycle 1/7 = 0.142857...142857… like this:

$$142857 = (3\times3\times3)\times11\times13\times37$$

The constants 143 that go down and up respectively to left and right are the result of the product: 11×13 = 143.

Same as the numeric matrix that begins and develops the cycle 1/11 = 0.090909, the matrix that elaborates the cycle 1/7= 0.142857..142857…it also you itself co-ordinates in a *Cartesian way* (*read*: their TOTALITY geometrodinamizes itself when being facilitated the appearance of triplets of vectorized spins that imprint the two and three space dimensions, specific orthogonal directions and in function of the same Cartesianization of the two-three-dimensional TOTAL "field", intrinsic to the matrix), when coinciding: A). The *abscissa* with the fraction 3.5/7 = ½ = 0.500000 = 0.4999995 which balances-unbalances the matrix in the up-down senses and, B). The *ordinate* with the value 0.5x999 = 499.5 which balances-unbalances it in the right-left directions. Figure 999 is reached by adding, in each cycle, the three digits from the left column to the three in the right column. For example, the mirroring pair 3/7 and 4/7:

3/7 = 0.428571.. 428571... and 428 +571 = 999
4/7 = 0.571428.. 571428...and 571 + 428 = 999

where we can extract the equalities among its horizontal differences with the abscissa (0.5x 999999= 0.4999995) and/or vertical with the ordinate (0.5x999=499.5) like this:

Equal vertical differences:

(4/7=0.571428)-(3.5/7=0.4999995) =1/14= 0.0714285...714285...
(3.5/7=0.4999995) - (3/7=0428571)=1/14= 0.0714285...714285...

Equal horizontal differences:

571 - 499.5 = 71.5
499.5 - 428 = 71.5

Note that in this concrete case the Law is working masterfully to obtain the balance-imbalance that geometrodinamizes the TOTAL Cartesian plane (field) of the matrix that induces 1/7 = 0142857... 142857..., being 1/14 = 0.0714285...*half of 1/7 =0.142857*...as well as when one observes that *71.5 is half of 143* or the constant value(s) vertical to right and left of the matrix.

It has been very clear that the number 7 is involved in the design and control of the norms that have to do with the internal structure of the atoms since when Newton demonstrated that white light, being it the TOTALITY of colors, when being passed through a prism breaks down in 6 fundamental colors: red, orange, yellow, green, blue and violet, being white the seventh color and having all and each one of them a fringe of very defined vibratory frequency. It has in fact been that quality the one that has allowed to develop the powerful technique of spectrography that accurately details the kind of atom or atoms that emit light of different colors (frequencies) according to the case, as well as if two or more atoms of different natural elements are associated forming a chemical substance with properties different to those of their component atoms, case in which in the spectrum appear lines that demonstrate with clarity what type of association type it is. It has been through this technique that the investigators reached the conclusion that, to the interior of the atom 7 and only 7 quantified levels of energy exist, levels that ultimately are not another thing that stationary waves that vibrate to a defined frequency, giving it place to the appearance of the so-called main quantum number: *the series of decimal integers:* 0, 1, 2, 3, 4, 5, 6 and 7, basic quantum number that equally would complete to perfection the function of quantifying, in multiples of that main quantum number and inside a context of TOTALITY, the quantum potential postulated by Bohm. In other words, the main quantum number and Bohm's quantum potential is one and the same thing. It would not be other the reason by which also, backstage, number 7 is governing the rhythm of the physical and chemical properties of the natural elements, as was established, since 1.869, by Russian D.I. Mendeleyev, as well as, the periodicity, understood as octaves, of the 7 musical notes: do, re, me, fa, so, la, ti...and again, in an upper octave of higher frequency: do, re, me, fa..., etc.

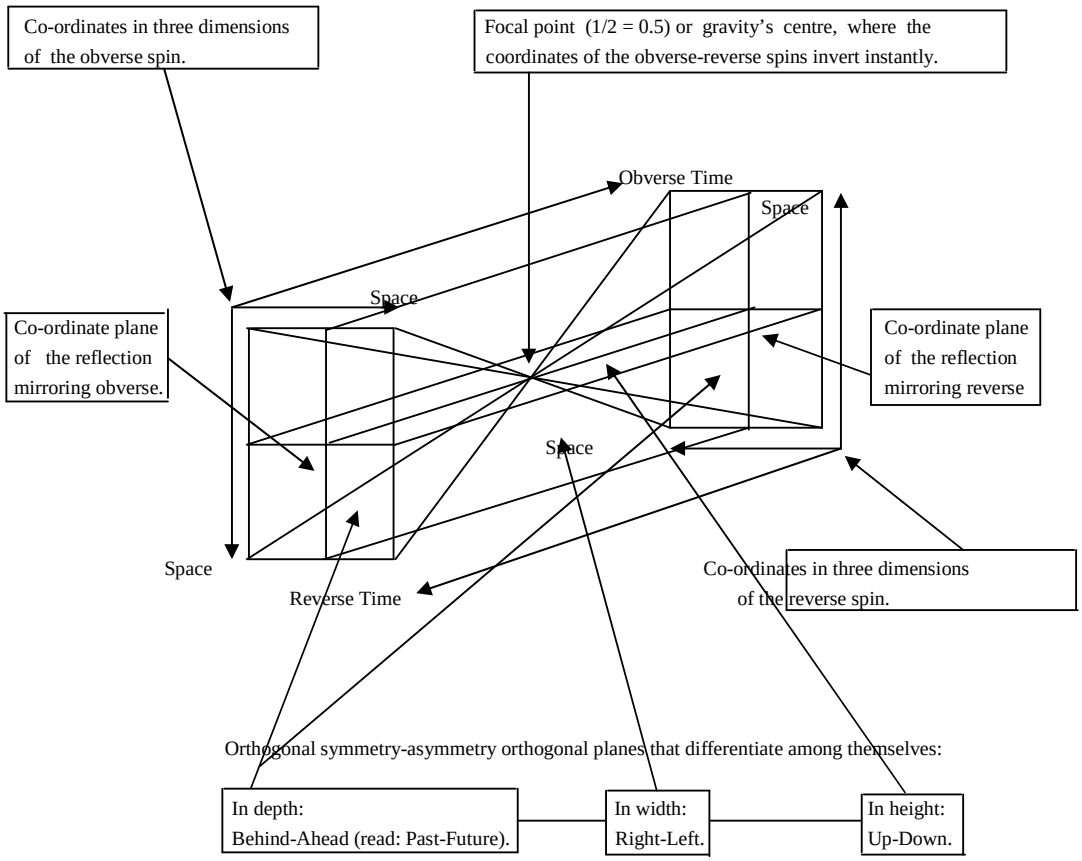
I don't believe that it is only happy coincidences because in the case of the decomposition of light by a prism, and in the levels of energy of the interior of the atom and the 7 musical notes, a very defined UNITARY and TOTALIZING pattern of frequencies exists that wave, definitely and stationarily, as it is respectively, of light, of matter or of musical sounds. And, why not the same one UNITARY and TOTALIZING pattern of frequencies could not also be after Schrödinger's quantum wave of and Bohm´s quantum potential making them practically indiscernible and beginning to be fulfilled aspiration physicists Roger Penrose's, John A. Wheeler’s and Max Planck, father of the quantum mechanics, when they propose that being the same UNIT the one that measures space, mass and time, will they also be similar to ONE the constancy of speed of light (**c**), the constancy of the quantum of Planck’s action (**ħ**) and the constancy of Newtonian micro gravity (**G**)?

2. Two Dimensional "Field" & Spin

The culmination of the manifestation, explanation or unfolding in three dimensions just as Bohm conceives it, is executed by the mirroring adjournment illusion of the spin of the two-dimensional "field" along an axis that goes, in depth, from an initial mirroring state located before (past) and perpendicularly to the flatness of the spin of the "field", toward a final mirroring state located after (future). In other words: the initial and the end states are illusory mutual mirroring reflexes that like obverse-reverse couples give the perfect illusion of curving, instantly and in three dimensions the obverse-reverse spins of the ENTIRETY of its three-dimensional "field", commuting instantly and in function of the Einstenian space-temporal relativism of the before-then:

1) The up left in down right and vice versa.
2) The up right in down left and vice versa.

Analyzing from another optics these three-dimensional and instantaneous relativistic adjournments we can also say that it is the mirroring and topological illusion of the mechanoquantics and coordinated spin changes: right-left, up-down and back-front (read: also the temporal before-after), the one that literally originates the illusory and three-dimensional obverse-reverse wave in the way like the Human Knowledge perceives first and elaborates later, the knowledge of everything that relativistically happens in the breast of the fundamental and co-ordinate mechanoquantic "field" of the UNIT that TOTALIZES the



MAN. That it is not other the sense of informatic-cognitive TOTALITY that, parodying Schrödinger, could have the quantum wave of the electron if this wave moved at the 0.999999...of the speed of light, sense that I have underlined in the quotation that is made of Paul Davies (in the original paper). Besides, I don't believe, that it is only a happy coincidence the fact that the equations of the electromagnetic field developed the XIX century by Maxwell, in fact possess the same dynamics and geometry that I have tried to explain here. The last graphic can give the reader a direct, intuitive knowledge of the central point of this paper.

Relating to this figure, I shall quote Witten (1996, my remarks are inside parenthesis and I use bold lettering for the most important):

"The duality symmetry describe above also has a number of nonlinear analogs, such as "mirror symmetry", which is ***a relationship between two spacetimes that would be quite distintict*** (relationship between two different co-ordinate planes of the mirroring reflection obverse and reverse*) in ordinary physics but turn out to be equivalent in string theory".*

Witten (1996) further said:

"A cousin of mirror symmetry is the phenomenon of topology change. Here one considers how spaces changes as a parameter ***- which might be the time*** [in the figure the time run from behind (past) to ahead (future). Past and/or future are not absolutes and my past would be your future or vice versa] - *is varied. One starts with a* ***special manifold X*** (for instance, only obverse or reverse plane) *so large that stringy effects are unimportant. As time goes on, X* ***shrinks*** (obverse and reverse **add up 1= 999999**), ***and stringy effects become large; the classical ideas of spacetime break down.*** *At still later times, the distances are large again and classical ideas are again valid,* ***but one is on an entirely different spatial manifold Y!*** (…but one is on an entirely different spatial manifold: the contrary choice plane! It is perhaps, another way for to understand the Hamiltonian minimum action?).

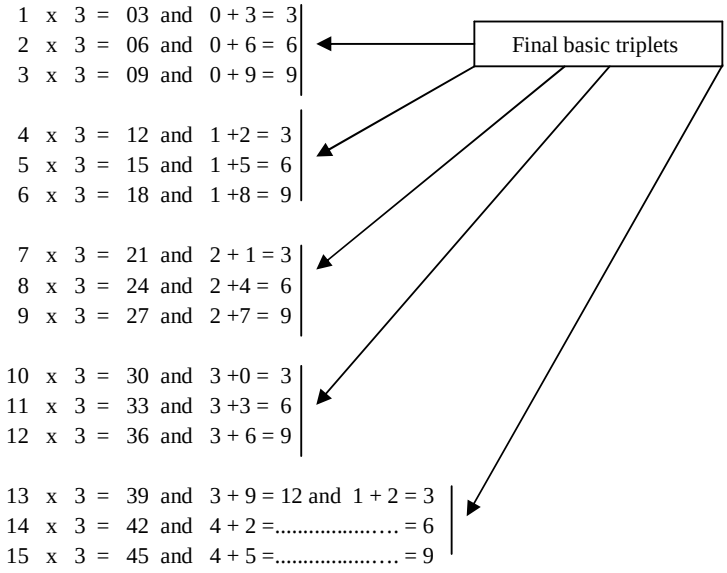
And Witten adds:

Quite precise computations of such processes have been developed. (These processes can arithmetically occur, taking the entire matrix as number one and carry it according to the sequence: Initial state 1, 2, 3, 4, and 5, until the Last state: 6. This state shows a kind of quantitative deformation - *swell* - over himself, as a product of to be a multiple of number 3, like this triplets shows: First basic triplet: 3, 6 and 9. Second basic triplet: 12 (and 1+2 = 3), 15 (and 1+5 = 6), and the entirety of this Second basic triplet: 18 (and 1+8 = 9). And in this manner: Third, Fourth…basics triplets successive. Another manner to understand the degeneration of Calabi-Yau's vacuum?

3. Law of Symmetry-asymmetry

In order to be able to understand the reason why of the geometric Cartesian proposal in the above figure, I transcribe on the arithmetical procedure as follows:

I make reference to the fact that number 3 has the responsibility of, literally "inflate" on itself, allowing with such "inflation", the "creation", (*ruled by the* ***Law of symmetry-asymmetry)***, of mass-energy, and in consequence, the "creation" of space-time's three dimensionality. Note how this can take place:



The reader should note that:

1) Number 3 has the property of literally "inflating" on itself, producing, based on the initial 3-6-9, final 3-6-9 triplet groups, apparently limitless, final triplets in which their inner addition is always TOTALIZED in 9 according to final basic addition: 3+6 = 9.

2) *Being 3 half of the 6 and/or 6 the double of 3, the* ***Law of symmetry-asymmetry*** *expressed by the UNITARY relationship 1/2=3/6****,*** *establishes among these two numbers an instantaneous UNITARY dynamic relationship that makes it in the breast of the UNIT 3/3 = 0.999999... to instantly appear* <u>*that TOTALIZES them*</u> (*read*<u>:</u> that sums them), the imbalance, or fermionic fractional discontinuity that makes 1/3 = 0.333333...unstable and asymmetric, uncertainty that is given, that exists, in function of the balance or bosonic fractional continuity inherent to the symmetrical stability of 2/3 = 0.666666...., and/or vice versa: that the balance appear, the continuity or symmetrical stability of 2/3 = 0.666666...., in function of the imbalance, discontinuity or asymmetric uncertainty of 1/3 = 0.333333....

……..

Now I go along with an arithmetical procedure which, utilizing the "inflation" own of number 3, he originates following numerical matrixes:

Explanative graph about the arithmetic-decimal operative, about how bi-dimensional ***Matrix 1*** *which generates 1/7, -taken as the UNIT-, can be projected as the stationary three-dimensional undulation of 3 matrix pairs mirrorly obverse-reverse. Observe how torsion * of the pairs of triplets of numbers increases in each numeric matrix, yielding with this a net effect of spiral coiling upon themselves, of undulatory phases (matrixes) TOTALIZED in the UNIT, that is to say, among pairs of mirrorly reflexed matrixes. This behavior underlies any* ***Matrix 1*** *induced by 1/x, being x a prime number different from 2 and 5 and that produces cycles with an even number of digits, as is the case of 1/7= 0.142857..142857…which cycle has six digits. (The explanation continues in graphic form, in the next page):*

Matrix 1 ---------- **+** -------- ***Matrix 6*** ---------- **=** ***Matrix 7***

1/7 =	0.142	857	+	6/7 =	0.857	142	= 7/7 =	0.999999
2/7 =	0.285	714	+	12/7 =	1.714	284	= 14/7 =	1.999998
3/7 =	0.428	571	+	18/7 =	2.571	426	= 21/7 =	2.999997
4/7 =	0.571	428	+	24/7 =	3.428	568	= 28/7 =	3.999996
5/7 =	0.714	285	+	30/7 =	4.285	710	= 35/7 =	4.999995
6/7 =	0.857	142	+	36/7 =	5.142	852	= 42/7 =	5.999994
7/7 =	0.999	999	+	42/7 =	5.999	994	= 49/7 =	6.999993

Matrix 2 ---------- **+** ------- ***Matrix 5*** ---------- **=** ***Matrix 7***

2/7 =	0.285	714	+	5/7 =	0.714	285	= 7/7 =	0.999999
4/7 =	0.571	428	+	10/7 =	1.428	570	= 14/7 =	1.999998
6/7 =	0.857	142	+	15/7 =	2.142	855	= 21/7 =	2.999997
8/7 =	1.142	856	+	20/7 =	2.857	140	= 28/7 =	3.999996
10/7 =	1.428	570	+	25/7 =	3.571	425	= 35/7 =	4.999995
12/7 =	1.714	284	+	30/7 =	4.285	710	= 42/7 =	5.999994
14/7 =	1.999	998	+	35/7 =	4.999	995	= 49/7 =	6.999993

Matrix 3 ---------- **+** ---------- ***Matrix 4*** ---------- **=** ***Matrix 7***

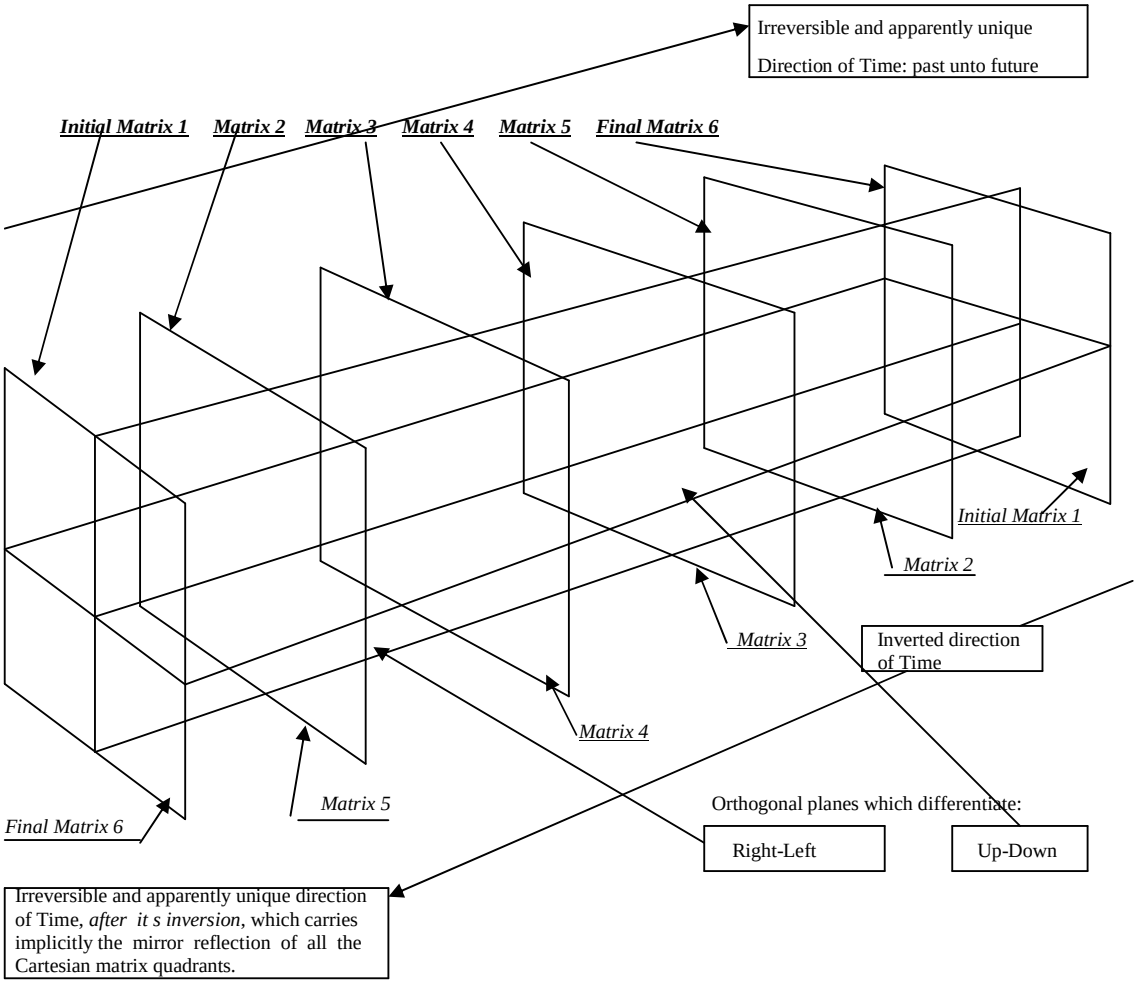
3/7 =	0.428	571	+	4/7 =	0.571	428	= 7/7 =	0.999999
6/7 =	0.857	142	+	8/7 =	1.142	856	= 14/7 =	1.999998
9/7 =	1.285	713	+	12/7 =	1.714	284	= 21/7 =	2.999997
12/7 =	1.714	284	+	16/7 =	2.285	712	= 28/7 =	3.999996
15/7 =	2.142	855	+	20/7 =	2.857	140	= 35/7 =	4.999995
18/7 =	2.571	426	+	24/7 =	3.428	568	= 42/7 =	5.999994
21/7 =	2.999	997	+	28/7 =	3.999	996	= 49/7 =	6.999993

* ***Torsion.*** *Because cycle 1/7 = 0.142857 is a multiple of number 3 with its "inflationary" behavior which is what forces the millionths to jump left, towards the whole units, achieving with this, the increment of itself - swell - quantitatively.*

From now on follows the graphic expression of the Cartesian geometry that underlies after previous numerical matrixes:

In the next graphic - which reminds us Riemann's function Z applied to the N planes unified in the unique plane U - the six vertical planes Cartesianly coordinated as right-left and up-down, represent the place which would be occupied by the six matrix states, beginning with the initial 1 followed by 2, 3, 4, 5, and ending with final 6. Now imagine that the numbers which occupy the Units place in all the matrixes, have been absorbed by (summed to) the millionths, thus recovering, in all the matrixes, the regular value of the original cycles according to Matrix 1 and transmuting with this, the final Matrix 6 in the initial Matrix 1 but with the vectorial orientation of its three coordinates, each one inverted by 180º. In other words: the six matrixes, mirrorly obverse in the past, will have become, in the future, six mirrorly reverse matrixes, and with this the obverse and three-dimensional geometrical Cartesian notions: right-left, up-down, and behind(past)-before(future), will have also undergone, each one, a 180º vectorial inversion.

This is the matrix expression of a rhythmic space-time oscillation of 7 in three dimensions, which does not permit the instantaneous obverse-reverse superposition which would tolerate the Matrix 1, intrinsic to 1/91, and which generates the 3º K cosmic background radiation, this being possible only by the action of number 13, with which it commutes: 7 x 13 = 91



I believe that you kind reader, with all the information and comments that have been communicated, understand the singular behavior of UNIT that TOTALIZES the numbers involved in the series 0, 1/x, 2/x, 3/x,..until x/x = 1, has already matured enough to at least sense that something really transcendent is behind this truly intelligent behavior of the numbers that interpret the UNIFIED "field", characteristic of the cosmos understood as TOTALITY. It is precisely under these parameters that David Bohm postulated his "quantum potential", when he introduced the non-linear interpretation of the wave equation of the electron owed Erwin Schrödinger-this one lineal - dividing it in two parts: the first one interprets an electron that follows the laws of Newton's movement; the second describes an electron that responds and emits some informatic signs of statistical order, coming from an inherent potential his own TOTALLED quantum "field", signals which the electron receives and emits with an extreme sensibility and that in certain sense force it to make continuous and seemingly chaotic decisions when opting indeterminately for one or another trajectory. Bohm affirms that such decisions are only apparently chaotic since deep in the bottom, the quantum potential is governing the behavior of the electron inside its own field in a perfectly determined way, although with such a high degree of complexity that any intent of understanding it in the Newtonian sense is condemned to failure ahead of time.

Returning to the quote that was made from Paul Davies* (in the original paper), we already begin to find parallelisms: the quantum wave of Schrödinger is basically a wave of information, of knowledge, of statistical character; the potential of the quantum field of Bohm is also basically an informatic potential of statistical character. The antiparallelism would reside in that, while Schrödinger described a quantum wave, Bohm made the same but with a quantum potential. However a common contact point could exist between Schrödinger's quantum wave and Bohm's quantum potential: they would both share the same "unified field", that is to say that both would depend on one space-time structured and governed by the Law that UNIFIES and TOTALIZES them in an universal field, since the quantum wave possesses, by construction and by definition, the ENTIRETY of the cognoscible thing, while in Bohm's quantum-computer potential, it is its same character of TOTALITY the one that orders and manages the behavior of the subatomic particles that conform its intrinsic "field".

In the above figure, one can see and analyze the geometric-dynamic characteristics of a certain universal field whose "holomovement" (a term coined by Bohm, very appropriate for the dynamics of the TOTALITY) is not more than the illusory and mutual symmetrical-asymmetric transformations of the mirroring obverse-reverse co-ordinates of the ……..

***** *"A particle is something different from a wave: it is a small piece of concentrated matter, while a wave is an amorphous disturbance that can extend and dissipate. How is it possible that something can be both things? The answer is related again to the complementarily (*me: as Niels Bohr interprets it*): how can the mind simultaneously be thoughts and neuronal impulses? How can a novel be a story and a collection of words? The wave-particle duality is another dichotomy of the* ***hardware-software*** *type: The corpuscular aspect is the atom's hardware; the undulatory aspect corresponds to the software or mind or information, since the quantum wave is unlike any other known wave. It is not a wave made of any physical substance or matter, but a wave of knowledge or information. It is a wave that tells us all we can know about the atom and not a wave from the atom itself. I don't pretend to say that an atom extends as a ripple but that what extends is what an* observer (read: Man) *can* ***know*** *about the atom. The quantum wave is also a probability wave. It tells us where we can find a particle and which are the probabilities that this has one or another characteristic such as rotation or energy. This wave is the mathematical expression of the quantum factor's inherent uncertainty and unpredictability"*

Paul Davies (1984)

mechanoquantic spins that induce and allow, on the base of the analogue-digital encoding (read: continuous-discontinuous) of the informatics couple No=0 and/or Yes=1 underlying the spin-geometrodynamics of such co-ordinates, the primary and coarse epistemic reaction of physical and "objective" order that we call perception and the later and sophisticated "subjective" elaboration of a language that authorizes us for a Human Knowledge more and more sophisticated, that is to say next asymptotically to the UNIT that TOTALIZES it. For it and by it Nature has not had any qualm in using the design and construction of alive organisms that based on the Law of symmetry-asymmetry of the UNIT they acquire, little by little and according to the slow but sure and three-dimensional space-time evolutionary process of error-success, the more and more sophisticated and TOTALLED conscience of themselves, organisms whose generic denomination responds to the name of: MAN. This universal field is quantified as well as limited by 0 and/or 1 according to the series:

Limit: 0 = 0/x, 1/x, 2/x, 3/x... until x/x = 1: Limit = the UNITY TOTALIZED over herself

introduces in a perfectly natural way the informatics couple **1=Yes** and/or **0=No**, not only interpreted as a binary system of numeration but rather, as the natural physical-informatics limits of a quantum-ized "field", -inside of the UNIT that TOTALS it -, for the base **10** system of numeration. It is in fact this condition the one that allows to establish, simultaneously and with the same common base of quantification, not only the statistical, probabilistic, geometric, dynamic and *directional* (read: vectorial) characteristics of the field or quantum wave of Schrödinger, as the *scalar* (read: no-directional) potentials of Bohm's quantum potential, scalar potentials that, being quantified decimally, allow to know internal statistical differences of potential indispensable to understand the interior arithmetic structure of the potential quantum TOTAL of an already common quantum Bohm-Schrödinger's field-wave.

Now, I must establish the reason for which 1/7= 0.142857…142857...(infinity) understood like the mass-energy of the electron, it is in the base of all the phenomenology of the vital conscious system that MAN names himself:

And I don't even have to say that there is overwhelming evidence that points toward the flatness of the Universe, still lacking more information to clearly define the subject. Furthermore, a key aspect in the cosmology of the Big-Bang, the so-called *inflation*, caused by an exponential growth 1 – 2 – 4 – 8 – 16 – 32 ..... of the infinitesimal point of *mass-energy* (*read*: space-time) that gave origin to the explosive expansion of the Universe, implies itself, -(from Everett-Wheeler's mechanoquantic point of view, of the creation in the Big-Bang of infinite universes that, without end, unfold from and by themselves) - an Omega Point located precisely between 0.999999 and its inverse 1.000001, *inflation* whose development demands *instantaneous speeds that would outrun widely – although in a non-linear way, that is to say, infinitesimally inverse – to the speed of light* and that would also be able to *flatten* space-time of the TOTALITY of the Universe.

4. Exponential Inflation & Number 7

The relationship between this exponential inflation and number 7 is undeniable: The inverse of number 7 is the cycle: 1/7 = 0.142857...142857..., cycle that we can decompose exponentially in this way: 14 (which is twice 7), 28 (twice 14) and 57 (which is **twice plus 1**, of 28).

But there is still even more: the 1/49 cycle of 42 digits, in which the **double plus 1** appears several times if you take one or two initial digits:

1/49 = 0.020408163265306122448979591836734693877551.....020408163265306122448979591836734693877551.....

Doesn't this exponential expression draw the birth of the universe wonderfully close to the *exponential cell growth* or *meiosis* of the female ovule fertilized by the male sperm and which gives origin to the birth of the human being? Are MAN and Universe one and the same thing, structured and ruled by the **Law** of UNITY that TOTALIZES the cosmos?

Inside a mathematical area -named Chaos Theory- relatively new and that deals with the essentially *non-linear* character of a varied and extended gamut of natural phenomena of periodic nature, apparently chaotic in the sense that they do not openly exhibit an internal order in their structure or development, in 1975, physicist Mitchell Feigenbaum, after listening to a speech by Stephen Smale about dynamic systems (systems where time is the main actor), in which during the passing of time proper of the periodic phenomenon a cascade of duplications of the same period was caused which inevitably lead the system to an apparent chaos, stated the possibility that something mathematically interesting could be happening at the exact point where such duplications of the period concentrated and generated a supposed chaos, *duplications that would begin to appear when the parameter named **k** acquired the value of 3, value that is it in consonance with the **Law of symmetry-asymmetry,** expressed in the UNITARY relationship 1/2=3/6.*

With a value of 3.5 it would quadruple, with 3.56 it would increase eight-fold, and so on, that is to say, that in a way that in no way is just a happy coincidence, Feigenbaum found that *with values of **k** very close to one half of seven, our already familiar exponential growth would appear: and 3, equals **2 plus 1**, i. e., **twice 1/3 plus 1/3**.* With a value of 3.5 it would quadruple, with 3.56 it would increase eight-fold, and so on, that is to say, that in a way that in no way is just a happy coincidence, Feigenbaum found that *with values of **k** very close to one half of seven, our already familiar exponential growth would appear:* 1-2-4-8-16.... and that a diagram can be made like the so-called *Feigenbaum tree,* from which initially two twigs stem, from each one of these another two for four, from these four another four for eight, etc. I textually quote British mathematician Ian Stewart (1991):

"*Remember that the Feigenbaum tree is a diagram that shows the consecutive creation of periodic cycles, of 1, 2, 4, 8, 16....periods, when changing the **k** parameter.*

"The basic idea is that each consecutive period doubling occurs due to the same mechanism. A cycle with period 2 **to the n** becomes unstable and creates a cycle with period **2 to the n plus 1**. The form in which this happens is that each point of cycle **2 to the n** splits in two. If we look with short-sighted eyes the cycle **2 to the n plus 1**, just after their appearance, the pairs of points become fuzzy and we will only see the old **2 to the n** cycle".

I wonder: isn't the exponential cycle of the double of 7 understood as: 14, 28, and 57, a faithful copy of the formula Ian Stewart shows us as the **2 to the n plus 1**?

Stewart also explains us that if we take consecutive photographs of each doubling between the microscopic limits of 0 and 1, it can happen that:

*"This way, as the period size tends towards the infinite and we approach the end of the tree, the consecutive photographs resemble, more faithfully each time, some **limit image***".

I ask myself again: isn't it with the UNIT with which the exponential cycle ends:

1/49 = 0.020408163265306122448979591836734693877551....

the natural limit of the infinite itself - (transfinite or infinite to the inside of another infinite, we could rightly say with Cantor) - microscopically locked in between 0 and/or 1, limit which exponentially doubles again and into the infinite, in each and every one of the following cycles?

5. Fractional Decimal Cycles Generated by the Operation 1/13

It is noteworthy that the subliminal message that the Greek letter π carries the image of the circle as something that, out of itself, also returns to itself, i.e., the quantized electrons in a way come and by causing its dynamically own set of mirror reflections of each other. These self-reflections generate their own electromagnetic field and totaled into its own unit, which field - in and of itself - are quantified Cartesian coordinates and complex ways, and also, is relativized Einstein, operating the asymptotic limit 0.9999999 ... (infinite) speed of light c = 1, limit where 1 = energy/mass is, that the UNITY of speed of light c = 1, the relativistic energy and mass are equivalent property it that life and consciousness, while field (s) electromagnetic (s) totaled (S) in his own unit, they know very well explode.

In prior treatment where UNIT extensively character of decimal fractions to induce 1/x, where x is any and all of the integers with the exception of 2 of 5, 1, 0, transcribe verbatim excerpts "the curvature in quantum mechanics," where do special mention as the matrix numerical fractional decimal cycles generates the operation: 1/13 = 0.999999...999999/13 = 0.076923...076923 (infinite loops).

In the matrix that generates 1/13= the cycle 076923, the natural fundamental algorithm 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 shows, both in the position of the decimal and the up-down direction, as in the thousandth position, but in the opposite direction: bottom-up. Note, however, the reader, who for reasons of his own deep self-referential metric decimal, 1/7= 142857 there are not the numbers 0, 3, 6, and 9, these have been excluded from key algorithm and transferred to self-referential decimal metric 1/13 = 076923 and included in its basic algorithm. Please provide details, however, the intimate connection of number 13 with 142857 and vice versa:
.....

Limit image**. Textually transcript from: **http://www.argentum.freeserve.co.uk/lex_d.htm**. See the word: Density, "The density of a Life pattern is the limit of the proportion of live cells in a **(2n+1) x (2n+1) square centered on a particular cell as **n** tends to infinity, when this limit exists. (Note that it does not make any difference what cell is chosen as the center cell. Also note that if the pattern is finite then the density is zero. The question of what the maximum density of a stable pattern remained open for about quarter of a century until Noam Elkies proved that it is 1/2, confirming a longstanding conjecture. This value is easily attained, so the problem was to prove that no higher density is possible. A corollary is that a **still life** (dead nature) with an **m x n bounding box** (read: the smallest rectangular array of cells that contains the whole of a given pattern), has most **(m+1) x (n+1) /2**".*

* *(2n+1) × (2n+1) = 1/7 × 1/7 = 1/49?*

the close relationship of the number 7 with 076923: the inverse of their product as 1/91 = 010,989 cycle, 7 and 13 commute, by multiplication, their identities:

(1/7) / 13 = 142857/13 = 1/91 = 1 / (13 × 7) = cycle 010,989

(1/13) / 7 = 076923 / 7 = 1/91 = 1 / (7 × 13) = cycle 010989

Satisfy the curiosity of readers, transcribing the numerical matrix that generates 1/13 = 076923. Please provide details how the basic algorithm is expressed in tenths in the up-down direction, as in the thousandth but the opposite: bottom-up. Note also how, unlike the single rotating cycle of 142857 own parent now appear rotating two cycles: 1/13 = 076923 and 2/13 = 153846. Please describe in detail in this second cycle, again the numbers 3 and 6 (in red) and as a result, in the metric decimal sequence fundamental algorithm now appear, while 13/13 = UNITY doubly referenced (right-left and up-down) with each other as 3 + 6 = 9, while on the contrary, 9 appears once. The matrix also coordinates so complex and hence, curves, closing in on itself:

Limit: ..... 0/13 =..... 0 .....
Initial State: .....1/13 = 0.076 | 923
2/13 = 0.153 | 846
3/13 = 0.230 | 769
4/13 = 0.307 | 692
5/13 = 0.384 | 615
6/13 = 0.461 | 538
7/13 = 0.538 | 461
8/13 = 0.615 | 384
9/13 = 0.692 | 307
10/13 = 0.769 | 230
11/13 = 0.846 | 153
Final State: .....12/13 = 0.923 | 076
Asymptotic limit: …13/13 = 0.999 999.....
Limit: .....1.....

Constants: .....77 77 and 77 = 7×11

But this new approach, while we solved the problem elegantly curved space to ultramicroscopic quantum mechanical level, we also opened the doors of the true and proper handling of an Infinite UNIT characteristics is able to aggregate in and of itself, which is regulated and measured by the statistical-probabilistic modus operandi intrinsic to this specific way of operating the Decimal Numbering System. In these terms, it is elementary logic that are the prime factors: (3 × 3 × 3) × 7 × 11 × 13 × 37 UNIT understood as six nines (999999), which impose the WHOLE of operating parameters to be met within such unit, which easily elucidate parameters using the equations established between the member left and right side of the equation, to make any one of all permitted operations within the whole unit 999999, for example:

1/3 = six times 3 = 333333 = (3×3) ×7×11×13×37
1/7 =.....= 142857 = (3×3×3) ×11×13×37
1/(11×13) = 1/143 =.....= 006993 = (3×3×3) ×7×37
1/ [(3×3) ×7×11] = 1/693 = 001443 = 3×13×37

And the case below is decisive is that which identifies a 1 Kelvin and as such is precisely through him - while initial quantification unit multiplied by 3 - which we reached at 3 degrees Kelvin, typical of the microwave radiation covers the entire universe that is known and named: Cosmic Microwave Background Radiation of the 3° Kelvin:

$$1 / (3 \times 7 \times 13) = 1 / 273 = 1 \text{ Kelvin} = 003663 = (3 \times 3) \times 11 \times 37$$

and so on, to fill the entire operations allowed - and not small- for UNITY 999999.

What has hitherto been transcribed on the unitary pattern of number 13 has several years of being posted on my website and the truth is that the possibility of applying those features to the structure of the benzene ring carbon has been an issue that I have only been airing at times and that for little more than a year. The enormous conceptual difficulties, especially everything related to the statistical and probabilistic nature of quantum effects, which are forced application in this case, and the need for an equally large burden of geometric intuition for the proper explanation of the phenomenon, is the constant to get the result today and am available to my readers a critical view.

I began putting in mind that the six carbon atoms are really distributed both as a state geometrical-probabilistic stico as two groups of three atoms each. Accordingly, taking into account that the numerical matrix, while bi-dimensional plane, specular reflections inside houses and mutual under this has complex coordinates, this will results in a rotational dynamics upon themselves the cycles: 1/13 = 076923 and 2/13 = 153846.

This feature makes it possible to demonstrate - in blue - how the three and six while the right-UNIT and dynamic ratio: 1/2 = 3/6, have been organized in ways that are alternately faced: a) both above the abscissa, and below it, and b) both the right and left of the ordinate: is this a dynamic relocation is however statistical and probabilistic geometric coordinate in complex ways, in perfect consistent with what shows the benzene ring?

Note also that the cycle number 4/13 = 307 692 and 5/13 = 384 615, both above the abscissa, are nothing that the respective rotations of 1/13 = 076923 and 2/13 = 153846 and together with 13/13 = 999999 cycle that also rotates on itself, we could perfectly identify the unitary rotation of dimers alpha and beta tubulins represent each and every one of 13 cytoskeletal microtubules of the unit.

These rotations respectively show at 3 and 6 as a localized values, ie both fixed above the abscissa and also fixed in the respective left-right of the ordinate, whereas on the contrary, the cycle number 8/13 = 615 384 and 9/13 = 692 307 (two separate specular reflections from 5/13 = 384 615 and 4/13 = 307 692) which remain rotations 1/13 = 076923 and 2/13 = 153846, show at 6 and 3 as a localized values, ie fixed, but this time below the abscissa and inverted with respect to the respective left-right of the ordinate:

Limit: ..... 0/13 =..... 0 .....
Initial State: .....1/13 = 0.076 | 923
2/13 = 0.153 | 846
3/13 = 0.230 | 769
4/13 = 0.307 | 692
5/13 = 0.384 | 615
6/13 = 0.461 | 538
7/13 = 0.538 | 461
8/13 = 0.615 | 384
9/13 = 0.692 | 307
10/13 = 0.769 | 230
11/13 = 0.846 | 153
Final State: .....12/13 = 0.923 | 076
Asymptotic limit: …13/13 = 0.999 999.....
Limit: .....1.....

Constants: .....77 77 and 77 = 7×11

But this behavior has a logical explanation: the guardianship monitoring UNIT totaling to speculate and for that reason, anti-complementary dynamics: a) relocation caused by the ongoing nature disorder-symmetrical magnetic bipolar distinctive aspect of the quantum wave and made real by the solubility of the disorder itself ("sol") of water, and: b) location, brought to life by the proper order-asymmetry inherent discontinuity (s) to the bipolar electrical characteristic turn of the mutuality speculate distinctive mass of the pair: fermion-antifermion and should the trend observed in the solid state (read: mass) of the "gel". All previous behavior characteristic of this matrix and plasma, micrometers and 1 to 1 on the modus operandi of the 6 carbon atoms forming the benzene ring, constituting in turn of the 13 protofilaments of tubulin microtubules comprising cellular when shown a clear dynamic rotation about themselves and thus a super-radiation photons, which have some degree of coherence in the quantum sense of the term.

We said previously that the numerical matrix that induces 1/13 = 076923 cycle, it only represents a microtubule dynamics in two spatial dimensions, are yet to explain how it could develop its dynamics in three dimensions mirror. This just happens to match the back-forward characteristic of the third spatial dimension, with the respective past - the future of what we call "time", thus fulfilling an essential requirement in Einstein's relativity: that there is no difference between space and time. Remember that this is a numerical matrix of bi-dimensional plane infinitesimally thin (2 nm), which houses internally mutual specular reflections (ie, doubly reflected in and for itself) and that by virtue of this has been coordinated complexly making this possible, both specular dynamics in two spatial dimensions, as a dynamic three-dimensional ditto ditto. The latter is accomplished in a truly simple: by matching the back-forward characteristic of the third spatial dimension, with the past - the future of what we call "time", thus fulfilling an essential requirement in Einstein's relativity, that no difference between space and time.

According to previous data, the geometric dynamic three-dimensional mirror of what would be the unitary and integration between modules Cosmic photons produced by metabolism and proper microtubule array that induces numerical 1/13 = 076923 cycle, with

the (s) relativistic (s) typified mass-energy (s) by 1/7 cycle = 142857 and inherent in the carrier wave which itself is the Cosmic Microwave Background Radiation of 3 ° Kelvin, is captured, both in the product: 1/7 × 1/13 = 1/91 cycle = 010989 (see page 118 of this paper), induces its own cycle and identifying numeric array, as discussed below, the Cosmic Microwave Background Radiation of the 3 ° Kelvin, as in the representation of dynamic speculation due to its sui generis and complex Cartesian geometry, and that as the graph on page 119 of this paper.

The deep relationship of these explanations with the dynamic behavior of the six carbon atoms of the benzene ring forming the alpha and beta dimers that constitute the 13 microtubules, one can begin to understand clear, repeatedly, in a more complete and up burdensome, something he had already explained above: the intimate connection of number 13 with 1/7 = the cycle142857 and vice versa: the intimate link between the number 7 with 1/13 = 076923 and this cycle because the inverse of their product as 1/7 × 1/13 = 1/91 = 010989 cycle, 7 and 13 commute, by multiplication, their identities:

$$(1/7) / 13 = 142857/13 = 1/91 = 1 / (13 \times 7) = \text{cycle } 010989$$

$$(1/13) / 7 = 076923 / 7 = 1/91 = 1 / (7 \times 13) = \text{cycle } 010989$$

The following case is very important and we talked it over in “Man = Cosmos”: it is identifying a 1 Kelvin and it is through him, (as initial quantification unit multiplied by 3), we could have 3 ° Kelvin's own microwave radiation covering the entire known universe, called: Cosmic Microwave Background Radiation of the 3 ° Kelvin:

$$1 / (3 \times 7 \times 13) = 1 / 273 = 1 \text{ cycle Kelvin} = 003663 = (3 \times 3) \times 11 \times 37$$

1 Kelvin = 003663 cycle is then a natural unit of temperature that must be understood as a phenomenological expression of a universal character, which originated from the following distribution of the prime factors of the unit Total 999999, thus:

$$(3 \times 7 \times 13 = 273) \times [(3 \times 3) \times 11 \times 37 = 3663] = 999999$$

And about 010989 cycle, this identifies the natural unit of temperature - that in turn is based on 1° K = 003663 cycle - that quantifies, within the context of a unified whole (and this while 273/273 = 1) to the Cosmic Microwave Background Radiation of the 3° Kelvin, as follows:

$$(1° \text{ K} \times 3) = (1/273 \times 3) = 3 ° \text{K} = 3/273 = 1/91 = 010989 \text{ cycle}$$

And as I had set, the cycle 010989 = 3 degrees Kelvin, is a submultiple of both 1/13 cycle = 076923 (which identifies the modus operandi of microtubules) as of 1/7 cycle = 142857, which identified, also within the context of a unified whole, relativism increase in initial mass-energy of all electrons - included in the benzene ring them - with the acceleration of its speed and whose asymptotic limit is 0.999999 ... (infinity) C = 1:

(1/13 cycle = 076923) / (1/ 91 = cycle 010989) = 7, and / or vice versa:

(1/7 cycle = 142857) / (1/91 cycle = 010989) = 13

Analyzing in a few words and a more florid romance the arithmetically exact behavior of these figures, we come then to the astonishing conclusion that both the physical and chemical metabolism of our microtubules (in their capacity as producers of modulators photons carrying itself themselves the imprint of our personality and the gradient of our consciousness (see www.hombreycosmos.org, page 34 and the following), metabolism is quantified and governed by the unitary and totalizing behavior of 1/13 = 076923 cycle, as the process of the electron mass-energy, accomplished and well governed UNITARIAN and totalizing the behavior of 1/7 = cycle 142857 are available both naturally and in our human condition (s) alive and conscious and that with a single and exclusive purpose: giving us the opportunity to obtain, each and every one of us and for our own effort, unity to be totaled in and of itself to our (s) field (s) bio-electromagnetic (s), or, in more colloquial language: obtaining UNIT totalizes to be our "souls".

6. Conclusion

After 30 years of continuous investigation on a still dark aspect of the Theory of the Numbers that very well can name itself (Unitary Theory of the Numbers of the Decimal Numeration System), I have found that the spin of subatomic particles appears implicit like a byproduct of the Cartesian complex geometry based on the character of UNIT that TOTALIZES to the bio-electromagnetic field. MAN and Universe are one and the same thing, structured and ruled by the **Law** of UNITY that TOTALIZES the cosmos.

References

Corliss, W. R. The Mysteries of the Universe. Minerva Doubleday, Compañía General de Ediciones. Mexico D.F. 1973, p53.

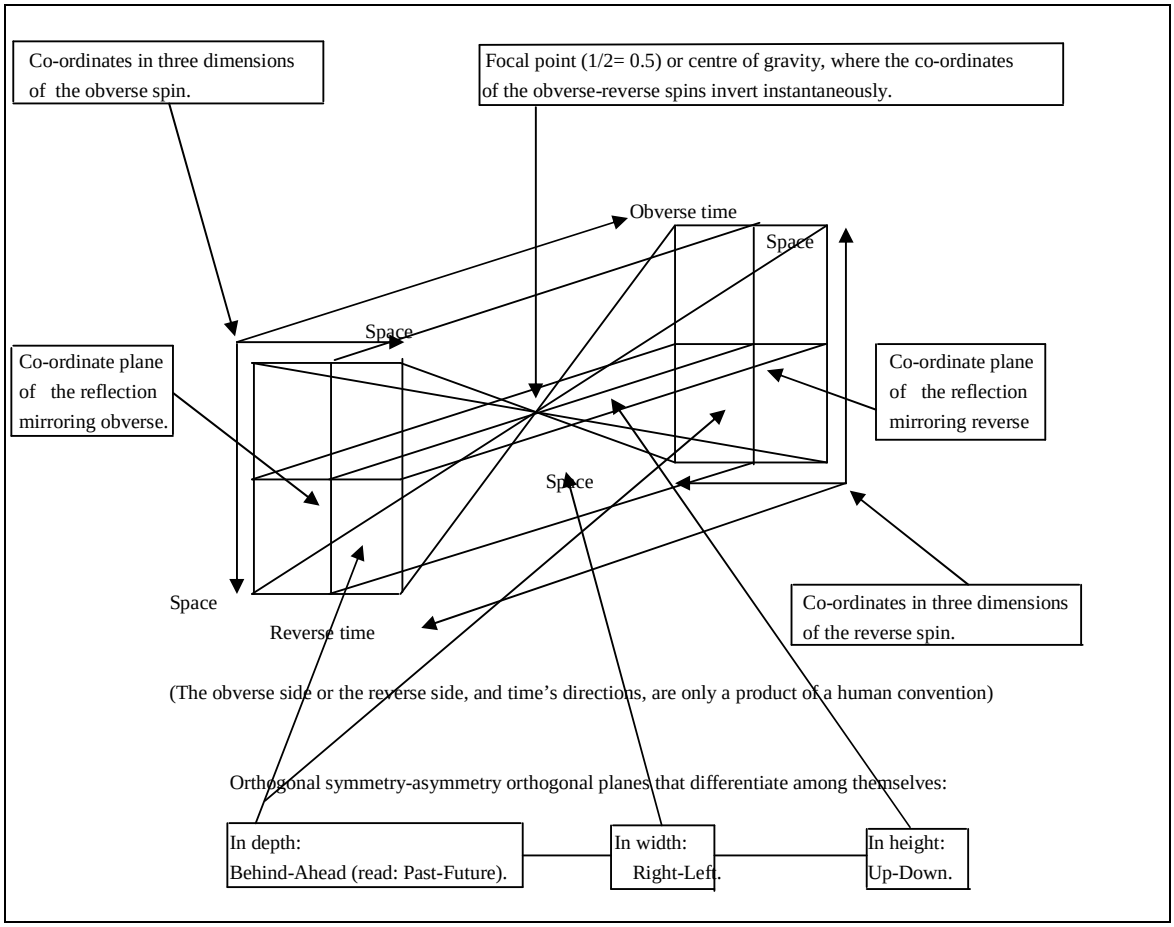
Davies, P. God and the New Physics. Simon & Schuster October, 1984.

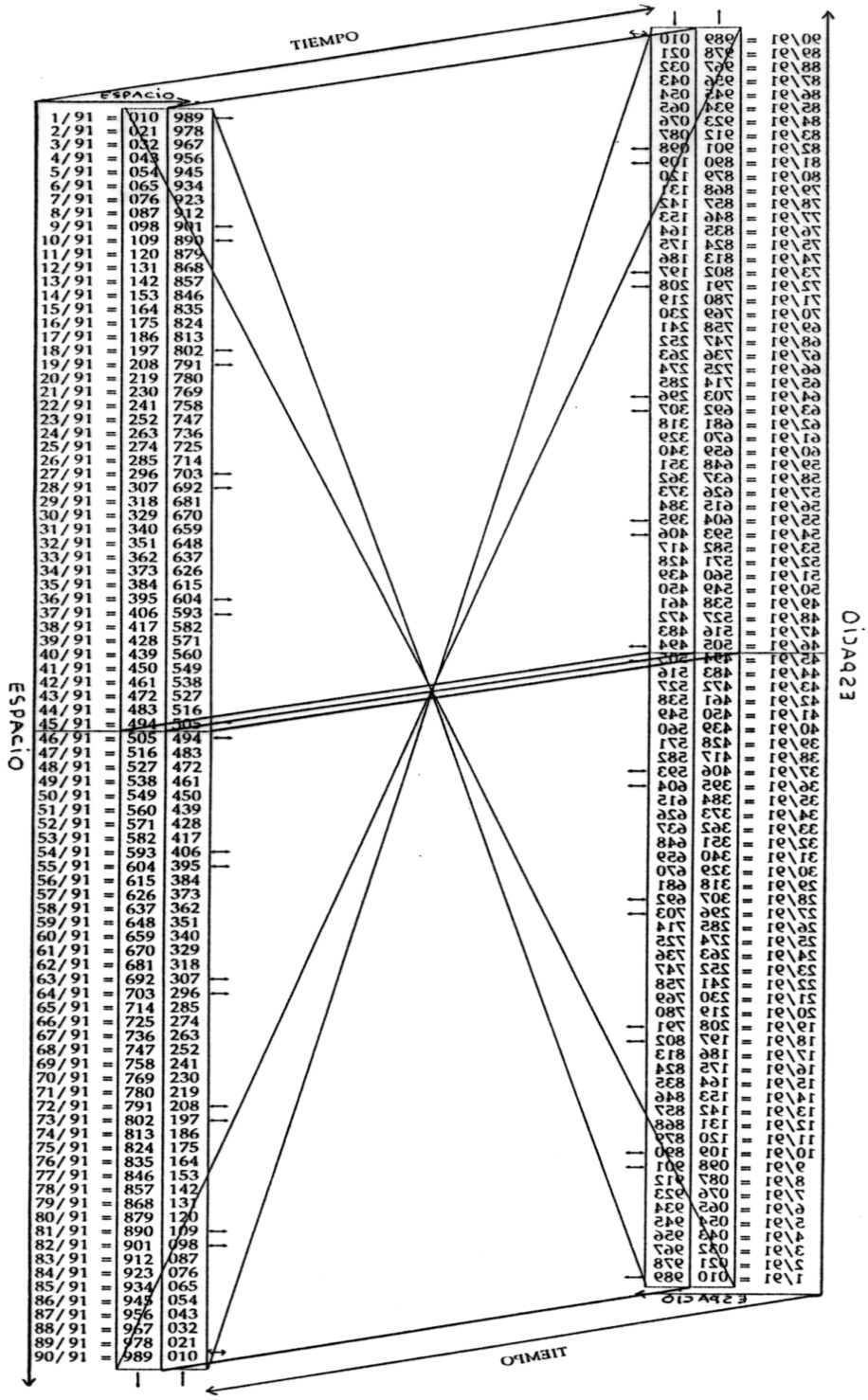
Hu, H. & Wu, M. Spin-mediated consciousness theory. arXiv 2002; quant-ph/0208068. Also see Med. Hypotheses 2004a: 63: 633-646.

Stewart, I. Does God play dice? The new chaos math in Grijalbo Mondadori, S. A., "Critic" series, 1991, p208.

Witten, E. Reflections on the fate of spacetime. Physics Today, April 1996, pp29-30.

Graph that synthesizes to the Cartesian geometry in 2 space dimensions (up-down and left-right), plus 0.5 of the space dimension ahead (future) and/or plus 0.5, of the space dimension behind (past). These 2+1= 3D dimensions (where 1=0.5+0.5), it conforms the Cosmic Microwave Background Radiation of the 3° Kelvin.




TIEMPO
ESPACIO
1/91 = 010 989
2/91 = 021 978
3/91 = 032 967
4/91 = 043 956
5/91 = 054 945
6/91 = 065 934
7/91 = 076 923
8/91 = 087 912
9/91 = 098 901
10/91 = 109 890
11/91 = 120 879
12/91 = 131 868
13/91 = 142 857
14/91 = 153 846
15/91 = 164 835
16/91 = 175 824
17/91 = 186 813
18/91 = 197 802
19/91 = 208 791
20/91 = 219 780
21/91 = 230 769
22/91 = 241 758
23/91 = 252 747
24/91 = 263 736
25/91 = 274 725
26/91 = 285 714
27/91 = 296 703
28/91 = 307 692
29/91 = 318 681
30/91 = 329 670
31/91 = 340 659
32/91 = 351 648
33/91 = 362 637
34/91 = 373 626
35/91 = 384 615
36/91 = 395 604
37/91 = 406 593
38/91 = 417 582
39/91 = 428 571
40/91 = 439 560
41/91 = 450 549
42/91 = 461 538
43/91 = 472 527
44/91 = 483 516
45/91 = 494 505
46/91 = 505 494
47/91 = 516 483
48/91 = 527 472
49/91 = 538 461
50/91 = 549 450
51/91 = 560 439
52/91 = 571 428
53/91 = 582 417
54/91 = 593 406
55/91 = 604 395
56/91 = 615 384
57/91 = 626 373
58/91 = 637 362
59/91 = 648 351
60/91 = 659 340
61/91 = 670 329
62/91 = 681 318
63/91 = 692 307
64/91 = 703 296
65/91 = 714 285
66/91 = 725 274
67/91 = 736 263
68/91 = 747 252
69/91 = 758 241
70/91 = 769 230
71/91 = 780 219
72/91 = 791 208
73/91 = 802 197
74/91 = 813 186
75/91 = 824 175
76/91 = 835 164
77/91 = 846 153
78/91 = 857 142
79/91 = 868 131
80/91 = 879 120
81/91 = 890 109
82/91 = 901 098
83/91 = 912 087
84/91 = 923 076
85/91 = 934 065
86/91 = 945 054
87/91 = 956 043
88/91 = 967 032
89/91 = 978 021
90/91 = 989 010