The Structure of Aether and a Structural Method for Calculating Phi (φ) and Planck's Length (P_L)

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A mathematical octahedral model for the tetrahedral fine structure of aether can be developed, from which the mathematical constants Phi (ϕ) and Planck's Length (PL) can be calculated, and then reconciled with the Seven (7) Twist-loop Fractal model.

Introduction

The purpose of this paper is to develop a mathematical octahedral model for the tetrahedral fine structure of aether, based upon the constant Phi at Planck's Length level. Therefore, this second octahedral model is the reciprocal of the 7 twist-loop fractal model that was developed in my previous paper titled, "A Method for Calculating Planck's Length (P_L) and the Fine Structure Constant (a)." These two models have much in common, and converge at Planck's Length. It is also suggested that the reader consider reviewing my other related papers listed in the World Science Database titled "The Effects of Human Perception & The Human Mind on Building a New Paradigm for Physics", "A Unified Vision of the Universe", "Methods for Visualizing Aether, Electromagnetic Waves, Quarks and All Else", and "The Structure of Aether and the Mechanics of the Electromagnetic Wave Spectrum." I would like to thank both Don Briddell and Greg Volk, without whose help this paper would not have been possible. And a special thanks to the NPA for providing and promoting this academic venue, and to the members of the NPA for listening to, considering and evaluating my ideas and theories.

The Structure of Aether

In my 2009 paper titled, "*The Structure of Aether and the Mechanics of the Electromagnetic Wave Spectrum*", an individual '*energy cell*' structure for the fundamental structure of energy within the aether was proposed as shown in Figures 1 and 2. It consists of four individual loops arranged in a tetrahedral structure, so that the entire structure can function as a three-dimensional spring as illustrated in Figure 2. The image to the left in Fig. 2 is a flattened spring or negatively charged structure, the image in the middle has no charge, and the image to the right is a stretched or positively charged structure.

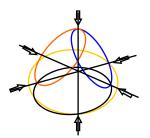


Figure 1- Four Rings Interlocked in a 3-Dimensional Energy Cell Structure

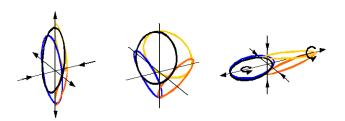


Figure 2- Negatively Charged, Neutrally Charged and Positively Charged Energy Cell Structures

A frontal view of this energy cell structure can then be mathematically modeled as shown in Figures 3 below, with each of the three polar axis views, front, top and side being identical. In the figure to the left all four rings of the tetrahedron energy cell structure are shown in a frontal view, and a composite nine-cell frontal view is shown in the figure to the right. In the lower middle figure only one ring of the four-ring energy cell structure is shown with an equilateral triangle inside the single loop and dimensioned accordingly. The dimensions chosen were the whole prime number integers of 1, 2, $\sqrt{3}$, and not half integers or multiple integers of these numbers. Accordingly, only these numbers will solve the equations correctly as will be shown later.

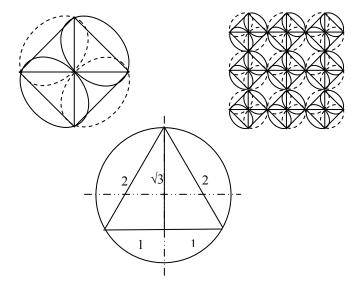


Figure 3 - Mathematical Illustration of a Single Energy Cell Structure

This same square root of three ($\sqrt{3}$) can also be obtained by creating a three-dimensional reference system and then drawing diagonal lines from one corner to the opposite corner within each cube, creating a square root of three pyramid, as shown in Figure 4 below. Please note that this pyramidal-octahedral structure is constructed from four internal squares as shown in red, blue, and green below.

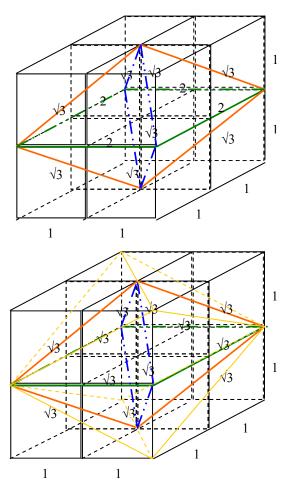


Figure 4 - A $\sqrt{3}$ (*red, blue, green*) & $\sqrt{5}$ (*yellow*) *Pyramidal Octahedron*

A similar pyramid can also be created as shown in Figure 5 by drawing a 1, $\sqrt{2}$, $\sqrt{2}$, $\sqrt{2}$ pyramid shown in black, which is then rotated by 90 degrees and placed within a 1, $\sqrt{3}$, $\sqrt{3}$, 2 pyramid shown in red, and which is then rotated by another 90 degrees and placed within a 1, $\sqrt{5}$, $\sqrt{5}$, $2\sqrt{2}$ pyramid shown in yellow. However, please note that only the black pyramid is equilateral, with both the red and yellow pyramids having a base value different than the side values. There are at least two different ways to resolve this difference. The first is to allow the height of the pyramids to change such that the three pyramids are concentric and coincidental at their peaks, and are therefore simply placed on top of one another. A second alternative is to rotate the base of the pyramid so that the base of the larger pyramid is allowed to shrink to its equilateral dimension as will be shown later in this paper. Of particular interest is the $\sqrt{3}$ dimension in the red pyramid as shown in bold red, and which is the perpendicular height of the $\sqrt{5}$ pyramid as shown in bold yellow in the right of the figure.

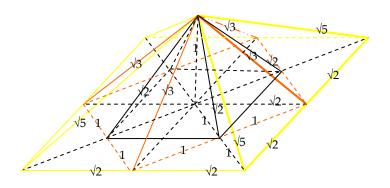
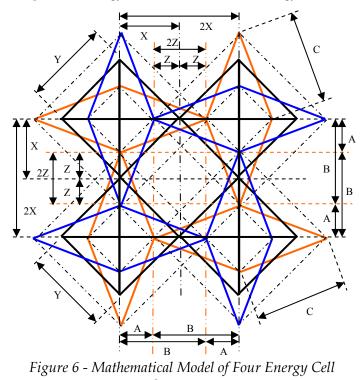


Figure 5 - Cascading Pyramidal Structure

A mathematical representation of four individual and interconnected energy cells is then shown in Figure 6 below. The sixteen black lines in the combined four black diamond patterns represent the four perpendicular lines of each of the four energy cell loops within each of the four energy cell structures. The red and blue diamond patterns are then elongated or stretched energy cell structures with dimension C being $\sqrt{3}$ as illustrated in Figures 3, 4 and 5 and representing the length of the loop perpendicular to the pivot axis of the same loop. The mechanics of the structure can best be described by reaching into the structure and pulling on the ends of a loop thereby causing the energy cell to extend and its other two perpendicular dimensions to collapse, thereby creating a positively charged energy cell. Accordingly, when the original axis is squeezed instead of being stretched, the other two perpendicular dimension extend, thereby creating a negatively charged energy cell. These two process respectively create a long slender tetrahedral energy cell and a short fat tetrahedral energy cell, which are both defined by the following octahedral mathematical structure. Furthermore, when a force is applied to any energy cell causing it to stretch or collapse, that energy cell then causes the six energy cells on its



Structures

three perpendicular axes to do exactly the opposite. This mechanical process thereby causes a domino effect within the overall aethereal structure of alternately opposing positively and negatively charged energy cell structures, as shown in Figure 7 below.

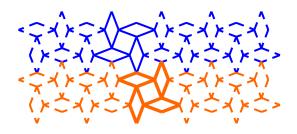


Figure 7 - Mathematical Diagram of Interconnected Energy Cell Structures

The blue and the red patterns are identical except that they are 90 degrees out of phase with each other, and also would exhibit the propensity to rotate, wind or unwind in opposite directions. It is further proposed that the forces within both the stretched and the collapsed diamond energy cell structure varies logarithmically. Therefore, an equilibrium condition would be reached when the natural log of Force A equals the natural log of Force B, which would occur when A is the reciprocal of B. Accordingly, the following equations can be written and solved:

$$C = \sqrt{3}$$

$$A^{2} + B^{2} = C^{2}$$

$$A^{2} + B^{2} = 3$$

$$Ln F_{A} = -Ln F_{B}$$

$$A = 1/B$$

$$(1/B)^{2} + B^{2} = 3$$

$$1/B^{2} + B^{2} = 3$$

$$1 + B^{4} = 3B^{2}$$

$$B^{4} - 3B^{2} + 1 = 0$$

$$(B^{2} - 2.61803) (B^{2} - .38197) = 0$$

$$(B + 1.61803) (B - 1.61803) (B + .61803) (B - .61803) = 0$$

$$B = \pm 1.61803 \quad B = \pm 0.61803 \quad Ln_{B} = \pm .481211825$$

$$A = \pm 0.61803 \quad A = \pm 1.61803 \quad Ln_{A} = \pm .481211825$$

There are therefore four solutions to these equations. Also, it is no accident that A + B, which is the distance between the centerline of energy cells within the aetheral structure, equals $\sqrt{5}$, since it is the twisting of the energy cell, which causes each energy cell within the overall structure to form the $\sqrt{5}$ matrix as was previously discussed and illustrated in Figure 5. Accordingly, Phi (ϕ) can then be calculated as the midpoint of the matrix or $\sqrt{5}/2 + Z$. Also, it is no accident that Z equals .5, which was determined when one (1) was assigned as half of the length of the equilateral triangle in Figure 3, and then

furthermore, was defined as the zero reference point on the natural logarithmic scale. Accordingly, the following equations can be written from this structure for Phi (ϕ) and its reciprocal:

$$(\phi) = \sqrt{5/2} + .5$$
 $(1/\phi) = \sqrt{5/2} - .5$

A three-dimensional mathematical rendition of the proposed octahedral energy cell structure is then illustrated in Figure 8 below. The bold black lines represent the $\sqrt{5}$ matrix or the distance between centerlines of each energy cell. The red lines in the front row of the alternating octahedral patterns and the blue lines in the back row of the alternating octahedral patterns are the same as illustrated previously in Figure 6. A true threedimensional spatial rendition of the proposed tetrahedral energy cell structure is then illustrated in Figure 9 on the next page with the actual energy cell loops included. The loops are the real things, and the lines are simply the math that defines the path of the loops. Furthermore, the loops are simply pathways that the energy follows and therefore, the energy can transverse from one loop to another loop where and when the loops are simultaneous, tangential and coincidental. This is proposed as the method for knotting energy within knot theory.

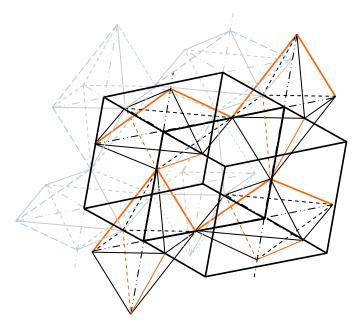


Figure 8 - Proposed Octahedral Energy Cell Mathematical Structure

One other item of great concern are the two negative solutions to the previous equations, from which can be inferred that when an energy cell is driven past saturation, it can collapse upon itself into a secondary stable condition. Not only could this be the process for creating charged strings that are the basis for particle mass formation; but it could also be the process by which black holes are irreversibly formed, thereby causing the structure of aetheraal space to collapse in on itself, and thereby creating gravitational fields and the four dimensions of space and time where we currently reside. Moreover, these same fractal mathematics, constants and equations should also apply to macroscopic field structures, such as gravitational lensing.

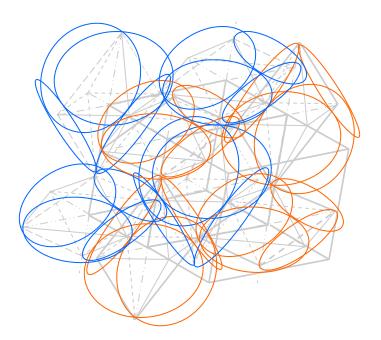


Figure 9 - Proposed Tetrahedral Energy Cell Loop Structure

Reconciling Planck's Length

There are then five different methods for calculating Planck's Length including two versions of the Alpha Platform Method based on contemporary physics, and the 7 Twist-Loop Fractal Method from Field Structure Theory as were both proposed in my last paper, the Codata value as proposed by contemporary physics, and the Phi method as proposed within this paper. The are many commonalities between these numbers, methods and equations as can be seen in Chart 1 below. The first and most obvious similarity is the numbers between the 7 twist-loop fractal method and the Phi method. The Phi method is proposed to be recurring iterations of the square root of five between loop

structures that are increasing in size beginning at Planck's Length. S in the 7 twist- loop fractal is a similar scaling factor for decreasing in size fractals beginning at the frequency of the speed of light. Therefore, these two processes are reciprocals of each other, are both describing the exact same procedure, and are only different versions of the same thing. Furthermore, the 7 twist-loop structure is the smallest number of odd loops that can exist before that fractal sequence itself fails to exist. Moreover, the 7 twist-loop structure only applies to energy in compression, which is exactly where Planck's Length would be applicable, since it is instead the higher odd number twist-loop structures that apply to energy in tension. The square root of 5 divided by 2 is 1.118033989 and the reciprocal of S divided by 2 is 1.114084602 with a difference of .003949387 or 283 to 1. The significance of these two numbers is that they represent an uncharged neutral midpoint between energy cells. This difference is narrowed substantially further in Chart 2 on the following page. The number 4.965114232 is taken from black body radiation equations on Wikipedia and as calculated by Volk, and then substituted in the equations for the number 5 in order to compensate for the width of the loops in the energy cell structure. Accordingly, this factor represents the diameter of the individual compressed loops within the accumulated energy cell structure. The resulting difference is then reduced to .000042212 or 26,486 to 1. Planck's Length was then calculated from the following formula:

 $A + B = \sqrt{4.9651142317}$ A = 1/B $A = .62292567611 \qquad B = 1.6053279522$ $A^2 + B^2 = 2.965114232$

It is interesting to note that the numerical values for $A^2 + B^2$ and A + B are identical except for the first digit.

Alpha Fractal Method				7 Twist-Lo	op Fractal Method	Phi Method	
Factor	Result	Factor	Result	Factor	Result	Factor	Result
Alpha	(п/2 -х) ¹¹	Alpha	$(\pi/2 - x)^{11}$	S=п/N	3.14159265359	√5/2 +.5	1.618033989
x	$1 / (\pi/2 + x)^{11}$	x	$1/(\pi/2 + z)^{11}$			1/φ	0.618033989
		Z	yx	Let N=7	7	√5/25	0.618033989
x	0.006645287416	x	0.006720160	S = п/7	0.448798951	1/√5	0.447213595
у	1.000000000000	у	0.749894209	Diff.	-0.001585355	Diff.	0.001585355
z	n/a	Z	0.005039409	1/S	2.228169203	√5	2.236067978
Alpha 1/Alpha	137.108873800 0.00729731541	Alpha 1/Alpha	137.0366970 0.007297315	1/2S	1.114084602	√5/2	1.118033989
1,111,111	0.007_7701011	1/11/11	0.007_77010	Diff.	0.003949387	Diff.	-0.003949387
Iterations	16	Iterations	16	Iterations	100	Iterations	100
P_L	1.602843023E-35	P_{L}	1.616403915E-35	P_L	1.603922087E-35	P_{L}	1.618033988E-35
Codata	1.616252000E-35	Codata	1.616252000E-35	Codata	1.616250002E-35	Codata	1.616252000E-35
Diff.	-0.013408977E-35	Diff.	0.000151915E-35	Diff.	-0.012329913E-35	Diff.	0.001781989E-35

Chart 1 - Comparison of 5 Different Methods for Calculating Planck's Length

Alpha Fractal Method		7 Twist-Lo	op Fractal Method	Phi Method		
Equation	Result	Equation	Result	Equation	Result	
Alpha	$(\pi/2 - x)^{11}$	S = п/N	3.14159265359	$\varphi = \sqrt{5/2} + .5$	1.618033989	
x	$1/(\pi/2 + x)^{11}$			1/φ	0.618033989	
		Let N = 7	7	$1/\phi = \sqrt{5}/25$	0.618033989	
		S = п/7	0.448798951	1 / \sqrt{5}	0.447213595	
х	0.006645287416	Difference	-0.001585355	Difference	0.001585355	
У	n/a			Let 5 =	4.965114232	
Z	n/a			1/\4.9651142317	0.448781946	
		Difference	-0.000017004	Difference	0.000017004	
		1/S	2.228169203	$\sqrt{5}$	2.236067978	
Alpha	137.108873800					
1 / Álpha	0.007293473955	1/2S	1.114084602	$\sqrt{5/2}$	1.118033989	
-				√4.9651142317	2.228253628	
				v4.965114217/2	1.114126814	
		Difference	0.000042212	Difference	-0.000042212	
Iterations	16	Iterations	100	Iterations	100	
P_L	1.6028430230E-35	P_L	1.6039220872E-35	P_{L}	1.6180339888E-35	
Difference	-0.0010790642E-35	Reference Value		P_L	1.6053279522E-35	
Codata	1.616252E-35	Difference	0.0123299128E-35	Difference	0.001405865E-35	

Chart 2 - Comparison of 4 Different Methods for Calculating Planck's Length

Assuming the converged numbers from these two methods represent the true theoretical value of Planck's Length, then the version of the Alpha fractal platform with the "v" and the "z" factors can be eliminated as the remaining simplified version is already within .07 percent of the 7 twist-loop fractal value for Planck's Length; and accordingly, the preceding Chart 2 only includes three columns plus the Codata value at the bottom. The Codata value is an empirical derived number and will have to be reconciled by others. Another interesting correlation is between the formulas calculating the S factor in the 7 twist-loop fractal method and calculating alpha in the alpha fractal method. They both include π (pi) divided by a whole prime integer with the only difference being the x factor in the alpha calculation, which again represents the accumulated charged loops of the energy cell structure, when the energy is in its accumulated or compressed form. However, the x factor is actually not a difference, since the 7 twist-loop fractal method already has this same dimension included in its fundamental structure, from which it was derived. Therefore, they are almost the same equation, and if the number seven (7) in $\pi/7$ represents the number of twist-loops in the fractal hierarchy, then the number two (2) in $\pi/2$ should have a similar definition. Therefore the number two (2) should represent the number of loops or spheres in that structure, which is an excellent way to describe one complete wavelength of an electromagnetic wave, or a structure that is divided into two (2) one half wavelengths. Accordingly, the Alpha platform represents the distribution of the electromagnetic wave spectrum within the aether fractal plenum. Planck's Length is then the midpoint or the tipping point within the energy cell structure where the energy cell structure collapses and solves for the negative solutions to the equations, and thereby forms a charged string.

However, if Planck's Length is the point where the energy cell collapses, then the 100 iteration calculated value for the 7 twist-loop fractal value of Planck's Length should converge with dimension B in the Phi method. The theory is that at lower frequencies and therefore at scales much larger than the fine structure, the shape of the fractal energy loops would be nearly circular; however at very high frequencies and therefore at scales very near the fine structure, the shape of the fractal energy loops would become irregular, jagged and pyramidal shaped. Therefore there would be a skewing of the structures within the two mathematical concepts and a convergence of the mathematical numbers at Planck's Length. In Chart 3 on the following page, the white box lists the 100 iteration calculated value for Planck's Length (1.125899721) using Phi for the base The yellow box then lists the same calculation (in red). calculations using the black body radiation number referenced earlier, and the orange and purple boxes use the 7 twist-loop fractal value of Planck's Length as the base. In all cases, the base numbers are shown in red and the rest of the numbers are calculated forward or backwards from those base numbers. However, in the green box all numbers were allowed to float until convergence was reached and the 100 iteration value for Planck's Length from the 7 twist-loop fractal method, was equal to the dimension B from the Phi method. This yielded a number of 1.60516185118 x 10-35 for Planck's Length, which then narrows the difference between the two methods to zero, but then requires the other two methods to converge to this same point in order to verify its validity, and which still needs to be completed.

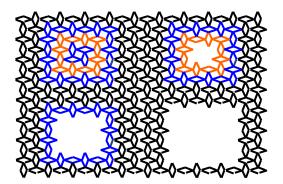


Figure 10 - Energy Cell Progression and Regression

Integration with Other Theories

Figure 10 on the next page illustrates four different progressions of energy cells collapsing within the aether fractal plenum. In the upper left corner, the four center energy cells are colored blue, which are then surrounded by twelve red colored energy cells, and which are then surrounded by twenty blue colored energy cells. Then in the upper right corner, the four center blue colored energy cells are removed, and in the lower left corner the twelve red colored energy cells are removed, and

finally in the lower right corner, the twenty blue colored energy cells are removed. This is exactly the same mathematical progression as proposed by Briddell for the total twist-loop energy in his presentations on Field Structure Theory, and also as listed in Chart 4 on the following page. Note that the number of levels in each successive platform doubles, and that the total number of energy cells increases by a factor of four as previously proposed by both Briddell in his Field Structure Theory presentations and in my paper titled "A Structural Method for Deriving Planck's Length (P_L) and the Fine Structure Constant (a)."

	1 0000000000000000000000000000000000000	1 000000000	-	0.000000000
PL - 100 Iteration	1.00000000000	1.000000000	5.000000000	0.0000000000
Calculation	В	А	2.2360679775	1
1.125899721	1.61803398875	0.61803398875	2.2360679775	1
	2.61803398875	0.38196601125	0.447213595	3.000000000
P _L - 100 Iteration	0.98240227609	1.017912951	4.9651142317	0.0348857683
Calculation	В	A	2.2282536283	1
1.597856381	1.60532795220	0.62292567611	2.2282536283	1
	2.57707783411	0.38803639796	0.448781946	2.9651142321
	0.00001055055	1 010111 41 5	1.0(100000	0.0050(00000
PL - 100 Iteration	0.98221077077	1.018111417	4.9647379985	0.0352620020
Calculation	В	А	2.2281692032	1
1.603922087	1.60518998700	0.62297921623	2.2281692032	1
	2.57663489437	0.38810310385	0.448798951	2.9647379982
PL - 100 Iteration	0.98217171516	1.018151902	4.9646612781	0.0353387219
Calculation	В	А	2.2281519872	1
1.6051618512E-35	1.60516185118	0.62299013602	2.2281519872	1
	2.57654456848	0.38811670958	0.448802418	2.9646612781
PL - 100 Iteration	0.98045040614	1.019939401	4.9612829989	0.0387170011
Calculation	В	А	2.2273937683	1
1.660733456	1.60392208720	0.62347168106	2.2273937683	1
	2.57256606181	0.38871693709	0.448955193	2.9612829989

Chart 3 - Convergence of Phi Method and 7 Twist-Loop Fractal Method

This fractal progression would then continue from Planck's Length up to the frequency of the speed of light, only dependent upon the fractal pattern that defines the energy distribution occurring within the aether fractal plenum. Moreover, it is proposed that the hole in the middle of the plenum is not square, but instead would become circular or spherical, and therefore distort or skew the entire aethereal plenum that surrounds it, similar to the formation of the surface membrane of a bubble. It would also seem that at least some cells would have to be broken and then reform for this process to begin and for other particles to form separate from the aether. This could explain the mechanics of the missing neutrino that no one can find. This description therefore also defines the mechanics of anti-particles, in that they are not holes that have an existence of their own within the aether, but are instead the energy distribution within the structure that creates, sustains and surrounds the hole within the aether. Accordingly, holes and voids have no parameters, since they have no substance, contain no energy and have no existence of their own. Instead, those parameters belong to the energy structure that creates, sustains and surrounds the holes and the voids within the aether. Therefore, voids cannot and have no way to exist, except as created by the real energy structures that exist within the aether; and therefore, that energy must be within the structure of the aether and not in the void.

In Figure 11 to the right, the pyramidal structure illustrated previously in Figure 5 is extended showing additional pyramids superimposed upon the proposed aethereal energy cell structure. Also included is a chart listing the length of the base of the various pyramids and the value of the hypotenuse between the base and the common apex of the pyramids. Note that the numbers listed in the base column increase sequentially by the square root of two ($\sqrt{2}$). Also, nestled within the base numbers is the same progression, as listed in Chart 4 of the sequential powers of the number four (4). Accordingly, the Phi method defines the sequence, location, and number of energy cells that

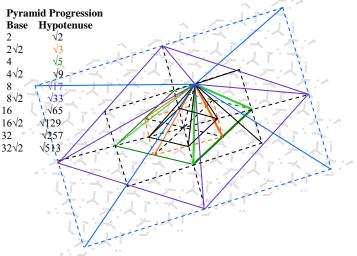


Figure 11 - Extended Cascading Pyramidal Structure

collapse in order to form the fractal twist-loop patterns within the aether fractal plenum. Moreover, this aethereal structure does not provide the only answers, since there are also dynamic motions of the aether within the aether. Whereas the structure of aether and the distribution of the field energy within the aether is as described in this paper, the dynamics or mechanics of an electromagnetic wave propagating through the aether is as proposed in my two earlier papers titled "Methods for Visualizing Aether, Electromagnetic Waves, Quarks and All Else" and "The Structure of Aether and the Mechanics of the Electromagnetic Wave Spectrum." Accordingly, there is a built in bias that exists within the aether of the net zero sum of all plenum forces creating the positively and negatively charged tetrahedral energy cells upon which the electromagnetic wave rides. These collective energy cell structures within the electromagnetic wave alternately spin clockwise and counterclockwise as they oscillate in and out, weaving webs of twist-loop energy from accumulated strings of condensed and stretched loops of energy cell structures, which wind and unwind into charged strings of saturated energy in the various fractal forms and fractal patterns of field structure theory. When the frequency of the wave hits saturation, enough of the charged energy cells have collapsed, that when three such rings of charged cells join coincidentally on polar axes, they form particles. Under the correct conditions they can separate from the aether, each in their own unique and condensed and/or tensed form. Accordingly, particles are created from the fractal structures nestled within the dynamic energy of an electromagnetic wave.

		-					
		Energy Cells	Total			Energy Cells	Total
Level	Platform	Per Level	Energy Cells	Level	Platform	Per Level	Energy Cells
1	1	4	4	33		260	
2	2	12	16	34		268	
3		20		35		276	
4	3	28	64	36		284	
5		36		37		292	
6		44		38		300	
7		52		39		308	
8	4	60	256	40		316	
9		68		41		324	
10		76		42		332	
11		84		43		340	
12		92		44		348	
13		100		45		356	
14		108		46		364	
15		116		47		372	
16	5	124	1024	48		380	
17		132		49		388	
18		140		50		396	
19		148		51		404	
20		156		52		412	
21		164		53		420	
22		172		54		428	
23		180		55		436	
24		188		56		444	
25		196		57		452	
26		204		58		460	
27		212		59		468	
28		220		60		476	
29		228		61		484	
30		236		62		492	
31	<i>.</i>	244	1007	63	_	500	1 (201
32	6	252	4096	64	7	508	16384

Chart 4 - Collapsing Energy Cell Progression

Accordingly, nothing in the above description precludes or supersedes the standard quark model theory. It simply defines and describes the forms and structures of the energy contained within the quarks, since quarks are partial charge segments of an electromagnetic wave, as proposed earlier in the same papers referenced above. Therefore the descriptions for an electromagnetic wave above, also define the quarks that are within an electromagnetic wave. The two theories are just simply two different ways of saying the same thing. Also, the organization and formation of sub-nuclear particles are the same as proposed earlier, except that now more information is known about the internal structure of those particles and the internal structure of the aether from which they are formed. Also, nothing above precludes the formation of particles from concentric 1st, 2nd, and 3rd generations of waves as proposed earlier, since the logic that allows quark energy to separate from the aether and to form particles from electromagnetic waves is still the same. Likewise, nothing above precludes the structure for the nucleus of atom mirroring the structure of individual energy cells as proposed earlier. In fact, since energy is dispersed into repetitive fractal patterns within field structure theory, it only makes sense that the energy within the nucleus of an atom would be but one more level of that same fractal arrangement. Therefore, just as the structure of aether is the fundamental basic structure for electromagnetic waves and fields, the same identical structure defining the nucleus of an atom, would be the fundamental basic atomic structure for the formation of matter and/or mass. Accordingly, both this same structure and its mathematics would apply to both aether, as well as, to nuclear and atomic structures.

Finally, it is strongly proposed that the constituent particles of mass and matter are condensed and/or tensed forms of aether, which have formed their own unique structures and have separated from the aether. Therefore, there are two worlds out there, the first is our physical world of matter and mass, and second is the aethereal world of charge, fields and waves. Just as it is wrong for the contemporary physics establishment to view all things from the point of view of our visual world, it is also wrong for field structure theorists to believe that everything is the result of fields. Space is not empty, the term dark matter makes no sense, and all things are not the result of field energy. Instead, aether is a real substance that permeates the Universe, electric charge is tensed and compressed energy cells, electromagnetic waves oscillate within the aether, particles are formed by coincidental saturated waves within the aether and then separate from the aether, magnetic fields are circular motions and distortions within the aether, electric and magnetic fields make matter and matter makes electric and magnetic fields, gravity is aether flowing into the Earth, and the Earth is undoubtedly growing and expanding, just as are the moons, the planets, the stars and the galaxies. The Universe is alive with powers and forces far greater than anything science has ever conceived. So when will science ever wake up? Who wins the great battle, science or religion? Is science just asleep or is it something far worse?

Man has been perplexed for two millenniums as to the meaning and the validity of the term 666 in the Revelation. In my paper titled, "*The Effects of Human Perception and the Human Mind on Developing a New Paradigm for Physics*," the '*I Ching*', the '*Kabala*', and an '*Organized Word Structure for the Human Mind*' have been integrated on a direct one to one basis. The most important conclusion from this paper is the Number Sequence of 3, 30, 300 from the Kabala. For those unfamiliar with the Kabala (*Qabala, Quaballa, Kabballah, Cabala, or QBLH*), it is the classical

study of the meanings of the Hebrew alphabet and the implications of Hebrew text. The Kabala is comprised of the ten vessels or the ten spheres of the Tree of Life, plus the 27 letters of the Hebrew alphabet. It also has thirty-two paths of wisdom linked to the heart, which permeates the entire Torah. Each letter in the Hebrew alphabet has specific meanings born out of both reason and tradition, with each letter having an individual spelling and each having both a formal (sacred) and informal meaning. The Hebrew alphabet, unlike English or Latin, is more like a set of mathematical symbols, and the words they form are more like equations. Therefore, the meanings of Hebrew words can be determined by the deeper meanings of the individual letters. Furthermore, there are no number symbols in ancient Hebrew, as numeric values are also represented by the alphabet. Accordingly, the meaning of Hebrew letters represents simplified or distilled natural archetypes developed from older Hieroglyphic symbols. The meanings therefore, become more potent through the distillation process, and thereby represent conscious-unconscious archetypes of the human mind.

The Number Sequence 3 (13-46 Cognizance/Prehensions - 3 Ghimmel), 30 (35-56 Apprehensions/Thoughts - 30 Lammed), 300 (25-70 Common Sense/Truths - 300 Seen/Sheen) is taken directly from the decoded Organized Word Structure arranged in Kabalic form, and represents all positive psychological processes and/or all positive psychological traits within the human being. A descriptive narrative for this same sequence from the commentary of Carlos Suares on the Kabala is as follows: "Ghimel-Lammed-Sheen (3.30.300): these three letter-numbers express a movement in progressive enlargement, from the uncontrolled functional action of Ghimel (3), through the controlled connecting agent Lammed (30), going as far as the universal Sheen (300), mythically considered to be the "spirit", of "breath" of God." So science, just maybe God does exist. Anyway, from this same exact structure a similar description can be directly obtained for the alternative and reverse sequence of 600, 60, 6, (not 666 as promoted), which is 600 (Intelligence-Sciolism), 60 (Insight-Empiricism), and 6 (Rationale-Pretensions). Where better for this description to come from than the Hebrew Language itself where it was manifested and revealed. Accordingly, this force (600, 60, 6) within humankind, begins with false intelligence that is based upon the insights of empirical evidence and then is pretended to be true. Are the established academic, governmental, and commercial institutions of contemporary science just asleep, or are they something far worse?

References:

Ben Bova, The Fourth State Of Matter, St Martins Press, 1971

Firtjof Capra, The Tao of Physics, Bantam Books, 1983

- S. Warren Carey, The Null Cosmos, Elements of Natural Philosophy, Chapter 1; The Big Bang Myth, Elements of Natural Philosophy, Chapter 3
- David Deutsch, The Fabric of Reality, Allen Lane, The Penguin Press, 1997

Richard Feynman, QED Princeton University Press, 1985

- W R Hohenberger, Perceptions A Symphony of Words, Winston-Derek Publishers, 1992; A Unified Vision of the Universe, 2008; Visualizing Electromagnetic Waves, Quarks and all Else, 15th NPA Conference, 2008; The Effects of Human Perception & the Human Mind on Developing a New Paradigm for Physics, 15thNPA Conference, 2008; The Structure of Aether and the Mechanics of the Electromagnetic Wave Spectrum, 16th NPA Conference, 2009
- Don Briddell, Field Theory Structure, 15th NPA Conference, 2008; 16th NPA Conference, 2009; www.fieldstructures.org 2008-2010
- L. B. Okun, Contemporary Concepts In Physics (Volume 2), Particle Physics: The Quest for the Substance of Substance, Translated by V. I. Kisin, Harwood Academic Publishers, 1985 Barry Parker, Albert Einstein's Vision, Remarkable Discoveries That Shaped Modern Science, Prometheus Books, 2004

Raymond A Serway, College Physics, Third Edition, Saunders College Publishing, 1985, 1989, 1992

Michael Talbot, The Holographic Universe, Harper Collins Publishers, 10 East 53rd Street, New York, NY 10222, 1991

Gary Zukav, The Dancing Wu Li Masters, An Overview of New Physics, William Morrow & Company, Inc 1979

Alexander Tsybin, The Neutrino Sea, 15th NPA Conference, 2008

William Day, A New Physics, Publisher - Foundations for New Directions, Cambridge, Mass. 2000

Various Authors, Basics Fundamentals of Physics, Wikipedia

Harold Fritzsch, Quarks - The Stuff Of Matter, Basic Books, Inc, Publishers, 1983