

Theoretical Particle Properties a calculation  
Method Article

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\*This is for making an acknowledgement.

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### **Abstract**

Following on from the two part series of documents entitled " The Origin of Matter", in this paper we shall attempt to calculate , using our previously proposed theories , the properties of the proposed F particle and later the mass of the F particle as it is used in complex particle construction. The mass derivation may or may not be possible as these papers are a journey of discovery and I do not know what kind of results will be produced. One of the easiest properties to calculate shall be the size and that should give one an answer to at least the validity of the theory to a certain extent. It must come out to be in the correct range to form a proton, If not then the theory is incorrect.

## **1 Introduction**

The previous papers introduced many new ideas and concepts in order to explain certain Physical properties of our Universe that have just been ignored and left for another day. I believe that this has been the biggest mistake in Physics and has led the search for truth down a false path. I therefore believed that it was necessary to revisit these ignored properties and paths and using nothing more than thought and logic to re-interpret them into a new theory that would make more sense and put Physics back on the right track.

## 2 New Concepts

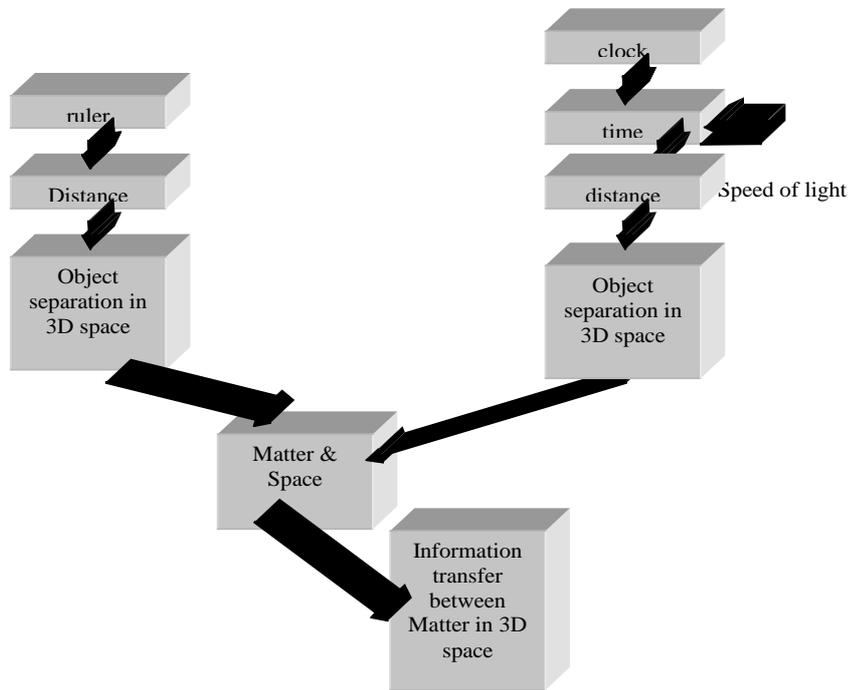
The first and probably most important new concept that was introduced was a new geometry for the Universe. I believe that it is still a four dimensional Universe but the great mistake that has been made was to regard TIME as the fourth dimension

Einsteins theory was mostly correct, referring to Special Relativity but his conclusion was not. Time, if looked upon in SR is a result of information transfer which is the basis of creation. Time IS PRODUCED and is a MEASUREMENT of Informational Transfer. We are not traveling through time , it is created by the UNIVERSE AS THE UNIVERSE IS FUNDAMENTALLY A Creational Machine, designed to create the first Particles, more Complex Atoms, Molecules, Celestial Bodies and finally, so far , Life itself.

So if time is not the fourth dimension what is the fourth dimension? If you read the previous papers I have proposed that the Universe has a fourth dimension that is a mirror image of the three dimensions that we live in. So to call it a fourth dimension is somewhat misleading, to be more precise it is another three dimensional space just like the one that we inhabit only a mirror negative of it. The reasoning comes mainly from studying the physics of the very small - Quantum Physics with its solutions that are Complex in nature, requiring the introduction of complex number theory to solve them. It was these and other facts that leads one to this inevitable conclusion. This has the effect that if we contemplate a spherical particle it must be understood that it is a spatial four dimensional particle , able to spin , not only in the three dimensions that we can observe but also spin from the positive to the negative three dimensional space, termed M (for mirror) dimension. Indeed I propose that the F particle, from which all other particles are constructed has an integral positive and negative part that add up to create the total particle- These two parts are of course separated by the Planck's barrier, which is the origin of all the mysterious Planck variables

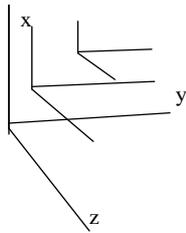
Many other new concepts were introduced but we shall only elaborate on them in this paper if they have a direct consequence on the calculations of the fundamental particle properties.

To give a quick resume of the formation of the Fundamental particle, it is formed when certain high energy photons combine to form a triangle ( or maybe some other geometric shape) and spinning at the speed of light, spin out a perfect sphere from the very fabric of space itself. This then has the following effects. The first is that in the negative three dimensional dimension the fabric of space that has been ejected forms a solid sphere. Also around the sphere in our dimension a wall of Hadronic gravity is created by the distortion of the fabric of space. . This is going somewhat further than we did in the original papers as we postulate that as a particle is being formed using this process on our side of the mirrored dimension, a Perfect Copy of the particle is being formed on the



This shows that time is simply part of a measurement system and in the final instance is actually measuring distance (by using the speed of light transform from time to distance) the same as a ruler so how can it be considered a dimension as it does not exist in its own right. Distance is the fundamental target for both length and time measuring systems and in the end they are the same. Basically this is what Einstein said in Special Relativity. What he pointed out was how the distance between events was effected by their relative velocities which in turn effected the transmission of information between events in 3D space.

The same point in space shown at different dimensional sizes.



A point in space can be described in increasing resolution by transforming the size perspective thus revealing how each layer is constructed from other underlying areas. This is really the correct 4th dimension as to describe the point should be  $(x,y,z,S)$  S for size of course. This can be continued for the entire Planck range.

other mirror dimension, except it is a negative mirrored copy of course.

Ok that is enough for the theory as this paper is about hard cold calculations that will either help prove our theory or the reverse.

We shall begin with a very simple but sometimes , misquoted equation :

### 3 mass Theory

$$Energy = \hbar \times \omega \quad (1)$$

This equation is quite simply understood and discovered by Einstein to mean that the energy of an EM wave is equal to the frequency multiplied by the constant , planks constant. Using this can be calculated the energy of any EM wave in the entire spectrum. The mis-understanding is that the equation should, to express it correctly contain a constant . If we express it in a subtly different way it can be interpreted differently. The correct form of this Equation is:

$$Energy = N\hbar \times \omega \quad (2)$$

Where:

*N is an integer  $1 \rightarrow \infty$*

*$h = \hbar$  constant*

*$\omega =$  fundamental base frequency*

$$Energy = N\hbar \times \omega \quad (3)$$

This time we have added an integer  $N \rightarrow \infty$  and one can see what the subtle and important change is (that is known but almost always omitted). If one assumes that there is a base starting frequency described by  $\omega$  then the equation states that the energy of the wave is still given by the frequency multiplied by the constant, Planks constant but now it is not a continuous spectrum but a discrete spectrum incremented by units of Planks length. So it seems that even at this dimension the universe is digital in nature and energy can only take on certain values which are defined as multiples of the base frequency. The Planck value is then actually the universal integer 1. mysterious numbers that Bertrum Russel wrote a great and profound poem about - check it out!

How to go about calculating the mass is to derive the particle system that is in equilibrium. This will happen when the energy produced by the spinning photons is just exactly the correct amount needed to eject all of the Fabric of

Space. Too much energy and the particle would literally blow itself apart with bits of space fabric and photons flying off into space and too little and the particle will fall back on itself and this time implode with more or less the same results. So in words the equation we need would be something like what is shown below.

Energy produced by photons = energy to eject the fabric of space.

In order to calculate this we shall use a computer program designed specifically for the purpose and I shall supply it with this paper. The program shall be designed to derive all the necessary information about the construction of the F particle including, most importantly its theoretical size.

I do not know what kind of data that I will get and I am personally very excited by what I am finding so far.

*Who said science is not fun , it has just been hijacked by all the wrong people, - ban tenure make these fakes justify their existence and everything shall start to improve - the search for the truth is what it should be about. The young people know this - fix it and they will all return and science will look at the last 50 years as a mistake not to be repeated.*

$$N\hbar \times \omega = \text{Volume of F Particle} \times \text{density of a black hole}. \quad (4)$$

$$N\hbar \times \omega = \frac{4\pi}{3} r^3 \times 2 \times 10^{36} \text{ joules/meter}^3. \quad (5)$$

## 4 The Basis of the theory

Before continuing with the calculations I would like to try and explain my reasoning that led me to this view of the shape of the universe. There is lots of mathematical evidence but I shall not concern myself with that for the moment. When I was a child I was obsessed with the problem of the piece of paper being cut in half. The problem , as everyone knows is, that you can always cut a half into another half going on forever. For that reason I decided that the universe must be in some way bounded to prevent this calamity.

## 4.1 The Basis of the theory - a child's eye view

I thought one day about these plastic cheap masks that you get at a fair ground. If you look at the mask straight on from the front you can see the face perfectly and if you turn it quickly you can see the same face perfectly as well. Though move it a bit side to side and you can see it is not the same. Every little bump that portrays the face from the front is in fact a little dent from the back. Everything is the reverse in 3D space. One side the negative of the other. The face is formed from a completely flat piece that has had a shape pressed into it using heat energy to distort both sides of the plastic one being the inverse of the other side. It is this way I believe the universe is formed with every F particle that is formed in this dimension a similar but reverse particle is formed on the other side and that is what the complex numbers at the heart of Quantum Physics are telling us. No more problems with Quantum foam and the laws of physics breaking down as if one could travel down so far, before this the limit, Planck's limit would be reached. If one could cross then one would start to ascend again but in a reverse negative of our dimension made of negative integers where the square root of  $-1$  would be a natural phenomena and no cutting paper in half forever.

So to sum up

**everything is just the fabric of space**

**This is probably the most important and fundamental fact that has not been understood but must be if we are to make any more progress in physics.**

that has been formed by **distortion of radiation energy** - i.e. **gamma rays**,

I don't even know what kind of data the computer will produce as I stated before I am on a voyage of discovery, who said physics is not fun. its just lost and become corrupt.

## 5 (The Theory That is not Understood) Quantum Physics - A Theory that No-one Understands

I can say with definite certainty that Quantum theory is understood mathematically yet not one person on this planet understands what it means as it seems so bizarre and strange. It is like its a big puzzle with some main parts that are missing so we just cannot see the full picture - why is that?

Newton showed us that the universe is governed by precise mathematical laws that could be expressed as equations and if one knew the starting state of any unfolding event the final state could be calculated exactly - cause and effect or **causality**. The study of sub-atomic particle, photons and electrons etc. blew this neat and comforting situation out of the water. It showed at this level that causality breaks down and the laws that govern these particles are strange and counter intuitive. No one wanted this situation but physicists were forced into it by their study and the outcome of numerous experiments. Causality does not reign supreme at the Quantum level and since everything , including ourselves are made of Quantum particles then it must be that causality does not apply to our macro world either. Though the question remains if that is the case why do we not see any Quantum effects at the macro level, another paradox for physicists and others.

It is these paradoxes and questions that have driven me to look hard again at all the evidence and try to come up with an answer as I am sure it is there staring us in the face just waiting to be picked up and then all of physics will again undergo a revolution not unlike that when relativity was discovered. Until QT came along causality was thought to be straight forward and simple but QT turned this on its head. Basically QT shows us that ALL possible outcomes of an event MUST be taken into account no matter how unlikely they are to occur. Each possible outcome is given a weighted probability on how likely it is to occur and all these individual events are summed to give a probability of an event occurring - the total probability being 1 as one of the events does occur. These events are described mathematically as amplitudes or probability amplitudes and the higher the weighting of each one gives the higher the likelihood of it occurring. So QT says all events are the sum of the probability or chance of it taking place. Causality is gone and probability takes its place. Not only that, these probability amplitudes are described by complex numbers and are complex in nature - The event being the complex sum of the probability amplitudes.

It gets even stranger. If a photon , for example is fired at a screen it is governed by the complex amplitudes that I have described but if then a detecting device is put in its path to discover its actual path the probability instantly reverts to a real outcome and its path

is known. This has many terms , sometimes called the collapse of the wave function when an atomic event goes from probabilistic to real. This also has a mathematical description and it turns out that if the sum of the probabilistic events are multiplied by their inverse complex conjugate then the event becomes certain and real. Again another bizarre Quantum effect, the act of gaining knowledge of the event causes it to become certain and not probabilistic.

The question that I now pose is ” IS THERE ANYTHING IN THE VIEW OF THE UNIVERSE IN MY THEORY OF PARTICLE CREATION THAT COULD GIVE A SOLUTION TO THIS FUNDAMENTAL PARADOX.”

## **6 Deriving the data**

In order to calculate the core energies, that are produced by the gamma rays and that required to form the particle it is necessary to use a computer. The problem is that it is necessary to start at the beginning of the Planck size and increment up 1 Planck unit every time the calculations and comparisons are carried out. This in itself proved too much as there was just too many calculations and the computer would literally take months to scan the entire Planck range. To get round this problem I used a simple successive approximation algorithm. Basically the program starts in the middle of the range and does the calculation. if the results are too high then the entire high half of the range is known NOT to contain the answer so the process is repeated again using the low half of the range. By repeating this process over and over the computer can very quickly zoom in on the answer, the point of equilibrium of the energies.

The numbers that were calculated would show, very quickly, if there was any validity in my whole approach and theory. The first and most important data that I was most interested to see was the predicted size of the F. particle as it was so crucial that it had to be in a range that would enable it to form , realistically , a proton. Indeed the first run of the computer gave the answer to the particle radius as the following:-

$$radius = 2.3598968726767602e - 018meters \quad (6)$$

## 7 particle ranges

This is exactly in the range that one would expect for a particle that would be used to form a PROTON AS A PROTON IS  $x10^{15}$ so the forming particles should be smaller but not so much smaller and  $x10^{18}$  is just about perfect. After seeing it I at least knew it was not yet time for trashing the theory and could go forward.

## 8 Mass Theory Calculation

About the Planck values that we shall use. Previously we have stated that it would be necessary for three connected EMR waves to spin at the speed of light with an angular frequency to generate sufficient energy. Though what would be the dimensions of these individual wave packets? I really don't know or have any solid reasoning

for this so I shall use the smallest dimensions possible as for the wavelength I shall make it equivalent to Planck's length and all other lengths and times ,frequencies etc shall be derived thereof.

Calculating the variable N shall yield the number of times the base frequency has to be multiplied by to produce the balancing energy and thus the radius of the F particle and also its volume. The calculation follows after stating the Planck parameters and their values.

The equation we shall be working to shall equate the energy produced by the photons spinning a sphere in space to the density required to construct a black hole as, after all, a micro black hole is what we are envisioning.

$$N\hbar \times \omega = \frac{4\pi}{3}r^3 \times 2x10^{36}joules/meter^3. \quad (7)$$

## 9 The particle formation Explained

As I worked through the program I was also trying to produce sum kind of pictorial diagram to go along with it and try explain the particle formation more clearly, it is shown below. Of course it is not correct as it is portraying two three dimensional spaces existing in the same space for want of a better description and our minds just cannot conceive that so instead I have separated the two three dimensional spaces separated by the Planck's barrier. The real situation is that both the three dimensional spaces that I propose in this geometrical view of our universe occupy the same space but inhabit different

dimensions and that dimension is separated by a barrier which is described by Planck's constants, this is the origin of the mysterious Planck constants. It is a hard situation to grasp but it means that EVERY point in our three dimensional space is attached at the Planck size to the plank barrier and crossing it would take one to the mirror or negative three dimensional space that is the other half of our universe. I want to be very clear here , the other negative three dimensional space is not another universe but is an integral and important half of our own universe and as I expand this explanation the reader will see why, If what I propose is correct then simply put we exist in a universe of two halves , one the mirror negative of the other, each being three dimensional in construction separated by a very thin four dimensional barrier which exists at every point in our known universe and exists to keep the two halves separate. This reason arose as, to put it crudely the universe was formed when the fabric of space had matter created, stamped from it as in the mask example, there was nothing else only space and it is the basis of everything. For these and other reasons that shall become clearer and if one thinks deeply about this I am saying that not TIME but SIZE or perspective is the fourth dimension as it is necessary to travel downwards to meet the Planck barrier but this can be achieved at ANY point in the entire universe - SIZE is a dimension!!

I think it is never thought in this light as it is so common place but thought about deeply and the fact that as the knowledge of matter is exposed to a deeper and deeper level that everything changes like traveling through an

information machine made up of a myriad of levels, each showing how the previous is constructed - if one thinks about it it is actually a very strange phenomena and is actually a separate dimension.( see graphic drawn).

## 10 Universal Purpose

The above statement is the core of this theory. The energy (produced by the gamma rays) spin up and create a spherical particle in our three dimensional space and at the same time produce the other half of the particle which is a solid bubble caused by the deformation of space (just like the cheap plastic mask) and is created by the fabric of space that has been ejected from our side of the three dimensions. I should clarify here, I use the terms ours and other such terms when describing the universal situation but both halves ARE our universe and are NOT anything separate but are integral parts of our total universe.

The whole purpose of any particle is to CREATE and it obviously does this by interacting with other subatomic particles. Once the particle has been formed, both three dimensional halves, the halves start to separate, not completely they are still attached to each other through the Planck barrier but the separation allows the particles on our side to assume their wave form. This waveform then spreads out in all three dimension , probably at greater than light speed seeking other particles. This is the reason for the particle/wave duality that exists in our universe. In the wave mode the particle can interact and join creating new matter not in the particle mode. When the particle in its wave manifestation encounters a particle that it can interact with (also in its wave mode) it interacts and then immediately both halves snap back together and the creational process has taken place.

*I PROPOSE THAT THIS IS HOW OUR UNIVERSE  
FUNCTIONS.*

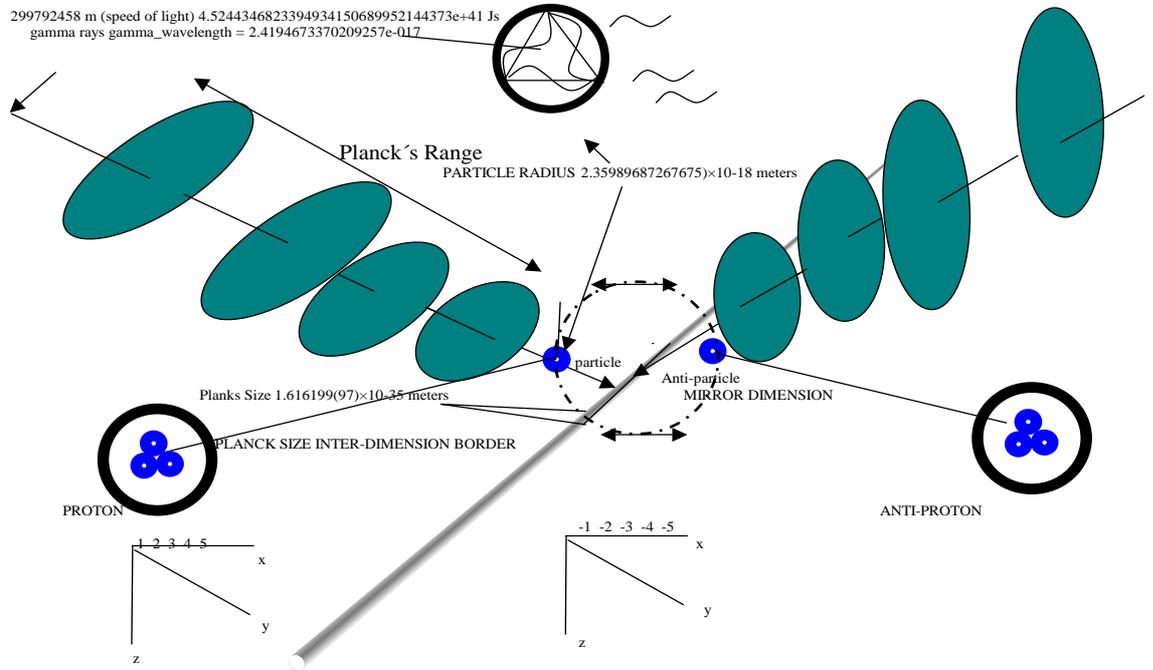


Figure 2: The proposed Geometry of the Universe with both three dimensions shown separated. It shows a point, any point in our universe and the range of sizes displaying that size is in fact a dimension that can be traveled up or down. The F particle is shown in its position relative to the entire Planck range and the proton that it is used to construct.

## 11 THE FAMOUS 2 SLIT EXPERIMENT

So this view of our universe says that it is made of a three dimensional positive dimension and a three dimensional negative dimension. The negative part is the part that we are not aware of but it makes some inexplicable phenomena understandable. The great test would be if it could explain the following paragraph - the famous 2-slit experiment that is at the heart of Quantum Physics and has driven physicists crazy for almost a hundred years now. So I will now look at the famous experiment with this proposed view of the universe.

## 12 Testing of the theory the 2-slit experiment

Richard Feynman said

**the only question to be answered in Quantum Physics is the enigma of the 2-slit experiment and if it could be explained then quantum physics would be understood so does this theory explain anything, does it take us forward any more**

I believe that this new and fresh particle theory does in fact make quantum physics less magical and more understandable but in order to get here I have had to introduce many new concepts and ideas starting from the very geometry of the universe and many more.

## 13 Experiment overview

To recap, the experiment goes like this. It consists of a source that can generate sub atomic particles and fire them towards a first screen. The first screen has 2 slits in it which are separated by the wavelength of the source particle. The particles can pass through either slot and travel further to a second screen. The second screen is made of a reactive material, photographic or some other reactive material which will show where the particle hits the screen.( they always hit the screen as PARTICLES) and never any wave like manifestation.

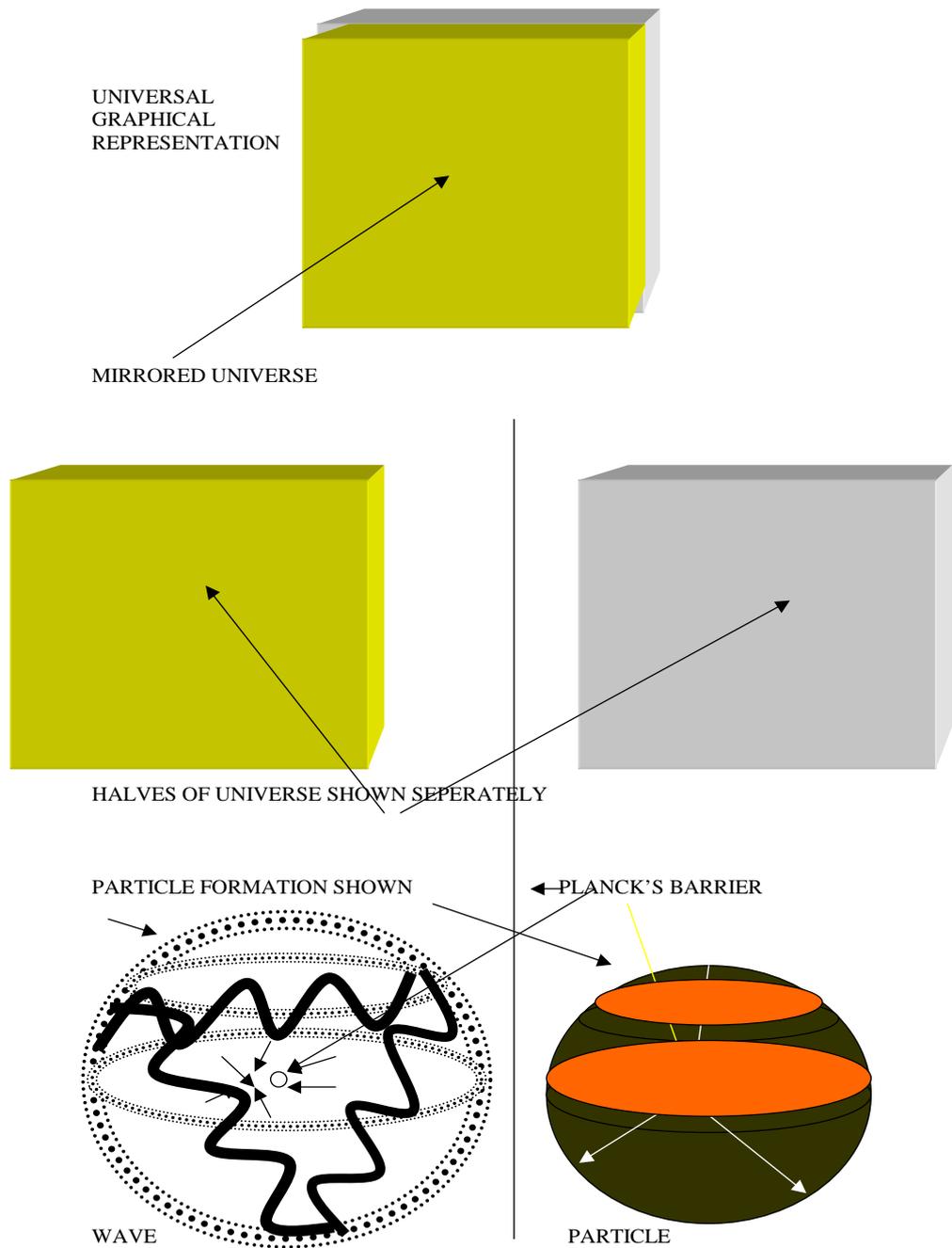
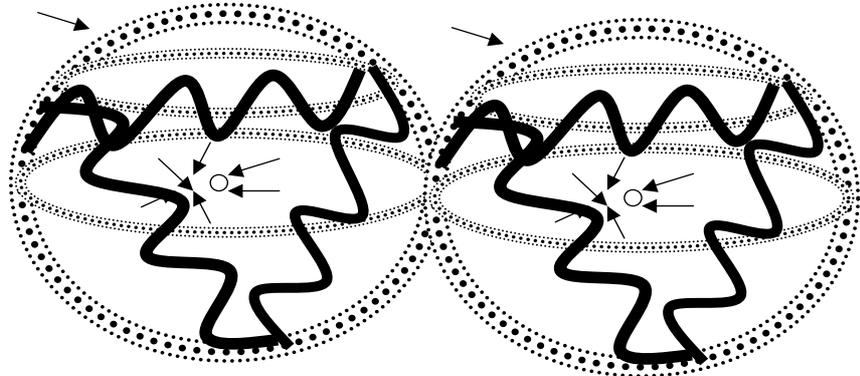


Figure 3: This series of graphics attempts to show the geometric view of the universe and how the first particle was created.

The graphics above are trying to give a visual representation to the theory being presented here.  
 They are just aids to understanding as the human mind cannot visualise in more than 3D.

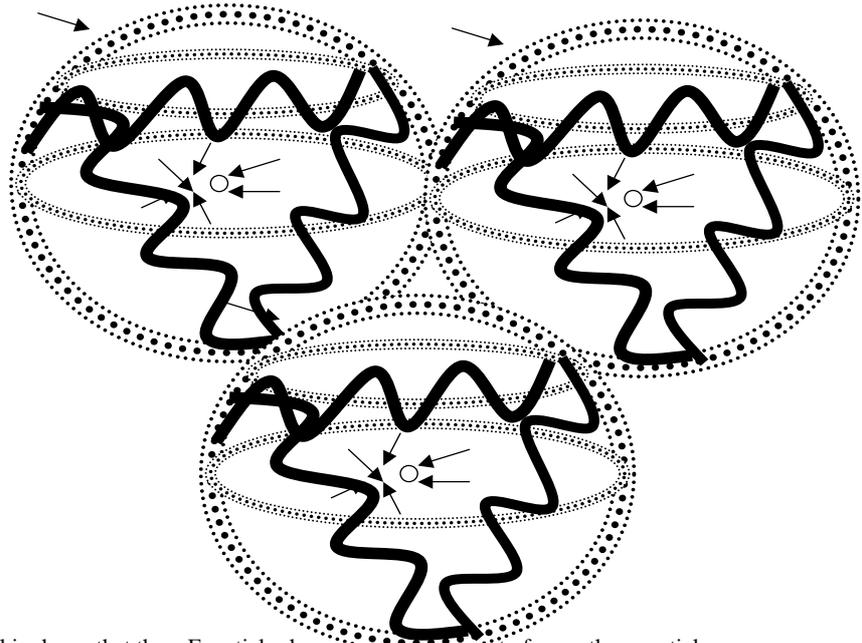
1. The first graphic shows that both halves of the geometric universe that is proposed inhabit the same space but that we are just not aware of them as the fabric of space is so invisible to us and we don't even see our own side. This does not mean that it does not exist and is not as real as any other part of the univers / space is something / it is not nothingness.
2. The second graphic has separated them both out just to emphasise that there are two parts to our univers.
3. The third graphic shows that the particle formation method presented here. On our side the spinning gamma waves create the hole in the fabric of space forcing it downwards through the planck separation barrier and to the other half of the universe where it appears as a solid particle. It is trying to show that this proposed fundamental particle comprises both halves / the wave and the particle and both are integral and important to particle formation
4. The following graphic shall concentrate on the particle and without being too detailed give an overview of its evolution and construction.

First the particle halves are formed as explained already



On our side we have the hole in space created by the gamma energy. This hole has its own purpose and as stated before, being a wave which is massless it can travel out in all or any direction with the purpose of creating more complex structures`

Figure 4: The series of steps that are shown only as an aide to help.



This shows that three F particles have enough space to form a three particle structure which of course is how a proton is formed. As soon as this happens the particle halves must snap back and line up and become part of the overall particle as the wave is just half of it and the particle is the other half separated by the Planck's border so they do not annihilate each other or collide in any way. This theory then obviously means that it is the particle part that creates the mass of the particle when it again exists with the wave half.

Figure 5: The main point to take away is that these two halves are still not completely connected

PROTON CONFIGURATION

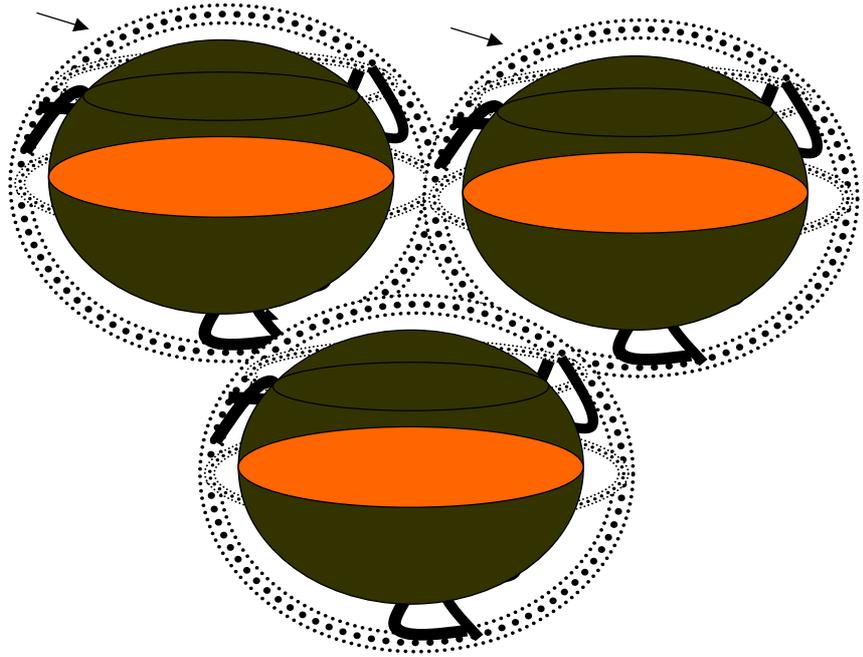


Figure 6: the last graphic shows the final state after the proton has been formed but it is not showing the dynamics as the particles ARE in constant motion but this does not affect the mass value.

Now here is the enigma. Lets say we are using photons but it could be electrons or any other sub atomic particle. A stream of photons is fired at the first screen with the 2 slits. Nothing is known about the route of any of the photons just that some must be passing through one of the slits and some through the other. The photons continue their journey and eventually strike the second screen causing a reaction at the point of the strike. The material is designed to leave a mark so that all the points of contact can be seen. What the experimenter sees is a series of lines - interference lines. It seems that the photons are interfering both destructively and constructively with each other as can only be achieved as a property of waves. So far there is nothing bizarre or strange(except that particles have both wave and particle properties the wave/particle duality) what we have is photons that are known to have wave properties traveling , passing through the slits, interfering with each other and producing interference lines on the photographic screen. The only slightly strange occurrence is that the photographic screen shows a particle striking it and this is one of the enigmas, once the photon appears as a wave and later a particle, the famous wave/particle duality.

Ok so far, now we shall re-run the experiment. Though this time we shall make a change. The source generator of the photons shall be turned down so far that it only produces one photon at a time. What effect does this have on the experiment? As the experiment continues the photographic plate shows where the particles are striking. As the pattern becomes apparent it shows, bizarrely that the interference lines are still present. This is the main conundrum , as only one photon is being fired at a time yet the second screen shows interference patterns that show that there has been wave constructive and destructive interference which would require at minimum two photons but not in this case. There is more. If the experiment is re-run but this time a detector is placed at one of the slits on the first screen so as to determine which slit the individual photons are passing through, the interference patterns disappear and a random spread of photographic hits appears on the photographic screen. The fact that the knowledge of the route of the photon is known causes the collapse of the wave function from a probabilistic event to a real event. This is the heart of the problem and at a famous scientific meeting in the 30s it was discussed at length and was named the Copenhagen solution. This fact, that knowledge

causes the event to go from a probabilistic to a real event, to this day has never been explained and is still completely not understood. There is more but this is the fundamental situation that has to be explained and it has not as yet. Can the theory presented here add anything new to the argument - lets see.

## **14 2-slit seen from a different perspective**

What is the main difference between the theory presented here and the present view of physics. I would say that to sum it up the main difference is that this theory presented here proposes that our universe is basically a Creational Machine and everything can be explained from this perspective . With this in mind I will briefly go through the 2 slit experiment.

## **15 A creational machine**

The source generator is turned down so that it generates one photon at a time. In this thought experiment I shall use our Fundamental particle as the source particle but it could be any particle. I shall start from the very creation of the particle. As I have proposed the particle is basically a hole in space created by the gamma ray energy - a hollow sphere. What happens to the fabric of space that has been ejected - I propose that as it is ejected from our positive three dimensional space it appears as a solid sphere in the negative three dimensional space and that both parts are needed to create the said F particle.

So the source generator , using gamma rays creates an F particle and fires it towards the 2 slit screen. As it starts its journey the F particle also starts another journey. As I stated its reason for existing is to interact with other sub atomic particles to create matter. This process starts by the F particle changing to its wave manifestation. It starts to spread out as a three dimensional wave probably at faster than light speed seeking other particles. If by the time it reaches the first screen with the 2 slits it has not encountered any other particles it shall pass through both slits as a wave. This will enable the destructive and constructive interference and again the interference patterns will be seen on the second screen.

If the detector is now placed at one of the slits the wave F particle will interact with it and snap back to its particle form. This means that both halves in both three dimensions , the positive and the negative come back together to enable the particle mode and now the F particle in particle mode can only pass through one of the slits and the interference patterns disappear as they are not now possible. It is not the knowledge of the particles route that causes the collapse of the wave function but its interaction with another sub atomic particle as it goes through its creational process which it is designed to do.

## 16 The Mystery Of MASS

To re-visit something that is central and important and I would like to re-emphasize it. When the gamma rays start to spin up and start to displace the very fabric of space there are only two things that can happen. The fabric of space can either be forced up or down. To go up the force would be tremendous as it would be against the entire fabric of space that exists above it just like a diver in the sea - the particle mass takes the path of least resistance which is down It is forced downwards all the way to the limit which is of course the universal Integer or Planck's Size and the fabric of space is forced by the gamma pressure to cross the border to the other mirrored half of our universe. So as the hole in space is being created in our side ( I don't really like using words like this as both sides are part of everything) a solid sphere is being created on the negative side.

The Late Great Richard Feynman wrote this

It has been a mystery ever since it was discovered more than fifty years ago, and all good theoretical physicists put this number up on their wall and worry about it.) Immediately you would like to know where this number for a coupling comes from: is it related to pi or perhaps to the base of natural logarithms? Nobody knows. It's one of the greatest damn mysteries of physics: a magic number that comes to us with no understanding by man. You might say the "hand of God" wrote that number, and "we don't know how He pushed his pencil." We know what kind of a dance to do experimentally to measure this number very accurately, but we don't know what kind of dance to do on the computer to make this number come out, without putting it in secretly!

## 16.1 A Famous Mystery - solved ?

Now we know. Its the mirrored half coupling energy indice or 2 to the power 137 joules. The energy needed for EM to cross the Planck barrier. Again this has come out of the computer by total surprise and gives me more confidence that this is the correct path. The computer program when it finds the balance point also calculates the energy which comes out to be 2 to the power 137 which is the value of, until Now a mysterious natural constant called the Fine Structure Constant. Now we know what this constant is - it reflects the energy of the Planck Barrier and consequently what energy is needed to cross between both universal halves. I was not even looking for this it just appeared - **chance**? Ok So far I put forward a lot of new ideas that have basically been heading to a different conclusion than the Quark based system that I have studied in detail and am convinced is just a mountain of bad ideas layered upon bad ideas though who am I to challenge all of these great scientists with their Nobel prizes and prestige.

## 16.2 A slight digress

Just let me remind you of one thing. At the turn of the century everyone in the field new that there was a big problem in Physics. The problem came out of the study of Maxwells work ( a fellow countryman) and that the so-called best minds in the field had been working on for 20 years and had got no-where. Then a yong man walked into the office of one of theses great minds and gave him a very short almost non-mathematical paper to read. He read it and saw the light immediately , it was so obvious a clerk sitting at his desk had worked it out in a few months in his spare time . When he put down the paper after having read it , he thought "everything will change " and he was right - young Albert had proved he was better than them all put together. I believe that this problem will be solved in a similar way and the Quarks with all their mind bending properties will eventually be a footnote in history.

So with that little bit of history I would like the reader just to sit back , read this and listen to what I have to say.

## 17 The Mystery Of MASS of the proton

I have looked at the reports of the Experimental Physicists doing the mass experiments on the Proton. All of them agree that what they see materializing after many mass experiments on the proton is not what they expected to see at all. Many of them have tried to use analogies to give some vision into what they have discovered and as I stated before they have said that the proton nuclei in no way appears a stable fixed particle. It is in constant chaotic movement. It seems to be comprised of three sub particles (the quarks) that are constantly in motion. Three marbles in a rubber sack is the one description that I have heard many times and they all seem to be in agreement with this. The three inner particles are moving around chaotically at near light speeds, sometimes straining at the invisible rubber sack boundary and sometimes disappearing into the center - either a real chaotic system or at the very least a repetitive chaotic system.

There seems to be no disagreement on this but it has mostly , as in many other areas, been ignored.

So let me pose a question. If the system is so chaotic why is the result obtained for the mass not. After all physicists claim that most of the mass is in the form of energy, the individual quarks making up only a small part. This is obviously not possible as chaotic systems do not give stable results.

I have thought about this and I would postulate that the answer is in the dual nature of the proton by which I mean its dual wave, particle nature and to understand mass we shall need to understand that ignored small problem which the quark guys have steered well away from as they know a theory of mass should explain this as well but theirs does not. At the moment their theory does not even predict the stable mass answers so what use is it at all.

## 18 The Mystery Of MASS of the Duality of wave/particle existence

So lets go back to where I left off. My whole approach in these series off papers has been to go back through physics and to look for errors in the form of assumptions that have never actually been proved but after a while have been accepted as the truth and just

left even though to do this is highly risky , in fact I would go as far to say it is not really science but has been done this way out of all the worse reasons , basically careers and prestige and money. Physics is much like a racket that the guys at the top can get away with as there is no one to counter them. They hold the keys and make sure dissenting voices are never heard but if they are wrong and I am sure they are the truth will eventually surface but we will have lost a lot of valuable time, resources and many other things.

### 18.1 Particle Wave Duality

So the wave particle duality. I have given the reason for wave/particle duality like this. The driving force. Starting from the very reason for the universes existence I have stated that it is fundamentally a CREATION MACHINE. If one accepts this and I think it is impossible not to then other properties can logically be derived. First of all is , how does the Universe create? Lets keep with the big bang for the time being as I think it is more or less irrelevant to the argument - the universe started in some way and in the beginning there was only space and lots of energy as it expanded and cooled rapidly, the first particles had yet to be formed and this is the current point in the story - how where the first particles formed. My paper puts forward that there must be in existence a fundamental particle that was formed first from the universal state at the time. The quark guys would claim this as it , maybe , but I have already stated what I think about that. No, there was only two things in existence , space and energy so it must have been from this that the first particles where formed - THERE WAS NOTHINGT ELSE and I have already explained that and presented the first of a series of calculation i.e. the size and at  $x10^{18}$  it just magically falls into an almost perfect size range , LUCK!! - maybe - lets continue.

COINCIDENCE?? well someone once said coincidences are Gods way of remaining anonymous. The computer program that I have written continues with small surprises:- the number 137. Every good physicist should immediately recognize this number as it is of course the Fine-Structure constant which has just magically appeared from my program - more LUCK just chance , after all its just a common number. How did it appear. Well if you recall the computer is

designed to search for the point of balance between the gamma ray energy and the sphere energy. One of the checks that it makes is to make a quick comparison using power indices. To be precise the power of both energies when taken from the power of 2. So its 2 to the power 137 where the exact balance is found. Maybe its nothing but it is curious

My paper also puts forward the mirrored image dimensional view. That this particle is actually composed of two halves each part of the said particle and consequently every particle. From the idea that the driving force behind everything in the universe is to create the two halves of the particle make up perfect sense. Why is it in two halves? because it needs to be to go through a complex CREATIONAL process. As stated earlier: The Creational process proceeds as follows:- When the particle is created using the method that I have explained the particles sole purpose is to create and the initial part of this process is the particle moving from a particle to a wave manifestation. This makes perfect sense, in the wave manifestation it can move fast and easily join with another particle. The particle part is needed to add weight to the structure or another word for it , MASS. Again the two parts have different roles to play and the wave part is to seek out other particles and react or join with them. This is the entire reason for the wave particle duality. The particles are still connected, the two halves, but the wave part in our space separates and starts to move, probably at more than light speed until it finds another particle that is suitable. The other particle is going through the same process and waves are designed to join together, particles are not. So the wave parts join and the particle parts snap back together and basically that is that. As a scientist I have always found that if something sounds too complex and bizarre to be true IT IS. This explanation of how mass appears to me sounds so much more plausible than anything else that I have heard. As I have worked through it I have saw all the small and large parts starting to come together and make sense. The particle is in two parts the wave the particle and they both have completely different roles to play but the Mass comes from the particle part existing in our 3D space connected to but separate from the wave part at the Planck size. I will try to explain it better in the next series of graphics then I will produce some figures - going on from the particle size:

So far , and we have just touched the computer/theory results it has produced the correct size and explained and produced the value and reason for a 100year old unknown , important and mysterious constant - namely the Fine Structure Constant

$$radius = 2.3598968726767602e - 018meters \quad (8)$$

$$FineStructureConstant = 2power137 - 138joules \quad (9)$$

## 18.2 The Mass proton initial Results

The Quark theorists when it comes to the mass of the proton and indeed , hadrons and other particles have never produced even one result that came close to experimental evidence. Indeed the mass they calculate from their theory seems to make up only a fraction of what would be needed so the excuse is that most of the protons mass is in the form of energy. That of the energetic quarks and their counter connecting particles/forces , the gluon's and since it is so chaotic deriving a figure has been more than difficult even impossible. Though I have pointed out that the experimental mass figure for the proton is very stable and not at all chaotic so this excuse just does not hold up to scrutiny. I have put forward another reason for the mass and that is basically that this fundamental particle is in two halves but separated. Maybe now is a good time to elaborate a little. It is separated by the Plancks barrier and it is when both halves match up that the particle provides mass. The figure can be derived by calculating the coupling energy needed to hold both halves together.I have done this by calculating the surface area and the coupling energy needed to hold both halves together which I fave stated is the FSC fine structure constant or 2 to the power 138 joules. When I did this and plugged the numbers into the computer, very approximately for the first time the answer IS below and it shows that it is only wrong by 1 power indice. It is stable as well showing that what I propose that the mass is added by the particle half is much more likely to be true. What I got was

very surprising and welcoming. The figure for a proton using the theory and calculation is shown below.

$$1.6136123386987299E - 028kg \quad (10)$$

Which is just wrong by the indice as from experiments it should be to the power -27 and not -28 . One has to be careful when doing such calculations as it is always easy to either on purpose or subconsciously put in figures that generate what one is looking for and I do try very hard to avoid this trap.

**This is the first version which I have decided to publish even though it is in no way finished . The program that goes with it shall be published at a later date as it needs some more work to get even more accurate results as I wrote it very quickly so it shall come later.**