Theory of Amorphous Space

Synopsis

This is an entirely different view of Physics based upon the absence of any structure, physical or energy, existing across space. Instead separate singularity states can account for all known physical interactions.

Here is a simple proto-science theory to connect classical physics, gravity, quantum mechanics, relativity, electromagnetic, and nuclear physics into an unifying theory of physical interactions.

Amorphous Space

This is intellectual argument that space and time have no universal structure of dimensions, directions, or quantification. Only separate singularities exist and space and time are derived from their interactions. How singularities can exist in a formless space is beyond the scope of this paper.

Description of a Space Singularity

A singularity is a two dimensional flat space who's inside is larger than it's outside. Other shapes of space singularities may exist but this shape is useful in modeling our physical universe.

This two dimensional singularity has a singularity point in the center that contains infinite space. Around this

point the size of this space is defined by a 1/Radius scale. Drawing circles around this point shows an interesting construct, the larger the circle, the smaller it's outside circumference. An infinitely large circle would in essence be a point, no size in contrast to the center point's infinite size. It is different than anything that we have seen in the physical universe.
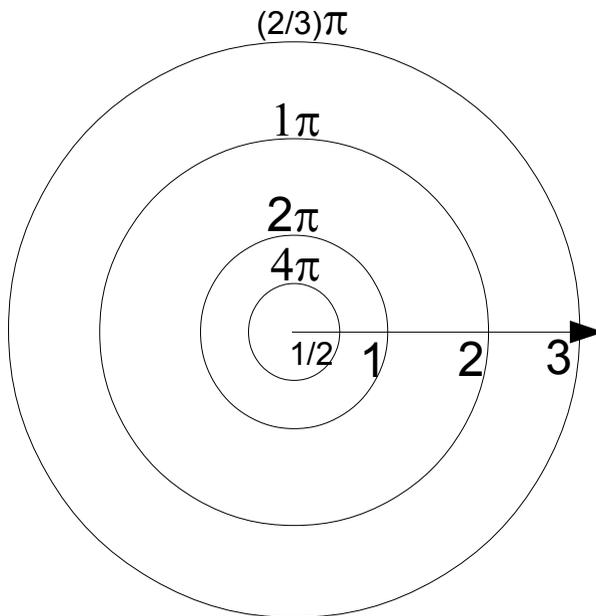
Two Dimensional Singularity

Singularities Interactions

Singularities can interact with each other on their outside boundaries. The reason for this is unknown since they appear to originate from amorphous space. Also their interactions causes the appearance of movement across

this space. None of this can be detected however due to the nature of amorphous space. We can however detect what is happening to the outer boundaries of the singularities in an area that I call the Subspace Universe.

Subspace Universe

The Subspace Universe is the four dimensional space-time that we live in and it exists on the outer boundaries of these singularity spaces. While there appear to be an infinite number of singularity spaces there appears to be only one continuous Subspace Universe. Or at least only one that we know of.

Singularity Interactions

A singularity has a virtual packet of energy from its singularity point to it's outer edge with an energy of **nhc/πr** where n is an integer number {1..infinity}, h is plank's constant, c is the speed of light, and r is the distance from the singularity point to it's outer edge. There are two different types of singularities depending upon the direction of this energy. Notice that there is a one to one relationship between this energy and the resolution scale of the singularity boundary, the 1/Radius scale.

When two singularities touch their resolution scales must agree (energy balance) or there is movement until their resolution scales agree. This movement is resultant from a shift in the singularity centers. However all movement is an illusion, it's an amorphous universe. The only real reference point is the continuous Subspace Universe. So the movement from this reference point is detected as acceleration.

Effects Upon the Subspace Universe

There are two different ways singularities can effect the continuous Subspace Universe. This is depending upon whether a single singularity is acting alone or dual singularities are acting in concert with each other. The key to this interaction is the internal virtual energy that exists within each singularity. This energy acts against it's outer boundary causing a force upon the subspace universe, a stretching or bending of the space-time fabric. These forces from various singularities are vectors and because of this fact their effects can be geometrically added.

A single singularity has two effects upon the continuous Subspace Universe. A sourcing energy singularity will expand pushing all other particles away from it with a force inverse to its size. A sinking energy singularity will shrink attracting all other particles toward it again with a force inverse to its size. Note that the single singularity appear to have no mass, gravity, or charge that we associate with elementary particles. It appears to have the same characteristics that we associate with dark matter and dark energy.

Two singularities can form a dual interaction when they are perpendicular to each other. They actually create their own section of the space-time subspace universe. This section is affected by all other singularities and connects with the rest of the universe. The rule for this dual interaction is very simple considering the nature of amorphous space. A singularity is spinning on it's outer boundary, the result of the virtual energy from the center. So not only is it's resolution scale defined (the 1/R size)

but it's phase as well.

Since the other singularity of this dual interaction is perpendicular to this spin, this direction is not defined. It is actually smeared as a result of this spin from the first singularity. Both singularities are spinning and both smear themselves in the directions of each other spins. And by this fact they create their own section of the universe between them.

From this simple interaction two separate models can be generated. One is a model of an elementary particle and the other is a model for light.

Model of an Elementary Particle

An elementary particle model is based upon two singularities that are locked together smeared as a line and a circle. The innermost singularity is along the fourth dimensional axis, identified as the W axis, generating a cylindrical shape singularity. This is a real axis not the time axis used in Relativity. Instead of having just one center of infinite space, there is an infinite set along the W axis. The outermost singularity is a circle at the W=0 position generating a donut shaped singularity surrounding the innermost singularity. Instead of having just one center of infinite space, there is an infinite set along the circle in the center of the donut.

They map out a parabola wine glass of the subspace universe between them. I call this parabola wine glass the area of compression since the forces perpendicular to this area from both singularities are equal and opposite keeping the singularities locked in place. The definition

of the force is related to the virtual energy from the center singularity, where the force $F = (nhc)/2\pi r^2$.
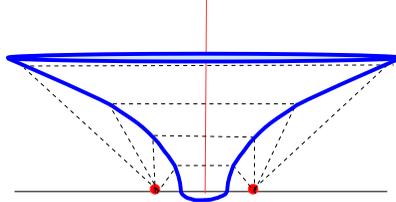
Parabola Wine Glass - Area of Compression

If you add a second spin to the particle, a second singularity circle around the W axis with a different axis then this Area of Compression becomes a volume, the space described by a simplified version of Einstein's General Theory of Relativity (shown below). And in truth this is normal space, the space we live in, curved by the effects of gravity.

$$[1- (4GM)/RC^2]\ d(CT)^2 - dR^2 = dS^2$$

Where $\quad d(CT)^2 - dR^2 - dW^2 = 0$

This is a mathematical description of the volume of compression where G equals the gravity constant, M equals the mass of the particle, C equals the speed of light, T equals time, and R equals the radial distance out from the center of the particle.

The basic concept is at every point in time and space there is a change in position in time and space that creates a velocity change. So CT new = $(1-2GM/RC^2)$ CT previous and R new = R previous. The velocity

change is 2GM/R when $(GM/RC^2)^2$ is very small. The change in velocity with respect to time, acceleration, is GM/R^2 which is Newton's Gravity theory.

The effects of electrostatic attraction and repulsion can also be seen in this model. Two parabola wine glasses side by side are effected by the forces from each others outer singularities. Two sourcing or two sinking energy singularity will repeal each other. While a sourcing and sinking energy singularity will attract each other. This force is electrostatic due to the fine structure constant $hc=q^2$.
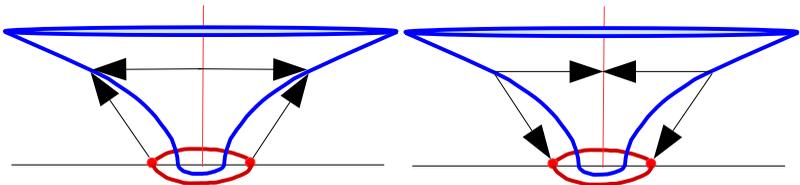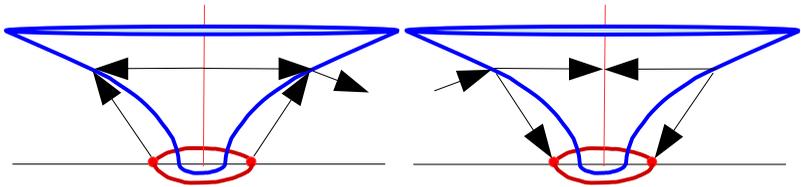

Sourcing and Sinking Singularities
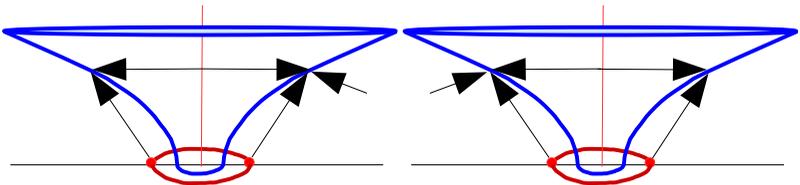
Electrostatic Repulsion

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Electrostatic Attraction

Magnetism can also be simply explained due to the fact that a moving particle is slanted in it's direction of travel. The relativistic effects of an object in motion actually show it leaning in the direction of travel where the tangent of the angle of the leaning W Axis is (1-v/c) to the direction of travel. This angling of the internal force perpendicular to the direction of travel is the magnetic force.

Further descriptions of the properties of this elementary particle model will be described after the light model is introduced.

Model of Light

Another model using dual singularities that are smearing themselves in the directions of each other spins is that of a double helix that looks exactly like DNA molecules. Each singularity is a helix and in between them is a straight line representing the subspace universe. At any point along the line the two singularities are perpendicular to each other, 45º or (π/4) to the line representing the subspace universe. This line is on top the existing subspace universe affected by gravity and

dark matter interactions.

These singularities have virtual packets of energy from their singularity points to this straight line representing the subspace universe with an energy of **nhc/πr** where again n is an integer number {1..infinity}, h is plank's constant, c is the speed of light, and r is the distance from the singularity point to it's outer edge. There are two different types of light models depending upon the direction of this energy. The effects of these two different lights will be examined later in this paper.

This model has the same limitation as Maxwell's equations that shows one frequency across space lasting forever. Instead a packet of energies must exist to limit the duration of the light which is called a photon particle. Another way to show this in the model above saying that the singularities are infinitely far apart at first (no light), then they slowly come together (increase frequency), then they slowly leave again (decrease frequency) until they are infinitely far apart (no light). The interesting part to this is this has to be happening at the speed of light. Of course it is amorphous space, as long as the double helix is moving at the one fixed speed it's correct. However we know we are using the subspace universe as it's own measurement of itself, light will always move at the speed of light.

The equations of Maxwell show a waveform for light that only travels one speed, c, in the vacuum of space. It is sinusoidal in nature with the electrical field E and the magnetic field H orthogonal to each other and in phase with each other.

Now I have a slightly different definition. Two subspaces, one electric and one magnetic, are alongside each other but on a slightly different path perpendicular to each other such that the spin of one's subspace is the path for the other's subspace. Between the two they make a double helix exactly like our DNA molecules. Because it is across the W axis as well as the space axis we only see part of the waveform. This magnetic subspace is 90 degrees out of phase with Maxwell's magnetic field.
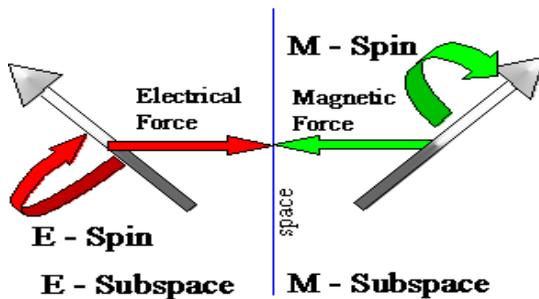
Details Look at Light's Singularity Spin
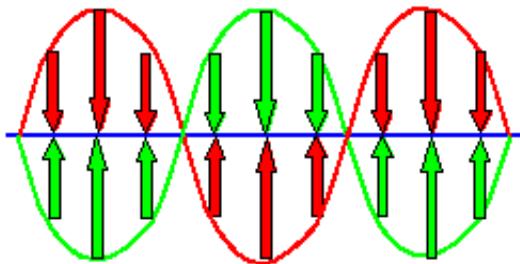
Double Helix Pattern of Light

The key is that these two theories are compatible; the direction of the Magnetic Field is just a convention. Faraday used the alignment of iron filings as the direction of the Magnetic Field. However an updated Maxwell's equations could provide a new dynamic view of subspace interactions.

Additional Properties of Matter

One of the concerns with this theory was the parabola wine glass of gravity which basically made a hole in the universe that didn't lead anywhere, just down to the W=0 position of the W Axis where it stopped. However looking at the math of gravity and the models of the singularities this stopping point seems artificial. So instead of just mapping a wine glass section of the subspace universe it's mapping a complete hourglass where there are two subspace universe sides. One high in the positive W Axis direction and one in the low negative W Axis. Two views of reality that may or may not always agree.

This provides insight into the sourcing or sinking internal virtual photon of energies that exists within each singularity. If both singularities (the line and the circle) are sourcing virtual light, then the parallel addition of this virtual light on the hourglass would appear as light moving away from the particle. If both singularities are sinking virtual light, then this parallel addition would appear as light moving toward the particle. Now this is virtual light but it is along space and it looks like it is trying to move energy. This would break the model which needs to hold energy as mass not to dissipate or accept energy.

It is my thought that the virtual light adds or subtracts from the light that is being attracted by gravity, the shape of the area of compression. In other words I am introducing another concept; light is either flowing up or down this parabola hourglass of gravity depending whether the dual singularities are sinking or sourcing virtual light. This introduces the concept of matter and anti-matter.
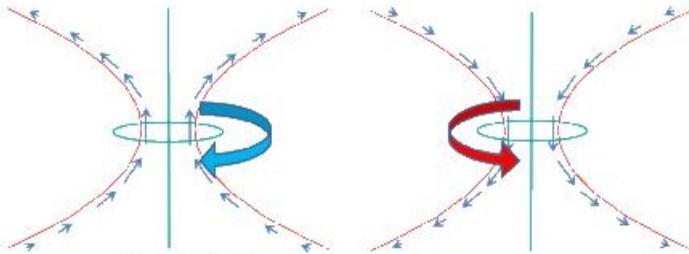
Antimatter - Matter
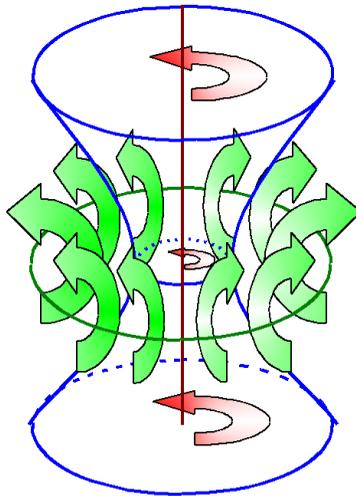
Model of an Elementary Particle

Matter, Anti-Matter and Charge

There appears to be two different types of matter based upon the two different types of singularities. And these two types have a different charge. The concept of charge is simply the force from the outer singularity ring upon another parabola hourglass generated by a separate set of dual interaction singularities. This force is electrostatic due to the fine structure constant $hc=q^2$;

$$F = (nhc)/2\pi r^2 = (nq^2)/2\pi r^2$$

Both particles have an electrical force but the opposite charge resulting from the force from the outer ring. Two like particles, matter-matter or antimatter-antimatter will repeal each other due to the combination of forces from their inner foci. Likewise, a matter / anti-matter combination will attract each other up to the $8GM/C^2$ limit. This $8GM/C^2$ limit is related to the Nuclear Strong force that counteracts the force of two charged particles across a short distance. It appears that two like particles can stay within this limit without experiencing a repulsive force. Note that this is forcing a charge restriction positive to matter and negative to antimatter using the model of the electron as the simplest particle that will be shown later.

Electronic Attraction Repulsion
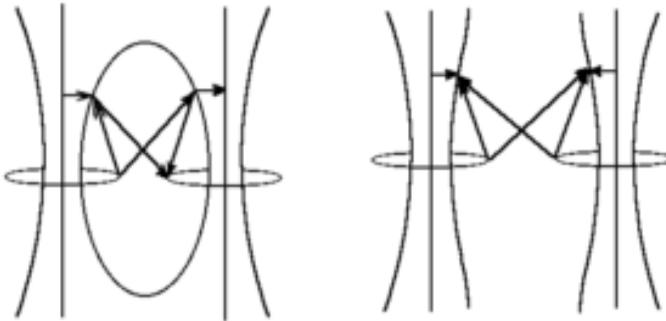

Matter - Antimatter   Matter - Matter

Magnetic Effects

To see the magnetic field we have to see how the spinning subspaces interact. Each spinning singularity has a force. The outer singularity has an electrical force and the inner singularity has a magnetic force. These forces are exactly the same except the geometry of the singularity spin.

The inner singularity, the directrix to the parabola hourglass, is only along the W axis when the object is at rest to your observation. The relativistic effects of an object in motion actually show it leaning in the direction of travel. This is similar to Einstein's relationship between Energy, Momentum, and Mass shown below (cosine ϕ = v/c).
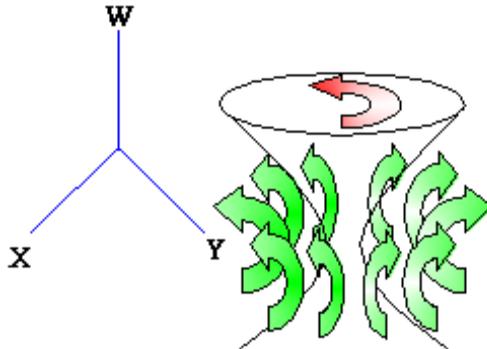
Stationary Elementary Particle
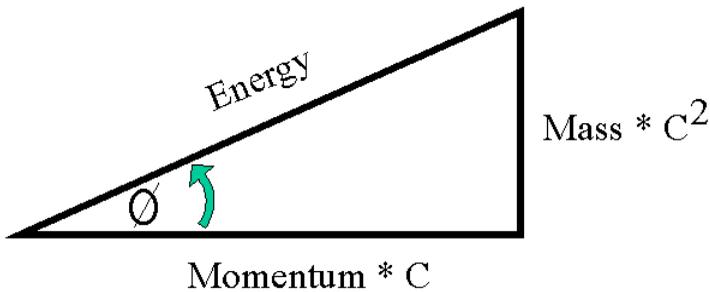
Relationships Due to Speed

The slant of the spinning ring singularity is the magnetic component perpendicular to the travel vector. The amount of magnetic field is related to the leaning angle which is the velocity. The electrical field is also reduced perpendicular to the travel vector by ½ V^2/C^2 (slow speeds) although this is has not been detected by experimental results.

Movement along
Y Axis
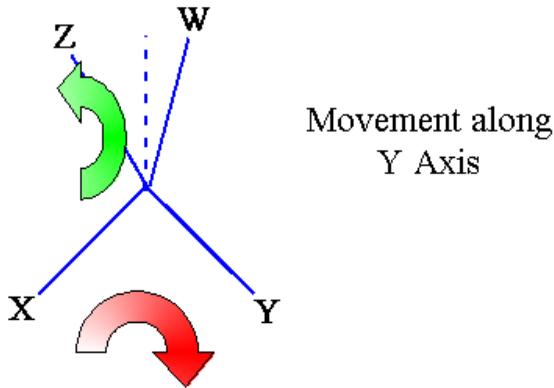
Magnetic Field (Spinning in X-Y) caused by
the angle of the W axis toward the Y axis
seeing the Electrical Field spin X-W.

In like manner an electron is not affected by a magnetic field unless the electron is moving through the field. It cannot see this force unless it is moving and there is a slope to its outer subspace spin. The slope allows the magnetic field to affect the spin of that particle's electrical subspace. And since it is affecting the side of the particle the change in the balance of forces in the area of compression will cause a movement perpendicular to the magnetic field and the direction the particle is traveling.

Modeling Our Physical Universe

Elementary particles can only exist in discrete sizes. This is because the gravity field is directly related to the size of the mass that produces it but the energy of the mass, the light around the neck, is inversely related to the size of the gravity. A larger gravity curvature would

result in a smaller energy at the neck of the hourglass. A larger subspace would have a greater centripetal force but the energy around it would be less. And since it would start to attract more light it would not remain in balance and would have to reduce its size giving off energy.

These balanced sizes equal $n^{1/2}$ x 10^{-8} KG, where n equals the number of wavelengths of light around the hourglass, matching the number of wavelengths of the internal virtual light. Note that the electron's mass is only 9 x 10^{-31} KG and the proton is 1.7 x 10^{-27} KG. Thus, our known particles must be a composition of both matter and antimatter elementary particles.

Both matter and antimatter elementary particles have mass and produce a gravity field, the parabola hourglass. However when they are side by side they affect each other fields reducing the overall mass and gravity field in an algebraic addition of positive (matter) and negative (antimatter) masses.

It is possible to develop particle models where composite particles consist of both matter and anti-matter particles. In these models the summation of masses must add up to zero, since the basic elementary particles are much heavier than any known particles. The relativistic movement of the masses provides the delta changes that give the particles their masses. Likewise, the forces are added together with the residual forces accounting for the charge of the particles. Since the mass is related to $n^{1/2}$ and the electrical force is proportional to n, the generation of the model is quite simple. The list of

particles could go on forever, but a simple list is presented with a possible matching of known particles.

Neutrinos

Looking at the simplest particle construction shows a particle of no mass. It is made out of one anti-matter elementary particle and one matter elementary particle. This neutrinos particle also has no charge. It is hard to determine its stability, but it must move at a speed close to the speed of light, since the two masses cancel each other out. There is no relativistic mass addition to give it any weight.

This raises an interesting question, since matter and anti-matter explode on contact producing light, why doesn't the neutrino explode? There is a lot of energy in this particle. This energy exists at the $W = 0$ part of the neutrino but it does not exist in the blended particle state, those in the positive and negative W axis directions. As far as the universe is concerned, the particles sit in an energy well.

Electron

The next model shows two matter particles moving around an anti-matter particle. Each of the outer particles has a mass of 1, and the innermost particle has a mass of -2. The two outer particles rotate around the inner particle billions of times a second at a distance comparable to the Compton wavelength. This produces the relativistic mass change that equals the weight of the electron. Of course, this raises the question about the resultant leftover forces. The inner particle has a spin of 4, and the outermost particles have a spin of 1 each. The

leftover spin of two is the charge of the electron.
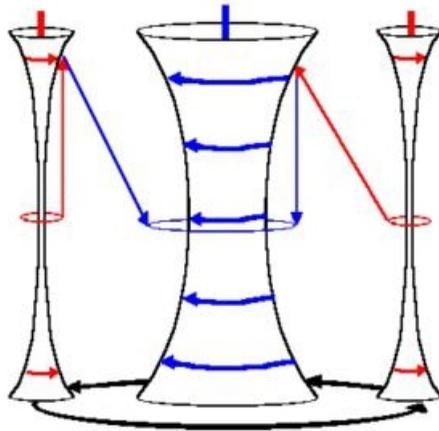
Electron Model

Is radiation generated from the spinning particles? If we could look at the light, we could see that the gravity actually bends the light so that the effects of the spinning particles is localized and cannot be detected outside of the composite particle. The effect of the blended particle is just the charge and the gravity.

This model does show various characteristics of an electron. It has a charge and a magnetic moment. The charge is distributed in a ring around the elementary particles that make up the electron. Its energy is distributed across space except where it connects with a positively charged particle like a proton. At that point the overall energies of the particles are joined together. This is part of the bonding process that holds atoms together.

Mesons

The mesons models are interesting because they seem to fit some of the observations to date. They are heavier than the electron model and have more degrees of freedom. There are an infinite number of forms for the Meson model. They are centered on the -3 particle and have various states each with a different charge. There is a zero charge state consisting of a -3 core with three +2 particles and three -1 particles. There is a negative 2 spin (single charge) consisting of a -3 core with two +2 particles and a single -1 particle. There is a positive 2 spin (single charge) consisting of a -3 core with four +2 particles and five -1 particles. This gives a clue to their instability. Stability may have to do with refresh, the sinking and sourcing of light from the universe.

When one divide the number of internal forces to the number of mass particles, the mesons have a higher number than the electron. To put it simply there are more things spinning in a mesons than an electron.
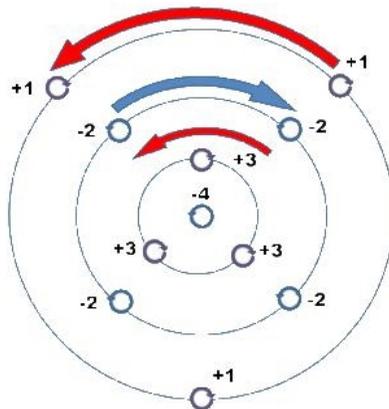
Meson Model – No Charge

Baryons

Anyone's guess although mesons circling anti-matter electrons is an option. The next step will involve calculating the weight of these particle models. Hopefully someone will champion these calculations.

One last thought about particles. These are particles of matter that may have energy and gravity but may have an entirely different light shell to interact with light. I feel that there are other models for particles perhaps consisting of multiple subspaces that would react entirely different than the particles listed above. They may occupy more than three dimensional of space.