Understanding the wave aspect of space and time.

To fully understand what space and time really are, you must understand the underlying wave aspect that gives us our space and our time.

It's easy to visualize once you understand these following concepts.

1. Light and heat energy are delivered in quantum units of momentum (*h* and *h*-bar). A multiple number of these, over a period of time, are a Huygens' scalar wave. This first concept is a very important concept because a number of these quantum units always appear as a scalar wave on the time scale. They also appear as a sphere on the space scale. But they only do this if they are homogeneous and isotropic.

2. You must see that all entities are made up, exactly as *Dr. Milo Wolff* has proven the electron to be made up, as a scalar, standing wave entity.

3. You must understand that it takes a wave front, built up of at least six quanta, before our eyes can see it. What we see are really these spherical wave fronts that are exactly in phase with the receptors in our eyes. Now you can understand why *Dr. Milo Wolff* describes the electron as being built like an onion with each skin and then the next skin and then the next appearing in phase with each of the surrounding electrons at the velocity *c*.

5. This brings us to the phase wave aspect of it becoming what Tony Bermanseder terms an "Instanton" (two electrons resonating in one cinema frame) where these phase waves seem to act instantly.

6. And this brings us to Bob Angstrom's description of *c* being what we see as 300, 000, 000 ($3x10^8$) meters in our subset reference frame that we are expressing as a second even though c may be seen as acting instantly in another spacetime reference frame.

7. Now we jump into the realm of the quark where the frequencies are even faster than the electron and where we surmise Tony Bermanseder's "Instanton" (two quarks resonating in one movie picture frame) to be acting at a speed of $9x10^{16}$ per second. And this takes us to what Wheeler and Feynman warned us about, that even though we might observe such a fast speed, we would never be able to measure it directly in our reference frame.

It is really this quark spin that resonates with another spinning quark at what we sense here as $9x10^{16}$ per second or c^2.

From this comes the almost instantaneous speed of gravity as shown by *Van Flandern*.

And this causes inertia or inertial mass via *Ampere's Laws*.

Now you have all the essentials to understand what space and time really are in terms of these (spin/orbit frequency) wave-resonances.

Our time is essentially derived from the rate of the scalar wave that *Dr. Milo Wolff* found is building the electron itself.

The electron.s space, and some of our space, is being built both via discrete electron spin change diversity (*h*-bar) and discrete electron orbital change diversity, (*h*) units of the electron. Over time and at low speeds and masses this space appears to take on a spherical, scalar aspect providing the spins and orbitals causing this are homogeneous and isotropic.

Magnetism and sigma and pi bonding---things we see as force---are being produced by the spin of the electron (*h*-bar) whenever these are not homogeneous and isotropic.

See *Ampere's Laws*.

Magnetism is produced by large groups of spinning electrons that are all on specific orbitals with their spins all "locked" in one direction.

Charge stems only from entirely free electrons.

Charge and magnetic lines of force appear in our reference frame. They prevent us from seeing what is really going on in the electron's spacetime realm.

Remember, the smallest unit of magnetism is the spinning electron.

Now, let's look at both sigma and pi chemical bonding. This is what holds the atoms together to form molecules. It is done simply by the magnetic quality of the spinning electron and nothing else.

It can all be seen by combining the following with *Ampere's Laws*.

Magnetic polar to polar attraction, in the smallest magnetic unit, in this case a single spinning electron, is identical to pi bonding. When an electron shifts from spin up to spin down, the shift of this polar attraction results in energy that we measure as *h*-bar times the frequency.

Magnetic attraction also exists between the sides of a spin up-spin down electron pair and this is called sigma bonding. This is basically the same as a magnetic attraction existing between the sides of two magnets that have their poles reversed. When an electron shifts, the smallest unit of this side bonding from the surroundings to the nucleus is also energy; this we measure as *h* (Planck's constant) times the frequency.

The polar attraction is stronger than side attraction in magnetism. But why is it the reverse in chemical bonding where polar pi bonding (which, when shifted, gives us *h*-bar) is weaker than sigma side bonding (who*se*

shifting gives us *h*)?

There are 2 possible reasons:

1. Because in the iron atom the poles of the electrons are all precessing at the same frequency because they are on the same orbitals. This is not so with the rest of the electrons in the atomic world where the polar pi bonding is a short lived but repetitious bonding whereas the sigma side bonding (orbitals lying in the same plane) is steady.
2. The energy given off via *h* is a resultant increase in binding with the stronger, higher frequency nucleus whereas *h*-bar is not.

You must not forget that *Ampere's Laws* show us that while molecules are being held together by the spins of the electrons, these molecules are being picked up via our receptors only when our receptors are in phase with the wave fronts being viewed.

As we view the macrocosm, built of these same molecules, this is why we see *c* as being a constant and relativity corrections being necessary with high speeds and mass.

There are **two** ways to view this universe

There are two ways to view this universe:

1. **Using the view obtained as everything is portrayed in one frequency, spin/orbit, spacetime reference frame**.

   The advantage of using this present science method is that today's math can be used for accurate answers providing you do keep within certain parameters and do not venture into another frequency, spin/orbit, spacetime realm.

   The disadvantage of this present science method is that using this method you are condemned to seeing different fundamental forces instead of seeing it all as one type of force.

2. **Viewing the various different frequency, spin/orbit reference frames as if a type of motion existed in each of them (microcosm).**

   The advantage of using this method is that all forces can be seen simply as one type of force.

   Ampere's Universal Particle/Motion Law. (Using **motion** in the microcosm is far superior to plus and minus charges and lines of force if you want to see the "big picture" approximation that Dirac promised

   The disadvantage of this method is that no present math is available to give us an accurate picture of things using
   this model.

   Feynman understood the importance of using this concept of **motion** for unification. Look what he said about that in his famous *QED*

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