

a Theory of Everything

# The Invisible Forces

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## Chapter 1 --- Ampere's law

Recently (1998) Saul Perlmutter's group---after discovering that this universe expansion was accelerating---made the claim that we may well have another **invisible force**. They claimed that Einstein was right in 1917 when he said there was a force between all the stars holding them apart. This repelling force, they claim, is also between all the galaxies holding them apart as well. This repelling **invisible force** is equal to gravity in strength yet the very opposite of gravity in that it is a repelling force: It is known as Einstein's **cosmological constant** and is represented by the Greek letter **lambda**.

Science Magazine claimed that this group of Perlmutter's had given us one of the most important developments for the year of 1998. I not only agree with them but I will show you how this discovery leads to the conclusion that not only the four fundamental forces can be unified but all the **invisible forces** can be unified as well.

Our ancient ancestors knew of the **invisible force** of gravity and also of magnetism because of natural occurring lodestones. You might also say they saw lightning and therefore knew something of the electrical **invisible force**.

The first linking of the electrical **invisible force** with the magnetic **invisible force** happened in 1820 when Orsted was explaining electricity to a group and he happened to notice his compass needle would always position itself at right angles to a wire carrying an electrical current.

**Andre M. Ampere heard of this and immediately investigated it and gave us his laws which are essentially as follows:**

**Long parallel wires containing electrical currents going in the same direction**

attract.

Long parallel wires containing electrical currents going in opposite directions repel.

Long wires carrying electrical currents will also have a torque that will tend to make them parallel to each other with the current in both wires traveling in the same direction. This torque will vary as the cosine of the angle of the wires.

Others then quickly added to this law and vastly improved upon it but this law of Ampere's is essentially the foundation of all of our electrical laws. What is interesting about this law is that it uses **only motion**. Ampere's law uses absolutely nothing in the realm of plus and minus charges or magnetic lines of force to show the linkage of electricity with magnetism and **this is extremely important**.

Once we see that we can use only **motion** to show the linkage between magnetism and electricity. We then must ask if we might use only **motion** to link some of the other invisible forces as well?

Well, Robert H. Dicke answered that question back in the nineteen sixties with a resounding NO. We have Dicke's statement that many attempts to show these linkages via **relative motion** have been proposed. But they must all be disallowed, said Dicke, because he could find no wave interference pattern, which he felt would be there if the foundation was indeed **motion**.

Dicke had spent a good bit of his lifetime trying to prove Einstein wrong. He knew both special and general relativity well and had worked to develop early RADAR, so we know he knew quite a bit about the wave world as well.

In retrospect, it seems ironic that Dicke's assumption about **relative motion** may have prevented him from achieving one of his life-long quests. Even today we cannot possibly detect the entire wave spectrum. Perhaps the principal reason Dicke did not see the wave interference patterns, that he was looking for, was that he did not have any receivers in those frequency ranges where these wave interference patterns would, most probably, be generated.

Einstein said gravity was a wave and Dicke knew this to be true but neither Einstein nor Dicke knew the frequency of that gravity wave. This was a big flaw in Dicke's assumption about the value of **relative motion**.

Even Einstein may have made an error in estimating the gravity wavelength by claiming that the gravity wave could be polarized.

You will see herein that gravity is a modulation of the inertia wave. You will also see that the inertia wave was at far too high a frequency for Dicke to detect and discover his wave interference pattern and the gravity wave modulation of it was at far too low a frequency for Dicke to even find, let alone get an interference pattern. In fact, we may never be able to either measure or polarize the gravity wave.

Benjamin Franklin gave us the idea of positive and negative battery elements and Michael Faraday gave us those magnetic lines of force. James C. Maxwell provided the math. Heinrich Hertz clarified it all and then the world of radio waves was off and running.

But were Franklin, Faraday, Maxwell and Hertz absolutely correct in adding to Ampere's law?

We would not have had this modern electronic world today if they hadn't added what they did.

But if we want to unify the invisible forces, then we need to go all the way back to Ampere's original law. Remember, it links electricity and magnetism by only using **motion**. Let's see if it will link all the other invisible forces, as well, simply by using **motion**. When we try this we see it definitely seems to, providing we modify it a bit and we also change our thinking a bit of how this universe is constructed.

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## Chapter 2 --- George Berkeley, Ernst Mach and Fitzpatrick's law

George Berkeley, Ernst Mach and many others said our inertia came from our **surroundings**. Even general relativity seems to suggest this.

If this is so, then we would have difficulties with gravity outside of our galaxy wouldn't we? We would, because a universe of galaxies would definitely have a different symmetry of other galaxy **surroundings** than we would have here inside of only our galaxy.

And we do have difficulties with gravity showing us exactly why galaxies are composed the various ways they are and they seem to rotate far too fast also, so we have invented this hypothetical dark matter to explain this. There is a slight problem with this necessary dark matter though: We've now discovered that not only must it be transparent but it must contain 95% of the mass of the entire universe as well. Wow!

Why not simply believe in Berkeley and Mach? Then you can dispense entirely with the necessity of dark matter.

When an electron on a far away star drops to a lower orbital sending an electron in your eye to a higher orbital then no energy whatsoever was lost in that long distance, Binding energy also does not drop off with distance.

An electron and a proton have more mass before they bind to form an atom and after combination they have less mass than before as single entities. This tells you they have removed some of their binding with the rest of the universe and switched this to closer binding with each other. Therefore what we see as mass is really binding with the fixed stars just as Berkeley and Mach claimed. Keep reading to find out exactly how this all works.

[Here's Fitzpatrick's law:](#)

**Any particle or aggregation that is spinning and orbiting on a geodesic at a certain spin/orbit**

frequency derives its inertial qualities solely from similar items in its surroundings that are at a similar spin/orbit frequency. All spinning/orbiting items on geodesics, no matter how large or small, will have some form of gyroscopic inertial reaction when acted upon by an exterior force.

Fitzpatrick's law, in the following "A" Law format, reduces complicated multidimensional problems to an understandable 3-D world.

Believe it or not but Ampere has given us the foundation for this providing we add the Fitzpatrick frequency aspect to Ampere's laws. Adding frequency to Ampere's laws and realizing that all forces are space time derivatives, gives us the following "A" Laws:

\* The **1st.** "A" Law

The space time interval is diminished the most between any two particles or agglomerations of particles, the closest sides of which are spinning or moving on parallel paths in the same direction (*like gears meshing, not clashing*) at the same frequency or a close harmonic thereof. You can also say these two objects will attract each other.

\* The **2nd.** "A" Law

Both space and time are created the most between any two particles or agglomerations of particles, the closest sides of which are spinning or moving on parallel paths in opposite directions (*like gears clashing instead of meshing*) at the same frequency or a close harmonic thereof. You can also say these two objects will repel each other.

\* The "A" Law Corollary

These forces, or space time intervals, between two objects will vary proportionally with the cosine of the angle of their geodesic orbits or spins.

**They will also have a torque that will tend to make the geodesics parallel and to become oriented so that the closest sides of both objects will be moving in the same direction (*like gears meshing, not clashing*).**

**Or (*more like Ampere's original law*)**

**Objects traveling *in the same direction* on parallel paths at the same frequency will attract and/or space and time, at that frequency, between them diminishes.**

**Objects traveling *in opposite directions* on parallel paths at the same frequency will repel and/or space and time between them, at that frequency, increases.**

You have the choice, in this world if you so desire, of speaking more than one language. With these "A" Laws, you now have an entirely new science language. But don't ever try to mix these two languages. Use your old science by itself and don't use gravity, charge, distance, etc. with these "A" Laws.

The conservation of energy is really a derivative of the conservation of space time.

If you want to use math then use your old science but if you want to get to the "approximation of what is really going on" ([something Dirac predicted](#)) then use these new "A" Laws. What they are essentially showing you is that space, time, distance, gravity, motion, etc. are all spin/orbit frequency derivations: This is something the scientific world has not even noticed up until now.

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## Chapter 3 --- Why electrons and galaxies repel each other.

Since we dare not mix these "A" Laws with our old science rules then we must completely forget the idea of plus and minus charges, which do not exist in this "A" Law science.

Both electrons and galaxies have inertial qualities and this includes gyroscopic inertia, which always provides this force 90 degrees to any external force acting on such a spinning item providing the external force is not exactly at the pole or equator of the spinning item.

**The following shows really why electrons, galaxies, etc. repel each other:**

The 1<sup>st</sup> "A" Law tells us that there is a possibility that two free electrons will attract each other if any portion of their closest sides are spinning in the same direction at the same frequency. This means either their sides can be spinning in the same directions or they can be lined up so that both of their poles can be spinning in the same directions: Any such two electrons **will attract each other** (*magnetism*).

Then we see that there is more: This attracting force comes in as the cosine of the angle of the attracting poles or sides.

As this force begins to act, it in turn causes this 90-degree gyroscopic torque to **twist** both of those totally free electrons **away from not only this initial attracting alignment but from any attraction alignment.**

It is because of this gyro torque that two free electrons can never remain in a full attracting position. Also they will be forced to stay more in a **repelling** position. Therefore **free** electrons will always end up repelling each other and this repelling is not explained by using this thing called charge: It is explained only by simply using **global** inertial qualities and our new global "A" Laws.

You are not going to notice this though at the slow speeds or low mass that we are confronted with normally but electrons have a high speed and galaxies have a tremendous amount of mass.

**This will explain not only why electrons repel each other but this also explains why any two perfectly free similar spinning objects must repel each other. So now you know why electrons, stars, galaxies, etc. stay well away from each other.**

**This repelling force is really Einstein's cosmological constant, isn't it?**

But **all** these items must be more or less **similar in size** and **perfectly FREE** (*such as gyros in gimbals*) to have this repelling force between them.

Something somewhere has to be **"locked"** in place and synchronized in

frequency with the electron's spin or a close subharmonic of the spin to get any kind of attracting force:

If the Andromeda galaxy was the same size as our galaxy then it would forever repel our galaxy, but it is not. The Andromeda galaxy is much larger and stronger than our galaxy. So it has more or less locked on to our galaxy. Once it does this then it will not repel our galaxy any longer and will start to attract it. We know this is indeed happening and our galaxy will eventually clash with the Andromeda galaxy and when it does, the two galaxies will be spinning in the same direction much like gears meshing and not clashing.

**Such things as positive and negative charges do not exist in this theory: This theory, in fact, explains what charge really is.**

Why a proton attracts an electron:

When two up quarks combine with one down quark to form a proton then something in this special type of assemblage is able to synchronize in with the electron's spin frequency and "lock" it thereby preventing the electron from precessing or wobbling excessively: This way it can attract the electron.

This is why aggregations come together (gravity) and larger aggregations come together and accumulate because as these things grow in size there are more things "locked" in place strengthening the attractive force of the 1<sup>st</sup> "A" Law.

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## Chapter 4 --- Igor Sikorsky and Rachel Carson

Rachel Carson said she didn't believe any wooden vessel could withstand the "bad quarter" of a severe hurricane. While this undoubtedly is true, what exactly is this "bad quarter" anyway?

The "bad quarter" of a hurricane is that sectional quarter where the forward speed of the storm **adds** to the circulatory wind speed.

All free, spinning, moving entities have this important translational motion "bad quarter" effect similar to the hurricane. It doesn't really matter what the entity is, as long as it is free (*such as a gyroscope in gimbals*) and it is spinning and moving with some forward speed. If it is both spinning and also moving with

some forward speed then it will have this "bad quarter" translational motion effect.

This "bad quarter" effect plays one of the most important roles in our explanation of how all things really work in this universe and today's scientists have missed this significant road sign entirely.

This "bad quarter" plays a significant role in many things and is the prime explanation of this force we call gyroscopic inertia or angular momentum.

The "bad quarter" translational motion that you will see time and time again in both the micro and macro worlds is the same force that would tip a helicopter over if the operator had no cyclic pitch control. Igor Sikorsky made the helicopter a practical machine by his invention of the mechanism that allowed the pitch of the main rotor to change as the blade turned: This is called cyclic pitch. Here's why cyclic pitch is important: If, on a stationary helicopter, the tips of the main rotor blade are going 300 mph and now you fly the helicopter at a 100 mph forward speed, then one main rotor blade (*blade moving to the rear*) is, on one side, cutting through the surrounding air at 200 mph. The opposite main rotor blade is moving through the surrounding air at 400 mph on the other side of the copter (*measurements at the blade tip*). This would turn the copter over were it not for the cyclic pitch mechanism where the main rotor blade pitch on the 400 mph side is now reduced, and it is increased-scooping in more air-each time the blade is on the 200 mph side.

When you see a spiraling object in nature, then think of the helicopter blade that does not have the cyclic pitch but instead has a pre-Sikorsky fixed pitch and that has to keep turning over and over if it has any forward speed. This entire universe both micro and macro is loaded with this type of pre-Sikorsky fixed pitch precession of all kinds. It all comes because of this identical fixed pitched blade phenomenon but instead of air it's a mass increase but the idea behind all precession is exactly the same as the fixed pitch helicopter blade or the hurricane. If you think of it in these terms then you will immediately see the other forces causing this spiral. You can even call this fixed pitch blade itself spiraling a form of precession if you want to. The electron precesses because it too has a pre-Sikorsky fixed pitch or this "bad quarter" like the hurricane. By the way, waves-processed correctly by the Big Bang-precess like this too to form a spherical standing wave (*particle*).

For this next paragraph you must remember that general relativity shows us that relativistic mass increases as speed is increased.

Keep in mind the aforementioned helicopter blade and the hurricane. Spinning and rotating items that also have forward speed are going to act exactly like the helicopter blade. But instead of having more lift on one side they are going to have more mass on one side (**more speed on one side**). This will destroy their linking with previously linked objects and they will be forced to link with like objects also having a mass increase (**more speed**) on one side as well. In radio, an effect similar to this is known as impedance matching. And I will repeat once more that this is the reason gyroscopic inertia or angular momentum acts like a spring, storing energy as the accelerated object speeds up, because each linkage with distant stars in this universe takes more and more energy as the object is further accelerated. The newly accelerated particle has more "bad quarter" mass (**higher speed**) and it must find a higher "bad quarter" mass (**higher speed**) object far away in the universe to bind with as well and so the "wind up like a spring" inertial or gyroscopic effect is noticed. Again, you have impedance matching here exactly the same as you do in radio but here it is the rotation of the quarks producing it whereas in radio, the spinning electrons produce what we see as a magnetic effect.

And all of this is simply because of the 1<sup>st</sup> "A" Law.

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## Chapter 5 --- Inertia is a wave at the quark spin frequency

Inertia is being caused by the spin of the quarks with the poles of the quarks attracting the poles of other quarks, spinning in parallel planes, far away in the universe. Our "A" Laws show anything that spins (*fast enough and/or with enough mass*), can attract exactly like a magnet. But all these quarks keep these spins perfectly balanced and never show any imbalance such as electrons happen to do massively in iron, cobalt and nickel. This, of course, blinds us to the fact that the quark spin could possibly attract another quark, especially when our **surroundings** are homogeneous and isotropic in the large. Modern science has simplified inertia tremendously so it **seems** to fit the present math here on earth. Inertia works correctly at slow speeds and low mass but unfortunately inertia changes with higher mass and high speeds so much so that your present science fails and you have to use relativity corrections. Your universe, therefore, is not

anywhere near as simple as most people think.

Gyroscopic inertia depends on quarks attracting other quarks that are spinning in **parallel planes** while energy transfer depends on electrons that are spinning in the **same plane** but whose closest sides are moving in the same direction. One proof of this is in general relativity. Can you locate it?

As almost everyone now knows, quarks-in the proton and neutron-are grouped in groups of three. Quarks and electrons both have spin. The electron's spin causes magnetism, which will attract other electrons of similar mass that are oriented correctly. The spin of the quark, in much the same way will attract and bind with other correctly oriented, spinning quarks, of the same mass, far, far away in the fixed stars and this attachment effect is known by us as inertia.

Distance is a concept like white light and much like white light, distance does not really exist in the way you mind thinks it does either. It changes with spin/orbit frequency. Even present science says that when a far distant star loses a single quantum of light to your eye **there is no energy loss whatsoever in that vast distance**. So this is almost yelling to you through a loudspeaker and telling you that distance is only a frequency concept that is quite different for different particle-frequencies.

It's all waves and wave linkages and even the particle actions that we all know so well really stem from underlying fundamental, but extremely complicated, wave to wave actions.

As in light, radio and electro-mechanical actions, impedance matching is important here as well but the quark is quite unlike those electrons in partially filled *d* and *f* shells that all flip over **together** the same way and form magnetic domains that can be easily spotted. **The quark always acts individually**, locking on with far away distant quarks to cause inertia and thus since our **surroundings** are homogeneous and isotropic in the large then we do not notice all this quark locking. Thus present science has totally missed all of this and therefore simply accepts inertia as some unknown factor that can never be discovered. It's hard to believe intelligent people would do such a thing but this "in-crowd" of scientists today have most certainly done precisely this.

As we said before, the 1<sup>st</sup> "**A**" Law "locks on" and the 2<sup>nd</sup> "**A**" Law doesn't. Therefore inertia is caused by all these quarks that they sense are not only spinning but **moving in the same direction** as other quarks and thus have the **same matching "bad quarter" mass**, as that "bad quarter" mass on the far away

distant stars. Both "*see*" themselves as being exactly in parallel planes as the ones they lock poles with and they also "*see*" the entire distant quark they are locked onto as spinning in the same direction (*like gears meshing, not clashing*). Once a quark "locks on" with another quark somewhere in this universe it can hold this pole to pole "lock on" for a short period of time or it can lock on another similar "bad quarter" mass quark in a parallel spin plane. This is essentially how inertia is caused.

**Impedance matching** comes into this because these locking quarks must not only "*see*" themselves as spinning but also moving at the same speed hence their "bad quarter" or "higher mass sector" **must identically match**.

We do know the quark does not wobble like the electron but we do not yet know the symmetry of construction of the quark nor do we know if it causes inertia with a polar attraction or a side attraction. (The present guess is a polar attraction.) The "higher mass sector" or "bad quarter" should effectively work in whichever way quarks lock on with other distant quarks to cause inertia and gyroscopic inertia.

**Impedance matching** is also evident in electron energy transfers where the orbits are not parallel, such as with the quark to quark lock ons. Electrons can only transfer energy to other electrons that are orbiting in the same plane. The "**bad quarter**" **mass with electrons must also identically match**.

There must be **impedance matching** here the same as in radio.

Since there are plenty of stars out there then there are plenty of other quarks for them to "lock on". Because these are spread out so evenly we can find no direct evidence, other than a few hidden road signs, that this is what is causing our inertia.

All these spin and orbital attractions are the glue that holds everything together. The 1<sup>st</sup> "**A**" Law shows you why you have binding energy and why you have inertia. The 2<sup>nd</sup> "**A**" Law shows you why we have all that space between everything both in the microcosm and the macrocosm (Einstein's "**cosmological constant**") and both "**A**" Laws show you why we have symmetry.

All atomic particles **must** either bind with close neighbors to form their unit or they can bind with particles far away (in the fixed stars) to cause inertia (*mass*).

They must attempt to bind with something and they cannot use the same portions of themselves to bind with both near and far objects at the same time. Some may rapidly and repeatedly switch their binding to the best aligned objects whether near or far but that near-far percentage mostly stays constant. I said mostly because in an atomic fission explosion a good many do abruptly shift from near to far binding. In fact, that's the reason for the explosion.

In this theory binding energy and mass are seen as equivalent, but two distinctly different things: **Binding energy is the close binding** and **mass is the far off binding** with the fixed stars.

You can store energy by moving an item to a higher orbit. You can also store energy via binding with more massive "bad quarters" as in angular momentum (*gyroscopic inertia*) or by increasing an item's rectilinear motion.

The thing you have to remember is that as you increase the speed of an inertial object in rectilinear motion then you are increasing the speed of those "bad quarters" of the spinning objects that make up the unit you are accelerating. This means these "bad quarters" have more mass, the faster the speed is increased. Thus, you are increasing their gyroscopic inertia. Using impedance matching with the 1<sup>st</sup> "A" Law, if a quark has more mass in one of its "bad quarters" then this quark will have a stronger inertial "lock on" with things in the universe that also have a similar "bad quarter" mass on their closest sides. This is also the reason that gyroscopic inertia increases as you increase the speed of a gyroscope. I'll go over this again later so you don't forget it. This is important. Also the following is something else that is even more important.

\* When you see that an atom has less mass than its constituent individual components, then that is telling you something. It's telling you that electrons and protons have a choice: They can either bind with each other in an atom or-as individual unbound units-they can use that same amount of binding energy to additionally add to their individual inertial binding with the rest of the universe.

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**I simply cannot understand why present day scientists can totally ignore this major evidence: This is absolute confirmation that our surroundings are causing inertia. This is proving to you in no uncertain terms that Berkeley and Mach were absolutely right.**

**If scientists agree that binding energy always equals mass lost, well, why isn't that mass lost**

**considered binding energy too? Isn't it binding with the fixed stars instead of binding the individual units together in close binding?**

Remember, near or far binding is momentary, repetitious and always exactly the **same strength** for the same units binding: Only "angular lock on" falls off with distance, not binding energy. "Angular lock on" seems to fall off with the square of the distance and obeys Einstein's general relativity tensor math. "Angular lock on" is covered later.

In this hypothesis all particles of any type are considered spherical assemblages of standing waves. Identical items stay well away from each other via distance (**space time increase**) and items that we see as smaller or larger really must be thought of, in this theory, as higher or lower frequency spherical standing wave assemblages. They exist---perhaps to infinity---more or less like the piano keys of a grand universe piano where no one knows the number of piano keys on this piano. Each particle or agglomeration stays on a piano key frequency safe from destruction from being absorbed or by absorbing.

These keys are all positioned well out of the close subharmonic range of each other but yet are definitely linked by distant common harmonics.

The wave spectrum that we are able to locate must only be several octaves of these piano keys.

In this new theory---just as Stephen Wolfram states in his best selling physics book "A New Kind of Science"---people will have to feed enormous amounts of information into future super-computers to see what is really going on. Future computers will tell us what could have really gone on during the Big Bang. Even so, today we can see that any expansion would have been over as soon as all the piano keys were finally in tune with all the rest of the piano keys. In this new theory, the exact particle frequencies are the determining factors in the stability of the entire universe: When that eventually happened then the universe was finally in a static steady-state of balance.

There is no such thing as the 19<sup>th</sup>-century human idea of one all-purpose type of distance anymore: Einstein proved that. The distance we see is a composite of all of these various spin frequency distances. Distance has to be frequency qualified. Time does too because remember, it's the space time interval that is frequency conscious. Each spin/orbit-frequency **"sees"** its own type of time and distance. These **"A"** Laws use inertial qualities, with something similar to a general relativity kind of increase in every level. Inertial qualities for each spin/orbit-frequency, however, will be different along with **surroundings**. We'll see later on, that even though we can only see light from a certain distance away; we can, however, feel gravity from a much, much further distance away mainly because of the quark's wider angular "lock on" and slower spin. Einstein's curvature of space, it turns out, is also different for different spin frequencies.

So when you ride a bicycle, as you make those wheels go faster, you are giving all those quarks in that rotating wheel new translational motion. They all have a higher speed "bad quarter" that they now have to match with higher speed "bad quarter" quarks on the fixed stars.

This means that the quarks in your bicycle wheel are now being pulled out further away from the quark triumvirate.

So gyroscopic inertia or angular momentum is obtained by actually pulling individual quarks away from the **strong force**.

**Both inertia and gyroscopic inertia are essentially strong force reactions.**

**The quark spin gives the inertia wave its frequency.**

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## Chapter 6 --- Gravity

Gravity is a much, much lower frequency wave than inertia. It is actually a modulation of the inertial quark spin frequency wave by the lower galaxy spin frequency.

This is why it "looks" as if gravity is merely an attractive force between all objects.

The slow spin of the galaxy makes gravity a weak force. The spin of the even slower spinning Virgo super-cluster is also involved.

Dirac knew we had a complicated universe and as I stated previously, Dirac predicted we would find a way to approximate an answer to it. Our predecessors have approximated an answer to gravity that seems to allow us to work out the orbits for things as long as we remain inside our galaxy.

These new "A" Laws, however, give us the input that future super computers will be able to use by taking the surroundings into account and they will be able not only to give you the orbits but even the spins of everything.

Gravity is a complicated force: It is the resultant that is left over after all the space time creations are subtracted from all the space time reductions. The gravity that you experience is the net space time reduction at your particular position in this universe while you are traveling on your particular geodesic in this universe.

This is a complicated universe of space time creations and space time reductions all at different spin/orbit frequencies. Present science sees these as various **invisible forces** but all such **invisible forces** are really nothing but either space time creations or space time reductions.

This essentially is the Holy Grail. This is the unification of all the invisible forces.

Nothing is at rest in this universe. You know your ancestors were wrong when they thought the earth was the only thing at rest and all the other things in this universe were moving. What these scientists of this year 2002 do not yet know is that Galileo was also wrong in assuming that you can have various places of rest. You cannot. Nothing is at rest in this entire universe. Since this Galilean idea of the multiplicity of places of rest is the basis for relativity then theoretically I suppose, that makes relativity wrong as well. This is why I stated that it was ironic that Dicke mistakenly ruled out **relative motion** when it was the very thing that could prove Einstein wrong. Dicke used to argue with Einstein and if you look at Dicke's work then it is clear he spent a good portion of his life trying to disprove Einstein's theory of general relativity. I would never attempt anything that foolish. General relativity will be with us for a long time yet even though it may get dented in places somewhat by these new "A" Laws.

Surroundings are the key. You must take the surroundings into account when you try to figure the amount of gravitational attraction at a particular spot.

General relativity does that too. In fact, Einstein's infinite but yet unbounded universe can be seen using these "A" Laws:

This is a universe of waves and standing waves (particles) and wave linkages. These linkages occur at specific frequencies and harmonic frequencies. Since there is probably no limit to these frequencies then there is also no limit to this universe in either a smaller or larger direction. But where there is definitely a limit is in "angular lock on". But since this will change as the point of reference changes then this universe must be said to be **unbounded** as well.

"Angular lock on" must be thought of as the number of linkages these waves make with each other. "Angular lock on" is what we see falling off with the square of the distance and at a certain distance this falls off completely. **This makes the apparent universe finite**. The strength of each of these wave linkages is the same no matter what the distance. A photon of light, for instance, loses no energy no matter how far the distance.

Waves, in this respect, have to be considered being transverse waves of universal balance. All waves, even longitudinal waves, are waves of balance. Where we now see things as smaller, we should think of them merely as shorter wavelengths.

We are obsessed with accuracy. We have developed various types of mathematics to give us accuracy but in an all wave world you can understand David Hilbert's questioning of geometry: In geometry a point is described as having no real size. But, as Hilbert asked, how do you build a system of geometry on a foundation that doesn't really exist?

You cannot: So in all practicality you do it the same way you do it on paper and you do give this point a minimal size---and so this is the practical method by which we get geometry to actually work. But in a real wave world where wavelengths could get smaller and smaller all the way to infinity, this would present real problems. Hilbert was right about geometry not being quite right.

You come away with the realization that geometry is OK only if you do not change your size.

Which brings to mind Gödel's Proof where Kurt Gödel proved that if you could not see out far enough---such as us here on earth---then you would never know if all your science laws were indeed true laws or not.

I'm afraid that Kurt Gödel has handed us the absolute proof that all our present science laws are nothing but subset rules.

They are the equal of quantum mechanics rules and nothing more. Our ancestors who gave us these rules didn't know that you really must take the surroundings into consideration and they also didn't know that their world was really an all wave world. They didn't know that they were attracted to the earth, approximately, because they were going on a parallel path with it in the same direction more then they were with all the other items in the universe.

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## Chapter 7 --- A static steady-state universe

This is a universe of piano keys (*standing wave particles or agglomerations*). The paramount law in this universe is that all these piano keys must stay in tune with all the other surrounding keys. The Big Bang may have simply been the re-tuning of a few keys and thus only a whimper of the available energy in this entire frequency universe. We think what we see is a good portion of this universe but whenever man has placed himself in the center of things, he turns out to be inevitably wrong.

Once we see that the Fine Structure Constant is changing with eons of time then this suggests that at one time the neutron may even have been a stable particle. But over more eons of time as the FSC continued to shift then the neutron itself perhaps became unstable and neutrons broke up into protons and electrons. This could have been the Big Bang. It doesn't really matter precisely what happened though because this is a frequency shift of only a few octaves or only a few piano keys (particle levels). The surroundings (*majority of the other standing wave frequencies*) would have eventually curtailed any expansion and the end result would have been a static steady-state universe. And this is what we have now regardless of what present science thinks it is.

One proof of this is the recent discovery (1998) that Perlmutter's group made proving to us that we really do have Einstein's cosmological constant out there. It is a repelling force equal but opposite to gravity.

If you have the principle of equivalence with gravity then you will also have it with gravity's equal and opposite force as well. This means you will have the principle of equivalence with Einstein's repelling force---his cosmological constant.

Remember now, this force is around all the stars and galaxies as well, holding everything apart. Also please remember that you are **looking through** this force.

The significance of the principle of equivalence means that, by observation alone, you will never be able to tell if it's a force out there or if you are in an accelerating, expanding universe.

An expanding universe is one thing but an accelerating, expanding universe is something else that is entirely different. It's something that is absolutely impossible. You merely do a Sherlock Holmes and eliminate that answer. This leaves only the alternative answer. There must only be Einstein's repelling force out there.

Is there anything else telling you that this is an expanding universe? No. Do you have spinning orbiting things and 99.9999% empty space in the microcosm too? Yes. So this must mean we are indeed in a static steady-state universe just the same as the microcosm with the only difference being the symmetry of construction at the macrocosm's lower wavelength.

Einstein showed us a star will slow light down and bend it but I see this differently. I see this cosmological constant **repulsive force** bending the light because this force is the creation of space time and with more space time being added, light will be bent or seem to go slower.

You have this same repulsive force between all the atoms of glass holding them apart as you do between the stars and galaxies holding them apart too. It is this **repulsive force** that slows light down in glass and bends it and it is this **repulsive force** between the stars and galaxies that also slows light down and bends it there as well.

This is the final and correct answer not only to Olbers' paradox but to the red shift as well.

Einstein said that gravity was not a force but really a distortion of space and time. Back then he did not know what we know now, that all the **invisible forces** are also only really distortions of space and time.

And these "A" Laws show us approximately how it all works---just as Dirac predicted.

\* \* \*

## Chapter 8 --- Magnetism & Electricity

I had various Federal radio licenses in my pocket before I finished high school and I learned very early in the game to use Ampere's laws in place of the Franklin-Faraday-Maxwell monstrosity. This put me way ahead of all my peers and it kept me way ahead of them all through my avionic career. Go ahead and use lines of force and plus and minus charges if you need to plan something using math. Better forget all about them if you are troubleshooting and need fast answers though. For that you had better stick with Ampere. You then get an instant picture of what's really going on.

It's crazy to use north and south poles and say opposites attract when nothing of the kind is happening.

If you could look inside both the north pole magnet and the south pole magnet when they are attracting you would see that all the electrons in BOTH magnets are spinning in the **SAME DIRECTION**. This is why you have the attraction.

Why keep using a law that is entirely **BACKWARDS**. Once you see something is absolutely wrong then quit using it.

Did you know that the north pole of the earth (that pole up above Canada) is really a **SOUTH MAGNETIC POLE**?

Forget all that 1700's monstrosity and try to see what is actually happening now in 2002 using these "A" Laws.

When you look **down** at the face of a **north** pole magnet the electrons causing the magnetism will all be spinning clockwise.

When you look **down** at the face of a **south** pole magnet the electrons causing the magnetism will all be spinning **counter**-clockwise.

To get these two magnets to attract you will have to turn one of them upside down. When you do this then all the electrons in both magnets will be spinning in the **same direction**. **This is why the poles attract.**

If you did NOT turn one of those magnets over then the sides of each would attract because the **CLOSEST SIDES** of the spinning electrons in both are going in the same direction. ( "**A**" Laws)

The reason that the polar attraction is the stronger is because the entire portion of all the electrons are spinning in the same direction and not merely the closest sides, as in the side attraction.

All electrical devices can be explained by these "**A**" Laws. The electron has inertial qualities. This is not inertia because our inertia is produced at the quark spin frequency. Nevertheless, the electron does have this resultant 90 degree gyroscopic torque when an exterior force is applied to it. In an electric motor, generator or transformer, not only is this 90 degree torque evident but it is going in the correct 90 degree quadrant every time as well.

The transformer is the most interesting of these because the alternating current in the primary is actually moving the electrons in the secondary wires toward the skin of the wire, then toward the core axis on each alternate half cycle. It is this 90-degree gyro torque that drives the secondary electrons up and down the wire. What's interesting here is that these "**A**" Laws show why we have "skin effect" at radio frequencies. Magnetic lines of force simply do not show us this.

Two magnets attract simply because you are reducing the space time between them. But you are only reducing the space time between them that is being produced at that particular electron spin frequency.

\* \* \*

## Chapter 9 --- A second look at these "**A**" Laws

Use these new "A" Laws to observe the following relationships in chemical bonding.

All the space between everything in these atoms is being created by the 2<sup>nd</sup> "A" Law: But this is not quite all of the story. You have already seen why **-by using only inertial qualities-**electrons repel each other, in chapter 3. This will also show you how both of these laws working together determine the symmetry of the space time construction of the particle elements in each separate spin/orbit-frequency level.

Quantum theory uses the term "**overlap**" where these electron orbitals from adjacent atoms overlap and bind in covalent bonding.

In  $\pi$  (pi) bonding the spins of two electrons from two different atoms become momentarily parallel. They will frequently overlap with the "**locked**" **pole** of one electron-**spin-up**-attracting the "**locked**" **pole** of the other **spin-up** electron causing these two different atoms to bond in  $\pi$  (pi) bonding. Remember these electrons do have size and they "**see**" their closest portions, in this case their **poles**, are spinning in the same direction (*both either spin-up or both either spin-down*) at the same frequency. Thus, the "A" Law shows these will attract. These electrons in  $\pi$  (pi) bonding only attract each other and bond during this extremely **short interval** of **pole to pole overlap** and not during a good part of the entire orbital. All  $\pi$  (pi) bonds are fleeting but repetitious and the strength of these bonds will depend on the length of time these **poles** remain parallel to each other while facing each other and spinning in the same direction. Our new 1<sup>st</sup> "A" Law provide us with the answer to  $\pi$  (pi) bonding.

In  $\delta$  (sigma) bonding, electrons from two different atoms bind these two atoms together far differently from the ones in  $\pi$  (pi) bonding. In this  $\delta$  (sigma) type of bonding these two electron orbitals are not parallel to each other but are **merged into one plane** yet the overlap is still here but in a far different manner. These two electrons from the two different atoms or molecules remain on opposite ends of these two in line orbitals. These two electrons are also "paired" and "**locked**" with one spin-up and the other spin-down but these two electrons "**lock**" with their closest sides going in the same direction (the 1<sup>st</sup> "A" Law) and not their poles.

This new concept sees ionic bonding merely as the electron using subharmonic bonding with the protons in the nucleus.

Quantum theory gives you a probability that these electrons will be more often found in a certain area. These "A" Laws---using precession---will show you that as well. One more thing: Both of these electrons will be orbiting exactly on the opposite sides of the same orbital as the other electron. This is not what is most relevant here: What is most relevant is that one electron will be spin-up and the other spin-down. And their closest sides will constantly "see" each other exactly in phase and the same mass on the closest sides. Thus, both electrons will attract each other at least a good portion of the entire orbital using their closest sides according to our 1<sup>st</sup> "A" Law. Remember this is a  $\delta$  (sigma) bond.

Although the closest sides of these two electrons may attract each other with less force than the closest poles, you must remember that in  $\pi$  (pi) bonding these poles only overlap a small fraction of the orbital. Whereas in  $\delta$  (sigma) bonding the sides of these two electrons "see" and attract each other more of the entire orbital so the  $\delta$  (sigma) bond ends up being the stronger of the two.

Any electron that is perfectly free, similar to a gyroscope in gimbals, cannot be locked with another free electron. You have seen, in chapter 3, why all free spinning objects in this universe must repel all other similar sized free spinning objects.

An electron bound to another electron, or the nucleus, loses its freedom and thereby is, in effect, locked into a certain position and thus it can attract other electrons.

These can lock in many ways. They can lock together for part of the time. They can "lock on" for part of an orbital. They can use either their closest sides to lock or they can make a stronger lock with their poles. Two somewhat restricted electrons can lock together or one free electron can "lock on" to some electrons that are already locked.

We know that magnetism is caused by both the electron's spin and the electron's orbital motion. Binding energy is also caused by various spin and other motions of the various particles. Unlike iron, we could expect, in many substances, to get much more than 2% (like in iron) of the total attractive force on some orbitals.

There are various types of "lock ons": This is because the electron wobbles and precesses. All electron to electron attractions are done with moving electrons both

of which are being highly disturbed by their surroundings. They simply are not going to be spinning perfectly parallel to each other 100% of the time. But the subharmonic bonding to the nucleus is far different because the proton(s) in the nucleus are not being this much disturbed and can provide a far more steadier "lock on" and therefore a much more powerful "lock on" than the electron to electron "lock on". Thus, this subharmonic "lock on" is much more powerful than the electron to electron same exact frequency "lock on". Normally subharmonic "lock ons" would be less powerful.

Covalent bonds are caused by the electron orbitals of two adjacent atoms simply overlapping and/or the spins attracting each other via the 1<sup>st</sup> "A" Law. Once you realize this then you can easily see how covalent bonding really works.

A "locked" electron-even while it's on an orbital-is really nothing more than a tiny magnet. These electrons are now "locked" into position and are no longer free to wobble, so now in a sense can become tiny magnets and they stay orbiting with their closest sides or poles in phase with another electron from an adjacent atom. These "locked" electrons can bind like magnets or opposite charges through either most of the entire orbital or a good part of an orbital. Our law tells us if the closest sides of these electrons are spinning in the same direction then this will be a  $\delta$  (sigma) bond and if the orbits overlap so their closest poles face each other and these poles spin in the same direction then this is a  $\pi$  (pi) bond. You can use our "A" Laws to describe this bonding.

You simply could have no covalent bonding without electron pairing because unless an electron is held steady and "locked" either with closest sides or closest poles then the electrons would never attract each other like tiny magnets. Nor would they attract like opposite charges but they would keep twisting, wobbling and precessing, all of which would repel a similar free electron and you will see that our "A" Laws explain all the whys and wherefores of this.

We have the Pauli exclusion principle that says two electrons on the same orbital must have their spins reversed-one spin-up and the other spin-down. The reason for this is simple. Our 1<sup>st</sup> "A" Law shows us why: Electrons have a dimension. The closest sides, of each of the above, are spinning at the same frequency in the same direction.

Now you have Hund's rule that states that if two orbitals are open then the two electrons that settle in will

both be spinning the same direction. On two separate orbitals these electrons would be a distance from each other and whichever way the prevailing magnetic moment would be, it would affect them both so they would both spin the same way. These two electrons will stay well away from each other now because their closest sides will be spinning opposite to each other thus repelling them.

In this universe of these "A" Laws, all spinning objects have this property of attracting and repelling. Remember the spin has to be at the right frequency or a harmonic thereof. And remember Planck who showed us that the faster these things spin then the more the attractive or repelling force **as viewed from the lower frequency (bigger) object**. Symmetry and such things as an antisymmetric wave function take on a whole new light because now we see exactly what is positively behind it all. Today's scientists will tell you that all of this spin is not real spin anyway. I'll say they are right about many of these because many of their particles are momentary and can **not** be considered permanent particles in this new theory. So far, in quantum mechanics, there have been about 200 particles discovered and many of these are classed as Fermi-Dirac and therefore have anti-particles as well, so this even increases the number of these pure wave like entities.

The electron, however, is a permanent particle and the electron-**as viewed in our subset system**-has to be considered having a true honest to goodness spin along with honest to goodness gyroscopic inertia.

\* \* \*

## Chapter 10 --- Radio waves, Light wave & transmitting energy

Energy is always transmitted via transverse balance waves.

When one steel ball hits another and transmits all its energy to the second steel ball, even that was a wave energy transfer. Every steel atom has only electrons whirling around it and not even one of these electrons, from the first steel ball touches another electron from the second steel ball as those two steel balls collide.

So if nothing touched then even that steel ball collision was a wave exchange of energy.

**The Michaelson-Morley experiment proved beyond any shadow of a doubt that the speed of light is a constant, independent of the velocity of the source or observer.**

This is pretty potent stuff. It brought in Einstein.

So how does one build a universe where the speed of light is a constant and we have Einstein's general relativity and quantum mechanics?

By making the speed of light the speed that our space time, at this electron-quark heterodyne frequency, is being produced. If we allow this then we will sense that gravity and light will both be propagated at the same speed, which we will see as the speed of light.

This concept shows why Paul Davies, Tamara Davis and Charles Lineweaver recently found the speed of light has changed over billions of years. The speed of light is really the speed at which our space time is being created and this is entirely dependent on the amount of Einstein's cosmological constant repulsive force produced by the surroundings. We know this force could not have remained steady after the Big Bang because the surroundings did not remain steady. So those three Australian scientists are most probably right to claim that the speed of light is not a perfect constant.

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You now can see which way science has to head. We have to find the exact important spin frequencies and the important subharmonic linking frequencies of all these spherical standing wave entities from quarks to galaxies but these are limited and this can be done with the knowledge we now have once we think the problem through correctly.

It's like a huge calculus problem that has to be solved and we already have the derivative (our present science laws).

Absolutely no one sees the importance of this now but this will change.

We will have computers, in the coming years, that will be capable of building the foundation for this new frequency math system.

The universities are perfectly set up to work out this task. It will be a monumental task taking far greater effort than it took to develop RADAR but the results achieved will be many millions of times greater than the development of RADAR because it will advance all of science so tremendously.

Kurt Gödel warned us that if we could not see out far enough then we could make laws that we would THINK would be absolutely true science laws that would work perfectly throughout this entire universe. This is exactly what has happened. We only THINK the law of gravity will work perfectly further out than our galaxy but it will not. These spinning standing wave entities, from quarks to galaxies, produce different symmetries for each distinct spin/orbit level. Our present science laws are merely a reflection of these different symmetries. The law of gravity works best if held entirely within the symmetry imposed by our milky way galaxy. I honestly believe that if Einstein would have listened more to his good friend Kurt Gödel, then he might have found the answer he was looking for.

We all make mistakes and I made a dreadful one decades ago by not realizing much earlier the importance of the spherical standing wave in all of this when most of my lifetime was one of dealing with waves and standing waves. But I can finally offer these "A" Laws to you. I used them my entire lifetime in electronics simply because they gave faster, more reliable, answers than anything else when accuracy was not required. They do give you the proper direction and the "big picture" even though there is still no math we can use with them.

With these "A" Laws in this present introductory form we are still only scratching the surface of all that is out there to be discovered.

Others will now come along and build on this knowledge and that's the way science has worked and will continue to work.

What this all boils down to is that there are now two ways to view science: You can view things from one reference frame, the way most now prefer, or you can view things from their frequency aspect which gives you a view from multiple reference frames.

While the singular reference frame view is the most accurate method now, it will not remain that way as better computers are built and as new math is developed for this additional Aufbau Law method.

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The version above is a really short example of this new concept. For a longer, more elaborate version go to: <http://www.rbduncan.com> and read the TOE therein.

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