

Shedding a bit of light on the

Elaborate Design of our Universe

Einstein wrote the following:

"I consider it quite possible that physics cannot be based on the field concept, i.e., on continuous structures. In that case, nothing remains of my entire castle in the air, gravitation theory included, [and of] the rest of modern physics."

1954 . . Albert Einstein

Since you can't judge a book by its cover, I'm going to give you an **abstract** of this right now so you can decide immediately if you want to read this book or not.

Everyone entering quantum mechanics sees the disparity between quantum theory and 'common sense' classical mechanics. One reason why we have this incongruity is

that the microcosm is a frequency world yet our larger macrocosm world here, university experts claim, is not.

I answer many more of these *whys* in here and this will aid not only the neophyte but also the quantum experts as well because I offer some new ideas that the experimentalists can test.

I also show the **why** in quantum theory because I show that states and quantum numbers are in fact equivalent to phase and frequencies.

1. Gambling

It's better than winning the hundred million to one shot on the lottery.

Our chances of having a nearby supernova explosion

early on ____ giving us the elements we need for life — and then our sun being the right size and having that asteroid hit while the dinosaurs were here and countless other things, all had to happen precisely at the right time to give us this winning lottery ticket that has enabled us to enjoy life on earth today.

The chances that we shouldn't be here today are much more than a hundred million to one.

Daniel P. Fitzpatrick Jr. (Author)

I simply had to write this first *qambling chapter* after reading Bill Bryson's *A Short History of Nearly Everything*. It's a book well worth reading!

There is absolutely no doubt that we have to thank our lucky stars — or whomever else it is you wish to thank — that we are actually alive and living now even though all of us have but a short time here. As Bryson has shown us, with all the things that had to happen precisely when they did, it's a wonder that we have been given this miraculous chance to be here even for this brief period of time.

It will take me a while to finish this book. I'm willing to put in the effort because it's what I believe. So this book is also — *like our universe* — a gamble!

Here this book will remain, on the internet, for all of you to read, as I write it.

In this book we're going to show you <u>WHY</u> Everything is Happening the way it is.

A recent *Fitzpatrick* paper ended with this little poem, and with it this book begins:

A bit of Pope <u>Pope-Britannica</u> & Fitzpatrick here:

"Nature and Nature's laws lay hid in night:

God said, "Let Newton be!" And all was light.

Huygens said, "But Newton didn't tell us why

Huygens Huygens-Britannica

congratulated Newton <u>Newton-Britannica</u> on his great mathematical accomplishment giving us his gravitational laws, but Huygens also criticized Newton about not finding the answer as to <u>why</u> this was so.

In this book you will get a **model** that really does *finally* tell us **why**.

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In this model dependent science world of today, you will be presented with a <u>new</u> quantum theory

<u>guantum theory model</u> — even better than the standard model — that gives you the very first 3D, widescreen, technicolor picture of reality that is quite a bit superior to that of any models presently being used:

It's the W.A.M. Quantum theory model.

This scalar, standing wave <u>Standing Wave-</u>

Britannica model — a new wolff, Ampère, Mach

Quantum Theory <u>Model</u> — is the <u>only</u> single <u>model</u> that explains this <u>entire</u> universe!

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Also please remember these supremely **important** words of mathematician Stephen Wolfram, "Math can only explain simple things but a simple <u>model</u> can explain a complicated universe."

Copied from the 2013 Britannica DVD: "Stephen Wolfram

born Aug. 29, 1959, London, Eng.

English physicist and author best known for his contributions to the field of cellular automata and the development of Mathematica, an algebraic software system.

The son of a novelist and a philosophy professor, **Wolfram** attended Eton College (1972-76), from which he never graduated, and published his first scientific paper at age 15. He later studied at the University of Oxford (1976-78) and the California Institute of Technology (CalTech), where he earned a doctorate (1979) in theoretical physics at age 20. In 1981 he became the youngest recipient of a MacArthur Foundation fellowship, and later that year he began researching the origins of nature's complexity. He taught at CalTech from 1980 to 1982. Throughout the 1980s **Wolfram** published a series of celebrated papers on what he dubbed "complex systems research." During this period he taught at the Institute for Advanced Study (1983-86) in Princeton, N.J. In 1986."

On Wolfram's premise — or rather my premise even before I heard Wolfram state it — that a simple model can explain a complicated universe, I sought out a model that could explain why things both in the micro and macro worlds tended to congeal into central clumps around which there

existed various sized orbital states of other entities of far less mass and *why* was there so much empty space between these central clumps of mass in both the microcosm and macrocosm?

I found that absolutely nothing in either classical mechanics or quantum mechanics could explain this until four major entities were put together: The simple model answer came combining quantum theory with what Wolff, Ampère, Mach — and a few other scientists perhaps — had been saying.

Please do not think that I see math as not being consequential. It is very important! But you will see — later in this book — where the problem arises with our math and why this simple model shows us it is impossible to unify the fundamental forces with the math we now have at our disposal.

While this simple model completely explains the complicated activities of the electron, you will now see that this simple model seems to even explain the mysterious activities of the quarks as we not only translate but actually condense QCD states and quantum numbers into a simpler model — compared to QCD — of equivalent frequencies and phase.

Rome wasn't built in a day and neither was this new simple model. It's been a wonderful roller coaster ride over many decades.

Please bear with me while I explain not only this simple model but also quite a bit of the roller coaster ride — including the boring descriptions of some of the scenes witnessed during that lengthy up and down ride.

Quantum theory originally began with Max Planck <u>Planck-Britannica</u> who made a speech one evening explaining that energy had to be arriving in small packets or quantum chunks. Einstein <u>Einstein-Britannica</u> gave these chunks of light

energy a name, photon **photon**

Britannica, but it was Nobel scientist Niels Bohr Bohr-Britannica who then took over **teaching** quantum theory and was cranking out future Nobel scientists at the same time as Henry Ford was cranking out his Model T Ford cars.

Richard Feynman — more about Feynman in Chapter 6 — even took quantum theory further greatly improving the **standard model** but Feynman had disdain for the unification of the weak force with the electromagnetic force into an electroweak force. Said Feynman, "You can even see the glue that holds it together."

Copied from the 2013 Britannica DVD: "standard model

The **standard model** has proved a highly successful framework for predicting the interactions of quarks and leptons with great accuracy. Yet it has a number of weaknesses that lead physicists to search for a **more complete** theory of subatomic particles and their interactions."

Are you ready for a <u>new more complete</u> quantum theory <u>model</u>?

Why we need this <u>new more complete Wolff</u>, <u>Ampère</u>, <u>Mach Quantum Theory <u>Model</u>:</u>

We need it because it explains not just the microcosm — as the standard model does — but it explains this **entire universe!**

We <u>also</u> need it because it diminishes or even negates, that sea of infinite probabilities — *the gambling* — that infests current quantum theory.

Einstein likened Bohr's quantum development to gambling. While this Wolff infinite sea of spinning, scalar resonances are set up to give us sigma bonds and pi bonds and other complications such as sigma bonds that must be established before any pi bonds can exist, and this being only the tip of the ice berg, makes us feel like all this is indeed gambling. The scalar, standing wave setup itself — the house — always wins and remains intact all throughout this sea of infinite probabilities of binding and bonding where all this gambling — that Albert Einstein hated — takes place.

It was this sea of infinite probabilities that first gave us cells, then higher organisms, then apes, then us.

The fact that we are here is proof itself that God does really gamble!

So it's evident Einstein was wrong to say, "God doesn't gamble!" ("Er wurfelt nicht". "He doesn't throw dice.")

God does indeed gamble using spinning, scalar, standing waves (that both bind and repel in a myriad of ways). What Einstein failed to see was that the **house** always **remains**. This scalar, standing wave setup — the house — is never threatened via all this bonding-repelling gambling. Only the various separate repelling forces and quantum bindings are the things that are doing all the gambling.

And now we see Niels Bohr was correct to say, "Who is Einstein to tell God what to do."

What both Mach and Ampère do in this quantum scenario is that they allow us to drastically reduce this sea of quantum infinite probabilities.

We can use what both Mach and Ampère showed us to reduce the gambling

I now believe — using this new model — that we can actually achieve controlled fusion and perhaps even arrive at controlled **cold** fusion.

This new Wolff, Ampère, Mach Quantum Theory Model shows you why you have all these infinite number of probabilities that Einstein hated.

This new Wolff, Ampère, Mach Quantum Theory Model shows you <u>how</u> you can <u>eliminate</u> most of these infinite number of probabilities.

2. My involvement

This I'll cover later too. There was a good article, in *Scientific American* about Ampère's **1823** Long Wire Law that made me re-think — and suspect even more — everything I had learned in electronics.

In **1823**, André M. Ampère took two batteries and connected each to a long wire, with both wires parallel to each other. When the current went the same direction through both wires, the wires attracted. When Ampère reversed one of the batteries and the current went through the wires in opposite directions, then the wires repelled each other.

The unit of electrical current, the Amp, was named after Ampère for this <u>simple</u> discovery in **1823** — relating the FORCE **directly** and **SIMPLY** to the **movement** (current) producing it.

This fundamental <u>basic</u> **simplicity** of Ampère's **1823** Law — using **NO** plus or minus charges, or north and south magnetic poles — is now totally obscured by the more complicated math and rules of the Faraday-Maxwell field

theory, coming half a century after Ampère, that <u>must</u> use **imaginary** plus and minus charges and north and south poles.

I — Daniel Fitzpatrick — can't remember exactly what year it was that I read about Ampère's **1823** law in Scientific American. But I saw immediately that for easily visualizing things in the radio world — my world — they were far superior to the field concept of Faraday Faraday-Britannica and Maxwell Maxwell-Britannica.

Later in 1966 at Pan American Airlines, one day as I was trying to resolve a method where the yoke coil in RCA RADAR Indicators could not be installed upside down by mistake, not only did I use Ampère's law of attraction to solve the problem but I distinctly saw Ampère's law of attraction — a relative motion law — was also showing me why I was being attracted to this earth.

I will never forget that day as long as I live.

I saw then essentially how to unify gravity with all the other invisible forces.

This unification of gravity with the other forces was something Einstein tried to solve so I wrote a book about gravity, as well as <u>all</u> the other forces simply being caused by *relative motion*. Lincoln Barnett <u>Lincoln Barnett-Wikipedia</u> wrote me a letter of approval about the book. Scientist Robert Dicke wrote that if gravity was being caused by *relative motion* then we should see interference fringes which we are now indeed seeing.

Copied from the 2013 Britannica DVD: "Robert Henry Dicke

born May 6, 1916, St. Louis, Mo., U.S.

died March 4, 1997, Princeton, N.J.

American physicist noted for his theoretical work in cosmology and investigations centering on the general theory of relativity. He also made a number of significant contributions to radar technology and to the field of atomic physics. . . . By the 1960s Dicke had become actively **interested in gravitation**."

Yes, Robert Dicke claimed that if gravity was caused via phase or *relative motion* then we would see interference fringes. He turned out to be right because now with the advent of the Hubble space telescope we are actually seeing Dicke's interference fringes and their cause is being seen as gravitational lensing caused by Einstein's curved space. These interference fringes (gravitational lensing) seem to be giving us more proof of actual gravitational waves.

Copied from the 2013 Britannica DVD "Interference fringe:

a bright or dark band caused by beams of light that are in phase or out of phase with one another. Light waves and similar wave propagation, when superimposed, will add their crests if they meet in the same phase (the waves are both increasing or both decreasing); or the troughs will cancel the crests if they are out of phase; these phenomena are called constructive and destructive interference."

If you want to read that early book of mine — *it's a collectors item now* — then here is a link for it (below) and in *Chapter 6* you will find an additional link, for it, you can click. There were only 10,000 of them printed and their value seems to be going up every year even faster than the stock market. You'll get the e-book with illustrations plus an original picture of the book's blue cover by clicking the link below.



As I listened to Stephen Wolfram Stephen

Wolfram, on the Charlie Rose show many years ago, I was mystified and wondered how Stephen Wolfram knew certain things, one of which was that a simple model could explain a complicated universe. I thought only a very few of us who understood Milo Wolff's scalar, standing wave theory and Ernst Mach's inertial theory and Ampère's relative motion concept could see these things Stephen Wolfram was talking about.

Only later, after I read Wolfram's *A New Kind of Science*, did I realize that he discovered this important fact and other significant aspects of what was really going on in science via a far different road from the way I found it.

Here's Wolfram's book in e-book form free:

Wolfram's 1,000 page "A New Kind of Science"

Half way through high school I was forced to work with standing waves and knew, even before I met Milo Wolff, that electrons had to be some sort of spherical, standing wave but it was Milo who showed me the importance of the **scalar**, standing wave concept and of the Hubble limit.

I saw that Wheeler <u>Wheeler-Britannica</u> and Feynman were pointing out to everyone that we are surrounded by various other space-time realms and we simply cannot measure accurately inside of these other space-time realms.

And then, to our utter amazement, I saw <u>nobody</u> in these universities even heeding Wheeler and Feynman's warning — especially when determining distances in the macrocosm—about this particular aspect of measuring things in other space-time realms. More — extremely important aspects — about this in Chapter 7.

I was also amazed, while chatting on the internet with Tom

Van Flandern Van Flandern, to find out that all our major astronomical universities agreed with Newton who said gravity acted instantly. No astronomical school agreed with Einstein who said gravity could not act faster than the speed of light: the astronomers all knew gravity

had to act faster than the speed of light for this universe to be stable.

I saw this truth: You could rely on the high priests of science most of the time but **not** all the time.

All through my life I saw that I came out best if I used my own 'common sense'. No that's the wrong term.

No, let's call it more **deductive reasoning** while observing all the evidence.

Physicist John Bell proved conclusively in 1964 that the 'common sense' approach given by Einstein, Podolsky and Rosen was wrong about quantum theory because they included locality and hidden variables. Einstein, who hated what he termed 'spooky action at a distance', used this 'common sense' argument against quantum theory's quantum entanglement. Einstein did not believe in quantum entanglement (spooky action at a distance). But it wasn't until 1964, after Bohr and Einstein died, that we all saw Einstein lost this final argument, as well as all his others, against Bohr and quantum theory.

I give Einstein an A+ for general relativity **General**

relativity and writing that letter to Roosevelt in 1939 about the need to build an atomic bomb; he however gets a failing grade from us on his failure to understand that Mach's principle — that he claimed he used to develop general relativity — depends on the very thing Einstein did not believe

in: He did not believe in quantum entanglement. Yet that and Mach's principle, both <u>depend</u> on this '<u>spooky</u> action at a distance' that Einstein entirely rejected.

This inconsistency of Einstein's reasoning allows me to be convinced that Mach's principle was more of Mileva

Maric's Mileva Maric-Britannica belief than Albert Einstein's.

Mach's principle <u>depends</u> on molecules here somehow binding with molecules in the surrounding stars — *long distance quark in phase bindings* — and quantum entanglement depends on electrons binding ultra long distances with other electrons.

During my four score years of life, I came out far better using *deductive reasoning* while looking at the evidence, than merely gambling on the various advice of others. But I knew that I did read and experiment a good deal more than most of the others who listened to the experts and used their own so called *'common sense'*.

I'm not the smartest person and I needed those four score years, and a good bit of help from others, to entirely put together this enigmatic puzzle: Even though I saw it was relative motion in the 1960s, more than another decade went by before I realized it could also be seen as <u>either</u> relative motion or phase in both macrocosm or microcosm — I held the top radio licenses and should have seen it sooner — and even after that it took chatting with Caroline Thompson from Cambridge to get me really to delve closer into the

phase picture. I do miss her and Tom Van Flandern. Milo Wolff is ten years older than I am and still here. I'm hoping for another ten years, myself.

I had many businesses and I never lost money in any business. I started college early in life in the army signal corps but actually finished college later in life and saw that most of these people teaching business, in the universities, could only make money teaching. Few of them could make money in their own business.

I heeded the words of Dwight Eisenhower in his final day of office as our president when he warned of believing everything that we were told by the military industrial complex.

While discussing his plans with his generals, one of Fredrick the Great's generals asked him, "My God, what will our people say when we attack that country?" Frederick the Great-Britannica

Frederick the Great answered, "My universities will explain to the people why we had to attack them."

We can rely on the universities and the high priests of science most of the time but **not** all the time.

So don't listen to the high priests; look at the evidence!

All this need — just so our present science model makes sense — for

additional Dark Matter Dark Matter-

Britannica and additional Dark Energy Dark Energy-Britannica is proof that something is wrong with our present model or present concept that our universities — military industrial complex — currently use to explain to us how this universe works.

My **deductive reasoning** told me that I had to look at <u>all</u> the concepts available and the concept in which all the forces were unified — *regardless of how those in the universities* thought — had to be the correct concept.

And if I looked at quantum theory and added what **W**olff and **A**mpère and **M**ach said then there, right in front of me was the answer, a concept where all the forces were unified.

The answer was arrived at, similar to the way doctors do it, the way Sir Arthur Conan Doyle said Sherlock Holmes did it.

I got a real **shock** when I saw the reason all the math I had learned, in fact all the math in the world, wasn't going to help.

It wasn't that I couldn't use my math but I now had limits imposed and parameters established limiting my math — and not only math but rules as well — to one single spin/orbit frequency space-time level.

I should have foreseen that because rules and math for the quark spin frequency space-time level — QCD — are far different from the rules and math of electron spin frequency space-time level — QED — and both of those are far different from our level, but more about this later.

Not only did this **W**olff, **A**mpère and **M**ach Quantum concept unify the forces but this new concept shows exactly what both space and time are as well.

This new concept mandates that space-time must also be quantized as well as energy. More about that in another chapter. And in this new simple model, energy quanta used to create matter can be but a very tiny fraction of the total mass of an already **existing universe**:

This prevents us from believing this universe, we see now, was created with pure energy.

Once you see that energy is really nothing more than a binding change with the surroundings — you'll see this later or now by clicking links below — you will immediately recognize the impossibility of creating — any energy whatsoever — unless the surrounding mass of a universe is already here. For more about this see:

http://www.amperefitz.com/energy.htm or in Adobe pdf click this link:
http://www.amperefitz.com/energy.pdf

Mach's principle tells you that the surrounding stars are — the only things — giving you your inertial mass.

The **only** way you can get energy is to convert — *via quantum units* — mass into energy. If absolutely no mass is here, then where does all this energy come from to build a brand spanking new universe?

So this new concept shows us conclusively that an all neutron universe must have been here first and a slow leakage of energy — between space-time realms — changed the

fine structure **fine structure**-

Britannica enough where the neutron was no longer stable and this, previous stable, earlier all neutron

universe went into a sudden beta decay beta

decay-Britannica which stopped when exactly half of the original neutrons were safely ensconced inside of atoms.

This sudden beta decay also better explains "cosmic

inflation" COSMIC inflation-

Britannica which was an ultra fast expansion of the universe cosmologists believed must have happened right after the Big Bang started.

Knowing all this, what we presently see in observing the cosmic microwave background radiation makes far, far more sense.

Therefore the first part — the first few minutes — of the Big Bang needs changing but after that first part everything else now believed about the Big Bang, of how all the elements were created, is quite correct.

And this new concept agrees with what Wheeler and Feynman said that we cannot measure accurately when we dip into all these other space-time realms all around us.

I agree with this and totally agree with all the quantum theorists who say this is a frequency universe in the microcosm.

But then I have to add this admonition: You cannot install yourself into the center of things saying things smaller than us obey frequency laws but things larger than us obey quite different laws.

Yet this is exactly what is being done now — with this present science model — isn't it?

This new concept changes all that: This is a frequency universe all throughout!

This is a frequency universe both in the microcosm and the macrocosm and it seems most everyone has overlooked this most important fact.

We've heard many claim that renormalization where infinities are swept under the rug and other things in quantum theory don't even approach 'common sense'. This may be true but if this is indeed a frequency universe all throughout — in the macrocosm as well as in the microcosm — then classical mechanics is nowhere near 'common sense' either, is it? Einstein's general relativity isn't quite 'common sense' is it? Yet those GPS units most are now using in their cars use general relativity to function

because time on earth is a different time than in those satellites above the earth where there is less gravity. Gravity slows down time. GPS units must take that — change of frequency because of gravity — into consideration to function properly.

Having said that, the elements of classical mechanics, as Niels Bohr showed, can be used in the microcosm to effectively show much more than quantum theory alone can show. I've already proven this — showing that while the equatorial magnetic bond is weaker than the magnetic polar bond it's the reverse in chemical bonding where the equatorial bond is the stronger of the two — so do not entirely disregard what Newton and Bohr showed us but use it only within strict parameters.

You could not have that reversal, mentioned in the above paragraph, unless electrons were actually spinning as tiny spheres and actually revolving around the nucleus in actual orbits exactly as Bohr envisaged similarly to the way it is being done in classical mechanics. But again, know the limits of inserting classical mechanics into the micro world.

I'll cover that important reversal again in Chapter 8.

Quantum scientists correctly equate higher frequencies with higher energy. We, perhaps incorrectly, equate higher frequencies with smaller size: we see the spinning electron as tiny and the even higher frequency spinning quark as even smaller than the electron.

We see frequencies as solids only in a narrow frequency band starting much lower than the electron orbital

frequency. Lower than this frequency band where we view things as solids, we view things, such as our solar system and galaxies and galactic clusters as variegated solids.

So my involvement in all of this is simply trying to turn everything we think we see into actual <u>real</u> frequency relationships.

We will only be right in doing this if this is indeed a frequency universe all throughout!

And that, dear reader, is not quite what our universities (the military industrial complex) are explaining to us right now. They claim the impossible: that everything smaller than us obeys frequency laws but everything larger does not.

Evidently the universities (the military industrial complex) have completely captured their audience just like Fredrick the Great did in his time because no one we know of has written anything about this being a frequency universe all throughout. And we know for certain we can believe the high priests of science most of the time but **not** all the time.

This cannot be a frequency universe <u>only</u> in the microcosm. It simply <u>defies</u> logic!

We have all this spin and empty space exactly like in the microcosm.

So I'm certain this is a frequency universe all throughout so why not look at what I have to say.

3. Dr. Mílo Wolff's frequency uníverse

Dr. Milo Wolff Dr. Milo Wolff has given us a scalar, standing wave frequency universe and I'm going to try to change all our present rules and laws into new frequency rules and laws.

I've worked in radio all my life and the hardest part of this book will be to convince you, the reader, how important standing waves are to us. But ask those who work in the quantum field and all of them will tell you that the *foundation of quantum theory is a foundation of standing waves* using the Dirac equation, that essentially adds Einstein's relativity to the Schrödinger equation, to map out the standing wave layout.

I was forced to learn about standing waves while trying to tune transmitters to an antenna in my early high school years. If you don't eliminate the standing waves via proper tuning then your transmitter isn't going to work properly.

The reason for this is that standing waves do not radiate useful radio wave energy but they do indeed use up the

transmitter's energy output to keep reproducing themselves on the antenna.

What we know from this is: **Anything producing energy** via frequencies will also be producing standing waves.

My first amateur transmitter had an 807 tube in the final, putting out 40 watts. The second transmitter that I finished building in my second year of high school had two RCA tantalum finned plate 812As in push-pull — they cost me \$5.00 each in 1947 — and that transmitter put out over 150 watts. My call letters were W2YDW.

Believe me, those two transmitters taught me about standing waves.

In later years, at Pan American Airlines, I used a Bird wattmeter <u>Bird wattmeter-Wikipedia</u> to check transmitter antenna tuning to see the actual amount of standing waves eliminated (standing wave ratio). But in high school I could not afford this luxury.

Standing waves absorb energy from the transmitter but do not transmit this energy from the antenna therefore they sap the transmitter's power. Designers and radiomen constantly design and fight to get rid of standing waves.

Every transmitter produces unwanted standing waves that **must** be eliminated.

But our universe evidently builds with them simply because they do <u>not</u> radiate all their energy away provided

that they remain in a sea of identical spinning, standing waves of that same frequency.

Dr. Milo Wolff has shown us that the electron is a spinning, scalar, standing wave that constantly gets itself reproduced via its surrounding neighbor electrons.

The electrons inside you, for instance, are receiving and transmitting energy to surrounding electrons as far — but no

further — than the Hubble Limit Hubble limit-

Wikipedia. Dr. Milo Wolff discovered and proved this too!

Each electron takes just enough energy from the group and then adds enough energy to the group so that all the electrons in the group keep on reproducing themselves with their own energy. They will keep doing this too indefinitely **until or unless** more — *too much* — energy enters that electron space-time realm or too much energy leaks out of that electron space-time realm.

To remain stable all spinning, scalar, standing wave entities must never emit or absorb **too much energy** from other higher or lower *frequency* space-time realms.

Thus each particle space-time realm has a certain stability at a certain wavelength as long as a critical amount of energy — not too much nor too little — remains inside that particular spinning, standing wave entity space-time realm.

It is of paramount importance that you know this.

A certain type of energy leakage either into or out of the quark space-time realm eventually put an existing all neutron universe — that may have existed for thousands of trillions of years — into a beta decay giving us our Big Bang.

Each of these — *entirely different* — spin/orbit frequency realms from highest to lowest frequency go something like this: quark to electron to solar system to galaxy to super cluster etc. Both space and time — *space-time* — are *entirely* different in each of these different spin/orbit frequency realms.

We view these realms from higher frequency to lower frequency as — invisible, to solid, to variegated solid — or — from small to large.

So we don't quite see this frequency universe as it really is. It's all really just frequencies all throughout.

These various frequency spinning, scalar, standing wave, space-time realms are exactly like keys on a piano — all probably certain resonances of each other — but spread far enough apart frequency wise so that a very minimal amount of energy exchange takes place between each frequency space-time realm. We do see certain spin frequency space-time realm piano keyboard keys of this universe piano: We can see a quark spin frequency key, an electron spin frequency key, a solar system spin frequency key, a galaxy spin frequency key, a super cluster spin frequency key but presumably we will never discover the entire keyboard length of this universe grand piano.

The symmetry of each of these standing wave space-time realms is most probably determined by its bordering space-time realms but with its higher frequency — *higher energy* — neighbor having the greater influence.

Therefore the concept we have of being built up from the microcosm is undoubtedly true in a quantum sense as well as a classical sense. However not all of our classical concepts are as valid compared to a similar quantum concept. It's really quantum theory versus 'our common sense'. They do not always agree with each other.

While the symmetry in these various space-time realms differs, the laws that determine entity size and the distance these entities remain apart are the same in <u>every</u> space-time realm: they <u>all</u> obey Ampère's **phase** laws provided we look at it the way Niels Bohr did.

4. Ernst Mach's important message to us

Ernst Mach reiterated what Bishop Berkeley first stated many years before, that something in our structure (molecules) here are binding with the structure (molecules) of the stars that surround us.

This is what, both Berkeley and Mach said, is causing inertial mass.

Einstein didn't know that Berkeley thought of this first, so Einstein called it *Mach's principle Drinciple*.

Copied from the 2013 Britannica DVD "Mach, Ernst

... Mach also proposed the physical principle, known as Mach's principle, that inertia (the tendency of a body at rest to remain at rest and of a body in motion to continue in motion in the same direction) results from a relationship of that object with all the rest of the matter in the universe. Inertia, Mach argued, applies only as a function of the interaction between one body and other bodies in the universe, even at enormous distances. Mach's inertial theories also were cited by Einstein as one of the inspirations for his theories of relativity."

By using **deductive reasoning** and putting 2 and 2 together, you can see what is going on:

If the electron is viewed as a spinning sphere — as Nobel laureate Niels Bohr viewed it — then all electron to electron bonding or binding — in chemical bonding — is accomplished when the closest sides of both electrons are in phase.

Therefore you get attractive binding or bonding when spin frequencies are in phase.

But the electron spin is conserved: this means we know each and every force produced by the electron spin: yet <u>none</u> of these forces is gravitational in nature.

Quark spin is presently seen as <u>not</u> conserved but quark spin <u>is</u> conserved if we consider down quarks are binding with distant down quarks in the surrounding stars through in phase binding to give us inertia.

So there, above, is the answer as to why we have Mach's principle.

It's as simple as that.

There is no force tensor in the tensor math of general relativity so Einstein was obliged to equate force with the tensor curved — or extra created — space. Once you see the electron spin frequency also creates force then this new concept is telling us various spin frequencies also — via Einstein's concept — create space.

You'll see exactly what both space and time are as you proceed but keep in mind that space is actually being created by spin frequencies.

Our space — that we can measure — seems to be produced mainly by the electron spin frequency.

But remember, Wheeler and Feynman said we can <u>detect</u> things in other space time realms but we have problems measuring them:

So you cannot measure space being produced by an entity — a down quark — spinning at the square — a resonance — of your space produced spin frequency; in fact you won't even be able to measure the space that it is producing as

space but you most certainly can <u>detect</u> the space that it is producing as — *space times space or* — an acceleration.

See where this is taking us?

5. Ampère's important message to us

Copied from the 2013 Britannica DVD "André-Marie Ampère

born Jan. 22, 1775, Lyon, France

died June 10, 1836, Marseille

French physicist who founded and named the science of electrodynamics, now known as electromagnetism. His name endures in everyday life in the ampere, the unit for measuring electric current.

Ampère offered a physical understanding of the electromagnetic relationship, theorizing the existence of an "electrodynamic molecule" (the forerunner of the idea of the electron) that served as the constituent element of electricity and magnetism. Using this physical understanding of electromagnetic motion, Ampère developed a physical account of electromagnetic phenomena that was both empirically demonstrable and mathematically predictive. In 1827 Ampère published his magnum opus, Mémoire sur la théorie mathématique des phénomènes électrodynamiques uniquement déduite de l'experience (Memoir on the Mathematical Theory of Electrodynamic Phenomena, Uniquely Deduced

from Experience), the work that coined the name of his new science, electrodynamics, and became known ever after as its founding treatise."

More than half a century ago there was a good article, in *Scientific American* about Ampère's **1823** Long Wire Law that made me re-think — and suspect even more — everything I had learned in electronics.

In **1823**, André M. Ampère took two batteries and connected each to a long wire, with both wires parallel to each other. When the current went the same direction (inphase) through both wires, the wires attracted. When Ampère reversed one of the batteries and the current went through the wires in opposite directions (out-of-phase), then the wires repelled each other.

The unit of electrical current, the Amp, was named after Ampère for this <u>simple</u> discovery in **1823** — relating the FORCE **directly** and **SIMPLY** to the **movement** (current) producing it.

This fundamental <u>basic</u> **simplicity** of Ampère's **1823** Law — using **NO** plus or minus charges, or north and south magnetic poles — is now totally obscured by the more complicated math and rules of the Faraday-Maxwell field theory, coming half a century after Ampère, that <u>must</u> use **imaginary** plus and minus charges and north and south poles.

We have electrons all spinning at the same EXACT frequency. They have two choices: They can either **spin or move** in-phase with each other or **spin or move** out-of-

phase with each other. This is where Ampère lucked out. Ampère didn't know about their spin but he made an **1823 law** about their movements showing PARALLEL MOVEMENTS (FLOWS), of electrons, IN THE SAME DIRECTION (in-phase) ATTRACT EACH OTHER.

-and-

PARALLEL FLOWS, of electrons. IN OPPOSITE DIRECTIONS (out-of-phase) REPEL EACH OTHER. Ampère's 1823 Law.

Phase Symmetry attraction is simple:

Quantum coupling (binding energy) is a spin up & spin down electron with their closest sides in-phase, while orientation changes quanta sizes. These can be close (magnetism) or distant, thereby producing waves (light, radio etc.).

Superposition has far, far more binding energy because both electrons are spinning the same direction on the same spin axis, keeping BOTH ENTIRE electrons in-phase with each other.

This type quantum binding has ONE size, and can be close (magnetism) or distant, but this type energy is not a general wave producer.

THINGS in-phase ATTRACT —and— THINGS out-of-phase REPEL.

This LAW replaces modern physics !!!

And the country that develops this Phase Symmetry framework first wins BIG.

And (what Ampère didn't know) electrons & every other spinning entity from quarks to galactic superclusters whose CLOSEST SIDES MOVE IN THE SAME DIRECTION (in-phase) will ATTRACT each other.

-and-

All spinning entities whose CLOSEST SIDES MOVE in OPPOSITE DIRECTIONS to each other (out-of-phase) will REPEL each other, also is Ampère's 1823 Law.

The Marie in André-Marie came from Ampère's mother's name: At that time in France it was a common practice to denote the mother in the child's name.

Ampère gave us this concept that things **in phase** always attract — *entanglement* — and things **out of phase** always repel.

He gave us this concept using relative motion rather than phase but it's the same thing really if you analyze it. Use relative motion in your own spacetime realm or lower frequency realms and use phase in higher frequency spacetime realms.

Simply use whichever method makes it clearer to you.

We've shown, in the prelude, that even Albert Einstein — a year before he died — considered the concept of fields to be a **bad concept**.

Yet most items on the internet will show magnetic **fields** being associated with what Ampère discovered. **Forget FIELDS**: **Ampère's 1823 long wire discovery** had nothing in it about magnetic fields. **Forget** his later laws incorporating magnetism in 1827.

Field theory was mainly England's great gift to us. Today's enhanced **field concept** came from Faraday and Maxwell, and as Einstein shows us, it turned out to be a **bad mistake**.

<u>Field</u> theory may explain repulsive force space, but it blinds us to the TRUE attractive forces that are **always** inphase, quantum entanglements. One example is Newton's gravitational <u>field</u> concept that blinds us and prevents us from seeing the TRUE cause of Dark Matter.

Ampère didn't know about electrons but he did know something in his wires were moving so he gave us a system of laws that have <u>nothing</u> to do with MAGNETIC fields.

This <u>below</u> essentially is what Ampère said about long parallel wires in 1823:

- 1. Long parallel wires having things in them moving the same direction caused the wires to attract.
- 2. But if things in one wire moved one way and in the other parallel wire they moved the opposite way then this caused the wires to repel.

Then he gave us a bit of math for various angles if the wires — in which these things above were moving — were not exactly parallel.

And this gives us by far our best observance at how those things inside the wires — <code>electrons</code> — are behaving in relation to one another. This tells us essentially the idea of plus and minus <code>charge</code> is wrong because these electrons do not always repel each other. Regularly, like in Ampere's long wires, they attract each other.

In **all** cases, <u>phase</u> is a better concept to use than <u>charge</u> (positive ions and negative electrons).

Absolutely correct in **all** cases, Ampère's <u>phase</u> concept also shows you which way the electron spins. When you see the much more highly complicated Faraday-Maxwell concept doesn't, then it's simple to know which concept to use.

Ampere didn't know these things as electrons but now we think we know a bit more about them.

These are essentially Ampère's Relative Motion Laws: <u>Ampere's Laws http://www.rbduncan.com/Ampere</u>

Or Aufbau Laws http://www.rbduncan.com/aufbaulaws.htm

Or http://www.rbduncan.com/theALaws.htm http://www.rbduncan.com/theALaws.htm http://www.rbduncan.com/theALaws.htm

Or Relative Motion Law http://www.amperefitz.com/lawrm.htm

Of Gold Universal particle relative motion law http://www.amperefitz.com/plawrm.htm

These are also **phase laws** with which all the forces can be unified: http://www.amperefitz.com/aphaseuniverse.htm.

Why only a few of us see this today, is something that I still can't figure out!

6. Ríchard Feynman's important addition of <u>motion</u> to unification

Copied from the 2013 Britannica DVD "Richard Phillips Feynman

born May 11, 1918, New York, New York, U.S.

died February 15, 1988, Los Angeles, California

American theoretical physicist who was widely regarded as the most brilliant, influential, and iconoclastic figure in his field in the post-World War II era."

Feynman remade quantum electrodynamics-the theory of the interaction between light and matter-and thus altered the way science understands the nature of waves and particles. He was co-awarded the Nobel Prize for Physics in 1965 for this work, which tied together in an experimentally perfect package all the varied phenomena at work in light, radio, electricity, and magnetism."

What Feynman is showing you, in his famous and best selling QED, is that **motion** is responsible for most of the unification up to now:

A short excerpt from:

QED

quantum electrodynamics

The Strange Theory of Light and Matter

author

Richard P. Feynman

(Please note the emphasis Feynman puts on motion

being the unifying element in all these separate fields)

"... it was soon discovered, after Sir Isaac explained the laws of motion, that some of these apparently different things were aspects of the same thing. For example, the phenomena of sound could be completely understood in the motion of atoms in the air. So sound was no longer considered something in addition to motion. It was also discovered that heat phenomena was easily understandable from the laws of motion. In this way great globs of physics were synthesized into a simplified theory. The theory of gravitation, on the other hand, was not understandable from the laws of motion, and even today it stands isolated from the other theories. Gravitation is, so far, not understandable in terms of . . . "

... motion or relative motion that produces not only gravity but all the forces,

that I explained and published in this 1966 relative motion book below:

FREE e-Book:



or

Fitzpatrick's First book in Adobe pdf:

http://www.rbduncan.com/pg e1.pdf

ABSTRACT of the above book:

You do NOT need to visualize four separate fundamental forces when <u>all</u> these are really only one type of **phase** force that can easily be viewed by using a frequency modification of <u>Ampere's 1827 laws</u>

This Britannica article

http://www.britannica.com/eb/article?tocld=9074111 tells you about Uhlenbeck and Goudsmit who, because of ignorance of the quantum theorists, were denied the Nobel Prize in 1925 when they discovered electron spin.

Quantum theorists still adamantly insist that there is no **motion** in the quantum realm even though we find, as Goudsmit and Uhlenbeck did, *all the signs* of angular momentum, that **motion** there would display. *Just because the motion there can not be seen from here, doesn't mean that motion isn't really there.*

Both space and time are <u>different</u> in different frequency space-time realms: this means we will <u>not</u> see the same

motion there as we look there from our space-time realm here.

Simply stated — in <u>different</u> frequency spin/orbit space-time realms —

the space-time intervals <u>Space-time</u> interval are <u>different!</u>

Minkowski's Minkowski-Wikipedia
space-time interval is invariant —which means it stays the same —
only if you remain in one —spin/orbit frequency — space-time realm!

In other words if another realm spins at another frequency than your realm, its space and its time will be different from your space and your time. And its space-time interval will be different from yours.

Our solar system is spinning at a different frequency from our galaxy and our super cluster of galaxies is even spinning at a different frequency from both our galaxy and solar system therefore these three systems mentioned will have three different systems of both space and time.

This also happens in the microcosm, look:

Once you see that the electron's realm — QED — uses entirely different math and rules from our realm and the quark realm — QCD — uses entirely different math and rules again from the electron's realm — QED — then this tells us in

no uncertain terms that these are three entirely different — spin/orbit — space-time realms.

Therefore the measurement warning from Wheeler and Feynman is correct!

Why does this work this way?

Because all detectors (us too) have an oscillator in them detecting exactly like a superheterodyne detector

superheterodyne detector-

Britannica does. But these detectors only have a limited frequency range. Less and less is detected as we get further and further out of our frequency detecting range.

This frequency aspect of it is why we can only see so far into the microcosm and also only so far into the macrocosm. It's <u>not</u> really what our 'our common sense' is telling us that one is too small and the other too large and too far away. <u>All</u> quantum scientists know to avoid the 'common sense' aspect when examining the quantum world.

The quantum world is a frequency world and far removed from our **'common sense'** non frequency classical world that we **think** we understand.

Sometimes — in a different space-time realm — only the <u>evidence</u> (of motion) can be transferred out as Wheeler and

Feynman showed us: this is *exactly* what is happening as we view the microcosm space-time realm from our space-time realm here.

We can see the *evidence* of energy transfers in the microcosm but not the actual motion that caused those energy transfers.

What I'm trying to get across to you — the reader — is that what we think we see — 'our common sense' — may not be entirely correct if this indeed is an all frequency universe all throughout: we don't see all the space that exists between electrons and neutrons even though it is really there. For instance, if you enlarge the diameter of an electron to the diameter of a pin hole then the closest electron to any atomic nucleus would be as close to the nucleus as the fortieth floor of a tall building is to the street below.

A lot of empty space *is really there* that we are <u>not</u> seeing at all!

So that's proof this frequency universe is fooling us as to its true nature.

Quantum theorists all know that using 'our common sense' as Einstein did will not work in a frequency universe. What I'm saying to you is that the macrocosm is also a frequency universe and 'our common sense' will not work there either, so we are forced to use deductive reasoning instead.

So for us, at a certain frequency, **all space vanishes**: but we do <u>start</u> seeing things as solids at a much **lower frequency** than the orbitals of these electrons. There is as much empty space between things in the microcosm as there is in our solar system but we don't see all this empty space do we? This frequency universe is fooling us making us believe that what we see built up are solids. But are they really? No! They are simply built of frequencies a bit too far from our detecting frequency area to see.

We can see motion, and actually build circuits, down to about a billionth of a meter. But we would have to shrink things down by a factor of an additional thousand from this — even more than a nanometer — to see the motions of electrons and this we cannot do.

Thus I am, more or less, in agreement with the quantum theorists that <u>our motion</u> — as we see it — does <u>not</u> exist in the electron's realm.

But, as Niels Bohr got the Nobel prize for showing, the electron is behaving — producing all the colors — exactly like <u>its</u> own space and time and motion <u>is</u> really there!

Motion (our concept of it) only exists in subset space-time realms of this universe and is restricted to those subset, spin/orbit frequency, space-time realms. The constant *c* proves this.

http://www.amperefitz.com/pr inciple-of-equivalence.htm So, this being a frequency universe all throughout, there is no such thing as **one** single type of **motion per se** for this **entire** universe.

THEREFORE:

Use Occam's razor <u>Occam's Razor-Wikipedia</u> and move your mind into each <u>separate</u> spin/orbit frequency realm at a time and view these as being in an <u>entirely different</u> space-time interval from us and having <u>not</u> our, but their own space-time and their own sort of motion and using <u>Ampère's Laws</u> and then you can see it all as one force and not the 4 fundamental forces that present science views it as.

The reason we have these *different* invisible forces is that we have these *different* frequency space-time realms.

It's as simple as that!

SORRY

You can't do all the math this way though.

I'm afraid that <u>math</u> along with our concept of <u>motion</u> is <u>restricted</u> to one single spin/orbit frequency space-time realm system *at a time*.

This is *why* there is no royal road of math *yet* to a grand unified theory!

This is also the main reason that first Faraday, who worked on it for years, and then Einstein, who also worked on it for years, failed to unify gravity with the other forces.

What Wheeler and Feynman told us was absolutely correct: We can discern things outside of our space-time realm but we <u>cannot</u> measure accurately outside of our space-time realm!

And if you have read and properly digested everything I have put forth herein so far, you now know the reason why what Wheeler and Feynman said is absolutely correct.

7. Schrödinger's Equation

&

Heisenberg's uncertainty

I'm certain that my readers will now ask the following question, "If this is a frequency universe all throughout then why can't we simply use the Schrödinger

Equation Schrödinger Equation

Britannica instead of using classical mechanics patched with general relativity patches such as we are now doing?"

Someday we actually will but we cannot do this today because of several reasons one of which is Heisenberg's

uncertainty <u>Heisenberg's</u> <u>uncertainty Britannica</u>, which as

Niels Bohr showed while arguing with Albert Einstein, has to be effective in the macrocosm as well as in the microcosm.

Measuring from our realm to the microcosm this uncertainty is greater than or equal to Planck's constant (h).

Beware! This Planck's constant (*h*) multiplication factor for uncertainty is **only valid** when we measure **in the microcosm**, <u>nowhere else</u>.

But measuring from our realm to the macrocosm, the multiplication factor is much, much greater than Planck's constant! The multiplication factor is different because we are measuring to <u>several</u> far, far different spin/orbit frequency space-time realms, more about that below.

Heisenberg's uncertainty — *in our new way of looking at this frequency universe* — exists <u>far more</u> when one measures outside of ones own space-time realm toward the macrocosm than our measuring in the microcosm!

The reason for this is simple: those other space-time realms will have a <u>far different</u> **space-time interval** from us.

The fact that we have these various *spin/orbit* spacetime realms is the real reason *why* we have Heisenberg's uncertainty.

If the space-time interval is different — different spin/orbit frequency space-time realm — then you may measure momentum but then you won't be able to accurately measure position in that other — spin/orbit — space-time realm. And those are not the only areas affected either.

Not only that but Niels Bohr was right because we even have a bit of Heisenberg's uncertainty in our own *spin/orbit frequency* space-time realm. It's so little it can hardly be measured but it is definitely there and it increases as the difference in frequency increases between the detector and the object being detected.

Again, we do **not** multiply by, Planck's constant (*h*), to get Heisenberg's uncertainty in the macrocosm!

The factor that we have to multiply by, to get Heisenberg's uncertainty — in the macrocosm — while transferring measurements inside our solar system — 1st spin/orbit space-time realm — to our galaxy — 2nd spin/orbit space-time realm — is not known but it is an extremely large factor. What's more, the second multiplication uncertainty factor for transferring our solar system measurements to the realm of super clusters

— 3rd spin/orbit space-time realm — is far, far greater than that first multiplication uncertainty factor.

The Hubble telescope shows this <u>increasing</u> — 2nd spin/orbit space-time realm to 3rd spin/orbit space-time realm — uncertainty factor to us **clearly** in no uncertain terms!

Therefore: Heisenberg's uncertainty factor is going to be a far, far greater factor measuring in our macrocosm than measuring in our microcosm.

Now here's some new information — perhaps even published here for the first time — well worth knowing:

It is **Heisenberg's uncertainty**, that is giving us <u>most</u> but not all of this elusive *dark matter* and *dark energy*, as we try to measure inside of galaxies and super clusters of galaxies. Some of this *dark matter* and *dark energy* is actually there, being caused by the spins of the galaxies and super clusters themselves.

Hence, Wheeler and Feynman were correct to warn us about our measuring in other — <code>spin/orbit</code> — space-time realms and Niels Bohr was correct arguing with Einstein that Heisenberg's uncertainty exists outside the microcosm as well.

Wheeler and Feynman did warn us about this measurement uncertainty when they told us we could never measure accurately outside of our own <code>spin/orbit</code> space-time realm but somehow our university — <code>military industrial complex</code> — experts were asleep at the switch on this one or maybe this was simply another of those things they

wished to conceal from us, hoping to catch Snowden igspace.



Snowden-Wikipedia before he revealed it.

Schrödinger's Equation — if things move slow enough — gives a splendid and accurately intricate view of the complicated standing wave world in the microcosm. It contains the element phi and what we are actually seeing in our macrocosm space-time realm is phi squared.

Future computers will someday give us a perfect match showing us how the standing wave world of Schrödinger's Equation — or the Dirac Equation if things are traveling too fast — matches perfectly with Newton's laws (corrected by general relativity).

Both in the micro and macro worlds in **all** of these cases, from quarks to super clusters, attractive force is caused by being more *in phase* and repulsion is a more *out of* phase case. The space between quarks, electrons, stars, galaxies and superclusters are all caused by the same mean or average out of phase factor.

So space, in this all frequency universe, is simply the average of these repelling out of phase forces.

It's as simple as that really. (We've proven all this and it's in the papers listed at the end of this. And we'll have the correct link here, for this that you can click, eventually.)

Since **space** is nothing more than the average or mean **out of phase** amount, then it's plain to see that space-time itself is quantized and photons — that need more explaining — need not move at all. Instead — a **quantum** (a tiny portion) of — the closest sides of an electron in your eye and the closest sides of the electron on a distant star you are looking at — that small **in phase** portion of both eye and star electrons — are both in the same space-time realm even though the rest of those two electrons are not.

In other words in equatorial electron bonding, a spin up electron is binding with a spin down electron, and that portion of their closest sides are bound together with an *in phase* bond. This is what is happening in a sigma chemical bond and also with Cooper pairs.

The amount of mass involved in this electron to electron binding is that of Planck's constant (h) and the amount of mass in one electron alone, in this binding, is Planck's constant divided by 2 (h/2).

Minkowski almost had it. He told us that both the star's electron and your eye electron had to be on the same light cone before you could receive light from a star. It's really that a tiny portion of both electrons must be in phase, therefore —instead of being on the same light cone — being in the same space-time set up. Even Einstein said he owed a debt to Minkowski who not only corrected a flaw in Einstein's math but helped Einstein enormously. Minkowski taught Einstein quite a bit about space-time and the space-time interval. It's a shame Minkowski died so early at 44.

Present science can't tell you what light waves are waves of. We, however can: light is actually only a frequency and not a wave. It's really nothing but an electron binding operation. You'll see that as we proceed.

Light, heat and radio — so called — waves are being produced at the electron spin frequency. But that is actually a tad higher in frequency from our space-time realm. The highest frequency that we can observe as a solid in our space-time realm is much lower than the electron orbital frequency.

Those who still adamantly believe in the aether — proved not to exist by the Michaelson Morely experiment — may now say it's these various space-time realms — that constitute aether — and are responsible for light waves. The answer to that is a sort of **no** but having said that you have to realize that even though space is produced by the average or mean of a multitude of vector out of phase forces it thereupon actually becomes, in essence, a scalar entity that progresses over us as we remain stationary within it. So if you remain stationary and both space and time — both scalar hence space-time — are a progressing scalar relationship about you who remain stationary — then light and other energy can also possibly be seen as wave like. Getting back to things we see by having these other space-time realms here, we do see a form of acceleration from the quark level — where its space-time is produced faster than ours is here — but that comes later.

I like to view — a quantum of — light and all other energy **not** as **a wave nor a particle** but as merely a loosening, then

gaining — at a certain frequency — of a binding with another electron in the surroundings: In other words, 'energy is merely a binding change — at a certain frequency — with another electron'.

I should amplify that — *light being neither a wave nor particle* — by saying this: it is best to say a quantum of light energy, from a distant star, is transferred to your eye after an

electron in your eye— While dropping to

a lower orbital — unbinds with an electron on that distant star and rebinds with an electron in your brain thus transferring that quantum of energy to your brain.

More about this below:

Massive numbers of Cooper pairs Cooper

pairs Britannica of bonded electrons —

whose closest sides are in phase — exist at almost absolute zero

absolute zero Britannica. This is

the Bose-Einstein condensate **Bose-Einstein**

CONCENSATE. But a few Cooper pairs — *in phase bound pairs* — do exist even at our temperature and some of us know they can exist as bound pairs even when separated as far apart as the Hubble limit. Light — *while a*

frequency— is not really best seen as a wave but is best seen as the result of a shifting binding change where, as you look at a star, a Cooper type spin-up spin-down bond between the electron in your eye, and that distant star electron is lost, collapsing your eye electron to a lower orbital thus adding that energy quantum, it lost, to your brain.

Your brain receives that voltage much like the spark in your car receives its voltage *after* the battery circuit, to the coil-capacitor, is broken.

That's what the light, you see, really is!

The proof of this is what we see happening in the

interferometer <u>interferometer</u>

Britannica: In fact if you read this then you be one of a few who knows **why** the interferometer works the way it does.

One type of interferometer has beam splitting mirrors. The current explanation is that if the beam does not go through the glass but is only reflected from the partially silvered side of the mirror then each quantum of light in this particular leg *gets phase reversed* and can cancel out a quantum of light from its opposite beam leg. This was

discovered by Humphrey Lloyd <u>Humphrey</u>
Lloyd <u>Britannica</u> in 1834.

Our explanation is essentially the same but with a slight twist: Our explanation depends on the *in phase* bonding of Cooper pairs.

Remember, Cooper pairs are spin-up spin-down. They are thus equatorially bound — their equators lie in the same plane — with tiny portions of their closest sides in phase. Thus we have an in phase, long distance, Cooper pair type bond: this bond being produced by those tiny portions of their closest sides that are in phase. (each, a half of quantum)

Now, take something to a mirror and try to read it. Even though the mirror image is not reversed up to down or left to right, something else happens: You can plainly see that the image you are trying to read in the mirror must be read backwards from right to left instead of from left to right. In other words the *phase* gets reversed — *as Humphrey Lloyd showed us* — in this leg of the interferometer giving us a phase reversal of 180 degrees for a Cooper type bond in

this leg. Interferometer.htm

A Cooper bond, 180 degrees out of phase — spin down — in this leg can completely knock out a Cooper bond — spin up — in the interferometer's other leg: The two cancel each other. No light at all is seen in that detector.

What I am telling you — present science doesn't — is that light doesn't really move through the interferometer legs. Instead a Cooper type in phase bonding occurs through those legs at the same rate that we see space being built. And that is the real secret to the interferometer.

So we are not seeing the velocity of light; we are seeing the rate that space is being built.

Now you know — especially if you clicked the interferometer link — why an interferometer really works.

And you know a bit more about space-time. And there is more to come about space and time.

Now you also know **why** photons don't really have to move at all. In fact, they **don't** move!

Here comes the **important** question now: Why is it significant to see that photons do not move?

Because the **important** thing you now know is that light is not a particle nor a wave. Light is merely a binding change.

All energy is produced via quantum binding change where a binding with the surrounding stars is switched to a close binding. This is all energy is!

Bindings can neither be created nor destroyed but they can be <u>switched</u> from far to near, creating energy.

Bindings can neither be created nor destroyed but they can be <u>switched</u> from near to far, creating inertial mass.

This is **why** we have **Einstein's E= mc2**.

Please remember what I said **space was**, earlier in this chapter.

Space, in this all frequency universe, is simply the <u>average</u> of these repelling **out of phase forces.**

If light is merely a binding change then the Michelson-Morley experiment makes sense because light does not have to move. **Light has** <u>no</u> velocity!

What is being seen as having this velocity is the building of space or the rate of change of **the <u>average</u> of these repelling **out of phase** forces.**

I am not destroying the standard model. I'm merely making it a bit more complete by stating that not only the photon but all the other force carriers such as the W+, W-, Z and the Gluons are simply the result of these binding operations with their respective same frequency surroundings and none of these force carriers have to really move.

Our answer as to **why** and how this really happens may even simplify significant problems yet inherent in the **weak force** where the W and Z particles are nothing like a no mass no charge force carrier particle like the photon. But that is to be expected with the W and Z force carriers of the **weak force**, because if the rules for gauge symmetry are applied to the **weak force** it gives results that are in direct contradiction to the data.

Once this is known to be a simple binding operation, then no force carrier particles have mass or charge. So this

may help settle the present *weak force* argument over those W particles having mass or not.

Those who publish first have the right to name things. If this book turns out to be the first published account of these force carriers being a simple binding arrangement, and also if I'm right about that then I suggest that this spot where this binding takes place is called the Minkowski spot. He gave us the light cone because he clearly saw that we were separated from distant stars in both space and time and for us to see those stars the light from us to them had to meet in only one place.

Please remember none of these force carriers move.

None of these force carriers have a speed!

The speed that we *think* we see in this frequency universe is really the velocity of change of **the *average* of these — *space producing* — repelling **out of phase** forces.**

I also intend to discuss the gluons in a later chapter about quarks.

I intend to extensively cover the weak force too.

God, I hope this doesn't turn out to be a long, long book because I've got a lot more things to do in life besides just sitting here writing this thing.

But it **is** worth sitting here and putting all this together if I can finally show — for the first time — where this so called but mistaken speed of light emanates from — and publish —

things like **Space, in this all frequency universe, is simply the <u>average</u> of these repelling **out of phase** forces.**

This is the question that has been asked now — with no answer until now — for over a hundred years: Why is the speed of light a constant?

Why is the speed of light independent of the velocity of the source and independent of the velocity of the observer?

The answer is, light is merely a binding change with the surroundings: It has no velocity!

And dear reader, you have seen this answer here first!

I hope Maxwell doesn't turn over in his grave as more people see this answer.

8. Rutherford's Atom

Ernest Rutherford E. Rutherford-Nobel

P. gave us our first solar system description of the atom when he discovered that the nucleus of the atom was a small massive entity around which the electron,

discovered by J. J. Thompson <u>Thompson</u> revolved.

Niels Bohr continued on with this orbiting electron concept and this concept remained for years, yet today this concept is considered sort of obsolete with the present view being that the electron is more like a wave in what is termed an orbital instead of an orbit.

While I agree with the present frequency view, I also must emphasize that if this universe is a frequency universe all throughout then all this spinning and orbiting that we see affecting things here, as Rutherford and Bohr correctly saw, also must be similarly affecting things in the microcosm.

Is it possible that what we see here is what the electron "sees" there? Pardon my improper use of "see" for the electron but I believe it paints the best picture.

Let's return to the Rutherford Atom in which electrons orbited around a nucleus.

Electric motors, stars, galaxies and even electrons, all spin and behave in relation to the <u>same</u> phase rules where there is a <u>binding</u> type attraction when both elements are in phase and more of a <u>repulsion</u> the more out of phase they are to each other.

In this frequency world of Schrödinger, we then see **why** the electron's spin/orbital frequencies are a separate

gauge from the quark's — much higher frequency spin/orbital frequencies, in today's quantum world.

From the Britannica 2009 DVD "Dirac, P.A.M.: English theoretical physicist who was one of the founders of quantum mechanics and quantum electrodynamics. Dirac is most famous for his 1928 relativistic quantum theory of the electron and his prediction of the existence of antiparticles. In 1933 he shared the Nobel Prize for Physics with the Austrian physicist Erwin Schrödinger."

We cannot see into the space-time realm (gauge) of the electron at all; however, we can learn its gauge rules. Quantum theory is built solely on our observances of tiny individual pieces of energy (quanta) that are either created or absorbed when mass-energy balances in the electron's space-time realm have changed. This is all that realm (gauge) lets us see of it. From this, we know the electron "sees" itself and acts far differently from what we see is happening in our space-time realm. The electron appears to "see" itself as both a wave type resonance and a sort of spherical spinning particle. Niels Bohr won the Nobel Prize for showing us how this particle-orbit aspect of it caused the various light colors. A bit later, P. A. M. Dirac showed us the spin fine structure of the electron.

From Britannica 2009 DVD "Gödel's proof first appeared in an article in the Monatshefte für Mathematik und Physik, vol. 38 (1931), on formally indeterminable propositions of the Principia Mathematica of Alfred North Whitehead and Bertrand Russell."

Kurt Gödel <u>proved</u> that those who cannot see the <u>entire</u> universe might assume what they saw were universal

laws; when instead these would really be nothing but subset rules, that applied only to their subset realm. Have

we made this mistake? Are our **NATURAL**

LAWS merely *subset* gauge rules, similar to those *subset* gauge rules used in quantum mechanics?

From the Britannica 2009 DVD - "Gauge Theory: class of quantum field theory, a mathematical theory involving both quantum mechanics and Einstein's special theory of relativity that is commonly used to describe subatomic particles and their associated wave fields."

This turns out to be a *phase related universe*, in which everything has a certain *phase relationship* to its surroundings. Future super-computers will someday

express all of our **NATURAL LAWS** in the simple terms of nothing but *phase relationships*.

Yes, this is totally ironic — to what we are now being taught — but yet absolutely true!

We get the right answers by using both this concept of motion, used by Niels Bohr and the concept of *Mach's principle*, regardless of their diminution among many of my present peers.

The movement away from the way **Bohr** saw it, may seem correct but if you entirely forget *relative motion* and the orbiting, spinning particle that **Bohr** saw then you really lose sight of what's going on in a big way *because you lose the extremely important concept of phase*. You **must** also understand that these things are acting as **both** particles in **motion** *and* resonances depending on which gauge (*space-time realm*) the observer is in. You must look at these things **both** ways. So in science too, you get better depth perception if you use **both** eyes to see. **Bohr** got the Nobel Prize for seeing electrons as planetary objects on orbits.

Quoting the Britannica 2009 DVD "Phase: when comparing the **phases** of two or more periodic motions, such as waves, the motions are said to be in **phase** when corresponding points reach maximum or minimum displacements simultaneously. If the crests of two waves pass the same point or line at the same time, then they are in **phase** for that position; however, if the crest of one and the trough of the other pass at the same time, the **phase** angles differ by 180° , or π radians, and the waves are said to be out of **phase** (by 180° in this case)."

We see both space and time in the electron's realm more highly compressed than our time and space. We see time

and space in the quark's realm (another very different

electron's. Events in the microcosm happen much, much faster than events in our realm here; just as events in the

macrocosm seem to happen slower than they do for us here on earth. These are **all gauge** theory road signs we can no longer ignore!

Niels **Bohr** won the Nobel Prize for seeing electrons as spinning, spherical particles on orbits. I know that some have relegated that idea of **Bohr's** to the dim and distant past and **Bohr's** orbits are now being seen by some as a wave function orbital cloud with **Bohr's motion** missing. This is a mistake! I'll agree that the wave function orbital is there but so is **Bohr's motion**. You had better apply that old **Bohr** concept again to see how phase enters the picture. You will then see exactly how all this works.

Having said that, I must also add the caveat: You must understand exactly what **motion** is and the spin/orbit frequency parameters inside of which it must remain: You cannot say the **Rutherford-Bohr** electron **motion** does not exist in the microcosm!

In this Wolff-Schrödinger frequency universe, all forces are nothing but *phase* relationships:

Here's the <u>real reason</u> for magnetism and also sigma and pi chemical bonding: Two electrons, with the same spin on the same spin axis, polar attraction, magnetically/chemically attract when both <u>entire</u> spins are in phase and, in magnetism, this polar attraction is strong because both <u>entire</u> electrons are spinning in phase with each other. Their <u>entire</u> spin frequencies are in phase. The equatorial side to side magnetic attraction of a spin up with a spin down electron is a

weaker attraction —— the same as the side to side attraction of two reversed pole magnets is a weaker attraction — because only the closest sides, of the electrons causing this magnetic phenomenon, are in phase. Please read these paragraphs <u>below</u> several times until you get a clear picture of this important motion concept: Chemical bonding is *in phase* bonding exactly like magnetic bonding. However in chemical bonding, these sigma and pi — respectively equatorially and polar — bonding strengths are reversed from the way they are in magnetic bonding: Pi bonding — same spin, same spin axis, polar attraction — should be the more powerful chemical bond. But it is <u>not</u> because it is a repetitious but only very short periodic, polar positioning —— involving a momentary on in phase bond but it's mostly off and out of phase while a sigma bond spin up with a spin down electron is a steady equatorial bond over a <u>much</u> <u>longer</u> constant time period; thus it becomes the stronger bond of the two. Of course,

this is viewing things as Ampère and Nobel Laureate Niels Bohr saw them.

This Ampère-Bohr concept is consistent, in all space-time realms, showing you <u>all</u> the fundamental invisible forces are caused this same way by <u>similar</u> *phase* relationships!

One of the **absolute proofs** that the **Rutherford-Bohr** orbital **motion** actually exists in the microcosm is that the sigma bond is stronger than the pi bond. How can this exist unless there is real orbital motion there? It has to be that the two spin up, spin down sigma bound electrons keep spinning in the same plane _ producing the sigma bond over a far longer length of time _ than the polar pi bond that is only a short but repetitious bond whenever those two electrons, having the same spin, happen to pass directly over each other.

So the **Rutherford-Bohr** electron in an orbit **motion must** be the event that is happening in the microcosm.

The present view of the electron wave orbital **doesn't** give a reason for the polar bond being the stronger bond in magnetism while the same polar bond is the weaker bond in chemical bonding.

The **Rutherford-Bohr** view of an electron in **motion** in an actual obit **does** explain these strength **reversals**.

Therefore: This is solid proof of the old Rutherford-Bohr concept of an electron not only in orbit but in actual motion around the atomic nucleus.

This is <u>proof</u> that the electron really orbits the nucleus.

Case closed!

More to come.

"Pontem perpetui mansuram in saecula mundi."

Lacer

DPFJr

See: ABSTRACT

More coming — — eventually — — —





Read "More about Dark Matter and Dark Energy." FREE in ADOBE pdf.



Copied from the 2013 Britannica DVD: "gravity wave also called gravitational radiation:

the transmission of variations in the gravitational field as waves. According to general relativity, the curvature of space-time is determined by the distribution of masses, while the motion of masses is determined by the curvature. In consequence, variations of the gravitational field should be transmitted from place to place as waves, just as variations of an electromagnetic field travel as waves. If the masses that are the source of a field change with time, they should radiate energy as waves of curvature of the field."

Evidence for gravity waves was obtained by studying the changing orbital period of a neutron star binary, resulting in the 1993 Nobel Prize in Physics.



If you copy this page with its <u>links</u> to your computer then you will have some other pages (<u>links</u> - both htm and Adobe pdf) to read because I've only barely scratched the surface of things in this short paper.

Fitzpatrick's website is at http://www.amperefitz.com

Another older website carrying Fitzpatrick's works FREE is: http://www.rbduncan.com

Thank you, World Scientist Database — — Daniel P. Fitzpatrick Jr.

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<u>http://amperefitz.com/answers.to.mendel.htm</u> "Dan Fitzpatrick comments on Theoretical Physicist Mendel Sachs' Beliefs."

<u>http://amperefitz.com/quarkmspin.htm</u> "While the electron spin causes magnetism, GRAVITY & INERTIA are caused by the QUARK SPIN."

<u>http://amperefitz.com/abstract.htm</u> "ABSTRACT of scalar, standing wave concept."

<u>http://amperefitz.com/lawrm.htm</u> "It all begins with this all important science law."

<u>http://amperefitz.com/energy.htm</u> "All energy is a form of binding energy." (science) e-letter by Fitzpatrick.

<u>http://amperefitz.com/dark.m.e</u> Why NASA tells us we have 72% Dark Energy, 23% Dark Matter and 4.6% Atoms.

<u>http://amperefitz.com/gold1.html</u> More wave and scalar wave questions answered by Fitzpatrick.

<u>http://amperefitz.com/fermbos.htm</u> ELECTRONS are fermions but not when paired spin up - spin down."

<u>http://amperefitz.com/bond.strengths.htm</u> "Sigma Bond strengths in the microcosm."

<u>http://www.amperefitz.com/acceleratingexpandinguniverse.htm</u> "Accelerating, expanding universe."

<u>http://amperefitz.com/not.quite.everything.for.a.theory.of.everything.htm</u> "Not Quite Everything for a Theory of Everything."

Schrödinger's Universe Schrödinger's Universe

<u>http://rbduncan.com/why.we.have.gravity.htm</u> "Why we have GRAVITY and why we have Centrifugal Force.

<u>http://amperefitz.com/einsteins.blunder.htm</u> "Einstein's Biggest Blunder — Wasn't?"

<u>http://amperefitz.com/plawrm.htm</u> "Electrons normally repel BUT . . . " says Dan Fitzpatrick Jr.

<u>http://www.rbduncan.com/letter_june2004.htm</u> "And Hubble warned us this was NOT an expanding universe."

http://www.rbduncan.com/binary.htm Binary Stars act exactly like Electrons.

<u>http://rbduncan.com/TOEbyFitzpatrick.htm</u> A "Theory of Everything" by Daniel P. Fitzpatrick Jr.

http://rbduncan.com/boson+.htm Bosons?

<u>http://www.rbduncan.com/letter_june2004.htm</u> Newton and Einstein only gave us HALF the story.

<u>http://www.rbduncan.com/mybook.htm</u> "A New Science Tool" (science) e-book by Fitzpatrick

<u>http://rbduncan.com/Gspeed.htm</u> "Speed of Gravity is 9x10¹⁶ meters per second."

<u>http://rbduncan.com/phase.coherence.htm</u> Phase Coherence and the Inverse Square law.

<u>http://amperefitz.com/lisiimp.htm</u>
"Why Garrett Lisi's Model is so important."

<u>http://amperefitz.com/ffacts.htm</u> "Little Known Facts about Well known science Terms" (science) e-book by Fitzpatrick.

Mach's principle

Stephen Wolfram

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"Ampere really gave us this Relative Motion Law in 1825 for things he knew were moving in the wire (electrons)."

http://amperefitz.com/relMlaw.pdf

"Fitz talks about some basic problems in physics." — by Fitzpatrick.

http://amperefitz.com/3dec2006.pdf

"Little Known Facts about Well known science Terms" (science) e-book by Fitzpatrick:

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"All energy is a form of binding energy." (science) e—letter by Fitzpatrick.

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"Shedding light on Energy Quanta."

http://amperefitz.com/letter_july2003.pdf

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Daniel P. Fitzpatrick Jr.

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Daniel P. Fitzpatrick Jr.
May 18, 2013

If any of your work seems to correlate to my findings then please write to me at:

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