

# Phase Symmetry

makes quantum theory  
more complete.

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"Someday we'll understand the whole thing as one single marvelous vision that will seem so overwhelmingly simple and beautiful that we may say to each other, 'Oh, how could we have been so stupid for so long? How could it have been otherwise!' " (John A. Wheeler)

"After the needed additional frequency rules, math and computers arrive, John Wheeler's abovementioned statement will be proven correct beyond a shadow of a doubt. Phase symmetry, even now, clarifies a good portion of quantum theory." (Richard Mark Fitzpatrick)

This is copied from Scientific American Nov. 11, 2013:

<http://www.scientificamerican.com/article.cfm?id=electron-spherical-electric-dipole-moment>

The most precise measurement yet of the electron's shape casts doubt on ideas such as supersymmetry that predict a zoo of undetected particles in the universe. . . .

Scientists are unanimous that their current theory of physics is incomplete. Yet every effort to expose a **deeper theory** has so far disappointed. . . .

Well, herein is a **deeper theory** that will **not** disappoint scientists:

While a perfectly spherical electron cannot be a dipole in supersymmetry, an electron that is a perfect sphere most certainly can be, *and is*, a dipole in phase symmetry.

This Scientific American article is **E PLURIBUS UNUM** - or - **ONE**

**AMONG MANY** of the nails that are building the coffin of supersymmetry that will in time pass entirely away like the ancient Egyptian religion of Amun, which was a long time ago, also believed by many in this world.

We equate a good bit of science belief today, much like a good bit of religious belief today.

All religions have some of it right: *do good and avoid evil*. In most of the rest of it, they argue. Today's science is similar in that they have some of it right but in most of the rest, they argue.

Scientists argue simply because they don't have the correct model yet of what is really going on in this universe.

A good example of this is the concept that electrons repel each other because they have a negative charge. This is not a good concept because only totally free electrons repel each other. Ampère (Chapter 5) showed us electrons traveling in the same direction attract each other: only phase symmetry shows why that is. Present science can't!

So the best model to use, for the finest science explanation as to why electrons attract each other in magnetism and pi & sigma chemical bonding, is this **phase symmetry** model.

You'll discover herein, that space, time and everything else you know about are built solely from frequencies and **phase**.

Therefore it's simpler and probably better to entirely dispense and forget both the magnetic field concept and the electron charge concept and instead concentrate only on this **phase** concept.

Present science is based on the Faraday-Maxwell field concept where engineers can program this field math into the computers needed

today in this industrial society.

You wouldn't have everything you have today if it wasn't for the Faraday-Maxwell field concept.

Einstein used this field concept all his life but then in 1954 about a year before he died, he said this, *"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."*

In 1954 Einstein essentially told the world he could find no mathematical field solution that would explain how this universe works: No matter how hard he tried, Einstein could not get any type of field math to explain this universe.

The reason Einstein failed is because it's too complex of a field in that half of these forces emanate from the surroundings because Ernst Mach was right: we do indeed have Mach's principle!

A field results from a myriad number of single quantum forces, the plural of which is quanta. Trillions upon trillions of these quanta, therefore, make up the field in which our universe works. But this is most certainly a very complex field, even one that Einstein couldn't figure out.

What we are interested in is why we have each one of these individual tiny forces. Einstein was most certainly right in telling us not to waste time on multiple quanta (fields). Try instead to find out what causes each quantum.

That's what this paper is all about. In this, you are going to find out *why* we have each of these quantum forces.

We've tampered with the King's English a bit herein: Commas have been removed around many conjunctive adverbs for better readability and spaces have been inserted around dashes to better emphasize important science items.

## Abstract

Since you can't judge a book by its cover, we are going to give you an **abstract** of this right now so you can decide immediately if you want to read this explanation of phase symmetry 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.

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

We also show the **why** in quantum theory because we show the relevance of quantum rules to phase and frequencies. This clears up many quantum mysteries such as *collapse of the wave function*.

The term '*entanglement*' (a long distance *attraction*) was first coined as a derisive term by Erwin Schrödinger — *neither Einstein nor Schrödinger believed in it* — much like the term '*Big Bang*' was coined as a derisive term by — *steady state believer* — Fred Hoyle. But both terms have reversed course, so to speak, because now both terms describe things that we have ample proof of. Much of our book has to do with '*entanglement*'.

The year before Einstein died, as shown herein, he was completely disparaged about the field concept. But, we perceived, this field concept — *in classical mechanics* — seems to be the end result of trillions of trillions of quantum type forces. Is this what is causing — *not only energy but* — gravity, inertial mass and even our space and time?

Believe it or not, *we found* — *and prove herein* — **it is!**

In this book we finally break, as Arthur Schopenhauer called it, the veil of Maya mentioned in the Hindu scriptures. [Veil of Maya Vedanta](#)

# 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.

So say we: R ichard Mark Fitzpatrick CEO and founder of **Magpul** and Daniel P. Fitzpatrick Jr. (Authors)

We simply had to write this first Gambling 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.

In this book we're going to show you **WHY 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 [Pope-Britannica](#) & 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**  
We have gravity and all these objects in the sky."

Huygens [Huygens-Britannica](#) congratulated Newton [Newton-Britannica](#) on his great mathematical accomplishment giving us his gravitational laws, but Huygens also criticized Newton about not finding the answer as to **WHY** 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 **new** quantum theory [quantum theory model](#) — *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. Phase Symmetry Quantum theory model.

This scalar, standing wave [standing wave-Britannica model](#) — a **new** **Wolff**, **Ampère**, **Mach** Phase Symmetry Quantum Theory **Model** — is the **only** single **model** that explains this **entire** 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 model 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 our premise even before we heard Wolfram state it — that a simple model can explain a complicated universe, we 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 orbiting 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?

We found that absolutely nothing in either classical mechanics or quantum mechanics could explain this until we put four major entities together: The simple **phase symmetry** model answer came after combining quantum theory with what Wolff, Ampère, Mach — *and a*

*few other scientists perhaps* — had been saying.

Please do not think that we 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 our **simple model** completely explains the complicated activities of the electron, we now see that our **simple model** seems to even explain the mysterious activities of the quarks as we convert portions of quantum theory into a more **simpler model** — *compared to QCD* — of *equivalent* frequencies and phase.

Frequencies and phase, we found, were of supreme importance to this *entire* universe, not just the microcosm.

Science is riddled with bad concepts which we bring to light. For instance if we asked how long it took the earth to make one complete turn in space, most would say, '24 hours'. Well that's wrong! Every astronomer knows it is 23 hours, 56 minutes and 4 seconds. This, they refer to as a sidereal day; look it up.

Yes, in regard to the sun the earth turns once in 24 hours but not in regard to space. Getting answers by intuition and failing to look at all the facts is the biggest problem we have in science today. The best science is like the best forensics. It requires sifting through tons of information and then applying Bell's axiom:

'Find all the facts first; then eliminate the impossibilities. Whatever remains, however *improbable*, must be the truth.'

For instance, quantum theory originally began with Max Planck [\*Planck-Britannica\*](#) who made a speech one evening explaining that energy,

for some *highly improbable* reason, had to be arriving in small packets or quantum chunks. Einstein [Einstein-Britannica](#) 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 in Copenhagen. These same years in America, Henry Ford gathered people around him diligently cranking out Ford Model T cars. America and Denmark, in those years, cranked out one new miracle after another.

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."

A few, however, will now exclaim, "Good God! Don't the Britannica people know that entanglement (*ultra long distance attraction*) has now been proven correct beyond any doubt whatsoever proving Einstein and Schrödinger wrong; therefore quantum theory **is complete**."

Well, Einstein was right in saying, "Quantum theory is not complete."

He was wrong, however, in arguing against quantum theory fundamentally because fundamentally quantum theory is correct; it's simply not complete.

Yes, entanglement (long distance *attraction*) **is correct** — *Einstein and Schrödinger*

*were wrong about that* — we show that but we also show a **more complete** quantum theory than the one we have now.

Are you ready for a *new* **more complete** quantum theory model?

**Why** we need this *new* **more complete** Wolff, Ampère, Mach, Phase symmetry, Quantum Theory Model:

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

We **also** 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 iceberg, 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 repelling, 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!" ("[Gott wuerfelt nicht.](#)") ("*God doesn't throw dice.*")

Einstein, who had discovered many of quantum theory's famous discoveries, made an abrupt reversal in October of 1927 and then

began his great arguments with Niels Bohr — *lasting until 1954* — **against** quantum theory belief saying, "Quantum theory was not complete." He was correct in saying this but his attacking quantum theory itself was wrong. Most scientists at that time thought it was incredible that a man of Einstein's stature doubted the validity of quantum theory. Many have delved into the mystery of why Einstein did this. We know why Einstein did this: Einstein believed that the **separation principle** was an inherent part of the foundation of every field theory including his own deterministic general relativity field theory. There is no doubt whatsoever that Einstein **strongly** believed that a quantum theory that incorporated '*entanglement*' would also, of necessity, reject the **separation principle** thus quantum theory — *according to Einstein* — had to be incomplete. Einstein saw quantum theory also denied determinism which was another foundation stone of Einstein's belief.

Einstein's belief — *not his cosmological constant* — was Einstein's biggest blunder. Einstein somehow never saw that fields were the inevitable result of a myriad of individual quantum forces. In fact his firm belief in field theory and his deterministic belief kept Einstein from seeing the big picture and this model that we will presently show you.

A big part of today's science advancement is '*entanglement*' and we show herein that what science sees now is really only the tip of the '*entanglement*' (*attraction*) iceberg.

Keep reading to find that light stems from an ***in phase*** attractive binding '*entanglement*' force.

We show, in this book, that a vast multitude of tiny in phase attractive binding forces are an '*entanglement*' force that causes both mass and inertia.

If you read this book you will see that not only is this a frequency universe all throughout but the top symmetry is phase symmetry. Also you will see this new model shows us that all attractive forces are caused by entities *in phase* and all repulsive forces are caused by entities that are *out of phase*.

But that is not all, only in this phase symmetry model do we see how frequencies build our space:

\*\*\* very important \*\*\*

Our space — *the very opposite phase of entanglement* — is being produced via a vast multitude — *a mean or average* — of *out of phase* forces.

\*\*\* very important \*\*\*

**Therefore, one who does not know exactly what spacetime is, frequency wise, simply cannot make any logical deductions about this universe. *This is what happened to Einstein.*** This is a powerful statement but nevertheless true.

The best sailboats have a keel. Mileva Maric [Mileva Maric-Britannica](#) may have been Einstein's keel, because after she left, Einstein's sail seemed to catch every wind and go every which way.

God does indeed gamble using spinning, scalar, standing waves (*that both bind and repel in a myriad of ways*). What Einstein perhaps 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.

Niels Bohr may have suspected what we did, that this is a frequency

universe all throughout, and if so then certain classical aspects could be brought into the microcosm, which he did and got the Nobel prize for doing.

The fact that Bohr realized that he could bring elements of classical physics into the microcosm puts Bohr, in our estimation, far ahead of Einstein and even today's scientists, in understanding this universe.

And now we see Niels Bohr — *commenting on Einstein's, "God doesn't gamble"* — 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.

Both of us authors 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, Phase Symmetry, Quantum Theory Model** shows you **why** you have all these infinite number of probabilities that Einstein hated.

This new **Wolff, Ampère, Mach, Phase symmetry, Quantum Theory Model** shows you **how** you can **eliminate** most of these infinite number of probabilities.

## 2. My involvement

I — *Daniel Fitzpatrick* — can't remember exactly what year it was that I read about Ampère's laws 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 **all** the other forces simply being caused by *relative motion*. Lincoln Barnett [Lincoln Barnett-Wikipedia](#) wrote me a letter of approval about the book. I gave several of my books to Peter Wojtowicz who was working with Dicke at that time. Scientist Robert Dicke wrote — *in a science encyclopedia in 1969* — 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 *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) are giving us proof that gravity is being caused by relative motion or phase.

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."

Both Dicke and Einstein knew gravity was a frequency. Einstein even claimed it could be polarized. Well, you will see later that each quantum of light or gravity is super polarized. Each quantum pair must line up exactly 360 degrees not merely every 180 degrees. The quantum pair — *exchanging light, gravity or inertia* — must be perfectly in phase. The entity that exchanges a quantum of gravity or inertia is spinning at the square of the frequency of the electron that exchanges light energy. This is a case where the stronger entity produces the weaker force simply because there are fewer of these entities free and available. 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.

*[\(Click this link.\)](#)*

*[FREE E-book http://www.rbduncan.com/1pge.html](http://www.rbduncan.com/1pge.html)*

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 <http://www.quantummatter.com/> 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" wolframscience.com/nksonline/toc.html](http://wolframscience.com/nksonline/toc.html)

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.

Even though we completely understand the concept of electrical standing waves on wires, Milo tells us, "The only standing wave allowed in free space is a **scalar**, spinning, standing wave".

While Heisenberg gave us a good *mathematical* description of our measuring problem, Wheeler [Wheeler-Britannica](#) and Feynman were pointing out to everyone an even more important *model* measuring problem that had eluded Heisenberg: we simply cannot measure accurately inside of another spacetime realm **different** from ours.

**A different** spacetime realm from ours is any spacetime realm with a **different** spin/orbit frequency from ours **whether it is in the microcosm or macrocosm.**

But **nobody** in these universities are even heeding **Wheeler and Feynman's warning** — *especially when determining distances in the macrocosm* — about this particular aspect of measuring things in **other different spacetime realms**. More — *extremely important aspects* — about this in Chapter 7.

I was also amazed, while chatting on the internet with Tom Van Flandern <http://www.ldolphin.org/vanFlandern/gravityspeed.html> 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.

**This is an extremely serious MAJOR science disagreement and a flawed inconsistency of present science beliefs.**

This serious science disagreement — *one among many of them* — proves that science is still in a transitional period and these transitional periods are always dysfunctional where even the most widely held beliefs are overturned.

**We saw this was a serious problem that had to be solved and it was by some revolutionary new science thinking.**

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

Returning to the inconsistency of the astronomer's need for gravity to act instantly and Einstein saying it couldn't, we cover this in Chapter 9 where we show who wins this argument. Yes, one side wins conclusively.

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.

Einstein and Swiss mathematician Marcel Grossmann published a general relativity theory in 1913 but it was erroneous because they gave field equations that were not invariant.

We, however, give Einstein an A+ for publishing his 1915 general relativity field equations, which were equations he and Grossmann had previously wrongly rejected. [general relativity](#) Einstein also gets an A+ for writing that letter to Roosevelt on August 2nd 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: Mach's principle depends on 'spooky action at a distance' — *Einstein's own expression* — that Einstein entirely rejected.

This inconsistency of Einstein's reasoning allows both of us authors to be convinced that Mach's principle was more of Mileva Maric's belief than Albert Einstein's.

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

Einstein's 1915 general relativity gravitational field equations are tops: these equate — *at a certain spot* — the mass-energy with the curvature of spacetime, which determines the *geodesics* or paths in which things move in that particular spacetime area.

While this is indeed great, these like Newton's laws are field equations. Field equations are only good in showing us the resultant force of trillions of quanta. This is not what we want! We want to know *why* these individual tiny forces are here.

We really want to know *why* we have each one of these quantum forces and *why* these quantum forces give us gravity, inertia and energy.

During my four score years of life, I came out far better using *deductive reasoning* while looking at all 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 my son Richard Mark, 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 *either* 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. Milo Wolff, at 90 years of age, drove me back to the John Wayne airport on that busy California expressway, keeping right up with all the traffic. He's a better man than I am doing that. Milo was one of that celebrated bunch that got us to the moon.

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. Later I wondered about the rest of them that taught other things.

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 Frederick 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 **enormous** *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. (More about why, these esteemed experts think this must be so, in Chapter 13.)

My ***deductive reasoning*** told me that we had to look at **all** the concepts available and the concept in which all the forces were unified — *regardless of how **improbable** it was to those in the universities* — had to be the correct concept.

And if I looked at quantum theory and added what **Wolff** and **Ampère** and **Mach** said then there, right in front of me was the answer, a concept — *a simple model* — in which 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 spacetime level.

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

Not only did this **Wolff, Ampère, Mach, Phase Symmetry, Quantum** concept unify the forces but this new concept shows exactly what both space and time are as well.

This new concept mandates that spacetime must also be quantized as well as energy. More about that in chapters 10 to 13. And in this new simple phase model, energy quanta used to create matter can be but a very tiny fraction of the total mass of an already **existing universe**:

**In this simple phase model all energy must be equated with missing mass from a binding change ( $E= mc^2$ ).**

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* — inertial mass, from the surrounding stars, into energy. If absolutely no mass — *in the form of surrounding stars* — was here in the beginning, then where does all this energy come from to build a brand spanking new universe?

**Energy can only come from inertial mass. And this loss of mass**

**creating energy, is *always* derived — *via Mach's principle* — from the inertial mass of the surrounding stars.**

**While this might be difficult to see right now, it will all become crystal clear to you as you finish reading this book of ours.**

In chapter 3 we cover Dr. Milo Wolff's concept of this being a scalar, standing wave universe. Each standing wave level remains stable providing not too much energy is gained or lost in that level (M. Wolff's Principle II).

So this new concept shows us conclusively — *an idea George Gamow may have beaten us on* — that an all neutron universe must have been here first and a slow leakage of energy — *either into or out of the quark realm* — changed the neutron system enough where individual neutrons were no longer stable and this, previous stable, earlier all neutron universe went into a sudden beta decay [\*beta decay-Britannica\*](#) which stopped when the original neutrons, that were not converted into protons and electrons by beta decay, were safely ensconced inside of atoms.

The **basic** smoothness of the CMBR (*cosmic microwave background radiation*) proves **beyond a shadow of a doubt** that this beta decay of an already existing all neutron universe is what happened.

**Not only that but there are other major problems with the standard Big Bang theory:**

In the standard Big Bang theory the universe is always bigger than the distance — *at the speed of light* — this heat must travel, thus this universe — *with the present CMBR thermal equilibrium* — could not have begun at **one small place**.

The **basic** smoothness of the CMBR shows that the **thermal equilibrium all over is much too smooth** for this universe to have

begun in **one small place** as many today mistakenly maintain.

A major problem with the standard Big Bang theory is the WMAP satellite observations of a flatness of  $\Omega = 1.0$  that **cannot be explained** by a universe that began at **one small place**.

Yet this  $\Omega = 1.0$  flatness **can be explained** easily using an already existing neutron universe that underwent a beta decay.

The universe must have started out extremely flat — *if we extrapolate back in time* — to have an  $\Omega$  flatness of 1.0 now as mapped by the WMAP satellite.

Those above problems are **major problems** for anyone believing in the standard Big Bang theory.

But they are **not a problem** for anyone believing in an all neutron universe suddenly undergoing a beta decay.

This sudden beta decay better explains the initial "*cosmic inflation*" [\*cosmic inflation-Britannica\*](#) which supposedly 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 (CMBR) makes far, far more sense.

Therefore, the first part — *the first ten thousandth of a second* — of the Big Bang needs changing: Most published estimates of the Big Bang timing show us that neutrons must have been produced in *less than* a ten thousandth of a second after the Big Bang began. Since we claim neutrons were already here then only about a ten thousandth of a second of the presently believed Big Bang really needs to be changed. But after that first part — *the first ten thousandth of a second* — everything else

now believed about the Big Bang, of how all the hydrogen atoms and helium atoms were first created, is quite correct.

So all we are asking you to do is change the Big Bang's first ten thousandth of a second.

And this new concept agrees with what Wheeler and Feynman said that we cannot measure accurately when we dip into all these **other spacetime 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 our present science model* — isn't it?

This new concept changes all that: We intend to show **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 from 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.

So we saw if '*common sense*' didn't work in either quantum theory or classical mechanics, using relativity patches, then perhaps there might be another bit of reasoning that did work. We searched for it and found it visualizing a frequency universe all throughout where *phase* played the key role in both micro and macro worlds but where *phase* was best seen as *relative motion* in the macro world and even in the micro world if one was careful — *as Niels Bohr was* — in the way it's used.

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 begin to see frequencies as solids in a narrow frequency band starting much lower than the electron orbiting 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. This we would see if we were in an all frequency universe.

So our involvement in all of this is simply trying to turn everything *we think we see* into actual **real** frequency relationships or relationships that can be better explained using *phase* or *relative motion*.

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 **only in the microcosm**. It simply **defies logic!**

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

We're certain this is a **frequency universe all throughout** so why not look at what we have to say.

### 3. Dr. Milo Wolff's frequency universe

Dr. Milo Wolff [Dr. Milo Wolff http://www.quantummatter.com/](http://www.quantummatter.com/) has given us a scalar, standing wave frequency universe and we are 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 [Bird wattmeter-Wikipedia](#) 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 not radiate 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!

*This is what makes the field problem impossible to solve.*

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 spacetime realm or too much energy leaks out of that electron spacetime realm.

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

Thus each particle spacetime 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 spacetime realm.

**It is of paramount importance that you know this.**

**A certain type of energy leakage either into or out of the quark spacetime 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 galactic cluster to super cluster etc. Both space and time — *spacetime* — 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, spacetime 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 spacetime realm. We do see certain spin frequency spacetime 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 galactic cluster 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 differences, we note, in the phase symmetry of each of these standing wave spacetime realms is most probably determined by its bordering spacetime realms but with its higher frequency — *higher energy* — neighbor having the greater influence.

Hence, 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 spacetime realms seems to us to differ, It really doesn't once you see *this is a frequency universe* and the laws that determine entity size and the distance these entities remain apart are the same in every different frequency spacetime realm: they all obey Ampère's **phase** laws, provided we look at it the way Niels Bohr and Ampère 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. Thus the concept of '*entanglement*' began.

This '*entanglement*' concept is what, both Berkeley and Mach said, is causing inertial mass. While this concept is valid for both quarks and electrons, the word '*entanglement*' is presently used mostly in regard to electrons.

Einstein didn't know that Berkeley thought of this inertial '*entanglement*' concept first, so Einstein called it *Mach's principle* [\*Mach's principle\*](#).

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 or more distant bonding* — is accomplished when the **closest sides of both electrons are in phase**. *Shown to us by Ampere* <http://www.amperefitz.com/Ampere>

And in this we now see what '*entanglement*' (long distance *attraction*) really is!

Therefore you get attractive '*entanglement*' 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 none of these forces is gravitational in nature.

Quark spin is presently seen as not conserved but quark spin is conserved if we consider **certain quarks are binding with distant similar quarks in the surrounding stars through in phase binding to give us inertia while similar not so distant quark bindings give**

## us gravity.

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 our 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 we 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 **detect** things in other space time realms but we have problems measuring them:

So you cannot measure *quark spin produced space* being produced by an entity — *a down quark* — spinning at the square of the electron spin frequency — *a resonance* — of your space; in fact you won't even be able to measure the space that a quark is producing as space but you most certainly can **detect** 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'expérience* (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."

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 and in Chapter 7, 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. All of those writings are **not quite correct: Ampère wrote nothing about fields!**

The **field concept** came later from Faraday and Maxwell and as Einstein shows us, it turned out to be a **bad mistake** because as you will see in chapter 10, **we don't have math and rules for the fields these forces produce.**

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 **nothing to do with fields**.

**This below essentially is what Ampère said** about long parallel wires:

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 — *electrons* — are behaving in relation to one another. This tells us essentially the idea of plus and minus **charge 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, phase is a better concept to use than **charge** (positive ions and negative electrons).

Ampère's absolutely correct in **all** cases, phase 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: [Ampere's Laws](http://www.rbduncan.com/Ampere)  
<http://www.rbduncan.com/Ampere>

OR [Aufbau Laws](http://www.rbduncan.com/aufbaulaws.htm) <http://www.rbduncan.com/aufbaulaws.htm>

OR <http://www.rbduncan.com/theALaws.htm> <http://www.rbduncan.com/theALaws.htm>

OR [Relative Motion Law](http://www.amperefitz.com/lawrm.htm) <http://www.amperefitz.com/lawrm.htm>

OR [Gold Universal particle relative motion law](http://www.amperefitz.com/plawrm.htm) <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, is something that we still can't figure out!

*6. Richard Feynman's important*

# *addition of motion 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

<http://www.rbduncan.com/pge1.html> FREE E-BOOK <http://www.rbduncan.com/pge1.html>

**OR**

Fitzpatrick's First book in Adobe pdf:

<http://www.rbduncan.com/pge1.pdf>

**ABSTRACT** of the above book:

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

<http://www.rbduncan.com/Ampere>

This Britannica article <http://www.britannica.com/eb/article?tocId=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 *different* in different frequency spacetime realms: this means we will not see the same motion there as we look there from our spacetime realm here.

Simply stated — in *different* frequency spin/orbit spacetime realms — **the spacetime intervals** *spacetime interval* **are different!**

Minkowski's [Minkowski-Wikipedia](#) spacetime interval is invariant — *which means it stays the same* — **only** if you remain in **one** — *spin/orbit frequency* — spacetime 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 spacetime interval will be different from yours.

Our solar system is spinning at a different frequency from our galaxy and our galactic cluster is spinning at a different frequency from that and our super cluster of galaxies is even spinning at a different frequency from everything else; therefore these four systems mentioned will have four 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* — spacetime realms.

This is of such importance that you must keep this in mind. We go over the general relativity proof of this in the next chapter.

**Therefore the measurement warning from Wheeler and Feynman is correct!**

Why does it work this way?

Because this is a frequency universe and 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 not really what our '*our common sense*' is telling us that one is too small and the other too large and too far away. All 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 spacetime realm* — only the evidence (of motion) can be transferred out as Wheeler and Feynman showed us: this is *exactly* what is happening as we view the microcosm spacetime realm from our spacetime realm here.

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

What we are 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 not 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 we are 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 start 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 we are, more or less, in agreement with the quantum theorists that **our motion** — *as we see it* — does not 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 **its own space and time and motion is really there!**

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

<http://www.amperefitz.com/principle-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 [Occam's Razor-Wikipedia](#) and move your mind into each *separate* spin/orbit frequency realm **at a time** and view these as having an **entirely different spacetime interval from us** and being in not our, **but their own** spacetime and having **their own** sort of **motion** and using [Ampère's Laws](#) 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 spacetime realms.

It's as simple as that!

SORRY

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

I'm afraid that **math** along with our concept of **motion** is **restricted**

to one single spin/orbit frequency spacetime realm system *at a time*.

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

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 spacetime realm but we cannot measure accurately outside of our spacetime realm!

**And if you have read and properly digested everything we 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 Also of greatest importance

# Collapse of the wave function

In this chapter we solve one of the greatest unsolved mysteries in quantum theory: "Collapse of the wave function". [collapse of the wave function](#).

In other words how does light, a wave, also suddenly act like a particle where the wave function entirely vanishes.

No one we know of has ever solved this quantum mechanics mystery but we do it right here in this chapter, so hang in there and enjoy this one.

We are certain that our readers will 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 [Heisenberg's uncertainty Britannica](#), which as Niels Bohr showed, while arguing with Albert Einstein, has to be effective in the macrocosm as well as in the microcosm.

Heisenberg, Wheeler and Feynman told about the problems measuring in the microcosm — *a different frequency spacetime realm* — but they didn't tell us *why* we had these problems.

We will show you *why*:

\*\*\*

**The fact that we have these various *spin/orbit***

**spacetime realms is the real reason *why* we have Heisenberg's uncertainty.**

\*\*\*

QED space — *space generated solely by the electron spin frequency* — is only slightly higher in frequency from our frequency space that we can begin to measure at a frequency slightly lower than the electron orbiting frequency, so there is only a very tiny factor of uncertainty when measuring from our realm to the microcosm. This uncertainty factor is greater than or equal to Planck's constant ( $h$ ) divided by  $2\pi$ . This is called  $\hbar$  and is the smallest unit of electron momentum.

Beware! This Planck's constant over  $2\pi$  ( $h/2\pi$ ) multiplication factor for uncertainty is **only valid** when we measure **in the** electron (QED) gauge of the **microcosm** — *and regardless as to what many believe* — nowhere else.

Once you know *why* we have this uncertainty then you also know *why* this  $h/2\pi$  multiplication factor is only to be used in the electron spacetime realm of the microcosm.

**But measuring from our realm to the macrocosm, the multiplication factor is much, much greater than Planck's constant over  $2\pi$ !** The multiplication factor is different because we are measuring to several far, far different spin/orbit frequency spacetime realms, more about that below.

The multiplication factor is greater than Planck's constant divided by  $2\pi$  ( $h/2\pi$ ) measuring in the macrocosm because the difference in frequency between our realm and the macrocosm is **far greater** than the frequency difference between our — *space* — realm — *just under electron orbiting frequencies* — and the microcosm — *electron spin frequency space* —

realm: both of which — *frequency wise* — are relatively close.

Therefore, Heisenberg's uncertainty — *in our new way of looking at this frequency universe* — exists **far more** when one measures outside of one's own spin/orbit frequency spacetime realm toward the macrocosm than our measuring in the electron spacetime realm (QED gauge) of the microcosm!

The reason for this is simple: those other macrocosm spacetime realms will have a **far more** and far different **spacetime interval** from us.

When measuring in the microcosm you may measure momentum but then you won't be able to *instantaneously* measure position in that other — *spin/orbit* — spacetime realm. **But that is probably only for microcosm measurements. We don't yet know the full extent of our macrocosm measuring problems. What we do know is that we have plenty of problems measuring there: All this mysterious Dark Matter and Dark Energy we think we see there show us that.**

It is wrong to think we have a  $h/2\pi$  factor for Heisenberg's uncertainty in our own *spin/orbit frequency* spacetime realm. What determines the factor for Heisenberg's uncertainty is **only** a difference in frequency — *or frequency spacetime realm* — between the detector and the object being detected.

You will see a quote from the Britannica, later in this chapter, telling us that  $h$  is "the product of energy multiplied by time, a quantity called action." This  $h$  multiplied by the frequency gives us the energy of a complete energy quantum.

However, this  $h$  can't be utilized as well in much of the rest of quantum theory where  $h/2\pi$  can. This is referred to as  $h$ -bar.

The smallest amount of electron momentum is  $h$ -bar.

Now comes the problem:

This is **not** the smallest amount of gravitational or inertial **momentum** which is — *according to today's scientists* — the much, much, much larger Higgs boson.

We are trying to stress throughout this paper that **this is a frequency universe**.

When you state **momentum** then you must **give the frequency of that momentum**.

Only use  $h/2\pi$  ( $h$ -bar) in the microcosm where it pertains to **momentum** at the electron frequency.

Never use  $h/2\pi$  ( $h$ -bar) for measurements in the macrocosm which utilizes the much, much larger quark produced, unit of **momentum**, the Higgs boson: This **momentum** is at **the square of the electron's frequency**.

As frequency goes up, energy goes up. Higher frequency *means* and *is* higher energy!

Therefore, we do **not** multiply by the tiny  $h/2\pi$  ( $h$ -bar) to get Heisenberg's uncertainty in the macrocosm!

The factor that we have to multiply by, to get Heisenberg's uncertainty in our solar system — *in the macrocosm* — while transferring measurements inside our solar system — *1st spin/orbit spacetime realm* — to our galaxy — *2nd spin/orbit spacetime 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 galactic clusters — *3rd spin/orbit spacetime realm* — is far, far

greater than that first multiplication uncertainty factor. Transferring our measurements to the super cluster realm — *4th spin/orbit spacetime realm* — requires the greatest uncertainty factor.

The Hubble telescope shows this **increasing** — *2nd spin/orbit spacetime realm to 4th spin/orbit spacetime 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 electrons in our microcosm.**

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

Black holes *contribute* but do not make up **all** the *dark matter* presently believed to exist in our universe.

It is **Heisenberg's uncertainty**, that is giving us **much** but not all of this elusive *dark matter* and *dark energy*, as we try to measure inside of galaxies, clusters and super clusters of galaxies. A good part of this *dark matter* and *dark energy* is actually there, being caused by the spins of the galaxies, clusters and super clusters themselves.

**So we have two distinct problems: One is the different kind of space problem and the other is that we can't accurately measure this different kind of space.**

If you think this is wrong then consider what general relativity is telling us about things that **move faster or spin faster** compared to their surroundings: in both of these cases, time slows and they become more massive while also getting smaller.

A super cluster of galaxies has its own spin, therefore, a certain space

and time. But each galactic cluster within this super cluster has **additional** spin; therefore, according to general relativity, time in each galactic cluster must be going slower than in the super cluster as a whole. Not only that but space — *or entities* — in each galactic cluster must be smaller — *more compressed or massive* — in each galactic cluster than in the super cluster as a whole.

Each galaxy has its own spin; therefore a certain space and time. But each galaxy within its galactic cluster has **additional** spin; therefore time in each galaxy must be going slower than in the cluster as a whole. Not only that but space — *or entities* — in each galaxy must be smaller — *more compressed or massive* — in each galaxy than in the cluster as a whole.

A solar system inside of each galaxy would have **additional** spin than the galaxy itself, so according to general relativity its time would be going slower than galactic time. And as we previously saw, space — *or entities* — in that solar system would also be smaller — *more compressed or massive* — than in the larger galaxy.

So a solar system has a different spacetime interval from the galaxy it is in and that galaxy has a different spacetime interval from the cluster of galaxies it is in and that cluster has a different spacetime interval from the super cluster that it is in.

This is exactly the same in the microcosm where the quark is smaller — *more compressed or massive* — than the electron via the same reasoning. In the microcosm we have the Hartree approximation [Hartree approximation](#) accomplishing the same thing there as general relativity accomplishes in the macrocosm.

Deductive reasoning tells us that different spin frequencies are thus producing different spacetime intervals!

Therefore, this is indeed a frequency universe all throughout wherein the spacetime interval — *although invariant in one spacetime realm* — varies from realm to realm. **Einstein might have recognized this if he had accepted these different spacetime realms the way Wheeler and Feynman saw them.** Einstein believed in invariance of the spacetime interval so intensely that he was disposed in the 1920s to actually change his theory's name from relativity to his '*invariant*' theory because he felt that this was what general relativity was more about. **It was these different spacetime realms that Einstein didn't see even though his own general relativity clearly points it out.**

Since the spacetime interval does indeed vary from realm to realm, Wheeler and Feynman were correct to warn us about our measuring in other — *spin/orbit* — spacetime 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 *spin/orbit* spacetime realm but somehow our university — *military industrial complex* — 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 [E. Snowden-Wikipedia](#) before he revealed it to us.

***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 may actually be seeing in our macrocosm spacetime 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).

In the final chapter of *Schrödinger's Universe*, Milo Wolff asked, "**What is the origin of space?**"

Here is a *quote* from the *Britannica 1997 CD* telling about Einstein's tensor math which "*led him to an essentially unique tensor equation for the law of gravitation, in which gravitation emerged **not as a force** but as a manifestation of the curvature of **spacetime**.*"

If you want to know the answer as to what space and time really are, then here it is:

As you see in the above *Britannica* quote, force is a manifestation of space. Also there is **no** such thing as **force** in the tensor math of **General Relativity**. What you actually get — *greatly simplifying things* — is more spacetime, than *average*, where repulsive force exists between two objects. In addition, there is less spacetime, than *average*, existing between two gravitational objects that have an attractive force between them.

Saul Perlmutter has shown, as in **GR**, that if repulsive force is more spacetime than *average* then we get Einstein's *cosmological constant* (exact opposite repulsive force of gravity) and gravity becomes a bi-polar force like all the other invisible forces.

This bi-polar aspect also exists in all the fundamental forces [fundamental invisible forces](#) giving us our **mistaken notion** of having North or South poles for magnetism and + or – for charge. **Mistaken notion?** Yes!

In phase symmetry every spinning, scalar, standing wave — *even if it's a perfect sphere like the electron* — is a dipole.

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.

The people who have read <http://www.rbduncan.com/> and <http://www.Ampèrefitz.com> know that you cannot even begin to understand this universe until you know exactly what space and time are. Our minds seem to be equating the main scalar frequency of the electron as a clock that mainly determines what we call time. We sense the spin frequency mainly determining force and space. (*We see the spin of the electron causing the magnetic force.*) Also, by reading, what you see in the above links, you will see what force the spin of the quark causes to even distant quarks. Also read: [1/18/2006 The Vector Scalar relationship between force, space and time.](#)

<http://www.rbduncan.com/vsrela.htm>

By reading what is in the above links you will also know what we see is an average time and an average space. Both time and space are really made up of numerous **quanta** bits, the same as energy. This concept of an average time and space, made up of numerous **quanta** bits of time and space — *a great many billions of separate, different out of phase relationships between every single thing in this universe* — is extremely important to the correct understanding of both time and space. I'll explain this further as we proceed.

*Each electron repels its nearest neighbor by a certain amount of force, the same as each star repels its nearest neighbor by a certain amount of force. Let's call these quanta too because they come in chunks like energy quanta. It is these individual repulsive force chunks (quanta) added up and averaged that give us our illusion of space. And it's the same with time as well.*

View these electrons as Niels Bohr did, as spinning spheres, even though we know they are a complicated **Schrödinger** type resonance.

Think of two energy exchanging electrons, with opposite spins, as two *gears meshing*. But these two *entire* electrons are **never** involved in **spacetime** light transfers. In fact, only *very minute portions* (*a quantum*) of the **closest sides** of the emitting and receiving electrons — *one is spin up and the other spin down* — are involved. And if these **closest sides** (*a quantum*) "see" themselves as close in *impedance* (*both at the same velocity*) which means moving the **same direction** at the **same frequency** then they will also "see" themselves in the same space and time (on the same **Minkowski** light cone). Thus, they will be able to transfer this **spacetime quantum** of light energy from one electron to the other.

In other words, even though those two electrons are not themselves in the same space or the same time, **an ultra tiny sliver** (*a quantum*) **of their closest sides are**.

From the Britannica 2009 DVD "**Minkowski**, Herman: His idea of combining the three dimensions of physical space with that of time into a four-dimensional "Minkowski space"-**spacetime**-laid the mathematical foundations for Albert Einstein's special theory of relativity."

Sigma chemical bonding is a proven fact. It must always be seen as a **spacetime binding force** between a **spin up** and a **spin down** electron whose *very minute portions* of their **closest sides** are going in the same direction. Light energy is also exchanged, exactly the same way, as a **spacetime binding force**: It's nothing more than a long distance sigma bond that ends up transferring a quantum of light energy. This **spacetime** transfer is between a **spin up** and a **spin down** electron where *very minute portions* of their **closest sides** are always going in the same direction (*like gears meshing*).

You might say these *minute portions* see themselves in the same space and time through a wormhole. But the reason they can do this is that space is not this vast empty space we visualize. It's built up of trillions of quantum chunks and if none of them get directly in the way, then these two *minute portions* can actually be in the same space and time together as a Bose-Einstein condensate, or in other words, an impedance matched bond.

One additional thing is very important and this is that **energy only diminishes with the square of the distance when multiple numbers of electrons are involved**. Why? Because it is these numbers involved, in the transfer, that fall off with the square of the distance. Between only two electrons, this quantum of sigma binding energy — *a Cooper pair or sigma bond* — remains at the same strength out to the Hubble limit of distance. Now you see why a quantum of light energy does not diminish in intensity with distance: This is another well-established quantum theory principle. In fact, this is the keystone of quantum mechanics.

**Now, here's what Niels Bohr taught us:**

From the Britannica 2009 DVD "Spectral lines are produced by transitions of electrons within atoms or ions. As the electrons move closer to or farther from the nucleus of an atom (or of an ion), energy in the form of light (or other radiation) is emitted or absorbed."

**For instance:**

If a **quantum of violet** light is given up by a star to your eye then on that star, in a certain time period, an electron that was originally far from its nucleus, dropped to one of the closest orbitals of its nucleus. While in that same time period (*standard model explanation*) an electron in your eye emitted a **quantum of violet** light to your senses.

If a **quantum** of **red** light is given up by a star to your eye then on that star, in that same time period, an electron dropped about half the distance (*of the violet quantum*) to its nucleus. While in that same time period an electron in your eye emitted a **quantum** of **red** light (*of about half the violet quantum of energy*) to your brain.

As the electron on the star dropped, the electron in your eye emitted a **quantum** of light energy to your brain. *This is the way it is being explained in the standard model.*

Again, as the star's electron went down to a lower orbit level, your eye electron emitted a **quantum** of light energy to you. (*The standard model view.*)

Thus appears, in **quantum** theory, the concept of a **boson** with the **photon** acting as a **boson quantum** exchange particle. A **quantum** of energy on that star was simply shifted or exchanged with your eye via a **photon (boson)**.

From the Britannica 2009 DVD "**quantum**: the magnitude of all the **quanta** emitted or absorbed is the same in both energy and momentum. These particle-like packets of light are called **photons**, a term also applicable to **quanta** of other forms of electromagnetic energy such as X rays and gamma rays."

**Photons** are classed as **boson quantum** exchange particles.

Remember, in these **quantum** exchanges, the same magnitude of energy emitted is also absorbed.

From the Britannica 2009 DVD "**quantum mechanics**: The probability of a transition between one atomic stationary state and some other state can be calculated with the aid of the time-dependent Schrödinger equation. For example, an atom may change spontaneously from one state to another state with less energy, emitting the difference in energy as a **photon** with a frequency given by the Bohr relation."

Let's look at how a **photon** supposedly works in the *standard model*:

If batter **blue** hits the ball twice as much as batter **red** *in the same time period* then batter **blue** will expend twice the energy as batter **red**.

It's the same with light: as **violet** light being almost twice the frequency of **red** light has almost twice the energy in each **quantum** of light.

But the time period with all of these **quantum** exchanges seems to be associated with Planck's constant ( $h$ ). So if the batter hits the ball twice as much, this gives twice the energy. Since there are almost twice the swings back and forth with **violet** light as there are with **red**, in that same time period, then a **quantum** of **violet** light comes out with almost twice the energy of a **quantum** of **red** light.

However, all of this is well known to **quantum** theory physicists.

Now we come to something not as well known to all:

You must realize that the sigma type close bondings — *of your electrons here* — also occur with distant electrons as far off as the Hubble limit; not only that but these far distant bondings are at the same strength as close bondings. They must be the same strength because the quantum of light emitted from the star was the same strength as your eye received; this is an agreed upon, quantum theory fact.

The quantum of light from the star to your eye, called a photon (**boson**) in the *standard model*, is being caused by this spin binding shift. However, this particular binding shift is between two distant electrons.

**This universe is forever trying to balance via *in phase* spin attractions and *out of phase* spin repulsions.** The universe does

eventually always balance out because each of these scalar, spinning, standing waves is a perfect dipole.

Therefore, these attractive forces and repulsive forces are always equal; thus we *eventually* always arrive at a, more or less, static, steady state universe.

Where this *in phase spin attraction* happens the *standard model* gives us a **boson**, which we now see is really only a binding between distant electrons or distant quarks.

Since this *standard model* photon has no mass then it has to be considered nothing more than a simple binding shift or binding exchange between that star and your eye. A simple binding shift would better account for the recoil effect noted in Feynman diagrams. And a binding shift causing other binding shifts, or emanating from other binding shifts, would better account for the various bubble chamber tracks.

The *in phase* type **spin** attraction of two Cooper pair *electrons* has a Fermi-Dirac quantum entanglement element similar to the *photon* type Bose-Einstein condensate element to it because space has disappeared (condensed) between the *in phase portions* of the two *in phase* bound electrons.

We have, as part of the standard model, **Quantum ElectroDynamics**:

**QED** uses what is called the *square of the amplitude*. These are **spin up - spin down** electron pairs (*like gears meshing*) (*in the same spin plane*) where *a very minute sliver portion* of their closest sides of both the emitting and receiving electrons involved will make a quantum energy transfer because *these ultra tiny portions* (*a quantum*) will sense that they are both moving *in phase* in the same direction at the same

speed. What the *square of the amplitude* tells us is that phase is critical.

When you have plenty of time, you can better understand this *square of the amplitude* quantum of energy transfer, if you listen to the **Feynman** lectures. <http://www.vega.org.uk/series/lectures/feynman/index.php>

It's also extremely important that you read this very short part of Nobel prize winner **Richard P. Feynman's QED**:

<http://www.rbduncan.com/feynm1.htm> Notice how momentous this concept of motion is for unification! This makes a great deal of sense when you look at what Ampère found over a hundred years earlier.

**\*\*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.

Since **space** is nothing more than the average or mean *out of phase* amount, then it's plain to see that spacetime 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 sliver of both eye and star electrons* — are both in the same spacetime realm even though the rest of those two electrons are not.

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 ultra thin sliver* — portion of both electrons must be in phase; therefore — *instead of being on the same light cone* — being in the same spacetime 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 spacetime and the spacetime interval. It's a shame Minkowski died so early at 44.

In other words in equatorial electron bonding, a spin up electron is binding with a spin down electron, and that — *tiny ultra thin sliver* — 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.

**Impedance matching** is an important part of every electron to electron binding!

There is no binding unless the frequencies are exactly in phase and both impedances match.

Let's look at what the Britannica tells us about this enigmatic ***h*** (Planck's constant).

Copied from the 2013 Britannica DVD "**Planck's constant**

The dimension of Planck's constant is the product of energy multiplied by time, a quantity called action."

\* \* \*

As the Britannica stated, ***h*** is a certain energy *during* a certain time.

So ***h*** is giving you the angle — *if you want to do the math* — of this ultra thin portion of the closest sides of a spin up electron binding with a spin down electron, both in the same spin plane. (*Imagine two gears meshing.*) It's only in this ultra tiny angle that these portions are moving ***in phase*** at the same **velocity** (*speed and direction*).

Because those two electron portions can have the same **velocity** *only*

during that ultra tiny angle is what **impedance matching** of those two opposite spin electrons is all about!

Since  $E = mc^2$  and energy is equivalent to mass then the mass of those ultra tiny sliver *in phase* portions of the closest sides of both electrons (*a quantum*), involved in impedance matching, gives  $h$  an *equivalent energy value* of the energy/mass of those **ultra thin portions** that those two electrons are using to bind.

These **ultra thin portions** multiplied by the binding **time** amounts to the "action at a distance" or  $6.62606957 \times 10^{-34}$  joule second.

(We believe this is the first publication of what Planck's mysterious  $h$  really is.)

\* \* \*

Since the **time** involved in  $h$  is the same in every quantum, then every orbital jump must be made in the same **time**. This means longer *higher energy* jumps are made in the same time as shorter *lower energy* jumps. Therefore we can improve on what Niels Bohr discovered by showing it must be the velocity of a *portion* of the electrons that are binding — *both must have a portion the same velocity to impedance match* — that is the cause of the various colors and of the various energies of the various different quanta.

This makes sense as we look at gamma rays that must be caused by entirely free electrons traveling at the fastest speeds, spinning in opposite directions in the same spin plane. But there is more to binding and energy transfer than simply the speed, of both items, being the same: An ultra tiny portion of both items must have the same velocity (*speed and direction*). We'll go over this extensively as we proceed.

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 spacetime realm. The highest frequency that we can observe as a solid in our spacetime realm is somewhat lower than the electron orbiting frequency.

Those who still adamantly believe in the aether — *proved not to exist by the Michelson Morely experiment* — may now say it's these various spacetime 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 spacetime* — 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 spacetime realms here, we do see a form of acceleration from the quark spin frequency level — *where its spacetime is produced faster than ours is* — but that comes later.

We like to view — *a quantum of* — light and all other energy **not as a wave nor a particle** but as merely a loosening of a binding with the surroundings: In other words, '**energy is merely a binding change with the surroundings**'.

We 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 — *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 condensate](#). 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 the spark plug of your car engine receives its voltage *after* the battery circuit, to the coil-capacitor, is broken. Not only that but each quantum in this eye-brain engine, explodes into your brain faster than the individual explosions in the fastest reciprocating engine.

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

The proof of this is what we see happening in the interferometer [interferometer 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 [\*Humphrey Lloyd Britannica\*](#) 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 ultra tiny portions of their closest sides that are *in phase* (*a 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. However — *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 the light must be reflected directly from the silver coating and not through the mirror glass itself.

Why won't an ordinary mirror reflect and cancel the 180 degree out of phase quantum?

Because going through the glass changes an electron's spacetime enough where it can no longer match the electron in the opposite leg in binding frequency!

Each leg on the interferometer must incorporate an **equal amount of glass** for the instrument to work!

Our spacetime intermediate frequency goes through glass slower than it does through air, so each leg of the interferometer must have equal spacetime consistent legs.

We tell all about intermediate frequency in Chapter 10.

Remember what we said: \*\* Space, in this all frequency universe, is simply the average of these repelling **out of phase** forces.\*\*

Our spacetime intermediate frequency "*sees*" more space in glass than it does in air because in glass there are more repelling forces. And the higher the frequency the higher the space that will be "*seen*" by that frequency: this is why blue light is bent more than red light by a prism. The higher blue frequency "*sees*" more space in the prism than the red frequency so the blue frequency bends more.

The reason that we only see one type of space is because we have only one, electron spin, intermediate frequency.

If the path of one leg has more glass then there is **no interferometer** because the excess glass on one side has changed the spacetime consistency of that leg too much for the electron on that side to bind with an electron in the opposite leg.

If the spacetime consistency of one interferometer leg is changed — *compared to the other* — then there cannot possibly be any impedance matching with the quantum in the other 180 degree out of phase leg.

<http://www.amperefitz.com/interferometer.htm>

An electron, 180 degrees out of phase — *spin down* — in one leg can completely **bind with** and knock out an electron— *spin up* — in the interferometer's other leg: The two cancel each other. No light at all is seen in that detector.

Now you know more about interferometers than most scientists do.

What we are 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 a beam of light; we are seeing the rate or speed that the electron spin frequency space is being built.**

Now you know *why* an interferometer *really* works.

And you know a bit more about spacetime. 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 a quantum binding change where a binding with the surrounding stars is switched to a close binding. **This is all energy is!**

**All energy** — *whether fission, fusion or chemical* — **is binding energy that relates to the surrounding stars!**

**Bindings** — *binding force* — **can neither be created nor destroyed but can be switched from surrounding stars to near, creating energy.**

**Bindings** — *binding force* — **can neither be created nor destroyed but**

***can be switched* from near to surrounding stars, creating inertial mass.**

This is *why* we have Einstein's  $E = mc^2$ .

**But this is only a general description of *why*  $E = mc^2$ . The more exact description comes in Chapter 13.**

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

**\*\*Space, in this all frequency universe, is simply the average of these repelling out of phase forces.\*\* This is so important that you will be seeing this again and again.** Remember, this frequency produced space is only good in one particular spin frequency spacetime realm.

If light is merely a binding change then the Michelson-Morley experiment — *that had a null in all directions* — makes perfect sense because light does not actually move. **Light has no velocity; it's not a beam that moves in a certain direction.**

Yes, it looks like light is moving because **\*\*Space, the average of these repelling out of phase forces.\*\*** does indeed change as it moves at the scalar speed of light over us.

What is being seen, instead of this photon speed, is the building of space or speed of change of **\*\*the average of these repelling out of phase forces.\*\***

This space that we can measure is a scalar creation at the speed of light. Even though light is only a binding operation and our so called light beams have no velocity of their own, the concept of relativity, nonetheless, comes out correct because space builds at the scalar speed of light ( $c$ ).

A wrong initial speed of light concept nevertheless gave a correct

relativistic solution.

Things in space certainly do change with time: this is what gives us our scalar entity of time.

Space also is scalar as it is constantly being produced thus spacetime is scalar; however, motion is not scalar; it has a vector or directional quality.

But the essence of all of this is that Milo Wolff's scalar, standing wave universe must, of necessity, **keep both space and time scalar to the average or mean** — *regardless of any individual vector motion* — **in every reference frame.**

It has to do this to remain a scalar, standing wave universe.

Since both space and time are **scalar** — *extending equally in all directions* — then when you are looking a distance in space you are also looking back in time. Every astronomer knows this.

Now we ask, **why does the speed of light remain the same** — *independent of both source and observer* — **in every reference frame?**

The answer is simple, **Minkowski's spacetime** — *made of quanta energy pulses* — **moves at a scalar speed of light, over everything.**

Each of these quantum energy pulses is a click of our time clock and a quantum of our space. Milo Wolff's in - out energy whereby electrons reproduce themselves may even have quanta pulses higher in frequency than we can measure. This is, therefore, **Minkowski's spacetime.**

This is also why when you look out into space that you also look back into time. The timing, of when each of these quantum pulses can occur, electron orbiting period and the time period of Planck's

constant are all derivatives of a tri quark orbit frequency. Sorry it took us until the year 2013 before we could explain to you exactly why we had **Minkowski's spacetime**.

Albert Einstein most certainly made a prophetic statement in 1954: because with that November Scientific American article and this book in 2013, this year indeed marks the beginning of a new phase symmetry science and as Einstein said, "*nothing remains of my castle in the air, gravitation theory included, [and of] the rest of modern physics.*"

This is not, however, the destruction of quantum theory; this is merely making it more complete. This is, nevertheless, the end of the standard model along with its concept of charge and force carrying particles and, as Einstein stated, much else. We are making quantum theory 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 really move. Bosons do not exist: they are merely impedance matched bindings!

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 we are the first to publish these force carriers as being a simple binding arrangement then we 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. And it most certainly does.

Since **\*\*Space**, in this all frequency universe, is simply the average of these repelling **out of phase** forces.\*\* and *providing no* standing wave entity — *of any kind whatsoever* — exists directly between the in phase binding of the closest sides of these two spin up-spin down electrons then this tiny Minkowski binding spot is in the same space and the same time even though both of their respective electrons are not.

See: spacetime is really quantized!

If Minkowski would have lived then he might have told us that too. In our estimation, he was one of the great ones.

Please remember Minkowski. And remember that spacetime is really quantized. It comes in ultra tiny quanta chunks like energy quanta.

And please remember that **none of these force carriers move. These are simply distant electrons or quarks binding.** The Higgs boson is simply two quarks binding.

None of these force carriers (**bosons**) have a speed!

The speed of light that we *think* we see in this frequency universe is really the speed of change of **\*\*the average of these** — *space producing*

— **repelling out of phase forces.**\*\*

In other words, the speed of light that we *think* we see in this frequency universe is really our **I.F.** frequency (*Intermediate Frequency*) in our own physical superheterodyne system in this frequency universe.

God, We hope this doesn't turn out to be a long, long book because we'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 we 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 average of these repelling out of phase forces: (*space for us is being produced via the electron spin frequency.*)

**This is our spacetime continuum or our Intermediate Frequency.**\*\* Remember, this frequency produced space is only good in one particular spin frequency spacetime realm.

This is the question that has been asked — *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 speed!

Thus we solve one of the greatest unsolved mysteries in quantum theory, "Collapse of the wave function".

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. Revival of Rutherford's Atom and Bohr's electron

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 [\*Thompson\*](#) revolved.

Niels Bohr continued on with this orbiting electron concept and this concept remained, in our science culture 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 we agree with the present frequency view, we 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 — *here and other places in this book* — 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 **same phase rules** where there is a binding type attraction when both elements are in phase and more of a repulsion the more out of phase they are to each other.

In this frequency world of Schrödinger, we then see *why* the electron's spin/orbiting frequencies are a separate gauge from the quark's — *much higher frequency* — spin/orbiting 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 spacetime 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 spacetime 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 spacetime 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. Wolfgang Pauli showed us the aspects of electron **spin** and **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** proved that those who cannot see the *entire* 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 (*spacetime 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  $180^\circ$ , or  $\pi$  radians, and the waves are said to be out of **phase** (by  $180^\circ$  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 — *higher frequency* — gauge) even more compressed from the 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 real reason 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 *entire* spins are *in phase* and, **in magnetism**, this polar attraction is strong because both *entire* electrons are spinning *in phase* with each other. Their *entire* 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 *below* 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 not 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 much longer 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 spacetime realms, showing you **all** the fundamental invisible forces are caused this same way by similar *phase* relationships!

It becomes apparent — *once you know this is a frequency universe entirely* — 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. **Bohr took elements of classical mechanics into the quantum world, showing how various orbital drops caused the various colors and I've already proven that Bohr's motion must be there** — *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. It can be taken into the quantum world but use it only **within strict parameters**. That's what Bohr did: he limited it only to the parameters of the hydrogen atom.

**You could not have that reversal of polar bonding strengths, 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.

One of the **absolute proofs** that the **Rutherford-Bohr** orbiting **motion** actually exists in the microcosm is that — *as we said* — the sigma bond is stronger than the pi bond. How can this exist unless there is real orbiting 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 orbit 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 proof that the electron really orbits the nucleus.

# Case closed!

## 9. The Quark

We saw that Einstein's general relativity is formed to equate force with space. But that force is being generated by a quark spin frequency. We can't see that space. We can only see and measure space just lower than the electron orbiting frequency.

A **spin/orbit frequency resonance** is creating our space: All of Milo Wolff's spinning, orbiting electrons — *from here to the Hubble limit* — are creating our space that we see and are able to measure. This is

a scalar entity moving over us at what we term the speed of light or approximately 300,000,000 (*three hundred million*) meters per second. This can also be denoted as  $c$  or  $3 \times 10^8$  meters per second (*3 with 8 zeros after it*). ("Speed of light is exactly 299,792,458 metres per second." *copied directly from the 2013 Britannica DVD*).

Now we shall install — *similar to Max Planck's method* — a missing piece of the puzzle to get a correct answer. We even have far more evidence, for inserting our missing piece of the puzzle, than Max Planck had.

A frequency can be squared but a speed can't. So  $c$  must really be electron spin frequencies causing what we sense as our top speed, and  $c^2$  the down quark spin frequency we sense as acceleration. We are going to give the down quark a spin frequency the square of the electron's frequency.

Now watch what happens:

The down quark's spin, being the square of the electron spin frequency, is also a **close resonance** of the electron spin frequency which will — *with in phase bonding* — attract the electron.

This electron now has an equatorial — *in phase* — bond with a down quark that has opposite spin.

This was the missing piece of the puzzle that gives us many answers:

1. Electrons are not being attracted to the nucleus but they are attracted to a *certain* down quark in the nucleus but each electron orbits around its own particular down quark in the nucleus. Both bond together via an equatorial in phase bond; the spin of each down quark being inverted to every orbiting electron's spin. **Someday we will be able to check this.**

2. Quarks can attract other quarks using equatorial — *in phase* — bonds.
3. Quarks that attract quarks in the distant surrounding stars give us our inertial mass.
4. Quarks that attract quarks not so far away give us gravitational attraction.
5. The speed of **both** this gravitational attraction and the distant attraction to surrounding stars, giving us our inertial mass, is at the square of the speed of light or  $c^2$  or  $9 \times 10^{16}$  meters per second (or 9 with sixteen zeros after it). Incidentally this speed was accepted by Tom van Flandern, noted astronomer, as acceptable and close enough to instantly, as to keep this universe stable.
6. The quark spin also produces a space that we cannot measure as space because this quark space is being produced at the *square* of the frequency that our space is being produced at. But as Wheeler and Feynman said we can't measure this space, and even don't see it as space, but we most certainly can detect it and we do: We detect this quark spin space as **our space times our space** or acceleration. **This is why we see gravity as an acceleration!**

So the astronomers win this **really important** one and Einstein loses, probably because Einstein miscopied his relativity from the earlier published Lorentz relativity that showed gravity — *and still shows gravity* — could go faster than the speed of light.

Galileo gave us the first relativity of space. Lorentz gave us the first relativity of spacetime. Evidently Einstein made a wrong change to Lorentz relativity when he copied it.

The great prestige of Einstein also suffered a real loss when 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 a problem with locality and hidden variables. Einstein, who hated what he termed '*spooky action at a distance*', used his '*common sense*' in the EPR argument — *Einstein Podolsky Rosen* — against quantum theory's quantum entanglement. Einstein did not believe in quantum entanglement (*spooky action at a distance*): though he claimed that he built general relativity on Mach's principle, which is essentially entanglement at the quark spin frequency. 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.

## 10. The Spacetime Continuum

*"Henceforth space by itself and time by itself, are doomed to fade away into mere shadows, and only a kind of union of the two will preserve an independent reality."* Hermann Minkowski

**This will happen.** It might have happened sooner if Minkowski had only lived, but he died early of appendicitis.

If you read this chapter then you will understand exactly what this spacetime continuum is.

When Minkowski first showed Einstein the spacetime concept, Einstein thought it was some sort of *mathematical trick*. But Einstein later grasped it; however, both Einstein and Minkowski failed to see

some important **quantum** aspects of this spacetime continuum.

We have a **scalar, quantum** spacetime continuum!

Copied from the 2013 Britannica DVD "**Scalar**:"

a physical quantity that is completely described by its magnitude; examples of scalars are volume, density, speed, energy, mass, and time. Other quantities, such as force and velocity, have both magnitude and direction and are called vectors."

Yes, our spacetime continuum is a myriad of tiny spinning, standing wave entities existing — *and **changing*** — throughout our surroundings **in all directions** thus **scalar**.

The foundation of general relativity is that all these things are spinning and orbiting on *geodesics*.

A *geodesic* in general relativity is the **shortest** path through this spacetime continuum.

In addition to this, phase symmetry tells us something else important about a geodesic:

A *geodesic*, in phase symmetry, is a path where **repulsive** forces and **attractive** forces are evenly balanced (*surroundings, where half the forces emanate from, must be considered*).

General relativity tells us that if you give an entity either linear or spin motion then this entity will assume the shortest path — *a **geodesic*** — through the existing spacetime continuum.

Phase symmetry tells us, however, that wherever an entity is placed in this universe it will end up — *on a **geodesic*** — with a speed and spin where repulsive and attracting forces are equalized (*surroundings, where half the forces emanate from, must be considered*).

**Therefore, spin and orbit frequencies take place only to equalize attracting and repelling forces.**

This actually works in the microcosm too if you realize that you are now in a higher frequency spacetime realm and these entities are moving on *geodesics* in this new and different frequency spacetime realm: So phase symmetry tells us a lot more than general relativity does and it works in the microcosm too.

Milo Wolff's scalar, spinning, standing wave, spacetime realm **mandates** that these spinning, standing wave entities move on *geodesics*.

The spin of these entities is also on a geodesic built by the mean or average of all these surrounding forces. However, it is not scalar, to various individual other spinning, standing wave entities: to many of them it's a **vector** force. Therefore we have these vector *in phase* binding forces — *caused by these spin frequencies* — and an equal number of equal strength out of phase repelling forces being developed in each of these various frequency spacetime realms. These equal attracting and repelling forces are all being caused through various spin frequencies.

Even though these forces are equal, the **attracting forces lock on** — *exactly like magnets lock together* — to each other but the repelling forces don't and this is the **big secret** that scientists entirely missed.

Thus this universe both in the microcosm and macrocosm ends up in massive tiny chunks where most of the attractive forces have locked on to each other. This leaves all the other repelling forces available to repel all these massive chunks away from each other.

We'll know more of how this works when we know exactly how the

three quarks are set up in the proton and neutron. What we do know now is that the quarks that are giving us inertial and gravitational attractive force are those being pulled away from the tri quark center in what is now being mistakenly called **asymptotic freedom**.

The opposite repelling forces are the reason why there is so much space between everything in both the micro and macro worlds in this spacetime continuum.

**Another secret foundation of this universe is** that these spins are seen to be on geodesics according to the **average** or **mean** of the surrounding masses but **not** on geodesics according to various other individual spinning entities. If it wasn't this way then we wouldn't have magnetism, would we?

Magnetic orbitals also produce magnetism but they mostly all get cancelled out — *via building* — leaving us to view the electron spin as the cause of magnetism. But in the grand universe view these spins — *via building* — all get cancelled out too.

But it's these orbits and spins — *mostly spins* — that are the real building blocks.

Remember what you have learned so far: Both sigma chemical bonds and Cooper pairs are spin-up spin-down electrons binding. They are thus equatorially bound — *their equators lie in the same plane* — with tiny portions of their closest sides ***in phase***. Thus we have this ***in phase***, long distance, type bond: this bond being produced by those tiny portions of their closest sides, of both electrons, that are ***in phase*** (*a quantum*). A similar but much stronger equatorial quark to quark long distance bonding gives us gravity and a further long distance quark binding with quarks in the surrounding stars give us inertial mass.

As we saw earlier — *because of phase symmetry* — the electron spin creates equal attracting and repelling magnetic forces. And as we've shown, force can be construed as space as it is in Einstein's general relativity.

Therefore these *in phase* forces will attempt to bind these entities into large clumps. But remember what we said about this binding:

**Bindings** — *binding force* — **can neither be created nor destroyed.**

This means — *because binding and repelling forces are equal* — most binding forces are now used up binding together these large clumps, this means more repelling forces are left over to repel other large clumps away: This repelling force — *left over* — is Einstein's cosmological constant!

Each of these individual binding forces, whether near or far, have the same strength!

So you still don't get the full picture of things until you realize that each of these binding or repelling forces **do *not* lose strength with distance!**

**Only the number of these individual forces falls off with the square of the distance.**

**Attractive forces can only emanate from locked scalar, spinning, standing waves.**

The keystone of this locking are the tri quark proton and neutron. Without these, orbiting about each other, already locked together there would be no attractive forces at all to build with because totally free spinning, standing wave entities will only repel each other.

Only after you see this can you mathematically work out what is really going on.

And this is proof we do have Einstein's cosmological constant both in micro and macro worlds because with these vector spins — *Rutherford-Bohr view* — there must be the same number of *in phase* attractive forces as out of phase repulsive forces.

Right away you can see — *with these forces not decreasing with distance* — it's **not** a simple field concept.

It took Einstein all his life before he saw that.

Field strengths vary as the inverse distance squared; **the strength of these individual forces don't!**

Their full strength distance is, however, limited. This full strength electron force stops at the Hubble limit, as Dr. Milo Wolff showed us.

So what you have now all around you are these thousands of trillions — *probably even more than that* — of these individual **vector** forces all around you giving you both your space and your time.

Most of these forces are continually switching their bindings in various ways and this change in your space is what you see as your time changing because these changing forces — *reach out to you full force to* — actually change and age you.

This is **why** the field equation, Einstein looked for, is too complicated to solve. This is also **why** when you look out into space, at the stars, you also look back in time because both our space and our time are simply scalar progressions of all these electrons inside of our Hubble limit sphere.

Likewise, this is **why** when two far distant entities bind then those tiny *in phase* portions, binding, are both in the same space and same time — *same Minkowski point* — if nothing is between the closest

sides, of the electrons or quarks, that are binding. Spacetime is quantized and this is one good example showing exactly how it is.

Whether it's our eye lens or other things, nature produces through time, the very best engineering devices. Since the very best radio receiver circuit is the superheterodyne, then let's look at it and see if nature has produced a copy of it.

Lo and behold, we find it has. We can actually see nature's superheterodyne **IF** (*Intermediate Frequency*) frequency using Young's double slit experiment:

So last but not least we discover exactly how this scalar, spacetime continuum flows over us. Young's double slit experiment shows us this: Today's consensus is that one photon has to go through both slits to make the interference pattern that Young first saw. In chapter 9 we saw a photon was an in phase binding switch and **it could not possibly go through both slits. Instead** it is *nature's superheterodyne Intermediate Frequency* in the spacetime continuum that is causing that interference pattern in Young's double slit experiment.

**\*\*Space, in this all frequency universe, is simply the average of these repelling out of phase forces:** (*space for us is being produced via the electron spin frequency.*) **This is our spacetime continuum or our Intermediate Frequency.** \*\* Remember, this frequency produced space is only good in one particular spin frequency spacetime realm.

We have these intermediate frequencies in our spacetime continuum because of Milo Wolff's scalar, spinning, standing wave entities. The double slit is showing you the electron *Intermediate Frequency* standing wave pattern — *as it flows over us at the speed of light* — that all electrons must obey.

**Again**, because we can direct various different frequencies into the double slits, this interference pattern will be different for each different frequency beamed in.

Everyone knows that you can see depth with two eyes but not with only one. It's essentially the same with Young's double slit. It gives us an in depth picture of nature's superheterodyne electron *Intermediate Frequency*.

So let's take a better look at Young's double slit — *interferometer* — experiment. [Young's Double Slit](#)

A pin hole camera only gives us one picture with no knowledge of motion.

A single one of Young's slits will essentially do what the single pinhole camera does. Light going through only one slit will not give an interference pattern.

Our two eyes work with our brain to take multiple pictures slightly separated by space to show us depth in **space**.

Young's double slit gives us two pin hole cameras slightly separated by space to show us depth in **space** provided we supply this missing ***Intermediate Frequency as it flows over us at the speed of light***. We get the picture — *the interference pattern* — of nature's intermediate frequency, as it flows over us in spacetime.

In any interferometer, you are looking at the interference pattern produced by the emitter and a similar scalar, spacetime continuum ***Intermediate Frequency***, as it produces our space at — *what we see as* — the speed of light.

One really **erroneous conclusion** is that the same photon is going

through both interferometer slits *at the same time* — *believed by many today* — via some miracle given to us perhaps by the ancient Egyptian religion of Amun. This creed proves to us that many — *in these universities* — totally believe their own BS.

Light energy is definitely neither a photon moving at the speed of light, nor a beam of light itself moving as a wave at the speed of light.

Those two things are not **happening!**

One photon going through both slits at the same time, also **is** not **happening!**

Light is a simple binding energy operation: It's nothing more than that!

**Why have none in these universities even contemplated the spacetime continuum *Intermediate Frequency* to play a vital role in producing this interferometer picture?**

We consider this, new *look* at what Young first found, to be one of our contributions to knowledge in today's science world.

If you wish to continue believing in the ancient Egyptian religion of Amun — *what the military industrial complex tells you* — then go right ahead and not worry about what you read here.

Thus you have heard our pronouncement while men of equal insight but less courage and men of equal courage but less insight remain silent.

"A foolish faith in authority is the worst enemy of truth." **Albert Einstein**

# 11. Gyroscopic action and Translational Motion

Robert Millikan [\*Millikan\*](#) gave us the amount of repulsive charge that a single free electron had in 1909. This idea of charge was something that Benjamin Franklin thought of long before that. How does this fit in with our new idea of phase?

If it's phase then we see exactly why both Franklin, Millikan, and indeed many others through the years, would think free electrons really had this thing called charge.

See, if Franklin, Millikan and others are right — *and we do have this thing called repulsive charge* — then electrons would **always** repel other electrons. Totally free electrons always repel other totally free electrons. *But this doesn't happen when electrons are restricted.* In both magnetism and in sigma and pi chemical bonding, *where electrons are restricted*, electrons in fact, attract other electrons via polar and equatorial bondings.

Only our new concept of phase shows us why electrons both attract and repel each other.

It all has to do with the electron's spin: it's this spin that gives us gyroscopic action and translational motion.

Scientists are aware of gyroscopic action and translational motion in the macrocosm but are blind to these actions in the micro world. Both of these actions are why quantum theory is a science of an infinite number of probabilities.

In the macro world we see translational motion in the need for cyclic pitch in helicopter blades and in Rachel Carson's statement, "No wooden ship can withstand the **bad quarter** of a severe hurricane."

The **bad quarter** of that hurricane is where the rotational speed of the hurricane, as a whole, must be added to the forward velocity of the storm to get the true — *wind velocity or* — translational motion.

The effective destructive force of this hurricane translational motion (*energy*) goes up as the square of the wind speed. But in the microcosm this effective force goes up faster, even approaching infinity, at the speed of light.

Without microcosm translational motion there would be no light or even centrifugal force. It will take quite a few sentences merely to explain that sentence.

To transmit light energy an electron must impedance match and bind with a distant, opposite spin electron: Portions of the closest sides (*ultra tiny sliver portions*) of both electrons must be — *going the same velocity* — exactly *in phase* compared to the surroundings.

Even though all electrons have the same spin frequency not all electrons have a similar forward speed — *also remember, they are Bohr's round spheres* — so this limits the bindings to those electrons whose closest sides have identical translational motion.

Translational motion — *like in the hurricane* — depends on spin speed plus forward velocity.

Color depends on the frequency of this translational motion. Ultra violet will come from bindings with about twice the frequency — *of translational motion* — than red light. This is why — *energy being commensurate to frequency* — that ultra violet has about twice the energy of red light.

OK, that's light but how on earth, the reader will ask, does translational motion affect centrifugal force?

Well, to do that we have to move from the electron to the quark. The down quark, you saw in Chapters 4 and 9, has a spin frequency the square of the electron's spin frequency.

Without a quark binding with an inverted spin quark, via their translational motion, you wouldn't even be able to ride a bicycle!

You saw how Rachel Carson said this translational energy went up in a hurricane. You also saw how it goes up in energy as red light goes to violet. Well now let's examine how it works with quarks.

Using the Rutherford Bohr view, quarks are spinning, spherical entities. They must be spinning pretty fast — *pretty close to the speed of light* — with a spin frequency the square of the electron spin frequency. There are plenty of these fast spinning quarks in your bicycle wheels. Those wheels are now adding this extra translational motion to half of those quarks and subtracting an **equal** amount of translational motion from the other half.

The problem is — *changing translational motion* — that attracting and repelling forces don't end up equal!

Half of the quarks that now have this added translational motion are **moving higher up on that speed of light asymptote curve** where the binding attractive force with their partner quarks in the surrounding stars is approaching infinity. Quarks in the wheels are now binding with far more energy to quarks in the surrounding stars.

They have gained this attractive energy — *giving the wheels more inertial mass* — from you pumping harder on the bicycle pedals!

So the faster you ride, the faster your cycle wheels turn and the faster those quarks in your bicycle wheels bind with the quarks in the surrounding stars — *with more and more energy* — to better hold you up on your bicycle. It's as simple as that really. **This is the reason for centrifugal force!**

Cyclic pitch of the helicopter blades, the bad quarter of the hurricane, light colors and you staying up on your bicycle all are nothing but the result of translational motion.

That's not all!

Now watch what happens as we add gyroscopic action:

I hope you have noticed that what we have done so far, in all these chapters, is to entirely eliminate plus and minus charges and in fact any forces related to fields and have instead shown how *phase* can be used in place of all those old forces.

Gyroscopic precession is caused by nothing but *phase*: I showed, in my first book, this *relative motion/phase* gyro precession was caused by a force pulling from the stars.

The electron spin is the important thing and you have seen that two electrons can attract if their closest sides can impedance match by binding together *in phase*.

So electrons — *that are restricted* — really have a chance of repelling or a chance of attracting. But this attracting force is an impedance matched locking force whereas the repelling force is definitely not.

Then why do two free electrons always have to repel each other?

Because as soon as their closest sides begin to attract, their *precession* twists them away from this initial attracting position. (Remember, we

have done away with charge and substituted simple *gyroscopic action* and *phase*.)

And, as was shown in that first Fitzpatrick book in 1966-1967, gyro precession is caused by *phase*, that can also be seen as relative motion. Phase symmetry causes precession!

Thus, the only electrons that can attract other electrons must, in some way, be prevented from precessing. Being locked, *spin up*, in orbit around a *spin down*, down quark would prevent an electron from precessing.

A type of locking, such as this, is what is being done both in chemical bonding and magnetism.

It's as simple as that, really.

Before we finish this chapter, we have to remind you that by using Ampère's laws — *with a torque tending to make & keep the paths parallel* — there will be **far, far more torque** precession from two initial **polar attractions** than from two initial equatorial attractions. This — *more minimal amount of initial equatorial precession* — is the reason for Cooper pairs and sigma bonds and the reason that there must be sigma bonds before a pi bond can exist.

In other words the equatorial bond has far less problems lining up and bonding than the polar bond.

This is why light, radio waves, gravity and inertia are all equatorial bonds.

# 12. It's Phase and not Fields

We would not have all the accoutrements we now have in our lives if we did not have Faraday's fields and Maxwell's math for them.

Fields and field math allow engineers to design all these things that we think we need in our everyday lives.

This concept of fields allows engineers to reduce the thousands of trillions of individual quantum forces into a concept they can feed into a computer that gives answers.

But as Einstein discovered in 1954, it's the quantum force and not the field (*numerous quanta*) that counts if one wants to see how this universe really works.

Scientists know that each quantum binding force locks on and binds: In fact, this is termed binding energy. They also agree that all this electron to electron sigma and pi chemical bonding gives us our molecular compositions. What they have missed is what this chapter is all about: the phase/relative motion aspect of all this was clearly implied in Fitzpatrick's 1966-1967 book which is now quoted:

"As we hold a compass in our hands, let us utilize the Galileo-Einstein gift of relativity and imagine that the earth along with us, and of course our compass, is at rest.

The sun, moon and stars can be considered as rotating around us, rising in the east and setting in the west.

We find, if we have a flashlight battery and a loop of wire, that when we connect it to the loop of wire, this has an effect upon our compass when we place our compass inside this loop.

We find that when electrons are moving around the loop (going from  $-$  to  $+$ ) and therefore around the compass in the same direction that the sun and moon and stars seem to go around the earth, then we are reinforcing the direction that the earth's magnetic field would ordinarily move the compass needle.

Here we ask--what is the difference between the electrons going around the loop of wire at a close range and very fast or the sun, moon and stars going around the compass slower but farther away but the mass of these being greater than the electrons?

In other words the spinning electrons in the compass needle will tend to line up the outside of their spinning circumferences in the same plane with the loop of wire with the electrons in it. This will be in the same plane and in the same direction as the orbit the sun seems to make around the earth.

Our [Law of Relative Motion](#) does not distinguish between electrons moving around the compass or the sun moving around the compass as long as the path and direction remains essentially the same."

Therefore we know what is magnetizing the earth's iron core: it's this relative motion of its surroundings caused by the earth's spin. This same exhibition of spin to magnetism exists all throughout our universe. Everyone seems perfectly aware of this.

But why we ask, has everyone totally missed the phase/relative motion aspect of all of this?

Because they **totally** concentrated on the wonderful field aspect of this. Yes, our engineers have accomplished wonders using this field concept but as Einstein saw in 1954, this field concept is not the correct concept to use to see how this universe works.

The concept to use — *to see how this universe works* — is relative motion — *like in that 1966 book* — **and/or** phase. Both relative motion and phase are essentially the same. It's an **and/or** relationship. You know you can see better with two eyes so use **both** relative motion *and* phase. We'll prove using **both** is best in the rest of this chapter. And remember,

think of phase not fields.

**There is no superbly *accurate* gravitational field or superbly *accurate* magnetic field math!** So forget entirely about fields. As Einstein finally told us, we do not yet have a mathematical field concept that works *perfectly*.

What does exist are in phase attractive forces and out of phase repulsive forces.

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.

**Remember, we gave you absolute proof that electrons are spinning, spherical entities, exactly as Rutherford and Bohr saw them, orbiting on actual orbits in the microcosm.**

We began this proof by taking two magnets with their same poles in the same direction and placing one on top of the other. This polar attraction — *where electrons on the same spin axis are totally in phase* — is the stronger attraction. When one of these magnets is reversed then the sides of both magnets will attract, but this — *situation where only their closest sides are in phase* — is a far weaker attraction.

Thus we see why the polar magnetic attraction is the stronger attraction.

And why did we say the polar attraction in chemical bonding is the weaker of the two attractions?

Again, why is the electron to electron attraction in chemical bonding the reverse of that in magnetism?

***As we said the only answer possible is that these electrons are***

**actual spinning spheres on orbits as Bohr said.**

Also keep in mind that all forces are nothing but *phase* relationships:

**You won't see this correct view, of *phase*, at all, looking from the accepted present science view. But using this motion seen by Bohr gives you a better, enhanced view of *phase* in this frequency world.**

## 13. An Accelerating Expanding Universe

Also why  $E = mc^2$

Since 1998, after NASA and the news media fully digested the results of Saul Perlmutter's Supernova Cosmology Project and Brian Schmidt's High-z Supernova Search Team, we've been told that we are really in an accelerating, expanding universe. Some scientists see this as Einstein's cosmological constant ( $\Lambda$  multiplied by the density of the vacuum), which was a repulsive force equal but opposite to gravity that kept all the stars and galaxies apart when we were supposedly (*long ago*) in a static sort of steady state universe.

This accelerating expansion was discovered by observing type 1a supernovae extremely distant in space but when you look far off in

space then you also look far off in time. A supernova discovered about five billion years back in time turned out to be much fainter than it was supposed to be. To the astronomical world and the news world this meant only one thing: This, we were told, meant that we were in an accelerating, expanding universe.

But since then far more interest and money went in to finding even further distant type 1a supernovae. Then something else was discovered in later years. Earlier type 1a supernovae, more billions of years, back in time, were giving us an indication the universe was not expanding as much way back then.

This, our astronomers tell us, is an indication of an accelerating, expansion that began in earnest about five billion years ago.

Well, this universe is thought to be about fourteen billion years old since the Big Bang started it. Our sun has existed a good portion of that time and will remain and burn many more billions of years too. Life has existed on this earth almost ten billion years but, unfortunately for human life, most estimates are that before another half a billion years is past, our sun — *it's growing bigger & hotter* — will have gotten hot enough to evaporate all the rivers making human inhabitation, here on earth, impossible.

Now back to the reason for the presently believed accelerating expansion of the universe: The Big Bang did not produce all the elements as George Gamow and his assistants Ralph Alpher and Robert Herman mistakenly told us — *they arrived at 10 instead of 2.725 degrees Kelvin because they included all the heavy elements* — when they first predicted the existence of the CMBR in the early 1950s. We now know the Big Bang produced only the elements hydrogen, helium and a slight bit of lithium.

It takes an exploding supernova to produce the heavier elements.

We don't see any quasars in nearby galaxies now. They only exist in that earlier universe where stars were almost pure hydrogen and helium. Exploding supernovae generated all the other heavier elements and distributed these heavier elements to our universe. We can only assume this took many billions of years thus removing any possibility of these earlier hydrogen and helium quasars being built in our present universe today.

We must assume that exploding supernovae had produced enough of the heavier elements and distributed them throughout the universe in its first nine billion years to give us stars quite similar to those we now see in our nearby galaxies.

Why does creating these heavier elements give us this look of a universe that, since the past five billion years, has this sudden accelerating expansion?

It has to do with the principle of equivalence.

We have the principle of equivalence because we can only sense the acceleration of the quark spin produced space. We can only measure electron produced space. As Wheeler and Feynman told us, we may sense things in other spacetime realms but we can't measure them. So we sense the acceleration of the quark produced space but we do not even see this as our space.

Now what happens as these exploding supernovae produce all these heavier elements?

You have far more of this cosmological constant repelling force because as more and more in phase bindings are locked up in these more massive internal bindings then you have far more repulsive out

of phase forces, compared to in phase forces, than previously.

Remember, whether it's quark spin or electron spin, *in phase* attractive force has to equal *out of phase* repulsive force.

Peak star production was first thought to be in the first four billion years but now it has been moved up quite a bit earlier by the experts in that field.

It was the manufacture of these heavier elements in our universe that produced this more massive *out of phase* repulsive force that we now view as causing an accelerating, expanding universe.

Our consensus is that this is only an apparent accelerating, expanding universe just as the acceleration produced by gravity — *principle of equivalence* — is only apparent acceleration in our electron produced spacetime realm.

In other words, this force — *Einstein's cosmological constant* — is there just as its opposite but equal gravitational force is there but we sense it as only an acceleration with **no real movement** exactly like we sense our earth's gravity affecting us with **no real movement**.

After the beta decay Big Bang was over, the in phase forces always have to equal the out of phase forces so this universe **must** remain in balance!

**This is a static, steady state universe!** We can hear Fred Hoyle cheering from his grave!

In an elevator we feel the floor pushing under us as we **move** up. We feel the earth's gravity pushing under us but we **don't** move up.

It's more of Einstein's principle of equivalence really: Not only gravity but gravity's equal but opposite force also **cannot be**

**discerned from an acceleration.**

That repulsive force is out there but — *via the principle of equivalence* — you can't tell if it's a force or an acceleration.

The belief of our NASA experts that our universe is 75% dark energy, 4% normal matter and 21% dark matter was formed via the first results of the WMAP team in 2003 and the final results of that team in 2006. They found something that does indeed exist but their model is a bit wrong: It's the force — *quark spin energy produced space* — that's out there, not an actual acceleration type **movement**, in our electron produced space, that we can measure.

There is — *as NASA describes it* — about 75% more space creation (energy) repelling everything apart and a total of 25% space depletion (mass) attracting everything. This means — *according to NASA* — the empty space in our universe is currently expanding while the actual solid entities are not expanding. While this might be possible according to general relativity, this is not what is happening.

In fact, **Nothing could be further from the truth!** Yes, the force — *gravity's opposite repulsive force* — is there but no **real** acceleration type **motion** is, thus no **real** expanding universe that we can measure.

This 75% space creation — *75% dark energy* — is there alright but this is quark spin (energy) produced space and we can't measure quark space. We can only measure electron produced space.

**The quark produced space of this universe** — *the inertial space that really counts* — **is larger by far than the electron produced space that we can measure.**

This shows they did get some of it right so let's look a bit more at what is happening:

It takes light 8 minutes to get to us here on earth from the sun. So we can only see the sun the way it was 8 minutes ago. The further things are from us, the longer it takes light to get to us. So the further out we look in — *electron produced* — space then the further back we look into — *electron produced* — time.

As we previously said, NASA astronomers pretty much agree that this universe is about 14 billion years old and it took more than the first thirtieth of the first billion years — *about 380 thousand years* — after the Big Bang for things to cool down enough that electrons could combine with protons. This era is important because this was when the CMBR emerged. There is no possibility we can see light or any other electromagnetic radiation before that era. But then it took almost one third of that first billion years for enough stars to form to give us any light that we might see today. What this essentially means is that as we look out in space — *remember, we are also looking back in time* — that we can only look back in time to this first one third of that first billion year era simply because enough light would not have been produced by stars earlier than that.

We can almost see back to that time now but not quite. At least we cannot detect single galaxies back to that era yet. And the individual galaxies we can detect close to that time are entirely different from the galaxies we see close to us now.

It's pretty well agreed that our universe is approximately 14 billion years old but the heavier elements that had to arrive via supernovae explosions, and began being delivered to the universe about 9 billion years ago, didn't arrive entirely enmasse until about 5 billion years ago. These heavier elements — *for the past 5 billion years* — have now locked up about 75% of the *in phase* attractive quark to quark bindings. Since there are an equal number of attractive to repulsive

initial bindings then that does give us the 75% space creation that NASA sees. But this is quark spin frequency produced space and not the electron spin frequency space that we can see and measure.

But now we must ask the question, could this quark space that we cannot measure be expanding? Well, the answer has to be **no**, because if it was expanding then we would have noticed a drop in inertia with time and there is no measurable drop of inertia with time.

An expansion of this quark space would not affect the strength of each individual inertial binding but the **numbers** of these binding quanta would **drop** with such an expansion and this we do not see.

**Therefore the quark space that we cannot measure and the electron space that we can measure, are both static, steady-state spaces that are absolutely not expanding with time.**

As Wheeler and Feynman said, we can detect things in these other spacetime realms where we cannot measure and we detect inertia not changing which tells us that this quark produced space is not expanding even though 75% more quark energy producing space seems to be there.

That's the gist of it but you must have completely understood Chapter 7 and you might even have to read a bit more to fully comprehend why we are really in a relatively static universe now or closer to a steady-state universe now regardless of what NASA publications state.

In Chapter 7 we told you the following.

**This universe is forever trying to balance via *in phase* spin attractions and *out of phase* spin repulsions.** The universe does eventually always balance out because these attractive forces and

repulsive forces are always equal.

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

**All energy — *whether fission, fusion or chemical* — is binding energy that relates to the surrounding stars!**

**Bindings — *binding force* — can neither be created nor destroyed but *can be switched* from near to surrounding stars, creating inertial mass.**

**Bindings — *binding force* — can neither be created nor destroyed but *can be switched* from surrounding stars to near, creating energy.**

This is *why* we have Einstein's  $E = mc^2$ .

Yes, but let's give a more exact description:

**Bindings — *binding force* — *can be switched* from surrounding stars to near, creating energy providing the resulting entities have equal — *or close to equal* — near-far binding strengths:** In our spacetime realm this would be iron but in the electron's spacetime realm it would be the electron.

Remember: **This universe is forever trying to balance via *in phase spin attractions* and *out of phase spin repulsions*.** The universe does eventually always balance out because these attractive forces and repulsive forces are always equal.

Iron is perfectly balanced: It has internal quark to quark bindings **equal to** quark to quark bindings with the surrounding stars that create its mass.

In fact, the electrons that can be spin shifted inside iron are at that exact midpoint of that binding equality. This is why it takes little energy to shift their spins from up to down.

Unfortunately — *like in iron* — this earth is spinning in a similar equal far to near binding strength situation and its spin can be — *and has been* — easily, like an electron, turned upside down — reversed from north to south. [\*pole reversals\*](#)

All you have to do is look at how various magnets are created — *look at alnico magnets* — it's obvious that all the *easily* spin shifted electrons are situated at these various midpoint strengths of the nickel and cobalt elements which are not themselves exactly at the peak of the energy curve like iron.

This is why there is fission energy to the right of iron on the energy curve because the resulting entities produced are — *more balanced* — closer to iron.

This is why there is fusion energy to the left of iron on the energy curve as well.

I know you are tired of hearing this but **it's all phase and phase balancing.**

We do really live in Dr. Milo Wolff's scalar, standing wave universe.

The string theorists almost got it but they didn't do quite as well as Milo Wolff did. What definitely eliminates superstring is that it does not allow anything to exist smaller than the Planck length whereas this is definitely a frequency universe where no such small limit is allowed.

Our electron spin frequency world is simply like the key on a piano

with the quark spin frequency a key higher up in frequency from us and the solar system a key lower in frequency from us. How many keys are on the keyboard of this universe grand piano — no one knows.

## 14. What have we learned so far?

One important thing we've learned — *amongst many other things* — is that in over a hundred years few still realize exactly what the Michelson Morely experiment is telling us!

Essentially what this famous experiment did was — *to try* — to add the speed of the earth in orbit to the speed of light. Even before 1900 the experiment was performed over and over again with similar null results.

This told everyone that you could not add the earth's orbit to the speed of light.

But it told something else more important that no one seemed to realize!

No one realized that if we were in Dr. Milo Wolff's scalar, standing wave universe and if this was a frequency universe in the macrocosm as well as everyone knows it is in the microcosm, then spacetime would be seen by us as a scalar change at — *the speed of light or* — the rate of three hundred million meters per second.

What this null in the Michelson Morely experiment tells us is that a quantum of light is nothing more than — *a bit of energy produced by* — a **simple** binding operation: an *in phase* long distance spin up-spin down equatorial — *Cooper pair or Sigma type* — bond is being shifted between a distant star and your eye. As that bond from the star collapses, the electron orbiting in your eye, sends a quantum of energy to your brain.

So, for well over 100 years few realized that light might not be moving at all and light as well as all energy was merely a binding change with the far distant surroundings as we showed in the previous chapter.

As we write this book it seems incredible to both of us that few saw — *for over a century* — what the Michelson Morely experiment was really telling us: it essentially told us that light wasn't moving!

We see that we should have listened more to what Mach told us instead of giving it mere lip service.

While Ampère gave us the correct *simple* model to use, we operated instead with complicated field rules and math which even Einstein finally discovered, lead to nothing.

We saw in Chapter 10, how the double slit experiment finally makes sense. The waves we see produced by the double slit is caused by our **Intermediate Frequency**, which is our scalar spacetime continuum plus light, and not solely by a light wave alone.

We've seen that our so called dark matter and dark energy are mostly — *but not all* — wrong science beliefs.

Earlier we said Einstein was going to name his second theory, his

***invariant*** theory because not only in special relativity but in general relativity, as well, invariance — *seen first by Minkowski* — played a more important part than relativity did: But this is especially so in general relativity where the relativity utilized in special relativity is simply '*gone with the wind*', because in general relativity, the mass increases, the contractions and the time dilations, can be detected by all reference frames. Not only that but in general relativity all motion is seen in respect to the fixed stars whereas in special relativity there can be no fixed reference space of any type. No force whatsoever is allowed in special relativity while force plays an essential role in general relativity. Special relativity and general relativity use entirely different math and rules: they are two entirely different entities and should never be construed as being similar!

That's the reason Einstein was going to name his second theory, his ***invariant*** theory. But he didn't because the name relativity was too popular by then.

Both Einstein and Bohr came very close to finding the famous '*entlosung*' or **final solution** of this great mystery but the simple prejudices that each of them held — *together with wrong science beliefs* — prevented each of them from seeing this wonderful big picture of how our universe really works.

If Minkowski had lived, could he have done it? That, we will never know.

Many important things were discovered that should have led to the exact '*entlosung*' but no one seemed to be able to put all these important discoveries together to come up with the correct **final solution**.

Why did **none** of the important scientists see the real reason for the

null in the Michelson Morely experiment?

Why did the majority, including Einstein and Bohr, sweep Mach's principle under the rug and merely give it lip service?

The majority should have given lip service, instead, to Millikan's electron repulsive charge. It only exists with totally free electrons. Yes, totally free electrons repel each other, yet once they become attached to a nucleus then they start attracting other attached electrons. Yet no one asked *why*.

Why didn't Einstein — *who gave us the principle of equivalence* — seek an answer as to *why* gravity was associated with acceleration? There has to be a **reason** for the principle of equivalence yet no one even looked for it!

Why didn't Einstein see what Stephen Wolfram saw? It's a *simple model* that is of the greatest importance, not more complicated **math**.

How could *everyone* entirely miss the important *simple phase* aspect in all of this that Ampère clearly pointed out?

Ampère gave us the *simple* model that no one used!

What mystifies us, as we write this, is that Ampère's *simple* relative motion or *phase* model has been with us now for over two hundred years showing the majority that we need to look for a *simple phase* model, yet scientists continue to strive, just like Einstein, for more complicated math to explain our universe.

How can this majority, even at this late date, fail to understand that we are in Dr. Milo Wolff's *simple* scalar, standing wave universe?

"Once you see that the majority are nowhere close to the answer then you **know** you must think entirely out of the box wherein that majority are thinking." (Richard Mark

Fitzpatrick)

# 15. This Nov. 11, 2013 Scientific American link gives us the demise of supersymmetry

<http://www.scientificamerican.com/article.cfm?id=electron-spherical-electric-dipole-moment>

What this article (*above link*) says is that the electron cannot be considered a dipole under the rules of supersymmetry because the electron, now, turns out to be a perfect sphere.

In supersymmetry if the electron is a perfect sphere then it cannot be a dipole.

But the electron **can be** considered a dipole if this is a universe having **super phase symmetry** instead of supersymmetry.

So it's back to where we started:

The top symmetry?

**It's not supersymmetry:**

# It's phase symmetry.

This is a frequency universe with an important **super phase symmetry** where resonant phase is a good part of the symmetry but not all of the symmetry.

This **super phase symmetry** model shows you clearly what's really going on.

The **phase** model of this universe is similar to the quantum scientist's frequency model of things — with the added belief that this is a frequency universe in the macrocosm as well, and that Mach's principle is absolutely correct: in other words inertia (*inertial mass*) depends on the surrounding stars.

The earth turns once in respect to the sun in 24 hours but in respect to the stars in 23 hours, 56 minutes and 4.0916 seconds which is termed a sidereal day. Since vibrating elements, pendulums, liquid helium 2 and gyroscopes all exhibit this 23 hour, 56 minute and 4 second rotation rate, we can assume that not only do these things bind with the surrounding stars but that gyroscopic inertia as well as inertial mass are both dependent on fixed star binding, proving Ernst Mach correct: our molecules here are actually binding, in some way, with those molecules in the surrounding stars.

What we need to look at is the *relative motion* or **phase symmetry** aspect that Ampere [\*Ampere's Laws\*](#) showed us: that things moving (or spinning) in phase attract and that things moving (*or spinning*) out of phase repel.

Explaining things this **phase symmetry** way gives us a *far different* and *better theory* as to how everything works. This **super phase symmetry** model gives us a more concise view of things than the

## Standard Model.

Explaining things this **phase** way furnishes us with a much simpler and better explanation, in all this, than using magnetic fields or charge.

This may seem redundant but let's go over some of these things, we have learned, once more:

Place two alnico magnets, on a table, with their north poles facing up. If you look down at them and could see the electrons inside them then you would see a vast number of these electrons all lined up spinning clockwise in both magnets. The reason these magnets attract when one is placed on top of the other is that, in both magnets, all these electrons are spinning in phase with each other. This is a polar type of binding where the electrons, in both magnets, attracting each other have their poles lined up on the same spin axis.

Now remove the top magnet and flip it over and put it back on the table with its south pole up. Electrons in both magnets are now spinning in opposite directions but both magnets will still attract when slid sideways together; however, this will be a weaker attraction. Why? Because now **these entire electrons are no longer in phase** with each other yet the closest sides of the electrons, in the north pole up magnet, **are** now in phase (*like gears meshing*) with the closest sides of the south pole up magnet thereby attracting it. This is an equatorial type binding because the electron pairs that are binding both magnets together this way are all spinning in the same equatorial spin planes. But this is a weaker attraction than the previous polar bonding because in the initial instance of polar bonding the entire electrons, in both magnets, were in phase. In this 2<sup>nd</sup> weaker attraction, only the closest sides of each of these inverted pairs of

attracting electrons are in phase (*like gears meshing*).

Turn one of those magnets over, on the table, and they will repel when slid together sideways and then put one magnet on top of the other with top poles reversed and they will repel at a greater strength simply because now the magnetic electrons, in one magnet, are all spinning completely out of phase with the magnetic causing electrons in the other magnet.

Polar binding and equatorial binding are the only two ways electrons can attract each other. In magnetism the polar bond is the stronger bond but it is the reverse in chemical bonding because just as Nobel laureate Niels Bohr surmised, electrons are actually in motion and in actual orbits. So polar bonds only occur when the poles of one electron — occasionally during each orbit — line up exactly with the poles of another. The polar chemical bond is therefore a momentary but repetitious bond while the equatorial bond is a long term permanent bond, ending up stronger, as long as both electrons remain spinning in the same spin plane.

Thus, while in magnetism the polar bond is the stronger bond, in chemical bonding the polar bond ends up, because of its momentary repetitious nature, as the weaker bond.

This, to the dismay of those wave purists who see only a wave orbital picture instead of orbits, is **solid proof** the electron does indeed orbit exactly as Niels Bohr told us over 90 years ago.

A Cooper pair of electrons are two electrons with reversed spins, binding themselves together in an equatorial bond. A sigma chemical bond is also an equatorial bond while a pi chemical bond is a polar bond.

It's a well known fact that there must be sigma bonds before a pi bond can be established. There's a good reason for this: Each electron is an actual gyroscope having gyroscopic torque. The reason that two free electrons can never attract each other is that whenever the poles of each try to attract, the resultant 90 degree gyroscopic torque reaction of each pulls them apart. There is far less of this 90 degree gyroscopic torque reaction *after* these electrons lose their freedom and become attached to orbits, yet there is still enough of this 90 degree torque reaction left and it diminishes polar binding far more than equatorial binding: thus there must be sigma bonds stabilizing things before a polar type pi chemical bonding can be established.

Therefore all quantum energy exchanges — *which involve totally separate pairs* — must be initiated via a spin up-spin down bond because this type of equatorial bond can be more easily established without causing the excessive, disrupting gyro torque caused by an attempted polar binding.

Not only that but quarks too have gyro torque so all quark strong force bonds and distant quark bonds giving us gravity and inertial mass must also be equatorial quark spin up-spin down bonds where only the closest sides of these spinning quarks are in phase.

All binding energy, including this binding with the surrounding stars, is a similar spin up-spin down in phase (*like gears meshing*) attraction with **impedance matched**, resonant *spin* frequency **binding**. In other words two inverted entities that spin together with opposite spins *as meshing gears* will attract each other even at long distances (the Hubble limit for the electron). Dr. Milo Wolff [Dr. Milo Wolff](#) discovered this.

This force of attraction does not diminish at all with distance for both

the quark binding and electron binding.

Scientists have known for quite a while now that light and heat each come in a discrete packet of energy called an energy *quantum*. Einstein named the light energy quantum packet a *photon*.

Einstein's *photon* is always emitted and received via the binding of a **single pair of** spin up-spin down **electrons** no matter the distance between them as long as that distance does not exceed the Hubble limit. In a binding energy exchange the orbit size decrease by the emitting electron must exactly equal the increased orbit size of the electron absorbing this energy quantum; in other words the orbit of the sender goes down while the orbit of the receiver goes up the same amount.

With light, *and other energy transfers*, initially it was thought the strength varied as the inverse square of the distance but **it does not!** It's not the strength but the **number** of these binding quantum pairs that falls off with the square of the distance. The strength of each quantum pair bond remains the same no matter the distance. This is why a quantum of light from a distant star comes to your eye full strength. Knowing this is extremely important. In fact this *full strength quantum of energy* delivered lengthy distances is the keystone of quantum theory.

This energy transfer is accomplished via **impedance matched resonant frequency binding**. This is where the closest sides of a scalar, spinning, standing wave entity are in phase (*like the closest sides of gears meshing*). These entities must be not only moving and spinning at the same speed but an **ultra tiny sliver** (*a quantum*) of both of their closest sides must not only have the same speed **but the same velocity** (speed and direction) compared to the surroundings.

Einstein knew and constantly published accounts of the importance of symmetry. CERN was built on a symmetry even greater — *they thought* — than Einstein's symmetry: it was a belief in a new supersymmetry that has now been proven wrong. Einstein was right: there is an important top symmetry but it's a **phase symmetry**. And the scientists at CERN missed it entirely!

Many of today's quantum scientists make another bad mistake by seeing the electron *only* as a standing wave. Yet a spinning, scalar, standing wave can *also* behave as a discrete, spinning, spherical particle. Milo Wolff showed us this.

Keep in mind the aforementioned fact that all binding energy, including this binding with the surrounding stars, is **impedance matched, resonant frequency binding** in which these spinning entities will attract when their closest sides are spinning (*like gears meshing*) in phase and repel when their closest sides are spinning out of phase.

If you look close enough at all the invisible forces, seeing quarks and electrons as scalar, spinning, standing wave entities, then you will clearly see that in phase attraction and out of phase repulsion, caused by spin frequencies, are the cause of every force in this entire universe.

Not only that but you can also see that things position themselves in geodesics (*mostly orbits*) where out of phase repulsion balances in phase attraction.

The smaller spinning quarks and electrons must behave exactly like larger planets, solar systems and galaxies as they too spin in their balanced in phase out of phase geodesics.

The closest sides of two inverted quarks — *one here and one on a star* — spinning together in phase (*like gears meshing*) give us inertial mass while an electron in our eye spinning in phase with an inverted electron on a distant star is the beginning of a quantum of light energy delivered to our brain. Out of phase spin frequencies with others in the surrounding stars give us, an average or mean out of phase force or, what we see as space.

Geodesics of most things in this universe are caused by the surrounding stars providing the out of phase repulsion and closer entities providing most of the in phase attraction. In MAGLEV however, both the attraction and repulsion are caused by the closer entities.

A free magnet, in a super cooled, super conducting MAGLEV type environment, will nonetheless levitate and spin in its balanced in phase out of phase geodesic exactly as all spinning entities, in this entire universe, will spin in their balanced in phase out of phase geodesics.

General relativity also becomes much easier to visualize using a quark spin frequency **impedance matched, resonant frequency binding** concept.

For instance, the fact that an increase in speed creates an increase in mass in general relativity stems from the fact that the translational motion of these higher energy quarks in the accelerated item — *now higher up on the speed of light asymptote curve* — must impedance match with similar, higher energy, accelerated quarks in the surrounding stars thus creating this additional inertial mass via  $E=mc^2$ .

This, as stated previously, is why we have centrifugal force. The

resistance that you feel as you spin something faster is really nothing more than faster moving quarks, in the thing you are spinning, now rebinding with more and more massive quarks in the surrounding stars as you speed up the rotation rate.

Where distant electron binding and repulsion give us the magnetic forces, it's quark to distant quark binding that gives us not only gravity but this inertial force that we refer to as inertial mass.

And one thing more about  $E = mc^2$ , when quark to quark local binding is switched to surrounding star binding then energy has been turned into mass but when a local quark switches its binding from the surrounding stars to local quark binding then mass has turned into energy.

See how this **phase symmetry** model shows you exactly how  $E = mc^2$  works!

And if you think that's amazing then look at what's next:

This **super** concept of **phase symmetry** shows you not only what both space and time are but why you are able to see stars that are far from you in both space and time.

A major theme through all of this has been: 'Out of phase spin frequencies with others in the surrounding stars give us, an average or mean out of phase force or, what we see as space.'

So more out of phase forces between you and a distant star do not merely distant you from that star in space; they also distant you from it in time (spacetime).

This **phase symmetry** model now is the only symmetry model, so far, that shows you why you can see that star far from you in time:

Since there is absolutely nothing (no particle) between the electron in your eye and the inverted electron on that star and they both have opposite spins (like gears meshing) then an ultra thin sliver of both are exactly in phase; therefore this tiny sliver portion of both the electron on that star and your eye must be **both in the same spacetime**. This is the reason that tiny sliver, a quantum, of mass/energy can be transferred through space and time to your eye.

This **phase symmetry** model, therefore, is the only symmetry model that shows you exactly what both space and time **really are!**

I'm afraid this paper adds to the demise of supersymmetry because if Einstein's photon is only a binding operation then there are no such full integer spin particles as bosons needed. All of them are merely binding operations of different things at different frequencies.

This **phase symmetry** model shows the reason for the outcome of the Michelson-Morley experiment because light has no speed. What is being seen as the speed of light is merely the out of phase rate that spacetime is being changed at this particular electron frequency.

# 16. Particles, Black Holes & superheterodyne

## intermediate frequency

What if both of us authors are right and this is a frequency universe all throughout, then you must ask the question '*What is a particle*'?

From what we've seen so far, everything must be expressed in frequency terms and this includes particles.

If someone says 'particle' then you must ask, "What frequency?"

A spinning particle containing atoms will have a certain gyroscopic torque imposed by quarks in the surrounding stars; a spinning electron, however, will have a gyroscopic torque as well but this will be imposed by surrounding electrons out to the Hubble limit: This electron Hubble limit *may* extend much, much further out than the (*amperefitz limit*) surrounding star limit of surrounding quarks that give us our inertia and our gyro torque.

Scientists should be searching for this limit right now but none are.

You can see how violet light is bent much more than red in a prism and the blue frequency is not quite double the red frequency; consider how much more space would be bent if one frequency was the square of the other, as the quark spin is from the electron spin.

Most of the stars we see with the Hubble space telescope may have no effect on our inertia whatsoever. Perhaps only the innermost stars give us inertia and cause what we wrongly term centrifugal force.

If you do use the term centrifugal force then you must state the frequency:

Is it centrifugal force that we sense here on earth or is it the centrifugal force existing inside galaxies or is it the centrifugal force

existing inside super clusters of galaxies because these are different forces at different frequencies. Not knowing this, our scientists have invented dark matter and dark energy.

The word gravity is also not an accurate term unless the frequency is stated. Is the person talking about gravity here or gravity inside a galaxy or the gravitational attraction inside a super cluster?

All these scientific terms must either be eliminated or made more accurate by stating the frequency.

The concept of a particle must also either be eliminated or given in terms of frequency; we can see particles composed of electrons and quarks (*molecules*). But we can't see electrons.

We must express a particle in frequency terms!

At this stage of the game neither of us knows exactly how this new frequency order of things will eventually be all arranged but we do know that it will be in some form of a spinning, scalar, standing wave entity set up.

We also know something else of importance: we know momentary aspects of these particles are also appearing in these Large Hadron Colliders (LHC).

From this we can only come to one conclusion and that is impedance matched binding must also be quantified via our scalar, standing wave, frequency universe and this is really one supremely important conclusion:

Hence, when you have impedance matched bindings if the matter in your surroundings increases then your inertia (inertial mass) will also increase.

Thus the larger a galaxy is, then the more inertia or inertial mass the center of that galaxy will have because there will be more mass in the surroundings and therefore more impedance matched binding with those immediate surroundings.

Galaxies of a certain size then will always have a center of such immense inertial mass that even light cannot escape; therefore it becomes a Black Hole.

The larger (more massive) the galaxy then the larger is the Black Hole in its center. Black holes are only found here.

See: Phase symmetry beats general relativity where surroundings are not homogeneous and isotropic in the immediate vicinity of a black hole in the middle of a gigantic spiral galaxy.

Last but not least:

All through this paper we mentioned the **IF** (**intermediate frequency**).

Here's a bit more about that:

Copied from the 2013 Britannica DVD "Superheterodyne reception:

the commonest technique for recovering the information (sound or picture) from carrier waves of a range of frequencies, transmitted by different broadcasting stations. The circuitry, devised by Edwin H. Armstrong during World War I, combines the high-frequency current produced by the incoming wave with a low-frequency current produced in the receiver, giving a beat (or heterodyne) frequency that is the difference between the original combining frequencies. This different frequency, called the **intermediate frequency (IF)**, is beyond the audible range (hence the original term, **supersonic heterodyne** reception); it can be amplified with higher gain and selectivity than can the initial higher frequency. The **IF** signal, retaining modulation to the same degree as the original carrier, enters a detector from which the desired audio or other output signal is obtained.

The receiver is tuned to different broadcast frequencies by adjusting the

frequency of the current used to combine with the carrier waves. This arrangement is employed in most radio, television, and radar receivers."

We're pretty certain that our human circuitry is this superheterodyne circuitry and our **IF** (**intermediate frequency**) is the electron's spin frequency.

Please read, from above, the partial green sentence: This different frequency, called the **intermediate frequency (IF)**, is beyond the audible range meaning a higher frequency range than the audible range. (*We wish these Brits would be more concise when they write these things.*) The spin frequency of the electron would also be a higher frequency (beyond the) electron orbiting frequencies that we are detecting as light.

Milo Wolff believes that SU (2) symmetry is telling us that the electron spins twice each time it orbits. This would put the electron spin at a higher frequency (beyond the) electron orbiting frequencies that we are detecting as light.

Armstrong designed a lower frequency **IF**, from the incoming frequencies and if the signal our electrons are receiving is at the de Broglie wavelength then this resembles Armstrong's circuitry exactly.

Thus everything fits perfectly in place for nature to perfect this superheterodyne circuitry in each of us.

Nature that perfected the eye lens long before scientists understood how it worked also perfected the superheterodyne circuitry long before Armstrong designed the very best receiver circuitry yet discovered.

We showed you that all **totally free** spinning, scalar, standing wave entities, such as the electron can never attract: No matter how many are forced onto the plate of a capacitor, they will always repel each

other. It is the motion of these three quarks, in orbit around each other in protons, that form a base for all these attractive forces. We are presently in a race with Tony Bermanseder and others to show you exactly how this quark motion is responsible for this sense of a gravitational field that varies as the inverse distance squared.

So we are both still working hard on all this science and other things that can make a bit of money for us as two copies of this and our \$65 goes to the Library of Congress.

Earlier versions of this, as we wrote it, were on the internet since 5/21/2013, titled "*Elaborate Design of our Universe*" being completely revamped after that Scientific American article arrived on 11/11/2013.

This was finished © December, 02, 2013.

Richard Mark Fitzpatrick CEO and founder of **Magpul**

and Daniel P. Fitzpatrick Jr. (Authors)

P. S.

Movie theatres used to give us their 'Coming Attractions'.

But 'Coming Science Attractions' will stem from more investigation of surroundings and translational motion:

We, like Feynman, have a bit of a problem uniting the electromagnetic force with the weak force that emanates from **entirely different** surroundings. We also "*can see the glue that holds them together*".

To get a force from beta decay, *same frequency* surroundings had to be drastically changed. If we can see it then Feynman saw that too, issuing his glue statement.

We think science in the future will have to pay far more attention to *same frequency* surroundings than it is doing today in 2013.

More attention will also have to be paid to translational motion:

All spinning, scalar, standing wave entities are spinning dipoles that generate equal attractive and repelling vector forces *providing there is no such thing as translational motion*. This makes these binding attractive forces go up faster on the speed of light — *or speed limit of any frequency realm* — asymptote curve. This is the *main* reason that in both micro and macro worlds these massive clumps are here and are widely separated.

And this makes us think it's further investigations of surroundings and translational motion that will give us most of the 'Coming Science Attractions'.

*"Pontem perpetui mansuram in saecula mundi."*

*Lacer*

RMF

&

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

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

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

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

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

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[http://www.rbduncan.com/letter\\_june2004.htm](http://www.rbduncan.com/letter_june2004.htm) "And Hubble warned us this was NOT an expanding universe."

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