

SEE, — **HOW** the complexities of **FIELD THEORIES HID** from us, the fact that **relative motion** (phase) between all these spinning entities, in the micro & macro universe, gives us **all** the **attractive and repulsive Fundamental Forces**.

Oct-29-2018.

Field Theories in html: <http://rbduncan.com/fieldtheory.html>

Also, **Field Theories** in Word: <http://rbduncan.com/fieldtheory.doc>

& **Field Theories** in Adobe pdf: <http://rbduncan.com/fieldtheory.pdf>

Fitzpatrick's 1966 book showed the **relative motion** laws of **A. Ampère** unified the forces.

[Fitz's first book in 1966](#)

[Fitz's 1966 book in PDF](#)



This was the way the site --below-- looked many years ago. - - Dan Fitz.



While the electron spin causes
magnetism
the quark spin causes gravity
and inertia.



Not only that but a quark spin frequency is the square of the electron's spin frequency: this is the reason for c^2 in our math.

As Fulbright scholar Dr. Milo Wolff has shown us, this is a scalar, standing wave universe but these scalar, standing wave resonances all have spin and these spin frequencies are lower than the main scalar frequency of the resonance entity itself.

Another thing my good friend Milo Wolff - *who helped get us to the moon* - has shown us is that the **Hubble limit** plays an important part in all of this.

In this paper I'm giving you incredible **facts**.
They are so numerous that the proof of them
takes many pages that you also can read.
The link to all those is at the end of this page.

Milo has shown us conclusively that electrons are standing waves that keep reproducing themselves from electrons in their **surroundings**. Wolff has thereby shown us **why** this element of reproduction is so inherent to everything in our universe.

Milo Wolff has also shown us **why surroundings** are so important; thus, he has shown us the reason for *Mach's principle* or **why**, as **Ernst Mach** stated in 1890, "The law of

inertia depends on the presence of the fixed stars." (*Inertial mass depends on the far distant **surroundings**.*) Berkeley knew this even before **Mach**. And Einstein used this knowledge to create **General Relativity**. Milo Wolff is the very first person to give us a mathematical proof of **Mach's principle**, or that inertial mass is caused by the distant **surroundings**.

Quoting from the **Britannica 2009 DVD** "**Mach's principle**: It was so called by Albert Einstein after the 19th-century Austrian physicist and philosopher Ernst Mach. Einstein found the hypothesis helpful in formulating his theory of general relativity-i.e., it was suggestive of a connection between geometry and matter-and attributed the idea to Mach, unaware that the English philosopher George Berkeley had proposed similar views during the 1700s. (Berkeley had argued that all motion, both uniform and nonuniform, was relative to the distant stars.)"

All these **Spinning, Scalar Standing Wave Resonances (SSSWR)s** are in their own distant, separate frequency bands: the quark has the highest frequency band we know of and the electron is in the next lower frequency band. Stars can also be considered **Spinning, Scalar Standing Wave Resonances (SSSWR)s** in an even lower frequency band and then come galaxies in an even lower frequency band and then super clusters in an even lower frequency band from the galaxies.

Here are some laws that all of these **Spinning, Scalar Standing Wave Resonances (SSSWR)s** seem to obey in each of their own separate frequency bands:

All of these **(SSSWR)**s can be considered a solid entity only if viewed from within their own frequency band. Each of these frequency bands is far removed and out of harms way harmonically from neighboring higher or lower **(SSSWR)** frequency bands. Viewed from a lower frequency band these **(SSSWR)**s will be viewed as waves and if viewed from a higher frequency band they will be viewed as a variegated solid (as we view galaxies).

These **(SSSWR)**s produce their own special spacetime setup for their own special frequency band. For instance, the spacetime interval in the quark realm will not be the same spacetime interval as in the electron realm. Nor can the space or time of the quark realm be measured accurately outside the quark realm. Wheeler and Feynman essentially showed us we cannot view things properly in another *gauge (frequency spacetime realm)*. We can not see motion in a higher frequency spacetime realm. However we can accurately measure the **effects of certain motion** changes in that realm. Only force and energy emitted from the quark realm can be accurately measured in our realm.

Scientists admit electrons can bond attractively together in only two ways: a pi polar bond and a sigma equatorial bond. The sigma equatorial bond occurs when two inverted electrons, spinning in the same plane, bond with their closest sides being in phase. In this paper I will only be discussing sigma type bonds, which when shifted from far to close, give us light, heat and chemical energy. I'll explain this to you if you keep reading.

Also you will see that quarks can bond together with a sigma type equatorial bond as well.

The strength of a single bond - *that causes a quantum of binding energy* - does not vary as the square of the distance. For instance, the strength of a sigma bond between an inverted pair of electrons (*also between a Cooper pair*) holds that same strength of binding even if those two electrons could be separated almost the distance of the Hubble limit. Once again - **remember** - each sigma bond retains its **full** strength of attraction all the way to the **Hubble limit**. In fact, this is the reason each quantum of energy is delivered with no energy loss at all regardless of the distance. It is the total amount of this energy that arrives in the inverse square ratio. (*It's only the number of sigma bonding pairs that diminish as the inverse distance squared.*)

Chemists have known for more than half a century that the strength of these sigma and pi bonds do not vary with distance. Don't any chemists talk to any astronomers?

No electrons here bond/bind with any electrons **beyond** the **Hubble limit**.

All of this electron to electron binding stops abruptly at the Hubble limit. I'll say this again because it's so very important: It's only the *number of these sigma bonding pairs* that vary inversely proportional to the distance squared. This is why we have both quantum theory and field theory. We use the concept of a field only with multiple quanta. This solves the great disparity between quantum and field theories.

We know that quark to quark binding creates the strong force. But it is quark to distant quark sigma type bonding/binding that causes gravity and quark to even further distant quark binding **to all the stars in this universe** - up to the **Amperefitz** limit - that

gives us inertial mass. This is why gravitational mass always equals inertial mass.

Every **(SSSWR)** - including the quark - **attracts** *distant* **(SSSWR)**s the same way using *impedance matched* sigma type bonding where thin, deep sections of **mass** are **equal** on each of *the closest sides* of these spinning, bonding/binding resonances. Remember, all these act somewhat as **solid** spinning entities in their own reference frame. It is only us in a lower frequency reference frame that view them as waves.

Centrifugal force is a similar binding to all those in the universe but added is the translational motion of a sector of these quark spins that are now higher up the speed of light asymptote curve that exactly impedance match other sectors of other far distant quark spins via Ampere's Laws.

All of these **(SSSWR)**s obey - *not our laws* - but all of them precisely obey *Ampere's Laws*. Our science laws are nothing more than Ampere's Laws being obeyed, as seen by us in our spacetime realm reference frame.

Everything in this universe can be seen more or less as **solids** orbiting and spinning in their respective frequency spacetime realms. Spin motion is the prevailing factor you must mostly watch in the microcosm while orbiting motion is what you must mainly observe elsewhere. However it's still *relative motion* or *relative phase*, whichever way you care to observe it.

We see it as **wavelength = size**. We see **(SSSWR)**s with longer wavelengths as larger and **(SSSWR)**s with shorter wavelengths as smaller.

*** important ***

As you read on it will become obvious to you why we have the mass to energy change via $E=mc^2$ and you will also perfectly understand *Mach's principle* (surroundings) as well:

Each electron that changes far off binding (with distant surroundings) to close binding, changes a quantum of *inertial mass to energy* in the amount of $h\nu$ or Planck's constant (h) times radiation frequency.

This is it in a nutshell! It's all nothing but tiny quantum sized binding changes that do **not** change binding strength with distance. Electrons can shift sigma bindings from distant to close electrons or vice versa. Quarks can also shift a form of sigma binding to other quarks as well. Simple light, heat and radio radiation, directly from the star to your eye can only be a sigma bonding shift. Such radiation does not involve pi bonding shifts; it only involves sigma bonding shifts from the surrounding stars to internal close binding, which creates energy and the reverse from internal bonding to binding someplace with the surrounding stars to create mass.

The reason that you have spin alignment (magnetism) with iron, nickel and cobalt, which are at the peak of the energy curve, is that there is more spin binding with the **surroundings** - more **far off binding** - with those elements that lie on the peak of the energy curve. The more **far off binding** you have then the more likely you will have spin alignment (magnetism). A preponderance of close internal binding actually has a tendency to prevent spin alignment.

From Britannica 2009 DVD "Mass: in physics, quantitative measure of inertia, a fundamental property of all matter. It is, in effect, the resistance that a body of matter offers to a change in its speed or position upon the application of a force."

Mass is the measure of inertia. The reason we have inertial **mass**, is because of these far distant - *same strength* - bindings with similar frequency entities in the **surroundings**. For gravity these quark to quark bindings are simply to objects closer than the quark to distant quark bindings in the **surroundings** that cause inertial mass.

Therefore it becomes crystal clear that these binding changes from far to close, *where energy is gained*, are the real reason for $E=mc^2$.

The majority of my science peers - *even though they know we have such a thing as centrifugal force* - are totally **blind** to this aspect of binding with the far distant **surroundings** (*Mach's principle*). This **blindness** remains in spite of the fact Berkeley discovered this in the 1700s. **I heartily thank Dr. Milo Wolff for finally mathematically proving this beyond a shadow of a doubt.** For instance, an electron in your eye first gains inertial mass by binding with an electron on a distant star. Then **it turns this inertial mass into energy** by binding with another closer electron in your eye; thus giving your eye a quantum of light energy via a photon/binding shift.

This is very much like your car's spark plug where the coil is first connected to the battery but the spark is created when the

battery *disconnects* from the coil the same as your eye gets the quantum of light when that first electron *disconnects* from the star.

It's perfectly obvious what is going on, in the quark realm, yet most people would rather read the dictates of the high priests instead of doing any mental work whatsoever themselves. The high priests are generally right but - like Aristotle - they are **never** always right.

Strong force containment will go down with phlogiston as the two worst concepts in the history of science.

You think - because of this subset, spacetime realm [(*gauge*) *term used by quantum theorists*] you are in - that you have different **forces** for gravity, charge, magnetism, weak force, strong force including quantum exchange particles like photons, gravitons, gluons and more recent esoteric **force** carrying entities like them. Your present science - *by attempting to keep one type of space and one type of time for every gauge* - has given you a set of different complicated **forces** and force carrying particles that are far beyond belief! It's really one simple type of **force** in different spin/orbit frequency - *gauges* - spacetime realms. You'll see for yourself that it is simple too if you take the time to look at how **force** is produced in this new hypothesis.

There is no **force** tensor in the tensor math of general relativity. There is only more or less space that must be converted to **force**. *This new concept shows us exactly how this actually works!* What the tensor math shows us is that **force** and space are being produced the same way. *This new concept shows us exactly how this is being done.* You will see, in this new concept that both

space and **force** are being produced by **phase** differences of *the closest sides* of these resonances and what counts is really the **phase** difference of their spin frequencies.

Time is not produced by the spin frequency but by a **phase** change in the main scalar frequency of the spherical, standing wave itself. This acts as a clock as the scalar **phase** changes between all the **Spinning, Scalar Standing Wave Resonances (SSSWR)**s as they emit and absorb energy while rebuilding themselves.

Space/force is produced in a similar out of **phase** manner as time. However, it is not produced by the main scalar frequency of the **(SSSWR)** but it is produced by the **spin** frequency.

Space/force - in all these different frequency spacetime realms are produced by the **spin frequencies**. The tensor math of general relativity shows curved space producing force, in much the same manner, in the macrocosm.

In a similar manner **attractive** force is being produced from **space** between sigma bond pairs of (spin-up/spin-down) **(SSSWR)**s because *their closest sides* are - *spinning in the same plane* - like gears meshing **in phase** with each other; **not** like the *closest sides* of all the others - *having their spins in various directions* - that produce the **average** out of phase **amount** (**space**).

* * *

Space, produced by these **(SSSWR)**s is really nothing but the **average amount** of out of phase condition of *the closest sides* of all of these many, many, many similar **(SSSWR)**s in a particular

system. In fact this is what keeps everything far apart both in the microcosm and the macrocosm. (This is the best explanation of what causes Einstein's *Cosmological Constant* really!)

* * *

Anything exactly *in phase* is also in the same spot in space, exactly like the Bose-Einstein condensate conjecture:

But this takes a bit of explaining: The constant shifting of sigma type quark and electron sigma type bonds are critical to everything working as we see it working. Therefore, unless all these (SSSWR)s remain in **motion**, shifting the spin planes, then these bonds won't keep shifting: **these must both be spinning in the exact same spin plane to bond**. If these **electron** bonds don't shift then we won't get all these light, heat or radio waves. If these **quark** sigma type bonds don't keep shifting then we won't get gravity, inertial forces or even space.

*(The spin frequencies of these entities are at a much lower frequency than the main scalar frequency and when you remove heat then you are removing some of the harmonics causing the **motion** of these (SSSWR)s and thus the effectiveness of their spin frequencies thus removing space and giving you the **Bose-Einstein condensate**.)*

If a thin, deep section on both of *the closest sides* of two distant **sigma bond** (spin-up/spin-down) spinning, scalar, standing wave (SSSWR)s are exactly in phase including identical portions of mass on both, then those two thin deep sections of *the closest sides* would have a very powerful attraction because there would actually be a minimum of space between them because space, *again*, is the **average amount** everything is out of phase with everything else in that one particular frequency spacetime realm.

An **(SSSWR)** - or a composite of them - will be viewed as a **solid** entity in one's own spacetime realm or a variegated **solid** - *as we see a galaxy composed of stars* - in a lower frequency spin/orbit frequency spacetime realm. But motion can not be seen nor can a spherical **(SSSWR)** of a higher frequency spin/orbit realm, even be witnessed - as a **solid** sphere or spheroid - from a lower frequency spin/orbit, spacetime realm. Only energy and force can move either way to/from a higher or to/from a lower frequency realm.

* * *

All attractive forces come from being **in phase** more than this average out of phase **amount (space)**.

All repulsive force comes about by being more **out of phase** than this average out of phase **amount (space)**.

(This way, no photons, gluons, gravitons or any other force carrying particles are needed nor is Aether needed so it's a double plus for this model in that respect!)

* * *

Because of strong harmonic bond links with both higher and lower frequency levels, each spin/orbit frequency level will have entirely different layout symmetries: We have two different quarks (*up and down*) in the quark level of ordinary matter and only one electron in the electron level. When size is limited then spin becomes of the utmost importance because **same sized spheres** can have ***in phase frequency pairing*** such as the electrons have with sigma and pi bonding and quarks have with spin frequency bonding done at a quark spin frequency, the square of the electron spin frequency.

In the atomic makeup of things, the electron of one spacetime realm - **gauge** - orbits the realm of the quark that has an entirely different - **gauge** - spacetime realm.

There is absolutely no evidence of this happening in the macrocosm (a much lower frequency spacetime realm).

The only way that this one **gauge** orbiting another **gauge** can possibly be explained - **atoms being created** - is that an all neutron universe suddenly underwent an extensive beta decay. So, in my opinion, our celebrated **Big Bang** was really an extensive beta decay of a once stable all neutron universe.

It's the rotation of these two different - **gauges** - spacetime realms, around each other, that give us this intense **microcosm spin factor of interacting spheres** - *which gives these harmonic and numerous sigma and pi bonds*. This differentiates the layout of the microcosm in respect to the more different size spheres and spheroids in the more planar type layout of the macrocosm.

Astronomers will eventually find that **all** binary stars, of the same size and mass, have inverted spins and do orbit each other using a sigma style bonding as well, proving it is **phase** bonding in the macrocosm as well as in the microcosm. But the many different sizes of things in the macrocosm prevent the prevalent sigma and pi style of bonding observed in the microcosm. This, and us being in an entirely different spin/orbit frequency spacetime realm, is why we see it as magnetism and charge in the microcosm.

Time is something that especially enters the picture of components that are built of many of these **(SSSWR)**s that are

linked together because as these linkages change this also is seen as time changing.

* *

Remember, this space, that we see, is nothing but the **average amount** of out of phase condition at this particular spin/orbit frequency band of this particular group of **(SSSWR)**s that compose us.

* *

A major premise of this extraordinary new hypothesis is that particular frequency **(SSSWR)**s keep themselves in a relatively stable spacetime realm which they themselves are actually producing. But this spacetime realm is linked to even higher frequency **(SSSWR)**s in various ways via harmonics: For instance, an important quark spin frequency turns out to be the **square** of the electron's spin frequency. It is this harmonic that allows gravity to bend light and it is this harmonic that gives us the well-known quantity c^2 . This tremendous **square** of our space being produced in the quark realm cannot be directly transferred to our realm but **that force is transferred!** The acceleration effects of so much extra space certainly is transferred and we feel these **force** effects here on earth as an acceleration of 32 feet per second, per second.

Once again - **remember** - because each sigma bond retains its **full** strength of attraction all the way to the **Hubble limit**, each quantum of energy is delivered with no energy loss at all. It is the **total amount** of this energy that arrives in the inverse square ratio. *(It's only the number of sigma bonding pairs that diminish as the inverse*

distance squared.)

We have recorded every type of force derived from any spin/orbit change made by the electron so we say **electron spin is conserved**. *Incidentally none of these electron derived forces is gravitational in nature.* So we must look for another particle causing gravity. Since spin is always conserved, all we have to do is keep our eyes open and our brain functioning, which it seems some scientists failed to do.

As you read the next paragraph remember quarks are far, far more massive than the neutrons they build and this mass becomes even super **intense** as the three quarks approach each other near the center of the nucleon. This time distortion becomes **so intense** that different size quarks whose spin would appear to each other as perfect harmonics, at the outer edge of the neutron, are no longer harmonics near the nuclear center. This is the reason for asymptotic quark freedom. This is also the reason that the strong force appears at its strongest near the outside edge of the nucleon where the spin frequencies of all three quarks are harmonically exactly in phase.

The QCD quantum theorists claim quark spin is not conserved! Why? Because they can only equate 30% of these abrupt quark position shifts with any force. Yet electron spin is conserved because we can equate 100% of electron shifts with various forces. *Well, I'll show you where the other 70% of the force is: **Quark spin is conserved** because that remaining 70% of this quantum quark spin force, is really impedance matched *quark to distant quark bonding/binding*, that is causing **gravity** and **inertia**.* So the quark strong force is not entirely contained inside the proton or neutron after all. In fact 70% of it isn't! And there

is more: what is called asymptotic quark freedom occurs because as these three different quarks get closer together, near the nuclear center, their combined mass gets so high that their binding (*spin*) frequencies - which must be either the **same or an exact harmonic** to attract each other - get distorted by their new much higher grouped mass the closer they get. So the closer they get to each other their attraction greatly diminishes. Quarks lose this asymptotic quark freedom when quarks are **pulled** near the outside edge of protons and neutrons by impedance matched bondings of quarks in the distant surroundings thereby giving us both inertia and gravity. **Quarks being pulled toward the exterior of protons and neutrons are our indicators of gravitational and inertial quanta.**

All the gyro instruments used on airplanes and ships depend on gyros that hold their positions of alignment to the surrounding stars (phase coherence). So a type of phase coherence binding - - with the stars -- is definitely there.

In 1851 Foucault suspended a pendulum on a long wire from the top of the dome of the Pantheon in Paris. This made newspaper headlines all over the world when everyone saw the direction of the pendulum swing did not stay in the same path but actually rotated. This swing direction made a complete rotation every 23 hours and 56 minutes. The earth rotates once every 24 hours in respect to the sun but it rotates once in

respect to the stars in 23 hours and 56 minutes. Navigators know this as a sidereal day. So Foucault's pendulum actually swung back and forth in a straight line that remained in the same position and that never varied **in relation to the surrounding stars!**

Erroneous quark concepts were handed to us by the high priests who could not figure out *-and probably didn't even try to find out -* **why gyros held to the stars** and who gave us another erroneous reason *-called force carrying particles -* why a quantum of light from a distant star came to our eyes with no energy loss. These holy men of science **entirely** missed the boat on **all** these distant electron and quark sigma type bonds.

It's hard for me to believe that when Mach's principle needed further investigation that our great men of science preferred to only give it lip service in spite of the overwhelming evidence in its favor.

As Milo Wolff so profoundly stated, ***"Those stars are not merely ornaments up there."***

Einstein's ***"biggest blunder"*** was not - as he believed - his ***"Cosmological Constant"*** but it was in ***giving up*** his ***"Cosmological Constant"***. As Stephen Wolfram explained in his best seller ***A New Kind of Science***, *"You can explain simple things using math but you need a model to explain complicated things."* This was one time Einstein's math pointed him in the wrong direction when he was almost in sight of the correct picture of how this universe worked. Stephen Wolfram was right. And I'm giving

you the model Einstein failed to see in this short internet page of mine.

This new premise allows higher energy, higher frequency "*resonating*" (SSSWR) spacetime systems to be the *foundation* of lower energy, lower frequency "*resonating*" systems and these in turn can become the *foundation* of even lower frequency "*resonating*" (SSSWR) spin/orbit systems: possibly even ad-infinitum? (Solar systems building galaxies and galaxies being the *foundation* to super clusters etc.?). This would work out to be a fairly stable system because lower energy spacetime realms would be depending on higher energy, higher frequency spacetime realms and higher energy systems can always support lower frequency systems of a lower energy requirement. Any energy leakage between the realm levels would - in time - be less and less and more toward the outer, lower frequency spacetime realms as time for this entire universe wore on. In fact it's the author's thinking that the **Big Bang** was caused by such an energy leakage in a spacetime realm, which - in time - affected all the pure neutrons in a perfectly stable neutron only universe where too much energy leakage, over time, eventually made this all neutron spacetime realm unstable, resulting in a wholesale beta decay and the conversion of half the neutrons - in this entire neutron universe - into protons and electrons. The first atoms being thereby constructed inside of which, half of the original neutrons remained safe.

Once you know exactly what energy is then you simply cannot accept the present belief of how this universe was built out of pure energy. **There is no such thing as energy alone without the surroundings. A beta decay is the only method whereby**

this entire universe could be constructed at the same time all throughout. There is absolutely no doubt that precisely this is what happened: the Cosmic Microwave Background Radiation shows this is indeed what must have happened.

These spinning, scalar, standing wave resonances **have evidently been here hundreds of or even thousands of trillions of years. This began long before our universe - or the atom - was even constructed.**

These (spinning, scalar, standing wave resonances) **units of various frequencies are still here because they have been reproducing themselves - all that time - the best way possible.** (*Darwin's Survival of the Fittest*)

To sum it all up: **all our natural laws can be simplified by using these new *phase* laws with the surroundings instead.**

Ampere's Laws [Ampere's Laws](#) (Click link.), work in every **different frequency spacetime realm.**

So, I guess we do really have the wave structure of matter universe that [Dr. Milo Wolff](#) claims we have.

Daniel P. Fitzpatrick, Jr.



Also read (written in 2005): <http://www.rbduncan.com/quarkspin.htm>

And: <http://www.amperefitz.com/why.we.have.gravity.htm>

And read **this page**: <http://www.amperefitz.com/abstract.htm>

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[It's all nothing but RELATIVE MOTION !!!](#)

"Ampere showed us, it's all nothing but RELATIVE MOTION !!! (*phase*)" (science)
e-book by Fitzpatrick also in Adobe.pdf - [Amp.pdf](#)

Also you can buy my latest book at Amazon or read it FREE using links below:

http://www.amperefitz.com/ua_20071020_ck_ds_jm_ds.pdf (This is the book in Adobe)

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There was a **full** page in the New York Times devoted exclusively about [Fitzpatrick's First Book](#) on June 18th 1967.

"Fitzpatrick's First Book" also in Adobe.pdf - [page1.pdf](#)

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