

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>

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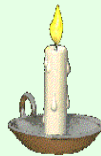
**Fitzpatrick's** 1966 book showed the **relative motion** laws of **A. Ampère** unified the forces.

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

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



This was the way the site --below-- looked a while back. - - Dan Fitz.



**A bit of light on**

**why we see**

**COLORS.**

Another paper, by Fitzpatrick, brought to you **free** by R.M.F. founder of [MAGPUL Industries](#).

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the larger paper  
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This paper about **COLORS** is the short section about colors copied from the much longer paper, above, that I wrote last month in June.

Many have told me to write a paper simply on that short piece about colors, leaving the rest out.

So I'm doing exactly that with this short paper.

We begin with Ampère.

The unit of electrical current — the Amp — is named after well known French scientist **Andre Marie Ampère**, who lived more than 200 years ago. During those days, in France, the mother's first name was always given to her son as his second name, hence the name Marie as Ampère's second name.

Ampère discovered several items of immense importance, dealing with electricity, and one of those was that things moving **in-phase attract**.

But when will FRANCE discover the **supreme importance** of Ampère's discovery that things moving **in-phase attract**?

These **in-phase resonance attractions** are binding energy!

Not only that, but Ampère's Laws turn out to be the **basic fundamental foundation** for every attractive or repulsive invisible force in this entire universe!

Einstein looked for this **fundamental foundation** and couldn't find it.

**Here it is**, right in front of you!

This is so important that some day, many years from now, more French children will know who Ampère was than Napoleon.

But that will take time in coming because our universities are set up to safeguard and teach us all the lessons of the past: they seem less interested in enlightening us about the future.

**Magnetism & Light are caused via PHASE.**

The thousands of people, who read these internet papers of mine, in more than 50 countries every month, know this.

Right now, my guess is that they are some of the few people in this world who know exactly **why** we see light. You must know precisely how **PHASE** causes light, because light comes from distant electrons, **small sections** of which are **in-phase** with **small sections** of electrons in your eyes.

The following is why we see **COLORS**.

Colors exist simply because we have long distance **RESONANCE STRUCTURE IN-PHASE** bonding (binding energy).

Resonance structure bonding is recognized as being correct.

Ampère's Laws show us that the resonance structure must also be **in-phase** for attractive bonding (binding energy) to even exist.

I had to solve real science problems all my life, and I needed a concept that worked **ALL** the time like **PHASE** — not sometimes like field theory.

For decades, I've been showing that both sigma and pi bonding **must** be **PHASE** bonding, where the CLOSEST SIDES of these spinning entities are always **in-phase**.

Sigma and pi bonding gets confusing. Instead think of **in-phase** resonance structures, because **ALL in-phase** resonant structures, of protons and/or electrons are BINDING energy

In a resonance structure **in-phase** bond, only **two** EQUAL sized **sections** are bonding by resonating **in-phase** with each other.

With light, these sections are smaller than chemical resonance structures, and with light energy, the size of

these **smaller sections** varies from more than a quarter of each of the electron pair when transmitting ultraviolet light, to a very small wedge section of each of the electron pair when transmitting infrared light.

In my first book, in 1966, I showed **this type in-phase bonding was responsible for magnetism too**. And I **clearly** showed why field theory, for magnetism, was wrong.

In fact, in 1954 Einstein said the following about field theory.

***"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."***

While sigma and pi bonds are seen as close bonds, what many fail to realize is that the strength of each quantum of binding energy does **not** diminish with distance: only the NUMBER of these bonds diminishes inversely with the square of the distance.

Light energy is caused by an oscillating **spin up** electron, binding **in-phase** with a **spin down** electron.

This is the same type electron oscillation transmitted by a TV transmitter, except light frequencies are at a much, much, much higher frequency: you'll see how much higher, later.

Light energy quanta (from opposite spinning electrons) comes in various sizes of energy quanta, that our brain lets us see as various colors.

Envisage the two electrons on the helium atom. They have opposite spins. We call this **spin up** and **spin down** with a **small section** of each electron being permanently in-phase with an **EQUAL sized small section** of the other.

We use the term **binding energy** because energy is shifted from one place to another via electron by merely shifting electron binding from one place to another: **therefore** energy transfer is **not** possible without **impedance matched binding**.

So, both of these **small sections** of each electron — binding or transferring energy — must be the same EXACT mass.

**Impedance matching** is why energy cannot be created or destroyed: it can only be transferred to different places, or from energy to mass or vice versa.

I learned about this **impedance matching**, more than half a century ago, building radio transmitters.

Electronic engineers know that **impedance matching** is necessary for efficient energy transfer to another circuit. It's the same with your eyes: the mass of each **EQUAL sized small section** on an electron in a distant star, and an electron in your eye cones, must match EXACTLY for you to see that quantum of light from that star.

In fact, it will take several quanta before your eye can distinguish the slightest bit of light.

We have both rod and cone cells in our eyes. The cone cells give us the colors that we see. The method, that the receptor electrons in these cone cells use to give us these colors, is as follows.

Light energy is shifted to your eye when a **spin up** electron bonds with a **spin down** electron in your eye, where both keep **EQUAL small sections** of their CLOSEST SIDES **in-phase**.

Only these **spin up - spin down** pair bonds, with their CLOSEST SIDES **in-phase**, can provide light energy to our eyes.

With magnetic electrons, it's a bit different: in magnetism, there are also **same direction spin** on **same spin axis** electrons. These are **STRONGER** resonance structures of **in-phase** binding, and great groups of these MAIN, strongest binding quanta are the individual Barkhausen clicks you hear as magnetization takes place.

This brings in nuclear forces that also greatly increase the strength of each quantum force. Since our red, green and blue eye cones only have ONE steady nuclear force, let's only concentrate on the electron weaker forces that do **vary**, giving us various colors.

Yes, colors can be produced by varying these nuclear forces, that also produce heat and motion. That is not our concern.

**This paper is only about the simple electron to eye electron in-phase resonance BINDING ENERGY motion that is needed to transfer light to our eye cones.**

These eye cones, in turn, transfer this undulating electron binding energy, of colored light, to our brain.

Please entirely concentrate on **PHASE**: entirely forget fields, north and south poles, plus and minus charges and all those other subset forces that we've now unified via **PHASE** using **RESONANCE in-phase attractive binding STRUCTURES**, i.e., a **spin up - spin down** electron pair.

RESONANCE STRUCTURES are a big improvement over sigma and pi binding, because resonance does exist here, especially in the atomic nucleus, producing all this binding energy, but there is much more.

If you are describing things like electrons that spin the same frequency and that are essentially the same size then resonance alone isn't quite good enough, and you have to add **PHASE**.

I'll show you why.

I learned this early, as a kid, examining some alnico magnets.

Whenever I put the two alnico magnets on top of each other with both north poles up, then far more electrons were **in-phase** with each other (**same direction spin on same spin axis**) and those magnets were **attracting**.



But whenever I put one magnet north pole up and the other north pole down, then the sides of both magnets attracted almost half as much as the polar attraction: the electrons in that magnet, with **sections** of their CLOSEST SIDES bonding together, were acting no differently than a **spin up - spin down** bonding pair of electrons (**spinning at or close to the same spin plane**) that allow your eyes to see in color.

You see, those electrons that give us magnetism and light are **not** FREE electrons.

They are molecular electrons.

They are all *somewhat* attached to atomic nuclei via RESONANCE; they wobble (producing light) instead of fully precessing: their nuclear resonance attachment prevents them from fully precessing, thereby **not** being fully able, anymore, to repel ALL other perfectly FREE electrons.

Wait, wait, wait: explain that last paragraph!

OK, Take a simple child's toy gyroscope that you spin by pulling a string, wound around its axis. Get it spinning and hold ONLY one axis end with your finger tips. It **defies gravity**. Why?

My next paper will tell you EXACTLY why!

I've heard people from our universities tell us Inertial force is equal, but opposite to gravitational force.

That's *not quite right*, because a new force from the **surrounding stars** results in a new inertial precession force that acts against ANY force that **tries to CHANGE** that spin motion.

I made my money by knowing what was absolutely right when these universities were *not quite right*.

Here's basically, what is really going on.

Anyway, the gyro doesn't fall down, but wobbles in your finger tips because an additional force now, **pulling from the surrounding stars**, acting against gravity, is making it wobble instead of falling out of your finger tips to the ground, like we think it should.

Where does this inertial force come from?

In 1851 the French physicist Jean Foucault **proved** that this inertia — these people tell us equals gravity — comes from the stars that surround us.

Foucault suspended a 62 pound iron ball, using a 220 foot steel wire, from the top inside ceiling of the Panthéon in Paris. He observed its swing as it swung back and forth like a pendulum, and saw that the pendulum swing stayed stationary to the fixed stars in space while the earth turned under it in **a bit less** than 24 hours each day.

A bit less than 24 hours a day?

Yes, now we know the earth turns once exactly in 23 hours, 56 minutes and 4 seconds. It's called *earth rate*:

look it up. The earth makes one complete turn, in respect **only to the sun**, in 24 hours.

Yes, this is the real reason perfectly FREE electrons repel each other.

Stars, galaxies and super clusters obey **Phase symmetry** "phase" rules the same as FREE electrons do, and they repel each other for the same reason, but FREE electrons are much better at it because same size spinning entities will have identical inertial mass, and as they approach their strongest polar attracting points where both are spinning the same direction on the same axis, then the resulting 90 degree gyro inertial precession force makes **each** of them keep precessing around themselves forever, so they can NEVER actually bind together.

Stars and galaxies are doing exactly that too, but we're not here long enough to witness that precession.

Sorry, plus and minus charges don't exist. FREE electrons repel each other for the same reason stars, galaxies and super clusters do.

They must repel each other when their closest sides are **out-of-phase** with each other. This is Einstein's *Cosmological Constant*, that Ampère' discovered more than a hundred years before Einstein.

ALL these invisible forces are caused simply by **PHASE**.

If you read my other papers, that many are now doing, you'll see even more proof than this that all these type attractions are **in-phase** resonances.

The force transmitting **Light** to our eyes comes in many sized quanta, each quantum of which is many magnitudes of times weaker than each quantum of magnetic force in iron.

These **Light** transmitting quanta to our eyes come to us simply via **TWO spin up - spin down** electrons.

This many sized quanta way, is the resonance force way where the binding of only **TWO** electrons give us **LIGHT**. This happens when both attracting electrons spin in opposite directions.

The **strongest** quantum of light is **ultraviolet light**.

**Ultraviolet light** occurs when two hyperactive electrons — one transmitting, one receiving — spin in the same exact plane with **EQUAL** size **sections** of their **CLOSEST SIDES** going in the same direction, thereby creating energy by binding **in-phase**.

Then come weaker and weaker quanta (various other different colors) as electrons create energy via spin in — parallel spin planes — with **EQUAL** size **small wedge shaped sections** of their **CLOSEST SIDES** going in the same direction, and permanently binding **in-phase**.

However, these **EQUAL** sized **in-phase sections** will be getting less and less massive, as both electrons deviate

from that ultraviolet identical spin plane: this will mean less and less binding attraction, the greater the deviation.

The electron — along with every spinning thing — has inertia, and exhibits a form of wobble (**inertial spin precession**) as a force is applied to the spinning electron as it drops to a lower orbital.

Each quantum of light gets weaker as the angle of each of these parallel spins — in parallel spin planes — deviates from the (same exact plane) ultraviolet position, and as these **sections** get smaller and smaller, the frequency of each of these light quanta decreases because the weaker and weaker binding pull from these smaller and smaller **sections** gives less and less electron **inertial spin precession** (wobble).

The more that angle deviates more and more from the ultraviolet (both on same exact spin plane) then there will be less and less **inertial spin precession** (wobble), resulting in various lower and lower frequency COLORS being produced.

The color with the slowest **inertial spin precession** (lowest frequency and lowest energy quantum) is infrared.

Here's what happens when you look at a star.

There are electrons in your eye that are set up to quickly shift binding between binding with electrons on that star and then shift back to closer binding with other electrons in your eye giving you a quantum of light energy, every shift. At the instant of transfer as the electron on the star

transfers this quantum of energy — *the star in the higher energy level instantly replaces it* — and few today realize all energy transfers work exactly this way.

Every time your eye electron binds with an electron in the star, via "Quantum Entanglement", it gains a quantum of inertial mass (*equal to a quantum of energy*). When it shifts back to closer binding with your senses, you receive this quantum of light energy. There are many of these electrons in your eye first gaining mass by binding with the stars then shifting that energy to your senses by binding back locally with your senses — *and doing that over and over again* — many thousand, billion times per second (American billion not English billion).

Yes, the mid range green eye cone in your eye is receiving green light at 5,000 Angstroms in wavelength, and this green frequency is cycling at 600 trillion times a second (600 THz).

How does that compare with what us humans have done?

The first radio stations were in kilocycles or thousands of cycles per second. Your cell phone transmits in megacycles or millions of cycles per second: that's slow, slow, slow compared to how your eyes view color!

And your eyes receive color frequencies far further than any cell phone will ever receive any information, and the eye circuits are smaller than any integrated circuit ever will be.

I hope I've opened your eyes up to a portion of this world of color.

Einstein showed you space could be distorted. I've showed in other papers that space exists because of out-of-phase forces. And it's not simply space; it's spacetime because as we look through the Hubble telescope into space, we also are looking back into time.

See, it's so complex that Einstein was right in 1954 when he said you couldn't use field theory to explain it.

I find it best to rid my mind completely of all of field theory's math and rules before piecing together the complexities of these [Phase symmetry](#) forces.

Remember, only the number of bonding pairs drops off inversely with the square of the distance: thus, [Phase symmetry](#) ends up with the inverse square rule the same as fields do.

We have also been tricked into believing that this is only a frequency universe in the microcosm. I'm afraid it is a frequency universe all throughout, and that's why we need these [Phase symmetry](#) "phase" rules instead of field theory.

Too few seem to realize that NASA scientist, Dr. Milo Wolff has proven the electron is a scalar, spinning, standing wave: once scientists see that the quark is too, then a brand new look at our macrocosm is needed because elements there indicate it too is obeying these scalar, spinning, standing wave [Phase symmetry](#) phase

rules exactly as in the microcosm: **and this is truly a revelation.**

The **ANSWER** Einstein looked for Issued: July 10th 2018.

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P.S.

To keep this paper short, I had to leave out many more interesting things, but you will have to click on the following links and spend a lot more time reading to see those.

See: [Phase symmetry makes quantum theory more complete. 12-02-2013](#)



Phase symmetry makes quantum theory more complete.  
12-02-2013 also in Adobe.pdf - [phase.symmetry.pdf](#)

**For the LATEST** Click: <http://www.amperefitz.com>

or <http://www.rbduncan.com> which was really the very first web page showing us what was actually going on in our universe.

And of course - click these following links:  
<http://www.rbduncan.com/toprule1.htm>

AND 4 Decades of Fitz's papers:  
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*Daniel P. Fitzpatrick, Jr.*

July 1, 2018

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

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