

This universe is

a phase universe of quanta chunks

If I had to sum it up into one sentence then I'd have to say: This is a **SchrQdinger phase universe of quanta chunks**.

A quantum of light energy is nothing more than a release of binding energy -- a **quantum chunk** of binding **or** the amount of binding between a spin up electron bonding with a spin down electron when both are spinning in the same spin plane.

I've been lucky to have had a long life and to have had another 43 years to learn a lot more things concerning this universe since I published my first book about unifying the forces in 1966. There was a full page in the New York Times entirely devoted to that book on June 18, 1967. [Fitzpatrick's First Book \(FREE\)](#)

That book won approval from Lincoln Barnett, who wrote general relativity articles for the Britannica, but my concept of **relative motion**, in that book, got blasted by Robert Dicke. Dicke said that if gravity was being caused by relative motion then we would see interference fringes but we don't. In a way Dicke was right because we do see Dicke's fringes or multiple images or gravitational lensing or cosmic mirages caused by the lower frequency galactic spin that makes its own extra gravitational attraction that we can't feel in our galaxy. **A belated thanks to Robert Dicke whose interference fringes now finally give us the proof that not only gravity is caused by relative motion but Dicke's fringes also show that the spin of galaxies produce gravity via relative motion (phase incoherence)**. But we cannot see any fringes caused by the quark spin frequency because that frequency is too high. Dicke didn't know about quarks back then and neither did I. Proof of Murray Gell-Mann's quarks and the strong force did not arrive until 1974.

In 1954, shortly before Einstein died, he said, **"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."

It took me a while to see this but Einstein was absolutely right in the above statement.

We know energy is delivered in particle sized pieces, Einstein was the first to call these bullet like particles, photons. Each one of these photon bullets is a **quantum** of energy. This is quantum theory.

It's going to be hard for folks in our modern science era to accept the fact that space and time are also constructed the **same way**.

Both space and time along with energy are all really built up from these **quanta chunks** where multiple numbers of these merely resemble fields. Einstein was right in 1954. This universe is not built on continuous structures such as fields.

Yes, you can view things as fields providing you stay within certain parameters but we weren't doing this.

I realized this early in my life and wrote about Ampere's Laws long ago. Note the importance of the **closest sides** of these spinning, scalar, standing wave entities in this short rendition of Ampere's Laws, below:

The relative motion laws of Ampere:

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

These spherical, spinning, standing wave entities are the quantum bricks of our universe. Space, or some may define it as the aether, is really the average phase relationship that

exists between the closest sides of all these quantum bricks.

What everyone has missed is the fact that each quantum is built up via the phase relationship of the **closest sides** of each spinning, standing wave entity to its neighbor. You cannot see things as fields if it is really built of individual quantum bricks.

Change the phase relationship between the closest sides of two of these quantum bricks and you have released a quantum of energy.

I forget which year it was when I learned about Ampere's long wire law, from an extensive article in Scientific American. Then I saw immediately that this showed me a clearer, faster picture of how to problem solve than Faraday's fields did. I used **relative motion** instead of fields, all my life in solving radio and electrical problems, and many times it gave me the advantage.

In 1966 while at Pan Am, I was trying to find a solution to overhauling RCA RADAR Indicators: Yoke coils were being reinstalled 180 degrees out because the workers at RCA were building units in bunches and changing the wire color codes with each new bunch. My approach to changing the overhaul procedure was to install the yoke coil so that the electrons in the top wire of the yoke coil were always traveling in a parallel path and **same direction** as the electron beam regardless of wire color.

I'll never forget that day because I suddenly realized that Ampere's long wire law was also now showing me why I was being attracted to the earth.

Even though I held the top radio licenses, I've known since 1966 that magnetism, charge and gravity could be better seen as Ampere first saw them using the concept of **relative motion**. It was sometime after 1997, after I got my first Britannica CD ROM, that I saw this **relative motion** concept was showing me the **phase** aspect of it all.

Unfortunately today we are only seeing **half** of what is going on with binding energy because we did not see the full extent of what was happening with binding energy. And we wrongly concentrated on using fields where we shouldn't have.

Also we did not know how important **Mach's principle** was: this **sigma** type bonding that we know is happening in the chemical world is also being used to bind further away with the "fixed stars". Ernst Mach would have understood this. And the **strength** of each one of these **quantum chunk sigma bonds** does not vary with the square of the distance -- only the numbers of these bonding pairs vary with the square of the distance.

We get magnetic force and c (speed of light) from the electron spin and gravitational force and c^2 from a quark spin.

The frequency of this predominant quark spin is the square -- a harmonic -- of the electron frequency.

This is the reason -- a harmonic -- that gravity bends light and that electrons are attracted to a quark nucleus.

I had some good teachers along the way and much of what is contained herein are their findings. One of the very best of instructors, in this regard, is **Dr. Milo Wolff** who taught me that the electron is a scalar, standing wave and its spin is a type of scalar, standing wave as well. The quark is also a scalar, standing wave entity but its much higher mass is proof it's at a much higher frequency than the electron.

Electrons will always repel other electrons **except** when they are kept in two specific positions in relation to each other.

There are only **two positions** in both **chemical bonding and magnetism** where an electron can possibly bind with and attract another electron:

1. Two electrons will bind and attract each other whenever they have the same spin and are spinning on the same spin axis (This is the **strongest attractive position** in magnetism because both entire electrons are **in phase** with one another.)
2. Two electrons will also bind and attract each other when one is spin up and the other spin down and both are spinning in the same orbital spin plane. (This is the **weaker attractive position** in magnetism because only a small portion of their closest sides are **in phase** with each other.) You get this weaker side to side attraction when one magnet is inverted in respect to the other. But this side to side attraction of a spin up with a spin down electron is also a **sigma bond**. However, this **sigma bond** is the **stronger attraction** in chemical bonding.

WHY?

Well, Niels Bohr got the Nobel prize in 1922 for seeing electrons as planetary objects, going around the nucleus on orbits. Because of screw ups and the universities being asleep at the switch, that idea of Bohr's is out of style right now but let's go back 70 years to Bohr's concept of the electrons all being in motion around the nucleus. The reason Bohr's motion concept is so great is that it shows us exactly what is **in phase** and what is **out of phase**. And with phase so extremely important, we have no other choice but to use Bohr's motion until future super-computers come on line to give us the perfect view of this **Schrödinger phase universe of quanta chunks**.

Using Bohr's concept, the reason that a **sigma** (side to side) bonding of a spin up with a spin down electron is the **stronger** of the chemical bonds is that these electrons keep constantly spinning in this same orbital plane so their bond is a constant bond. Whereas the pi (polar) bond is a repetitious but only a

short bond for a tiny amount of time whenever these two electrons, spinning the same way, both pass each other on the same spin axis.

We know that the magnetic force of attraction between two electrons is caused by the electron spin frequency. We also know that quarks are attracted to other quarks via the quark spin frequency: <http://adsabs.harvard.edu/full/1988AuJPh..41...11C>

SPACE is the average **out of phase** amount of all these **quanta chunk** pairs.

SPACE (two types **c** and **c²**) is the average **out of phase** amount of all these **quanta chunk** pairs. We only see the electron spin created space as space. We see the quark, **space times space c²**, as acceleration. This is why we have the '**Principle of Equivalence**' or why gravity is always seen as an acceleration.

Once we see this **c²** (**speed of light squared**) is a quark produced factor then present science drastically changes and we see Einstein was right about his **cosmological constant** all along and he did not commit what he called his "**biggest blunder**". Now it's crystal clear that the '**Principle of Equivalence**' and this **c²** **quark realm space factor** **apparent** acceleration must not only apply to gravity but also to Einstein's **cosmological constant** (gravity's equal but opposite force): Gravity again becomes a bi-polar force like Einstein believed in 1915. So now we know Saul Perlmutter is correct and we **do** have Einstein's **cosmological constant** after all. But with Einstein's **cosmological constant**, there is only an **apparent accelerating** expanding universe so we are back to square one and what everyone believed in 1915:

We must really be in a steady-state universe.

With those in our universities asleep at the switch, some aspects of our science have gotten worse in the past 84 years instead of

getting better.

We now know exactly what space is: Space is the **average** out of phase amount of all these scalar, standing wave entities.

Force is nothing more than the + or - of this **average**.

Once we know this then we can substitute **in phase (phase coherence)** for all the attractive forces and **out of phase** for all the repulsive forces that we see in this entire universe:

Between two scalar, standing wave entities that are more **in phase** than **average** you get an **attractive** binding force.

Between two scalar, standing wave entities that are more **out of phase** than **average** you get a **repulsive** force.

Note: These forces, which include magnetism, sigma and pi bonding are always 90 degrees to the motion of those portions of the electrons involved similar to the electromagnetic force always being 90 degrees to the motion of the entire electrons involved.

And now something very important but entirely overlooked by those still asleep at the switch:

Each one of these electron bonds remain the same strength no matter the distance, all the way out in space to the Hubble limit where they abruptly cease entirely.

This is why a quantum of light from a distant star comes to your eye full strength with no energy whatsoever lost in that vast distance: This, in fact, is the cornerstone of quantum mechanics.

It is only the **numbers** of these electron pairs (bonding) that decreases with the square of the distance -- nothing else.

There is a similarity between the light you receive in your eye

and the spark in the spark plug of your car. The spark in your spark plug occurs AFTER the voltage has been removed from the ignition coil. A quantum of light energy, from a distant star, is developed in your eye AFTER an electron in your eye has released a **sigma** bond from that distant star.

You also have **sigma** quark bonds too. And these quark **strong force** bonds are the same strength regardless of the distance too, similar to electron binding. The strong force is not contained within the neutron. The asymptotic quark movement seen is proof that these quarks are being pulled further from the nucleus in far distant quark bindings via **in phase quanta chunks**.

Inertia and gyroscopic inertia are caused when quarks bind with the distant quarks in the surrounding "**fixed stars**".

Gravity is caused by quarks binding with closer quarks.

Impedance matching, of a portion of the electron or quark, is the rule in all of this electron and quark binding. There simply is no binding unless the impedance of both portions of the pairs match exactly.

These distant bindings with the "**fixed stars**" are all **sigma** type **bonds** and not pi type polar bonds.

General relativity translational mass increase not only comes into it but is important as well. When you spin something to get centrifugal force then certain translational paths of the quarks in the material you are spinning, at certain points are much, much higher in speed and therefore higher in mass, and consequently must match with quarks in the surrounding "**fixed stars**" that also have this same much, much higher mass too. You are matching together impedance matched pairs (**in phase quanta chunks**).

The reason that centrifugal force is so powerful is that these quarks -- even at rest -- are already orbiting at very high speeds in regard to the speed of light and it does not take much more

translational increase in speed to move them up the asymptotic curve even closer to the speed of light where their mass, on portions of these orbits, is increased even more appreciably.

So when you ride your bicycle, you are being held up via this translational mass binding between the quarks in the bicycle wheels and the quarks in the surrounding "fixed stars". Here again you are matching together impedance matched in phase quanta chunk pairs. You are therefore actually being held up on your bicycle via the quark strong force; so the modern theory of strong force containment inside the neutron is pure rubbish given to you by those in the universities asleep at the switch who even have the speed of gravity wrong: See Van Flandern It was Tom Van Flandern who saw that if there was aberration with light but none with gravity then the speed of gravity had to be far faster than the speed of light. Now we know this is right once we see gravity emanates from the quark realm and not from the realm of the electron. Many or even most astronomers in most universities already know the speed of gravity must be far faster than the speed of light, so not all in these universities are asleep at the switch.

Mass is simply the measure of inertia or actually the inertial far off binding with the "fixed stars". More gyroscopic inertial mass or more regular inertial mass or more centrifugal force is, in effect, nothing more than more far off binding with the "fixed stars".

You receive energy whenever the far off binding with the distant stars changes to closer binding. That's all energy really is with either electron or quark binding. Remember, all these binding strengths do not vary with distance and can be shifted from close to far distant binding in the "fixed stars" or vice versa.

This paper is a very short condensation of

<http://www.rbduncan.com/schrod.htm> where these concepts of Ampere, Bohr

and Mach show you how the pieces of this science puzzle all fall into place.

It's doubtful that we will ever get controllable fusion power if we don't start using these concepts of Ampere, Bohr and Mach.

Stephen Wolfram, a top mathematician, stated only simple things can be mathematically explained; you cannot explain something complicated - particularly our universe - unless you use a model. I knew what Wolfram knew and used a myriad of models - over four decades - in Einstein type thought experiments coupled with reverse engineering. I kept changing models until finally perfecting a model that unified the forces and gave perfect answers as to what was happening in the micro and macro worlds along with our spacetime realm here. I learned this system of scientific reasoning well while troubleshooting for various airlines.

Daniel P. Fitzpatrick Jr.

A clear, short picture:

<http://www.amperefitz.com/principle-of-equivalence.htm>

And see: <http://www.amperefitz.com/acceleratingexpandinguniverse.htm>

Also see: <http://www.rbduncan.com/schrod.htm> for a more in depth model of our universe.

You will find a lot more than this at:

<http://www.amperefitz.com>

and

<http://www.rbduncan.com>

Unification of the forces can now be done by using the concept of **phase** and the **relative motion** laws Ampere gave us:

[Ampere's Laws](#)

[Aufbau Laws](#)

[Ampere's Universal Particle/Motion Law](#)

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

There's a lot more too.

And this you can find out by buying my latest book **Universities Asleep at the Switch** at Amazon.com or by reading it FREE simply by clicking the following links:

<http://www.amperefitz.com/unvasleep.htm> (This link is faster if you have dial up.)

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

Over 4 Decades of Fitzpatrick's Books, Papers & Thoughts:

<http://www.amperefitz.com/4.decades.htm>

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