

is not available unless you know exactly what

## SPACE and TIME

really are.

My last paper ended with this conclusion and I'll expound upon it a bit in this short paper.

That last paper began with *Gödel's proof* that warns us that we may only have a group of subset rules working in subset areas instead of a supreme universal law showing us exactly how our universe really works.

Nevertheless, that's OK and we can deal with that.

It's taken me more than three score years to find out what space and time really are and you are foolish not to find that out yourself because there definitely is no **logic** without knowing that.

Kurt **Gödel** was absolutely correct because in *Gauge* Theory, quantum scientists know, that to predict quantities correctly, they must fix (*specify*) the exact *gauge* (*rules and math* and a certain subset *section of the microcosm* where those rules apply).

In the following, I'm not telling about mere relativistic space changes where the spacetime interval remains the same. I'm discussing an actual change of the spacetime interval that is apparent all throughout our universe, both in the microcosm and the macrocosm.

In Gauge Theory, as well as in reality, only certain specific areas have the same spacetime interval. spacetime-interval

The following is from the Britannica DVD 2009: 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. In a gauge theory there is a group of transformations of the field variables (gauge transformations) that leaves the basic physics of the quantum field unchanged. This condition,

called *gauge invariance*, gives the theory a certain symmetry, which governs its equations."

<u>Gauge invariance</u> in the above applies to that small subset section or area, that has the same spacetime interval -- where space-time is exactly the same and -- where the same math and rules are all working correctly.

In other words, you must specify or fix the particular same spacetime interval *gauge* (area, rules and math) before you quantize (give the amounts). <a href="http://www.amperefitz.com/quantize.htm">http://www.amperefitz.com/quantize.htm</a> (You cannot quantize without fixing the *gauge*.)

For instance, the math and rules for the spin frequency realm of the electron (QED) *gauge* are quite different from the spin frequency realm of the quark (QCD) *gauge*. This universe is divided into <u>many</u> of these different spin frequency realms that have different spacetime intervals.

There is <u>gauge invariance</u> in QED and <u>gauge invariance</u> in QCD but there is <u>gauge variance</u> between both. This means there is <u>variance</u> of the spacetime interval <u>between</u> both. In other words both space and time in the electron's QED realm are far, far different from space and time in the quark's QCD realm. These are two entirely different spacetime realms! You must know this!

This works for us too here in the macro world as well. The above paragraph shows we do <u>not</u> have <u>gauge invariance</u> all

throughout the microcosm and we also do <u>not</u> have <u>gauge</u> <u>invariance</u> all throughout the macrocosm either. I'll give you an example by showing you something I said in an earlier paper:

----

If humans are moved *in our solar system*\* even close to 1% of the speed of light (300,000 meters per second), their tissues may not hold together much like a comet comes apart as it nears the sun. In fact comets - that are ice - start coming apart even before they reach 50,000 meters per second, and this is only one sixth of 1% of the speed of light.

\* (These velocities are measured relative to, and inside of, our **solar system**. Not relative to, and inside of, our galaxy, that has a different spacetime interval area, where we, along with our sun, are traveling a whopping 254,000 meters per second.)

----

This tells us what Einstein's general relativity tells us: We do not have the correct view of what space really is!

Here's something I've been posting for years now:

\_\_\_

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."

As you see in the above **Britannica** quote, there is **no** such thing as **force** in the tensor math of **G**eneral **R**elativity. What you actually get – greatly simplifying things – is more <u>space</u>, than <u>average</u>, where <u>repulsive</u> force exists between two objects. In addition, there is <u>less space</u>, than <u>average</u>, existing between two gravitational objects that have an <u>attractive</u> force between them.

\_\_\_

From the above you can see that space can be equated with force.

We can equate the electron spin with magnetic force and we can equate the quark spin with the strong force. Can these spins be equated with our space?

Can spins in the macrocosm be equated with our space?

I've spent decades getting the answers to those questions. A few of those answers are on this page. All the answers I've answered on other pages over the years.

One answer is that spin frequency has the same effect in the macrocosm as it does in the microcosm: It does change space! General relativity physicists understand the reason for that.

An other answer is, this entire universe, both in the microcosm and macrocosm, is actually following Ampere's Relative Motion law: http://www.rbduncan.com/relMlaw

Moreover we have the statement by Wheeler and Feynman,

"We can detect things in another spacetime realm but we cannot measure them correctly."

This must be true because we see the spiral arms of our galaxy going faster than their escape velocity and that is quite impossible.

I also have to add that you simply cannot entirely discard our idea of space, the way quantum theorists are now doing, because it's better not to view it as simply 100% frequencies. In each of these different spacetime interval realms, things do function somewhat as solids -- as I've previously proven -- even though, in the microcosm, they are only seen by us as frequencies. The problem today, seeing everything only as frequencies -- as quantum scientists are doing -- is that the surroundings are involved frequency wise (Mach's principle) and we don't have computers good enough yet to deal with all those tremendous numbers of quarks inside those tremendous number of stars in the surroundings.

Yes, quarks play an important role and so does *phase*.

But as long as you understand, that you must use a different set of math and rules inside each one of these different subset *spin frequency areas* then you are aware of a big part of the picture and you shouldn't have any problems of **logically** understanding exactly how this entire universe functions.

Again, one specific set of present science math and rules are

worthless for this entire universe because you cannot quantize without fixing the *gauge* in the macrocosm as well as the microcosm because there is no such thing as *gauge invariance* all throughout the universe. There are too many different spacetime intervals all throughout the universe.

Probably in the future we will have far better computers plus new frequency math and rules that can be used for this entire universe. We have a paucity of those rules now <u>Ampere's Relative</u> <u>Motion Laws</u> but not much else.

What you most certainly can do now, however, is see space as being made up of these different spacetime realms with different spacetime intervals in which you must use different math and rules for each different spin frequency area.

To get the final big picture, of what time and space both are, you must understand the *phase* relationship and the part quarks play in this all frequency universe.

Logic, about all this, will only arrive to you after you discover what **space** and **time** really are. Einstein almost had it but then he backtracked away from his cosmological constant, which is gravity's equal but opposite force.

If you do a bit of reading, by clicking those links below, you will see that <u>all</u> the attractive forces in our universe are basically *in phase* attractions that have equal but opposite *out of phase* repulsions.

**Space**, you will see if you do enough reading, is merely the **average** *out of phase* amount in this frequency universe of ours. But you'll have to do a lot more reading to fully understand that.

This page gives you only the tip of the iceberg and there's a lot more that you can see by reading various articles at <a href="http://www.rbduncan.com">http://www.rbduncan.com</a> & <a href="http://www.amperefitz.com">http://www.amperefitz.com</a>

Use those <u>links</u> above to understand <u>exactly</u> what time is and <u>exactly</u> what space is and <u>exactly</u> how time and space are linked in this frequency universe. And they **are** linked because things, like stars, that are separated from you in space are also separated from you in time as well.

Remember what Wheeler and Feynman said and don't worry too much about the math.

There is no math yet that can unify all these many spacetime realms.

Study the model!

Simply **remember**, as mathematician Stephen Wolfram shows in his best selling book *A New Kind of Science*, the model is worth far, far more than the math in a complicated concept like this universe.

As Stephen Wolfram says, "Math can only explain simple things but a simple model can explain a complicated

## universe."

The model that you have to see is that space is composed of these various different spin frequency areas with different spacetime intervals.

Once you see that then you can get what Dirac predicted we'd get: you get an approximate picture of things and the first real **logic** of what's really going on.

You have a lot of reading to do.

But by reading, you'll get to the logic a lot faster than I did.

Good luck!

Thank you,

Daniel P. Fitzpatrick Jr.

Over 4 Decades of Fitzpatrick's Books, Papers & Thoughts <a href="http://www.amperefitz.com/4.decades.htm">http://www.amperefitz.com/4.decades.htm</a> and here's this page duplicated in Adobe.pdf:

http://www.amperefitz.com/4.decades.pdf

Fitzpatrick's website is at <a href="http://www.amperefitz.com">http://www.amperefitz.com</a>

Another older website carrying Fitzpatrick's works FREE is: <a href="http://www.rbduncan.com">http://www.rbduncan.com</a>

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

Have a good day & visit my site at goodreads:

http://www.goodreads.com/user/show/276352

Click ANY of these links to get what you want

\*\*\*

Read my latest book FREE: (these two <u>links</u> below)

<a href="http://www.amperefitz.com/ua\_20071020\_ck\_ds\_jm\_ds.pdf">http://www.amperefitz.com/ua\_20071020\_ck\_ds\_jm\_ds.pdf</a> (This is the book in Adobe)

or

<a href="http://www.amperefitz.com/unvasleep.htm">http://www.amperefitz.com/unvasleep.htm</a> (This book link opens faster if you have dial up.)

While all the links on this page are OK and presently working, unfortunately only about two thirds (2/3) of the links I gave, years ago, as proof (click & see: <a href="http://www.amperefitz.com/presskit.html">http://www.amperefitz.com/presskit.html</a>) for statements in this latest book, published in the year MMVI, are now still working BUT your search engine will probably take you to a similar area where you should be able to read similar proof material.

\*\*\*

## & super popular now:

- <u>QED Feynman's Strange Theory of Light and Matter</u> "Feynman's Strange Theory of Light and Matter"
- <a href="http://amperefitz.com/einsteins.cos.c.htm">http://amperefitz.com/einsteins.cos.c.htm</a> Einstein's Cosmological Constant.
- <u>http://www.amperefitz.com/two.magnets.htm</u> Two magnets will show you more than thousands of books.
- http://amperefitz.com/exexshorttoe.html Extra short Theory of Everything.
- <u>http://www.amperefitz.com/45years.htm</u> 45 Years of Putting this Jigsaw Puzzle together of unifying Gravity with all the other forces.
- http://www.amperefitz.com/question.htm "Ampere's Long Wire Law is a fact!"
- <u>http://www.amperefitz.com/why.general.relativity.htm</u> Why we have General Relativity or why mass increases with speed."
- <u>http://amperefitz.com/answers.to.mendel.htm</u>
  "Dan Fitzpatrick comments on Theoretical Physicist Mendel Sachs' Beliefs."
- <u>http://amperefitz.com/quarkmspin.htm</u>
  "While the electron spin causes magnetism, GRAVITY & INERTIA are caused by the QUARK SPIN."
- <u>http://amperefitz.com/abstract.htm</u> "ABSTRACT of scalar, standing wave concept."
- <u>http://amperefitz.com/lawrm.htm</u> "It all begins with this all important science law."
- <u>http://amperefitz.com/energy.htm</u> "All energy is a form of binding energy." (science) e-letter by Fitzpatrick.
- <a href="http://amperefitz.com/dark.m.e">http://amperefitz.com/dark.m.e</a> Why NASA tells us we have 72% Dark Energy, 23% Dark Matter and 4.6% Atoms.
- <u>http://amperefitz.com/gold1.html</u> More wave and scalar wave questions answered by Fitzpatrick.

- <u>http://amperefitz.com/fermbos.htm</u> ELECTRONS are fermions but not when paired spin up - spin down."
- <u>http://amperefitz.com/bond.strengths.htm</u> "Sigma Bond strengths in the microcosm."
- <u>http://www.amperefitz.com/acceleratingexpandinguniverse.htm</u> "Accelerating, expanding universe."
- <u>http://amperefitz.com/not.quite.everything.for.a.theory.of.everything.htm</u>
  "Not Quite Everything for a Theory of Everything."
- Schrödinger's Universe Schrödinger's Universe
- <u>http://rbduncan.com/why.we.have.gravity.htm</u> "Why we have GRAVITY and why we have Centrifugal Force.
- http://amperefitz.com/einsteins.blunder.htm "Einstein's Biggest Blunder --Wasn't?"
- <u>http://amperefitz.com/plawrm.htm</u> "Electrons normally repel BUT . . . " says Dan Fitzpatrick Jr.
- <u>http://www.rbduncan.com/letter\_june2004.htm</u>
  "And Hubble warned us this was NOT an expanding universe."
- <a href="http://www.rbduncan.com/binary.htm">http://www.rbduncan.com/binary.htm</a> Binary Stars act exactly like Electrons.
- http://rbduncan.com/TOEbyFitzpatrick.htm A "Theory of Everything" by Daniel P. Fitzpatrick Jr.
- <a href="http://rbduncan.com/boson+.htm">http://rbduncan.com/boson+.htm</a> Bosons?
- <u>http://www.rbduncan.com/letter\_june2004.htm</u> Newton and Einstein only gave us HALF the story.
- <u>http://www.rbduncan.com/mybook.htm</u> "A New Science Tool" (science) e-book by Fitzpatrick

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

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

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

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

Mach's principle

Stephen Wolfram

Adobe *pdf <u>links</u>* below give you more <u>important</u> actual science about what is really going on in our universe.

QUICK version of Ampere's Laws.

http://amperefitz.com/qamp.pdf

Two magnets will show you more than thousands of books.

http://amperefitz.com/two-magnets.pdf

Sigma bond strengths in the microcosm

http://www.amperefitz.com/bond.strengths.pdf

"An important Quark message no one is heeding!"

http://amperefitz.com/quarkmspin.pdf

45 Years of Putting this Jigsaw Puzzle together - of unifying Gravity with all the other forces."

http://www.amperefitz.com/45years.pdf

"Ampere's Long Wire Law is a fact!"

http://amperefitz.com/question.pdf

"Affenstall Science Christmas Message"

http://amperefitz.com/affenstall.pdf

"Dan Fitzpatrick comments on Theoretical Physicist Mendel Sachs' Beliefs."

http://amperefitz.com/answers.to.mendel.pdf

"Why we have general relativity or why mass increases with speed."

http://amperefitz.com/why.general.relativity.pdf

"Fitz answers some Scalar Wave questions."

http://amperefitz.com/26nov2006.pdf

"And Hubble warned us this was NOT an expanding universe."

http://amperefitz.com/lj2004.pdf

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

http://amperefitz.com/relMlaw.pdf

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

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

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

http://amperefitz.com/ffacts.pdf

"Lisi's E8 model seems to show us why we get space & time!"

http://amperefitz.com/e8.pdf

"Why Garrett Lisi's Model is so important."

http://amperefitz.com/lisi-important.pdf

"What Dr. Milo Wolff says connects with what A. G. Lisi is showing."

http://amperefitz.com/a.g.lisi.pdf

A radioman sees us all as radios tuned in to this universe.

http://amperefitz.com/noaether.pdf

WHEN DID YOU PUBLISH "Out-of-phase waves give us space and repulsive force."

http://amperefitz.com/4apr04caroline.pdf

But then Caroline - from Cambridge - repudiated what she had discovered: one of the most important scientific discoveries EVER MADE! Incredible! Simply Incredible!

http://amperefitz.com/Carolines.pdf

"Why we have GRAVITY."

http://amperefitz.com/why.we.have.gravity.pdf

"Speed of Gravity is 9x10<sup>16</sup> meters per second."

http://amperefitz.com/Gspeed.pdf

"Einstein's Principle of Equivalence or why gravity acts like acceleration."

http://amperefitz.com/principle.of.equivalence.pdf

Is Saul Perlmutter explaining the reason for us having the principle of equivalence?

http://amperefitz.com/saultony.pdf

"It's understanding the Binding Energy Curve" says Dan Fitzpatrick Jr.

http://amperefitz.com/b.e.curve.pdf

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

http://amperefitz.com/energy.pdf

"Shedding light on Energy Quanta."

http://amperefitz.com/letter\_july2003.pdf

Sunday - March 24, 2013 - This can be copied and distributed by anyone as long as it is copied and distributed in its entirety.

Daniel P. Fitzpatrick Jr.