

SUPER-RELATIVITY

~ From a Philosophical Observation on the Problem of Mass and the Young vs. Einstein Paradox of Light – a Unifying Philosophical Composition of Arranged Theory, Resolving the Old Physics with an Introduction to the Final Physics of the Fluid Space-Time Paradigm ~

By Matthew Aaron Mossotti

~ Resolving the paradox of light through the conclusion that light is exclusively and always only a particle that causes waves to form in the fabric of space-time, I forever put to rest all quasi-scientific theories involving probabilism – Indeed, God does not play dice. On the problematic issue of “mass-assignment,” from the fluid space-time paradigm postulated in this theory, as described in Sir Isaac Newton’s work on the resistance of spherical bodies in fluid mediums, I conclude that all property of mass is derived from matter’s displacement of the fluid space-time energy field, which I describe as having an inversely centrifugal flow towards and in proportion to its own displacement. As a corollary, the notion of a flowing fluid space-time fabric quite naturally produces an ensuing unifying theory of gravity, which here emerges as the long awaited synthesis of the Standard Model of Particle Physics and Einstein’s General Relativity. Super-Relativity posits that the fluid fabric of space-time is an energy form that, by its nature, eludes conventional detection and I have herein offered a hypothesis to its ontology, which also serves to resolve the apparent contradiction involving particle-antiparticle annihilation, as posited by the operating Standard Model. Herein, I have offered an outlined philosophical constitution for what can only be called the Final Physics. It is my supreme hope that those mathematicians and physicists who make the economy of the living universe their business will, from this philosophical foundation, manufacture new and true equations that describe perfectly the fluid space-time paradigm. As a corollary, this is the platform off of which functional anti-gravity equations should ultimately abound. ~

I must first acknowledge that I am primarily operating from the work of Sir Isaac Newton and Albert Einstein. Although I synthesize the works of these two magnificent minds with the original concept of the fluid space-time paradigm, I should be the first to say that the great majority of my work here is a mere composition of arranged concepts that were already formulated by the two masters. Through developing this theory, I have often imagined myself as a child walking up to sealed jar after two mighty men worked to open it to no avail to find that they left the jar only needing one more meager twist. I am grateful to everyone else for leaving the jar alone so that I could stumble upon it, and I am sincerely humbled to be the chosen man to open it.

In the second place, I say that the Standard Model is the finest collaborative work in the history of science – its unification of three of the four fundamental forces of the universe is the penultimate achievement of combined human intellect and imagination. Although my quest was essentially catalyzed by particular contradictions in the Standard Model of particle physics, I owe a great deal of my fundamental assumptions per the early universe to the extrapolations of the great theory. I must acknowledge that without the incompleteness Standard Model, I would be wholly uninspired to have recognized the paramount misunderstanding of Einstein's General Relativity. I am not in any way shape or form discrediting any of the many geniuses who contributed their work to the creation of the Standard Model. The least of them are of far greater distinction than me, but I here announce that one of the fundamental assumptions of the Standard Model per gravity/space-time fabric would have never allowed it to reach any of the correct conclusions offered herein.

As to the form this treatise will take, I am writing only as what I am – first and foremost, a philosopher, among other things. I am well-aware of the stigma attached to the intrusion of the philosopher at the table of physicists and mathematicians, and I humbly apologize for what I am not. With that said, I vehemently encourage all men and women who treat the physical universe as the subject of their life's work to carefully consider everything I say in this short work. I pray that you may tolerate this philosopher's approach to your subject because my destination is your new platform.

If you are reading this as a layperson, I encourage you to study every claim I make with a wide open imagination and fearless hope for illuminative discovery. I have done my utmost to write with your comprehension in mind by providing congenial analogies and diagrams, however, I have, at the same time, attempted to be as succinct as possible, for I am writing primarily for those who are well-versed in the extant theories of physics, and I opted not to spend time illuminating those flawed concepts of which I am disposing here forever. I pray that you can navigate this philosopher's writing style to more elegantly envisage the universe that allows you to utter the sacred words, "I am."

LIGHT IS A PARTICLE AND PARTICLES MAKE WAVES

"We cannot see light; but by light we can see things." ~ C.S. Lewis

In order to begin, we must first do away with the embarrassing old paradox of Young vs. Einstein. Thomas Young believed he proved light was a wave. One hundred years and change later, Albert Einstein demonstrated that light was a subatomic particle, known as a photon. Certain that Einstein's photo-electric effect conclusively verified that light is indeed a particle, but unable to explain away the wave-interference pattern manifest in Young's famous double-slit experiment, which does, in fairness, very much appear to show that light indeed behaves like a wave, physicists were content to call the "particle vs. wave duel" a draw; I am not. Where physicists turned to theories of probability to explain how it is that light is both a particle and wave, I agree with David Berlinski, who wrote this of the nonsensical semi-conclusion: *"Physicists, like the rest of us, measure probabilities when they have nothing better to measure."* If I may, I here offer something better to measure, but let us briefly run through the paradox to get where we need to go.

Double-Slit Experiment – Why Light was thought a wave:

In 1801, English physicist Thomas Young performed an experiment that strongly inferred a wave-like nature in light. Young induced that if wave-interference patterns are present where light is active, then the manifestation of light must be in waves.

Young was lead himself to conclude that light was itself a wave on the reasoning that a wave-interference pattern occurred on the back side of a barrier with two open slits where light flowed through. The simple experiment demonstrates how it appears that coherent light waves interact when passed through two closely spaced slits. The convergence of two waves after passing through the two slits reveals an emergence of wave-interference patterns indicated by a spectrum of visible light that diminishes in its intensity as it moves away from the center.

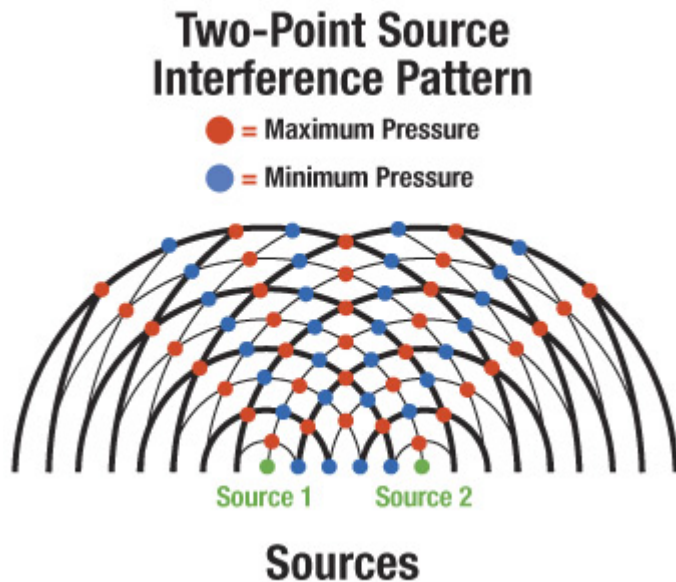
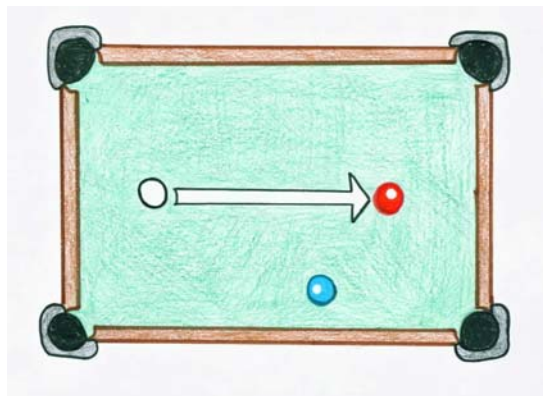
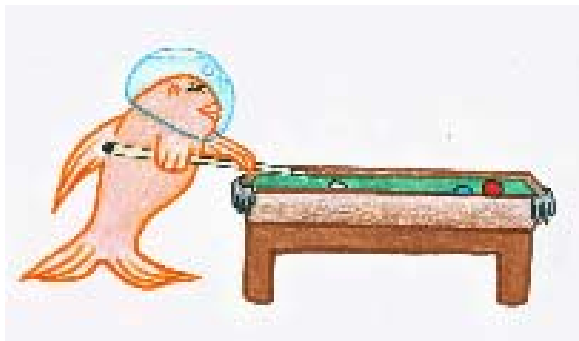


Photo-Electric Effect – Why Light is known to be a particle:

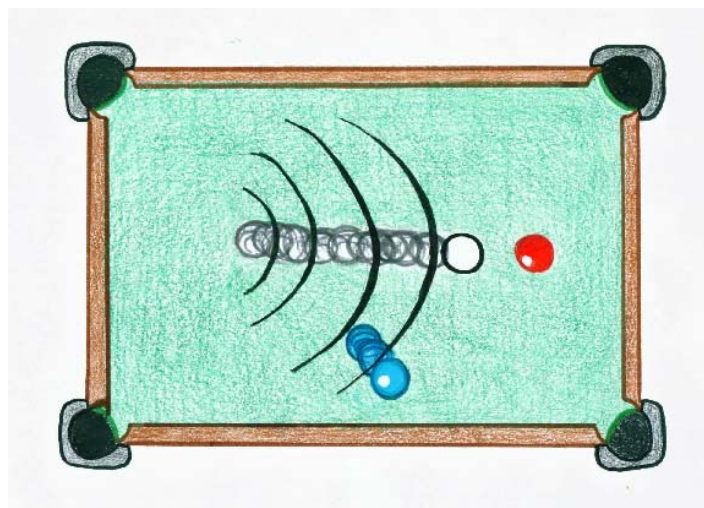
The *photoelectric effect* occurs when light hits a metallic surface and ejects electrons. It shows that light is made of photons, which are particles, which is the most-crucial theoretical foundation of the Standard Model of particle physics. Einstein received the Nobel Prize in 1921 for "*for his services to Theoretical Physics, and especially for his discovery of the law of the photoelectric effect*".

There are certain electron energy levels in an atom. If an electron absorbs enough energy, it will “jump” out of the atom altogether. The photoelectric effect occurs when the photon transfers enough energy into an electron to eject that electron from an atom in a metallic surface; but it does so without ejecting other subatomic particles along with the “object” electron. As when a billiards ball strikes an “object” ball on a table, leaving another ball on the table in its original position, the particulate photon leaves

every particle other than the “object” electron inside of the atom. For the sake of grasping the core of what the photo-electric effect says of particulate behavior per light, let us imagine a fish playing billiards out of water. The balls behave just as electrons behave when photons are fired at an “object” electron. The red ball will move and the blue ball will remain in its original position, unaffected by the cue ball.



Einstein reasoned that if light were a wave, it could not possibly only affect an “object” electron – that a wave would inevitably disturb the many subatomic particles surrounding the “object” electron. Now let us imagine the fish shooting pool underwater. Einstein saw that that if the photon were a wave, as would be produced by the activity of the cue ball being fired at the red ball underwater, as in the illustration below, the blue ball would also be affected by the wave.



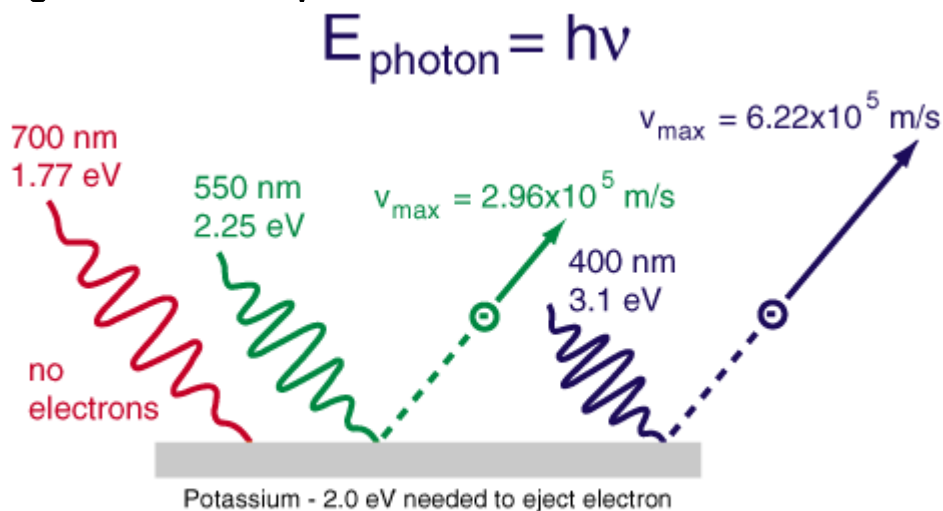
However, because electrons on metallic surfaces act as the billiards balls in the former illustration of the fish out of water shooting pool, Einstein concluded that light could only be a particle.

The Young vs. Einstein Paradox was born:



Light behaves like a wave:

Light behaves as a particle:



Photoelectric effect

Unable to resolve the paradox, physicists declared that light is both a wave and a particle. The mighty minds of physics retreated to meager probability theories that measure the troughs and peaks of light waves to estimate the most-likely positions of light particles. If that seems like a hedging, welcome to good company – Einstein agreed. The master expressed his dissent to this contrived quasi-solution of probabilism with the famous quote: *“God does not play dice.”*

SUPER-RELATIVITY

Resolution of the Young vs. Einstein Paradox

Premise: Light is either a wave or a particle, but cannot be both.

Premise: If light is a particle and not a wave, it must cause a wave pattern to emerge through its activity.

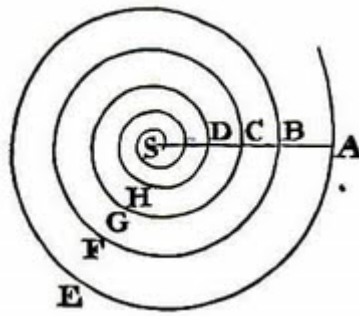
Premise: Where waves are known to be manifest, the active system deemed to be the causal event of the wave is distinct from the medium in which the wave occurs.

Assumption: Waves are known to be manifest where particles of light are active and the medium of space-time fabric is known to be distinct from that which is within/upon it.

Conclusion: Light is a particle that causes waves in the space-time medium.

Premise: If light causes waves, a fluid medium should necessarily exist in which the waves are expressed, and that medium should causally express its existence and character elsewhere.

Assumption: The fabric of space-time causally exhibits its existence in curving to create gravity (as postulated by Einstein's General Relativity and proved by Sir Arthur Eddington); and unrecognized hitherto, the fluid character of the space-time fabric was described in the calculus of Sir Isaac Newton – he wrote this in The Principia of the movement of spherical bodies in fluid: "*the uniform resistance arising from the tenacity of the medium* [fluid; what Super-Relativity holds to be the space-time fabric] *may be substituted for the force of gravity, or be compound with it as before.*"



Newton

CONCLUSION: Resolving the paradox of “Einstein vs. Young,” the theory of Super-Relativity holds that light is a particle that causes waves to form in the fluid fabric of space-time, the reflections of which are seen as visible light.

WIND ON WATER (an aid to conceptualizing light as a particle causing waves):

As wind blows, it forms waves on water. The waves are not the wind itself, but effects of that wind. Likewise, as light flows, it forms waves on the fabric of space-time. As the waves on the water are distinct from the wind, so too, the waves on the fabric of space-time are distinct from the light itself; the waves are the effect of the light. As the wind can only be seen in its effects as the waves, so too can light only be seen in its effects as the waves.

Sunteleo

To my resolution of the Young vs. Einstein paradox, one question from my peers has been thus: *“If the photons make waves in the liquid fabric of space-time, then why do the waves not affect the other particles that surround the “object” electron in the photo-electric effect?”* The answer is that because light is a photon (subatomic particle), its direct affect will be only subatomic. However, because we (and certain instruments we use to measure particles) only perceive the effects of light via the waves caused by photons in the fluid fabric of space-time, we will also see wave-interference

in the space-time medium where photons are active. The philosophical version of that answer runs more simply in that a thing cannot be both a cause and an effect of the same phenomenon – it is the behavior of subatomic particles that are inducing the waves in the fluid fabric of space-time. The question of why the waves in the space-time medium do not affect other particles is like asking whether or not the gravity of the moon is affected by the waves it causes in the ocean.

Another question from my peers to my resolution derives from Heisenberg's experiments with electrons, from which the Uncertainty Principle (Probabilism) derives. In these experiments, electrons are seen to behave as light behaves insofar as they also cause wave-interference patterns to emerge in a double-slit experiment, but they are then observed to stop creating a wave-interference pattern and begin behaving only as particles when their position is observed on the backside of the barrier. The question is, *how does our observance of the electron's behavior negate the electron's ability to cause waves?* The answer is, quite simply, the method of observing involves firing photons (other subatomic particles) at the "object" particle to locate its position. Photons are used because they are without mass and therefore have not the capacity to disturb the trajectory of the mass-carrying electron. However, the "locating" photons create their own waves in the fluid fabric of space-time, which negate the waves made manifest from the "object" electron, so it is the instrument of testing or observing that causes the appearance of a change in the electron's behavior, although only the effect of the electron's behavior was affected by the means of observance. This is, of course in hindsight, was what we all knew in the back of our minds all along – at least I hope that all right-minded people certainly expected that there was something in our observing that was causing the appearance of a change of behavior in the electron. Surely none of us really imagined electrons to be "aware" of our gazing upon; surely none of us seriously entertained the idea that subatomic particles were "deciding" to change their behavior because we were looking; surely we all knew that such cartoonish fantasy could only be an anthropomorphic hallucination of a most extravagantly confused mind; Right? I am sure that I speak for everyone in saying that we all knew that there most-certainly was something about the way in which we were observing the electron's behavior that was causing its behavior to appear to change – at least I hope no serious-minded physicist really expected anything else.

In the event that I am here shattering any person's delusion of particles bearing consciousness, let me put it another way: we have simply been measuring two different things – (a) the particle itself and (b) the wave caused by the particle in the fluid space-time fabric. It is very much like sound in this respect. On the one hand, there is the actual event that produces vibrations in the air. On the other hand, the vibrations in the air are not the event itself. Rather, the vibrations are but the effects of the event. In the same way, the light particle can be seen as the event that causes wave-vibrations in the fluid fabric of space-time. The vibrations in the fluid fabric of space-time are not the light. Rather, the wave-vibrations are the effects of the light, which, like sound, are what we actually perceive.

THE FLUID SPACE-TIME PARADIGM

“And God said, “Let there be light,” and there was light. God saw that the light was good and he separated the light from darkness... And God said, “Let there be an expanse between the waters to separate water from water.” So God made the expanse and separated the water under the expanse from the water above it. And it was so. God called the expanse sky.” ~ Genesis 1:3-8

In the beginning, according to the theory-tale provided by the mathematical extrapolations from Standard Model of particle physics, there was a **Singularity** which contained, a priori, the entirety of everything that was ever to be birthed into physical existence. In this pre-universe, the **Singularity** was not in space-time waiting to paint its **Oneness** out onto an extant canvas – the **Singularity** was and is the **Artist** that begot the **Paint** from which the **Canvas** was then formed. The **Singularity** did not burst out and fill and existing emptiness, for emptiness implies an existing something to be filled – there was not yet a fluid fabric of space-time canvas to be filled. There was simply **Absolute Everything** in absolutely nothing.

The question before us is: *from what did the fluid fabric of space-time derive its being?*

The physicists call the era before there was such a thing as ‘before’ the Plank Era. It is the time before time and the space before space. In it, all four governing forces of the physical universe were unified as were the four governing dimensions of space-time (time, height, width, and depth). Gravity, the Strong Nuclear Force, the Weak Nuclear Force, and Electromagnetism were of **One Mind** and they would, one by one, become distinct from one another in affect, but they would remain always unified in their purpose to be the interactive foundation upon which the laws of the physical universe receive their power of governance.

I am here writing for the physicists and mathematicians who already know this theory-tale by heart and as well for those who need only be familiar with its basic plotline, so, in both cases, this is not optimum forum to recap the intricacies of what follows from what has become commonly known as the Big Bang. I must, however, stress the one point that **the space-time fabric itself must be continuously considered as part and parcel to the manifestation of the physical universe – this four-dimensional canvas is not something that was acted within through the moment of creation – rather, it was manifested through its being filled.**

“Pouring forth its seas everywhere, then the ocean envelops the earth and fills its deeper chasms.” ~ Nicolaus Copernicus

In his General Relativity, Albert Einstein showed that space-time is a fabric that proportionally curves according to whatever matter exists upon and within it. Thus, with the experimental verifications of Sir Arthur Eddington that showed light curving around the sun, gravity was proven to be a function of the tenacity of the curvature of the space-time fabric. In other terms, Einstein and Eddington proved that the function of gravity derived its power from the fabric of space-time. It is of paramount importance to here note that this fundamentally altered the Newtonian model of gravity that merely took into account the masses of the objects and their distances from one another to

measure the force of gravity. Whereas Newton had assumed that the gravity “force” was manifest from the mass of the objects upon each other across distance, Einstein showed that there was a connecting third party involved – space-time fabric. Whereas Newton was himself without explanation as to the causal phenomenon behind his gravity equations, *“For I here design only to give a mathematical notion of those forces, without considering their physical causes and seats.”* [The Principia], he ironically offered the very expectation per gravity that Einstein’s General Relativity should have vanquished: *“for I am induced by many reasons to suspect that [the phenomena of nature] all depend upon certain forces by which the particles of bodies, by some causes hitherto unknown, are either mutually impelled towards each other, and cohere in regular figures, or are repelled and recede from each other;”* [Preface, The Principia]. This expectation of Sir Isaac Newton would be proven absolutely true in the Standard Model per electromagnetism and the strong and weak nuclear forces – these three forces all derive their power from particulates existing inside of atoms. However, in terms of subatomic particulate power sourcing, General Relativity clearly made an exception to the fourth fundamental force of gravity. No such subatomic particulate need exist in matter because Einstein and Eddington proved that the power of the force of gravity is definitively derived from within the space-time fabric – the search for gravitons and Higgs-Boson particles to explain mass-assignment is a hopeless and meaningless endeavor. **The power of gravity is in space-time fabric, which I say is fluid, and the assignment of mass is only relative to matter’s displacement of the fluid space-time fabric.**

Puzzlingly, perhaps because they so much liked the successful results in the Standard Model that located and described the particulate power sourcing for the other three forces, the physicists have opted to ignore the starkly evident truth of General Relativity per gravity. Whatever the reason, the physicists have persisted with the rather bizarre expectation to find gravity-inducing particles similar to those that account for the power of the other three forces. Because of this ‘quarky’ hope, physicists and mathematicians have expended unknown energies and resources searching for these theoretical particles that bestow mass properties upon matter. The searches for the Higgs-Boson particle (nicknamed the ‘God particle’) and the graviton

both reflect a fundamental misunderstanding of what it was exactly that Einstein's General Relativity tells us.

In straightforward and simple terms, General Relativity says that the space-time fabric is a substance; it says that substance causes gravity – that gravity is a force bestowed upon matter from the space-time fabric and that the intensity of the force of gravity is proportional to the curvature of the fabric of space-time. **Furthermore, General Relativity says that the curvature of space-time is proportional to the mass contained within it, or, to look at it another way, it says that the curvature of space-time fabric is relative to its own displacement, which in turn makes gravity a relative function of displaced space-time fluid that is imbued upon the matter that displaces it.** Very clearly then, it is the space-time fabric that causes matter with properties of mass in proportion to the matter's displacement of the space-time fabric, but the open question then becomes thus: *“What activity of the space-time fluid produces the effect of gravity upon the matter that displaces it?”* I say that the fluid fabric of space-time flows upon the matter that displaces it in a constant intensity proportionate to its own relative displacement, which produces the perpetual effect of gravity upon matter. I say that mass is simply nothing other than a relative property of gravity, which I say is the flow of the fluid space-time fabric caused upon matter in proportion to the matter's displacement of the space-time fabric – where matter exists, space-time fabric is displaced; where space-time fabric is displaced, it flows inversely centrifugally inward from all possible directions towards that displacement; where matter exists, it is subject to the effect of an always inverse centrifugal flow of the fluid space-time fabric – i.e. **gravity**. There need not exist any particle inside of matter that imbues it with mass because mass is a relative function of the fluid space-time medium per the matter that displaces it. By matter's own nature, it occupies space that fluid would otherwise occupy. To utilize Newton's definition of fluid in Section V, BOOK II; The Principia, *“A fluid is any body whose parts yield to any force impressed upon it, by yielding are easily moved among themselves.”* I say that by the fluid's own nature to inwardly flow towards its displacement, gravity is created upon the matter and mass becomes a manifestation of that effect.

What needs to be essentially realized here is that **mass does not cause gravity. Matter causes the space-time fabric to cause gravity, which in turn makes mass appear manifestly in proportion to the quantity of matter.** Without realizing that he had described the fluid fabric of space-time, in 'Book II' of The Principia, Sir Isaac Newton long ago demonstrated that the expression of gravity upon spherical bodies was a relative function of the constitution of the fluid medium displaced by the bodies. Newton mathematically described the behavior of spherical bodies in fluid mediums as the basis of his calculus for gravity equations insofar as *“the uniform resistance arising from the tenacity of the medium may be substituted for the force of gravity, or compounded with it as before.”* In 'PROPOSITION X. PROBLEM III.' in The Principia, Newton says, *“Suppose the uniform force of gravity to tend directly to the plane of the horizon, and the resistance to be the density of the medium and the square of the velocity conjunctly: it is proposed to find the density of the medium in each place, which shall make the body move in a curved line; the velocity of the body and the resistance of the medium in each place.”* As a corollary, the orbits of heavenly bodies at the galactic and solar levels will from now forward be understood in terms of a current of flow in the fluid space-time fabric. Although even the present model is wholly insufficient to explain star formation as it were, as another corollary, gravity now becomes a proven force demonstrably incapable of birthing stars in and of itself insofar as matter cannot itself (in discombobulated nebulae) be self-organizing, or impelled towards itself, a priori some other immaterial impetus causing inverse centrifugal curvature of the space-time medium. However, that subject is for another place and time.

I must here give every assurance that Sir Isaac Newton would have come to each and every conclusion I now make if he were privy to the proof of space-time curvature afforded by Einstein's General Relativity. The real surprise is that I am the first to recognize the already existing synthesis in Newton's alternative gravity equations and Einstein's General Relativity. Lastly, on my recognition of the concordance of these theories, Newton would have done a far superior job than me of explaining these natural conclusions in the most-suitable terms for the physicists and mathematicians. Fortunately, it appears Sir Isaac Newton has already done the great majority, as it were. Onward we now go to a possible explanation for the energy form that is the fluid fabric of space-time.

THE EMERGENCE OF THE **FLUID OF SPACE AND TIME** **FROM LIGHT**

“Praise him, you highest heavens and you waters above the skies.”~ Psalm

148:4

I here offer a speculative ontology to what is the ostensibly the most vastly abundant form of energy in the universe – the fluid fabric of space-time. Firstly, I, along with anyone else looking, do not find the extrapolated claims of the Standard Model to be in universal agreement with one another, nor do I find them coherently presented in a fashion that holds up to a seriously complete scientific model. However, I will walk the line down the middle of the Standard Model road, as best I can, to present the most agreeable and most likely scenario for the emergence of the undetectable fluid fabric of space-time.

The question before us now is: *if the fluid fabric of space-time is the ocean that separates individual star systems and entire galaxies across the universe, from what energy is it made?*

In the description of the emergence of the physical universe from the **Singularity** offered in the Standard Model of particle physics I find something apparently contradictory in the notion of particle-antiparticle annihilation during what is known as the Particle Era. As the theory-tale of the Standard Model goes, during the Particle Era (10^{-10} seconds to 10^{-3} seconds after the Big Bang), gloriously massive amounts of particles and antiparticles collided with each other, *annihilating* one another. However, total annihilation to absolute nothingness did not occur. As the theory-tale continues, because of an ever-so-slight excess in the ratio of particles to antiparticles, what remained vis-à-vis the excess particles was and is the total amount of matter and

energy we see in the physical universe today (that remnant particle mass = the total mass of the extant physical universe).

A running version of the Standard Model holds that the surplus of particles to antiparticles was something of the ratio of one billion antiparticles to one billion and one particles, leaving one particle existing for one billion vanished post-Particle Era annihilation. Thus, the remnant sliver of particles comprise all known/detectable energy in the universe – approximately only 1/1,000,000,000 of everything that originally existed is all that remains in existence in today’s universe. Per our operative question, obvious good news from this theory-tale comes to us right out of the gate here: we should expect a ratio of the approximate order of 1/1,000,000,000 in matter/space-time – that is, as we look at the vast spaces that separate the repellant galaxies, there seems to be more ‘space’ than ‘stuff.’ The second piece of wonderfully good news from this chapter of the theory-tale of the Standard Model is the glaring discrepancy between this idea that roughly 999,999,999/1,000,000,000 of the original existing energy in the universe was **annihilated** and the Law of Conservation (the first law of thermodynamics), which holds that nothing in the physical universe can be created or **destroyed**, that it can only change form. I have often wondered when I cross idea of the Standard Model, “why the term “**annihilated**?” Why not just use the term “**destroyed**?” I have thought that, perhaps, in the world of theoretical physics, it is commonplace to use synonyms in order to diminish the sting of contradiction.

In fairness to the Standard Model, the theory-tale holds that per the emergence of the physical universe from the Singularity, as Ben Best says it in his “The Standard Model of Particle Physics,” *“When a particle and an antiparticle meet, they annihilate into pure energy and may give rise to energetic neutral force-carrier particles, such as gluons, photons or Z bosons.”* First of all, the term “pure energy” is a bit misleading. In fact, it is really only saying that something happens and that something is unknown. The “may” regarding the giving rise to gluons, photons, or Z bosons is really saying nothing of the sort is known to occur, but, that if it did occur, it would serve as a fine pseudo-adhesive to the fractured Standard Model. The bottom line is, as Ben Best went on to say in the same piece, *“An unsolved mystery of cosmology is why the universe is dominated by matter rather than antimatter.”* That statement would be helpful if anyone

really knew what they meant when they said “antimatter,” but the real unsolved mystery has been, since Einstein and Eddington verified the curvature of light around the sun, why has no one even so much as attempted to explain the substance that is energy form that causes the force of gravity – namely, why has not anyone so much as glimpsed at the reality of the actuality of the space-time medium as a form of energy itself? The real mystery is why this philosopher is the first to bring the elephant of General Relativity’s undeniable corollary back into the room. **We must explain this medium in terms of energetic capacity if we are going to hold it to account for the force of gravity!**

Before we move forward, I must address a particular phenomenon of gamma ray production at collisions of low-energy particles and antiparticles, lest a few of you be convinced that this prevents the term annihilation from being an utter contradiction to the Law of Conservation. First of all, this phenomenon only occurs in the collision of a low-energy positron and a low-energy electron. Secondly, it is a rather peculiar conclusion to say that particles of opposite charges combine to create a positive charge, given that the net charge of two exactly oppositely charged particles equals zero.

The paradox here seems to be this: Let us begin with an antiparticle (-2) and a particle (+ 2) (arbitrary values of the antiparticle/particle charges) and the arithmetic $-2 + 2 = 0$. Whereas 0 is the necessarily expected result of compounded electric charge between particle and antiparticle combination, we instead see a positively charged gamma ray burst (energy in the form of electric radiation) – Note that precisely where we would not expect to see any electric energy manifest, we do. Now, prior to the collision, both the particle and the anti-particle have an equal mass (of oppositely charged energy). Upon their collision, however, 0 is an impossible result for the resulting net mass, because 0 would indicate actual annihilation, and according to the Law of Conservation, nothing can be actually annihilated – Note that precisely where would expect to see a combination of masses, we see the apparent destruction of mass. So then, as physicists have it at present, upon the collision of positively charged particles and their oppositely charged anti-particle counterparts of equivalent mass, a positive electric output occurs from a theoretically neutral mathematical combination and where a combination of two equivalent masses should occur, instead, an annihilation of mass occurs. But this seems absurd. The anomaly of the electric

radiation seems to be indicating something paramount – specifically that the energy released, because it is a gamma ray, must be being released from a source distinct from the particle and antiparticle – namely, from the fabric of space-time itself.

To put it in terms that may help envisage what I am suggesting: Imagine we heard a "pop" of an invisible system closing as it swallowed something of another visible system. We would be inclined to first assume that the disappearance of the something from the system we could perceive to be the generator of the noise, but if we could see what became of the vanished something, if it indeed became something else inside the invisible system, part of the invisible system in fact, we would then turn to the invisible system as the only possible candidate for having generated the "pop."

To imagine this phenomenon another way, let us bring back our billiards aficionado fish and do our best to empathize. The fish does not realize that he is wet, or in water. That is the medium of his space-time. If he were watching an ice cube melt, he would not be able to discern that the ice was becoming the water in which he swims; he would only think it was disappearing. So it is with us.



I offer the above resolution to the specific phenomena of gamma-ray manifestation per the collision of low energy particles and anti-particles as a purely speculative notion as to what is happening from the spatial energy field when it "accepts" the low-energy particle-antiparticle combinations as the energy-material that is its composition. **In a more general sense, I am indeed suggesting that the energy form made manifest from the collision of particles and anti-particles is the fluid substance of the space-time medium.**

As confirmed in the work of Paramahansa Tewari [Limitation of the Law of Energy Conservation; Chapter 8], *“Experimental results from a new system of electrical power generation in which energy output exceeds energy input are given. An alternative theory shows that basically it is the spatial reality that creates cosmic matter and therefore the energy conservation law primarily is applicable to the universe as a whole. Discrepancies in the energy conservation law will arise in all those phenomena where spatial energy fields in atomic structure are not taken into account, I postulate that the reverse should also be true – that cosmic matter must therefore be convertible to the “spatial reality,” which I call the fluid fabric of space-time. I postulate that this conversion occurs through the event of colliding particles and antiparticles, which causes their combination to manifest the complete energy form, namely a four-dimensional energy form that is the substance of the fluid fabric of space-time. Where a gamma ray charge is detected and seems to be caused by the collision of low-energy particles and antiparticles, I say it is caused by the activity of the fluid fabric of space-time assimilating into itself the newly formed four-dimensional energy that was made manifest by the combination of a particle and antiparticle – that the positive charge caused by a presumably neutralized *combination* of particles and antiparticles derives from the spatial reality.*

All matter is organized energy. In the material universe (*I use the term ‘material’ to separate the perceivable energy form in the physical universe from the spatial field of the fluid fabric of space-time*), according to Einstein’s Special Relativity wherein he produced the famous equation $E=MC^2$, which describes how matter is energy, ultimately, matter is organized energy. In the material universe, let us assume that, by in large anyhow, from the stars comes the energy; from the organization of energy comes the matter; from the matter comes the displacement of the fluid fabric of space-time; from the displacement of the spatial field comes the inverse centrifugal flow of the fluid fabric [gravity]; from the constant flow upon organized energy comes the second law of thermodynamics, entropy; from the entropy comes particles; from the particles comes the spatial field of fluid space-time fabric; from the fluid space-time fabric emerge the stars, and the first law of thermodynamics, conservation, is realized in this perfectly cyclical ballet of everything that can be claimed to exist. I realize that I have made some extravagant and presently unqualified claims; namely, a causal description of the Law

of Entropy and a claim that stars emerge from the fluid fabric of space-time. Although I will not here go into great depth, I will say this to the causation of entropy via the inverse centrifugal flow of the fluid space-time fabric inward towards its own displacement: *think waterfall and erosion*. To stars, it is not the intent of this treatise to explain star formation (although I do give a full account in the body of work of which this theory is a part, which I have titled “Through the Illusion”), but allow me to here say two things: 1) stars are not formed arbitrarily formed by gravity in the manner presently claimed by the physicists and 2) their ontology manifests from organized spatial field energy that causes a congealing of nebulous matter – from an organized state of fluid space-time fabric energy comes the gravity that organizes the nebulous energy into the spherical light plants of the universe. This organized spatial fabric fluid brings us to our next destination.

FOUR-DIMENSIONAL

MATTER

For philosophical causality associated in material form transformation as it relates to solids, liquids, gases, and plasmas, namely the speed of molecular activity within various material forms, I likewise speculate that the conversion of the material energy of the universe into the spatial field fluid fabric of space-time is caused by an acceleration of the subatomic particles contained within the particle-antiparticle combination energy form and that this acceleration exceeds the speed of light.

Let us officially enter the realm of theoretically philosophized physics. Dark matter is known to exist by its perceivable gravitational effects on perceivable objects in space; however, its origin and nature remain enigmatic. Dark matter, if it is like light matter (matter=organized light), must be an organized form of dark energy. I posit that the so-called dark energy is simply the spatial field energy of the fluid space-time fabric. From this energetic substance (the unseeable breed of energy) that was, according to my revised version of the Standard Model, predominantly formed in the particle and antiparticle collisions during the Particle Era, I posit that the substance referred to as “dark matter” is composed in comparable way to the composition of physical matter

from material energy. I say that both the “dark energy” and the “dark matter” are undetectable to human instruments because they are energy/matter forms of a higher dimensional echelon, which may be a result of their subatomic particulate velocities traveling in excess of the speed of light. On poignant philosophic grounds, for the substance currently known elsewhere as dark energy, in order to more succinctly and vividly articulate the type of substance I conceive it to be, I will from hereon refer to what I have here been calling the four-dimensional energy form that is the substance of the spatial field fluid space-time fabric as “super-light.” To keep things easy and still to the point, the organized super-light that is elsewhere referred to as dark matter, I will hereafter refer to as “super-matter.” Here we go.

When I attempt to envisage the fluid fabric of space-time (not without tremendous difficulty I might add), and I consider the possibility that approximately $999,999,999/1,000,000,000$ of the original stuff that once existed in a material or detectable form and now does not, icebergs and oceans come to mind. Given the expansion of the space-time field and given its malleability, in line with the claims made so far by Super-Relativity and Einstein’s proof that the space-time medium curves, I conceptualize this fluid fabric upon which material matter and energy float as a four-dimensional ocean that can be displaced by those objects which are set in to move about within it. I think of icebergs when I consider perceivable matter within the space-time ocean. I consider that the iceberg is under girded by and interminably connected to the enormous ocean mass, which is the same “stuff” as the iceberg in a different state. Imagine our fish illustration with ice-cube melting into the water that surrounds him – material energy “melts” into the space-time medium, but it was always the same “stuff,” only in a different form.

Outside of highly specialized experiments where we can see particles of light making waves on the fluid fabric of space-time, the nature of the spatial field only tends to be empirically accessible (prima fascia) to us via the behavior of the energy/matter that we see occupying it. It is our tendency to recognize the existence of the “canvas” because we see the “painting” upon it. We, of course, naturally perceive space-time in the three dimensions characteristically displayed to us through the perceivable material within it – i.e. height, width, and depth. The fourth dimension of time is a notion

we must intellectually induce or infer from the movement of three-dimensional material within it, because, at any given moment, we actually only “see” objects in three dimensions – their movement is but a variant series of three-dimensional states. To intellectually accept the four-dimensional form of the space-time fabric requires a faith of sorts; it is something of which we can be certain, but, alas, we cannot see it. I want to here offer a revised notion of how we consider dimensions.

It is easy to see that an object of two-dimensions requires three-dimensions to have completely unrestricted directional movement (we can draw it on paper – draw a triangle and if it is to twist on its axis, it will need a third dimension). We can intellectually induce that in order for an object of three dimensions to have completely free directional movement, the fabric upon/in which it moves must necessarily be four-dimensional, and we call this fourth dimension time. I think it no small irony that there are four governing forces of the material universe (gravity, strong nuclear, electromagnetism, and weak nuclear) and four governing dimensions of the fluid fabric in which it exists. I am lead to notice that just as gravity is quite distinct and isolated from the other three forces in its manner of affect (among other things), time is starkly isolated from the three dimensions of height, width, and depth in its manner of affect (among other things). The relative symmetry of the space-time medium to that which it contains indicates a continuity that we might quite expect to see of the same energy manifesting in two distinct forms.

It is important to understand that when we see a three-dimensional object in motion, although its motion necessarily indicates a four-dimensional fabric, we can only always see the position change revealed in three-dimensions. Einstein’s Special Relativity assures us that nothing can exceed the speed of light within the three-dimensional paradigm of the universe. **I posit the possibility that the three-dimensional paradigm of perceivable energy sits atop/within and moves (no faster than the speed of light) upon/within a four-dimensional super-light energy fluid spatial fabric and I say that the particles of the super-light fluid travel at a velocity that exceeds the speed of light. Whereas the speed of light is the maximum velocity of three-dimensionally bound energy, it is the absolute minimum for four-dimensional super-light fluid fabric of space-time.**

When I consider that approximately 999,999,999/1,000,000,000 of all of the universe's energy melted into a four-dimensional (super) state during and forever after the Particle Era, I return to the analogy of icebergs and oceans. I say that all perceivable three-dimensional energy/matter is the "iceberg" to the super-light fluid fabric of space-time, which is the "ocean." Whereas ice is water in a slowed state (32 degrees Fahrenheit = molecular slowdown to water's form change to solid ice on earth), light is super-light in a slowed state. Whereas ice floats within and displaces water, perceivable three-dimensional energy/matter floats within and displaces super-light. Whereas the mass of an iceberg can be measured by the amount of ocean water it displaces, so too can the mass of matter be measured by the amount of space-time fluid it displaces. Whereas there is considerably more water in the ocean than there is ice, there is a considerably greater amount of super-light than there is three-dimensionally perceivable energy.

Whereas water freezes and becomes ice at 32 degrees (f), super-light freezes and becomes light at 186,000 miles per second. Whereas ice returns to the state of water when its molecules are excited, so does perceivable energy return to the state of super-light when it's excited, as in a supernova - when perceivable energy enters a black hole, it "melts." Whereas water becomes ice when its molecules are slowed, so does super-light become perceivable energy when it's slowed, as in Hawking radiation - when super-light exits a black hole, it "freezes" and that's how energy can escape the event horizon of a black hole (even though light cannot) because its previous velocity exceeded the speed of light.

Ice, which is water slowed to a solid state at or less than 32 degrees (f), can move across itself in another form, which is ice excited to a liquid state at or more than 32 degrees (f). Although it does not surprise us to find that the movement of the ocean water upon which icebergs sit affects the movement of the iceberg, I think it would if we were unable to see the water. In a comparatively similar way, a photon, which is super-light slowed to a three-dimensionally perceivable velocity of 186,000 miles per second and the matter that travels at a velocity necessarily less than the speed of light, moves

across itself in another state, which is light excited to a four-dimensional unperceivable velocity greater than 186,000 miles per second.

We have detected the gravitational effects of “invisible matter” (formerly branded as “dark matter”) on the movement of three-dimensional matter/energy. This phenomenon of the spatial energy field taking form as super-matter that boasts affect on perceivable matter is stifling, to say the least. Although, in the body of work of which this theory is a part, **“Through the Illusion,”** I do give a full account of what I expect to cause the organization of the fluid fabric of space-time into super-matter that ultimately serves as the gravitational impetus for star formation, I will not do so here for a my good reasons. I will leave the subject for now with only this: **the causal agency of the fluid fabric of space-time to become organized into a super-material form in such a way that the unseeable mass displaces the fluid fabric of space-time of which it is essentially composed to cause the inward flow of the spatial medium inversely centrifugally, which is the manifestation of the gravity field sufficient and necessary to congeal nebulous dust to density great enough to birth a star must be at all times happening to the order of trillions upon trillions of times and it must be happening each and every time through some organizing vessel that must itself be a highly organized formation of the spatial medium.**

Peace be on you.