# Temporal Calculus: Resolving Einstein's Theory of Relativity (Special and General)

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**Abstract**: The dependence of modern Physics on the works of Einstein as per his Special and General Relativity is without question, as such works pioneered the explanation of light as a massless particle, the photon, using the Equivalence Principle of inertial and gravitational mass, in the context of describing the then known phenomena of the redshift of light, the Perihelion of Mercury, and the deflection of light around a massive body, together with accounting for four key phenomena, only theorised to exist at the time, namely the gravitational redshift of light, the mass-based frame-dragging of space-time, Black Holes, and Gravitational Waves. This paper measures the success of Einstein's theoretic devices, and why it seems Relativity Theory has failed to form a suitable bridging understanding between light and mass, between EM and gravity. A solution to the theoretic limitations of Einstein's Relativity Theory is then proposed in the form of Temporal Calculus.

**Keywords:** Einstein; Special Relativity; General Relativity; Relativity Theory; Principle of Relativity; Gravitational Redshift; frame-dragging; black hole; gravitational wave; photon; space-time; gravity; temporal calculus

## 1. Introduction

Einstein's Theory of Relativity (Special and General) has been a cornerstone principle for the definitions of time and space that both Quantum Mechanics (QM) and the Standard Model (SM) for particle physics have rather tenuously built themselves upon, most notably Special Relativity (SR) theory. Einstein's General Theory of Relativity (GR) has been the primary description for Gravity, yet it is still unable to link with QM and the SM of particles, and more fundamentally, unable to account for a link between electromagnetism (EM) and gravity (G).

Is therefore Einstein's Relativity Theory (SR and GR), a theory considered as the current cornerstone definition for time and space, the most accurate way to define time and space given its inability to properly accommodate for QM and the SM of particles, and thus link G with EM? Is Einstein's relativity theory contradictory, for instance, and if so how, and thence how would that impact current theoretic norms of QM and SM?

This paper shall analyse Einstein's Relativity Theory (SR and GR) for any flaws and inconsistencies, going to its very primal historical footprint of context and development. The proof of Einstein's relativity theory shall also be examined and whether other models can more completely prove the same phenomena. As shall become apparent, the underlying theme of both Einstein's Special and General Theories of Relativity is his notion of the "Primacy of Mass" which as a concept leads to a series of unresolvable theoretic gaps and inconsistencies.

A new theoretic tool for the analysis of time and space shall thence be forwarded, termed Temporal Calculus [1-27], a theoretic tool that is able to better account for all the same physical data Einstein's Relativity Theory lays claim to best explaining, while accommodating for what relativity theory is *unable* to account for, namely QM and the SM of particles. The question is then asked, "*what can this new theoretic tool of Temporal Calculus propose as unaccounted-for phenomena not proposed by Einstein's Relativity Theory*"?

## 2. Einstein's Objectives

There is no knowing why Einstein himself contrived of his Special and General Theories of Relativity other than what is contained in those works and the scientific theoretic context of the time. The key scientific features of the time of Einstein's Relativity Theory were, circa early 1900's:

- The Michelson-Morley Experiment circa 1887 [28] negating the idea of the particle aether.
- The redshift effect of light in space, circa 1848 [29], for which there was no suitable explanation.

The Michelson-Morley Experiment result lead to the dispelling of aether, setting the foundation for Einstein's work circa 1905-1915 [30] central to light being a "particle", a massless particle. Here, Einstein held that light as a particle, as the massless photon, travelled at a constant speed, a concept

already known at the time care of James Maxwell circa 1860's [31], a speed at which (he proposed) the closer a mass gets to then so the slower time must pass, all to the point that at light speed *time* would not pass.

Einstein though went on to forward that mass becomes more massive the closer it gets to the speed of light as time slows, thus presuming light to be associated with mass and thence Gravity. From that basis, Einstein developed his Special and General Theories of Relativity, of the relative motion of objects in space both locally in this solar system and more distantly in the stars, and thence how objects relate to one another with their motions in *space-time* as the force of gravity itself, presuming gravity to be the *secondary* mechanism of the motion of bodies in space, of masses in space, and that above all mass *holds primacy*.

In short, Einstein set about constructing his Theory of Relativity as his Special (preliminary, namely the nature of mass with light and time) and General (advanced, namely the nature of gravity with mass) Theories of Relativity, two theories that are essentially consistent in their constitutional principle design to each other, to ultimately explain how gravity works as *space-time* using the photon of light as a reference, a photon that travels at a speed where time itself does not pass, a reference nonetheless that is proposed to explain time-incursions of bodies (masses) in motion pointing to their gravitational status. Ultimately, Einstein sought to replace the wave-theory of light, describing known physical phenomena of the time, both here in this solar system and more distantly regarding the stars, with a "particle" theory for light.

There are a multitude of concepts there, so the following is a more broken-down version:

- Following the results of the Michelson-Morley Experiment, Einstein sought to apply Newtonian gravity-inertial equivalence to the massless photon as an upgrade for physics theory.
- Einstein sought to uphold the then understood Principle of Relativity care of Galileo circa 1632 [32] with his own model (in that the laws of physics hold for any inertial frame of reference) despite different conditions for the localities of SR and GR.
- To explain the link between mass and gravity using the photon, Einstein assumed the law of equivalency for gravity and inertial mass, once again care of Galileo circa 1610 [32], and thence developed inertia and momentum equations for the photon and mass upon that basis, dispelling the then Maxwell wave-function equations of 1865 [33].
- With those equations, Einstein sought to explain gravity (and thus inertial mass) via the photon by calculating mass with time as momentum, as time-variations, in regard to the massless photon in space.
- Einstein considered that the time-variations (as per the relative motion of bodies) of masses in relative motion prescribed time-dilations (and associated observed length-contractions) as the only feature of time as being variable with respect to the timeless photon, and thus essentially that "time is what a clock measures" with respect to masses in relative motion.
- Einstein, through his mathematical calculations of inertia and momentum, concluded via his timeless photon theory (and associated mass-based temporal clock relativity) that mass at

the speed of light is a supermassive thing where time does not pass, and that mass and energy are equivalent and transmutable.

Did Einstein's Relativity Theory (SR and GR) pass the test, namely link all its theoretic pieces successfully with each other? To understand his theory's failures and successes, one must focus on what the then objectives were, as follows:

(I) Explain the massless particle of light (photon).

(II) Explain Newtonian Gravity and Inertia (equivalence principle) per the photon, and thus replace the Maxwell EM equations with a new set of mathematical transformations in space that accommodate for momentum (inertia).

(III) Explain the redshift of light in space per the photon.

Of course, what Einstein proposed was a step forward from Newton's Principia circa 1846 [34] and the particle aether, yet it both succeeded and failed. To address his successes and failures, it is perhaps easier to first address any anomalies in his basic reasoning for time, space, light, and mass.

## 3. Einstein's Principle Conditions (SR and GR inclusive)

In putting Einstein's objectives together and how he set about achieving them, a number of conditions become apparent, as conditions (A) through to (E):

(A) For every reference of the photon, it was proposed that time does not pass (at light speed for the photon, as an energy conservation principle), which although seems to contradict the idea of a universal passage of time in space *as entropy*, as what the metric expansion of space associated to the ΛCDM model is meant to prescribe, it prescribes that no energy is lost for photons travelling in space at "c".

To consider the photon as a unique reference at light speed where time does not pass (yet time would pass for everything sub-light speed) assumes a massless particle phenomenon reference of *timelessness*, and therefore assumes a "universal" temporal reference as the "moment" where time does not pass for *all* photons.

(B) Condition (A) proposes that a photon could be easily considered *as space* in being timeless yet *as light*, and that time is a *sub-light* (below light speed) activity relative to mass; yet with of course light linked to space, stretched space is stretched light, resolving the redshift effect (according to such a description).

Here, Einstein presented such to satisfy objective (III), namely to explain how a stretching of light (as the redshift effect) represents a stretching of space, explaining the redshift of light as expanding space.

(C) In introducing the idea of time, as the relative motion of objects in space, Einstein uses time as a "variable" for sub-light-speed objects, not a fundamental feature "with" space, yet a feature of the motion of a sub-light *particles* as masses in relative motion.

Indeed therefore, how is the idea of time associated to space, time associated to space as *space-time*, *space-time* considered as gravity, if not for making *space-time* itself variable? The answer for Einstein was to propose that motion for a particle in *space-time* suggested that the faster the object moves, the slower time becomes (a longer period of time relative presumably to other objects) the more *space-time* it would become *as* that variability, and therefore the more massive that mass in motion must become, despite the fact that the relative motion between any two mass objects could only ever always be the same.

(D) As a consequence of (A), (B), and (C), Einstein's relativity theory holds that objects that are more massive attract time as light more greatly, and therefore bend light more the more massive they are.

Although Einstein appears to contradict the idea of relative motion *requiring* time to pass (*in presuming that massive objects have a greater 4-d space-time effect over light, light as time, light as a moment (namely, time that does not pass) which he proposed to be influenced by a mass via a strong space-time field*), he justified such using the equivalence principle, of equating inertial mass with gravity, namely that if indeed massive objects can bend light, can attract not just a massless construct yet one where time does not pass, then objects that are massive (as space associated to time as space-time) must therefore represent gravity as a fabric (gravitational) that "tracks" the massless and timeless photon, yet not only that, have the ability to *drag space-time* by its motion (whatever motion that may be relative to). Ultimately, Einstein presumed gravity to be equivalent to mass (despite being secondary to mass), as though timelessness can have its path altered by not just mass yet gravity, gravity as the proposed fabric of *space-time* effected by the *primacy* of mass, mass as an *extension* of space-time (as shall be now highlighted).

(E) Einstein set a *primacy* for mass over light, as a primacy of mass over space-time, highlighting this definition of space regarding the primacy of mass with a final amendment that he made to his Theory of Relativity as per the following from his 15th edition to his Special and General theory [35]:

> NOTE TO THE FIFTEENTH EDITION: In this edition I have added, as a fifth appendix, a presentation of my views on the problem of space in general and on

> the gradual modifications of our ideas on space resulting from the influence of the relativistic view-point. I wished to show that space-time is not necessarily something to which one can ascribe a separate existence, independently of the actual objects of physical reality. Physical objects are not *in space*, but these objects are *spatially extended*. In this way the concept "empty space" loses its meaning. June 9th, 1952. A. EINSTEIN

Here, the idea of an *extension* of space, as *spatial extension*, would represent mass itself. Is Einstein suggesting that *expanding space* is the same as *extending space* ***as*** *mass?* The issue of course is "what is stretched/expanding space" and "what is extended space". Einstein does not confuse the two, namely "stretching" and "extending", for this amendment is merely Einstein highlighting an *annexing* of space as mass, mass being intricately associated to space as a *localised* extension of space (and not *stretching*), and thus he abandons the idea of space *primarily as a vacuum per-se* given this intermingling of mass as an *extension* of space *with space*, underwriting the primacy of mass. For instance, the idea of the metric expansion of space (and associated redshift) highlights the *localised* nature of mass as an extension of the space-time fabric (not mass as a *stretching* of the space-time fabric); with such a proposed metric expansion of space, objects don't appeared stretched, yet redshifted, in that their size and shape remain the same, and thus their place as masses in space-time is a localised extension of space of a metric expansion of space-time (redshift), as the theory has it.

It must be noted that Einstein considered his Theory of Relativity to belong to a class of "principle-theories" employing an analytic method, namely that the elements of his theory are not based on hypothesis but on empirical discovery, or rather, data that is already observed and known. For instance, at the time he conceived the Theory of Relativity, the Equivalence Principle and the Principle of Relativity were already known circa early 1600's [32], the redshift of light was already known circa 1848 [29], the constancy of the speed of light was already proposed circa 1860's [31], the Perihelion of Mercury was already known circa 1859 [36], light deflection around a massive object was already known circa 1801 [37], and time-dilation already predicted via Maxwell's equations circa 1897 [38]. It was then Einstein's task to explain such phenomena in the one theory regarding the massless photon, and he did so the way he did [30], as summarised above (A)-(E). Yet the problem remains regarding the completeness of Einstein's Relativity Theory (SR and GR), namely "are they complete" if indeed they cannot form a mathematical link between EM and G.

## 4. Relativity Theory's apparent Competencies

There were four key concepts not then at the time of Einstein observed yet nonetheless predicted by former theorists, namely "Gravitational Redshift", "Frame-Dragging", " Black Holes", and "Gravitational Waves", all of which his Theory of Relativity sought to fully explain as the "primacy of mass" over gravity

(gravity as *space-time*) and the secondary nature of time (as a variable) regarding the relative motion of bodies (bodies as mass), presuming such to be the right theoretic description basis for such proposed phenomena. Here, the two questions are, “how well does Relativity Theory account for these phenomena”, and “can another theoretic device more completely account for these phenomena in accounting also for other phenomena that Relativity Theory is unable to account for”, phenomena relevant to QM and the SM of particles?

### 4.1 Gravitational redshift of light

John Michell circa 1783 [39] predicted the gravitational weakening of light from proposed high-gravity light sources as stars, as the first recorded idea itself of a gravitational redshift (of course not based on the photon model). In Einstein's GR, the gravitational redshift is a phenomenon prescribing that the ticking of clocks is slower deeper in a gravitational well (region of lowest gravitational potential, like a region in deep space) than when observed from outside the well (region of highest gravitational potential, like standing on a massive planet). Given the fact light is fixed at “c”, this concept refers to the shift of wavelength of a photon to a longer wavelength (redshift) when observed from a higher gravitational potential in view of a lower gravitational potential, which Einstein explained using his “primacy of mass” idea.

### 4.2 Frame-Dragging

This is a derivative of the proposed explanation for the Gravitational Redshift effect. Here is the proposed “primacy of mass” idea dictating how *space-time* operates as mass dragging *space-time* along, a description giving primacy to mass, and not to *space-time*. Of note though is that such a theoretic device suggests the possibility of speed of light violations in the dragging of space-time by mass, as per the proposed metric expansion of space (a metric expansion which could be regarded as a space-time frame being dragged outwards) suggesting nonetheless that even the metric expansion of space model itself lacks theoretic detail and associated required mass-inclusions to effect the frame-dragging effect of space-time being dragged by a great mass and/or energy source to account for the redshift effect, if indeed the idea of the “primacy of mass” idea must be upheld.

### 4.3 Black Holes

The description of Black Holes (a concept once again proposed by John Michell [39]) is a build-on of the theoretic device of light bending to gravity; supermassive structures as Black Holes were proposed as an ultimate form of mass directing the path of light in accordance with known ideas of light bending to mass, or more specifically, aligning to *the effect of mass on space-time*. Once again, affiliation for this concept is granted to Einstein’s “primacy of mass” Theory of Relativity.

### 4.4 Gravitational Waves

Although not unanimously confirmed by the physics community owing to the very low energy level waves detected and associated room for error and data contamination, this is an idea built on the mass-to-mass relative-motion doppler shifting of light that is proposed to occur by virtue of the space-time fabric being *frame-dragged* by two rotating masses, initially proposed by Henri Poincare via the wave-model circa 1905 [40]. Given that mass is proposed to have primacy, and that the idea of time would subsequently exist only because of objects (mass) in relative motion, then there would be a natural doppler shift in space-time for objects moving towards one another (blue shifting) and objects moving away from one another (red shifting). Therefore, given such primacy of mass in Einstein's Relativity theory, the idea of two massive objects circling one another would theoretically incur on space-time, each incur on space-time, an effect of *frame-dragging*, essentially creating a "wave" in space-time.

## 5. Relativity Theory's Incompetencies

There are two key very well-known inconsistencies of Einstein's Theory of relativity, the first being the Cosmological Constant problem [41], and the second being the often forgotten absence of Relativity Theory linking EM with G, of linking light with gravity, despite presuming to define what both light (as the photon) and gravity (as *space-time)* are as a complete theory.

### 5.1 The Cosmological Constant problem

To presume to successfully explain the Gravitational Redshift of Light and Frame-Dragging, it would be assumed "light" is understood in the context of gravity, and so too the idea of the redshift of light would presume to be understood in the context of space itself. Yet Einstein's calculation for the required energy for the metric expansion of space (to properly explain the data presented for the redshift of the stars) is a value $10^{121}$ above what is actually measured for the vacuum of space, a very large value, a discrepancy that cannot be ignored, a value that has called upon scientists to invent the ideas of Dark Energy (to account for that energy) and Dark Matter (to keep galaxies together from flying apart in that metric expansion of space context and associated absence of mass-stretching), to balance all the data and therefore resolve all the missing-links.

### 5.2 Light and mass

The fundamental issue of Relativity Theory explaining both the photon and mass in a way that is unable to account for all the data-relevant facts of QM and the SM of particles (facts

presented by QM regarding light, and the SM of particles regarding mass) suggest that what Relativity Theory proposes is merely a grouping of ideas about light and space (and thence time) that attempted to explain the results of the Michelson-Morley experiment as the massless photon, a grouping of ideas that have quite fundamentally failed to link the basics of time, space, energy, and mass in all manner of fact.

What theoretic device can therefore accommodate for all the data and link all these fundamentals? Is it possible? Is an "inclusion" to Einstein's Relativity Theory required, or is Einstein's Relativity Theory flawed in its constitutional design?

## 6 Resolving Einstein's Relativity

Einstein's relativity theory, on a very primal level, the level being examined in this paper, has constructed the following:

(a) Mass having primacy over *space-time* (accounted for most basically as the ability of mass *frame-dragging* space-time).
(b) *Space-time* having primacy over light (account for as time-dilations with mass).
(c) Light nonetheless behaving as a universal constant *as though* as space (accounting for the photon as the massless particle travelling at "c").
(d) Space metrically expanding *in time* with light (to account for the redshift effect).
(e) Yet Mass having primacy over *space-time*, or in other words back to (a), a concept that does not fit well with the abridging ΛCDM model.

All of such becomes a theoretic Penrose Stairs [42] scenario that has no real consistency, in violation of the very "Principle of Relativity" [32], a patchwork of concepts aimed to accommodate for known observed data. For such a Relativity Theory model, the bottom line (as it appears) is light and space (as constants) as one, with time being a secondary *variable* according to the primacy of mass effecting *space-time* and therefore time effecting itself as a notion of space as masses in relative motion, mass being the primary cause of *space-time*. Essentially it is a jigsaw of theoretic pieces that do not fit with each other, a jigsaw that cannot account for how mass and gravity actually relate with light as a physics per se, how EM links with G.

There is a greater problem though, namely how all of this works as a theory of cosmology, a theory explaining time as the ΛCDM model. For indeed, when the ΛCDM model is used in conjunction with Einstein's Relativity Theory, the following becomes evident:

(f) If the photon is timeless and mass is the primary theoretic device (as though mass drags space-time, as per *frame-dragging*), then mass can only be a type of primordial event incurring a *temporal* dragging of *space* as *space-time*.

(g) The big bang event therefore would have had it origins from a super-massive, super-dense, mass structure that presumably underwent a temporal incursion in the form of an explosion where pieces of that singular mass source would have been broken free as the temporal incursions.

(h) The *front* of this expansion (as the redshift data presumes to suggest with Einstein's model), in accelerating (as all the data suggests), also suggests (according to Einstein's Relativity Theory) that, as a type of frame-dragging effect of the metric-expansion of space, there would need to be a massive amount of mass (or energy equivalent) *ahead of* this metrically expanding *space-time being dragged outwards*, continually, *by this mass or energy*.

This Penrose Stairs [42] problem with Einstein's Relativity Theory therefore becomes *very pronounced* with its cosmological application as per the adapted ΛCDM model, once again in violation of the "Principle of Relativity" [32], as per requiring a massive amount of energy and/or mass to make the redshift phenomena (explained as a metric expansion of space from the big bang) "*work*", none of which (Dark Energy and Dark Matter for instance, to complete the "Penrose Stairs") have been proven to exist.

One primary culprit here is mass assuming primacy of causality over the idea of *space-time* itself, which in itself as a concept (*space-time*) is counterintuitive to the associated proposed ultimate causality event in time of the ΛCDM model, a model paradoxically where mass itself is not given primacy over *space-time*, *space-time* as gravity, yet a *temporal* metric expansion of space per se as per (d). The idea of light as a massless particle that moves at a speed that determines itself as timeless is the other primary culprit. These two problems, mass assuming primacy over space-time, and light as a timeless particle moving at "c", both act as theoretic devices that stubbornly refuse to allow any logical link between the fundamentals of time, space, energy, and mass, while making allowances for "Penrose Stairs" links in cosmology theory (Dark Energy and Dark Matter), links that have yet to be proven yet offer nonetheless much hope and promise.

How can all of such be resolved? Is it scientific to create unproven links (such as Dark Matter and Dark Energy) for a "Penrose Stairs" theoretic tool that the Einstein Relativity Theory primarily in all appearance assumes to be?

The proposal here is to define primarily both time and space mathematically, more specifically to give mathematical primacy of definition to "time", and to *then* link time with space mathematically, as data-based and data-driven definitions, and to then theorise how that can relate with the ideas of light and mass, *mathematically*, all data-based and data-driven mathematical resolutions, without the requirements of unproven links (Dark Energy and Dark Matter), to by such a process better involve QM and the SM of particles. Can such a process be too difficult to achieve?

The preceding papers [1-27], this as paper 28, account for this process of theoretic primacy for time (and thence space), a process of mathematical logic for time and space termed as Temporal Calculus, giving time primacy, most neatly summarised in paper 27 [27], the most recent paper, where the general basis for how time can be used as the concept of symmetry breaking accounts for the key problems QM and the SM of particles naturally face regarding the Yang-Mills existence and mass gap

problem, together with explaining “how mass is formed” from time-points in space. That same paper [27] furthermore explains the arrow of time as a process of entropy while accounting for the SM of particles and the quantum properties of light as per the QM (and QFT) model, and how the elementary particles form as masses *in* that context, accounting directly for what relativity theory holds primacy to (namely, mass), yet accommodating for and explaining:

- Speed of light as a constant ([2]: p13).
- Redshift of light in the absence of the cosmological constant problem [13].
- Perihelion of Mercury ([14]: p28).
- Gravitational redshift and time-dilation ([16]: p10-13).
- Black Holes and Gravitational Waves ([22]: p17, p22-23, p25).
- QM and the SM of particles, and thus solving the “Yang Mills existence and mass gap” problem [25-27].

Papers 25-27 [25-27] go beyond what Einstein’s Relativity Theory is able to theorise and predict, namely incorporating QM and the SM of particles. *Frame-Dragging* is described by Temporal Calculus as the fundamental nature of the time-space field and the inherent temporal spins of the time-points in the time-space field, as summarised in paper 25 ([25]: p26, p28-40) ([26]: p9). Also in paper 25 [25] is presented a summary of the achievements of Temporal Calculus, the list of equations of known phenomena relevant to physics theory ([25]: p20-22) and associated new time-space descriptors based on the required new mathematical a-priori for time and space ([25]: p26, p28-40), which is also summarised in the recent paper [27] in its proposed solving of the “Yang Mills existence and mass gap” problem and associated explanation of elementary particle formation and confinement.

Temporal Calculus does not rest there, yet moves a step forward in explaining a new and largely unnoticed physical phenomenon, namely electromagnetic (EM) destructive interference resonance (DIR) as an $EM^{DIR}$ field. Quite simply, an $EM^{DIR}$ field is an EM field that has undergone destructive interference, cancelling itself out, in all appearance. The question Temporal Calculus asks is, “how can the energy of a wave-function of EM cancel itself out, where did the energy go”? This $EM^{DIR}$ field and associated dimensional mechanics is explained by Temporal Calculus, and two experiments are proposed to demonstrate the range of utility of the $EM^{DIR}$ phenomenon, the first proposed experiment being central to an $EM^{DIR}$ field being repulsive to a standard EM field ([23]: p30-31), and the second proposed experiment being central to the Atomic Barrier Enhancement effect of an enhanced $EM^{DIR}$ field ([27]: p12-14), in the example of a proposed experiment-based creation of Hydrogen and Oxygen gas from water ([27]: p14).

## 7 Conclusion

Given the discrepancies in Einstein’s Theory of Relativity and, as it stands, in not being sufficiently theoretically armed to capture the data privy to QM and the SM of particles, the pursuit of an

understanding for gravity weighing solely on GR needs to be brought into question. The proposal here in this paper is to consider a *new* process of mathematically regarding both time and space *as opposed to* the way handled by 4-d *space-time* theory, despite the enormous task it would seem to present, namely accosting primacy of definition to the concept of time, and not mass, in view of all the physical data physics has access to, and constructing a new model utilising all that required data.

In short, Temporal Calculus makes time *first* as a definition, not last as Einstein's Relativity Theory would have it, using the same data and associated phenomena that is used by Einstein's Relativity Theory, except here time is the primary focus, not mass, "time" as being considered a more fundamental and useful thing for explaining QM and the SM of particles than mass. The theoretic conversion undertaken, although sizeable [1-27] (which is understandable given the great volumes of theory on observed data that exists), is consistent, doing away with the Penrose Stairs theoretic path that the Einstein Relativity Theory of the "primacy of mass" beckons one upon.

**Conflicts of Interest**

The author declares no conflicts of interest; this has been an entirely self-funded independent project.

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